

NOTICE OF REGULAR MEETING
OF THE
CHICKASHA CITY COUNCIL

In compliance with Title 25, Oklahoma Statutes, Section 301-314, the Oklahoma Open Meeting Act, including the posting of notice and agenda, be advised that the Chickasha City Council, Chickasha Municipal Authority, and Chickasha Municipal Airport Authority of the City of Chickasha, Oklahoma, will conduct a **REGULAR MEETING ON TUESDAY, JANUARY 3, 2023, AT 6:30 PM.** Said meeting will be held in the Council Chambers, City Hall, 117 North 4th Street, Chickasha, Oklahoma.

The City of Chickasha encourages participation from all its citizens. If participation is not possible due to a disability, notification to the City Clerk at least 48 hours prior to the scheduled meeting is encouraged to make the necessary accommodations. The City may waive the 48-hour rule if signing is not the necessary accommodation.

All items on this agenda, including but not limited to any agenda item concerning the adoption of any ordinance, resolution, contract, agreement, or any other item of business, are subject to amendment, including additions and/or deletions. This rule will apply to every individual agenda item without exception, and without providing this same amendment language with respect to each individual agenda item. Such amendments should be rationally related to the topic of the agenda item, or the governing body will be advised to continue the item.

The governing body may adopt, approve, ratify, deny, defer, recommend, amend, strike, or continue any agenda item. When more information is needed to act on an item, the governing body may refer the matter to its City/Trust Manager, staff, attorney or to the recommending board, commission or committee.

Agenda items are attached.

I, Susan M. McDaniel, City Clerk, posted this Agenda on the official City of Chickasha bulletin board in the Municipal Building, 117 North 4th Street Chickasha, OK, 73018, which is accessible to the public twenty-four hours each day at 4:30 p.m. on the 30th day of December, 2022.



Susan M. McDaniel, CMC

Sworn to and subscribed before me on this 30th day of December, 2022.

My Commission Expires: 10-1-2026

Notary Public, State of Oklahoma

CHICKASHA CITY COUNCIL

AGENDA

LOCATION OF MEETING

CITY HALL COUNCIL CHAMBERS

117 NORTH FOURTH STREET

CHICKASHA, OKLAHOMA 73018

TIME OF MEETING

6:30 PM

DATE OF MEETING

JANUARY 3, 2023

All items on this agenda, including but not limited to any agenda item concerning the adoption of any ordinance, resolution, contract, agreement, or any other item of business, are subject to amendment, including additions and/or deletions. This rule will apply to every individual agenda item without exception, and without providing this same amendment language with respect to each individual agenda item. Such amendments should be rationally related to the topic of the agenda item, or the governing body will be advised to continue the item.

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- 1. Call to Order / Roll Call / Opening Prayer / Pledge of Allegiance.**
- 2. Citizen Comments.**
- 3. Council Communications.**
 - a. Presentation of 25 Year Service Pin by Mayor Mosley to Charles M. Peek - Fire Department.
- 4. Consent Docket:**
 - a. Acceptance of the Minutes of the December 5, 2022 regular meeting.
 - b. Acceptance of the Claims List.

- c. Acceptance of Resolution 2023-02R amending the FY 22-23 Budget.

5. Discussion/Approval of Items Removed from Consent Docket:

6. Discussion and Consideration

- a. Discussion, consideration, and possible action to accept the Police Department's ONEOK Emergency Responder Grant program award in the amount of \$2,380.00 for Employee, Citizen and Volunteer safety & medical supplies.
- b. Discussion, consideration, and possible action to authorize the transfer of a Police Department 9mm Glock handgun, S/N BEGK493 with three magazines, two backstraps and a Chickasha Police Department's Sergeant's Badge to retired Police Sergeant Kori Brewer per Article 25 of the current Collective Bargaining Agreement.
- c. Discussion, consideration, and possible action to authorize the renewal of the Gonzales Pest Control Contract
- d. Discussion, consideration, and possible action to authorize staff to solicit bids for veterinary services contract.
- e. Public Hearing - to discuss and consider the Land Development Code Chapter 46 to the Chickasha Code of Ordinances
- f. Discussion, consideration and possible action to approve Ordinance 2023-08 - Chapter 46 of the City of Chickasha Code of Ordinances. (Replacement of the current Chapter 46 Subdivisions with a new Chapter 46 Land Development Code to provide new land regulations, procedures, and penalties)
- g. Discussion, consideration and possible action to authorize the purchase of two John Deere ZTrak lawn mowers using State Contract SW0190 in the amount of \$22,343.88.
- h. Public Hearing - to discuss and consider the rezoning for 1627 W. Iowa Avenue for Applicant Elsie Wilkerson.
- i. Discussion, consideration and possible action to approve Ordinance 2023-01 rezone request for 1627 Iowa for Elsie Wilkerson
- j. Public Hearing - to discuss and consider the rezoning request for 1420 N 16th for applicant Buffie Howe
- k. Discussion, consideration and possible action to approve Ordinance 2023-02 rezoning request for 1420 N 16th for applicant Buffie Howe
- l. Discussion, consideration and possible action to approve an amendment to the Ready2Read grant for the library.

- m. Discussion, consideration, and possible action on a tort claim filed by Courtney Chaney.
- n. Discussion, consideration, and possible action to adopt Resolution 2023-01R - Safe Routes to School policy.
- o. Discussion, consideration and possible action to authorize staff to solicit bids for carpet replacement in Finance and Community Development offices located in City Hall.
- p. Discussion, consideration and possible action to award bid RFP-COC-2201 to Emergency Vehicle Sales and Service of Oklahoma for a price not to exceed \$177,995.00. .
- q. Discussion, consideration and possible action to approve Ordinance 2023-04 - Adding Chapter 2, Article III-Officers and Employees; Section 2-113.- Community Development Director (Adding a new section to define responsibilities)
- r. Discussion, consideration and possible action to approve Ordinance 2023-05 - Adding subparagraph (a); Chapter 2, Article V.-Boards, Commissions, Agencies and Similar Bodies, Section 2-166.- Planning Commission. (Adding a section to better describe responsibilities)
- s. Discussion, consideration and Possible action to approve Ordinance 2023-06 - amending Chapter 50, Traffic and Vehicles, Section 34 Manual and Specifications for traffic control devices. (Creating uniform traffic control devices)
- t. Discussion, consideration and possible action to approve Ordinance 2023-07- Repealing Chapter 22 Floodplain Development and Management. (Moving this chapter to be located in Chapter 46 and Repealing chapter 22)
- u. Discussion, consideration and possible action to approve Ordinance 2023-03 - amending Chapter 52, Utilities, Section 79 Definitions POTW, and Section 52-137 Private Sewer line connections (Updating to match terminology located in the International Building Code)
- v. Discussion, consideration and possible action to approve the General Drainage Policy for the City of Chickasha.
- w. Discussion, consideration and possible action to approve the standard drawings for development, Sanitary Sewer Main Specifications and Water Main Specifications.
- x. Discussion, consideration and possible action to approve Ordinance 2023-09 - repealing Chapter 54 Section 102 Sealed surface driveways. (Repealing the zoning code but language moved to Chapter 46)
- y. Discussion, consideration, and possible action to accept Easements from the St. Luke's Episcopal Church in order to repair/replace public sidewalks on the property.
- z. Discussion, consideration, and possible action to approve and accept a Sanitary Sewer Easement Agreement with Chickasha Travel Plaza,

LLC.

7. Executive Session:

- a. Discussion, consideration and possible action to enter into an executive session to discuss confidential communications between the City and City's Attorneys concerning a pending investigation, claim or action which the City with the advice of the City's Attorneys, has determined that disclosure will seriously impair the ability of the City to process the claim or conduct the pending investigation, litigation, or proceeding in the public interest in compliance with its duty of confidentiality under the provisions of 25 O.S. §307B(4). (Chief of Police's Charge of discrimination filed with the Equal Employment Opportunity Commission (EEOC), Charge Number 564-2022-02157, and information resulting from pending investigations)
- b. Consideration to reconvene the open meeting and take appropriate action on any matter discussed including possible approval of a resolution of all pending matters involving the Chief of Police including possible approval and execution of a Release and Separation Agreement.

8. Motion to Adjourn.



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: City Clerk

Agenda Item No. 3.a.

AGENDA ITEM: Presentation of 25 Year Service Pin by Mayor Mosley to Charles M. Peek - Fire Department.

I. BACKGROUND/DESCRIPTION:

The Oklahoma Municipal League (OML) is pleased to join us in recognizing those municipal employees who have completed 25 years of service in municipal government. The names of these recipients will be entered into a permanent Honor Roll of Service, leather bound book that is maintained and on permanent display at the League Office.

Serving a community for a quarter of a century is certainly an achievement that merits honoring in many sectors of our society, employees rarely match the service records of many of our municipal officials and employees.

II. RECOMMENDED ACTION:

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: City Clerk

Agenda Item No. 4.a.

AGENDA ITEM: Acceptance of the Minutes of the December 5, 2022 regular meeting.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Accept Minutes of the December 5, 2022 regular meeting.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Susan M. McDaniel, City Clerk	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. City 12-5-2022

December 5, 2022

The **REGULAR** meeting of the **CHICKASHA CITY COUNCIL** was held in the council chambers in city hall on the 5th day of December 2022 as specified by advance public notice with a properly prepared agenda stating the subject matter or matters to be discussed at said meeting. Mayor Mosley called the meeting to order at 6:30 p.m.

ITEM 1. **Call to Order / Roll Call / Opening Prayer / Pledge of Allegiance**

MAYOR AND COUNCIL

PRESENT: Chris Mosley, Mayor
 Zachary Grayson, Vice-Mayor
 Kelly Boyd
 Kea Ginn – arrived at 6:32 p.m.
 Oscar Nelson
 Georgianne Hebblethwaite
 Brian Gerdes
 Nate McCalla

ABSENT: R. P. Ashanti-Alexander

STAFF

PRESENT: Keith Johnson, City Manager
 Cindy Rogers, Asst. City Manager
 Amanda Mullins, City Attorney
 Susan McDaniel, City Clerk
 Tony Samaniego, Fire Chief
 G. G. Music, Interim Police Chief
 Jim Crosby, Public Works Director
 Rachel Bernish, Community Development Director
 Darren Martin, Chief Building Inspector
 Spencer Winzenried, Parks & Rec Director
 Shae Mortimer, Marketing & Civic Engagement Manager

ITEM 1. **Call to Order/Roll Call/Opening Prayer/Pledge of Allegiance:**

City Council Meeting 12-5-2022
6:30 p.m.

Council Member Boyd gave the invocation and Council Member Nelson lead the Pledge of Allegiance.

ITEM 2. **Citizen Comments:**

(City Council Rules and Regulations limit visitor comments to a maximum of three minutes.)

Laurie Allen, Chickasha – spoke regarding the subject of the Chickasha Economic Development Council.

Mark Trammell, Chickasha – spoke about how Chickasha is getting more public attention and presented each Council Member a “Leg Up” sticker.

ITEM 3. **Council Communications.**

Presentation by Hitt Corporation.

ITEM 4. **Consent Docket: ITEM 4a through ITEM 4c.**

- ITEM 4a.** **Acceptance of the Minutes of the November 21, 2022, regular meeting.**
ITEM 4b. **Acceptance of the Claims List.**
ITEM 4c. **Acceptance of Resolution 2022-27R amending FY 22/23 Budget.**

*Motion by Council Member Grayson, second by Council Member Boyd to approve the Consent Docket: ITEM 4a thru ITEM 4c.

Roll call vote:

Ayes:” Boyd, Nelson, Ginn, Hebblethwaite, Grayson, McCalla, Gerdes
and Mosley.

“Nays:” None

“Abstain:” None.

Motion carried. 8-0

ITEM 5. **Discussion/Approval of Items Removed from Consent Docket:**

No Action Taken.

ITEM 6. **Discussion and Consideration Items:**

- ITEM6a.** **Discussion, consideration, and possible action to approve the yearly renewal maintenance contract with Motorola for the CAD, Mapping and RMS database in an amount not to exceed \$33,516.60.**

City Council Meeting 12-5-2022
6:30 p.m.

*Motion by Council Member Nelson and second by Council Member Hebblethwaite to approve the yearly renewal maintenance contract with Motorola for the CAD, Mapping and RMS database in an amount not to exceed \$33,516.60.

Roll call vote:

“Ayes:”	Nelson, Ginn, Hebblethwaite, Grayson, McCalla, Gerdes, Boyd, and Mosley.
“Nays:”	None.
“Abstain:”	None.
Motion passed.	8-0

ITEM 6b. Discussion, consideration, and possible action to approve the Law Enforcement Support Office (LESO) renewal and addendum.

*Motion by Council Member Hebblethwaite and second by Council Member Grayson to approve the Law Enforcement Support Office (LESO) renewal and addendum.

Roll call vote:

“Ayes:”	Ginn, Hebblethwaite, Grayson, McCalla, Gerdes, Boyd, Nelson, and Mosley.
“Nays:”	None.
“Abstain:”	None.
Motion passed.	8-0

ITEM 6c. Public Hearing – to discuss and consider the Use on Review for 602 S. 22nd Street for Applicant Micah McCarty.

Public Hearing opened at 7:07 p.m.

Micah spoke regarding his plans for the property.

Public Hearing closed at 7:10 p.m.

ITEM 6d. Discussion, consideration, and possible action to approve Ordinance 2022-27 – Use-On-Review permit request for 602 S. 22nd Street for Micah McCarty.

*Motion by Council Member Hebblethwaite and second by Council Member Grayson to approve Ordinance 2022-27 as presented.

Roll call vote:

“Ayes:”	Grayson, Ginn, Hebblethwaite, McCalla, Gerdes, Boyd, Nelson, and Mosley.
“Nays:”	None.

City Council Meeting 12-5-2022
6:30 p.m.

“Abstain:” None.
Motion passed. 8-0

ITEM 6e. Discussion, consideration, and possible action to authorize the purchase of a Peterson TL-3 Lightning Loader and a Freightliner Chassis for an amount not to exceed \$233,895.13 on State Contract SW035T.

*Motion by Council Member Nelson and second by Council Member McCalla to authorize the purchase of a Peterson TL-3 Lightning Loader and a Freightliner Chassis for an amount not to exceed \$233,895.13 on State Contract SW035T.

Roll call vote:

“Ayes:” McCalla, Gerdes, Ginn, Boyd, Nelson, Hebblethwaite, Grayson, and Mosley.
“Nays:” None.
“Abstain:” None.
Motion passed 8-0

ITEM 6f. Discussion, consideration, and possible action to approve Resolution 2022-26R and authorize the Mayor to issue the Election Proclamation – A Resolution of the Mayor and Council of the City of Chickasha, Grady County, State of Oklahoma, calling for a Non-Partisan Regular Election for the purposes of electing officers of the City of Chickasha, setting a date for said election, setting the filing period for the purpose of allowing qualified candidates to file a declaration of candidacy, setting forth the qualifications for office, setting a final presentment date to the county election board, and setting a final date for publication.

*Motion by Council Member McCalla and second by Council Member Nelson to approve Resolution 2022-26R and authorize the Mayor to issue the Election Proclamation – A Resolution of the Mayor and Council of the City of Chickasha, Grady County, State of Oklahoma, calling for a Non-Partisan Regular Election for the purposes of electing officers of the City of Chickasha, setting a date for said election, setting the filing period for the purpose of allowing qualified candidates to file a declaration of candidacy, setting forth the qualifications for office, setting a final presentment date to the county election board, and setting a final date for publication.

Roll call vote:

“Ayes:” McCalla, Gerdes, Boyd, Nelson, Ginn, Hebblethwaite, Grayson, and Mosley.
“Nays:” None.

City Council Meeting 12-5-2022
6:30 p.m.

“Abstain:” None.
Motion passed. 8-0

ITEM 6g. Discussion, consideration, and possible action to waive the competitive quote process and authorize the purchase of a new 2022 Ford Explorer SUV for the Community Development Code Enforcement Officer under State Contract SW0035 from Vance Country Ford in an amount not to exceed \$35,390.20.

*Motion by Council Member Hebblethwaite and second by Council Member Gerdes to waive the competitive quote process and authorize the purchase of a new 2022 Ford Explorer SUV for the Community Development Code Enforcement Officer under State Contract SW0035 from Vance Country Ford in an amount not to exceed \$35,390.20.

Roll call vote:

“Ayes:” Grayson, Ginn, Hebblethwaite, McCalla, Gerdes, Boyd, Nelson and Mosley.
“Nays:” None.
“Abstain:” None.
Motion passed. 8-0

ITEM 6h. Discussion, consideration, and possible action to approve an agreement with WANRack LLC for the use of public right-of-ways to provide telecommunications services for Chickasha Independent School District.

*Motion by Council Member Hebblethwaite and second by Council Member Gerdes to approve an agreement with WANRack LLC for the use of public right-of-ways to provide telecommunications services for Chickasha Independent School District.

Roll call vote:

“Ayes:” Grayson, Ginn, Hebblethwaite, McCalla, Gerdes, Boyd, Nelson and Mosley.
“Nays:” None.
“Abstain:” None.
Motion passed. 8-0

ITEM 6i. Discussion, consideration, and possible action to accept COC-2201 Shannon Springs Park Electrical Expansion Project as complete and authorize the final payment in the amount of \$5,112.95 to ETI.

*Motion by Council Member McCalla and second by Council Member Hebblethwaite to accept COC-2201 Shannon Springs Park Electrical Expansion Project as complete and authorize the final payment in the amount of \$5,112.95 to ETI.

City Council Meeting 12-5-2022

6:30 p.m.

Roll call vote:

“Ayes:” Grayson, Ginn, Hebblethwaite, McCalla, Gerdes, Boyd, Nelson and Mosley.

“Nays:” None.

“Abstain:” None.

Motion passed. 8-0

Motion by Council Member Grayson and seconded by Council Member Hebblethwaite to recess the meeting to enter into CMA and CMAA meetings.

Roll call vote:

“Ayes:” Boyd, Ginn, Grayson, Nelson, Hebblethwaite, McCalla, Gerdes, and Mosley.

“Nays:” None.

“Abstain:” None.

Motion passed. 8-0

Meeting recessed to enter into CMA and CMAA meetings @ 7:19 p.m.

Meeting reconvened from CMA and CMAA meetings @ 7:23 p.m.

ITEM 7. **Executive Session Items:**

ITEM 7a. **Discussion, consideration, and possible action to enter into Executive Session to discuss confidential communications between the City and City’s Attorney concerning a pending investigation, claim or action which the City with the advice of the City’s Attorneys, has determined that disclosure will seriously impair the ability of the City to process the claim or conduct the pending investigation, litigation, or proceeding in the public interest in compliance with its duty of confidentiality under the provisions of 25 O.S. Section 307B(4). (Email submitted by Torry Wise dated October 22, 2022, regarding the Chickasha Economic Development Council and the economic development incentive program (Downtown Grant Program), including discussion of process going forward on areas of concern and the Chickasha Economic Development Council’s position regarding the Oklahoma Open Meeting Act and the Oklahoma Open Record Act in conjunction with the Chickasha Economic Development Council’s receipt of Hotel/Motel taxes).**

*Motion by Council Member McCalla and a second by Council Member Grayson to enter into Executive Session.

Roll call vote:

City Council Meeting 12-5-2022
6:30 p.m.

“Ayes:”	Boyd, Ginn, Grayson, Nelson, Hebblethwaite, McCalla, Gerdes, and Mosley.
“Nays:”	None.
“Abstain:”	None.
Motion passed.	8-0

Enter into Executive Session at 7:25 p.m.

Reconvened regular session at 9:11 p.m.

Roll Call:

Boyd -	Present
Nelson -	Present
Ginn -	Present
Hebblethwaite -	Present
Grayson -	Present
McCalla -	Present
Gerdes -	Present
Mosley -	Present

ITEM 7b. Consider reconvening the open meeting and take appropriate action on any matter discussed in the Executive Session.

Mayor Mosley announced the statement “City Management is working closely with the EDC for complete transparency.

ITEM 7. Adjournment:

Motion by Council Member Grayson and second by Council Member Nelson to adjourn the meeting.

Meeting adjourned.

TIME: 9:12 P.M.

Chris Mosley, Mayor

ATTEST:

Susan M. McDaniel, CMC - City Clerk

Approved this 3rd day of January 2023.



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Finance

Agenda Item No. 4.b.

AGENDA ITEM: Acceptance of the Claims List.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Accept Claims List.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Cindy Rogers, Asst. City Manager	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. 1.2.23 COUNCIL REPORT_Redacted

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
NON-DEPARTMENTAL	GENERAL FUND	COLONIAL LIFE & ACCIDENT INSURANCE COM	COLONIAL OCT	125.22
			COLONIAL NOV	67.91
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	BLUE CROSS BLUE SHIELD OF	<u>7,739.34</u>
			TOTAL:	7,932.47
ADMINISTRATION	GENERAL FUND	EXPRESS STAR	PUBLISH NOTICE OF SALE	315.43
			PUBLISH 2023 MEETING DATE	672.00
			PUBLISH RFP-COC-2202	187.07
			PUBLISH ORD 2022-26	33.25
			PUB ELECTION PROCLAMATION	96.75
			PUBLISH 2022-26r	175.05
			PUB ORD 2022-27	40.00
			ANNUAL SUBSCRIPTION	79.20
			ADMIN	611.23
			ADMIN SERVICES	1,353.98
		STANDLEY SYSTEMS	DENTAL EMP/SPOUSE	50.90
			MED \$1,000 DED EMP/SPOUSE	999.90
			22-23 MC&T DUES-MCDANIEL	68.50
		AT&T MOBILITY	FICA	848.95
			MEDICARE	<u>198.55</u>
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	TOTAL:	5,730.76
		OKLAHOMA MUNICIPAL LEAGUE		
		TRANSFER ACCOUNT		
FIRE ADMINISTRATION	GENERAL FUND	STANDLEY SYSTEMS	FIRE ADMIN	375.77
			FIRE ADMIN	1,534.54
		AT&T MOBILITY	FIRE ADMIN	266.39
			FIRE ADMIN	24.29
		PUBLIC SERVICE COMPANY OF OKLAHOMA	DENTAL EMP ONLY	12.66
			DENTAL EMP/FAMILY	97.34
			MED \$1,000 DED EMP ONLY	60.12
			MED \$1,000 DED EMP/FAM	1,375.18
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	FIRE PENSION	979.96
			FICA	59.01
			MEDICARE	107.64
		OKLAHOMA FIREFIGHTERS	COMM SERV CALL	95.00
			COMM SERV CALL	<u>125.00</u>
			TOTAL:	5,112.90
		TRANSFER ACCOUNT		
POLICE ADMINISTRATION	GENERAL FUND	GRADY COUNTY LAW ENFORCEMENT CENTER	MONTHLY BILL	350.00
			POLICE ADMIN	914.35
		STANDLEY SYSTEMS	CLEANING SERVICE	1,082.00
		SPIC & SPAN COMMERCIAL CLEANING, LLC	DENTAL EMP/CHILD	71.64
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	25.32
			DENTAL EMP/SPOUSE	25.45
			MED \$1,000 DED EMP ONLY	477.35
			MED #2,500 DED EMP/SPOUSE	405.72
		CKENERGY ELECTRIC COOPERATIV	POLICE ADMIN ELECTRIC	72.60
			POLICE PENSION	500.00
			POLICE ADMIN	44.07
		CITY OF CHICKASHA-(ACH) OKLAHOMA POLIC	FICA	677.54
		SUMMIT UTILITIES	MEDICARE	158.46
		TRANSFER ACCOUNT	POLICE ADMIN	14.96
			POLICE ADMIN	26.74
		UNIFIRST HOLDINGS, L.P.	YEARLY CONTRACT	<u>33,516.60</u>
		MOTOROLA SOLUTIONS INC.	TOTAL:	38,362.80
CEMETERY SERVICES	GENERAL FUND	AT&T MOBILITY	CEMETERY	137.13

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	12.66
			MED \$1,000 DED EMP ONLY	206.42
		OKLAHOMA ELECTRIC COOP	ACCT: 4705400700	55.92
		TRANSFER ACCOUNT	FICA	223.15
			MEDICARE	52.19
		WYNN, JEFFREY	GRAVE OPENING & CLOSING	1,310.00
			GRAVE OPENING & CLOSING	<u>1,765.00</u>
			TOTAL:	3,762.47
HUMAN RESOURCES	GENERAL FUND	STANDLEY SYSTEMS	HR	<u>18.99</u>
			TOTAL:	18.99
LIBRARY	GENERAL FUND	PROQUEST LLC	ANCESTRY, HERITAGE QUEST	3,689.74
		STANDLEY SYSTEMS	LIBRARY	265.36
		AT&T MOBILITY	LIBRARY	274.26
		SPIC & SPAN COMMERCIAL CLEANING, LLC	CLEANING SERVICE	1,665.00
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	63.30
			MED \$1,000 DED EMP ONLY	619.26
			MED \$2,500 DED EMP ONLY	335.04
		LLOYD K MUSSELMAN	LET'S TALK ABOUT IT	179.52
		KEN HADA	LET'S TALK ABOUT IT	242.96
		TRANSFER ACCOUNT	FICA	513.06
			MEDICARE	<u>119.98</u>
			TOTAL:	7,967.48
STREET & STORM DRAINAG GENERAL FUND		HUNZICKER BROTHERS INC	GPNL64 CLEAR GLOBES	1,460.00
		LOCKE SUPPLY CO.	TRAFFIC LIGHT FILTERS	181.67
		EXPRESS SERVICES INC	CONTRACT LABOR	1,862.21
			CONTRACT LABOR	483.91
			CONTRACT LABOR	533.54
			CONTRACT LABOR	3,090.82
			CONTRACT LABOR	414.96
			CONTRACT LABOR	929.51
			CONTRACT LABOR	3,515.27
			CONTRACT LABOR	637.28
			CONTRACT LABOR	508.33
			CONTRACT LABOR	3,293.02
			CONTRACT LABOR	600.89
			CONTRACT LABOR	636.80
		MARSHALL AUTO PARTS	PARTS & SUPPLIES	84.54
			PARTS & SUPPLIES	691.09
			PARTS & SUPPLIES	351.80
			PARTS & SUPPLIES	381.29
		PUBLIC SERVICE COMPANY OF OKLAHOMA	STREET & STORM	21,544.54
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	50.64
			DENTAL EMP/FAMILY	48.67
			DENTAL EMP/SPOUSE	25.45
			MED \$1,000 DED EMP ONLY	206.42
			MED \$1,000 DED EMP/FAM	64.51
			MED \$1,000 DED EMP/SPOUSE	499.95
			MED \$2,500 DED EMP ONLY	335.04
		TRAFFIC SIGNALS INC	REPLACE TRAFFIC LIGHT CAB	6,000.00
		RALPH AND SONS TIRE CENTE	6 TIRES	1,775.88
		P & K EQUIPMENT	BEARRINGS	953.76
		TRANSFER ACCOUNT	FICA	616.44
			MEDICARE	144.16

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
		UNIFIRST HOLDINGS, L.P.	STREETS	614.00
			STREETS	<u>482.22</u>
			TOTAL:	53,018.61
ACCOUNTING SERVICES	GENERAL FUND	STANDLEY SYSTEMS	ACCOUNT	337.17
			ACCOUNT	13.95
			ACCOUNT	46.04
		AT&T MOBILITY	ACCOUNTING	268.62
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	37.98
			MED \$1,000 DED EMP ONLY	412.84
			MED \$2,500 DED EMP ONLY	167.52
		CULLIGAN/WRIGHT WATER	COOLERS-WATER	111.40
		TRANSFER ACCOUNT	FICA	607.03
			MEDICARE	141.97
		CRAWFORD AND ASSOCIATES PC	PROF SERVICES-NOV 15	<u>1,728.75</u>
			TOTAL:	3,873.27
COMM DEVEL/PLANNING SE	GENERAL FUND	EXPRESS STAR	PUBLIC NOTICE FOR PC	54.45
		STANDLEY SYSTEMS	COMM DEV	276.74
		AT&T MOBILITY	COMM DEV	651.63
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/CHILD	71.64
			DENTAL EMP ONLY	37.98
			MED \$1,000 DED EMP ONLY	412.84
			MED \$2,500 DED EMP/CHILD	303.21
			MED \$2,500 DED EMP ONLY	167.52
		TRANSFER ACCOUNT	FICA	449.65
			MEDICARE	<u>105.16</u>
			TOTAL:	2,530.82
GENERAL GOVERNMENT	GENERAL FUND	CHAFFIN, MICHAEL R.	DECEMBER '22 JUDICIAL CONT	1,800.00
		LYTLE SOULE' & FELTY	LEGAL FEES	3,620.85
		RICHARD'S PRINTING	BUS CARDS - COUNCIL MEMBE	320.00
			BUS CARDS - CM / DIRECTOR	160.00
		JAYS JEWELRY	2 LADIES RETIREMENT WATCH	870.00
		QUADIENT LEASING USA, INC	POSTAGE- INK	284.00
		AMANDA MULLINS, PLLC	LEGAL MATTERS NOV 2022	8,144.20
		ASCENTIS CORPORATION	SI-136768	1,464.55
		MARGARET MCMORROW-LOVE	GEN MATTERS-NOVEMBER	<u>5,129.10</u>
			TOTAL:	21,792.70
BUILDING SERVICES	GENERAL FUND	RANDALL SCOTT VAUGHN dba CHISOLM TRAIL	ENGINEERING COSTS	697.50
			ENGINEERING COSTS	900.00
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/CHILD	71.64
			DENTAL EMP/FAMILY	48.67
			MED \$1,000 DED EMP/CHILD	373.62
			MED \$2,500 DED EMP/CHILD	303.21
		TRANSFER ACCOUNT	FICA	299.28
			MEDICARE	69.99
		OKLAHOMA UNIFORM BUILDING CODE COMMISS	STATE PERMIT FEES	<u>316.00</u>
			TOTAL:	3,079.91
FIRE OPERATIONS	GENERAL FUND	YOUR HEALTH & WELLNESS	J HOFFSTATTER	500.00
		OKLAHOMA FIREFIGHTERS	FIRE PENSION	8,009.15
		TRANSFER ACCOUNT	MEDICARE	897.48
		BATES TRUCK REPAIR	REPLACE BRAKES R2	2,137.80
			2020 DODGE	1,859.98

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
			BREAK REPAIR ON R4	<u>1,602.52</u>
			TOTAL:	15,006.93
PATROL SERVICES	GENERAL FUND	AT&T	PATROL 125548331	258.22
		AT&T	PATROL	1,189.76
			PATROL	769.95
		VERIZON WIRELESS	PATROL SERV	3,865.83
		AT&T MOBILITY	PATROL SERVICES	3,123.72
			PATROL SERV	910.02
			PATROL	411.39
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/CHILD	214.92
			DENTAL EMP ONLY	37.98
			DENTAL EMP/FAMILY	292.02
			DENTAL EMP/SPOUSE	25.45
			MED \$1,000 DED EMP/CHILD	1,120.86
			MED \$1,000 DED EMP ONLY	206.42
			MED \$1,000 DED EMP/FAM	2,750.36
			MED \$1,000 DED EMP/SPOUSE	499.95
			MED \$2,500 DED EMP/CHILD	303.21
			MED \$2,500 DED EMP ONLY	335.04
			MED \$2,500 DED EMP/FAMILY	563.64
		HSPG & ASSOCIATES, PC	AUDIT SERVICES	5,000.00
		CITY OF CHICKASHA-(ACH) OKLAHOMA POLIC	POLICE PENSION	3,991.04
		SPECIAL-OPS UNIFORMS, INC	UNIFORMS	1,636.31
		TRANSFER ACCOUNT	FICA	1,825.62
			MEDICARE	<u>496.78</u>
			TOTAL:	29,828.49
INVESTIGATIONS	GENERAL FUND	BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/CHILD	71.64
			DENTAL EMP/FAMILY	97.34
			MED \$1,000 DED EMP/CHILD	373.62
			MED \$1,000 DED EMP/FAM	687.59
		CITY OF CHICKASHA-(ACH) OKLAHOMA POLIC	POLICE PENSION	1,011.05
		TRANSFER ACCOUNT	FICA	508.70
			MEDICARE	<u>118.97</u>
			TOTAL:	2,868.91
ANIMAL CONTROL	GENERAL FUND	STANDLEY SYSTEMS	ANIMAL CONT	160.37
		AT&T MOBILITY	ANIMAL CONT	137.13
		PUBLIC SERVICE COMPANY OF OKLAHOMA	ANIM CONT	351.08
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	25.32
			MED \$1,000 DED EMP ONLY	412.84
		TRANSFER ACCOUNT	FICA	304.71
			MEDICARE	<u>71.27</u>
			TOTAL:	1,462.72
MUNICIPAL COURT	GENERAL FUND	BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/SPOUSE	25.45
			MED \$1,000 DED EMP/SPOUSE	499.95
		TRANSFER ACCOUNT	FICA	91.54
			MEDICARE	<u>21.41</u>
			TOTAL:	638.35
DISPATCH SERVICES	GENERAL FUND	SPIC & SPAN COMMERCIAL CLEANING, LLC	2022 CLEANING SERVICE	408.70
		PUBLIC SERVICE COMPANY OF OKLAHOMA	DISPATCH	819.03
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/CHILD	143.28
			DENTAL EMP ONLY	12.66

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
			DENTAL EMP/FAMILY	97.34
			MED \$1,000 DED EMP/CHILD	747.24
			MED \$1,000 DED EMP/FAM	64.51
			MED \$2,500 DED EMP ONLY	167.52
		DEPARTMENT OF PUBLIC SAFETY	MONTHLY BILL	535.00
		TRANSFER ACCOUNT	FICA	482.61
			MEDICARE	<u>112.88</u>
			TOTAL:	3,590.77
NEIGHBORHOOD SERVICES	GENERAL FUND	VANCE COUNTRY FORD	CODE REPLACEMENT CAR	<u>35,390.20</u>
			TOTAL:	35,390.20
PARK MAINTENANCE	GENERAL FUND	AT&T MOBILITY	PARK MAINT	273.92
			PARKS	317.90
		PUBLIC SERVICE COMPANY OF OKLAHOMA	PARK ADMIN	2,404.02
		CAPITAL ELECTRIC MOTOR REPAIR INC	POOL MAINTENANCE	798.97
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/CHILD	71.64
			DENTAL EMP ONLY	50.64
			DENTAL EMP/FAMILY	48.67
			MED \$1,000 DED EMP ONLY	619.26
			MED \$1,000 DED EMP/FAM	687.59
			MED \$2,500 DED EMP ONLY	167.52
		TRUGREEN	WEED SPRAY PARKS	8,986.70
		PLAY BY DESIGN, INC	SHADE STRUCTURE DOG PARK	16,750.00
		ELECTRICAL TECHNOLOGIES INC	NORTH SHANNON ELECTRICAL	5,112.95
		SUMMIT UTILITIES	PARK MAINT	174.28
		TRANSFER ACCOUNT	FICA	751.61
			MEDICARE	175.78
		UNIFIRST HOLDINGS, L.P.	PARKS	180.70
			PARKS	281.61
		BARRINGTON ELECTRIC	ELECTRIC ISSUES AT SHANNO	<u>1,655.00</u>
			TOTAL:	39,508.76
SPORTS COMPLEX	GENERAL FUND	DEERE AND COMPANY	GATOR REPLACEMENT	8,693.16
		EXPRESS SERVICES INC	CONTRACT LABOR	1,262.79
			12/7/22	1,456.85
			TEMP EMPLOYMENT	1,691.53
			INVOICE DATE 12/21/22	1,359.68
		PUBLIC SERVICE COMPANY OF OKLAHOMA	SPORTS COMP	5,045.87
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	MED \$1,000 DED EMP ONLY	206.42
		SUMMIT UTILITIES	SPORTS COMPLEX	546.95
			SPORTS COMPLEX	1,907.10
		TRANSFER ACCOUNT	FICA	140.38
			MEDICARE	<u>32.83</u>
			TOTAL:	22,343.56
SHANNON SPRINGS (FOL)	GENERAL FUND	HERC RENTALS	FOL EQUIPMENT RENTAL	2,200.00
			FOL EQUIPMENT RENTAL	2,200.00
		EXPRESS SERVICES INC	CONTRACT LABOR	1,021.44
			12/7/22	2,429.91
			TEMP EMPLOYMENT	2,561.58
			INVOICE DATE 12/21/22	2,138.64
		PUBLIC SERVICE COMPANY OF OKLAHOMA	SHANNON	<u>1,648.36</u>
			TOTAL:	14,199.93
EMERGENCY MEDICAL SERV	EMERGENCY MED SERV	OKLAHOMA FIREFIGHTERS	FIRE PENSION	5,912.55

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
		TRANSFER ACCOUNT	PEHP 0045685001	1,500.00
			FICA	240.60
			MEDICARE	<u>700.88</u>
			TOTAL:	8,354.03
CHICKASHA INDUSTRIAL A	CHICKASHA INDUST A	OKLAHOMA HIGH SCHOOL RODEO ASSOCIATION	2ND PMT OF SPONSORSHIP	7,500.00
		MOLLMAN MEDIA	BILLBOARD	950.00
		CHICKASHA CHAMBER OF COMMERCE	FOL CONTRACT PO	10,000.00
		PUBLIC SERVICE COMPANY OF OKLAHOMA	SIGN	59.33
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	12.66
			MED \$1,000 DED EMP ONLY	206.42
		YUKON TROPHY	DESK PLAQUE	63.00
		TRANSFER ACCOUNT	FICA	156.48
			MEDICARE	<u>36.60</u>
			TOTAL:	18,984.49
EMERGENCY 911	E-911 FUND	SUDDENLINK	EMS	763.00
		SUDDENLINK B2B DEPT 1264	INTERNET SERVICES	585.78
		PUBLIC SERVICE COMPANY OF OKLAHOMA	SIREN	<u>28.65</u>
			TOTAL:	1,377.43
NON-DEPARTMENTAL	CHICKASHA MUNICIPA	MISC ONE-TIME V REJI MATTHEW	NSF REFUND	<u>15.00</u>
			TOTAL:	15.00
UTILITY BILLING	CHICKASHA MUNICIPA	BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/CHILD	71.64
			DENTAL EMP ONLY	12.66
			MED \$1,000 DED EMP/CHILD	373.62
			MED \$1,000 DED EMP ONLY	206.42
		TRANSFER ACCOUNT	FICA	368.24
			MEDICARE	<u>86.13</u>
			TOTAL:	1,118.71
CMA - CAPITAL PROJECTS	CHICKASHA MUNICIPA	OKLAHOMA CONTRACTORS SUPP	ROMACB	3,750.00
			6" X 20" CLAMP	3,405.00
			6"X12" CLAMP	3,360.00
			COUPLINGS	2,340.00
		GUERNSEY & COMPANY	DESIGN PROJECT	149,188.00
		UTILITY TECHNOLOGY SERVICES	MXU'S	4,875.00
			SENSUS TOUCHSCREEN READER	2,400.00
			GEL CAPS 6' CABLE LID HOU	4,165.00
			MXU'S	4,875.00
			METERS	3,680.00
			METERS	1,280.00
			DROP IN'S	<u>1,635.00</u>
			TOTAL:	184,953.00
CMA GENERAL	CHICKASHA MUNICIPA	BILLY SIMS BBQ	EMPLOYEE HOLIDAY MEAL	1,318.68
		TDS TELECOM	INVOICE 1/8/23	51.19
		STANDLEY SYSTEMS	CMA	<u>193.61</u>
			TOTAL:	1,563.48
PUBLIC WORKS ADMIN	CHICKASHA MUNICIPA	BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/FAMILY	97.34
			MED \$1,000 DED EMP/FAM	687.59
			MED \$2,500 DED EMP/FAMILY	563.64
		CANADIAN VALLEY TECH CNT	SAFETY TRAINING	520.00
		TRANSFER ACCOUNT	FICA	324.72

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
			MEDICARE	75.95
			TOTAL:	2,269.24
SANITATION DEPARTMENT	CHICKASHA MUNICIPA	BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP/SPOUSE	25.45
			MED \$1,000 DED EMP/SPOUSE	499.95
		TRANSFER ACCOUNT	FICA	79.01
			MEDICARE	18.48
		UNIFIRST HOLDINGS, L.P.	SANITATION	24.12
			SANITATION	36.18
			TOTAL:	683.19
WATER PLANT	CHICKASHA MUNICIPA	FT COBB RES MAS CONS DIST	WATER CONTRACT JAN 23	33,840.98
		PUBLIC SERVICE COMPANY OF OKLAHOMA	WATER PLANT	14,805.20
		CKENERGY ELECTRIC COOPERATIV	WATER PLANT	6,785.17
		OKLAHOMA ELECTRIC COOP	ACCT: 4616200100	214.77
		SUMMIT UTILITIES	WATER PLANT	58.97
		RURAL WATER DIST.#7	RWD #7 INV NOV 22	2,531.62
			TOTAL:	58,236.71
WASTEWATER PLANT	CHICKASHA MUNICIPA	PUBLIC SERVICE COMPANY OF OKLAHOMA	WASTEWATER	18,492.69
		SUMMIT UTILITIES	WASTEWATER PLANT	41.39
			TOTAL:	18,534.08
LINE MAINTENANCE DEPT	CHICKASHA MUNICIPA	VERIZON WIRELESS	LINE MAINT	473.48
		MARSHALL AUTO PARTS	PARTS AND SUPPLIES	513.65
		AT&T MOBILITY	LINE MAINT	667.33
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	50.64
			DENTAL EMP/FAMILY	146.01
			DENTAL EMP/SPOUSE	50.90
			MED \$1,000 DED EMP ONLY	412.84
			MED \$1,000 DED EMP/FAM	687.59
			MED \$1,000 DED EMP/SPOUSE	499.95
			MED \$2,500 DED EMP ONLY	335.04
			MED \$2,500 DED EMP/FAMILY	563.64
		MAXWELL SUPPLY	BREATHING/DIPSTICK	96.62
		JOHN HOLT AUTO GROUP	SEAT BELT KIT	151.20
		THE GLASS SHOP	REPLACE WINDSHIELD	318.49
		TRANSFER ACCOUNT	FICA	857.22
			MEDICARE	200.47
		MCI WORLDCOM	SERVICE CHARGES	87.45
		UNIFIRST HOLDINGS, L.P.	LINE MAINT	208.00
			LINE MAINT	505.94
			TOTAL:	6,826.46
LAKE CHICKASHA	CHICKASHA MUNICIPA	RANDALL SCOTT VAUGHN dba CHISOLM TRAIL	ENGINEER ASSISTANCE	562.50
			ENGINEER ASSISTANCE	1,837.50
			ENGINEER ASSISTANCE	450.00
		CKENERGY ELECTRIC COOPERATIV	1474.52	1,435.97
			TOTAL:	4,285.97
BUILDING MAINTENANCE	CHICKASHA MUNICIPA	AT&T	BUILDING	234.87
		MARSHALL AUTO PARTS	PARTS AND SUPPLIES	210.08
		SUDENLINK B2B DEPT 1264	BUILDING	144.92
		SPIC & SPAN COMMERCIAL CLEANING, LLC	2022 CLEANING SERVICE	830.50
			2022 CLEANING SERVICE	1,595.00
			2022 CLEANING SERVICE	303.00

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
		PUBLIC SERVICE COMPANY OF OKLAHOMA	BUILDING	1,478.02
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	12.66
			MED \$1,000 DED EMP ONLY	206.42
		DEHART AIR CONDITIONING AND ELECTRONIC	PREV. MAINT INV 84459	4,474.58
		SUMMIT UTILITIES	BUILDING MAINTENANCE	96.16
		AT&T	BUILDING	7,495.21
		TRANSFER ACCOUNT	FICA	93.57
			MEDICARE	21.88
		UNIFIRST HOLDINGS, L.P.	BUILDING MAINT	13.60
			BUILDING MAINT	27.20
			TOTAL:	17,237.67
AIRPORT	AIRPORT	STANDLEY SYSTEMS	AIRPORT	18.06
		SPIC & SPAN COMMERCIAL CLEANING, LLC	2022 CLEANING SERVICE	207.55
		ASAP ENERGY, INC	JET A - AV GAS	332.50
			JET A - AV GAS	19,543.69
		BLUE CROSS BLUE SHIELD OF OKLAHOMA 202	DENTAL EMP ONLY	12.66
			DENTAL EMP/SPOUSE	25.45
			MED \$1,000 DED EMP ONLY	206.42
			MED \$1,000 DED EMP/SPOUSE	64.51
		SUMMIT UTILITIES	AIRPORT	224.50
		CULLIGAN/WRIGHT WATER	COOLERS-WATER	9.00
		TRANSFER ACCOUNT	FICA	165.15
			MEDICARE	38.63
		UNIFIRST HOLDINGS, L.P.	AIRPORT	62.70
			AIRPORT	126.36
			TOTAL:	21,037.18
GENERAL	ARPA TARGETED GRAN CRADDOCK FENCE COMPANY		FENCE	1,961.25
			TOTAL:	1,961.25
CAPITAL PROJECTS	CAPITAL PROJECTS F VAUGHN, R. SCOTT		US 81 RELOCATION	2,386.25
			US81 UTILITY RELOCATION	941.25
			TOTAL:	3,327.50
DEDICATED SALES TAX	CIP-DEDICATED SALE DOLESE BROS CO		CONCRETE, ROCK SAND	469.05
			CONCRETE	641.95
			CONCRETE	958.40
			TOTAL:	2,069.40
STREET & ALLEY	STREET AND ALLEY F SIGNAL SYSTEM MANAGEMENT INC		INVOICE: SSM-377	2,500.00
			TOTAL:	2,500.00
NON-DEPARTMENTAL	AP/PAYROLL CASH FU DEPARTMENT OF CHILDREN AND FAMILY SERV		[REDACTED] -01	287.00
	BLUE CROSS BLUE SHIELD OF OKLAHOMA 202		[REDACTED]	87.01
			DENTAL EMP ONLY	117.29
			DENTAL EMP/FAMILY	243.20
			DENTAL EMP/SPOUSE	63.30
			MED \$1,000 DED EMP/CHILD	747.20
			MED \$1,000 DED EMP ONLY	1,306.19
			MED \$1,000 DED EMP/FAM	1,829.95
			MED \$1,000 DED EMP/SPOUSE	923.61
			MED \$2,500 DED EMP/CHILD	227.40
			MED \$2,500 DED EMP ONLY	502.56
			MED \$2,500 DED EMP/FAMILY	422.73
			MED #2,500 DED EMP/SPOUSE	101.43

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
		SHELDON GLASS		44.31
		JEWELL GIVENS		125.00
		DEPARTMENT OF HUMAN SERVICES		266.57
				133.38
				164.87
				180.00
				151.75
				177.56
				100.00
				126.37
				123.75
				175.78
				196.50
				106.75
		OKLAHOMA FIREFIGHTERS	FIRE PENSION BUY BACK	174.01
			FIRE PENSION	9,579.64
		CITY OF CHICKASHA-(ACH) OKLAHOMA POLIC	POLICE PENSION	3,385.91
		TRANSFER ACCOUNT	ENTITY 0037102001	4,650.00
			FEDERAL WITHHOLDING	25,794.43
			STATE INCOME TAX	9,483.00
			FICA	10,684.27
			MEDICARE	4,204.52
		CITY OF CHICKASHA FLEX SPENDING ACCOUN	UNREIMBURSED MEDICAL 23-19	1,219.78
			TOTAL:	78,107.02

===== FUND TOTALS =====

11	GENERAL FUND	318,021.80
23	EMERGENCY MED SERV FUND	8,354.03
25	CHICKASHA INDUST AUTH	18,984.49
27	E-911 FUND	1,377.43
31	CHICKASHA MUNICIPAL AUTH	295,723.51
39	AIRPORT	21,037.18
44	ARPA TARGETED GRANTS	1,961.25
52	CAPITAL PROJECTS FUND	3,327.50
53	CIP-DEDICATED SALES TAX	2,069.40
54	STREET AND ALLEY FUND	2,500.00
99	AP/PAYROLL CASH FUND	78,107.02

 GRAND TOTAL: 751,463.61

SELECTION CRITERIA

SELECTION OPTIONS

VENDOR SET: 99-AP VENDOR LIST
VENDOR: All
CLASSIFICATION: All
BANK CODE: All
ITEM DATE: 12/07/2022 THRU 1/03/2023
ITEM AMOUNT: 99,999,999.00CR THRU 99,999,999.00
GL POST DATE: 0/00/0000 THRU 99/99/9999
CHECK DATE: 12/07/2022 THRU 1/03/2023

PAYROLL SELECTION

PAYROLL EXPENSES: NO
CHECK DATE: 0/00/0000 THRU 99/99/9999

PRINT OPTIONS

PRINT DATE: None
SEQUENCE: By Department
DESCRIPTION: Distribution
GL ACCTS: NO
REPORT TITLE: COUNCIL REPORT 1.2.2023
SIGNATURE LINES: 0

PACKET OPTIONS

INCLUDE REFUNDS: YES
INCLUDE OPEN ITEM:NO



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Finance

Agenda Item No. 4.c.

AGENDA ITEM: Acceptance of Resolution 2023-02R amending the FY 22-23 Budget.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Accept Resolution 2023-02R amending the FY 22-23 Budget.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023			

V. ATTACHMENTS:

1. Res. 2023-02R Budget Amendment
2. Res. 2023-02R Exhibits

RESOLUTION NO. 2023-02R

**A RESOLUTION OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA,
GRADY COUNTY, STATE OF OKLAHOMA, AMENDING THE CITY OF
CHICKASHA ADOPTED BUDGET FOR FISCAL YEAR 2022-23**

WHEREAS, pursuant to the Oklahoma Municipal Budget Act, 11 O.S. Section 17-201 through 17-216, all steps in the process of developing the City's Budget for FY 2022-23 were followed, culminating the adoption of the Budget by the Mayor and Council on June 20, 2022; and

WHEREAS, Sections 17-215 and 17-216 of the Oklahoma Municipal Budget Act specifically authorizes amendments to the adopted budget; and

WHEREAS, the Mayor and Council have determined a need to amend the adopted budget; and

NOW THEREFORE, be it resolved by the Mayor and Council of the City of Chickasha, Grady County, Oklahoma, that:

Section 1. The adopted FY 2022-23 Budget for the ARPA Targeted Grant Fund #44 is hereby amended and attached hereto as "Exhibit A"; and
FY 2022-23 Budget for the ARPA Targeted Grants Fund #44 is hereby amended and attached hereto as "Exhibit B".

This Resolution shall be in full force and effect from and after the passage and approval by the Mayor and Council of the City of Chickasha, Grady County, Oklahoma.

Adopted this 3rd day of January 2023.

Chris Mosley, Mayor

ATTEST:

Susan M. McDaniel, CMC - City Clerk

(SEAL)

Exhibit A

CITY OF CHICKASHA

BUDGET AMENDMENT FORM

☒ INCREASE	☐ DECREASE	☐ TRANSFER
--	-----------------------------------	-----------------------------------

Fund: ARPA TARGETED GRANT(S)
 Fund No.: 44
 Amendment No.: 2
 Fiscal Year: 2022-2023

Account #	Account Name	Estimated Revenue(s)		Appropriation(s)	
		Increase	Decrease	Increase	Decrease
4300-108	ARPA-LIBRARY	21,118.09			
508-5201-001	OFFICE SUPPLIES			29.99	
508-5201-005	CLEANING/PPE SUPPLIES			125.42	
508-5201-016	COMPUTER SUPPLIES			1,333.00	
508-5201-021	LIBRARY PROGRAM SUPPLIES			205.52	
508-5206-007	COMMUNICATIONS			3,272.00	
508-5211-004	SUBSCRIPTIONS			6,279.10	
508-6100-001	MISCELLANEOUS FURNISHINGS			3,225.06	
508-6300-019	AWE COMPUTER(S)			6,648.00	
TOTALS		21,118.09	-	21,118.09	-

EXPLANATION:
 ARPA (American Rescue Plan Act of 2021) Targeted Grants for Public Libraries distributed through the Oklahoma Department of Libraries

Approved by City Manager:

 Date Signature

Approved by City Council:

 Date Signature

Exhibit B

CITY OF CHICKASHA

BUDGET AMENDMENT FORM

☒ INCREASE	☐ DECREASE	☐ TRANSFER
--	-----------------------------------	-----------------------------------

Fund: ARPA TARGETED GRANT(S)
 Fund No.: 44
 Amendment No.: 4
 Fiscal Year: 2022-2023

Account #	Account Name	Estimated Revenue(s)		Appropriation(s)	
		Increase	Decrease	Increase	Decrease
4300-109	ARPA-LIBRARY READY2READ	2,000.00			
509-5201-021	TEACHING MATERIALS			436.00	
509-5211-005	BOOKS			1,224.00	
509-6300-019	COMPUTERS			340.00	
TOTALS		2,000.00	-	2,000.00	-

EXPLANATION:

ARPA (American Rescue Plan Act of 2021) Ready2Read Grant for Public Libraries distributed through the Oklahoma Department of Libraries

Approved by City Manager:

Date Signature

Approved by City Council:

Date Signature



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Police Department

Agenda Item No. 6.a.

AGENDA ITEM: Discussion, consideration, and possible action to accept the Police Department's ONEOK Emergency Responder Grant program award in the amount of \$2,380.00 for Employee, Citizen and Volunteer safety & medical supplies.

I. BACKGROUND/DESCRIPTION:

In May 2022, the Police Department made an application for the First Responders Grant through ONEOK. The application is to fund Industrial First Aid Kits/ Cabinets available for police, animal welfare personnel and potential use by citizens if needed while at a police controlled facility. The application has been accepted and awarded at \$2,380.00. Funding from ONEOK has been received.

II. RECOMMENDED ACTION:

Accept the ONEOK First Responder Grant Award in the amount of \$2,380.00 to purchase medical kits/cabinets for police and animal welfare.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Goebel Music Interim Chief of Police	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. 2022 ONEOK Application
2. 2022 ONEOK Award
3. ONEOK Funding

4. Signed Receipt

[Contact Us](#) | [Exit to ONEOK Community Investments](#)[Organization Information](#) | [Request Information](#) | [Attachments](#) | [Review My Application](#)

You can review the information you've provided so far and make necessary modifications here. If you're satisfied with the contents of the application, click Submit to forward your application for consideration. If you're not ready to submit your application yet, click Save & Finish Later.

Organization Information

[Printer Friendly Version](#) | [E-mail Draft](#)

* Required before final submission

General Information

* Organization Name

Chickasha Police Department ✓

* Type of Organization

Police Department ▼

* Street Address

2001 W. Iowa Ave.

* City

Chickasha

* State

OK ▼

* Postal Code

73018

Remittance Address
(P.O. Box, if applicable)City of Chickasha
Attn: Asst. Chief Music
117 N. 4th Street
Chickasha, OK. 73018

* Phone

405.222.6070

* Taxpayer ID# (same as EIN-Employer Identification Number)

73-6005139

Organization Primary Contact Information

* Prefix

Mr. ▼

* Primary Contact First Name

Goebel

* Primary Contact Last Name

Music

* Position or Title

Assistant Chief

* E-mail

goebel.music@chickashapd.org

Phone

405.222.6070

Request Primary Contact Information

If the Request Primary Contact is the same as the Organization's Primary Contact, please check the field below and this section will auto-fill.



Prefix
Mr.

Request Primary Contact First Name
Goebel

Request Primary Contact Last Name
Music

Title
Assistant Chief

E-mail
goebel.music@chickashapd.org

Office Phone
405.222.6070

Request Information

Funding Request Detail

List the item(s) and cost of the item(s) your organization intends to purchase with the Emergency Responder Grant.

* 1. Item

Industrial First Aid Cabinets - Class B

* Estimated Cost

2380.00

2. Item

Estimated Cost

0

3. Item

Estimated Cost

0

4. Item

Estimated Cost

0

5. Item

Estimated Cost

0

5. Materials or Equipment

Estimated Total Cost

Click on the calculator icon for equipment total

2380.00 

* Requested Amount

2380.00

* If applying for communication equipment or system, please indicate if your communications center is PSAP? YES or NO

☐ Yes ☒ No

If NO, list the name of the PSAP:

Not Applicable

Partial Funding

Requests to fund a portion of an expenditure will only be considered if your organization has already secured the other part of the funding. This grant amount and the secured funding should be 100 percent of the fundraising goal. Provide related information and/or documentation.



Our new budget for FY 2022-2023 is still being revised. No specific funds are being set aside for this expenditure. We expect the budget to have a slight increase, but will predominately be inside of employee benefits.

Partial Funding Supporting Documentation

No file chosen

* Project Title

A one sentence description of your request for funding.

Employee, Citizen and Volunteer safety & medical supplies ✓

Word count 8 of 50

* Project Description

Give a brief explanation of the intended use of the above listed item(s) and explain how it will benefit your organization and/or your community.

The Police Department & Animal Welfare buildings are open to the public. We have 34 current employees with more positions to fill. Volunteers and citizens frequent our facilities. In life & employment, accidents occur. We need to provide first aid options for our employees, volunteers and citizens when accidents occur. We have employees who suffer from anaphylactic shock from insects. Our courtroom often has 20-30 citizens in it at a time. We do not have these supplies at our facilities. ✓

* ONEOK Employee Name (If None, Type N/A)

List any ONEOK employees who are affiliated with your organization (e.g. - Volunteer Firefighter, EMT, Dispatcher, etc.)

None

* Geographic Region Served

Please select the geographical area your organization serves.

Oklahoma (outside of Tulsa) ▼

Attachments

Required Attachments

Below you will find a list of attachments needed for your application to be complete.

- Annual Operating Budget: Please attach your organization's annual budget.
- Vendor Quote: Estimated cost of item(s).
- W-9 Form: Please attach the department's W-9 form.

Instructions to Attach Documents:

1. Click the 'Choose file' button.
2. Select the appropriate file you want to attach.
3. Click the 'Upload' button.

* Annual Operating Budget

File Name	Uploaded	Size
Remove 2021-2022 Budget.pdf	5/12/2022	463 KB

* Vendor Quote

	File Name	Uploaded	Size
Remove	Sterlington Medical First Aid Kits.pdf	5/12/2022	29 KB

✖ W-9 Form

	File Name	Uploaded	Size
Remove	W-9 - 12.23.21.pdf	5/12/2022	78 KB

Thank You! Your application has been submitted.

Applications

Below you will find all saved and completed applications. You also have the ability to e-mail copies of these applications by clicking on the e-mail icon under the action column heading.

Show

In Progress Applications ▼

Application Name	Project Title	Requested	ID	Last Updated	My Role	Action
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Goebel Music

From: Community Investments <mail@grantapplication.com>
Sent: Thursday, May 12, 2022 8:29 AM
To: Goebel Music
Subject: Your Request Submission

Your request has been submitted successfully, and the tracking number is 41936. You will be contacted if there are questions about your request or if additional information is needed. For your records, here is a copy of the contents of your application.

Emergency Responder Grant Request

Thank You! Your application has been submitted.

Organization Information

General Information

Organization Name

Chickasha Police Department

Type of Organization

Police Department

Street Address

2001 W. Iowa Ave.

City

Chickasha

State

OK

Postal Code

73018

Remittance Address

(P.O. Box, if applicable)

City of Chickasha

Attn: Asst. Chief Music

117 N. 4th Street

Chickasha, OK. 73018

Phone

405.222.6070

Taxpayer ID# (same as EIN-Employer Identification Number)

73-6005139

Organization Primary Contact Information

Prefix

Mr.

Primary Contact First Name

Goebel

Primary Contact Last Name

Music

Position or Title

Assistant Chief

E-mail

goebel.music@chickashapd.org

Phone

405.222.6070

Request Primary Contact Information

If the Request Primary Contact is the same as the Organization's Primary Contact, please check the field below and this section will auto-fill.

Yes

Prefix

Mr.

Request Primary Contact First Name

Goebel

Request Primary Contact Last Name

Music

Title

Assistant Chief

E-mail

goebel.music@chickashapd.org

Office Phone

405.222.6070

Request Information

Funding Request Detail

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1. Item

Industrial First Aid Cabinets - Class B

Estimated Cost

2380.00

2. Item

Estimated Cost

0

3. Item

Estimated Cost

0

4. Item

Estimated Cost

0

5. Item

Estimated Cost

0

WWW.AGILECLOUDSOLUTIONS.COM/RESOURCES/EMERGENCY-RESPONDER-GRANT

Estimated Total Cost

Click on the calculator icon for equipment total

2380.00

Requested Amount

2380.00

If applying for communication equipment or system, please indicate if your communications center is PSAP?

YES or NO

No

If NO, list the name of the PSAP:

Not Applicable

Partial Funding

Requests to fund a portion of an expenditure will only be considered if your organization has already secured the other part of the funding. This grant amount and the secured funding should be 100 percent of the fundraising goal. Provide related information and/or documentation.

Our new budget for FY 2022-2023 is still being revised. No specific funds are being set aside for this expenditure. We expect the budget to have a slight increase, but will predominately be inside of employee benefits.

Partial Funding Supporting Documentation

Project Title

A one sentence description of your request for funding.

Employee, Citizen and Volunteer safety & medical supplies

Project Description

Give a brief explanation of the intended use of the above listed item(s) and explain how it will benefit your organization and/or your community.

The Police Department & Animal Welfare buildings are open to the public. We have 34 current employees with more positions to fill. Volunteers and citizens frequent our facilities. In life & employment, accidents occur. We need to provide first aid options for our employees, volunteers and citizens when accidents occur. We have employees who suffer from anaphylactic shock from insects. Our courtroom often has 20-30 citizens in it at a time. We do not have these supplies at our facilities.

ONEOK Employee Name (If None, Type N/A)

List any ONEOK employees who are affiliated with your organization (e.g. - Volunteer Firefighter, EMT, Dispatcher, etc.)

None

Geographic Region Served

Please select the geographical area your organization serves.

Oklahoma (outside of Tulsa)

Attachments

Required Attachments

Below you will find a list of attachments needed for your application to be complete.

- Annual Operating Budget: Please attach your organization's annual budget.
- Vendor Quote: Estimated cost of item(s).
- W-9 Form: Please attach the department's W-9 form.

Instructions to Attach Documents:

1. Click the 'Choose file' button.
2. Select the appropriate file you want to attach.
3. Click the 'Upload' button.

Annual Operating Budget

2021-2022 Budget.pdf

Vendor Quote

Sterlington Medical First Aid Kits.pdf

W-9 Form

W-9 - 12.23.21.pdf

Goebel Music

From: ONEOK Community Investments <mail@grantapplication.com>
Sent: Monday, December 5, 2022 2:21 PM
To: Goebel Music
Subject: ONEOK Emergency Responder Grant Payment Notification
Attachments: 90b80b8757884db59d3398eded0772f4.docx

Chickasha Police Department
Chickasha, OK

We are pleased to notify you that payment in support of our Emergency Responder Grant program has been processed in the amount of \$2,380 via Check and should be issued within 7-10 business days.

Requested items approved are as follows:
Employee, Citizen and Volunteer safety & medical supplies

Once payment is received, please complete and return the attached receipt for our records.

If you received an email previously on 11/9/22, please disregard.

Recognition for this contribution may be given in the name of "ONEOK." Any graphic representation of our logo or name on signage should be sent to communityinvestments@oneok.com for final approval.

Sincerely,

ONEOK Community Investments Team



TERRI PIRTLE
EXECUTIVE DIRECTOR

EMERGENCY RESPONDER GRANT RECEIPT

Organization Name: Chickasha Fire & Emergency Medical Services

Organization Location: Chickasha, OK

One-time Contribution Payment Amount: \$2,380 via Check

These funds were approved to be applied toward the cost of the equipment or materials listed below, as outlined in your Emergency Responder Grant request.

Employee, Citizen and Volunteer safety & medical supplies

Recognition for this one-time contribution may be given in the name of "ONEOK." Any graphic representation of our logo or name on signage should be sent to communityinvestments@oneok.com for final approval.

Please complete the following information and return this receipt per the instructions noted below.

(In support of sustainability efforts, please consider typing information directly on this document and/or using an electronic signature, then return via email instead of printing.)

Date Payment Received: _____

This grant between ONEOK Foundation and grantee is made as of the date first written above and incorporates this communication in its entirety, including the following:

- Terms for payment are based on information provided in the grant request and/or conditions upon which the ONEOK Foundation approved the grant. If the conditions for payment can't be met, ONEOK Foundation must receive immediate notification.
- The grant will be used exclusively for the charitable purpose(s) listed above. Any part of the grant funds not so used must be promptly returned to the ONEOK Foundation.
- ONEOK Foundation and related parties did not receive any goods or services related to this grant.
- Grantee is an organization that is described in Section 170(b)(1)(A) of the Internal Revenue Code. If at any time the organization's tax-exempt status changes, immediate written notification is required by ONEOK Foundation.
- Grantee is responsible for the prudent and lawful expenditure of this grant and for maintaining adequate supporting records.

Grantee's deposit, negotiation, and/or endorsement of the grant payment constitutes its agreement to the terms and conditions as set forth in this Agreement.

On behalf of Grantee, I understand and agree to the foregoing terms and conditions of this Agreement, and hereby certify my authority to execute this Agreement on Grantee's behalf. This signed agreement acts as the IRS tax receipt acknowledgment.

Written, typed, or electronic signature will be accepted.

Signature: _____

Date: _____

Title: _____

Please return a copy of this signed receipt to ONEOK, Inc. within 30 business days via email, fax, or U.S. Mail to:

ONEOK, Inc.
Community Investments Department, MD P-3
P.O. Box 871, Tulsa, OK 74102
Fax: 918-588-7490
communityinvestments@oneok.com



ONEOK FOUNDATION INC PO BOX 871 TULSA OK 74102					CHECK NO. 100148
REFERENCE		DESCRIPTION	GROSS AMOUNT OF INVOICE	DISCOUNT AMOUNT	NET AMOUNT OF INVOICE
NUMBER	DATE				
12052022238000	12/05/2022	EMPLOYEE, CITIZEN AND VOLUNTEER SAFETY & MEDICAL SUPPLIES	2,380.00	0.00	2,380.00

VENDOR NO. 90631

*****TOTALS*****

2,380.00

WARNING: THIS DOCUMENT CONTAINS SEVERAL DOCUMENT SECURITY FEATURES - DO NOT CASH IF THE WORD VOID IS VISIBLE - SEE REVERSE SIDE FOR LIST OF SECURITY FEATURES

ONEOK FOUNDATION INC
PO BOX 871
TULSA OK 74102

JP MORGAN CHASE
TULSA, OK 74103

86-1/1039

DATE 12/08/2022 CHECK NO. 100148
VENDOR NO. 90631

Currency: USD

AMOUNT
\$\$\$ 2,380.00

EXACTLY Two Thousand Three Hundred Eighty And 0/100 Dollars

PAY TO THE ORDER OF
CHICKASHA POLICE DEPARTMENT
117 N 4TH ST
CHICKASHA, OK 73018-2601

W. H. H. H.

TWO SIGNATURES REQUIRED IF > \$1,000,000
SIGNATURE HAS A BLUE-GREEN BACKGROUND - BORDER CONTAINS MICROPRINTING



TERRI PIRTLE
EXECUTIVE DIRECTOR

EMERGENCY RESPONDER GRANT RECEIPT

Organization Name: Chickasha Fire & Emergency Medical Services

Organization Location: Chickasha, OK

One-time Contribution Payment Amount: \$2,380 via Check

These funds were approved to be applied toward the cost of the equipment or materials listed below, as outlined in your Emergency Responder Grant request.

Employee, Citizen and Volunteer safety & medical supplies

Recognition for this one-time contribution may be given in the name of "ONEOK." Any graphic representation of our logo or name on signage should be sent to communityinvestments@oneok.com for final approval.

Please complete the following information and return this receipt per the instructions noted below.

(In support of sustainability efforts, please consider typing information directly on this document and/or using an electronic signature, then return via email instead of printing.)

Date Payment Received: 12.14.2022

This grant between ONEOK Foundation and grantee is made as of the date first written above and incorporates this communication in its entirety, including the following:

- Terms for payment are based on information provided in the grant request and/or conditions upon which the ONEOK Foundation approved the grant. If the conditions for payment can't be met, ONEOK Foundation must receive immediate notification.
- The grant will be used exclusively for the charitable purpose(s) listed above. Any part of the grant funds not so used must be promptly returned to the ONEOK Foundation.
- ONEOK Foundation and related parties did not receive any goods or services related to this grant.
- Grantee is an organization that is described in Section 170(b)(1)(A) of the Internal Revenue Code. If at any time the organization's tax-exempt status changes, immediate written notification is required by ONEOK Foundation.
- Grantee is responsible for the prudent and lawful expenditure of this grant and for maintaining adequate supporting records.

Grantee's deposit, negotiation, and/or endorsement of the grant payment constitutes its agreement to the terms and conditions as set forth in this Agreement.

On behalf of Grantee, I understand and agree to the foregoing terms and conditions of this Agreement, and hereby certify my authority to execute this Agreement on Grantee's behalf. This signed agreement acts as the IRS tax receipt acknowledgment.

Written, typed, or electronic signature will be accepted.

Signature:  #301

Date: 12.15.2022

Title: Interim Chief of Police

Please return a copy of this signed receipt to ONEOK, Inc. within 30 business days via email, fax, or U.S. Mail to:

ONEOK, Inc.
Community Investments Department, MD P-3
P.O. Box 871, Tulsa, OK 74102
Fax: 918-588-7490
communityinvestments@oneok.com



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Police Department

Agenda Item No. 6.b.

AGENDA ITEM: Discussion, consideration, and possible action to authorize the transfer of a Police Department 9mm Glock handgun, S/N BEGK493 with three magazines, two backstraps and a Chickasha Police Department's Sergeant's Badge to retired Police Sergeant Kori Brewer per Article 25 of the current Collective Bargaining Agreement.

I. BACKGROUND/DESCRIPTION:

Article 25 of the Police Department's Collective Bargaining Agreement allows officers upon retirement to retain certain mementos: The City of Chickasha Police identification card, which shall designate that the officer is retired, his duty weapon, his City of Chickasha, Oklahoma, Police shirt badge, rank insignia, name tag, and tie bar. Retired Sgt. Brewer's weapon & badge is owned by the City. He has requested to obtain possession of them in accordance with the CBA. Ownership needs to be transferred from the City of Chickasha to Kori P. Brewer.

II. RECOMMENDED ACTION:

Staff recommends Council authorize the transfer of a Glock 9mm, S/N BEGK493, magazines, blackstraps and CPD Sergeant's badge to Kori P. Brewer.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Goebel Music Interim Chief of Police	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Brewer, Kori - Returned Equipment

2. Article 25



CHICKASHA POLICE DEPARTMENT

Professionalism | Respect | Integrity | Dedication | Excellence

10/23/2022

EQUIPMENT ISSUE RETURN for Sgt. Kori Brewer

Page 1

*Indicates additional documentation/equipment receipt.

Item	Qty	Date Issued	Qty	Received by:	Date Ret:
*Badge # - <u>Sgt. OKLA</u>	1	<u>10/23/22</u>		<u>10/23/22</u>	<u>TH 305</u>
*Gate opener # - <u>No Number</u>	1				
Building Key - AA1	1				
Mailbox Key: BOX #	1				
*Commission Card	1				
*Chickasaw Nation Commission Card # <u>386</u>	1				
*Federal SLEC Card # <u>4195</u>	1				
*Radio / Battery / Charger/ Belt Clip - B C	1ea				
*BT Radio Microphone, Battery & Charger - M_B	1ea				
WatchGuard BWC mount (magnetic / pin)	1				
*Vest: SN Front - <u>Can't Read</u> SN Back - <u>Can't Read</u>	1				
Long sleeve Class A shirt with patches	1				
Long sleeve Class B shirt with patches	3				
Short sleeve Class B shirt with patches	5				
Silver "P" Buttons (small)	4				
Clip on or Velcro Tie	1				
Class B uniform pants	5				
Footwear Class B - 5.11	1				
Gloves (Police Duty)	1				
Heavy Coat w/zip out liner with patches	1				
Raincoat	1				
High-Viz Reflective Vest (Yellow ANSI)	1				
Belt Keepers	4				
Nylon under belt - Velcro	1				
Nylon duty belt	1				
Holster	1				
Nylon ammo carrier	1				
Nylon cuff cases	1				
Handcuffs	<u>12</u>	<u>1</u>			
Nylon flashlight holder	1				
Nylon radio carrier	1				
*Nylon baton holder / hard plastic for Peacekeeper	1	<u>1</u>			
*Baton - Peacekeeper Baton	1	<u>1</u>			
Pepper spray	1				
Nylon pepper spray holder	1				
Flashlight (small type) - Stinger & charger	1				
Name tapes (5)/ Plates (2ea new hires)	<u>12</u>				
"CPD" Collar brass (silver)	2				
Badge patch	1				
Duty ammunition	50				
Duty gear bag	1				
Metal Ticket holder	1				
Metal Clip board	1				
ODMH Clip board - white	1				

2001 West Iowa Avenue, Chickasha, OK 73018 | 405-222-6050 | www.Chickasha.org |

<https://www.facebook.com/ChickashaPolice/>



CHICKASHA POLICE DEPARTMENT

Professionalism | Respect | Integrity | Dedication | Excellence

EQUIPMENT ISSUE RETURN for Sgt. Kori Brewer

Page 2

*Indicates additional documentation/equipment receipt.

Item	Qty	Date Issued	Qty	Received by:	Date Ret:
Accident template	1	—	1	10/23/22	724305
Tourniquet	1	—	1		
Tourniquet holder (belt)	1	—	1		
*Active Shooter Kit (2 plates, carrier, 2 M4 mag pouches, 1 tourniquet pouch) S/N F: <u>002 33049</u> S/N B: <u>002 33050</u>	1	—	1		
*Active Shooter Helmet: See Below		—	1		
Fingerprint kit #:	1	—	1		
Aftermath PPE Kit	1	—	1		
Spit hood	2	—	1		
*Citation book: N/A	1	—	1		
*Warning book: N/A	1	—	1		
Non-rebreather CPR Mask					
Pk of 2 Narcan units	1	—	1		
*Taser – SN: Cartridge:	1				
Taser holster	1				
*Firearm(s) & SRT/Special Equipment:					
Pistol - Glock 17, 9mm - <u>BE6K493</u> (w/4 backstraps, hard case, and 3 hi-cap magazines)	1	—	1		
Shotgun – n/a [REDACTED]	n/a	—	1		
Rifle – n/a [REDACTED]	n/a	—	1		
SB Rifle –	1				
Additional firearm – n/a	n/a				
SRT KIT: Vest (2 plates), Gas Mask w/Pouch, & Helmet S/N: S/N F: S/N B:	1				
Embroidered CPD Patch on Baseball style hat		Prop of CPD			
Embroidered CPD Patch on Sweater(s)/Polo(s)/etc.		Prop of CPD			
Misc. Building/Car/Mailbox/Prop. Locker/etc. Keys:					
ACADEMY Uniforms: 5.11 Polos, 5.11 TDU pants, & 1 tdu belt	3ea 1				

By signing below, I acknowledge receipt of the above listed items. I understand that upon the termination of my employment the above items shall be returned to the City of Chickasha, Police Department. Items not returned may result in the City of Chickasha taking action upon me to reconcile said equipment.

Officer's Printed Name

Officer's Signature

Date

Lt. Traye Alexander
Issuing/Receiving Officer's Signature

305
Badge Number

10-23-2022
Date

2001 West Iowa Avenue, Chickasha, OK 73018 | 405-222-6050 | www.Chickasha.org |
https://www.facebook.com/ChickashaPolice/



CHICKASHA POLICE DEPARTMENT

Professionalism | Respect | Integrity | Dedication | Excellence

Chief Music,

I have returned the following initial issue items on 10/23/2022;

Glock 17 Gen 4 S/N BEGK493, Case, 3 Magazine

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

OKLA Sergeant Badge

[REDACTED]

Name Plate

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

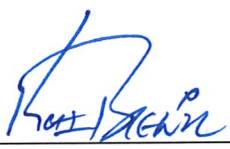
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



10/23/2022

Sergeant Kori Brewer #316

ARTICLE 25
RETIRED OFFICERS

Section 1. Police Identification Card. The City agrees to allow an officer, upon retirement, to retain the City of Chickasha Police identification card, which shall designate that the officer is retired. The City agrees that the officer will be allowed to retain his/her duty weapon. This benefit will not be available to a retiree who is charged and/or convicted of a felony crime.

Section 2. Mementos. The City agrees to allow an officer, upon retirement, to retain his City of Chickasha, Oklahoma, Police shirt badge, rank insignia, name tag, and tie bar, for the purpose of being encased by the Lodge and awarded to the officer as a memento for service to the citizens of Chickasha.

Section 3. Upon retirement from the Department, if an employee elects to remain on the City's health plan, the City will allow the employee to continue to pay the same premium rate for Employee only coverage equal to the full cost of coverage for current employees for a period equivalent to one month for each year of service up to a maximum of twenty-four (24) months of premiums or until the Employee reaches the age of sixty-five (65) whichever comes first.

Section 4. For the purpose of this Article, an Employee who chooses to retire will be deemed a retired officer after achieving twenty (20) or more years of service or if the Employee leaves service on a disability retirement.



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Police Department

Agenda Item No. 6.c.

AGENDA ITEM: Discussion, consideration, and possible action to authorize the renewal of the Gonzales Pest Control Contract

I. BACKGROUND/DESCRIPTION:

The City of Chickasha Animal Welfare Division utilizes a pest control contract with Gonzales Pest Control. Both Gonzales Pest Control and City Staff are agreeable to renewal of their contract with no changes to the terms or conditions. The contract is on an annual calendar basis.

II. RECOMMENDED ACTION:

Staff recommends renewal of the pest control contract with Gonzales Pest Control for the Animal Welfare Building for 2023 and authorize the City Manager to execute the same.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Goebel Music Interim Chief of Police	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Gonzales Pest Control Contract 2023

PEST CONTROL CONTRACT

Gonzalez Pest Control is offering to continue their services of monthly pest control service for the **Chickasha Animal Shelter (City of Chickasha)**.

The term of this contract shall be for a period of twelve months with the effective commencement date beginning on January 1st, 2023, and expires on December 31st, 2023, unless sooner terminated by the parties hereto. This contract may be extended each year to become effective January 1st through December 31st, as approved or amended by the agreement of the parties of this contract.

Gonzalez Pest Control agrees that during the term of this contract, they shall: observe and conform to the laws and customs of their Code of Professional Ethics & provide monthly pest control services each month at the agreed upon dates and times.

The City of Chickasha shall pay **Gonzalez Pest Control** **\$50.00** per month, and **Gonzalez Pest Control** shall accept from the City of Chickasha, in full payment for **Gonzalez Pest Control** services based on their monthly itemized billing payable once a month.

This agreement is valid from January 1st, 2023, through December 31st, 2023.

Keith Johnson, Chickasha City Manager

ATTEST:

City Clerk

Gonzalez Pest Control



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Police Department

Agenda Item No. 6.d.

AGENDA ITEM: Discussion, consideration, and possible action to authorize staff to solicit bids for veterinary services contract.

I. BACKGROUND/DESCRIPTION:

The Chickasha Police Department/Animal Welfare Division utilizes a Veterinary Services Contract. The contract was last bid in 2015 and has been renewed each year since. Verden Vet is the vendor and they are asking for a rate increase from the 2015 rates. With a monetary change to the contract, the bid process needs to take place. The current contract expires January 31, 2023.

II. RECOMMENDED ACTION:

Authorize Staff to solicit bids for veterinarian services.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Goebel Music Interim Chief of Police	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Invitation to Bid ACO Police 01032023

INVITATION TO BID

MAIL SEALED BIDS TO:		PERSONAL OR COMMON CARRIER DELIVERY	
City of Chickasha, Chief Music		City of Chickasha, Goebel Music, Interim Chief of Police	
117 North 4 th Street		117 North 4 th Street	
Chickasha, Oklahoma 73018		Chickasha, Oklahoma 73018	
DATE BID TYPED: 12/21/2022	BID NO: COC-2301	TITLE: Provide Veterinary Services for the Chickasha Animal Shelter	
NO BIDS WILL BE ACCEPTED AFTER: 03/02/2023 @ 1:30pm		CONTRACT PERIOD	
VENDORS NAME:		REASON FOR NO BID:	
MAILING ADDRESS:			
CITY:	STATE:	ZIP:	TERMS:
AREA CODE:	TELEPHONE NO.	FAX NO.	DELIVERY:
E-MAIL ADDRESS		FEDERAL EMPLOYER IDENTIFICATION NO. OR SOCIAL SECURITY NO.	

NON-COLLUSION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF _____, COUNTY OF _____,

_____ of lawful age, being first duly sworn on oath, says that 1. (s)he is the duly authorized agent of the above bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and city officials or employees, as well as facts pertaining to the giving or offering of things of value to city personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached. 2. (s)he is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and 3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:

- to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
- to any collusion with any city official or employee as to quantity, quality, or price in the prospective contract, nor
- in any discussions between bidders and any city official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Subscribed and sworn to before me this _____ day of _____, 20____

Bidder

Notary

My Commission Expires: _____

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

BUSINESS RELATION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF _____, COUNTY OF _____,

_____ of lawful age, being first duly sworn on oath, says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships herein above mentioned exist; Affiant should so state).

Subscribed and sworn to before me this _____ day of _____, 20____

Bidder

Notary

My Commission Expires: _____

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

SEALED BIDS: All sheets bid on and this form must be executed and submitted in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE BID PER ENVELOPE). The face of the envelope shall contain, in addition to the mailing address, the words "SEALED BID" the date of the bid opening and the contract number. Bids submitted in Federal Express or other specialized delivery envelopes shall be enclosed in a separate envelope marked as indicated above. Bids not submitted in properly marked envelopes or on the attached bid form shall be rejected. In the case of "No Bid" the vendor shall return the "Invitation to Bid" with the "Reason for No Bid" properly filled in, to remain on the City of Chickasha's active vendor/contractor list

EXECUTION OF BID: Bid must contain an original signature of an authorized representative in the space provided. Bids must be typed or printed in ink. Use of erasable ink is not permitted. ALL CORRECTIONS MADE BY BIDDER TO HIS BID MUST BE INITIALED.

BID OPENING: It is bidder's responsibility to assure that his bid is delivered at the proper time and place of the bid opening. Bids which for any reason are not so delivered, will not be considered. Offers by telegram or telephone are not acceptable. **NOTE:** Bid files may be examined during normal working hours by appointment. Bid tabulations WILL NOT be provided by telephone.

MISTAKES: Bidders are expected to examine the specifications, delivery schedule, bid prices and all instructions pertaining to supplies and services. Failure to do so will be at bidder's risk. In case of mistake in extension, the unit price will govern.

INVOICING AND PAYMENT: The vendor shall be paid upon submission of proper certified invoices to the City of Chickasha at the prices stipulated on the contract. Invoices shall contain the contract number and purchase order number. Failure to follow these instructions may result in delay of processing invoices for payment.

WAIVER: City of Chickasha reserves the right to waive any general provision, special provision or minor specification deviation when considered to be in the best interest of the City of Chickasha. Any bid received by the awarding public agency or an officer or employee thereof, more than ninety-six (96) hours excluding Saturdays, Sundays and holidays before the time set for the opening of bids, or any bid so received after the time set for opening of bids, shall not be considered by the awarding public agency and shall be returned unopened to the bidder submitting same.

GENERAL SPECIFICATIONS
Provide Veterinary Services for the Chickasha Animal Shelter
BID# COC-2301
Chickasha Police Department

The purchaser reserves the right to reject and an all bids, waive all irregularities or technicalities without assigning reason therefore, and make awards in the best interest of the purchaser.

No bidder may withdraw his/her bid within 30 days after the actual date of opening thereof.

UNDERSTAND AND AGREE: Yes ____ No ____ Initial _____

DELIVERY DEADLINE AND LIQUIDATED DAMAGES:

The successful bidder will have (0) calendar days to complete the delivery of all services specified. The services will begin immediately upon notification of the successful bidder. The purchaser reserves the right to reject the bid services in its entirety if the vendor fails to meet the specification agreed to by the purchaser and vendor.

UNDERSTAND AND AGREE: Yes ____ No ____ Initial _____

Bids are solicited pursuant to the Public Competitive Bidding Act of 1974 as amended (Title 61, O.S. 1981, Sections 101-136 et seq.) The purchaser reserves the right to reject any and all bids, waive all irregularities or technicalities without assigning reason therefore, and make awards in the best interest of the purchaser.

No bidder may withdraw his bid within 30 days after the actual date of opening thereof.

UNDERSTAND AND AGREE: Yes ____ No ____ Initial _____

PAYMENT:

Payment shall be made to the vendor monthly based upon the submission of a monthly itemized bill. The bidder will work on an "open purchase order" provided to the bidder on a monthly basis for expense and services incurred during that month. Partial invoices will not be accepted or forwarded for payment.

UNDERSTAND AND AGREE: Yes ____ No ____ Initial _____

GENERAL SPECIFICATIONS
Provide Veterinary Services for the Chickasha Animal Shelter
BID# COC-2301
Chickasha Police Department

SERVICES:

INTRODUCTION – All aspects must be Equal to or Exceed Specification.

- Item 1: General Animal Care** - Care for sick and or injured animals as needed.
- Item 2: Health Certificates** - Provide necessary health certificates as needed proving shots, vaccines, and worming for being able to transfer certain animals to rescue groups both in and out of state.
- Item 3: Medical Services / Medication** - Prescribing and application of medication as needed for the proper health care and maintenance of certain animals as required.
- Item 4: Billing** - Must be able to bill monthly encompassing all the previous months' charges on a previously assigned (open) purchase order number assigned for that month's work. Billing will include all services as well as medications, antibiotics, etc.
- Item 5: After Hours Services** - Must be able to provide limited availability after hours for legitimate emergency medical incidents.
- Item 6: On-Site Services** - Must possess the ability to provide certain services on site on a case-by-case basis.
- Item 7: Large Animals** - Must be able to provide large animal transport and housing on an as needed basis.

LICENSE / CERTIFICATION / REGISTRATION:

The vendor shall be licensed, certified, and registered to ensure a satisfactory level of quality animal care. Indicate below whether the vendor is licensed, certified, and registered by checking "Yes" or "No" in the space provided.

_____ Yes _____ No

BETTER BUSINESS BUREAU:

The vendor is accredited by the Better Business Bureau, showing a commitment to ethical and principled care and treatment of both large and small animals.

_____ Comply _____ Exception

EXCEPTIONS TO SPECIFICATIONS:

Any and all exceptions to the above specifications must be clearly stated for each heading. Use additional pages for exceptions, if necessary. If none, so state:

It shall be the sole discretion of the City of Chickasha Police Department to accept or reject any one (1) or all proposals. **NO EXCEPTIONS.**

_____ Comply _____ Exception

BID SHEET:

The undersigned proposed and agrees to furnish all labor, materials, services, equipment and incidentals needed to satisfy all aspects of the bid in accordance with the specification and proposal submitted at and for the price set out below in the monthly amount of:

ITEMS #1-7 Bid as specified: \$ _____

I certify that the above quote is correct, and the delivery date can be met. I understand if the quote is not honored, or the delivery date is not met, that the award may be withdrawn by the City and as a result your firm may be disqualified as a bidder for the City of Chickasha.

Business Name

Your Printed Name

Your Signature

DATE: _____

GENERAL SPECIFICATIONS
Provide Veterinary Services for the Chickasha Animal Shelter
BID# COC-2301
Chickasha Police Department

PURPOSE AND SCOPE:

The purpose of this document is to provide minimum specifications for animal care, health and maintenance for the animals housed at the Chickasha Animal Shelter. Necessary drugs, antibiotics and other miscellaneous charges shall be included in the price quoted by the vendor. It is not the intention of this agency to write out any vendor or manufacturers of similar or equal services to the types specified. Further, this specification is written to meet the specific needs of this agency and this agency will be the sole judge of equality. The decision of this agency will be final. For questions contact Chief Music at 405.222.6064.

DEFINITIONS:

- VENDOR:** An individual, firm, partnership, manufacturer, or corporation to whom the contract is awarded by the purchaser and who is subject to the terms thereof. For bidding purposes, the terms contractor, vendor, and bidder are synonymous.
- CITY:** The City of Chickasha Police Department / Animal Welfare Division.
- EQUAL:** Taken in the general sense and shall not mean identical. These specifications establish minim requirements and in no way are intended to prohibit the bidding of any manufacturers' item or equal material or performance. This agency shall be the sole judge of equality.
- BID:** An offer in the form of a bid, proposal, or quote a bidder submits in response to a solicitation.
- BIDDER:** An individual or business entity that submits a bid in response to a solicitation.
- SOLICITATION:** A request or invitation by the Chief of Police for a supplier to submit a priced offer to provide services to the City. A solicitation may be an invitation to bid, request for proposal, or a request for quotation.
- PURCHASER:** The end user of the services specified.

PROPOSAL IN REPLY TO SPECIFICATIONS:

Any exceptions to these specifications must be items and referenced by paragraph. Details must be clearly explained. Each exception will be considered by the purchaser as to the degree of impact and total effect on their bid. Bidders must return all pages of these specifications with their bid proposal as it will form the contract between the vendor and purchaser. The bidder is presumed to be familiar with all Federal and State laws that may in any way effect the work. Ignorance on the part of the bidder shall in no way relieve him of responsibility.

UNDERSTAND AND AGREE: Yes ____ No ____ Initial _____

BID EVALUATION:

Bid evaluation by the purchaser will be based at a minimum on the following criteria: completeness of the proposal, vendor's past performance, vendor's reliability factors, vendor's maintainability considerations, vendor's logistical and service support. Bidders shall pay particular attention in answering the "comply" and "exception" responses to each paragraph contained within these specifications. *If the bidder does not meet the specification exactly, an exception is equal to or exceeds the bid.* The purchaser will judge exceptions, and the decision of the purchaser shall be final. If this procedure is not followed the bid will be rejected as non-compliant.

Sealed bids will be received by the City of Chickasha for the furnishing of services, equipment, materials, and supplies and incidental items necessary to perform the work as outlined in these specifications. Copies of all bid documents are available for inspection in the Office of the City Clerk. Bids are to be submitted to the **Office of the City Clerk, 117 N. 4th Street, Chickasha, OK 73018**, no later than the date and time indicated on the BID FORM. Submission of a Bid shall constitute an agreement on the part of the Bidder to all terms and conditions contained therein. Bids received by the city after the response due date and time shall be deemed non-responsive and shall **NOT** be considered for any resultant award.

Contract awards will be made to the lowest and best bidder(s) unless the solicitation specifies that the best value criteria is being used. Only properly completed sealed bids will be considered. A completed Bid shall include the following:

1. A fully completed "Bid Form."
2. A completed and Notarized "Non-Collusion Affidavit," "Business Relation Affidavit."

BID OPENING:

Sealed bids shall be opened by the Chief of Police at City Hall, 117 N. 4th Street, Chickasha, Oklahoma 73018 on February 3, 2023.

PRE-BID MEETING:

No pre-bid meeting is planned.

Chickasha Police Department

MINIMUM BID SPECIFICATIONS

Provide Veterinary Services to the Chickasha Animal Shelter

Chickasha Police Department Point of Contact

Interim Chief of Police Goebel Music

2001 W. Iowa Avenue

Chickasha, OK. 73018

goebel.music@chickashapd.org

NOTICE:

Bidder shall state in the right-hand column wherein your services offered differs, indicating performance, specific size, and/or make and model of all components when not exactly as specified. When bidder is bidding items exactly as described in the left-hand column, please state "**AS SPECIFIED**" on the right-hand column. Failure to return and complete this form will be considered sufficient reason for rejection of your offer. Literature alone is not sufficient for consideration of your offer but is welcomed. If additional space is needed, attach additional sheets with the corresponding item number.

REQUIREMENTS

**Indicate Exception or
state "As Specified" Below**

Brand: _____
Part#: _____

Provide Veterinary Services to the Chickasha Animal Shelter

Item 1: General Animal Care - Care for sick and or injured animals as needed.

Item 2: Health Certificates - Provide necessary health certificates as needed proving shots, vaccines, and worming for being able to transfer certain animals to rescue groups both in and out of state.

Item 3: Medical Services / Medication - Prescribing and application of medication as needed for the proper health care and maintenance of certain animals as required.

Item 4: Billing - Must be able to bill monthly encompassing all the previous months' charges on a previously assigned (open) purchase order number assigned for that month's work. Billing will include all services as well as medications, antibiotics, etc.

Item 5: After Hours Services - Must be able to provide limited availability after hours for legitimate emergency medical incidents.		
Item 6: On-Site Services - Must possess the ability to provide certain services on site on a case-by-case basis.		
Item 7: Large Animals - Must be able to provide large animal transport and housing on an as needed basis.		

Any equipment or service proposed for consideration to the Chickasha Police Department must meet or exceed these specifications or offer a better product or service specification for consideration.

CERTIFICATION

I certify that this quote is correct, and I understand that if the quote is not honored the City may withdraw the award and as a result my firm may be disqualified as a bidder for the City of Chickasha.

DATE: _____ **FIRM NAME:** _____

PHONE: _____ **BY:** _____

FAX: _____ **TITLE:** _____

EMAIL ADDRESS: _____



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.e.

AGENDA ITEM: Public Hearing - to discuss and consider the Land Development Code Chapter 46 to the Chickasha Code of Ordinances

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.f.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-08 - Chapter 46 of the City of Chickasha Code of Ordinances. (Replacement of the current Chapter 46 Subdivisions with a new Chapter 46 Land Development Code to provide new land regulations, procedures, and penalties)

I. BACKGROUND/DESCRIPTION:

This will be a new chapter to the code of ordinances and will create one place for all development ordinances, making them easier to understand and easy to find.

- One major change will be a zero new run off policy. Meaning a development cannot run water off the property any faster than it currently does. This will protect new development and our current property owners.
- it is timely for the City of Chickasha to take their drainage seriously and take steps to protect what we have and encourage new development in a responsible way. This is one small step to getting better with drainage for the future of the City.
- Also, with this we are implementing new standard drawings and design specifications for engineers to know up front what the requirements for sanitary, water lines and hydrants will be. We have created new standards that will last longer and work best for our infrastructure. Multiple departments have worked on this project for about a year.
- Other changes to clean up ordinances related to this ordinance will be on this council agenda as well.

II. RECOMMENDED ACTION:

Approve Ordinance 2023-08 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:	Fund	Account	Amount
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Rachel Bernish, Community Development Director	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ord. 2023-08 - Chapter 46
2. Chickasha LDC Figures 22.11.30

ORDINANCE NO. 2023 – 08

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, AMENDING CHAPTER 46 SUBDIVISIONS BY REPEALING IT IN ITS ENTIRETY AND REPLACING IT AND RENAMING IT AS CHAPTER 46 LAND DEVELOPMENT CODE; TO CREATE ARTICLE I IN GENERAL TO PROVIDE DEFINITIONS; REGULATIONS; TO CREATE ARTICLE II, GENERAL PROCEDURES; TO PROVIDE PROCEDURES, STANDARDS; REGULATIONS AND PENALTIES TO CREATE ARTICLE III DESIGN, TO PROVIDE PROCEDURES, STANDARDS; REGULATIONS AND PENALTIES TO CREATE ARTICLE IV REQUIRED IMPROVEMENTS IN GENERAL, TO PROVIDE PROCEDURES, STANDARDS; REGULATIONS AND PENALTIES TO CREATE ARTICLE V, REQUIRED IMPROVEMENTS - SPECIFIC REQUIREMENTS, TO PROVIDE PROCEDURES, STANDARDS; REGULATIONS AND PENALTIES TO CREATE ARTICLE VI, STORMWATER QUALITY, TO PROVIDE PROCEDURES, STANDARDS; REGULATIONS AND PENALTIES TO CREATE ARTICLE VII, FLOODPLAIN DEVELOPMENT AND MANAGEMENT, TO PROVIDE PROCEDURES, STANDARDS; REGULATIONS AND PENALTIES PROVIDING FOR REPEALER; AND PROVIDING FOR SEVERABILITY.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION I. That Chapter 46 of the Code Ordinances of the City of Chickasha is hereby amended and shall hereinafter read as follows:

City of Chickasha

Code of Ordinances

CHAPTER 46 - LAND DEVELOPMENT CODE

ARTICLE I. - IN GENERAL

Sec. 46-1 Title

This Ordinance shall be known as the "Land Development Code" or "LDC" of the City of Chickasha, Grady County, Oklahoma.

Sec. 46-2 Authority

In order to promote the health, safety, and general welfare of present and future residents, and to bring about the coordinated, efficient, and economic development of the City of Chickasha, Oklahoma, this LDC is adopted in accordance with the authority granted the City under Oklahoma Statutes Title 11, relating generally to Building and Zoning, and including, without limitation, provisions for platting, the regulation of subdivisions, planning, zoning, variances and appeals, regulation of planned unit developments, site plan review, historic preservation, and the creation of planning commissions and boards of adjustment. It is the intent of the City Council in adopting this Code to exercise as fully as possible the authority granted by Oklahoma Statutes Title 11 and to do so in a comprehensive, integrated and cohesive code.

Sec. 46-3 Purpose and Intent

Land development typically starts with subdivision of land but may also include development or improvement of undivided tracts of land. The regulation of land development within a formalized procedure provides for the establishment of a contract between the land owner (developer) and a governmental entity acting on behalf of the public and for the benefit of subsequent individual owners and/or tenants. Precise commitments concerning a described geographic area of proposed development are specifically set forth in relation to and in accord with graphic and written documentation as filed of record.

The arrangement of land parcels in the community for residential, commercial, and industrial uses and for streets, alleys, schools, parks and other public purposes, will determine to a large degree the conditions of health, safety, economy and amenity that prevail in the area. The quality of these conditions is of public interest. These regulations and standards for the development of land are designed to make provisions for adequate light, air, open spaces, drainage, transportation, public utilities, and other needs, to ensure the development and maintenance of a healthy, attractive and efficient community that provides for the conservation and protection of its human and natural resources.

This LDC regulates the use of land, buildings and structures within the city limits of the City of Chickasha. The regulations contained herein are necessary to promote the health, safety, convenience and welfare of the City's inhabitants by regulating the use of the land and the use and size of buildings as to height and number of stories, the coverage of land by buildings, the size of yards and open space, density of population and location of buildings.

This Chapter intends to require that all land located in the City of Chickasha be developed in conformance with these provisions. Further, this Chapter intends to require that all land located in the City of Chickasha intended to be subdivided shall be platted in conformance with these provisions prior to the actual accomplishment of development and that an approved Final Plat shall be filed of record prior to the issuance of a required building permit for the development of any and all institutional, industrial, commercial, and residential uses.

This LDC as adopted shall serve the following purposes:

- A. Ensure sound community growth and the safeguarding of the interests of the homeowner, the developer and the local government.
- B. Safeguard these interests and the assurances that land subdivision will provide permanent assets to the community.
- C. Prevent excessive governmental operating costs, while seeking to ensure to the maximum degree possible the means whereby land can be developed for the highest possible use as determined by consideration of social, economic and environmental factors with all of the necessary protections for the prevention of deterioration, obsolescence, slums, and blight.
- D. Make provisions for adequate light, air, open spaces, drainage, transportation, public utilities and other needs, to ensure the development and maintenance of a healthy attractive and efficient community that provides for the conservation and protection of its human and natural resources. They are designed, intended and should be administered in a manner to:
 1. Implement the City's Comprehensive Plan in relation to:
 - a. The use of land and land use relationships;
 - b. The transportation system, including, but not limited to, highways, streets, alleys, and sidewalks;
 - c. Community facilities, including recreational and educational facilities, fire stations, etc.;
 - d. The extension or expansion of the sanitary sewer system, including adequate easements to accommodate lines and facilities;
 - e. The appropriate disposition of surface runoff water; and
 - f. The accommodation of all other utilities within adequate easements;
 2. Protect and provide for the public health, safety and general welfare of the City;
 3. Provide for adequate light, air and privacy to secure safety from fire, flood and other physical dangers and to prevent overcrowding of the land;
 4. Provide neighborhood conservation and prevent the development of slums and blight;

5. Harmoniously relate the development of the various tracts of land to the existing community and facilitate the future development of adjoining tracts;
6. Provide that the cost of improvements which primarily benefit the tract of land being developed be borne by the developers of the tract, and that the cost of improvements which primarily benefit the whole community be borne by the whole community;
7. Provide the best possible design for the tract;
8. Reconcile any differences of interests; and
9. Establish adequate and accurate records of land development.

Sec. 46-4 Jurisdiction

The regulations of this LDC shall apply to all land within the corporate limits of the City of Chickasha. Except as provided elsewhere in this LDC, no land shall be used and no building, structure or improvement shall be made, erected, constructed, moved, altered, enlarged or rebuilt which is designed, arranged or intended to be used or maintained for any purpose or in any manner except in accordance with the requirements established in the district in which such land, building, structure or improvement is located, and in accordance with the provisions of this LDC relating to any or all districts.

Sec. 46-5 Minimum Requirements

interpretation and *application* of this LDC, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

Sec. 46-6 Effective Date

The effective date of this LDC shall be February 5, 2023.

Sec. 46-7 Conflicting Provisions

- A. Conflict with State or Federal Regulations. If the provisions of this LDC are inconsistent with those of the state or federal government, the more restrictive provision shall control, to the extent permitted by law;
- B. Conflict with Other City Regulations. If the provisions of this LDC are inconsistent with one another, or if they conflict with provisions found in other adopted ordinances or regulations of the City, the more restrictive provision shall control. Interpretation, determination and administration of such conflicts shall be the sole authority of the City.

- C. **Conflict with Private Restrictions.** It is not the intent of this LDC to interfere with, abrogate or annul any easement, covenant, deed restriction or other agreement between private parties. If the provisions of this LDC impose a greater restriction than imposed by a private agreement, the provisions of this LDC shall control. Where the provisions of a private agreement impose a greater restriction than this LDC, the provisions of the private agreement shall control.

Sec. 46-8 Transitional Provisions

- A. *Violations Continue.* Any violation of the previous zoning or subdivision regulations of the City shall continue to be a violation under this LDC and be subject to penalties and enforcement under Chapter 1 of this Code, unless the use, construction or activity complies with the provisions of this LDC.
- B. *Nonconformities Under Previous Code.* Any nonconformity determined to be legal under the previous zoning regulations of the City will also be a legal nonconformity under this LDC, as long as the situation that resulted in the nonconforming status under the previous regulations continues to exist. If, however, a nonconforming situation under the previous regulations becomes conforming because of the adoption of this LDC, or any subsequent amendment to it, then the situation will no longer be a nonconformity
- C. *Permit Issued Before Effective Date.*
 - 1. Any building or development for which a permit was issued before the effective date of this LDC may be completed in conformance with the issued permit and other applicable permits and conditions, even if such building or development does not fully comply with provisions of this LDC.
 - 2. If construction is not commenced or completed according to the applicable permit terms, the City Council may, for good cause shown, grant an extension of up to six (6) months for such construction. If the building is not completed within the time allowed under the original permit or any extension granted, then the building *may* be constructed, completed or occupied only in compliance with this LDC.
- D. *Plat Approved Before Effective Date.*
 - 1. Any lot shown on a subdivision plat approved by the City of Chickasha under any prior subdivision ordinance shall be deemed to be fully conforming with this LDC as to lot area and access.
 - 2. Any site other than a lot described under paragraph 1 above that meets both of the following criteria shall be deemed fully conforming with this LDC as to lot area and access:
 - a. The site consists of all or part of one or more lots shown on a subdivision plat approved by the City of Chickasha under any prior subdivision ordinance; and
 - b. The site conformed with the zoning ordinance at the time that it was created, or it conforms with the requirements of this LDC
 - 3. Any subdivision for which a Final Plat was approved before the effective date of this LDC may be completed according to the approved plat and other applicable permits

and conditions, even if the subdivision does not fully comply with the provisions of this land development Code.

4. If the subdivision is not completed within the time requirements established by prior code or within any schedule included in the approval of the plat, the City Council may grant one extension of time for the completion of the subdivision. If the subdivision is not completed within the time required under the original approval or any extension granted, then the subdivision may be completed only in compliance with this LDC
- E. *PUD Approved Before Effective Date.* Any PUD for which a Final Plat has been approved by the City Council is considered legal and shall continue to be governed by the specific ordinance and site plan previously adopted by the Planning Commission and City Council. Any amendments, revisions or changes to previously adopted PUD's shall comply with provisions of this LDC.

Sec. 46-9 Relation to Zoning

In order to provide adequate information for evaluation and decision by the Planning Commission and the City Council, and to provide documentation of intent for public record, the following requirements are mandatory:

- A. Zoning of land is governed by Chapter 54 of this Code and the official Zoning Map and Ordinances of the City of Chickasha.
- B. A rezoning request which includes any amount of unplatted land shall be accompanied by a Preliminary Plat and/or Development Plan, as deemed appropriate by the Community Development Director, of the land in question, and any adjacent land which is fifty (50) percent or more owned or under option to buy by the applicant; provided, The Preliminary Plat and Development Plan shall be submitted for consideration as an agenda item before the Planning Commission simultaneously with the rezoning request.
- C. In the instance of proposed planned unit development(s), as provided in Chapter 54 of this Code, three (3) paper copies and one portable document format (pdf) copy of the PUD master plan shall be submitted with the application for rezoning and consisting of a design statement and a master development plan map shall be included with the submission of the Preliminary Plat when application is made for Planning Commission approval.
- D. No Final Plat may be considered for approval by the City Council until the Preliminary Plat and proper zoning in terms of density, lot size, and land use has been approved by the City Council regarding the subject property.

Sec. 46-10 Severability

In case any portion of this LDC shall be held to be invalid or unconstitutional, the remainder of the LDC shall not thereby be invalid but shall remain in full force and effect.

Sec. 46-11 Enforcement, Violation and penalty.

- A. It is the duty of the Administrative Officer of the Planning Commission to enforce the provisions of these regulations.

- B. No building permit shall be issued for any new structure or change, improvement or alteration of any existing structure on any tract of land subdivided subsequent to the adoption of these regulations which does not comply with all of the provisions of these regulations.
- C. A violation of this Chapter shall be deemed an offense and punishable by fine. Any person, firm or corporation who violates or refuses to comply with any of the provisions of these regulations shall be fined as provided in Sections 1-14 and 1-15 for each offense. Each day a violation is permitted to exist shall constitute a separate offense.

Sec. 46-12 Definitions

The following words, terms and phrases, when used in this Chapter, shall have the meanings ascribed to them in this Section, except where the context clearly indicates a different meaning. Words not herein defined but defined in any other chapter of the Municipal Code shall conform to the definitions in said Code.

- A. *Alley* means a minor right-of-way dedicated to public use, which gives a secondary means of vehicular access to the back or side of properties otherwise abutting a street, and which may be used for public utility purposes.
- B. *Applicant* - The owner of land proposed to be subdivided, or on which a building is proposed to be altered, erected or constructed, or his or her legal authorized representative.
- C. *As-built drawings* means a set of detailed drawings and documents reflecting all changes made in the specifications and construction drawings during the construction process. The drawing shows the exact dimension, geometry and location of all elements of the improvements completed.
- D. *Base Flood* - means the flood having a one (1) percent chance of being equaled or exceeded in any given year.
- E. *Bicycle Lane* - means that portion of a roadway set aside and appropriately designated for the use of bicycles.
- F. *Bicycle Path* - means a paved facility physically separating the bicycle from motor vehicle traffic.
- G. *Block* means a parcel of land, intended to be used for urban purposes, which is entirely surrounded by public streets, highways, railroad rights-of-way, public walks, parks or green strips, rural land or drainage channels or a combination thereof.
- H. *Building line or setback line* means a line designating the area outside of which buildings may not be erected.
- I. *Certificate of Survey* - An instrument prepared by a registered surveyor licensed to practice in the State of Oklahoma describing the location and boundaries of a tract or parcel of land.
- J. *City* means the City of Chickasha, Oklahoma.
- K. *City Council* means the governing or legislative authority of the City of Chickasha, Oklahoma.
- L. *City Engineer* - means the licensed engineer designated by the City Manager to furnish engineering assistance for the administration of these regulations.

- M. *Community Development/Director* - The Community Development Director of the City of Chickasha, Oklahoma, or his/her designated representative, who is the administrative official designated by the City Manager to administer the provisions of these regulations.
- N. *Comprehensive Plan* means the comprehensive physical development plan for the City which has been officially adopted to provide long range development policies for the area subject to urbanization in the foreseeable future and which includes, among other things, the plan for land use, land subdivision, circulation and community facilities.
- O. *Construction plan or drawing* means the maps or drawings showing the specific location and design of improvements to be installed in the development in accordance with the requirements of these regulations and the municipal code.
- P. *Covenant* - means a private legal restriction on the use of land, contained in the deed to the property or otherwise formally recorded. The City of Chickasha shall not be responsible for enforcing covenants.
- Q. *Dedication* - means the grant of an interest in property to the public for public use and benefit.
- R. *Deed* - means a document under seal that states a conveyance of title to real property
- S. *Deed Approval* - means a process used by City staff following an administrative review procedure authorized by these regulations for approval of deeds.
- T. *Deep Absorption Sanitary System* - means a soil absorption sewer system for disposal of effluent through the bottom and side of a hole or trench at a depth of more than three (3) feet below the natural undisturbed surface. See Individual Sewage Disposal System.
- U. *Development* means the change of use of land, the erection, construction, or change of use of buildings; or the erection or construction of any additions to existing buildings where outer walls are added or altered as to location, but not including alterations or remodeling of buildings where said outer walls are not added or altered as to location.
- V. *Developer* means any person, firm, partnership, corporation or other entity, acting as a unit to change the use of land, to subdivide land, or to erect, construct, or change use of buildings; or to erect or construct any additions to existing buildings where outer walls are added or altered as to location, but not including alterations or remodeling of buildings where said outer walls are not added or altered as to location.
- W. *Duplex* - means a multi-family residential structure contains two units in the same building, sharing a common wall, or stacked on top of one another, each occupying an entire floor or two floors of the building.
- X. *Easement* means a grant by the property owner to the public, a corporation, or persons, of the use of a strip of land for specific purposes.
- Y. *Individual Sewage Disposal System* - means a septic tank, seepage tile sewage disposal system, or any other approved on-lot sewage treatment device. See Deep Absorption Sanitary System.
- Z. *Land Surveyor, Registered* - means a land surveyor licensed and registered in the State of Oklahoma.
- AA. *Lot* means a subdivision of a block or other parcel intended as a unit for the transfer of ownership or for development.
- BB. *Lot, corner*, means a lot located at the intersection of and abutting on two or more streets.

- CC. *Lot, double frontage*, means a lot which runs through a block from street to street and which has two nonintersecting sides abutting on two or more streets.
- DD. *Lot line adjustment* means a relocation of the lot lines of two or more lots included in a plat which is filed of record, for the purpose of making necessary adjustments to building sites.
- EE. *Lot, reverse frontage*, means a double frontage lot which is to be developed with the rear yard abutting a major street and with the primary means of ingress and egress provided on a minor street.
- FF. *Lot of Record* - means a lot which is a part of an approved plat or metes and bounds subdivision, the map of which has been recorded in the office of the County Registrar of Deeds.
- GG. *Lot Width* - means the mean horizontal distance between the side lot lines of a lot measured at right angles to the depth typically measured at the frontage line or front property line.
- HH. *Nonconformity* - means a lot, the area, dimensions, or location of which was in existence prior to the adoption, revision, or amendment of these regulations, but which fails by reason of such adoption, revision, or amendment to conform to the present requirements of the LDC.
- II. *ODEQ* - means the Oklahoma Department of Environmental Quality.
- JJ. *ODOT* - means the Oklahoma Department of Transportation.
- KK. *Off-Site* - means any real property not located within the area of the property to be subdivided, whether or not in the same ownership of the applicant for subdivision approval.
- LL. *Off-Site Improvements* - means any utility, paving, grading, drainage, structure, or modification of topography which is, or will be located on property not within the boundary of the property to be developed.
- MM. *Off-Street Parking* - means a type of parking wherein the maneuvering of the vehicle while parking and unparking, as well as parking itself, is done entirely off of the street right-of-way, and where access to the area is by means of drive-way approach built to the standards of the City of Chickasha.
- NN. *On-Site* - means any real property located within the area of the property to be subdivided, whether or not in the same ownership of the applicant for subdivision approval.
- OO. *Ordinance* - means enactments of the legislative body of the municipal corporation which has the force of law, including any amendment or repeal of any ordinance.
- PP. *OWRB* - means the Oklahoma Water Resources Board.
- QQ. *Parcel* - means a contiguous area of land described in a single description in a deed or as one of a number of lots on a plat; separately owned, either publicly or privately; and capable of being separately conveyed. For ease of indexing data, a segment of a street, highway, railroad, right-of-way, pipeline or other utility easement may be treated as a parcel.
- RR. *Percolation Test* - means a field-test conducted and used in judging the suitability of soil for on-site, sub-surface sewage disposal and seepage system.
- SS. *Planned Unit Development* - means a form of development characterized by a unified site design which may include providing common open space, density averaging and mix of building types and land uses.

- TT. *Planning Commission / Commission* - means the Planning Commission of the City of Chickasha, as created by the City Council.
- UU. *Plat, final*, means a map of land subdivision prepared in a form suitable for filing of record with necessary affidavits, dedications and acceptances, and with complete bearings and dimensions and curve data of all lines defining lots and blocks, streets and alleys, public areas and other dimensions of land.
- VV. *Plat, preliminary*, means a map of a proposed land subdivision showing the character and proposed layout of the tract in sufficient detail to indicate the suitability of the proposed subdivision of land.
- WW. *Plot Plan* - means a drawing of the LOT that shows the dimensions, location and size of all proposed and existing features and structures, including driveways.
- XX. *Professional Engineer* - means an engineer licensed and registered in the State of Oklahoma.
- YY. *Public Improvement / Improvement* - means any improvements consisting of drainage, water, sanitary, sewer, paving, parkway, sidewalks, pedestrian way, tree, lawn, off-street parking area, lot improvement, or other facility for which the local government may ultimately assume the responsibility for maintenance and operation, or which may affect an improvement for which local government responsibility is established.
- ZZ. *Public Use* - means any area, building or structure held, used, or controlled exclusively for public purposes by any department or government unit, without reference to the ownership of the building or structure.
- AAA. *Public Utility* - means a business or service which is engaged in regularly supplying the public with some commodity or service which is of public consequence and need, such electricity, gas, water, sewage disposal, transportation or communications.
- BBB. *Rear Lot Line* - means ordinarily that line of a lot which is opposite and farthest from the front lot line or as designated on the plat for corner lots.
- CCC. *Reserve Strip* - means a narrow, linear strip of property, usually separating a parcel of land and a roadway or easement, that is characterized by limited depth which will not support development, and which will prevent access to the roadway or easement from the land adjacent to the reserve strip.
- DDD. *Re-subdivision, Replat, Amended Plat or Amended Subdivision* - means a change in a map of an approved or recorded subdivision plat, if such change affects any street, layout on such map or area reserved thereon for public use, or any lot line, or if it affects any map or plan legally recorded prior to the adoption of any regulations controlling subdivision of land.
- EEE. *Short - Form Subdivision* - means a subdivision process by the Planning Commission or in Planned Unit Developments, by the Director, for subdivision of lots, tracts or parcels into three (3) or fewer lots, tracts or parcels usually by metes and bounds description.
- FFF. *Sidewalk* - means a paved surface area usually paralleling and separated from the roadway, used as a pedestrian way.
- GGG. *Sight Triangle* - means the sight distance area at intersections of two (2) public streets. On any corner lot, a triangle formed by measuring from the point of intersection of the front and side lot lines a distance of 25 feet along said front and side lot lines and

extending the hypotenuse (when at a right angle) to the curb and connecting the points so established to form a sight triangle on the area adjacent to the street intersection. Said triangle is included in the street right-of-way.

HHH. *Site Plan* - means a plan showing location and size of water and sewer lines and storm sewers, paving, contours at two (2) foot intervals, building pad elevations, spot elevations at each lot corner for all lots in the development, lot and street drainage arrows, street light locations, water and sewer service connections, top of curb elevations, lot dimensions, fire hydrants, man-hole locations, right-of-way widths and utility easements.

III. *Street* means a public or private right-of-way which affords the primary means of access to abutting property.

JJJ. *Street, collector*, means a street which collects traffic from minor streets and serves as the most direct route to a major street or a community facility.

KKK. *Street, cul-de-sac*, means a minor street having one end open to vehicular traffic and having one closed end.

LLL. *Street, frontage or service*, means a street auxiliary to and located on the side of a major street for service to abutting properties and adjacent areas and for control of access.

MMM. *Street, major*, means a freeway, principal arterial, or minor arterial designated on the Comprehensive Plan.

NNN. *Street, minor, or local*, means a street whose primary purpose is to provide access to adjacent properties, and which is designed so that its use by arterial traffic will be discouraged.

OOO. *Street, public*, means any preexisting county road heretofore annexed by the City and which forms a part of said City by reason of such annexation, or any street or road granted or dedicated to and accepted by the City.

PPP. *Subdivider* means any person, firm, partnership, corporation or other entity, acting as a unit subdividing or proposing to subdivide land as herein defined; also known as the Developer.

QQQ. *Subdivision* means the division or redivision of land into two or more lots, tracts, sites or parcels for the purpose of transfer of ownership or for development, or the dedication or vacation of a public or private right-of-way or easement.

RRR. *Substantial Improvement* - means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before start of construction of the improvement

SSS. *Townhouse* - One of a series of three (3) or more attached dwelling units, separated from one another by continuous, vertical common walls without openings from basement floor to the roof deck and which are intended to have ownership transferred in conjunction with a platted lot.

ARTICLE II. - GENERAL PROCEDURES

Sec. 46-13 Land Development and Building Permits

- A. All development of land within the City Limits of Chickasha or development on land owned by the City of Chickasha or on land otherwise under the legal jurisdiction of the City of Chickasha shall be subject to the provisions of this LDC. All persons who intend development of any land within the City Limits of Chickasha or on land owned by the City of Chickasha or on land otherwise under the legal jurisdiction of the City of Chickasha shall submit all documentation required by this Chapter, unless granted a waiver thereof from the Community Development Director.
- B. Building Permit Application and Permit Issuance regulations and procedures shall be as prescribed in Chapter 10 of City Code. No building permit shall be issued for the construction or erection of any building or structure on any tract of land which does not comply with this LDC.

Sec. 46-14 Land Subdivision General Procedure

A. *General*

Whenever any subdivision of land is proposed, before any contract is made for the sale of any part of the land and/or before any permit for the erection of a structure in such proposed subdivision shall be granted, the owner of the land or his agent shall apply for and secure the approval of the Final Plat by the Planning Commission and City Council. The proposed subdivision shall conform to the general procedure described as follows:

1. Planning Commission and City Council approval of Preliminary Plat.
2. Planning Commission approval of Final Plat.
3. Planning Commission and City Council approval of Construction drawings.
4. Posting of Maintenance Bonds, inspection fees and construction of improvements.
5. City Council acceptance of improvements and approval of Final Plat.
6. Filing of the Final Plat.

B. *Plat approval.* For all cases of subdividing within the scope of these regulations, a plat of the land in question, or an easement with a description in writing where appropriate, shall be drawn and submitted to the Planning commission and City Council for their approval or rejection, as provided hereafter in these regulations. The subdividing process shall consist of the following procedures:

1. Preliminary and subsequent final platting is required for the following types of land subdivision:
 - a. The division of unplatted land within any residential, commercial, or industrial zoning district resulting in two or more tracts, lots or parcels.
 - b. The subdivision of unplatted land within the A-1 or A-2 zoning district resulting in five or more tracts, lot or parcels, any part of which, when subdivided contains less than ten acres in area.
2. A Short Form Plat is required for the division of unplatted land for the conveyance of a single tract, lot or parcel. The simplified plat requirements are the same as described in Section 46-19.
3. A Short Form Plat is required for the division of unplatted land in the A-1 zoning district into three or fewer parcels, as described in Section 46-19.

4. *Filing fee.* To defray partially the costs of notification and administration procedures there shall be paid to the Clerk at the time of submission of the Preliminary and Final Plats a fee in the amount as set by the City Council by motion or resolution.
5. *Agenda.* Each plat submitted for preliminary or final approval shall be placed on the agenda of the Planning commission only after fulfilling the appropriate requirements of these regulations.
6. *Official recording.* No plat or other land subdivision instrument shall be filed in the office of the County Clerk until it shall have been approved by the Planning commission and by the City Council as hereinafter set forth. Before recording the Final Plat, digital as-built drawings shall be submitted to the Community development department in GIS shapefile format. All Final Plats shall be filed within two years of date of approval by the Planning commission and City Council, and no lots shall be sold from any plat until recorded. Failure to record the plat within two years of the date of the City Council action shall void all approvals thereto.
7. *Exemption.* Plats containing three lots or fewer may be exempted from the provisions of all or part of procedural provisions of this Chapter upon written approval of the Community Development Director; provided, however, that all other provisions of these regulations, including those relating to design and improvements, shall be complied with, as set forth in Section 46-19.
8. *Data required.* To assist in incorporating plats into the City's GIS mapping system plats must be provided in GIS shapefile format.
- C. *Compliance to this Code.* No Subdivider shall subdivide any tract of land that is located within the city or within its exclusive extraterritorial jurisdiction, except in conformity with the provisions of this Chapter.
- D. *Compliance to other codes.* All subdivisions and development shall comply with other adopted codes whether specified herein or not, including, but not limited to, the City zoning ordinances.
- E. *Penalty for violation.* Any person, firm or corporation who shall violate any of the provisions of this Chapter or who shall fail to comply with any provision hereof shall be guilty of a misdemeanor and, upon conviction, shall be subject to a fine as allowable by state law, and each day that such violation continues shall constitute a separate offense and shall be punishable accordingly. Prosecution or conviction under this provision shall never be a bar to any other remedy or relief for violations of this Chapter.
- F. *Improvements required.*
 1. The Subdivider shall furnish, extend, install and/or construct all infrastructure, including, but not limited to, the water and sanitary sewer systems and the street and drainage facilities necessary for the proper development of the subdivision. All such facilities shall be designed and constructed in accordance with the design standards referenced as part of this Chapter, and other standards, specifications and drawings as may be hereafter adopted, approved by the City Council and placed on file in the office of the City Clerk.
 2. Where considered necessary by the City Engineer and/or Community Development Director the facilities shall be sized in excess of that dictated by the design standards

to provide for future growth and expansion and will conform to the water and sewer extension policy.

G. Variances and exceptions

Whenever the tract to be subdivided is of such unusual size or shape or is surrounded by such development or unusual conditions that the strict application of the design requirements contained in these regulations would result in real difficulties and substantial hardships or injustices, the Developer shall submit written justification and proof of such condition. The Board of Adjustment may vary or modify such design standards so that the Developer is allowed to develop his property in a reasonable manner but so, at the same time, the public welfare and interests of the City are protected, and the general intent of these regulations are preserved. Such variances may be granted only by the affirmative vote of a majority of the members of the Board of Adjustment.

Sec. 46-15 Preliminary Plat

A. General Requirements

1. *Purpose.* The purpose of the Preliminary Plat is to provide early illustration of the nature of a proposed subdivision. This step in the process occurs prior to the preparation of detailed drawings of construction details in order that conflicts with surrounding lands, community plans or other factors might be avoided at an early time. Discussion of intentions or anticipated development approaches with the staff is welcomed and encouraged at any time, including prior to the actual preparation of a Preliminary Plat.
2. *Submittal.* The Subdivider shall prepare a Preliminary Plat for submission to the Planning commission. Three (3) paper copies of the Preliminary Plat shall be submitted to the office of the secretary of the Community Development Director not less than 28 days prior to the meeting at which it is to be considered. Additionally, one copy shall be provided in portable document format (pdf) via e-mail or shared link to the Community Development Director not less than 28 days prior to the meeting at which it is to be considered.
3. *Code compliance.* The Preliminary Plat must comply with all City Codes and ordinances.

B. Application Conference

1. *Purpose.* A Preliminary Plat application conference may be requested by the Developer or the Community Development Director. The purpose of the application conference is to give the Developer an opportunity to:
 - a. Discuss the proposed development with the Public Works Director, the Community Development Director and the City Engineer;
 - b. Obtain copies of all forms, publications, design criteria, and standards available from the city; and
 - c. Determine whether the current zoning is appropriate for the proposed development or if rezoning may be required.
2. *Conference to streamline process.* The plan submittal and the conference provide an opportunity for the Developer and the City to communicate and streamline the platting process.

3. *Submittal.* The submittal for the application conference shall be the same as the Preliminary Plat application.

C. Application

The Subdivider shall submit with the Preliminary Plat an executed copy of the application on the form provided by the Community Development Department, along with all required fees.

D. Contents Of Preliminary Plat

1. Completed application and checklist on the appropriate form furnished by the Community Development Department;
2. A nonrefundable application fee;
3. *General.* The Preliminary Plat shall be drawn at a scale of not less than 100 feet to one inch and shall contain or be accompanied by the following information:
 - a. The scale, north point, and date;
 - b. The proposed name of the subdivision;
 - c. The name and address of owner of record, the Subdivider and of the registered engineer and registered land surveyor;
 - d. A key map showing the location of the proposed subdivision referenced to existing or proposed major streets and to government section lines, and including the direction and number of acres of the drainage area of which the proposed subdivision is a part;
 - e. The names, with location of intersecting boundary lines, of adjoining subdivisions and the location of city limits, if falling within or immediately adjoining the tract;
 - f. Proposed street names.
 - g. Proposed addresses.
 - h. The total area of each lot, listed in square feet.
 - i. The land contours with vertical intervals not greater than two feet referenced to NAVD88;
 - j. The location of existing buildings, water, watercourses, and the location of dedicated streets at the point where they adjoin or are immediately adjacent to the subdivision; provided, however, that actual measured distances shall not be required;
 - k. The length of the boundaries of the tract, measured to the nearest one-hundredth of one foot, and the proposed location and width of streets, alleys, easements and setback lines and the approximate lot dimensions. All surveys and survey data shall comply with the requirements of the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors.
 - l. The location, approximate size and type of sanitary and storm sewers, water mains, culverts, power and natural gas lines and other surface and subsurface structures and pipelines existing within or immediately adjacent to the proposed subdivision; and the location, layout, type and proposed size of the following structures and utilities:
 - i. Water mains;
 - ii. Sanitary sewer mains, submains and laterals;
 - iii. Storm sewers, culverts and drainage structures; and

- iv. Street improvements
 - m. The location of all drainage channels and subsurface drainage structures, and the proposed method of disposing of all runoff from the proposed subdivision, and the location and size of all drainage easements relating thereto, whether they are located within or outside of the proposed plat;
 - n. The following items associated with oil or gas drilling or producing operations and existing within 200 feet of the subdivision boundaries:
 - i. Location and dimensions of the drilling and/or production site including walls, structures, tank batteries, and oil, gas or water lines.
 - ii. Location and dimension of all existing vehicular entrances, exits and drives.
 - iii. Location and size of all existing mud pits
 - o. The classification of every street easement or right-of-way within or adjacent to the subdivision in accordance with the intended use of the street based on the proposed design. This shall be done by placing the appropriate term:
 - i. Arterial;
 - ii. Collector;
 - iii. Residential collector;
 - iv. Residential local; and
 - p. A title block which shall include:
 - i. Name of the subdivision.
 - ii. Name and seal of the engineer of record or registered surveyor.
 - iii. Scale.
 - iv. Date of the drawing.
- E. *Planning Commission Action, Preliminary Plat Method of Approval*
1. *Planning commission.* The Planning Commission shall approve, reject, or table the Preliminary Plat within 45 days of the date of its submission by the applicant. Approval is subject to action of the City Council. If the Preliminary Plat is rejected, the reason for such action shall be recorded in the minutes of the commission meeting. (A copy of the minutes of the meeting shall be transmitted to the Subdivider.) The reasons for rejection shall refer specifically to those parts of the Comprehensive Plan, general plan, land use plan, or specific regulations with which the Preliminary Plat does not conform. The Subdivider may submit a revised Preliminary Plat addressing the reasons for rejection by the Planning Commission. An action to table the Preliminary Plat may be taken to permit revisions to the plat by the Subdivider. Unless stipulation for additional time is agreed to by the Subdivider, if no action is taken by the Planning commission at the end of 45 days after submission, the plat shall be deemed to have been approved subject to action by the City Council.
 2. *City Council.* The City Council shall approve, reject, or table the Preliminary Plat as it may elect. If the Preliminary Plat is approved by the Planning Commission and the City Council, the Subdivider may proceed with the preparation of Construction Drawings and with the preparation of a Final Plat. In all other cases the development of the subdivision may not proceed unless and until a Preliminary Plat is submitted and receives approval from the Planning Commission and the City Council.

Sec. 46-16 Construction Documents

A. *General.* Construction Documents shall include the following:

1. All improvements shall be designed in accordance with the design standards referenced as part of this Chapter.
2. Three (3) paper copies of complete construction drawings, specifications, engineering calculations and detailed cost projections for streets, drainage, sanitary sewers, water distribution, and any other improvements to be constructed shall be submitted to the Community Development Director. In addition, one portable document format (pdf) copy via e-mail or shared link to the Community Development Director. Construction drawings must be 100 percent complete at the time of submittal. Any incomplete sets of construction drawings shall be returned and unreviewed.
3. The construction drawing paper copies shall be submitted on standard 24-inch by 36-inch sheets.
4. Each sheet of the construction drawings shall contain a title block, including space for the notation of revisions. This space is to be completed with each revision to the plan sheet and shall clearly note the nature of the revision and the date that the revision was made. This title block shall be located at the lower left hand corner of each sheet submitted.
5. Each sheet of the construction drawings shall include north arrow, scale, date, and benchmark description to sea level datum.
6. The specifications and each construction drawing sheet shall bear the seal and signature of the licensed professional engineer who prepared the drawings.
7. Drainage studies and drainage plans are required to demonstrate compliance with this Code and the city drainage standards and shall be submitted as part of the Construction Documents.
8. A separate document or report entitled "Engineering Design Summary" may be required as directed by the City Engineer and/or Community Development Director and included with the submittal of the construction drawings and specifications. It shall summarize calculations and other such engineering information pertaining to the major items of design. It shall be used during the review to determine whether the facilities proposed for construction have been designed in accordance with the intent of the design standards.

B. *Paving plans.* The construction drawings, at a minimum, shall include a plan and profile of each street with stationing, top of curb grades, if applicable, or street centerline, drainage ditch flowline and existing and proposed ground lines. The typical cross section of proposed streets shall show the width of roadway, pavement type and location and width of sidewalk.

C. *Sanitary sewer and water plans.* The construction drawings, at a minimum, shall include a plan and profile of proposed sanitary sewers with stationing, grades, pipe sizes, and materials indicated and showing locations of manholes, cleanouts, etc., and a plan of the proposed water distribution system showing pipe sizes and location of valves, fire hydrants and fittings, etc. Construction details shall be included with the construction drawings, if the Developer proposes details not complying with City Standards, along with a letter listing the proposed details and the reason(s) for such details.

- D. *Storm drainage plan.* The construction drawings shall include stormwater detention plans and erosion control plans, and shall include the following:
1. The construction drawings shall include a general location map of the subdivision showing the entire watershed (a U.S.G.S. quadrangle is satisfactory) and the limits of all on-site and off-site stormwater draining to the project.
 2. The construction drawings shall include calculations showing the anticipated stormwater flow, including watershed area, percent runoff, runoff factors, storm intensity and time of concentrations showing basis for design.
 3. The construction drawings shall include a plan and profile of proposed storm sewers or channels, showing stationing, hydraulic data, pipe grades, sizes and materials, manholes, inlets, pipe connections, outlet structures, etc.
 4. The construction drawings shall include a detailed plan for any bridges, culverts, catchbasins, any other drainage structures or any other improvements to be made and shall include all of the following:
 - a. The open channel or storm drain grades, design flow, design velocity, capacity and hydraulic grade line;
 - b. A plan and profile of all culverts under any street with the design flow of water, headwater, and tailwater depth and tail water capacity;
 - c. The size of all driveway culverts to carry the design flow of water at each point of installation;
 - d. Typical ditch sections and the width of any right-of-way or easement needed;
 - e. A summary sheet of all drainage facilities;
 - f. The seal and signature, prominently displayed on each sheet, of the licensed professional engineer responsible for the design.

Sec. 46-17 Final Plat

A. General Requirements

1. *Purpose.* The purpose of the Final Plat is to create a recorded document which accurately describes the subdivision of land, both as to accurate dimensions, and as to legal provisions which are pertinent to the subdivision. Much of the reason for this step is to make the transfer of the land simpler and more certain. Land sales by reference to a legally filed plat are generally less complicated and more likely to provide the precise legal situation sought. The certainty of such sales derives from the assurance of an accurate survey and processes designed to ensure the provision of facilities necessary to service the land.
2. *Submittal.* Two (2) mylar copies and one (1) paper copy, 24-inch by 36-inch in size and one portable document format (pdf) of the Final Plat shall be submitted to the office of the Community Development Director not less than 28 days before the Planning commission meeting at which it is to be considered for final approval. At the same time, there shall be submitted three sets of the proposed drawings and specifications for all improvements and the proposed restrictions in final form; provided, however, that the Final Plat may be approved subject to later submission of final improvement drawings and specifications.

3. *Impact fees.* All required impact fees shall be collected as set forth in the City Codes and ordinances.
 4. *Code compliance.* The Final Plat shall comply with all City Codes and ordinances.
 5. *Control network.* All drawings shall be submitted in NAD 1983 Oklahoma State Plane South, US feet coordinates.
 6. The plat shall contain a clearly visible statement that the filling or obstruction of drainage channels and other conveyances within the floodplain and drainage easements shall be prohibited.
 7. Submittal of all fees required by the latest approved City of Chickasha Fee Schedule shall accompany the Final Plat.
- B. Contents of the Final Plat
1. Completed application and checklist on the appropriate form furnished by development services department;
 2. A nonrefundable application fee;
 3. Complete GIS shapefiles for inclusion in GIS system;
 4. Three (3) paper copies of the plat map, 24-inch by 36-inch in size, drawn at a scale of 50 or 100 feet to one inch;
 5. The area of each lot, outlot, and public ground in square feet rounded to the nearest square foot and in table format on the map, or in a separate document if necessitated by space limitations on the map.
- C. The Final Plat shall show the following:
1. The scale, north point and date.
 2. Title, including:
 3. The name of subdivision with phase and section number. Amended Final Plats that have been previously approved shall have the phrase "replat of" before the subdivision name along with a description of the portion of the original plat being re-platted.
 4. The name of city, county, and state.
 5. The location of the subdivision referenced to section, range, and township.
 6. The location and description of all section corners and permanent survey monuments in or near the tract to at least two of which the subdivision shall be referenced. Reference, based upon State Plane Oklahoma North with NAD83 datum, may be by separate digital submission once Final Plat is ready for recording.
 7. The length of all required lines dimensioned in feet and decimals thereof, and the value of all required true bearings dimensioned in degrees, minutes and seconds as hereafter specified.
 8. The boundary lines of the land being subdivided and the location of all subdivisions, and rights-of-way, immediately adjacent to the perimeter of the subdivision.
 9. The lines of all proposed rights-of-way and easements fully dimensioned by lengths and bearings.

10. All curves including rights-of-way and property lines shall be labeled with a number or alphabetical letter. The curve data labeled with matching numbers or alphabetical letters shall be shown on the plat in tabular form.
11. The full name of all proposed streets as defined in Section 46-24.
12. The centerline and width of all rights-of-way.
13. The lines of all proposed lots fully dimensioned by lengths and bearings, except where a lot line is parallel with a block line, the bearing may be omitted.
14. The lines of all proposed outlots or public grounds fully dimensioned by lengths and bearings. Public grounds shall be labeled as such. Outlots shall be labeled with the word "Outlot" followed by a consecutive lettering system starting with the letter A.
15. The blocks numbered consecutively throughout the entire subdivision and the lots numbered consecutively throughout each block.
16. The location, width, and purpose (i.e., drainage, utility, pedestrian, etc.) of all proposed easements with dimensions to be dedicated with the plat.
17. Statement dedicating any right-of-way, easements, or land to be used for streets, alleys, ways, commons or other public areas to the "City of Chickasha, Oklahoma, a municipal corporation," in accordance with 11 O.S. § 41-109.
18. Signature blocks containing the following shall be included on the approved Final Plat prior to filing with the County Clerk:
 - i. Signed owner's certificate and dedication.
 - ii. Licensed professional engineer or registered land surveyor's certificate signed and sealed.
 - iii. Certificate for release of mortgage for any portion dedicated to the public.
 - iv. Certification of Planning commission approval.
 - v. Certification of City Council approval.
 - vi. County treasurer certificate

D. Action by Planning commission

1. It shall be the duty of the Planning commission to act upon the Final Plat within 45 days after the Final Plat application has been made and submitted for final approval. This approval and the date thereof shall be shown on the plat over the signature of the Planning commission chairperson or secretary-member. Unless stipulation for additional time is agreed to by the Subdivider, and if no action is taken by the Planning commission at the end of 45 days after submission, the plat shall be deemed to have been approved. If the Final Plat is rejected, grounds for this rejection shall be stated in writing, a copy of which shall be transmitted to the applicant. The reasons for rejection shall refer specifically to those parts of the Comprehensive Plan or ordinance or regulation with which the plat does not comply.
2. A Final Plat approved by the Planning Commission shall be transmitted to the City Council with the report and recommendations of the Planning commission within 30 days of the Planning commission action for hearing before and City Council action thereon.
3. A Final Plat rejected by the Planning commission shall not be considered further unless the applicant, within 15 days of the action by the Planning commission, shall

file an appeal in writing with the City Clerk and the Community Development Director for a public hearing before the City Council.

E. Approval and Acceptance by City Council

Before recording the Final Plat, it shall be submitted to the City Council for and approval of the Final Plat and acceptance of public ways and service and utility easements and land dedicated to the public use. This approval of the Final Plat shall be shown over the signature of the Mayor and attested by the City Clerk. The rejection of any plat or plan by the City Council shall be deemed a refusal of the proposed dedication shown thereon.

Sec. 46-18 Replats, Amending Plats, Correcting Plats and Plat Vacation

A. General

1. *Replats required.* A replat is required for property in which there has been a change in lot allocation, dedicated infrastructure or easements.
2. *Requirement waived.* The Community Development Director may waive this requirement if the replat involves minor changes.
3. *Certified copies required.* Certified copies of the entire subdivision and deed restrictions shall accompany replats.
4. *Subject to Final Plat requirements.* Replats are subject to the same requirements as Final Plats and shall contain the information required by this Article.

B. Application

Application procedure shall be that of the Final Plat and shall contain information required by this Article.

C. Correction of errors in plats

All plat vacation requests shall comply with the provisions of 11 O.S. § 42-101 et seq.

D. *Plat* vacation.

All plat vacation requests shall comply with the provisions of 11 O.S. § 42-101 et seq.

Sec. 46-19 Exceptions to platting procedures

A. These regulations shall not apply to the sale of land by metes and bounds in tracts of more than five (5) acres.

B. Short Form Subdivision

Whenever a tract or previously subdivided parcel under single ownership is to be re-subdivided into three (3) or fewer lots, the proposed subdivision may be exempt from the procedural provisions of these regulations, and the requirement for a Preliminary and a Final Plat may be waived. Such a subdivision of tract, parcel or lot shall be defined as a Short Form Subdivision under the following conditions.

1. Purpose and Intent

- a. The purpose of the Short Form Subdivision process is not to allow extensive subdividing and/or re-subdividing of large tracts, parcels or lots. When a Short Form Subdivision shows one or more tracts, lots or parcels containing more than one acre of land and there are indications that such tracts, lots or parcels will eventually be re-subdivided or extensive improvements are required, the Director and/or Planning Commission may require the applicant to submit a Preliminary and

Final Plat. In such a case, platting procedures and requirements shall be followed as specified by these regulations.

- b. The classification of a subdivision as Short Form Subdivision shall not be construed as a waiver of any requirement of these regulations nor the provisions of any other ordinance or statute pertaining to the property.

2. Short Form Subdivision Application Procedures

Application for Short Form Subdivision approval shall be filed with the Director. The application shall consist of:

- a. A deed(s) on each tract with legal description to be approved.
- b. A certified survey, prepared by a land surveyor registered in the State of Oklahoma, shall be submitted on the proposed tract and the re-subdivision thereof. The survey shall show the following:
 - i. Each new tract being formed shall be labeled "Tract A, Tract B, and/or Tract C";
 - ii. The legal description of the original tract of land and each new tract being created by the subdivision;
 - iii. Scale, north point, and date;
 - iv. Name and address of the owner of record;
 - v. Key map showing the location of the reference to existing and proposed major streets and governmental section lines;
 - vi. Location of existing buildings and dedicated streets at the point where they adjoin and/or are immediately adjacent to the subdivision;
 - vii. Length of boundaries of the tracts created measured to the nearest hundredth foot and proposed location and width of streets, alleys, and easements and building setback lines where applicable;
 - viii. Original signature and seal of the registered land surveyor preparing the plat of survey properly notarized.
- c. Copy of the original deed showing the legal description of the tract, site or parcel as a short form subdivision;
- d. Deeds of tracts, parcels or lots bordering the proposed Short Form Subdivision if deemed necessary by the Director;
- e. All instruments for the dedication of required public easements and rights-of-way shall be submitted. This shall mean, in cases where private easements are required, that the applicant must submit certified copies of the instrument(s) filed of record with the appropriate County Clerk;
- f. Percolation test results approved by the Health Department and/or the Department of Environmental Quality, if applicable;
- g. A filing fee in the amount listed in the latest approved City of Chickasha Fee Schedule shall accompany the Short Form Subdivision application. The filing fee is not refundable.

3. Short Form Subdivision Review Procedure

The Director and City staff shall review the proposed Short Form Subdivision to ensure compliance with all design and improvement requirements of these regulations. The

Director may submit the application for review and comment to other agencies and/or City Departments, as he/she deems necessary.

4. Short Form Subdivision Approval Procedure

a. Staff level approval

- i. For Short Form Subdivisions of lots, blocks or parcels approved for Commercial, Industrial, or high density Multiple Family Residential land uses in an approved Planned Unit Development, approval may be granted at staff level under the following conditions:
 1. All other requirements of this Section are met.
 2. The proposed Short Form Subdivision is in substantial conformance with the approved PUD Master Development Plan Map. Substantial conformance shall be determined by the Director and based on the provisions set forth in these regulations
- ii. If items "1" and "2" of the above paragraph are not met, the Director may require the applicant to submit a Preliminary and Final Plat and/or a revised Planned Unit Development application to be reviewed and approved by the Planning Commission and City Council.
- iii. After review of the application and within ten (10) working days of the official date of application, the Director shall approve or not approve the application for Short Form Subdivision and shall notify the applicant of the decision. The applicant may waive this requirement and consent to an extension of said period. If the application is approved, each deed shall be certified by the Director as the designated representative of the Planning Commission. If the application is denied, the Director shall inform the applicant of reasons for denial and shall advise him/her on appropriate alternate procedures.

b. Planning Commission Approval

- i. In all cases where staff level approval is not allowed, the Director or his/her designee shall prepare a written report thereon which shall be forwarded to the Planning Commission not more than twenty-one (21) days after receipt of the Short Form Subdivision application for consideration at the next regular meeting of the Planning Commission.
- ii. Upon approval by the Planning Commission, each deed shall be certified by the signature of the Chairman or his/her designee. If the application was denied, the reasons for denial shall be stated in writing with references made to the express provision of the regulations to which the proposed Short Form Subdivision does not conform and shall be transmitted to the applicant.
- iii. Whenever a deviation is required from the improvement requirements contained herein or an easement or other element is dedicated, the action of the Planning Commission shall be forwarded to the City Council for its approval and acceptance of dedications. For all the other types of Short Form Subdivision applications the action of the Planning Commission is final.

5. Improvements Required

- a. All current subdivision regulations shall be complied with including all ordinances and regulations relating to the improvement of street, the installation of water, sewer and drainage facilities and the dedication of required easements.
 - i. The extension and/or installation of sanitary sewer facilities shall be required as prescribed by these regulations. If a subdivided tract, parcel or lot is proposed to utilize an individual sewage disposal system, the following conditions shall apply:
 - 1. Percolation test results for each tract affected approved by ODEQ shall be submitted with the Short Form Subdivision application.
 - 2. The individual sewage disposal system shall be installed and inspected in accordance with ODEQ and the City of Chickasha requirements.
 - 3. Minimum lot size shall be:
 - 4. Lots with water wells and septic tanks - two- (2) acres.
 - 5. Lots with septic tanks only - one (1) acre.
 - 6. All requirements of "Septic Tank and Subsurface Tile Systems", Bulletin No.600, Oklahoma State Department of Health, as currently adopted or subsequently amended shall be met.
 - 7. The width of the lot at the front building line shall not be less than one hundred (100) feet.
 - 8. The location of any tract can be no closer than 330' from the closest sanitary sewer line.
 - ii. The extension of and/or installation of water facilities shall be required to serve this tract, parcel or lot as specified by the regulations. If a private water well is utilized, the following conditions shall apply:
 - 1. Approval of water well drilling by OWRB and/or ODEQ must be secured.
 - 2. The tract, parcel or lot must meet the location criteria and OWRB and/or ODEQ requirements if water well and septic tank are both used.
 - b. In all cases where sanitary sewer and/or public water facilities are not available and the extension of such facilities is not required, the deed(s) submitted for approval shall have affixed to its face: "Not served by public sewer and/or water".
 - c. If approval of the Short Form Subdivision is conditional upon the extension and/or installation of any public improvements, upon Short Form Subdivision approval by the Planning Commission and acceptance by the City Council, if appropriate, the applicant shall prepare and submit to the appropriate department improvement plans. All improvement plans shall be prepared in accordance with these regulations and any other applicable laws of the United States, State of Oklahoma and ordinances of the City of Chickasha. Assurance of completion of said improvements shall be made in accordance with the assurances for completion of improvements section of these regulations. Construction drawings and the assurance of completion shall be submitted prior to any building permit being issued for any lot created using the Short Form Subdivision procedure.
- C. Deed Approval at Staff Level
- Subdivision of land shall be classified as a deed approval under the following conditions:

1. No additional tract, parcel or lot shall be created by any deed approval. Deed approval shall include:
 - a. Deed(s) resulting from the adjustment of lot lines in an approved plat.
 - b. Pre-existing or otherwise exempt deed(s) as defined.
2. No dedication or abandonment of public rights-of-way and/or easements is involved, included in, or required by, the deed approval.
3. These regulations and all other applicable ordinances and statutes are satisfied without the construction of streets, water facilities, storm drainage facilities or other improvements except as necessary to directly serve the created lots and to provide a direct connection to an existing and approved system.
4. Purpose and Intent

It is the intent of this provision to limit this classification and procedure to those cases where the improvements required by these regulations have been provided and all such improvement requirements, except for the extension of service to individual lots, have been satisfied under applicable sections of these regulations.

 - a. The classification of a subdivision as a deed approval procedure shall not be construed as a waiver of any requirements of these regulations nor the provisions of any other ordinance or other statute pertaining to the property.
 - b. Staff Level Deed Approval Procedure

Application for deed approval review shall be filed with the Director. The application shall consist of the following:

 - i. The deed with legal description to be approved. In the case of a lot line adjustment, all deeds affected shall be submitted for approval concurrently.
 - ii. Copy of original deed(s).
 - iii. A certified survey, prepared by a land surveyor, registered in the State of Oklahoma showing the following:
 1. The legal description of the subject tract;
 2. Scale, north arrow and date;
 3. Name and address of owner of record;
 4. Key map showing the location of the subject tract, parcel or lot referenced to existing and proposed major streets and government section lines;
 5. Location of existing structures, dedicated and/or private streets where they adjoin and/or are immediately adjacent to the lot adjustment, showing widths where applicable;
 6. Easements and location of public utilities to serve the tract, parcel or lot showing widths where applicable;
 7. Original signature and seal of the registered land surveyor preparing the plat of survey properly notarized.
 8. Certification of Flood Plain compliance by a registered land surveyor, if applicable;
 - iv. Deed of tracts or lots bordering the proposed deed approval if deemed necessary by the Director.

- v. A filing fee in the amount listed in the latest approved City of Chickasha Fee Schedule shall accompany each deed submitted for deed approval application. The filing fee is not refundable.
 - c. The Director shall review the application and may submit it for review and comment to other agencies and/or departments as he/she deems necessary. Within ten (10) working days of the official date of application, the Director shall approve or not approve the application for deed approval and shall notify the applicant of the decision. The applicant may waive this requirement and consent to an extension of said period. If the application is not approved by the Director, the applicant may apply to the Planning Commission for a public hearing following the same procedures as a Short Form Subdivision.
5. Deed Approval for Lot Line Adjustment
- The purpose of this form of deed approval is to allow adjustments to be made to lot lines of platted lots for the purpose of adjusting the size of a building site(s); however extensive re-platting shall not be accomplished by use of this Section.
- a. Exceptions to these regulations designated as deed approval lot line adjustment shall not violate any of the provisions of these regulations as to requirements for design improvements and shall constitute only procedural exceptions as herein stated.
 - b. In addition to the criteria found in Section 30.2 of these regulations, the approval of any lot line adjustment shall not result in the creation of any lot which is unusable or does not meet the requirements of these regulations or any ordinance of the Chickasha Municipal Code.
 - c. All lots affected shall be submitted for approval concurrently.
 - d. An application and filing fee shall accompany each deed submitted for approval.
6. Other-Deeds Eligible for Staff Level Approval
- The Director has the authority to approve deeds under the following conditions:
- a. Pre-existing deeds: The property conveyed by the deed submitted for review existed in its present configuration prior to its annexation to the City or prior to the adoption of the Subdivision Regulations.
 - b. Exempted Deeds
 - i. The configuration of the property to be conveyed was created by court decree or by an action of other governmental authority. Documentation of such court decree or governmental action shall be required.
 - ii. The property to be conveyed is bounded on all sides by properties which have previously received deed approval by the Planning Commission or by the Director. Documentation of such shall be required.
 - iii. The deed submitted is exempted from the requirements of Planning Commission approval by a provision of State Law. Documentation of such shall be required.
 - c. Other Deeds: The property to be conveyed is located within a non-complying subdivision or other area of the City for which specific guidelines, governing development and/or redevelopment have been adopted by the Planning Commission. Said property shall be in full compliance with the same. A deed

conveying property in a subdivision which is found to be nonconforming because of ordinance or regulation changes will be considered to be a preexisting deed and may be approved administratively so long as the subdivision was in conformance with the ordinances and regulations in force at the time of its creation.

7. Force of Approval

Once the initial deed or any subsequent deed has been approved through the deed approval process either by Short Form Subdivision, lot line adjustment or exemption by the Planning Commission or Director, such approval relates back to the original approved legal description and covers all future conveyances using the same legal description.

8. Limits of Authority

No further delegations of the Planning Commission's authority for the approval of deeds are hereby granted or implied. The Director is hereby authorized by the Planning Commission to sign or stamp approval on the face of those deeds receiving approval by any manner of the deed approval process. Nothing in this Chapter shall prevent the applicant from requesting a public hearing before the Planning Commission.

ARTICLE III. – DESIGN

Sec. 46-20 COMMUNITY DESIGN PRINCIPLES

A. Design purpose.

1. The quality of design of the urban area is dependent on the quality of design of the individual subdivisions that compose it. Good community design requires the coordination of the efforts of each Subdivider and Developer of land within the urban area. Therefore, the design of each subdivision shall be prepared in accordance with the principles established by the Comprehensive Plan for land use, circulations, community facilities and public utility services, and in accordance with the principles set down in this Article.
2. Minimum standards for development are contained in the zoning ordinance, the Building Code and in these regulations. However, the Comprehensive Plan expresses policies designed to achieve an optimum quality of development in the urban area. If only the minimum standards are followed, as expressed by the various ordinances regulating land development, a standardization of development will occur. This will produce a monotonous urban setting. Subdivision design should be a quality to carry out the purpose and spirit of the policies expressed in the Comprehensive Plan and in these regulations and to permit the maximum exercises of initiative by the Developer rather than be limited to the minimum standards required herein.

B. Neighborhood development principles

1. It is intended that the urban area shall be designed as a group of integrated residential neighborhoods and appropriate commercial and industrial and public facilities. The neighborhood, as a *planning unit*, is intended as an area principally for residential use, and of a size that can be served by one elementary school. Locations of religious,

recreational, educational and shopping facilities that will serve the residents of the neighborhood should be considered in the design of each neighborhood.

2. The size of lots and blocks and other areas for residential, commercial, industrial and public uses should be designed to provide adequate light, air, open space, landscaping and off-street parking and loading facilities.
3. The arrangement of lots and blocks and the street system should be designed to make the most advantageous use of topography and natural physical features. Methods for preservation of tree masses and large individual trees shall be presented by the Subdivider or his subcontractor to the Commission. Environmentally sensitive areas shall be identified and made the subject of special requirements in the platting process. The system of sidewalks and roadways and the lot layout should be designed to take advantage of the visual qualities of the area.

C. Circulation

1. Circulation within the urban area shall be provided in accordance with the design criteria in this Section.
2. Each subdivision shall provide for the continuation of all arterial streets and highways as shown in the Comprehensive Plan.
3. Local streets shall be designed to provide access to each parcel of land within the residential neighborhoods and within industrial areas, and in a manner that will discourage use by through traffic. They shall be planned so that future growth will not require the conversion of local streets to collector or arterial traffic functions. Ingress and egress to residential properties shall be provided only on local streets.
4. Collector streets shall be designed to provide a direct route from local streets to the arterial streets and highways. Because collector streets are not designed in detail as a part of the Comprehensive Plan it is necessary to set down guidelines in these regulations as to how they will be developed. In order that the collector streets be able to function for their major purpose, the collection of traffic, they must be designed in accordance with the following principles:
 - a. Collector streets must handle a volume of movements ranging between two thousand four hundred (2,400) and eight thousand (8,000) average daily traffic. Because of this special function, these regulations require that the classifications of local and collector streets be designated on the face of the Preliminary Plat and Final Plat;
 - b. To provide collection when this number of movement occurs (2,400), collector streets must be located in the neighborhood patterns so as to serve each area of approximately two hundred fifty (250) dwelling units, including those in future developments. In order to provide continuity to the arrangement of collector streets from one addition to another, the Commission and staff must be involved in the earliest stages of subdivision planning, the drawing of the Preliminary Plat; and
 - c. To accomplish the traffic collection function, collector streets shall be built thirty-two (32) feet wide (face-of-curb to face-of-curb). The rights-of-way for collector streets shall be sixty (60) feet wide.
5. Pedestrian ways should be separated from roadways used by vehicular traffic. In order to provide residential building areas with pedestrian access to all neighborhood

facilities, including elementary schools, parks, playgrounds, churches and shopping centers, sidewalks shall be installed along both sides of designated collector streets. Sidewalks shall be located one foot inside the street right-of-way unless other locations are approved by the Public Works Director on the basis of physical conditions, such as topography, existing trees, etc. Sidewalks shall be a minimum of four feet in width.

Sec. 46-21 Applicable Standards

Improvements within subdivisions must be installed and designed in accordance with the standards of this Chapter, and all other applicable requirements of this LDC and the following, as applicable:

- A. All applicable provisions of Oklahoma Statutes;
- B. The City's Building and Construction Codes;
- C. The intent of the Comprehensive Plan, Official Zoning Map, and Capital Improvements Program, including all streets, drainage systems, and parks shown on the Official Zoning Map or Comprehensive Plan, as adopted;
- D. Rules and regulations of the Department of Environmental Quality;
- E. Rules of other local and state agencies responsible for approving facilities and services, as applicable;
- F. The rules of the Oklahoma Department of Transportation where applicable and as specified herein; and
- G. The standards and regulations adopted by the Planning Commission and all boards, commissions and agencies of the City.

Sec. 46-22 Land Suitability.

- A. Land subject to flooding, improper drainage and erosion, and land deemed to be topographically unsuitable for residential or for any other uses as may continue such conditions or increase danger to health, safety, life or property unless approved steps are taken to diminish the above mentioned hazards may be set aside for uses as set out by the Planning Commission.

Sec. 46-23 *Access to Public Right-of-Way*. Every subdivision and lot, tract or parcel therein shall abut and be served by a publicly dedicated street or private street.

Sec. 46-24 Street Names and Addresses

The Planning Commission and City Council shall have the authority to determine the street names, subdivision names and numbers and to require changes in any proposed names. All proposed lots, consecutively numbered, their dimensions, building setback lines, and street addresses shall be designated on each residential plat. Such names and addresses may be subject to change by the City and should never be relied on in place of legal descriptions.

- A. The Developer shall be responsible for proposing Street Names and Addresses and shall submit same on the Preliminary Plat. Street Names and Addresses shall be subject to the approval of the Planning Commission.
 - 1. No street names shall be used which will duplicate or be confused with the names of existing streets.
 - 2. Streets that are obviously in alignment with other already existing streets shall bear the names or numbers of said existing streets.
 - 3. Addresses shall follow the procedure established by the Community Development Department.
- B. Street Name-Change Procedures. Proposed street name changes, whether or not the street is part of a recorded plat, shall be subject to the following review process:
 - 1. A legal advertisement for a public hearing by the City Council shall be published 7 days prior to the hearing.
 - 2. Notice of the proposed name change public hearing shall be mailed to the owners of property having access to, and an address on, the subject street. Said notice shall be mailed at least 10 days prior to the hearing.
 - 3. The proposed name shall not duplicate, or sound like, an existing street name within the service district of the local 911 office.
 - 4. The legal advertisement shall identify the beginning and terminus points of the name change along the street.
 - 5. The proposed Street Name Change shall be approved only if the City Council approves said name change by resolution, stating the date by which the name change becomes official.

Sec. 46-25 Street Design Standards

- A. *Conformity to comprehensive plan.* The arrangement, character, extent, width, grade and location of all streets shall conform to all of the elements of the Comprehensive Plan and shall be designed in accordance with the following provisions:
 - 1. All streets shall have 6" tall curbs and provide storm drainage as required by City Codes.
 - 2. All streets shall be contained in right-of-way as defined hereafter, unless otherwise approved by the Commission and the City Council.
 - 3. Major streets shall be planned to conform with the major street plan;
 - 4. Whenever a subdivision abuts or contains an existing or proposed major street, the Planning commission may require service streets, reverse frontage with screen planting contained in a nonaccess reservation along the rear property line, deep lots, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of arterial and local traffic;
 - 5. Where a subdivision borders on or contains a railroad right-of-way or limited access highway right-of-way the Planning commission may require a street approximately parallel to and on each side of such right-of-way at a distance suitable for the appropriate use of intervening land. Such distances also shall be determined with due

- regard for the requirements of approach grades and future grade separation structures;
6. Reserve strips controlling access to streets shall be prohibited except where their control is placed in the city under conditions approved by the Planning commission and acceptable to the Subdivider;
 7. Where the plat to be submitted includes only part of the tract owned or intended for development by the Subdivider, a tentative plan of a proposed future street system for the unsubdivided portion may be required by the Planning commission;
 8. Where a tract is subdivided into larger than normal building lots or parcels, such lots or parcels shall be arranged to permit the logical locations and opening of future streets and appropriate re-subdivision, with provision for adequate utility easements;
 9. Minor streets shall be laid out so that their use by through traffic will be discouraged;
- B. *Street widths.* Street right-of-way widths, grades, paving widths, horizontal and vertical alignments, and sight distances shall meet standards of Table 1, Design Standards for Chickasha City Streets. The paved width of all streets shall be adequate to serve the existing and future estimated traffic load for the facility and shall comply with these design standards.
1. No street centerline grade shall be less than five-tenths of a percent (0.5%). This minimum grade shall be maintained in all directions within intersections. Sag vertical curves shall be designed so that positive drainage is maintained along the gutter to the drainage collection point.
 2. Where two (2) collectors, local streets, or cul-de-sacs at any location or right-of-way meet at an angle between eighty (80) and one hundred (100) degrees at a dead end, a knuckle will be required in lieu of the one hundred (100) foot centerline radius requirement. See the Standard Drawings for knuckle dimensions.
 3. There shall be a tangent section of fifty (50) feet in length or as required by AASHTO between all reverse curves to provide for a smooth flow of traffic.
 4. Sight distance for vertical alignment shall be determined by measuring from a point four (4) feet above the roadway surface along a line of sight to a point four (4) inches above the roadway surface.
- C. The following special provisions shall apply:
1. Cul-de-sac: A cul-de-sac shall not exceed five hundred (500) feet in length, measured from the nearest street right-of-way line to the outer curb line of the cul-de-sac. A cul-de-sac shall be provided with a turnaround having a radius of not less than fifty (50) feet at the property line and not less than forty-two (42) feet at the curb line.
 2. When topography or ownership create a hardship, the Planning Commission may waive the 500' maximum cul-de-sac length, but in no case shall the cul-de-sac length be in excess of 1000'.
 3. Dead-end streets shall not be permitted except where they relate to the extension of the street in the development of adjoining land. Such temporary dead-end streets shall terminate with a turnaround, as described in subsection K of this Section, in an appropriate right-of-way.
- D. Design Standards for Intersections
1. Streets shall intersect at approximately right angles (90 degrees).

2. No more than two (2) streets shall intersect at anyone point unless specifically approved by the Planning Commission.
 3. Street jogs. Street jogs with centerline offsets of less than 200 feet shall be avoided.
 4. Street corners shall have a minimum radius of twenty-five (25) feet at the curb line. Street intersections involving major streets and highways shall have a minimum street corner radius of thirty (30) feet at the curb line.
 5. Alley intersections and abrupt changes in alignment within a block shall have the corners rounded to permit safe vehicular movement in accordance with Section 46-22 and standard engineering practice.
- E. Half streets shall be prohibited, except where essential to the reasonable development of the subdivision in conformity with the other requirements of these regulations, and provided that the Planning commission finds it will be practical to obtain the dedication of the other half of the street easement when the adjoining property is subdivided. Wherever a half street is adjacent to a tract to be subdivided, the other half of the street shall be constructed. The longitudinal joint shall be as shown on the Standard Drawings.
 - F. The arrangement of streets shall be such as to cause no undue hardship in the subdividing of adjacent properties. The Planning commission may require the dedication of street rights-of-way to facilitate the development of adjoining properties.
 - G. Driveways of a width sufficient for the parking of two (2) cars are encouraged where the function of the street renders curbside parking inadvisable.
 - H. Street signs shall be placed by the Developer in accordance with Section 46-45 of this Code.
 - I. Property lines at street intersections shall be rounded with a radius of twenty (20) feet or a greater radius where the Planning commission may deem it necessary. The Planning commission may permit comparable cutoffs or chords in place of rounded corners.
 - J. At least two (2) separate points of access to an arterial street shall be provided for each subdivision and/or neighborhood containing more than fifty (50) lots. The location of the access points shall be designed such that they meet the intent of providing separate access during emergency situations. Said access may be made through existing subdivision streets to the arterial streets. An all-weather road may be used as one of the access points provided it is approved by the City Engineer and the fire marshal. The all-weather road must have adequate base to support any fire equipment and emergency vehicles and must have oil and chip surface as a minimum. The easement for this road shall be dedicated on the record plat or granted to the City prior to the approval of the Final Plat by Council.

Sec. 46-26 Driveway Standards

A. Purpose of Section

It is the intent of these requirements to set forth standards and criteria for curb openings and driveways in order to:

1. Minimize hazards to pedestrians by reducing areas of possible conflict between pedestrians and vehicles and to define such areas;
2. Reduce hazards to vehicles by limiting areas of conflict between vehicles;

3. Increase the capacity of roads and intersections by reducing points of conflict between vehicles;
4. Ensure that vehicles diverge from and merge with the roadway traffic at a proper angle and in conformity with the rules of the road;
5. Provide sufficient space for the installation of traffic-control devices, utilities and crosswalks.

B. General requirements.

1. The requirements of this Article shall uniformly apply to all land within the city.
2. All driveways shall be permanently paved with hard-surfaced pavement. The requirement of hard-surfaced access driveways may be waived by the Public Works Director in areas not designated for urban development and in other areas if it is determined that the public convenience, health or safety is not adversely affected. However, all portions of access driveways on public rights-of-way, connected to paved streets for which the grade has been established, must be permanently paved with hard-surfaced pavement and comply with all City of Chickasha Codes relating to driveway construction. Permanent hard-surfaced pavement shall mean a surface covering over earth, gravel or other natural or artificial base or foundation, which shall meet or exceed the minimum standards listed herein.
3. Any new curb openings or driveways or any future additions or changes to existing curb openings or driveways shall comply with the requirements set forth herein and in other applicable sections of this Code.
4. Prior to making any curb opening or driveway an application shall be submitted to the Building Official. The application shall be accompanied by a plot plan fully dimensioned and drawn to scale, in duplicate, which shows the existing and proposed access, proposed surfacing, drainage and location of permanent structures and aboveground utilities. The application will also have, as an attachment, proof of ownership.
5. Once proper application is made, the plot plan and other supporting data shall be reviewed by the Public Works Director and Community Development Director. Upon completion of their respective reviews, they shall forward their recommendations to the Building Official for a final disposition. If approval is granted, the necessary permit will be issued upon payment of the required fees as set forth in the latest approved City of Chickasha Fee Schedule. No permits shall be issued until or unless all required fees have been paid in full. If approval is not granted, the applicant shall receive a written notice from the Building Official explaining the reasons for disapproval.
6. Curb opening applications shall not be required when the applicant submits curb opening information on a building permit application or for cutting of a curb in conjunction with a paving cut for which a permit has been obtained under the provisions of Chapter 10 of this Code.
7. No building, construction, site improvement or other development issued a driveway permit or building permit shall be considered satisfactorily completed until driveway construction or modification therein required has been completed, and no Certificate of Occupancy or Completion shall be issued therefore until such driveway construction or modification is completed.

8. In accordance with Section 54-75 of this Code, no building, construction, site improvement or other development shall be considered satisfactorily completed until public pedestrian sidewalks and curb ramps have been completed, and no Certificate of Occupancy or Completion shall be issued therefore until construction of such sidewalks and curb ramps are completed.
9. Building Permits or other Permits for remodeling or expansion of commercial or industrial properties that constitute a substantial improvement as defined in this chapter shall be issued contingent upon modifications being made by the applicant to existing non-conforming driveways. In instances where full compliance with these standards is impractical, the Building Official, in consultation with other City Staff members as appropriate, may approve alternative improvements in order to control turning movements and to restrict the number and width of driveways. These alternative improvements may include, but shall not be limited to:
 - a. Reduction of existing driveway openings
 - b. Installation of returns
 - c. Installation of barrier islands adjacent to the edge of the street
 - d. Modification of parking arrangement or striping to restrict backing onto a public street.
10. Sealed surface driveways – single- or multi-family residences
 - a. All driveways and off-street parking areas located on platted residential lots in the city shall be paved with a sealed surface pavement and maintained in such a manner that no dust will be produced by continued use. Other pavement material may be used upon approval by the planning commission. The width of the driveway shall extend a minimum of one foot beyond each side of the garage door opening with a minimum width of 12 feet.
 - b. Building Permits or other Permits for remodeling or expansion of single- or multi-family residential properties that constitute a substantial improvement as defined in this chapter shall be issued contingent upon modifications being made by the applicant to existing non-conforming driveways. This provision shall not apply to permits issued for decks, porches, and ramps and shall apply only if the public road that serves the residence has a paved surface. The width of the driveway shall extend a minimum of one foot beyond each side of the garage door opening with a minimum width of 12 feet for drives that are located in such a manner as to allow two vehicles to park without encroaching upon the easement. For driveways that are not of sufficient depth to allow two vehicles to park outside of the easement, the drive shall be a minimum of 18 feet wide to allow for the side-by-side parking of two vehicles.
 - c. If the requirement of subsection (b) of this section creates a topographic or financial hardship, then an appeal may be made to the city planning commission.
11. Any new curb opening or driveway or any future changes to existing curb openings or driveways which connect with a state or federal highway shall be approved by the appropriate office of the State Department of Transportation.

12. If any new curb openings or any future changes to existing curb openings result in the abandonment or closing of an existing curb opening, the existing curb opening shall be restored to be compatible with the adjacent curbing, as approved by the Public Works Director, at the expense of the property owner.
- C. Design requirements for curb openings and driveways
1. The location, number and size of curb openings and driveways shall conform to the requirements stated herein and shall be subject to approval by the Building Official, Public Works Director and the Community Development Director.
 2. No curb opening or driveway may be placed within, on or across any sight triangle as defined in this Chapter, except for public fire and police responder facilities. The sight triangle in all R-3, R-4, commercial and industrial zones shall be defined by barrier curb to prevent encroachment.
 3. The number of curb openings permitted and size of driveways shall conform to the standards outlined in Figure 1, contained in this Chapter.
 4. Curb openings and driveways in C-2 and C-3 districts for a planned neighborhood shopping center or planned community shopping center shall conform to Figure 5, of this Chapter, as to placement, size and curb radii.
 5. Curb openings and driveways to one- and two-family dwellings shall conform to Figures 1, 2, 3, 4, and 11, of this Chapter, as to placement, size and curb radii.
 6. Curb openings and driveways in all districts, except for one- and two-family dwellings and planned neighborhood shopping centers within the C-2 district and planned community shopping centers within the C-3 district, shall conform to Figures 6 and 7 of this Chapter, as to placement and separation.
 7. All curb radii shall conform to the standards established in Figure 8 of this Chapter, except for one and two-family dwellings and planned neighborhood shopping centers within the C-2 district and planned community shopping centers within the C-3 district.
 8. The center line of all driveways shall intersect with a public street at a ninety-degree angle to a minimum sixty-degree angle for maximum sight distance.
 9. All driveways on public street right-of-way shall be constructed as detailed in Figure 11 of this Chapter.
 10. All one-lane egress and ingress driveways for all uses except for one- and two-family residential uses shall be greater than fifteen (15) feet but less than twenty (20) feet wide, with the combined width not to exceed the maximum in Figure 1 of this Chapter.
 11. For other than one- and two-family residential uses, alleys shall not be the primary means of access to the main parking area but paved alleys with a minimum width of twenty (20) feet may be a secondary means of access to the main parking area or a primary means of access to a secondary parking area.
 12. Any curb opening or driveway in existence as of the date of adoption of this Land Development Code, connecting to an arterial street with a curb radius less than that required in Figures 2, 3, 4, 5, 6, 7, and 8 of this Chapter may be continued, improved, and/or reconstructed with the existing curb radius.

Sec. 46-27 Alleys

- A. For commercial and industrial lots, alleys shall not be the primary means of access to the main parking area but paved alleys with a minimum width of twenty (20) feet may be a secondary means of access to the main parking area or a primary means of access to a secondary parking area.
- B. Alleys shall be provided in commercial and industrial districts, except the City Council may waive this requirement where other definite and assured provision are made for service access, such as off-street loading, unloading and parking consistent with and adequate for the uses proposed.
- C. Alleys serving commercial and industrial areas shall be not less than thirty (30) feet in width of right-of-way.
- D. Alleys are not required for residential areas but when provided shall be not less than twenty (20) feet in width of right-of-way.
- E. Alley intersections and sharp changes in alignment shall be avoided; but, where necessary, corners shall be rounded sufficiently to permit safe vehicular movement.
- F. Dead-end alleys shall be avoided where possible but if unavoidable, shall be provided with adequate turnaround facilities at the dead end, as determined by the Commission and approved by the Council.
- G. No obstructions shall be permitted in areas reserved for alleys.

Sec. 46-28 Stormwater, Drainage and Erosion Control

- A. The purpose of this Section is to establish standard principles and practices for the design and construction of drainage systems within the city.
- B. The design and construction of all developments shall comply with the provisions of Chapter 46, Article VI, Stormwater Quality and Chapter 46, Article VII, Floodplain Development and Management. In the event of conflict between any other ordinance or regulation of the City of Chickasha and these Articles, the provisions of these articles shall govern.
- C. It is the goal of this Section to limit stormwater runoff rates after development to their historic rates or less, as an aid in erosion control and to decrease the probability of downstream flooding.
- D. The City's design criteria and minimum drainage requirements are published in the General Drainage Policy for the City of Chickasha, latest edition, and shall be utilized for all new development and redevelopment within the City of Chickasha.

TABLE 1 DESIGN STANDARDS FOR CHICKASHA CITY STREETS					
ELEMENT	FREEWAY	MAJOR ARTERIAL	MINOR ARTERIAL	COLLECTOR	LOCAL
DESIGN SPEED Outlying Area	65 mph	50 mph	40 mph	30 mph	30 mph
DESIGN SPEED Urbanized Area	55 mph	40 mph	30 mph	30 mph	30 mph
Minimum Centerline Radius (feet) (ARC Type Curve)	500	400	300	100	100
MAXIMUM GRADE Outlying Area	4%	7%	7%	10%	15%
MAXIMUM GRADE Urbanized Area	6%	7%	7%	10%	15%
Minimum Grade	Per ODOT Design Manual	0.5%	0.5%	0.5%	0.5%
Stopping Sight Distance (feet)	600 / 475	350	200	200	200
Number of Traffic Lanes	4 min.	4 min.	4	2	2
Total Minimum Street Width (feet) (Face to Face of Curbs)	Per ODOT Design Manual	50	50	32	26
MINIMUM PAVING THICKNESS Asphalt Section	Structurally Designed	(See Standard Drawings)			
MINIMUM PAVING THICKNESS Concrete Section	Structurally Designed	Structurally Designed	Structurally Designed	6"	6"
Minimum Right-of-way Width (feet)	Per ODOT Design Manual	120	100	60	50
Access Control	Full	Planned	Planned	NOT REQUIRED	NOT REQUIRED
Structural Design Load	HS-20	HS-20	HS-20	H-15	H-15
Vertical Clearance	16.5'	15.5'	15.5'	15.5'	15.5'
Surface Type	Paved	Paved	Paved	Paved	Paved

Sec. 46-29 Easements and dedications

A. Generally.

1. The Developer shall provide and bear all cost of dedication to the City of easements and rights-of-way in accordance with the requirements in this Chapter.
2. Public and/or city-owned easements shall be maintained free of buildings, fences or other permanent structures, except as:
 - a. Required screening; or
 - b. Fences located on or near a side or rear property line of two adjacent lots or properties whenever such property line is located within the boundaries of a utility easement. Permitting or acquiescing in the construction and/or maintenance of a fence over a public or city-owned easement shall not constitute abandonment or extinguishment of such easement by the City.
3. Any fence or other screening structure located inside the boundaries of a public and/or city-owned easement may be removed without liability by the City or the City utilities authority, or an agent or contractor of the City or the City utilities authority, to gain access for the installation, removal, extension or repair of utility lines and equipment. In all cases, except for emergencies, affected property owners shall be notified orally or in writing at least 48 hours prior to such action by the City or its agent/contractor.
4. No permanent structure shall be constructed and/or maintained within the boundaries of a utility or drainage easement. No permanent structure shall be constructed and/or maintained within ten feet of any existing utility or drainage facility that is not located within a utility easement.
5. The grantor of any right-of-way, easement, or improvement dedicated to the City shall be responsible for the preparation of any document or instrument conveying title and the cost of filing such document or instrument with the County Clerk after acceptance by the City Council. Any document or instrument purporting to convey right-of-way, easement, or an improvement to the City shall be in a format prescribed by the City and tendered as both paper and electronic media. The original document or instrument dedicating any such right-of-way, easement, or improvement shall be delivered to the City Clerk by the grantor after filing with the County Clerk.

B. Utility easements.

1. *Rear utility easements required.* Where alleys are not provided, easements not less than ten (10) feet wide shall be provided resulting in a twenty (20) foot total easement along each rear lot line. If the area abuts property not previously subdivided, a twenty (20) foot easement is required along the boundary of the subdivision; however, if the subdivider is able to obtain a ten (10) foot utility easement (by separate document in favor of the City) on this abutting property, then the subdivider is required only to dedicate ten (10) feet of easement on his property.
2. Where utility easements are necessary or required along side lot lines of individual lots, a ten (10) foot easement shall be required centered on the property line with five (5) feet in each abutting lot. On such side lot easements, the side yard setback line will be measured from the near edge of the utility easement to the structure.

3. The City Council may require the grant of an easement of greater width for the extension of a primary stormwater drainage facility, sanitary sewer main and/or other utilities when necessary.
 4. Easement location shall be continuous and contiguous from one property to the next.
 5. Whenever the total required width of a utility easement cannot be divided equally between two adjoining lots or properties, a Developer or Subdivider may apportion the entire required width of the easement to one of the lots or properties.
 6. The final grade across any utility easement shall not exceed a Horizontal to Vertical slope of 4:1 (25 percent gradient), except where:
 - a. Unusual topographic conditions exist; and
 - b. A written request and justification for a modification to this requirement is approved by the Community Development Director and City Engineer; provided, however, the City may require the reduction or elimination of any slope whenever such is necessary for the construction of certain surface structures or equipment.
- C. Drainage and detention/retention easements.
1. Drainage easements shall be sized to carry, at minimum, a one percent chance storm. Such easements shall be continuous and contiguous from one property to the next.
 2. A drainage easement shall be required:
 - a. Where stormwater runoff is designed to exit the public right-of-way and enter private property. Such easement shall be located at and extend from the point of entry onto private property to the point where the runoff enters another property, intersects another drainage easement, or enters a drainage facility or another public right-of-way.
 - b. Where stormwater runoff enters a property from an adjacent property through a channel, stream, or other conveyance, such easement shall be located at and extend from the point of entry onto the site to the point where the runoff enters another property, intersects another drainage easement, or enters a drainage facility. An easement is not required whenever stormwater runoff is due to sheet flow.
 3. Detention/retention easements shall be provided as follows:
 - a. Around the boundaries of drainage/retention facilities.
 - b. Such easement shall be adequate in size to permit access to such facility from a public right-of-way and around the perimeter of such facility for maintenance. In general, the easement perimeter shall be a minimum of 15 feet beyond the toe of slope or outlet end(s) of structure(s), but the Director may require greater widths when deemed necessary by the City Engineer.

Sec. 46-30 Parks and Open Spaces

A. Generally.

1. The City of Chickasha will not accept dedication of land for new neighborhood parks upon adoption of this code. However, land offered for a community park, or the

continuation or expansion of an existing neighborhood park may be considered for dedication following the procedures as provided below.

2. For purposes of this Chapter, the following definitions shall apply.
 - a. Neighborhood Park
 - i. Description - Provides recreational opportunities within reasonable walking distance to the neighborhood it serves. Neighborhood parks should be separate facilities. However, they may be located adjacent to elementary schools or linear parks.
 - ii. Typical Facilities may include play apparatus for all ages of children, multi-use paved surfaces, picnic areas with shelters, informal ball fields, walkways, tennis and/or basketball courts, restrooms and landscaping.
 - iii. The service area shall be approximately a one (1) mile radius and the park shall be intended to serve a population of 1,000 to 5,000.
 - iv. Size of Park – three (3) acres per 1,000 population served, with a 3-acre minimum.
 - b. Community Park
 - i. Description - Provides recreational facilities for the community to utilize. Facilities should be provided for people of all ages. Should be located on arterial or collector streets and accessible by pedestrians and bicyclists. Vehicular parking areas should be provided.
 - ii. Typical Facilities may include Swimming pools, lighted athletic fields and tennis courts, pedestrian and exercise trails, large picnic areas with shelters, landscaped areas to buffer adjacent developments, areas of natural value and water areas.
 - iii. The service area shall be approximately a five (5) mile radius and the park shall be intended to serve a population of 15,000 to 20,000.
 - iv. Size of Park – three (3) acres per 1,000 population served with a 20-acre minimum.
3. If a developer proposes to dedicate land for a public park, the proposed park shall be shown on the Preliminary Plat for the subdivision. The Preliminary Plat will be reviewed by City Staff who may seek comments from the Planning Commission. Comments from all City departments and the Planning Commission shall be provided to the developer. Construction plans for developments proposing dedication of land for public park purposes shall be reviewed by City Staff and the Planning Commission

The Planning Commission shall make a recommendation to the City Council as to whether dedication of land for a public park is to be accepted or whether fee in-lieu of park land is to be required. The City Council will determine whether to accept dedication of land for a public park or whether to require a fee in-lieu of park land. If the City Council accepts dedication of land for a public park, it shall be shown on the Final Plat and the acreage of land to be dedicated shall be calculated as shown hereafter. If the City Council requires deposit of fee in-lieu of land, the amount of said fee shall be calculated as shown hereafter.

4. If the park is to be dedicated in phases, a phasing plan shall be required with the Construction Plan submission. If a phasing plan is not submitted, the total amount of park land shall be dedicated with the first phase of the development with the developer receiving credits for the additional land provided.
5. The developer shall provide access to the park with the first phase of the development. If the park does not abut an existing street or a street to be constructed in the first phase of the development, a public access easement shall be provided with the Final Plat. The access easement shall connect a public street to the park and be a minimum of fifty (50) feet wide. The Planning Commission may require additional access as deemed necessary.
6. The developer may propose a name for a new park. The Planning Commission shall designate the official name of the park. The name of the park shall be shown on the Final Plat. The Community Development Director upon request shall inform the county tax assessor of the property involved and that it has been reserved for the public benefit and shall request that it be assessed on the tax rolls at the minimum value.
7. The size of land to be dedicated as a public park shall be determined based on the rate of three (3) acres of land for each 1,000 persons projected to occupy the fully developed one-mile radius of land surrounding the park, with a minimum of three (3) acres. The number of persons projected to occupy the fully developed land shall be based on 3.25 persons per dwelling unit.
8. The fee in-lieu of land shall be determined based on the rate of \$12,500.00 per acre of land as calculated above.

B. Use of money paid in lieu of dedicating of land.

1. A separate fund to be deposited at the highest interest rate permitted by law to be entitled "park fee fund" shall be and is hereby created and the money paid in by developers, owners, subdividers, and applicants at final approval of subdivision plats in lieu of the dedication of land and interest thereon, shall be held in such fund in trust to be used solely and exclusively for the purpose of purchasing or improving public neighborhood park and recreational land in the general area in which the subdivision is located.
2. At such time as the City Council, based upon the recommendations of the Planning Commission, determines that there are sufficient funds derived from a certain area in the park fee fund to purchase usable parkland, the City Council shall cause negotiations to be undertaken to purchase the site by mutual agreement or by condemnation proceedings. The principal and interest deposited and kept in the park fee fund shall be used solely for the purpose of purchasing land or providing improvements for public neighborhood park and recreation uses, as provided in subsection 3. and shall never be used for maintaining or operating other public park facilities, or for any other purpose.
3. The use of funds for park improvements, as provided in subsections 1. and 2. above described, may occur only when a neighborhood park has reached its maximum size or is otherwise surrounded by existing development. The City Council, upon the

recommendation of the Planning Commission, may utilize any new park fee dedications, including accrued interest, to construct park improvements within that neighborhood park.

Sec. 46-31 Blocks

- A. The lengths, widths and shapes of blocks shall be determined with due regard for the following:
 - 1. Provision of adequate building sites suitable to the special needs of the type of use contemplated;
 - 2. Zoning requirements as to lot sizes and dimensions;
 - 3. Needs for convenient access, circulation, control and safety of street traffic; and
 - 4. Limitations and opportunities of topography.
- B. Blocks for residential use along local or collector streets shall not be longer than five hundred (500) feet, measured along the center line of the block. Wherever practical, blocks along primary and secondary arterial streets shall be not less than one thousand (1,000) feet long.
- C. The Planning Commission may require a dedicated easement not less than fifteen (15) feet in width and a paved crosswalk not less than four (4) feet in width to provide pedestrian access, if such easement is deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation or other community facilities.
- D. Blocks used for residential purposes should be of sufficient width to allow for two tiers of lots of appropriate depth.
- E. Blocks intended for business and industrial use should be of a width suitable for the intended use, with due allowance for off-street parking and loading facilities.
- F. Each corner of each block shall be marked with a permanent marker (iron pin or iron pipe of not less the one-half inch diameter).

Sec. 46-32 Lots

- A. The lot arrangement shall be such that there will be no foreseeable difficulties for reasons of topography or other conditions, in securing a building permit; all lots shall be arranged to comply with the Comprehensive Plan, the Zoning Ordinance all Drainage Ordinances and Building Codes and all other Ordinances of the Chickasha Municipal Code; and to provide access from an approach street.
- B. Lot dimensions shall comply with the minimum standards of the Zoning Code. Additional requirements shall be as follows:
 - 1. Other than town houses, residential lots shall be not less than fifty (50) feet in width at the front building line and shall abut a street a distance of not less than thirty-five (35) feet; except that a corner lot shall be not less than sixty (60) feet in width at the front building line.
 - 2. For townhouses, the acceptable minimum lot width shall be 25 feet per dwelling unit. The lot shall not be required to abut a private or public street; however, there shall be provision for parking in accordance with Chapter 54, Article IV of this Code in

convenient proximity to the dwelling unit served. For the purposes of this Chapter, convenient proximity shall not exceed one hundred fifty (150) feet.

3. Other than town houses, side lot lines should be approximately at right angles or radial to street lines.
4. Other than town houses, the depth of residential lots shall not be less than eighty (80) feet, except that lots that back up to or face an arterial street shall not be less than one hundred twenty (120) feet.
5. Other than town houses, the area of residential lots shall not be less than six thousand (6,000) square feet.
6. Each corner of each lot shall be marked with a permanent marker (iron pin or iron pipe of not less the one-half inch diameter).

Sec. 46-33 Building lines

Building lines shall be provided for all residential subdivisions as follows:

- A. A front building line shall be located twenty-five (25) feet back of the street right-of-way line;
- B. A side yard building line on the side of a corner lot abutting the street right-of-way when such lot is back to back with another corner lot shall not be less than fifteen (15) feet, and not less than twenty (20) feet back of the street right-of-way line in every other case;
- C. A side yard building line shall be provided not less than ten (10) feet back of the center of a crosswalk right-of-way line on the side of a lot abutting a midblock crosswalk;
- D. In situations where zero lot lines are permitted, appropriate provisions in plats and restrictive covenants may be submitted; and
- E. Restrictions requiring buildings to be located within the building lines shown on the plat shall be set forth on the plat or on a separate record instrument.

Sec. 46-34 Planned unit developments

Whenever a subdivision is developed in accordance with Chapter 54-36 of this Code, the Planning Commission, subject to approval by the City Council, may vary the requirements of design as required by this Article in order to allow the Subdivider more freedom in the arrangement of streets and lots, but at the same time protect the convenience, health, safety and welfare of the probable future residents of the subdivision as well as the character of the surrounding property and the general welfare of the entire community.

- A. In addition to requirements of the Planned Unit Development Zoning Ordinance, the following requirements shall apply:
 1. Review relative to subdivision requirements shall be carried out simultaneously with the processing of the PUD application if the division of land, vacant or improved, into two (2) or more lots, parcels, sites, units, plats, or interests for the purpose of offer, sale, lease, or development, either on the installment plan or upon any or all other

- plans, terms, or conditions, including re-subdivision, whether residential or nonresidential, is part of an integral to the PUD application.
2. The applicant may submit an application for Preliminary Plat review and approval for all or part of the development concurrent with an application for PUD even though such submittal is not mandatory under this Chapter.
- A. The following procedure shall be required for simultaneous Preliminary Plat review and approval as set forth in the above section.
1. An application for Preliminary Plat review or approval shall be submitted along with the application for PUD approval to the Planning Commission in accordance with the requirements and procedures of these regulations.
 2. The Planning Commission shall review the PUD application and shall forward its comments and recommendations to the City Council.
 3. The Planning Commission shall review the Preliminary Plat and if it finds that said plat conforms to these regulations and other applicable regulations, may grant tentative approval pending approval of the PUD application by the City Council. Tentative approval of such plat shall vest no rights or interest to the applicant until the PUD is approved by the City Council.
- B. A PUD may be subdivided or re-subdivided for purposes of sale or lease after the PUD has been finally approved and development completed or partially completed, except when the proposed subdivision creates a change in the PUD design. If said changes affects PUD boundaries, density of uses or if there are major changes to streets, drainage, utilities, etc., then the Planning Commission may approve the subdivision or re-subdivision subject to City Council's approval of an amended PUD.

Sec. 46-35 Gated Subdivisions (Controlled Access Developments)

- A. General Requirements
1. *Required standards.* All gated subdivisions shall comply with the following site standards:
 - a. No public street shall be obstructed. Gated access will only be considered for private streets, approved planned unit developments, apartment projects, or other subdivision plats approved by the City Council for private streets;
 - b. The gate shall be located a sufficient distance from a public street to allow three cars to line up at the gate without interfering with vehicles utilizing the public street; however, in no case shall the gate be located closer than 70 feet from the curb or edge of pavement of a public street;
 - c. A turnaround lane shall be provided for vehicles unable to enter the gated development;
 - d. Road spikes, barbs or other tire damaging devices shall not be allowed;
 - e. The City Council shall approve all circulation plans for this type of development and may require multiple entrances;
 - f. Adopted City standards for drainage, streets, sidewalks, fire lanes, sanitary sewerage, water supply, fire hydrants, and other engineering and development requirements shall apply to controlled access developments;

- g. The minimum gate opening width, including clearance for all improvements related to the gate, shall be not less than 20 feet if accommodating two directions of traffic and no less than 14 feet for each gate accommodating each direction of traffic;
 - h. A Knox box or other similar device approved by the Fire Department shall be located near the normal access route in a manner approved by the Fire Department, for access by the Fire Department only to the development.
 - i. An entry key pad shall be located on a pedestal near the normal access route. The entry code shall be used for non-emergency access. The access code shall be given to the Police Department, Public Works Department and all other emergency and city services;
 - j. An emergency release hitch pin shall be installed on the control arm. This hitch pin, when removed, will detach the control arm from the gate and allow the gate to swing open freely with manual intervention;
 - k. A battery backup system shall be provided for each gate. The batteries shall be trickle charged to maintain electrical energy, and in the event of loss of normal electrical current, cause the gate to open and stay open until reset by a responsible member of the Homeowners' Association;
 - l. The location of all entrance pedestals, emergency pull boxes, key pads, hitch pins, related equipment, operation of gate, signage, opening design, swinging or sliding operation of the gate, or any other design specifications shall be constructed and installed in accordance with the plans approved by the Community Development Director, Public Works Director and the Fire Chief;
 - m. Should any problem occur in the operation of the gate, or any violation of this Section occur, the gate shall remain open and accessible until the problem is resolved and/or the gate is repaired and tested; and
 - n. When a covered entry is requested, the minimum clear height of the covered entry shall be no less than 16 feet.
2. *Requirement of emergency rapid access devices for gated communities.*
- a. Gated communities shall include all controlled access gates that serve housing developments, apartment complexes, townhouse complexes, and any other controlled access gates where a gated access affect's the health, safety, and welfare of the public served.
 - b. Emergency rapid access devices. For the purpose of this Section, emergency rapid access devices shall include rapid access key boxes, keyed switches, and keyed padlocks. The keys and devices shall be UL certified and approved by the Fire Chief or his designee.
 - c. Requirement. All new gated communities as described in subsection 2.a of this Section shall install and maintain rapid entry devices as described in subsection 2.b of this Section. All existing gated communities as described in subsection 2.a of this Section shall install and maintain rapid entry devises as described in subsection 2.b of this Section.
3. *Homeowners' association required.* A Homeowners' Association shall be established for all controlled access developments. The Homeowners' Association will be responsible for the following:

- a. Providing the names, addresses, and emergency contact numbers of all officers to the Fire Department, Police Department and the Public Works Department.
- b. Maintenance and repairs of the private streets, open spaces, parks and/or fire lanes, and to provide the funds therefor through the use of assessments.
- c. Maintenance, testing and repairs of all functions of the gate.
- d. Establishing the access code to the gate and ensuring that the Fire Department, Police Department, Public Works Department and other emergency services have the proper code number. Changing the code shall not be permitted without proper notification.
- e. Accompanying the Fire Department during annual inspection and testing of the operating systems.
- f. Maintaining a service agreement with a qualified contractor to ensure year-round maintenance.

B. Administration

- 1. The City manager, upon recommendation of the Community Development Director, Public Works Director, Fire Chief and Police Chief, shall approve an access agreement with the Developer, Homeowners' Association, or other responsible property owners, providing for an annual inspection of each gate to ensure that each gate is tested to meet all of the requirements of this Article prior to it being approved for operation or continued operation. The access agreement shall include a hold harmless clause, wherein the Developer, Homeowners' Association, or other responsible property owners agree to hold the City harmless in the event that the emergency devices on the gates fail, and the Fire Department, Police Department or Public Works Department or other emergency services entity are compelled to crash the gates in order to respond to an emergency call or situation. In the event that damage to any city-owned vehicle is caused by the failure of the Developer, Homeowners' Association, or other responsible property owners to notify in a timely fashion the Fire Department, the Police Department and the Public Works Department of a new access code, or failure to submit a key to a new lock on the emergency pull box, the Developer, Homeowners' Association, or other responsible property owners shall be liable for the cost of repairs to city-owned equipment as a result of a crash of the gate.
- 2. A copy of the verification of the access agreement shall be kept on file at the Fire Department, the Police Department and the Public Works Department.
- 3. Verification of the access agreement and a copy thereof shall be kept on file at the Fire Department, the Police Department and the Public Works Department.
- 4. The gate service contractor's name, address, 24-hour telephone numbers, and the Developer, homeowners' representative, or responsible property owners name, address, and emergency access telephone numbers shall be kept current and provided to the Fire Department, the Police Department and the Public Works Department as minimum requirements for approval of the annual inspection of the gate.
- 5. The Fire Department shall conduct the annual inspection on the anniversary date each year of the date of approval of the access agreement.

Sec. 46-36 MANUFACTURED AND MOBILE HOMES

A. Definitions

The following words, terms and phrases, when used in this Section, shall have the meanings ascribed to them as follows, except where the context clearly indicates a different meaning:

Building inspector means the legally designated inspection official of the city or his authorized representative.

License means a written license issued by the city clerk permitting the mobile home park to operate under this article and the regulations promulgated thereunder.

Mobile home means all types of every kind and character of any home that is mobile and moved to a location on which the same is to be located regardless of any improvements, additions or deletions which may have taken place or has taken place before and after the placing of the home on location, except modular, pre-built, or pre-constructed houses. The term "mobile home" does not include vehicles ordinarily referred to as campers attached to vehicles unless the same is used for residential purposes and, in any event, permits shall be necessary for such installations.

Mobile home park means any rental plot of ground upon which five or more mobile homes are located, that are occupied for dwelling or sleeping purposes on a permanent basis.

B. License required.

It is unlawful for any person to construct, maintain, operate or alter any mobile home park within the city unless he owns a valid license, which shall be issued annually by the city clerk. Any person desiring to establish a mobile home park shall follow the city's subdivision procedures and requirements found in the mobile home park zoning district. After approval by the city council, the city clerk shall be authorized to issue a license for the mobile home park.

C. Fee; proration of fees; term of license

The city clerk shall issue an annual permit to the mobile home park owner for the operation of a mobile home park, in accordance with the latest approved City of Chickasha fee schedule. The permit shall expire on January 1 immediately following the date of issuance. License fees may be prorated on a monthly basis. Locations with less than five mobile home spaces existing on the effective date of the ordinance from which this article is derived are not required to obtain a license and shall be considered a nonconforming use as defined by city zoning regulations.

D. Inspections

The city inspector is authorized and directed to make inspections to determine the condition of mobile home parks located within the city in order that he may perform his duty of safeguarding the health and safety of the occupants of mobile home parks and

general public property for the purpose of inspecting and investigating conditions relating to the enforcement of this article or regulations promulgated thereunder.

E. Utilities.

All mobile home parks shall meet the standards set forth by the city under its subdivision regulations, plumbing, electrical, and other utility codes, standards and regulations. All water, sewer, electrical and sanitation services shall meet the same regulations and rules as any residential subdivision.

F. Size of lots or space.

Each mobile home park must contain five or more mobile home lots or spaces, and each mobile home shall be placed on a lot or space containing a minimum of 4,000 square feet, excluding all roadways and alleys. All mobile home parks shall contain 50 feet right-of-way wherein a public street is located and shall be furnished with alleys for utility service. All mobile homes shall have a minimum setback of 15 feet from the front right-of-way and shall be located a minimum of seven and one half feet from each rear and side lot line.

G. Tie-downs and safety equipment.

All mobile home parks shall comply with federal and state requirements and regulations relating to tie-downs and safety equipment.

H. Individual mobile home.

1. Hereinafter, individual mobile homes shall not be located upon any lot or tract of land within the city unless located in a licensed mobile home park or meeting provisions found elsewhere in city ordinance.

2. Existing individual mobile homes shall be considered nonconforming uses and if property is vacated for a period of six months or more, then any new installation shall conform with the provisions of this article.

Sec. 46-37 RELOCATABLE BUILDINGS (MODULAR BUILDINGS)

A. Definitions

The following words, terms and phrases, when used in this Section, shall have the meanings ascribed to them as follows, except where the context clearly indicates a different meaning:

Building inspector means the legally designated inspection official of the city or his authorized representative.

Relocatable Building means a partially or completely assembled building constructed and designed to be transported to and erected at a building site.

B. General

The provisions of this section shall apply to relocatable buildings. Relocatable buildings manufactured after the effective date of this code shall comply with the applicable provisions of this code.

1. A newly constructed relocatable building shall comply with the requirements of this Code for new construction. An existing relocatable building that is undergoing alteration, addition, change of occupancy or relocation shall comply with Chapter 14 of the International Existing Building Code.
- C. Supplemental information specific to a relocatable building shall be submitted to the authority having jurisdiction. It shall, as a minimum, include the following in addition to the information required by Chapter 10 of this Code:
1. Manufacturer's name and address.
 2. Date of manufacture.
 3. Serial number of module.
 4. Manufacturer's design drawings.
 5. Type of construction in accordance with Chapter 6 of the IBC.
 6. Design loads including roof live load, roof snow load, floor live load, wind load and seismic site class, use group and design category.
 7. Additional building planning and structural design data.
 8. Site-built structure or appurtenance attached to the relocatable building.

D. Manufacturer's Data Plate

Each relocatable module shall have a data plate that is permanently attached on or adjacent to the electrical panel, and shall include the following information:

1. Occupancy group.
2. Manufacturer's name and address.
3. Date of manufacture.
4. Serial number of module.
5. Design roof live load, design floor live load, snow load, wind and seismic design.
6. Approved quality assurance agency or approved inspection agency.
7. Codes and standards of construction.
8. Envelope thermal resistance values.
9. Electrical service size.
10. Fuel-burning equipment and size.
11. Special limitations if any.

E. Inspection Agencies

The building inspector is authorized to accept reports of inspections conducted by approved inspection agencies during off-site construction of the relocatable building, and to satisfy the applicable requirements of Sections 110.3 through 110.3.11.1 of the IBC.

ARTICLE IV. - REQUIRED IMPROVEMENTS IN GENERAL

Sec. 46-38 General Provisions

- B. Improvements shall be installed only in accordance with a Final Plat that has been approved by the Planning Commission. Said improvements must be in accordance with construction plans approved by the City Engineer, Planning Commission, and City Council.
- C. *Improvement compliance.* All improvements shall be designed and installed in accordance with all of the elements of the general plan and shall meet the minimum standards established by the ordinances and regulations relating thereto.
- D. Improvement inspection fees. The City may charge and collect inspection fees in all unplatted and platted developments for all water, sanitary or storm sewer and paving improvements based on the cost of the improvements as set by the Council by motion or resolution.
- E. *Standards.* All improvements required within this Chapter, hereinafter referred to as "required improvements," shall be designed and installed in accordance with City standards. When the City has not adopted a standard for a particular improvement, state or national accepted industry standards (such as ODOT or ASTM standards), or manufacturer's recommendations shall apply. When a Developer wishes to propose an alternative to the City standard, a design with supporting documentation must be submitted to the Community Development Director or designee, for review.
- F. *Improvement design, materials, and installation.* The Developer is responsible for providing at no cost to the City the design, materials, and installation of all improvements required for a development. If the City desires to have improvements beyond those necessary to serve a development and not otherwise required in this Chapter, the City shall be responsible for the design, materials, and installation of the improvements which exceed the Developer's requirements.
- G. The Developer shall furnish, at no cost to the City, all engineering services in connection with the design and construction of the required improvements. Said engineering services shall be performed by a professional engineer licensed in the state and shall conform to the standards and criteria for the design and construction of the required improvements as established by this Code and all other applicable requirements or regulations.
- H. *Rights-of-way*
 - 1. *Acquisition prior to commencing construction.* Prior to commencing the construction of any of the required improvements, the Developer shall acquire, if necessary, at no cost to the City, good and sufficient rights-of-way and easements on all lands and facilities to be traversed by the required improvements.
 - 2. *Conveyance.* All such public and/or city rights-of-way and easements shall be conveyed under general warranty deed or by plat dedication containing a general warranty of the dedication.
 - 3. *Right-of-way permit required.* No work proposed within an existing right-of-way or easement shall commence prior to the issuance of a right-of-way permit by the City.
- I. All improvements shall be designed and installed so as to provide for a logical system of utilities, drainage and streets and to create continuity of improvements for the development of adjacent properties.

Sec. 46-39 Construction

- A. *Notice to Proceed.* The Community Development Director will issue a Notice to Proceed upon satisfactory completion of the following:
1. Acceptance of the Construction Drawings and related documents (e.g., Stormwater Management Plan)
 2. Issuance of any other required permits (e.g., ODEQ Permit to Construct)
 3. Posting of the required Maintenance Bonds.
- Such Notice to Proceed shall serve as authorization for the Developer to begin construction. No construction shall be permitted prior to issuance of the Notice to Proceed.
- B. *Developer to conform to construction requirements.* The Developer shall furnish and install, at no cost to the City, the labor and material necessary to complete the required improvements. Said construction shall conform with the plans as accepted by the City, this Code and all other applicable requirements or regulations (collectively "construction requirements").
- C. *Plan amendments.* All changes to previously approved plans shall be submitted to the City for review and approval prior to proceeding with the change. Projects or phases of projects that have been noticed for noncompliance shall not be considered substantially complete until such time that the Developer has demonstrated that the changes are in strict compliance with the construction requirements, or the noncompliant work has been removed and re-constructed in accordance with the approved plans.
- D. *Time for completion.* The required improvements shall be completed within two years from the date the plans are accepted by the City or such later date for completion as may be established and acknowledged in writing by the Director. Work conducted in the public right-of-way shall be completed without delay.
- E. *Erosion control.* Developer shall, at no cost to the City, provide all erosion and sediment control measures that are necessary to comply with the Stormwater Quality requirements of this Code and the ODEQ.
- F. *Traffic control.* At all times during construction and prior to acceptance of the required improvements, the Developer shall be responsible for the erection and maintenance of temporary traffic control devices in accordance with the standards contained within the latest version of the Manual on Uniform Traffic Control Devices.
- G. *Street closures.* No temporary lane or street closures on existing streets shall be allowed without the prior approval of the Public Works Director. Requests for temporary lane or street closures on existing streets shall be made in writing to the Public Works Director no less than four business days prior to the planned closure. All requests shall include a traffic control plan. Traffic control plans shall be prepared in accordance with the standards contained within the latest version of the Manual on Uniform Traffic Control Devices. The Public Works Director may require special construction sequencing or any other condition of approval to provide for the minimal impact and inconvenience to the traveling public. Access to existing private drives that are impacted by the project shall be maintained at all times by the Developer until permanent improvements are in place and have met City standards. The Developer shall, at its own expense, be responsible for keeping on-site streets, off-site streets used as construction routes and rights-of-way clear of mud, rock and debris at all times during said construction. Should Developer fail to meet said

requirements, City may take corrective action and charge the Developer for the actual cost of cleanup.

- H. The City reserves the right to mandate haul routes to and from the development and points of access to the development. Non-compliance with such haul routes and/or points of access, may result in enforcement action in accordance with Sections 1-14 and 1-15 of this Code.

Sec. 46-40 Testing and inspection

- A. The Developer shall employ, at no cost to the City, a qualified testing company to perform the materials testing necessary to demonstrate compliance with any approved plans and construction requirements and shall furnish copies of test results to the City weekly throughout the construction period. All test reports shall be provided to the City prior to Final Approval and Acceptance.
- B. The City shall have the right to inspect materials and workmanship at any time during the construction process. All materials used and work completed shall strictly conform to the plans and the construction requirements.
- C. Any material or work not conforming to the plans and the construction requirements shall be repaired or removed and replaced at the Developer's expense. Such construction or work shall remain accessible and exposed for inspection purposes until approved.
- D. The City shall issue a notice of noncompliance (notice) whenever an inspection determines that construction does not comply with any approved plans and construction requirements. Notice will be issued to the Developer's contractor at the construction site if the contractor is available and a copy of the notice will be sent to the Developer. The contractor shall notify the City Inspector when the item has been corrected and is ready for inspection.

Sec. 46-41 Substantial completion of required improvements.

- A. When the Developer has substantially completed the required improvements as defined in this Article, the Developer may request a substantial completion inspection. Such request shall be in writing and directed to the Community Development Director. Upon receipt of the request, the City will perform a substantial completion inspection of the required improvements, and if necessary, issue a list of items that to be corrected. If it is determined that deficiencies exist and the project is not substantially complete, the City will notify the Developer in writing, and the substantial completion inspection shall be delayed until such time as such deficiencies are addressed by the Developer. Upon confirmation by the City that the project is substantially complete, a notice of substantial completion will be issued to the Developer by the Community Development Director. Issuance of a notice of substantial completion shall not be deemed or construed as an acceptance or final approval of any of the required improvements.
- B. The City will not conduct a substantial completion inspection until the required improvements are accessible and cleaned sufficiently to allow for detailed inspection. If the required improvements are not accessible or cleaned sufficiently to allow for a detailed inspection, the Developer will be notified in writing that the inspection has been delayed until such time that the required improvements are sufficiently accessible and cleaned.

Sec. 46-42 Final approval and acceptance.

- A. Upon completion of the required improvements, the Developer shall request a *final* inspection in writing from the Community Development Director. Upon receipt of the request, the City will perform a *final* inspection of the required improvements, and if necessary, issue a list of items that need to be corrected, within five calendar days from the *final* inspection. If the project is not complete and/or not ready for a *final* inspection, or if the required improvements are not sufficiently accessible and cleaned, the City will notify the Developer in writing. The City will not inspect the required improvements until they are accessible and cleaned sufficiently to allow for detailed inspection. Upon confirmation by the City that the required improvements have been constructed and the record drawings prepared in accordance with any construction requirements, a notice of completion will be issued to the Developer and will state the date in which the public improvements will be scheduled for acceptance by the City Council.
- B. The portion of the required improvements intended for public ownership shall be conveyed to the City at no cost or expense to the City and free of any liens, charges, or encumbrances.
- C. As each portion of the required improvements intended for public ownership are accepted by the City Council, the accepted improvements will become public facilities and the property of the City, and such acceptance shall commence the Maintenance Bond period and performance obligations contained in Section 46-43.

Sec. 46-43 As-Built drawings

As-Built drawings for the improvements as required by this Chapter, signed and sealed by a professional engineer licensed in the state, shall be submitted to the Community Development Director with or prior to the Developer's request for acceptance of the improvements by the City Council. The City will review the record drawings for general compliance with the accepted construction plans and the improvements as constructed in the field. The City will notify the Developer in writing that the record drawings are acceptable, or why they are not. The record drawings shall be revised, if necessary, and accepted prior to the scheduling of the acceptance by the City Council of any improvements constructed by the Developer.

Sec. 46-44 Public improvement Maintenance Bond and Warranty Period

- A. Prior to the acceptance by the City Council of any improvement, a maintenance bond for the full amount of the contract to construct such improvement will be filed with the City Clerk. The bond shall be in effect for one year from the acceptance of the improvement by the City Council (warranty period), shall name the City of Chickasha as obligee and shall identify the location of the improvement(s) and the improvement(s) being bonded. The Developer shall ensure the correction of any defect in materials or workmanship that are necessary to restore and maintain said improvements to the same standards applicable at the time of the City's acceptance of said improvements.

- B. Inspection. The City may perform a warranty inspection prior to the end of the warranty period, and if necessary, issue a list of items (list of deficiencies) that are required to be corrected.
- C. Deficiencies. All deficiencies identified in the list of deficiencies shall be corrected by the Developer no later than seven calendar days prior to the expiration of the warranty. If all deficiencies are not corrected at least seven days prior to the expiration of the warranty, the warranty period shall be extended until all deficiencies have been corrected.
- D. Re-inspection. The Developer shall inform the City upon completion of correction of the list of deficiencies. The City will re-inspect the improvements identified in the list.
- E. Warranty release. Upon determination that the improvements identified in the list of deficiencies are in compliance with this Article and City standards, the City shall issue a release of warranty obligation to the Developer.
- F. Defective improvements. Nothing herein shall be construed or deemed as requiring the City to release the Developer from its obligations on any improvements that are defective.

Sec. 46-45 ASSURANCE FOR COMPLETION AND MAINTENANCE OF REQUIRED IMPROVEMENTS

- A. Generally.
 - 1. The improvements must be installed in accordance with construction plans approved by the City Engineer, Planning commission and City Council. The Developer may submit a construction phasing plan.
 - 2. The Developer shall build and pay all costs of any temporary improvements required by the Planning commission and City Council and shall maintain the temporary improvements for the period specified.
 - 3. All required improvements shall be made by the Developer at his expense, without reimbursement by the City or any improvement district therein, except when approved by the City Council.
 - 4. Approval shall be deemed to have expired in subdivisions for which no assurance for completion has been posted and the improvements have not been completed within the period specified by the provisions of this Chapter. In those cases where a performance bond or other instrument has been required and improvements have not been completed within the terms of the performance bond or other instrument, the City Council may declare the bond to be in default and require that all the improvements be installed.
- B. Methods of assurance
 - 1. Prior to approval of the Final Plat, the Developer shall complete, in accordance with the approved construction plans, all improvements required in this Chapter as specified in the Final Plat and/or planned unit development master plan and master development plan map, and, when required, shall dedicate the improvements to the City in accordance with this Chapter. The Final Plat shall be signed by the Planning commission and by the City Council only after satisfactory completion and acceptance of the required improvements.
 - 2. In lieu of completion of all improvements prior to Final Plat approval, the City Council may, at its discretion, enter into a revocable agreement with the Developer, whereby

the Developer shall guarantee to complete all improvements as may be specified by the Planning Commission and approved by the City Council. To secure this agreement, the Developer shall provide, subject to the approval of the City Council, one of the following guarantees:

- a. *Surety bond.* The Developer shall file a surety bond with the City as set forth in this Section in the amount of 110 percent of the estimated construction costs of the required improvements. A professional engineer shall furnish estimates of the costs of all required improvements and utilities to the City Engineer, who shall review the estimates in order to determine the adequacy of the bond for insuring the construction of the required facilities. All dedications, easements and improvements relative to the Final Plat and to the surety bond shall be brought before the City Council for its acceptance. Upon such acceptance, the applicant shall file the Final Plat with the County Clerk. The bond shall be released when all improvements are certified as complete by the Director and accepted by the City Council, and a copy of the as-built plans on linen or other acceptable reproducible material, prepared by a professional engineer, showing the location of all improvements, is submitted to the Director.
- b. *Escrow account.* The Subdivider shall deposit cash, or other instrument readily convertible into cash at face value, either with the City or in escrow with a bank or savings and loan institution, acceptable to the City. The use of any instrument other than cash shall be subject to the approval of the City Council. The amount of the deposit shall be 110 percent of the full amount of the cost of the required improvements, as estimated by a professional engineer and approved by the City Engineer. In the case of any escrow account, the Developer shall file with the City Council an agreement between the financial institution and himself guaranteeing the following:
 - i. That the funds of the escrow account shall be held in trust until released by the City Council and may not be used or pledged by the Developer as security in any other matter during that period; and
 - ii. That in the case of a failure on the part of the Developer to complete the improvements, the financial institution shall immediately make the funds in the account available to the City for use in the completion of those improvements.
- c. *Letter of credit.* Subject to the approval of the City Council, the Developer shall provide a letter of credit from a bank or other reputable institution or individual, acceptable to the City. This letter shall be submitted to the City Council and shall certify the following:
 - i. That the creditor does guarantee funds equivalent to 110 percent of the full amount as estimated by a professional engineer and approved by the City Engineer;
 - ii. That, in the case of failure on the part of the Developer to complete the specified improvements within the required time period, the creditor shall pay to the City immediately and without further action such funds as are necessary to finance the completion of those improvements, up to the limit of credit stated in the letter; and

- iii. That this letter of credit may not be withdrawn, or reduced in amount, until approved by the City Council according to the provisions of this division.

C. Maintenance of improvements

1. *Responsibility for maintenance.* The Developer shall be required to maintain all public improvements until acceptance of the improvements by the City Council. As a condition of dedication to and acceptance by the City Council of all public improvements, maintenance bonds shall be posted and submitted to the Director according to procedures established by the Director.
2. *Maintenance bonds.* Maintenance bonds shall be filed in the following amounts and periods of time:
 - a. Paving: A maintenance bond from the Developer's contractor naming the City of Chickasha as obligee in the amount of fifty (50%) percent of the construction cost shall be submitted to the City of Chickasha for the first year, and ten (10%) percent for the next five (5) years subsequent to the acceptance of the development by the City Council of the City of Chickasha.
 - b. Sanitary Sewer, Storm Sewer and Water Systems: A maintenance bond from the Developer's contractor naming the City of Chickasha as obligee in the amount of fifty (50%) percent of the construction cost shall be submitted to the City and said bond shall be for a period of two (2) years subsequent to the acceptance of the utility by the City Council of the City of Chickasha.

ARTICLE V. - REQUIRED IMPROVEMENTS - SPECIFIC REQUIREMENTS

Sec. 46-46 Public Street Improvements

- A. The Developer of any subdivision designed to be used for residential, commercial, industrial or other purposes or any other development subject to this Chapter shall lay out, grade and otherwise improve all streets that are designated on the approved plat or that directly serve the subdivision in accordance with the design specifications herein and the Standard Details for Subdivision Streets as established by the City Engineer and in accordance with the following provisions:
 1. All public street improvements shall be designed and installed in accordance with City standards. Where the City has not adopted a standard for a particular design or construction element, the Oklahoma Department of Transportation (ODOT) Standard for Highway Construction, latest edition shall apply. If a Developer wishes to propose an alternative to the City standard, a design with supporting documentation must be submitted to the Community Development Director or designee, for review.
 2. The design of an improvement of an intersection of any new street with an existing state or federal highway shall be in accordance with the specifications of the Oklahoma Department of Transportation, but in no case shall the standard be less than the applicable City specifications;
 3. Whenever a subdivision contains an arterial street that requires a street facility that is more costly than is required to serve the future occupants of the subdivision, the Subdivider shall be required to pay only the portion of the cost of an improvement required to serve only the subdivision, as determined by the Commission; and

4. The City will provide adequate engineering inspection and will bill the Developer according to rates established in the latest approved Fee Schedule.
 5. Street surfacing shall be in accordance with the transportation plan and street standards as approved by the City Council and, where applicable, the state department of transportation.
- B. Streetlights.
1. *Conformity to comprehensive plan.* The arrangement, character, extent and location of all streetlights shall conform to all of the elements of the Comprehensive Plan and shall be designed in accordance with the following provisions:
 1. The Developer shall be responsible for having street lighting installed in all subdivisions and shall be responsible for all installation costs.
 2. A streetlight standard of 30 feet mounting height shall be installed at all street intersections, at the end of all cul-de-sacs, and at intermittent spacing necessary to produce a minimum of 0.6 maintained footcandles for collector streets and 0.4 maintained footcandles for local streets, with a uniformity ratio not exceeding three to one. Luminaires shall have minimum 175-watt high intensity discharge lamps.

C. Driveways

All driveways which connect with public streets shall be constructed in accordance with this Chapter and the Driveway Standards established by the City Engineer.

D. Sidewalks

1. Subdivision design shall provide for the convenience and protection of pedestrian traffic. Sidewalks shall mean a system of paved walkways for pedestrian traffic located between the street paving and the abutting property for the continuous length of the block.
2. A system of sidewalks shall be provided for adequate pedestrian circulation on all streets and approaches to focal points of pedestrian traffic, as set forth in Section 46-20 of this Code.
3. The Planning commission may require the construction of such sidewalks to connect with existing or proposed sidewalks in areas within or adjacent to the subdivision where such sidewalks are needed for pedestrian circulation.
4. All sidewalks shall be constructed in accordance with the specifications governing sidewalk construction. The minimum width of sidewalks shall be four feet. Sidewalks shall be provided on both sides of minor arterial, collector and all residential streets at locations one foot inside the right-of-way as shown on the Standard Drawings unless other locations are approved by the Planning commission due to such physical features as right-of-way, topography, existing trees, etc.
5. The sidewalk shall be designed to reduce conflict with other infrastructure improvements and with other private utilities.
6. The Developer shall not be responsible for installation of the sidewalk within new lots platted as part of his development on residential streets; however, the sidewalk will be constructed in association with the structure as required in Section 46-20 of this Code. The Developer shall be responsible for the construction of sidewalks in all other locations as required by this Code and the Planning commission including lots or

parcels to be dedicated to the City, retained by the Developer, or transferred to an Ownership Association.

E. Street and traffic signs.

All street and traffic signs within the development shall be furnished at the expense of the Developer and shall conform to the standards set forth in this Section. All street and traffic signs shall be supplied and installed by the City of Chickasha Public Works Department. Subdivider shall provide and submit it to the Public Works Department a detailed list of signs to be installed. The Public Works Department will invoice the Subdivider for cost of the sign materials and installation labor, which shall be due and payable upon receipt.

All traffic-control signs shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" as published by the Federal Highway Administration. All signs required hereunder for a particular purpose shall so far as practicable be uniform as to type and location throughout the city. All traffic-control devices so erected and not inconsistent with the provisions of state law or this chapter shall be official traffic-control devices.

1. Stop Signs. All stop signs on Major Streets and at intersections of Major Streets with other streets shall be 36 inches by 36 inches. Stop signs at all other locations shall be 30 inches by 30 inches.
2. Street Name Signs. All street name signs shall have white lettering and border on green background. Letter heights on signs on Major Streets and at intersections of Major Streets with other streets shall be nine (9) inches. Letter heights at all other locations shall be six (6) inches.
3. All other signs shall be provided by the City of Chickasha.

Sec. 46-47 Private Roads/Streets

- A. Private streets may be used to provide access to a development in lieu of dedicated public streets provided that the streets meet the minimum width and minimum structural standards of the City and are inspected by the City. Private streets shall be maintained by the owners of record. A private street access and maintenance agreement between the owners, their heirs, executors, administrators, successors, and assigns, shall be filed contemporaneously with the filing of the Final Plat at the county courthouse; said agreement shall include, but shall not be limited to, the following requirements:
4. The agreement shall be recorded in the office of the County Clerk for the purpose of reflecting the provisions of said agreement within the abstracts of title of the lots within the subdivision.
 5. When in the interest of providing public access to adjacent properties that may not otherwise have access to public streets, the City Council may require the dedication of public right-of-way and may further require that public streets be provided within said right-of-way.
 6. Upon annexation of any subdivision containing private streets, the private streets shall remain private unless accepted by the City Council and made available to the general public.

B. Areas where permitted.

1. Rural land not served by City water and sanitary sewer facilities shall be permitted the use of private roadways in either platted or unplatted areas and building permits may be issued to property owners abutting upon private roadways under the conditions set out in this Section.
2. Private local streets may be permitted in a PUD but shall be constructed and inspected to City standards with the following exceptions:
 - a. Private streets may be reduced in width to 22 feet back of curb to back of curb with no on-street parking or another design as approved by development services; and
 - b. Private streets may provide an alternate design to curb and gutter. Private streets shall be contained within the PUD and within private roadway easements unless utilities are installed in combination with the development of streets. All utilities shall be placed in publicly dedicated easements.

All easements for private local street use shall be identified and labeled as an outlot. Sidewalks or pedestrian trails not located in the public right-of-way shall be designated on the final PUD plan and the PUD Final Plat as a pedestrian easement.

C. General standards for other than Planned Unit Developments.

1. The location of the private roadway easement shall be in compliance with the transportation plan map and City street standards, regardless of the size of the abutting property.
2. The private roadway easement shall be at least 50 feet in width in the case of local streets, or 60 feet in width in the case of collector streets.
3. All drives and curb cuts contained within the private roadway system shall comply with this Chapter.
4. The tracts, lots, sites or parcels of land contained within the private roadway subdivision shall contain not less than two acres each, including respective portions of the adjacent roadways. However, public right-of-way on section line roads is not to be included in the two-acre requirement.
5. The nearest boundary of the property contained within the proposed subdivision must be more than one-quarter mile (1,320 feet) from sewer and water facilities furnished by the City. The measurement shall be the actual number of feet of sewer and/or water lines required to serve the property, to be determined by good engineering practices.
6. All storm drainage shall be in compliance with this Chapter. Open type bar ditches shall be prohibited. All stormwater runoff must be contained within the street curb line and removed in a safe manner from the subdivision.
7. The private roadway shall not be dedicated to the public, but reserved for future dedication, and until such future dedication it shall be the private roadway of the abutting property owners.
8. Private roadways shall be surfaced and improved in accordance with the transportation plan map and City street standards.

9. The private roadway shall be maintained by the owners of the property within the subdivision.
10. The City shall have no responsibility for the maintenance and repair of the private roadway or easement.
11. If the property is platted, there shall be emblemized on the face of the plat, clearly conspicuous, a notice that the streets shall always be open to police, fire and other official vehicles of all state, federal, county and city agencies, and subject to all traffic regulations of these agencies.
12. Every deed shall clearly acknowledge that the roadway is private and not maintained by the City.
13. All names for private roadways shall be approved by the Planning commission in both platted and unplatted areas.
14. *Street signs.* The Developer shall install street signs at the intersection of all private roadways. The markers shall conform in style and quality with the standard street markers adopted by the City. After initial installation, the street signs shall be maintained by the property owners within the subdivision.
15. *Private roadway sign.* Prior to the sale of any parcel of land in the subdivision, a conspicuous sign shall be posted at the entrance into the subdivision, reading "Private Roadway not maintained by the City of Chickasha, Oklahoma." The sign shall meet the following specifications:
 - a. The sign shall be of 20-gauge steel;
 - b. The dimensions shall be 36 inches by 48 inches;
 - c. Letters shall be three inches high and block style;
 - d. The color shall be a green background and white reflective lettering; and
 - e. The sign shall be affixed on two metal poles, with its lowest point not less than seven feet above grade
16. *Maintenance.* After initial installation, the required street signs and the "private roadway" sign shall be maintained by the property owners within the subdivision. The property owners within the subdivision shall be given ten days' written notice by certified mail if a damaged, dilapidated or faded street sign or "private roadway" sign is not replaced or repaired. The procedure for abatement of a public nuisance, as outlined in Chapter 34 shall be followed if the sign is not replaced or repaired after the property owners have been given proper notice. Any cost for materials or labor suffered by the City shall be recovered directly from the property owners or collected from the property owners by the county treasurer in the manner prescribed by the laws of the state.

Sec. 46-48 Public Water Distribution System Improvements

- A. All subdivisions of land and developments shall be designed to provide public water service to each lot and tract of land in compliance with current Oklahoma Department of Environmental Quality (ODEQ) regulations, unless otherwise authorized in accordance with this Section.
- B. Water system required; connection of subdivision to public water supply.

1. The Subdivider shall provide a water supply and distribution system to a proposed subdivision capable of meeting water use and fire protection requirements in accordance with this Chapter and other applicable ordinances, standards and specifications.
 2. The Subdivider shall, at his expense, provide a water system capable of supplying water to each lot within the subdivision. All such construction must comply with City standards and specifications and must be approved by the City Engineer. Unless otherwise approved by the City Engineer, the Subdivider shall install water service lines in accordance with the standard drawings.
 3. Where an approved public water supply is reasonably accessible or procurable, the Subdivider shall connect with the water supply. For purposes of this Section, a public water supply is considered reasonably accessible if an existing or funded water main serves any quarter section in which the subdivision is wholly or partially located or is within one-quarter mile (1,320 feet) of any exterior boundary of the subdivision, whichever is the greater distance. Water supply is considered procurable unless the City or other public agency owning and maintaining the public water system cannot or will not, by reason of statute, ordinance, regulation or policy, furnish water to the subdivision. All water main construction must conform to the City standards and specifications and must be approved by the City Engineer. Exceptions, under the special circumstances set forth in this subsection, to these construction standards and specifications for the sizing of water mains may be granted by the City Council.
- C. *Water main extensions required; use of public water supply*
1. Water main extensions are required to serve all new subdivisions or new institutional, commercial or industrial structures, or multiple-family dwellings in areas not currently served by public water supply.
 2. Individual water wells may be allowed when a public water supply is adjacent, however, water wells shall be allowed for outside watering purposes only. In no case shall a water well be connected to the house service line. Water well drilling permits are required on all water wells drilled for domestic and outside watering purposes.
 3. When any building, structure, facility, lot, parcel or tract of land has once been connected to a public water supply, it shall not be disconnected, or use discontinued unless authorization has first been secured from the City Council for discontinuance.
 4. Any person violating any provision of this Section shall, upon conviction, be punished as provided in Section 1-14 and 1-15, and each day that the facility is disconnected from City water and connected to an individual water system is a violation thereof shall constitute a separate offense.
- D. *Code compliance.* The Developer shall install water lines, valves and fire hydrants, and installation shall be in accordance with the City specifications governing water line construction.
- E. *Public water extension.* Public water shall be extended to serve all zoning districts except A-1, Agricultural District.
- F. *General Standards*
1. Water main design and construction shall be completed in accordance with the latest construction specifications adopted by the City of Chickasha.

2. Refer to the Standard Drawings for design and construction details.
 3. As an additional general standard, all main water lines shall be ductile iron pipe, thickness class 50, or polyvinyl chloride (PVC) pipe having a minimum Dimension Ratio of DR 14 in accordance with AWWA standards.
 4. Size of water mains.
 - a. Water mains constructed along section line roads shall be twelve (12) inches in diameter.
 - b. Water mains constructed along quarter section lines or along the closest street to be built to a quarter section line shall be ten (10) inches in diameter.
 - c. All other water mains shall be not less than an eight (8) inches in diameter.
 5. Unless otherwise approved by the City Engineer, water mains shall be located three (3) feet behind the back of curb and shall not be located under streets, sidewalks or curbs.
 6. Whenever the City's water supply is not available, the Planning Commission shall require the Subdivider to provide an adequate potable water supply to serve all of the lots and provide adequate fire protection within the subdivision. All community or individual water supplies so constructed shall be in accordance with the minimum requirements of the Oklahoma Department of Environmental Quality.
 7. Whenever both the water and the sanitary sewer mains are to be located in the front of the lot within a public utility easement or street right-of-way, water mains will be located on the side of the street opposite from the sanitary sewer main.
- G. Water supply for fire protection; fire hydrants and fire lanes.
1. *Water supply for fire protection required.* The Developer of any subdivision containing four or more lots or building sites for single-family or two-family residences shall extend water mains for fire protection at his expense, except as provided in this Section. All sites other than single-family or two-family residences shall provide water main extensions for fire protection, except as provided in this Section.
 2. *Interconnection of mains.* Water mains shall be interconnected to form a grid system. The length between interconnections shall not exceed the following:
 - a. Eight-inch line: 1,200 feet.
 - b. Ten-inch line: 2,640 feet.
 - c. Twelve-inch line: 6,000 feet.
 3. *Diameter of mains; hydrants required; alternate fire protection plan.* The City Engineer shall not approve a water main supplying fire hydrants which is less than six inches in diameter. Fire hydrants of a type and manufacture approved by the Fire Chief shall be available to serve the building site of all commercial, industrial, mercantile, educational, institutional, assembly, hotel, motel, single-family, two-family, multifamily and mobile home park occupancies prior to the start of construction. In lieu of the required water line extension and fire hydrant installation, a Developer may submit to the Fire Chief and City Council for their approval an alternate fire protection plan for single-family and two-family residences in a subdivision containing less than four building sites and for business occupancies, other than mercantile, containing less than 5,000 square feet of gross floorspace. The alternate fire protection plan may include but is not limited to a special building requirement or an on-site water supply.

- The Council and Fire Chief may approve, approve conditionally, or disapprove such plan after hearing such proposal and reviewing any other alternatives.
4. *Hydrants to be shown on building plans.* Building plans for all new construction involving the occupancies listed in subsection (3) of this Section shall show the location of fire hydrants on both public and private property as approved by the Fire Chief and the City Engineer before any actual construction is undertaken.
 5. *Hydrant location and standards.* Hydrant location and standards shall be as follows:
 - a. All hydrants are to be installed according to City standards;
 - b. Fire hydrant requirements and locations shall be determined pursuant to Chapter 10 of the Chickasha Code of Ordinances; and
 - c. Fire hydrants shall be located apart from buildings and shall be fully accessible from paved driveways and fire lanes.
 6. *Marking of fire lanes.* The marking of fire lanes on private property devoted to public use shall be approved by the Fire Chief and chief of police of the city.
 7. *Access by fire equipment.* Fire lanes and driveways shall be located so that all buildings served by them are accessible to fire equipment.
 8. *Standards for fire lanes.* The contractor or designated person in charge of any construction site for commercial, industrial, mercantile, educational, institutional, assembly, hotel, motel, single-family, duplex, and multifamily dwelling or mobile home park uses shall provide and maintain an approved hard-surfaced all-weather access fire lane, not less than 20 feet in width, as shown on approved site plans. Such access fire lane, at the beginning of and during construction, shall be at least a graded roadbed with a gravel surface. At such time that construction has progressed to completion, the access lane shall be an approved hard-surfaced all-weather lane before any occupant shall be allowed to occupy the structure.
 9. *Fire department connections and fire hydrants.* The location of the fire department connections ("FDC") shall provide hose connections that shall not block access to the building or obstruct other fire apparatus from accessing the building. A fire hydrant shall be located within 100 feet of the FDC measured along a fire apparatus access road. FDC's and fire hydrants shall have a four-inch Storz connection without any downturn and shall include an approved locking cap as specified by the fire marshal. Fire hydrant hose nozzles shall be 2 1/2" nominal diameter and shall use National Standard Threads.
- H. Upon approval by the Planning commission, the City Council and ODEQ, the Director or the City Engineer shall issue a notice to proceed for the approved water improvements. The Developer shall not commence construction of water improvements until receiving the notice to proceed.
- I. Individual water wells.
1. Generally.
 - a. Where an approved water supply is not procurable as described in Section 46-43 A. 3, the subdivision, institution, commercial or industrial structure or single- or multiple-family dwelling may be served by individual water wells upon the express approval of the City Engineer, the Planning commission and the City

Council. Individual water wells must meet federal and state drinking water standards.

- b. Individual water wells shall meet state health design standards and construction specifications and shall provide adequate capacity to meet domestic demand.
 - c. Individual water wells shall have a minimum capacity of five gallons per minute. If soil and geological data indicates a possible groundwater deficiency, the applicant must demonstrate, at his expense, that the water is available in adequate quantity and quality.
 - d. As a fire protection measure, a minimum distance of 50 feet separation between residential structures shall be maintained in any residential district utilizing private water wells as the main source of water.
 - e. Developments and subdivisions shall contain provisions and completed infrastructure for connection to City water service when such service becomes accessible. Therefore, in addition to the temporary water well system, such subdivisions or developments must meet requirements for water service as though such service were available. This water infrastructure must allow for connection of the properties included in the subdivision or development to City water service at a single connection site and will be dedicated to the City as a part of the Final Plat approval process. Water infrastructure, as used in this Section, refers to water mains or refers to the complete installation and acceptance by the City of the water mains, valves, fire hydrants, service lines, meter boxes and appurtenances required to serve the proposed development or subdivision.
 - f. If a Developer desires to connect to City water service at the time of development when such service is not otherwise procurable as defined in this Section, upon approval of the City Council, the City will furnish materials and the Developer will provide installation for connection lines. Such approval shall be solely within the discretionary authority of the City Council and such decision shall be made based upon funds available, the general health, safety and welfare, the best interests of the City, and applicable law.
 - g. The City may connect the subdivision or other properties to City water service when such service becomes accessible. There will be no additional charge or fee to property owners for such connection. Under no circumstances will any private water well be connected to the City system.
2. *Provisions for future city water service.*
- a. *Infrastructure required.*
 - i. Developments and subdivisions shall contain provisions and completed infrastructure for connection to City water service when such service becomes accessible. Therefore, in addition to the individual water wells, such subdivisions or developments must meet requirements for City water service as though such service were available. This infrastructure will be dedicated to the City as a part of the Final Plat approval process.

- ii. The City may connect the subdivision to City water service when such service becomes accessible. There will be no additional charge or fee to property owners within the subdivision or development for such connection.
3. *Exceptions.*
- i. Upon recommendation by the City Engineer and upon approval by the City Council, in lieu of installing the water infrastructure system, a fee in the amount of 110 percent of the engineer's approved estimate may be paid into an escrow account, to be used within the drainage basin to bring the infrastructure to the area and/or pay for the cost of the system within the subdivision. If the City is unable to provide the infrastructure within five years, then the escrow funds will be returned to the Developer.
 - ii. If none of the requirements or other exceptions provided in this Article related to the water infrastructure system are feasible or are in the interests of the public health, safety and welfare, as determined by the City Council, who will be provided a recommendation by the City Engineer, then the Council may approve a type system not otherwise addressed in this Article, or any modification of a system, whether or not addressed in this Article. In such cases, the City may determine to maintain such system if the City determines that such maintenance would be in the interests of the public health, safety and welfare. If it is not a system that conforms to the water extension program, then an alternate system could be developed, and the City will maintain the alternate system.

Sec. 46-49 Sanitary Sewer Collection System Improvements

- A. All subdivisions of land shall be designed to provide sanitary sewer service to each lot in compliance with current Oklahoma Department of Environmental Quality (ODEQ) regulations. A Developer shall connect sanitary sewer service within the subdivision development to any city-owned sanitary sewer main located within 300-feet of the subdivision boundary whenever said sewer can gravity flow to the main unless an alternative disposal system is authorized in accordance with this Section.
- B. Individual development projects shall provide for sanitary sewage disposal as follows:
 - 1. Connection to the city-owned sanitary sewer system; or
 - 2. On-site package treatment under permit issued by the ODEQ; or
 - 3. Septic system treatment on single parcels of two acres or more under ODEQ permit.
 A copy of the ODEQ permit shall be provided to the Building Official prior to issuance of a certificate of occupancy for any residential structure.
- C. Lagoon-type or open containment systems are prohibited within the corporate boundaries of the City.
- D. The design shall meet the requirements of this Code and the state department of environmental quality (ODEQ) and provide sewer service to all points on the property. The sanitary sewer collection system design calculations shall be submitted to the City with the submission of the sanitary sewer improvement plans. The proposed plans will not be approved by the City and released for review by ODEQ until the City has determined that the proposed plans and system calculations meet the City standards.

- E. Sanitary Sewer main design and construction shall be completed in accordance with the latest construction specifications adopted by the City of Chickasha.
- F. Whenever it is necessary for a Developer to expend funds for the construction of a sewer main that will serve areas other than his own, the Developer may enter into a sewer main lease purchase agreement with the City as provided for in Chapter 41.
- G. The minimum size for a gravity sewer line shall be eight inches.
- H. No connection shall be made to the City sewer collection system to serve property located outside the corporate limits of the City, unless the owner of such property to be connected first petitions for annexation into the City in accordance with the provisions set forth in 11 O.S. § 21-105. If said property cannot be annexed under said statute, the property owner shall instead execute a written consent to annexation sufficient to meet the requirements of 11 O.S. § 21-103, and such consent shall be filed in the land records of the County Clerk to provide notice to all successors in interest that such consent to annex has been given. This provision shall not apply to connections made to such properties prior to the effective date of the ordinance from which this Chapter is derived.
- I. General Standards
 - 1. As a general standard, all gravity sanitary sewer mains shall be constructed of polyvinyl chloride (PVC) or cement-lined ductile iron pipe.
 - a. Materials of construction shall meet or exceed the latest revision of the following standard specifications:
 - i. Polyvinyl chloride:
 - a.) Pipe-ASTM D3034 or ASTM F789
 - b.) Joints-ASTM D3212
 - c.) Gaskets-ASTM F477
 - ii. Cement-lined Ductile Iron:
 - a.) Ductile iron pipe-AWWA C151 (ANSI A21.51)
 - b.) Fittings-AWWA C110 (ANSI A21.10) or AWWA C115 (ANSI A21.15)
 - c.) Gaskets-AWWA C111 (ANSI A21.11)
 - d.) Interior coating-AWWA C104 (ANSI A21.4)
 - e.) Exterior coating-1 mil application of bituminous or coal tar coating
 - f.) Polyethylene encasement-AWWA C105 (ANSI A21.5)
 - b. Wall thickness of pipe used is to be determined in accordance with the latest revision of the following standard specifications for the field conditions anticipated or the wall thickness as specifically stated below.
 - i. Polyvinyl chloride: Standard dimension ratio 35 or lower (DR 35) for pipe materials covered by ASTM C3034 or in accordance with ASTM F789 for materials covered by that specification.
 - ii. Ductile iron
 - a.) Ductile iron pipe-AWWA C150 (ANSI A21.5) for laying condition Type 4
 - b.) Fittings-Minimum pressure rating of 150 psi
 - c. The sanitary sewer mains are to be constructed in accordance with the latest revision of the following standard specifications.

- i. Polyvinyl chloride: ASTM D2321 with minimum bedding of Class I or II materials for four (4) inches under pipe and to the springline for overburden depths to twenty (20) feet.
 - ii. Ductile iron-AWWA C600 with minimum bedding of Type 4 as described in AWWA C150 (ANSI A21.50).
- 2. Sanitary sewer lines shall be placed in easements at the rear of properties or at the front of the lot on the opposite side of the street from the water main in a minimum fifteen foot (15') public utility easement in accordance with Figure 19.
- 3. All sewer service lines shall be privately owned and maintained from the point of connection to the public sewer main (including wye's, saddles, and appurtenances forming such connection) to the termination within the building(s) being served.
- 4. The property owner will be responsible for replacing/repairing the paved roadway within a public street right-of-way required as a result of a necessary repair to a private sewer service line crossing under the paved roadway. The Public Works Director shall be notified in writing seventy-two (72) hours in advance of such replacement/repairs to determine the requirements of the work and to make the necessary arrangements.
- 5. All lots requiring installation of backflow prevention devices as part of the private plumbing improvements shall have such requirement clearly indicated on the construction plat.
- 6. When alternative disposal systems are authorized and used, said use shall be in accordance with the following provisions:
 - a. Before construction of individual sewage disposal units, all plans and specifications shall be submitted to the Building Official for approval; and such approval shall be based upon the minimum specifications of the Oklahoma Department of Environmental Quality.
 - b. No individual sewage disposal unit shall be covered or placed in operation until final inspection for compliance with approved plans and specifications has been made by the Building Official; and
 - c. No portion of any unit disposal system shall be located closer than ten (10) feet to the lot line of the lot on which the system is located.
- 7. The use of sewer lift stations within the boundaries of the Sanitary Sewer Service Area, as defined by the Comprehensive Plan shall be contingent upon the following:
 - a. Every person desiring to use a sewer lift station within the boundaries of the drainage area shall submit engineered drawings showing the following information to the Planning commission.
 - i. Proposed location;
 - ii. Location of existing sewer mains in close proximity to the proposed development; and
 - iii. Proposed point of connection to existing sewer.
 - b. The City Engineer shall make a determination of need for installation of a sewer lift station, based upon information submitted by the Developer and the city's plans for construction of gravity sewer lines into the area. The City Engineer shall forward his recommendation in writing to the Planning commission. The recommendation shall address, at a minimum, the following:

- i. Each lift station shall contain an auxiliary power source to provide continuous service during periods when no electrical power is available;
 - ii. Each lift station shall have a wet-well capacity sufficient to accommodate a twenty-four-hour flow;
 - iii. Each lift station shall contain an alarm system to alert on-call personnel; and
 - iv. The applicant shall submit data showing that the proposed development can be better served by a lift station than by use of a gravity sewer line laid deep enough to overcome the differences in elevation;
- c. The use of sewer lift stations shall be subject to approval by the Oklahoma Department of Environmental Quality.
- d. When the development is outside the city limits, the application for the use of a sewer lift station shall be accompanied by the written request of the owner(s) of the area that the development be annexed to the City.
- e. The Developer or owner of the proposed development shall bear the entire cost of the sewerage lift station and all appurtenances. The Developer or owner shall submit a certified cost statement outlining the cost of the lift station and appurtenances and certified documentation showing that bids were sought for construction of the lift station. The proposed lift station shall be adequate in size, except as specified in paragraph h of this subsection, to serve the proposed development. The City Engineer shall ensure that plans submitted by the Developer indicate the total number of square feet capable of being served by the lift station within the drainage area.
- f. All sewerage lift stations, with appurtenances, shall, upon completion, become the sole and exclusive property of the City and shall be operated and maintained as a part of the City sewerage system.
- g. A one-year maintenance bond shall be posted by the Developer or owner responsible for installation of the sewerage lift station and force main.
- h. If a lift station is so located as to render it possible for tracts of land not owned by the Developer or owner of the proposed development to be served by the proposed lift station, the lift station shall be of sufficient size, including wet-well capacity and force main as determined by the City Engineer, to accommodate the potential development. The Planning commission may recommend to the Council that an exception to the above requirement be granted when the proposed lift station is to be temporary in nature. Such a determination shall be based upon a capital improvements program, adopted by the Council, which budgets funds for the construction of gravity sewer mains which will serve the area contained within the proposed development during the current operating fiscal year of the program:
 - i. Any person seeking to make connection to the sewerage lift station and force main shall be required to pay a connection charge to the City, exclusive of equipment replaced in accordance with subparagraph ii of this paragraph h, in proportion to the area of the proposed development, in square feet, to be served by the lift station;
 - ii. Any person seeking to make connection to the sewerage lift station shall be required to bear the cost of installation of any additional pumps or mechanical

or electrical equipment or modifications required to accommodate additional effluents generated by his development in proportion to the area to be served; and

- iii. The City reserves the right to connect to the lift station or force main for the public benefit at no return to the Developers or owners.
- i. Except as hereinafter provided, sanitary sewer service shall not be extended beyond the boundaries of the drainage area, as previously described above. Exceptions may be granted in accordance with the following criteria:
 - i. The extension of sanitary sewer service beyond the boundaries of the drainage area would be of substantial benefit to residents of the City, i.e., the installation of a major industry; or
 - ii. The proposed development is consistent with the Comprehensive Plan, including a capital improvements program.

Sec. 46-50 Stormwater Drainage Improvements

- A. The design and construction of all developments shall comply with the provisions of Chapter 46, Article VI, Stormwater Quality and Chapter 46, Article VII, Floodplain Development and Management. In the event of conflict between any other ordinance or regulation of the City of Chickasha and these Articles, the provisions of these articles shall govern.
- B. It is the goal of this Section to limit stormwater runoff rates after development to their historic rates or less, as an aid in erosion control and to decrease the probability of downstream flooding.
- C. The City's design criteria and minimum drainage requirements are published in the General Drainage Policy for the City of Chickasha, latest edition, and shall be utilized for all new development and redevelopment within the City of Chickasha.
- D. Designation of Responsibility. It is intended that responsibility for drainage be allocated as follows, unless otherwise specifically designated:
 - 1. The Developer is responsible for the following:
 - a. Construction of facilities to accommodate the increased surface drainage within the development and future developed flows from upstream properties and shall convey same to a point on an identified existing stream system. Such stream system shall have the hydraulic capability to accommodate the increased surface water flow or shall be modified by the Developer in a manner approved by the City to do so.
 - b. Obtaining off-site flowage easements and the construction of facilities to accommodate increased flow. Said easements shall be dedicated to the City. Where such off-site facilities are necessary, the City shall allow the Developer the option of constructing on-site detention and retention structures when environmental and economic conditions prohibit or make off-site improvements infeasible.
 - c. The improvement of all minor and major tributaries and channels lying within the development.
 - d. Any significant increase in rate or quantity of runoff in any minor or major tributary or minor or major channel which results from the development.

- e. Provision for the maintenance of all storm water systems and fringe areas of tributaries and channels which have not been dedicated to the public.
2. The City and other levels of government will be responsible for the maintenance of floodway and flood-fringe areas dedicated to the public.

ARTICLE VI. – STORMWATER QUALITY

Sec. 46-51. - Purpose.

It is the intent of this chapter to protect, maintain, and enhance the environment of the city and the short-term and long-term public health, safety, and general welfare of the citizens of the city by controlling discharges of pollutants to the city's stormwater drainage system and to maintain and improve the quality of the water into which the stormwater drainage system flows, including without limitation, the lakes, rivers, streams, creeks, ponds, and wetlands in the city.

This chapter establishes methods to regulate the introduction of pollutants to the municipal separate storm sewer system (MS4J and enables the city to comply with all applicable state and federal laws including, but not limited to, the Clean Water Act (33 U.S.C. 1251, et seq.). the Oklahoma Environmental Quality Act (Title 27A O.S. § 1-1-101,et seq.) and the stormwater regulations (40 CFR Part 122). The objectives of this chapter are to allow the city:

- (1) To regulate the contribution of pollutants to the municipal separate storm sewer system by stormwater discharges by any user;
- (2) To control the introduction to the municipal separate storm sewer system of spills, dumping, or the disposal of materials other than stormwater;
- (3) To prohibit illicit discharges to the municipal separate storm sewer system;
- (4) To carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with this chapter;
- (5) To comply with the conditions in the state department of environmental quality general permit for phase II municipal separate storm sewer system discharges for small cities (OKR04) or any other federal or state laws pertaining to stormwater quality to which the city is subject.

Sec. 46-52. - Definitions.

Unless otherwise provided in this chapter, for the purposes of this chapter, the following words and phrases shall have the meanings given herein:

Accidental discharge means a discharge other than stormwater runoff or other approved discharges listed in section 46-B(b) into the city's stormwater drainage system, the watercourses of the city, or the waters of the state or United States which occurs by chance and without planning or consideration prior to occurrence.

Agricultural stormwater runoff means any stormwater runoff from orchards, cultivated crops, pastures, range lands, and other nonpoint source agricultural activities, but not discharges from concentrated animal feeding operations as defined in 40 CFR Section 122.23 or discharges from concentrated aquatic animal production facilities as defined in 40 CFR Section 122.24 and any addition or amendment thereto.

City means the City of Chickasha.

Contaminated means containing a harmful quantity of any substance.

Discharge means to cause or allow to throw, drain, release, dump, spill, empty, emit, blow, or pour any pollutant or non-permitted substance into the municipal separate storm sewer system (MS4), any watercourse of the city, or any water of the state or United States.

Discharger means any person who causes, allows, permits, or is otherwise responsible for a discharge, including, without limitation, any operator of a land disturbance site or a construction site or an industrial facility, any owner of a commercial property or a residential property or an agricultural property, and any owner or transporter of a source of discharge.

Illicit discharge means any intentional discharge to the municipal separate storm sewer system, any watercourse of the city, or any water of the state or United States that is not composed entirely of stormwater, except discharges pursuant to any OPDES or NPDES permit and discharges allowed per this chapter.

Monitoring means the performance of stormwater flow measurements, stormwater sampling, sample analysis, visual inspections, and like procedures necessary to determine compliance with stormwater discharge activity.

Motor vehicle fluid means any vehicle crankcase oil, antifreeze, transmission fluid, brake fluid, differential lubricant, gasoline, diesel fuel, gasoline/alcohol blend, and any other fluid used in or from within a motor vehicle.

Municipal separate storm sewer system (MS4) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned or regulated by the city and designed or used for collecting or conveying stormwater, and which is not used for collecting or conveying sewage.

Municipal solid waste means solid waste resulting from or incidental to municipal, community, commercial, institutional, or recreational activities, and includes garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and other solid waste other than industrial waste.

National pollutant discharge elimination system (NPDES) permit means a permit issued by EPA (or by the state as an OPDES permit under authority delegated pursuant to 33 U.S.C. §

1342 (b)) that authorizes the discharge of pollutants to waters of the United States (or waters of the state), whether the permit is applicable on an individual, group, or general area-wide basis.

Nonpoint source means any source of any discharge of a pollutant that is not a "point source."

Oklahoma pollutant discharge elimination system (OPDESJ permit. See national pollutant discharge elimination system (NPDESJ permit.

Point source means any discernible, confined, and discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged.

Pollutant means any dredge spoil, solid waste, incinerator residue, oil, grease, sewage, garbage, sewage sludge, munitions, medical waste, chemical waste, industrial waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, sediment from construction sites and graded areas, agricultural and industrial waste, and any characteristics of wastewater (i.e. acidity or alkalinity (pH), temperature, total suspended solids (TSSJ, turbidity, color, biological oxygen demand (BOD), chemical oxygen demand (COD), toxicity, odor).

Sanitary sewer (or sewer) means the system of pipes, conduits, and other conveyances which carry industrial waste and domestic sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, to a sewage treatment plant and to which stormwater, surface water, and groundwater are not intentionally admitted.

Solid waste means any garbage, rubbish, refuse, municipal solid waste, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, municipal, commercial, mining, agricultural operations, community and institutional activities, including metal shavings, plastic pellets, paint chips, carpet fibers, wood chips, sawdust, grass clippings, and leaves.

Stormwater drainage system means any facility, structure, improvement, development, equipment, property or interest therein, or other structural or nonstructural element made, constructed, used, or acquired for the purpose of collecting, containing, storing, conveying, and controlling stormwater wherever located, including, but not limited to, storm sewers, streets, gutters, curbs, street drains, conduits, natural and manmade channels, pipes, culverts, and detention or retention ponds whether public or private.

Storm drainage program or program means an overall strategy and framework for the stormwater management activities of the city.

Spill means any release that, in the opinion of the city manager or his authorized representative, negatively impacts the quality of water within or discharges from the city's municipal separate storm sewer system, or causes damaging or deleterious effects to the city's municipal separate storm sewer system including all structures or appurtenances, and/or the waters to the storm sewers, and/or the city's watercourses or the waters of the state or United States.

Storm drainage management means the collection, conveyance, storage, treatment, and disposal of stormwater runoff in a manner to meet the objectives of Title 23 of the Chickasha Municipal Code and its terms, including, but not limited to, measures that control the increased volume and rate of stormwater runoff and water quality impacts caused by manmade changes to the land.

Stormwater means any rainwater runoff, surface runoff, and drainage related to rain or storm events or snow melt.

Wastewater means any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

Watercourse means any lake, river, stream, creek, pond, or wetland.

Sec. 46-53.- Monitoring.

The city manager or his authorized representative shall have the right to detect, identify, and monitor the type, quantity of, and the concentration of pollutants in stormwater discharges, in discharges entering the city's MS4 or the watercourses or the waters of the state or United States within the city, as well as directly in the aforementioned conveyances and waterbodies themselves.

Sec. 46-54. - Illicit discharges.

- (a) The city manager or his authorized representative shall take appropriate steps to detect and eliminate illicit connections to the city's stormwater drainage system, including the adoption of a program to screen for illicit discharges and identify their source or sources.
- (b) The city manager or his authorized representative shall take appropriate steps to detect and eliminate improper discharges, including programs to screen for improper disposal and programs to provide for public education, public information, and other appropriate activities to facilitate the proper management and disposal of used oil, toxic materials, and household hazardous waste.

Sec. 46-55. - Inspections.

- (a) The city manager or his authorized representative is authorized to enter a structure or premise to determine whether any hazard to life, property, or public welfare or any public nuisance exists. This shall include authority to enter properties for regular or periodic inspections, investigations, monitoring, observation, measurement, enforcement, sampling, and testing to effectuate the provisions of this chapter. The owner of said property or the representative on-site shall be duly notified and the inspection shall be conducted at a reasonable time.
- (b) In the event the city manager or his authorized representative reasonably believes that discharges from the property into the city's stormwater drainage system may cause an imminent and substantial threat to human health or the environment, the inspection may take place at any place at any time and without notice to the owner of the property or a representative on-site. The inspector shall present proper credentials upon reasonable request by the owner or representative.
- (c) Upon refusal by any property owner to permit an inspector to enter or continue an inspection, the inspector shall terminate the inspection or confine the inspection to areas over which no objection is raised. The inspector shall immediately report the refusal and the grounds to the city manager. The city manager may seek appropriate compulsory process.
- (d) The city manager or his authorized representative may request information from an owner or representative concerning processes, methods, records, permits, or other information that reasonably can be used to determine compliance with this chapter.

Sec. 46-56. - Unauthorized discharge a public nuisance.

No person shall conduct, allow, or permit the discharge of stormwater in any manner in violation of this chapter, of any condition of a permit issued pursuant to this chapter, or of any stormwater discharge permit issued by the state or federal agency. Such discharge is hereby declared a public nuisance and shall be corrected or abated by any owner and by any operator.

(Ord. No. 2016-13 , § I, 6-20-2016)

Sec. 46-57. - Illicit discharge and illegal dumping.

- (a) No person shall conduct, allow, or permit the direct or indirect discharge of any material other than stormwater into the MS4, the watercourses in the city, or the waters of the state or United States. The following direct or indirect discharges are examples of prohibited discharges; this list is not all-inclusive:
 - (1) Sewage dumping or dumping of sewage sludge;

- (2) Chlorinated swimming pool discharge;
 - (3) Discharge of any polluted household wastewater, such as but not limited to laundry wash water and dishwater, except to a sanitary sewer or properly operating sewage disposal system;
 - (4) Leaking sanitary sewers and connections;
 - (5) Leaking or improperly operating sewage disposal system, private or otherwise;
 - (6) Leaking water lines;
 - (7) Commercial, industrial or non-exempt public vehicle wash or power wash discharge and commercial, industrial, or non-exempt cosmetic cleaning;
 - (8) Garbage, rubbish, litter, trash, or sanitary waste disposal;
 - (9) Dead animals, animal fecal waste, or fecal absorbent such as cat litter or cedar mulch;
 - (10) Non-stormwater discharges, except pursuant to a permit issued by the state or federal agency;
 - (11) Dredged or spoil material;
 - (12) Solid waste and commercial or industrial process by-products;
 - (13) Chemical waste, industrial waste, and hazardous waste and substances;
 - (14) Wrecked or discarded vehicles, appliances, or equipment;
 - (15) Wastewater;
 - (16) Motor vehicle fluid;
 - (17) Oil or used oil;
 - (18) Paint;
 - (19) Yard waste such as grass clippings, leaves, or limbs;
 - (20) Sediment, litter, building materials, chemicals, concrete wash-out or slurry, or sanitary waste from a construction site;
 - (21) Municipal solid waste.
- (b) The following non-stormwater sources are the "allowable and occasional incidental discharges" which the city has determined to not be substantial contributors of pollutants to the MS4 and are therefore allowed:
- (1) Water line flushing;
 - (2) Landscape irrigation;
 - (3) Diverted stream flows;
 - (4) Rising ground waters;
 - (5) Residential building wash water without detergents;
 - (6) Uncontaminated pumped ground water;
 - (7) Uncontaminated ground water infiltration;
 - (8) Discharges from potable water sources;
 - (9) Foundation drains;
 - (10) Air conditioning condensate;
 - (11) Irrigation water;
 - (12) Springs;
 - (13) Water from crawl space pumps;
 - (14) Footing drains;

- (15) Lawn watering;
- (16) Individual residential car washing;
- (17) De-chlorinated swimming pool discharges;
- (18) Street wash water;
- (19) Fire hydrant flushings;
- (20) Non-commercial or charity car washes;
- (21) Discharges from riparian areas and wetlands;
- (22) Discharges or flows from emergency fire-fighting activities provided that the incident commander, fire chief, or other on-scene fire-fighting official in charge makes an evaluation regarding potential releases of pollutants from the scene. Measures shall be taken to reduce any such pollutant releases to the maximum extent practicable subject to all appropriate actions necessary to ensure public health and safety.

Sec. 46-58. - Accidental discharges.

- (a) In the event of any discharge or a hazardous substance in amounts which could cause a threat to public drinking supplies, a "significant spill," or any other discharge which could constitute a threat to human health or the environment, the owner or operator or the facility shall give notice to the city's drainage utility manager and the field office of the state department of environmental quality as soon as practicable, but in no event later than the close of business on the day following the accidental discharge or the day the discharger becomes aware of the circumstances. If an emergency response by governmental agencies is needed, the owner or operator should also call 911 immediately to report the discharge. A written report must be provided to the city's storm drainage utility manager within five days of the time the discharger becomes aware of the circumstances, unless this requirement is waived by the city manager or his authorized representative for good cause shown on a case-by-case basis, containing the following particulars: 1) a reasonably precise description of the discharge, 2) the exact date and time of discharge, and 3) steps being taken to eliminate and prevent recurrence of the discharge.
- (b) The owner and operator shall take all reasonable steps to mitigate any adverse impact to the city's MS4, the watercourses in the city, or the waters of the state or United States, including such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge. It shall not be a defense for the discharger in an enforcement action that it would have been necessary to halt or reduce the business or activity of the facility in order to maintain water quality and mitigate any adverse impact that the discharge may cause. The mitigation plan shall be approved by the drainage utility manager.

Sec. 46-59. - Construction and post-construction stormwater control requirements.

- (a) The city may regulate construction and land disturbing activities on any size lot, regardless of whether that activity also requires a department of environmental quality construction permit.
- (b) The city may enforce development regulations requiring that any new development or redevelopment include structural or non-structural control measures as necessary to maintain predevelopment runoff conditions.
- (c) Pursuant to this requirement, the city may conduct regular inspections to verify the functionality of the structural or non-structural control measure.

Sec. 46-60. - Administrative enforcement.

- (a) Notification of violation. Whenever the city manager or his authorized representative finds that any permittee or any person discharging stormwater has violated or is violating this article, or a stormwater permit or order issued hereunder, the city manager or his authorized representative may serve upon said person or permittee written notice of the violation. Within ten calendar days of the receipt date of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted to the city manager. Submission of this plan in no way relieves the permittee or person of liability or criminal prosecution for any violations occurring before or after receipt of the notice of violation.
- (b) Consent orders. The city manager or his authorized representative is hereby empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the compliance and for the noncompliance. Such orders will include specific action to be taken by the discharger, operator and owner to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as administrative orders issued pursuant to paragraph (d) below.
- (c) Show cause hearing. The city manager or his authorized representative may order any person who causes or contributes to violation of this article or stormwater permit or order issued hereunder, to show cause why a proposed enforcement action should not be taken. Notice shall be served specifying the time and place for the meeting, the proposed enforcement action and the reasons for such action, and a request that the violator show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten calendar days prior to the hearing. Such notice may be served on any individual or the individual or the principal executive, general partner or manager of any legal entity or person of legal age at the office or business address of the permittee or violator.

- (d) Compliance order. When the city manager or his authorized representative finds that any person has violated or continues to violate this article or a permit or order issued thereunder, the city manager or his authorized representative may issue an order to the violator directing that, following a specified time period, adequate structures or devices be installed or procedures implemented and properly operated, supervised, and administrated. Orders may also contain such other requirements as might be reasonably necessary and appropriate to address the noncompliance, including the construction of appropriate structures, installation of devices, self-monitoring, and best management practices.
- (e) Cease and desist orders. Notwithstanding any other notice, order, or administrative process provided by this section, when the city manager or his authorized representative finds that any person has violated or continues to violate this article or any permit or order issued hereunder, and also finds that such violation may cause an impairment of water quality or that a permit is required and has not been issued, the city manager or his authorized representative may issue an order to cease and desist all such violations and direct those persons in noncompliance to:
 - (1) Comply forthwith; or
 - (2) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations or terminating the discharge or both.
- (f) Appeal. A person receiving an order may file a written notice of appeal with the city manager no later than the tenth calendar day after receipt of the order. Such notice shall include an explanation as to why the person believes the enforcement action should not be taken. A person receiving a cease and desist order may file a written notice of appeal with the city manager and obtain relief from such order upon a showing that the alleged violation will not cause an impairment of water quality or that a permit is not required. A hearing on the appeal will be scheduled within a reasonable time after receipt of the notice of appeal and the required explanation. All notices of appeal shall be signed by the owner or operator of the premises or activities in controversy, and shall include name and address of the person filing the notice of appeal. Notice of hearing on the appeal may be served by facsimile or first-class mail at the number or address given in the written notice of appeal.

Sec. 46-61. - Unlawful acts.

It shall be unlawful for any person to:

- (1) Violate any provision of this chapter;
- (2) Violate the provisions of any permit issued pursuant to this chapter;
- (3) Fail or refuse to comply with any lawful notice to abate issued by the city manager or his authorized representative within the time specified by such notice; or

- (4) Violate any lawful order of the city manager or his authorized representative, or fail to comply with such an order within the time allowed by such order.

Sec. 46-62. - judicial proceedings and relief.

- (a) The city council may authorize the city manager by and through the city attorney to initiate proceedings in any court of competent jurisdiction against any person who has or is about to:
 - (1) Violate the provisions of this chapter;
 - (2) Violate the provisions of any permit issued pursuant to this chapter;
 - (3) Fail or refuse to comply with any lawful order issued by the city manager which has not been timely appealed to the appropriate court within the time allowed by this chapter;
 - (4) Violate any lawful order within the time allowed by such order.
- (b) Any person who is required by any provision of this chapter or by any other law to obtain a permit prior to engaging in conduct that is regulated by this chapter, and who fails or neglects to obtain such a permit, or who fails to exhibit such a permit upon request by a city official, shall be guilty of an offense against the city. Each day on which a violation shall occur or continue to occur shall be deemed a separate offense.
- (c) The city manager, with consent of the city council, may also initiate civil proceedings in any court of competent jurisdiction seeking monetary damages for any damages caused to publicly owned stormwater facilities by any person, and to seek injunctive or other equitable relief to enforce compliance with the provisions of this chapter or to enforce compliance with any lawful orders.
- (d) The city manager may petition the Oklahoma Department of Environmental Quality to regulate and prosecute stormwater dischargers which cannot be adequately controlled by municipal resources.

Sec. 46-63. - Reconsideration.

- (a) Any person subject to: a denial of a permit issued under this chapter, a compliance order, a stop work order, an emergency suspension of utility service, or any other enforcement action in this chapter which allows for reconsideration and hearing under this section, may petition the city official who took such action to reconsider the basis for the action. In order for the petition to be re-considered, it shall be filed with such city official no later than the tenth calendar day after receipt of the notice/order.

- (b) Failure to submit a timely written petition for reconsideration shall be deemed to be a waiver of any further right to administrative reconsideration or review of the action.
- (c) In its petition, the petitioner shall indicate the action objected to, and the reasons for the objection(s), any facts that are contested, the evidence that supports the petitioner's view of the facts, any alternative terms of an order that the petitioner would accept, whether the petitioner requests a hearing on its petition and the address where notice of hearing will be received and accepted.
- (d) The effect of a compliance order or stop work order shall be stayed pending the city manager's reconsideration of the petition, and any hearing thereon, unless the city manager expressly makes a written determination to the contrary. The effect of an emergency suspension of utilities shall not be stayed pending the city manager's reconsideration or any hearing, unless the city manager expressly, and in writing, stays the emergency order.
- (e) Within a reasonable time of the submittal of a petition for reconsideration, the city manager shall either grant the petition and withdraw or modify the order or modify or grant the permit accordingly; deny the petition if no material issue of fact is raised; or if a hearing has been requested and/or a material issue of fact has been raised, set a hearing on the petition.

Sec. 46-64. - Hearings.

- (a) The city manager may also set a hearing if the city manager determines that a show cause hearing should be conducted, if grounds exist to revoke or suspend a permit issued under this chapter, or if grounds exist to terminate utilities on a non-emergency basis.
- (b) Written notice of the hearing shall be served on a petitioner/violator at least ten calendar days prior to the hearing. Notice shall be served in person or by mail, return receipt requested.
- (c) Notices shall specify the date, time, and place of the hearing.
- (d) A Notice that is mailed shall be deemed received five calendar days after it is placed in a mail receptacle of the United States Postal Service.
- (e) No decision may be rendered at a hearing by reason of the petitioner/violator's failure to appear unless proof of service is shown.
- (f) For purposes of this section, the city manager shall be empowered to administer oaths and to promulgate procedural rules for the conduct of the hearing.
- (g) Whenever any deadline specified in this section falls upon a Saturday, Sunday, or a city-recognized holiday, the deadline shall be the next regular city business day.
- (h) The date of an order or ruling required to be made under this section shall be deemed to be the date it is signed.

- (i) Decisions shall be based on a preponderance of the evidence. The city shall have the burden of proof in all hearings except permit denial hearings. In permit denial hearings, the burden of proof shall be on the petitioner.
- (j) The city manager shall act as the hearing officer.
- (k) After the conclusion of the hearing, the city manager shall make written findings of the fact and conclusions of law and shall issue a written decision without undue delay.
- (l) A hearing shall exhaust all administrative remedies of the petitioner/violator.

Sec. 46-65. - Variances.

- (a) The city manager may grant a revocable variance from the requirements of this chapter providing to do so would not result in the violation of any state or federal law or regulation and if exceptional circumstances applicable to the site exist such that strict adherence to the provisions of this chapter will result in unnecessary hardship and will not result in a condition contrary to the intent of the article.
- (b) A written petition for a variance shall be required and shall state the specific variance sought and the reasons, with supporting data, why a variance should be granted. The request shall include all information necessary to evaluate the proposed variance. The petition shall be filed with the city manager.
- (c) The city manager shall conduct a review of the request for a variance within ten working days after receipt and may either support the petition or may object to the petition. If the city manager objects to the variance, the city manager shall state the reasons therefor.
- (d) Once the city manager's review is complete or the ten working days for review have expired, the petition shall be subject to action at the discretion of the city council.

ARTICLE VII. – FLOODPLAIN DEVELOPMENT AND MANAGEMENT

ARTICLE VII.A. IN GENERAL

Sec. 46-66. - Findings of fact.

- (a) The flood hazard areas of the city are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.
- (b) These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to

other lands because they are inadequately elevated, floodproofed or otherwise protected from flood damage.

Sec. 46-67. - Statement of purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business interruptions;
- (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
- (6) Help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood blight areas; and
- (7) Ensure that potential buyers are notified that property is in a flood area.

Sec. 46-68. - Methods of reducing flood losses.

In order to accomplish its purposes, this chapter uses the following methods:

- (1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers that are involved in the accommodation of floodwaters;
- (4) Control filling, grading, dredging and other development which may increase flood damage; and
- (5) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

Sec. 46-69.- Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Accessory structure means a structure that is on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Examples of accessory structures include, but are not limited to, garages and storage sheds.

Area of shallow flooding means a designated AO zone on a community's flood insurance rate map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of special flood hazard is the land in the floodplain within the city subject to a one percent or greater chance of flooding in any given year.

Base flood means the flood having a one percent chance of being equaled or exceeded in any given year.

Base flood elevation means the elevation in feet above mean sea level of the base flood or one percent chance flood.

Basement means any area of the building having its floor sub-grade (below ground level) on all sides.

BFE means base flood elevation.

CFR means Code of Federal Regulations.

Critical feature means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

Development means any manmade change in improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

Development permit means a permit issued by the city floodplain administrator which authorizes development in a special flood hazard area in accordance with this chapter.

Elevated building means a non-basement building built, in the case of a building in zones AO, AE, A, and X, to have the top of the elevated floor adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood. In the case of zones AE, A, and X, the term "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters.

Existing construction means, for the purposes of determining rates, structures for which the start of construction commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. The term "existing construction" may also be referred to as "existing structures."

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before August 4, 1972.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEMA means the Federal Emergency Management Agency.

FIRM means flood insurance rate map.

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters; or
- (2) The unusual and rapid accumulation or runoff of surface waters from any source.

Flood insurance rate map means an official map of the city on which FEMA has delineated both the areas of special flood hazards and the risk premium zones applicable to the city.

Flood insurance study means the official report provided by FEMA for the city which contains flood profiles, water surface elevation of the base flood, as well as the floodway width, section area and mean velocity.

Floodplain or floodprone area means any land area susceptible to being inundated by water from any source.

Floodplain administrator means a person accredited by the OWRB and designated by the city council to administer and implement laws, ordinances and regulations relating to the management of floodplains.

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.

Floodplain management regulations means zoning codes and ordinances, subdivision regulations, building codes, health regulations, special purpose regulations and ordinances (such

as floodplain, grading and erosion control regulations and ordinances) and other applications of police power. The term "floodplain management regulations" describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Flood protection system means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within the city subject to a special flood hazard and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. A floodway is located within areas of special flood hazard established in section 22-6. A floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris and potential projectiles.

Functionally dependent use means a use that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term "functionally dependent use" includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - a. By an approved state program as determined by the Secretary of the Interior; or
 - b. Directly by the Secretary of the Interior in states without approved programs.

Levee means a manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Levee system means a flood protection system which consists of a levee or levees and associated structures, such as closure and drainage devices, that are constructed and operated in accordance with sound engineering practices.

Lowest floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking or vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of 44 CFR 60.3.

Manufactured home means a structure transportable in one or more sections that is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean sea level means, for purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on the city's flood insurance rate map are referenced.

New construction means, for the purpose of determining insurance rates, structures for which the start of construction commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, the term "new construction" means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by the city council and includes any subsequent improvements to such structures.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by the city floodplain board.

OWRB means the Oklahoma Water Resources Board.

Recreational vehicle means a vehicle that is:

- (1) Built on a single chassis;
- (2) 400 square feet or less when measured at the largest horizontal projections;
- (3) Designed to be self-propelled or permanently towable by a light-duty truck; and
- (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Start of construction (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Public Law 97-348) includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation.

Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets or walkways; nor does it include excavation for basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure means a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

Substantial damage means damage of any origin sustained by a structure where the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before start of construction of the improvement. This includes structures that have incurred substantial damage, regardless of the actual repair work performed. The term "substantial improvement" does not, however, include either:

- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and that are the minimum necessary conditions; or
- (2) Any alteration of a historic structure provided that the alteration would not preclude the structure's continued designation as a historic structure.

Variance is a grant of relief by the city to a person from the terms of this chapter when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or

development in a manner otherwise prohibited by this chapter. (For full requirements see 44 CFR 60.6.)

Violation means the failure of a structure or other development to be fully compliant with this chapter.

Water surface elevation means the height, in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

Sec. 46-70. - Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the city.

Sec. 46-71. - Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled, "The Flood Insurance Study for Grady County, Oklahoma and Incorporated Areas," dated April 3, 2012, with the accompanying flood insurance rate map (FIRM) are adopted by reference and declared to be a part of this chapter.

Sec. 46-72. - Establishment of development permit.

A development permit shall be required to ensure conformance with the provisions of this chapter.

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Sec. 46-73. - Compliance.

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this chapter and other applicable regulations.

Sec. 46-74. - Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and any other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

Sec. 46-75. - Interpretation.

In the interpretation and application of this chapter, all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the city council; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statute.

Sec. 46-76. - Warning and disclaimer or liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions, greater floods can and will occur and flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city or any official or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

Secs. 46-77 through 46-105. - Reserved.

ARTICLE VII.B. - ADMINISTRATION

Sec. 46-106.- Designation of the floodplain administrator.

The floodplain administrator shall be as designated by the city manager to administer and implement the provisions of this article and other appropriate sections of National Flood Insurance Program regulations in title 44 CFR pertaining to floodplain management.

Sec. 46-107 - Duties and responsibilities of the floodplain administrator.

Duties and responsibilities of the floodplain administrator shall include, but not be limited to, the following:

- (1) Become accredited by the OWRB in accordance with 82 O.S. §§ 1601-1618, as amended.
- (2) Review permit applications to determine whether the proposed building sites, including the placement of manufactured homes, will be reasonably safe from flooding.
- (3) Review, approve or deny all applications for development permits required by this article.
- (4) Review proposed development to assure that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval are required.

- (5) Make the necessary interpretation where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions).
- (6) Notify, in riverine situations, adjacent communities and the OWRB prior to any alteration or relocation of a watercourse, and submit evidence of such notification to FEMA.
- (7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
- (8) Require the developer/applicant to determine and provide the base flood elevation on a FEMA elevation certificate as well as other data as required in order to administer the provisions of article III of this chapter.
- (9) When a floodway has not been designated, require that no new construction, substantial improvements, or other development (including fill) shall be permitted within zone AE as delineated on the county FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the city.
- (10) After a disaster or other type of damage occurrence to structures in the city, determine if the residential and nonresidential structures and manufactured homes have been substantially damaged, and enforce the substantial improvement requirement.
- (11) Maintain a record of all actions involving an appeal from a decision of the city.
- (12) Maintain and hold open for public inspection all records pertaining to the provisions of this article.

Sec. 46-108. - Permit procedures.

- (a) An application for a development permit shall be presented to the floodplain administrator on forms furnished by him and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:
 - (1) Elevation in relation to mean sea level of the lowest floor (including basement) of all new and substantially improved structures.
 - (2) For nonresidential floodproofed structures, professionally prepared plans along with a stamped certificate from a registered professional engineer or architect stating that the nonresidential floodproofed structure meets FEMA's flood proofing requirements.
 - (3) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

- (b) Approval or denial of a development permit by the floodplain administrator shall be based on all of the provisions of this article and the following relevant factors:
- (1) The danger to life and property due to flooding or erosion damage.
 - (2) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 - (3) The danger to life and property due to flooding or erosion damage.
 - (4) The danger that materials may be swept onto other lands to the injury of others.
 - (5) The compatibility of the proposed use with existing and anticipated development.
 - (6) The safety of access to the property in times of flood for ordinary and emergency vehicles.
 - (7) The costs of providing governmental services during and after flood conditions, including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems.
 - (8) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site.
 - (9) The necessity to the facility of a waterfront location, where applicable.
 - (10) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.
 - (11) The relationship of the proposed use to the comprehensive plan for that area.
 - (12) The floodplain appeal board membership shall be comprised of the board of adjustment members.
- (c) The floodplain administrator or city council, as applicable, may approve certain development in zones A or AE delineated on the county FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the applicant for the development permit in that case first complies with-44 CFR 65.12.

Sec. 46-109. - Variances.

(a) *General provisions.*

- (1) The floodplain board of the city may grant variances for uses which do not satisfy the requirements of the Oklahoma Floodplain Management Act or this article, if the applicant for the variance presents adequate proof that:
 - a. Compliance with this article will result in an arbitrary and unreasonable taking of property without sufficient benefit or advantage to the people; and
 - b. Satisfies the pertinent provisions of this section.However, no variance shall be granted where the effect of the variance will be to permit the continuance of a condition which unreasonably creates flooding hazards.
- (2) Any variance so granted shall not be construed as to relieve any person who receives it from any liability imposed by the Oklahoma Floodplain Management Act or by other laws of the state.
- (3) In no case shall variances be effective for a period longer than 20 years.

- (4) Any person seeking a variance shall file a petition with the floodplain board, accompanied by a filing fee as established by the city council.
- (5) Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in section 22-43 and provisions of this section have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- (6) Any person seeking a variance to build a structure below the base flood elevation will be issued a notice signed by the chairman of the floodplain board which states that:
 - a. The cost of flood insurance will be commensurate with the increased risk resulting from permitting the structure to be built lower than the base flood elevation; and
 - b. Such construction below the base flood level increases risks to life and property.
- (7) At such time as the floodplain board deems the petition ready for notification to the public, the floodplain board shall schedule a hearing and direct the applicant to publish notice thereof in a newspaper of general circulation in the county at least 30 days prior to the hearing.
- (8) The floodplain board shall conduct the hearing and make determinations in accordance with the applicable provisions of this section. The floodplain board shall exercise wide discretion in weighing the equities involved and the advantages and disadvantages to the applicant and to the public at large when determining whether the variance shall be granted.
- (9) Variances shall only be issued upon:
 - a. A showing of good and sufficient cause;
 - b. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws, regulations or ordinances; and
 - d. A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (10) Upon consideration of the factors stated in this section and the intent of this article, the floodplain board may attach such conditions to the granting of a variance as it deems necessary to further the purposes and objectives stated in section 22-43.
- (11) The floodplain administrator shall maintain a record of all variance actions, including justification for their issuance; and a copy of any variance issued by the floodplain board shall be sent by the floodplain administrator to the OWRB and FEMA within 15 days after issuance of the variance.

(b) *Special provisions.*

- (1) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the state inventory of

historic places, without regard to the procedures set forth in the remainder of this article.

- (2) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (3) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (4) Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that:
 - a. The criteria of subsections (a)(5), (a)(9), (b)(2) and (b)(3) of this section are met; and
 - b. The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

Sec. 46-110. - Floodplain management fee schedule.

The city shall establish the fee for development in the floodplain by resolution of the city council.

Sec. 46-111. - Penalties for noncompliance.

- (a) No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this article and other applicable regulations. A structure or other development without the elevation certificate or other certifications required in this article is presumed to be in violation until such time as that documentation is provided. Violation of the provisions of this article by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this article or fails to comply with any of its requirements shall upon conviction thereof be fined not more than the established rate for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the city council or its city attorney from taking such other lawful action as is necessary to prevent or remedy any violation.
- (b) Enforcement of violations. The community development department is authorized to issue citations as set forth below:
 - (1) Each day during which a violation exists shall constitute a separate offense;
 - (2) For each offense cited, a penalty shall be established by resolution of the city council and shall be assessed to the owners of record; or
 - (3) Any person employed in connection therewith and who may have assisted in the commission of such violation.

- (c) In addition to the penalties provided in section 1-14, the city may institute appropriate actions or proceedings at law or equity for the enforcement of the provisions of this article or to correct the violations thereof. The conviction and punishment of any person hereunder shall not relieve such person from the responsibility to correct prohibited buildings, structures, obstructions, or improvements, nor prevent the enforcement, correction, or removal thereof.
- (d) The legally recorded owner of any property located in a special flood hazard area onto which fill material of any nature has been applied, with or without his knowledge and in violation of the provisions of this article, shall immediately and at his expense remove all such material upon written request to do so by the director of community development. Upon failure of the property owner to complete this work in a timely manner, the city council may order the work to be completed and expenses charged to the property owner or levied against the property.

Secs. 46-112 through 46-130. - Reserved.

ARTICLE VII.C. - FLOOD HAZARD REDUCTION

Sec. 46-131. - General standards.

In all areas of special flood hazard, the following provisions are required for all new construction and substantial improvements:

- (1) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- (2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
- (4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
- (6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters; and
- (7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Sec. 46-132. - Specific standards.

In all areas of special flood hazard, the following provisions are required:

- (1) Residential construction. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated at least one foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the floodplain administrator that the standard of this subsection is satisfied.
- (2) Nonresidential construction. New construction and substantial improvements of any commercial, industrial or other nonresidential structure shall have the lowest floor (including basement) elevated at least one foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the floodplain administrator that the standard of this subsection is satisfied.
- (3) Enclosures. New construction and substantial improvements with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - b. The bottom of all openings shall be no higher than one foot above grade; and
 - c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- (4) Manufactured homes. All manufactured homes to be placed anywhere within the community in flood zone A, AO or AE on the county FIRM shall be installed using methods and practices that minimize flood damage and have the bottom of the I-beam elevated at least one foot above the base flood elevation. For the purposes of this requirement, manufactured homes must be elevated and anchored to a permanent foundation to resist flotation, collapse, or lateral movement. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. The home shall be installed by a licensed installer according to state law and compliance herewith shall be certified in writing to the floodplain administrator by the installer prior to habitation of the manufactured home.
- (5) Recreational vehicles. Recreational vehicles placed on sites within zones A, AO and AE on the county FIRM shall either:
 - a. Be on the site for fewer than 180 consecutive days;
 - b. Be fully licensed and ready for highway use; or
 - c. Meet the permit requirements of section 22-43, and the elevation and anchoring requirements for manufactured homes in subsection (4) of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanently attached additions.

- (6) Accessory structure. Accessory structures to be placed on sites within zones A, AO and AE on the county FIRM shall comply with the following:
- a. The structure is unfinished on the interior;
 - b. The structure shall be used only for parking and limited storage;
 - c. The structure shall not be used for human habitation. Prohibited activities or uses include, but are not limited to, working, sleeping, living, cooking, or restroom use;
 - d. Service facilities such as electrical and heating equipment must be elevated to or above the BFE;
 - e. The structure shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
 - f. The structure shall be designed to have low flood damage potential and constructed with flood resistance materials;
 - g. The structure shall be firmly anchored to prevent flotation, collapse, and lateral movement;
 - h. Floodway requirements must be met in the construction of the structure;
 - i. Openings to relieve hydrostatic pressure during a flood shall be provided below the BFE; and
 - j. The structure shall be located so as not to cause damage to adjacent and nearby structures.

Sec. 46-133. - Standards for subdivisions.

- (a) The applicant for a development permit for any subdivision located in Zones A, AO and AE that is 51 or more lots or greater than five acres shall generate the base flood elevation data for that subdivision.
- (b) All subdivisions including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
- (c) All subdivisions including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

Sec. 46-134. - Standards for areas of shallow flooding (AO zones).

Located within the areas of special flood hazard established in section 22-6 are areas designated as shallow flooding.

These areas have special flood hazards associated with flood depths of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where

velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. Therefore, the following provisions apply:

- (1) All new construction and substantial improvements of residential structures shall have the lowest floor (including basement) elevated at least one foot or greater above the base flood elevation (the depth number specified in feet on the community's FIRM or at least two feet above the highest adjacent grade if no depth number is specified).
- (2) All new construction and substantial improvements of nonresidential structures shall:
 - a. Have the lowest floor (including basement) elevated at least one foot or greater above the base flood elevation (the depth number specified in feet on the community's FIRM or at least two feet above the highest adjacent grade if no depth number is specified) or:
 - b. Together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight, with walls substantially impermeable to the passage of water, and with structural components having the capability of resisting hydrostatic and hydrodynamic loads or effects of buoyancy. A registered professional engineer or architect shall submit certification to the floodplain administrator that the standards of this section are satisfied.
- (3) Within zone AH or AO, adequate drainage paths shall be required around structures on slopes to guide floodwaters around and away from proposed structures.

Sec. 46-135. - Floodways.

The following provisions shall apply to floodways:

- (1) Encroachments, including, but not limited to, fill, new construction, substantial improvements and other development, are prohibited within the adopted floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the city during the occurrence of the base flood discharge.
- (2) If section 22-69(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this article.
- (3) The city may permit encroachments within the adopted floodway that would result in an increase in base flood elevations, provided that the applicant for the development permit complies with all of 44 CFR 65.12.

Appendices

- A. Figures
- B. General Drainage Policy
- C. Standard Drawings

SECTION II. Repealer. All ordinances or parts thereof which are inconsistent with this Ordinance are repealed upon the effective date of this Ordinance.

SECTION III. Severability. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this Ordinance.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan M. McDaniel, CMC - Municipal Clerk

(S E A L)

CITY OF CHICKASHA

CHAPTER 46

FIGURE 1

DRIVEWAY REQUIREMENTS FOR ALL USES

	1 & 2 Family Dwellings		All Uses Except for 1 & 2 Family Dwellings	
Frontage	Max. No. Curb Openings	Min. & Max. Widths ¹	Max. No. Curb Openings	Min. & Max. Widths ²
60' or less	1	10'-22'	1	25'-36'
61'-70'	2	10'-36'	1	25'-36'
71'-80'	2	10'-36'	1	25'-36'
81'-90'	2	10'-36'	1	25'-36'
91'-100'	2	10'-36'	1	25'-36'
101'-300'	2	10'-36'	2	20'-36'
301'-700'	3	10'-36'	3	20'-36'
701'-1400'	4	10'-36'	4	20'-36'
1401' & over	4	10'-36'	1/350 ' or major fraction	20'-36'

All one-lane egress and ingress driveways for all uses except for one- and two-family residential uses shall be greater than fifteen (15) feet but less than twenty (20) feet wide, with the combined width not to exceed the maximum listed above.

1 Minimums and maximums apply to each driveway measured at the property line with the exception of 1 & 2 family dwellings having frontage of 61' to 300'. The maximum curb opening widths indicated shall be the maximum combined widths of each curb opening for these frontages.

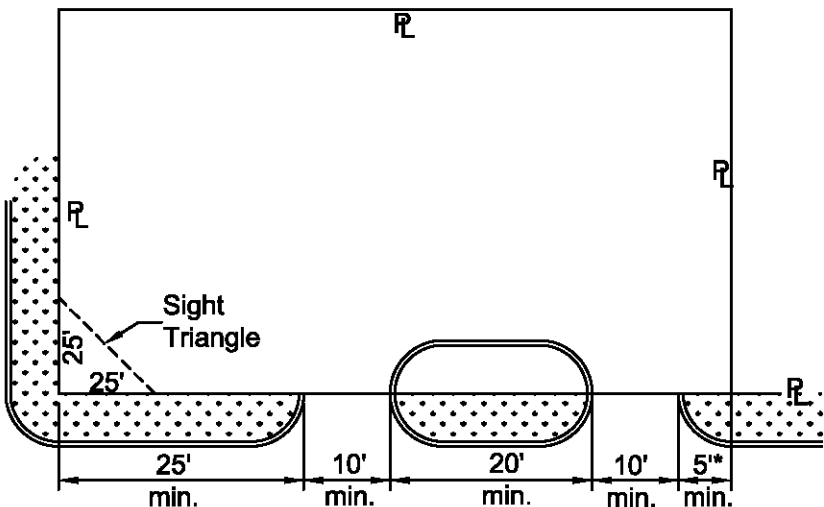
2 For all uses which primarily serve or are served by vehicles requiring larger than normal turn radii or access, such as tractor trailer vehicles, and such use is located in an industrial zoning district classification or for public fire and police responder facilities located in a Public Facilities District the city planner may administratively approve a request for extended curb opening widths. Extended curb opening widths for an industrial zoning district classification use shall not exceed fifty (50) feet. The applicant for such an extended curb opening must be able to adequately demonstrate the need for an extended opening to receive approval.

TYPICAL DETAIL

[illegible]

**** NOT ALLOWED IF LOCATED ON ARTERIAL STREET AND INTERSECTING STREET IS A NON-ARTERIAL**

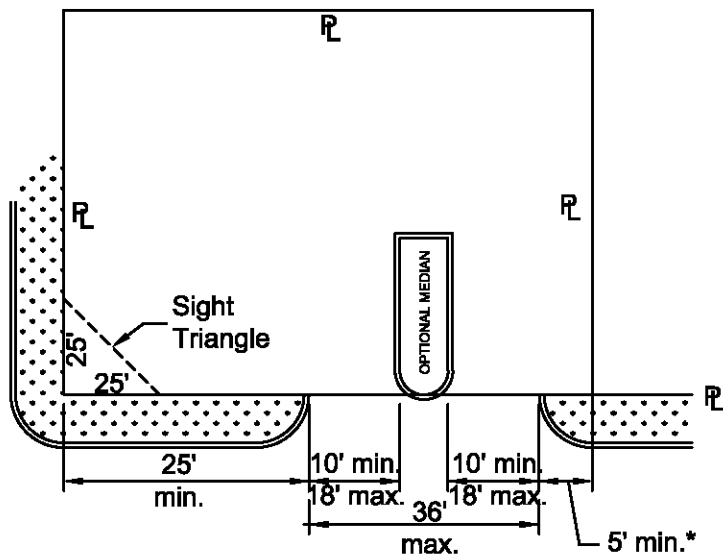
ONE AND TWO FAMILY DWELLINGS
USING CIRCLE DRIVES AND TWO OPENINGS



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FIGURE 4

DOUBLE DRIVE FOR TWO FAMILY DWELLINGS ONLY

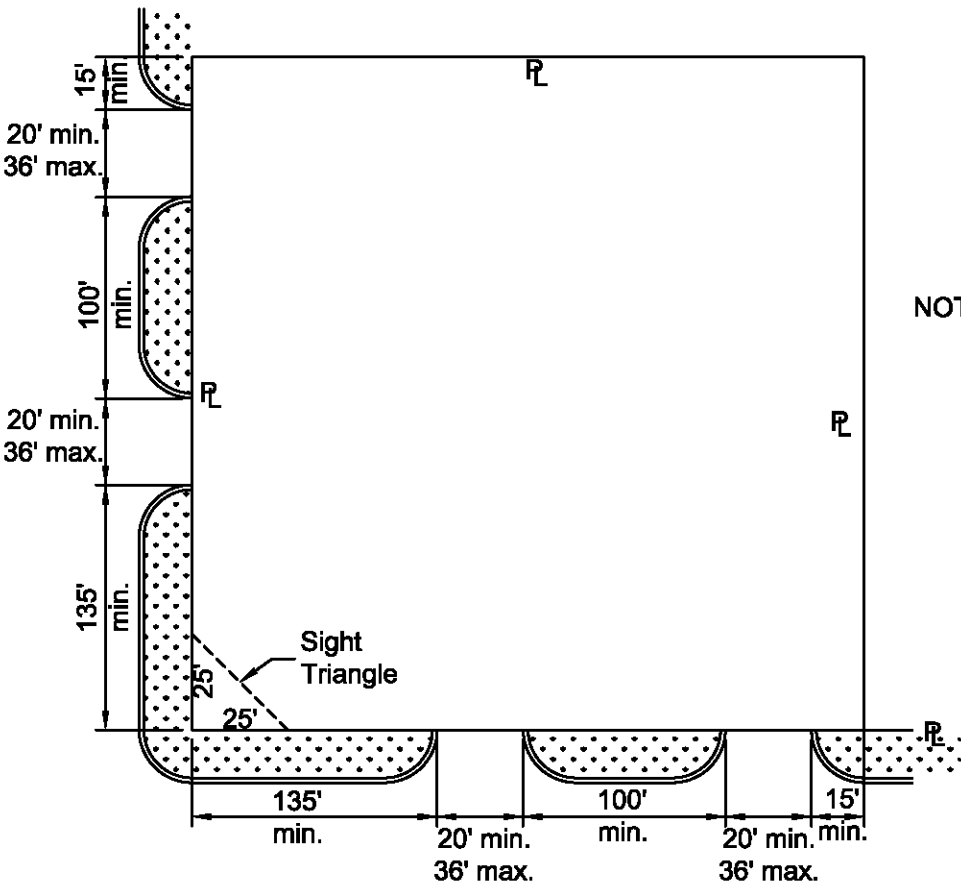


* 15' IF LOCATED ON ARTERIAL STREET

FIGURE 5

C-2 & C-3

PLANNED SHOPPING CENTER



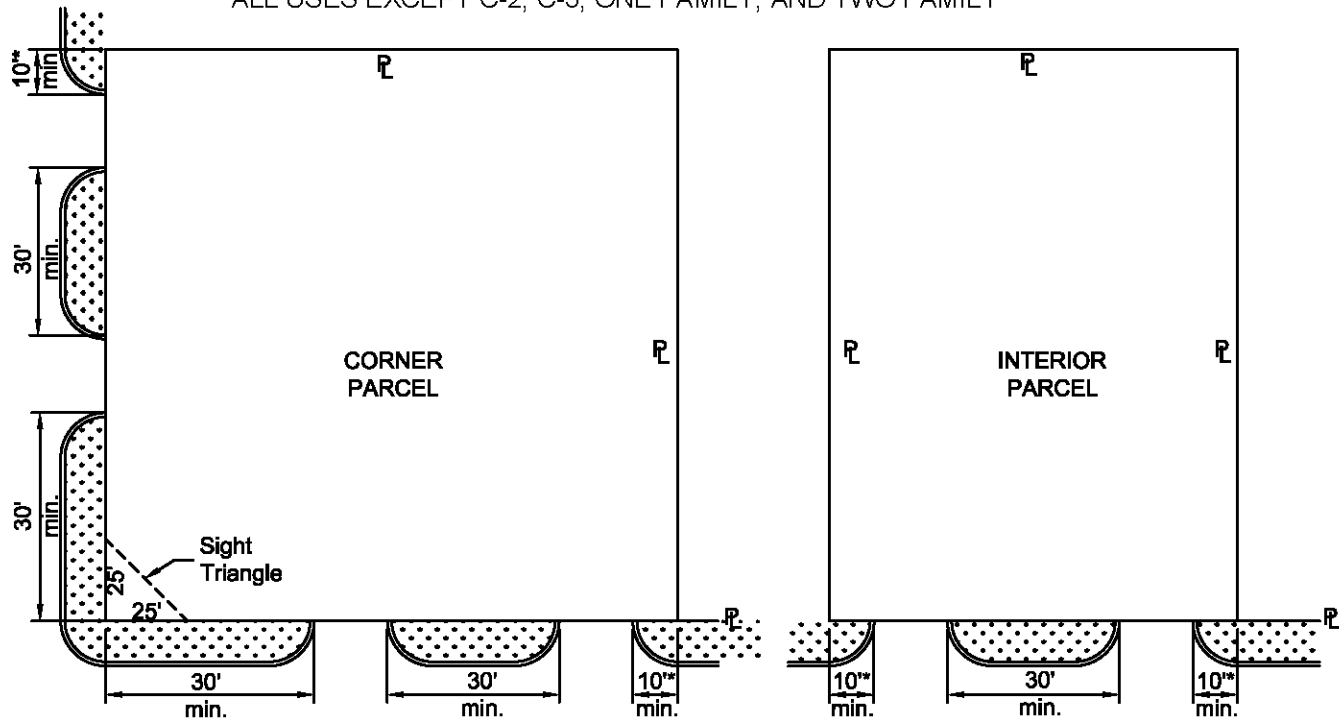
NOTE: Along arterial streets, inside barrier curbs shall be 2.5 feet inside property line. A minimum radius of 15' shall be required on all driveway radii

FIGURE 6

TYPICAL DETAIL

PARCELS USING TWO OR MORE DRIVEWAYS

ALL USES EXCEPT C-2, C-3, ONE FAMILY, AND TWO FAMILY



* 15' IF LOCATED ON ARTERIAL STREET

FIGURE 7

TYPICAL DETAIL

PARCELS LIMITED TO ONE DRIVEWAY

ALL USES EXCEPT C-2, C-3, ONE FAMILY, AND TWO FAMILY

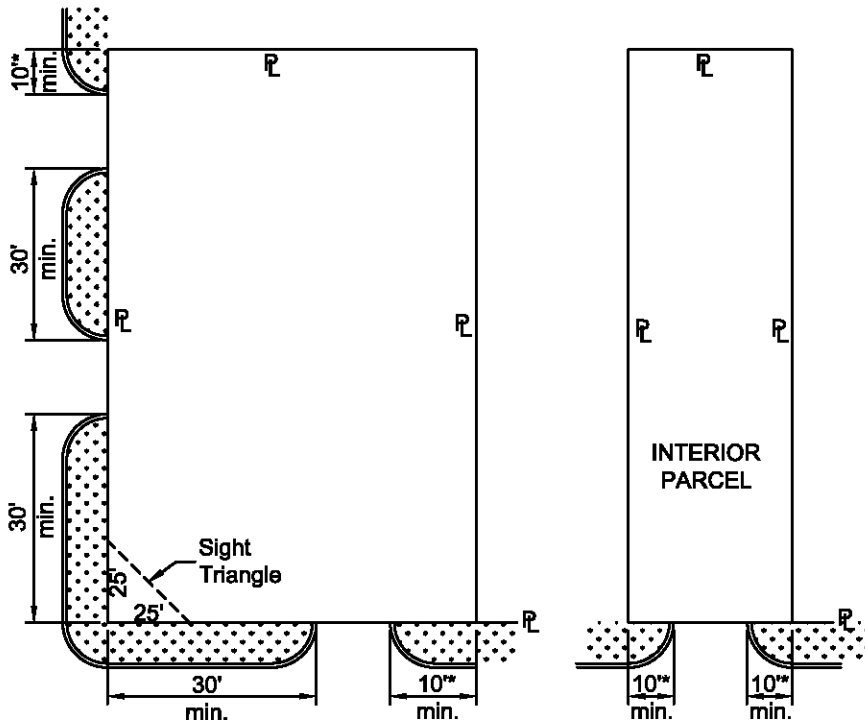
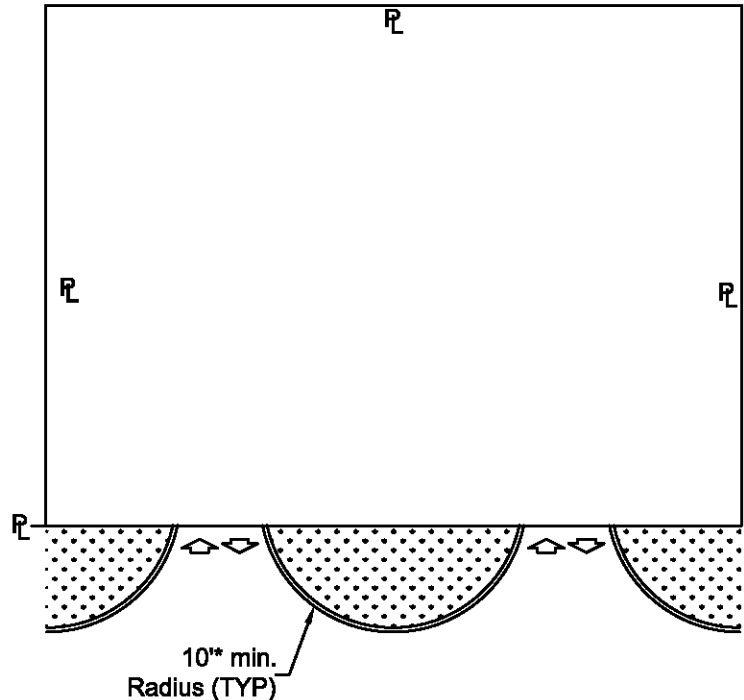
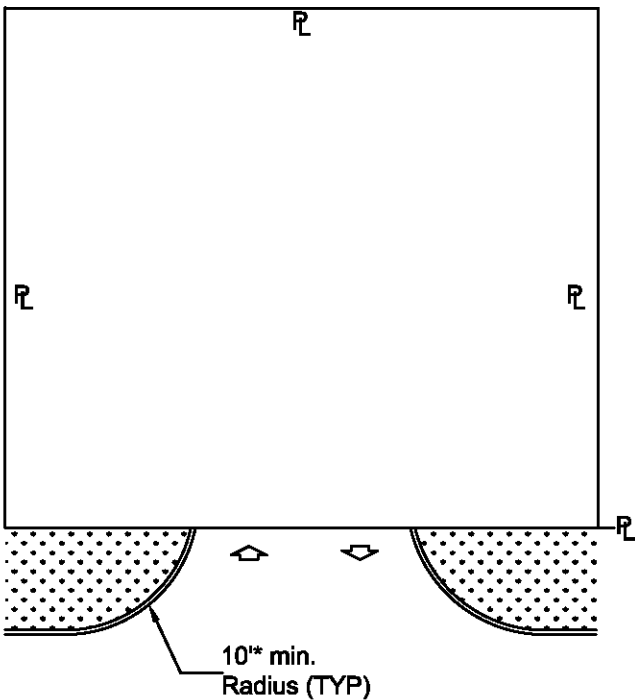
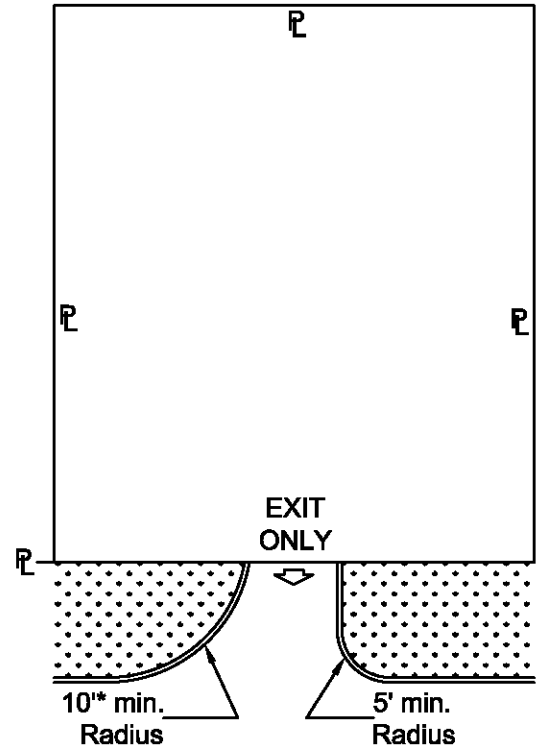
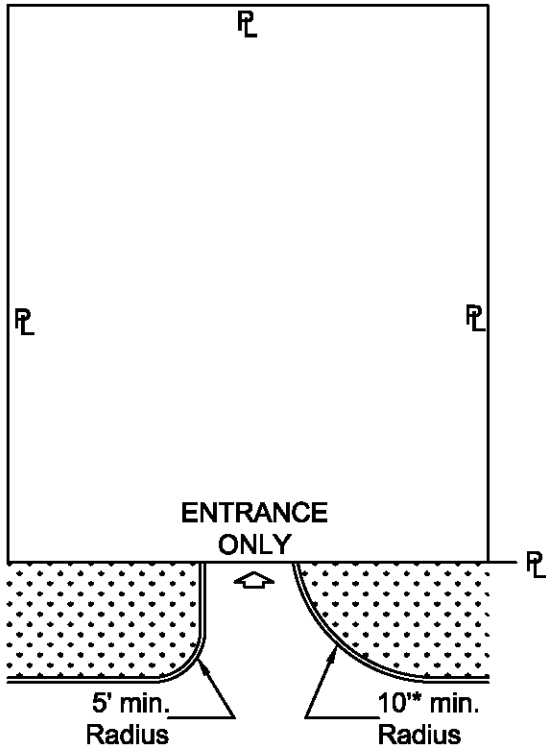


FIGURE 8

TYPICAL DETAILS OF CURB RADII

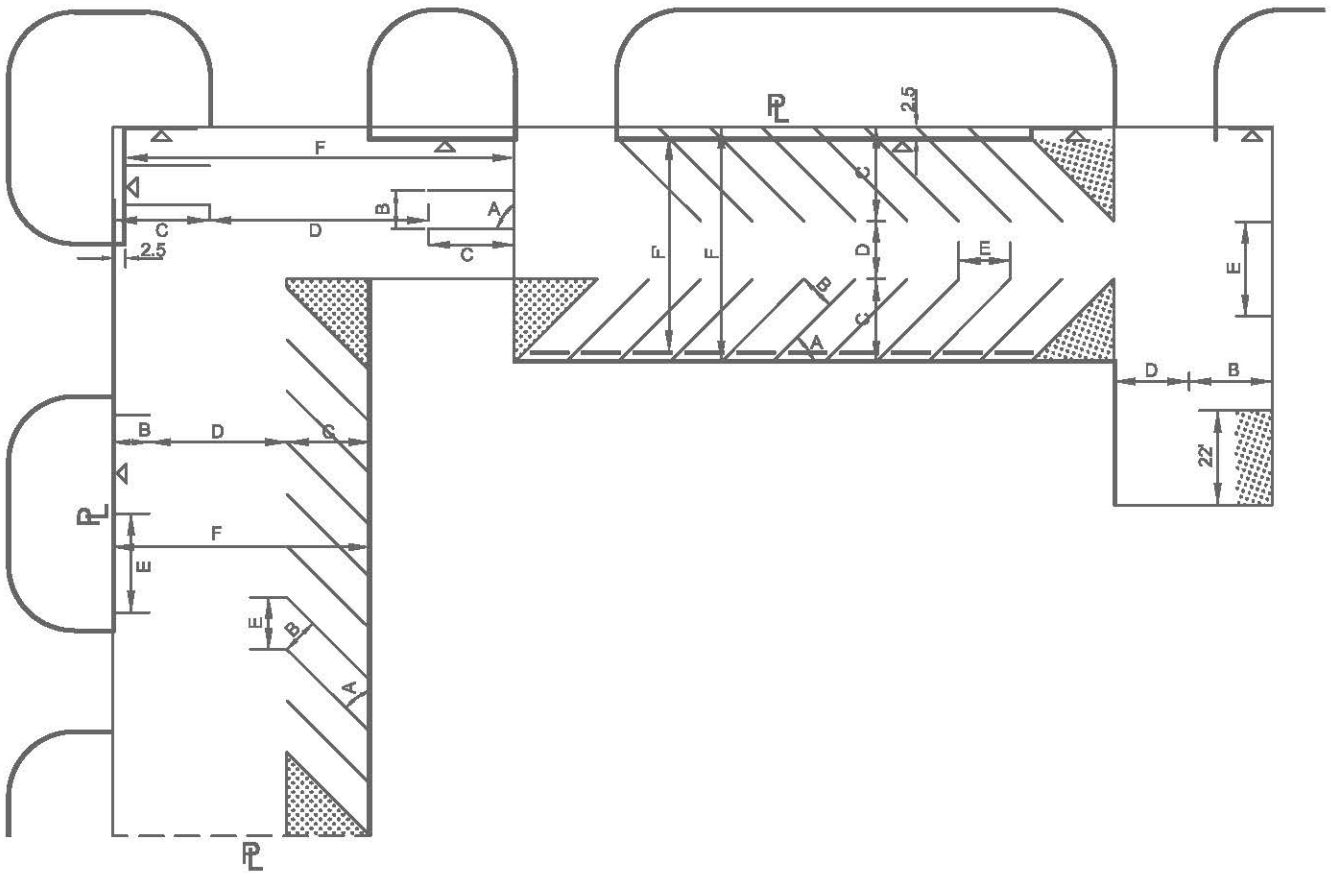
ALL USES EXCEPT C-2, C-3, ONE FAMILY AND TWO FAMILY



* 15' IF LOCATED ON ARTERIAL STREET

FIGURE 9

SPACE REQUIREMENTS FOR OFF-STREET PARKING



A	B	C	D	E	F	F'	A	B	C	D	E	F	F'
0 deg.	9.0	9.0	12.0	23.0	30.0	—	50 deg.	9.0	20.4	15.0	11.7	52.8	47.0
	9.5	9.5	12.0	23.0	31.0	—		9.5	20.7	15.0	12.4	53.4	47.3
	10.0	10.0	12.0	23.0	32.0	—		10.0	21.0	15.0	13.1	54.0	47.6
20 deg.	9.0	15.0	12.0	26.3	41.0	32.5	60 deg.	9.0	21.0	18.0	10.4	60.0	55.5
	9.5	15.5	12.0	27.8	42.0	33.1		9.5	21.2	18.0	11.0	60.4	55.6
	10.0	15.9	12.0	29.2	42.8	33.4		10.0	21.5	18.0	11.5	61.0	56.0
30 deg.	9.0	17.3	12.0	18.0	45.6	37.8	70 deg.	9.0	21.0	19.0	9.6	61.0	57.9
	9.5	17.8	12.0	19.0	46.6	38.4		9.5	21.2	18.5	10.1	60.9	57.7
	10.0	18.2	12.0	20.0	47.4	38.7		10.0	21.2	18.0	10.6	60.4	57.0
40 deg.	9.0	19.1	12.0	14.0	50.2	43.3	80 deg.	9.0	20.3	24.0	9.1	64.3	62.7
	9.5	19.5	12.0	14.8	51.0	43.7		9.5	20.4	24.0	9.6	64.4	62.7
	10.0	19.9	12.0	15.6	51.8	44.1		10.0	20.5	24.0	10.2	65.0	63.3
45 deg.	9.0	19.8	13.0	12.7	52.6	46.2	90 deg.	9.0	18.0	24.0	9.0	62.0	59.0
	9.5	20.1	13.0	13.4	53.2	46.5		9.5	18.0	24.0	9.5	62.0	59.0
	10.0	20.5	13.0	14.1	54.0	46.9		10.0	18.0	24.0	10.0	62.0	59.0

A minimum width of 20' is required for a two-way drive; but, when the figure in Column D is greater than 20' the greater figure must be used.

- A = Angle of parking
- B = Width of stall
- C = Depth of stall 90 deg. to aisle
- D = Width of aisle
- E = Width of stall parallel to aisle
- F = Width for two rows of parking, curb to curb
- F' = Width for two rows of parking, stop to stop
- G = Maneuver area required in front of parallel stalls

▼ When area behind property line fronting on a street is paved and/or used for parking, a 6" barrier curb shall be installed along the property line, ending 3.5' from driveway opening. If parking faces street, this curb will be 2.5' behind property line.

NOTE: Any details not covered in these standards are subject to approval by the Traffic Engineer.

FIGURE 10

LOADING SPACE DESIGN

Overall Length of Tractor-Trailer (feet)	Berth Width (feet)	Recommended Apron Length (feet)	Dock Approach (feet)
40	10 12 14	46 43 39	86 83 79
45	10 12 14	52 49 46	97 94 91
50	10 12 14	60 57 54	110 107 104
55	10 12 14	65 62 58	120 117 113
60	10 12 14	72 63 60	132 123 120
65	10 12 14	77 68 65	142 133 130

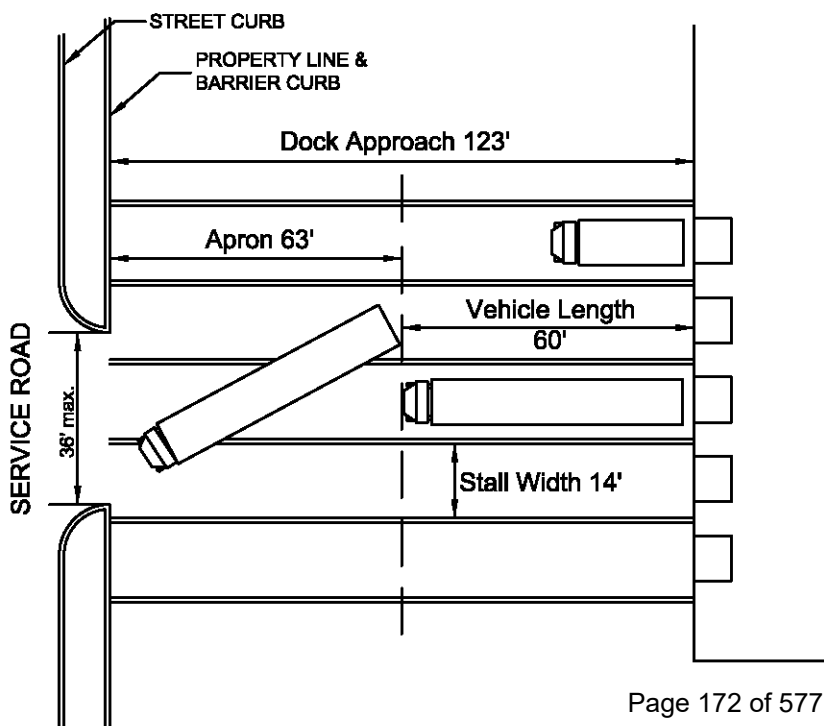
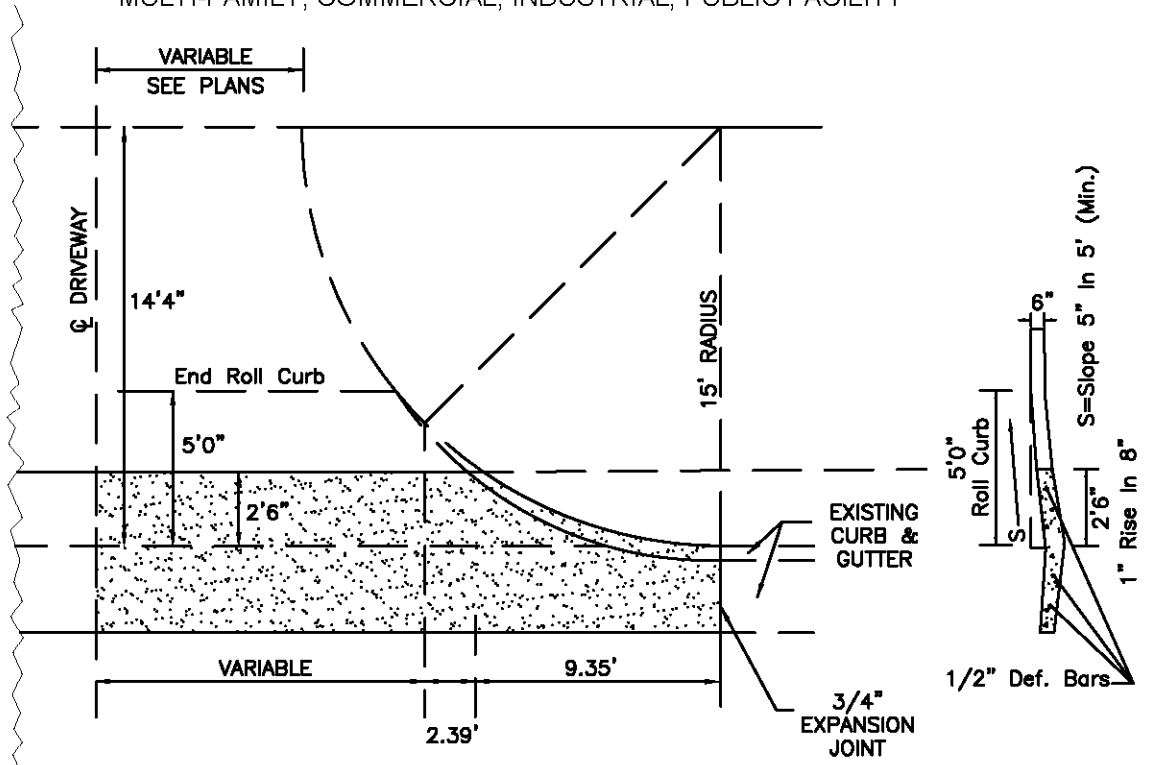


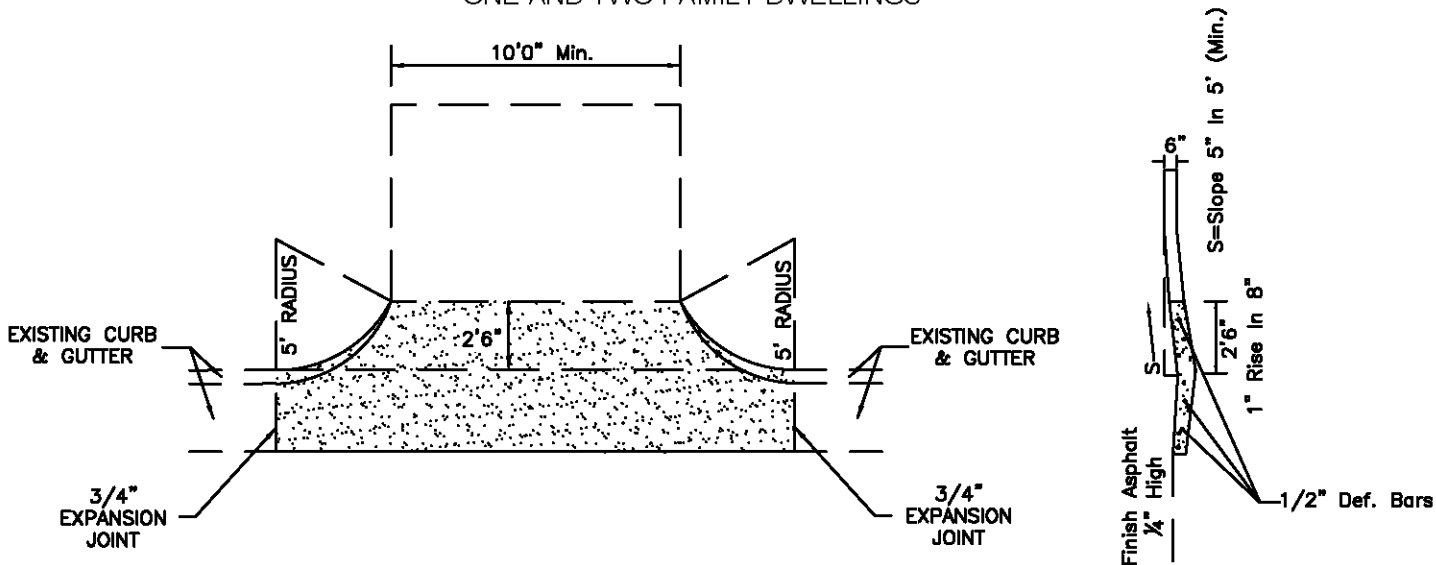
FIGURE 11

DRIVEWAY OPENINGS

MULTI-FAMILY, COMMERCIAL, INDUSTRIAL, PUBLIC FACILITY

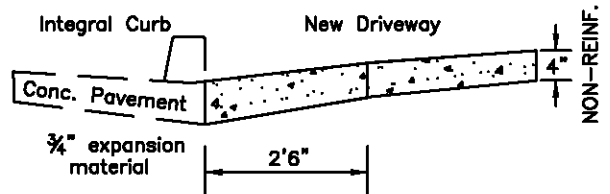


ONE AND TWO-FAMILY DWELLINGS



Where Asphalt Pavement with Curb & Gutter is in place: Remove existing Curb & Gutter thru extent of planned driveway construction. New driveway shall be of P.C. Concrete thru extent shown by shading (minimum). In order to reduce the possibility of water seepage into the paving base, full depth joints should not be allowed within the shaded area.

 Minimum Driveway - P.C. Concrete Surface

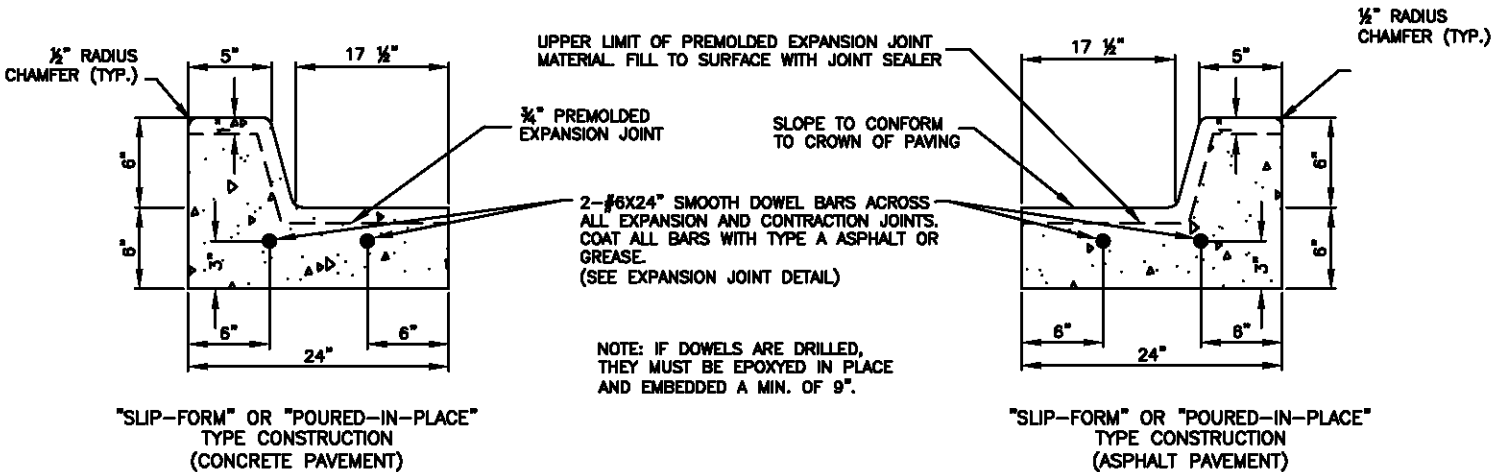


Where Concrete Pavement with Integral Curb is in place: Remove curb to a neat line and construct new driveway using butt joint with 3/4" expansion material between existing paving and new driveway.

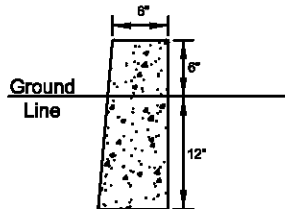
FIGURE 12

CURB & STOP DESIGNS

CONCRETE CURB & GUTTER DETAIL

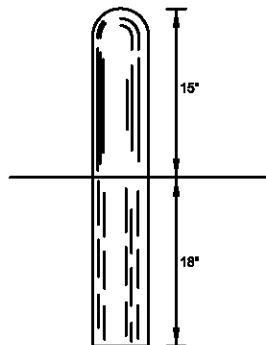


CONCRETE CURB



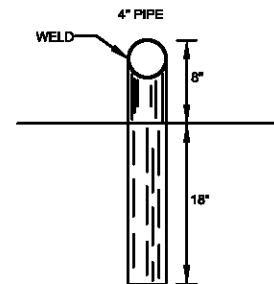
6" REINFORCED CONCRETE CURB
(FOR UNIMPROVED STREETS AND ON PRIVATE PROPERTY)

TIRE STOP



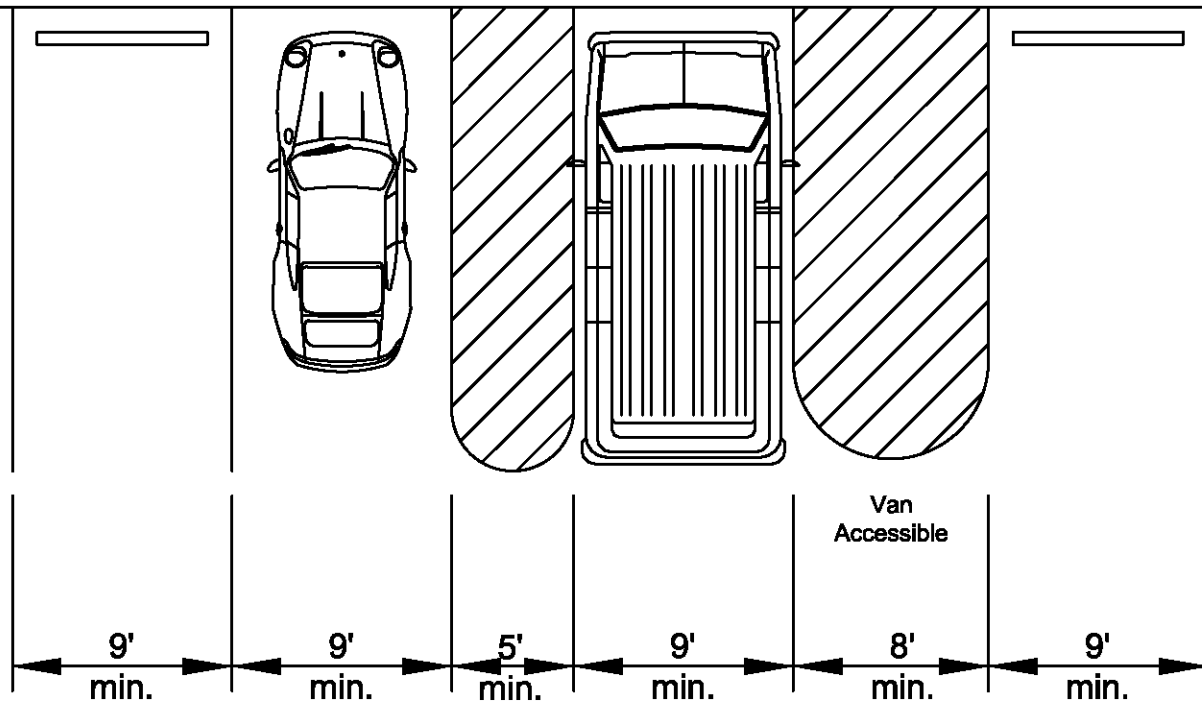
POST TYPE BARRIER
NOTE: POSTS SHALL BE PLACED A MINIMUM OF 6 FEET APART

TIRE STOP



PIPE BARRIER

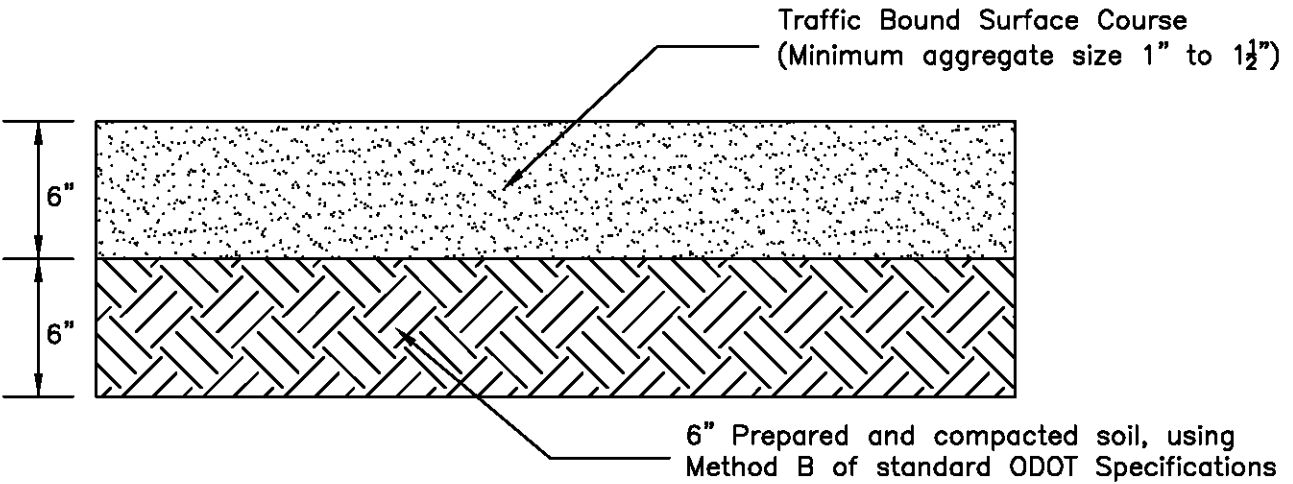
FIGURE 13



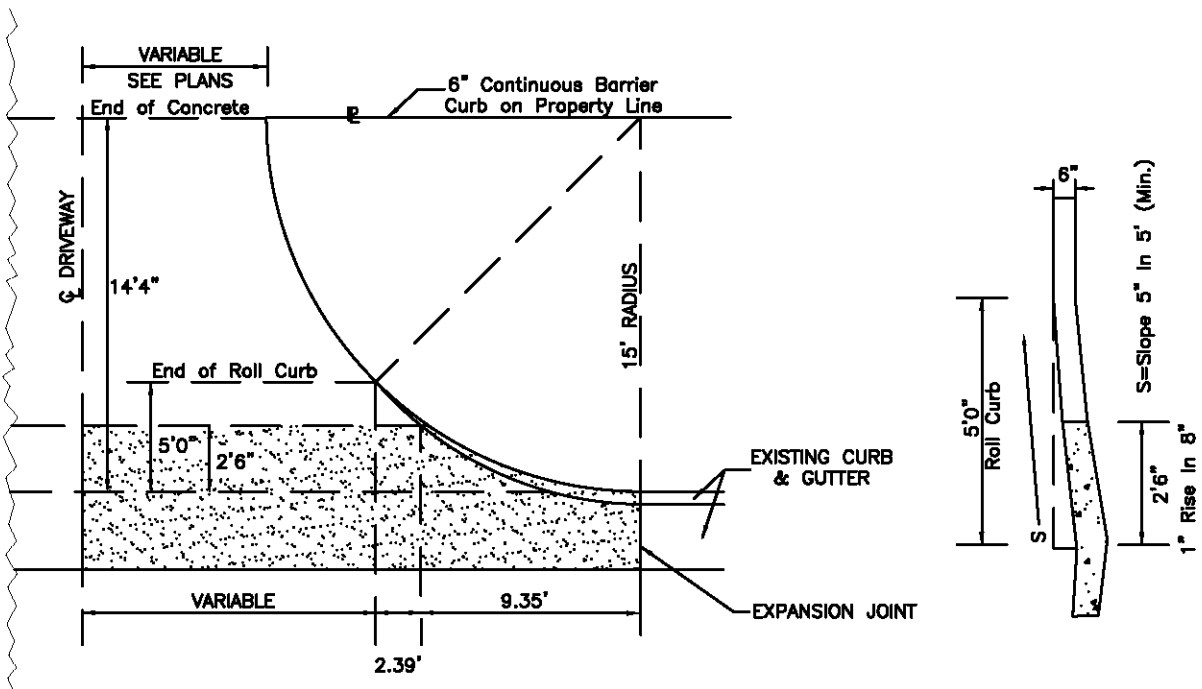
Typical Detail
Space Requirement for Handicapped Parking

FIGURE 14

MINIMUM SURFACE REQUIREMENTS FOR GRAVEL LOADING AND CIRCULATION AREAS



APPROACH FOR GRAVEL LOADING AND CIRCULATION AREAS



Concrete approach shall be installed from curb and gutter line to property line and shall be constructed using 3500psi concrete.



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Parks and Rec

Agenda Item No. 6.g.

AGENDA ITEM: Discussion, consideration and possible action to authorize the purchase of two John Deere ZTrak lawn mowers using State Contract SW0190 in the amount of \$22,343.88.

I. BACKGROUND/DESCRIPTION:

- Two mowers are out of service.
- These units will be purchased on State Contract #SW019.
- We have funding available to make this purchase.

II. RECOMMENDED ACTION:

Staff recommends the purchase of 2 John Deere Z960M ZTrak mowers in an amount not to exceed \$22,343.88.

III. FISCAL INFORMATION - 31-537-6450-006

IV. FUND INFORMATION:

Dept. Director: Spencer Winzenried, Parks and Recreation Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		\$22,343.88
	31-537-6450-006		

V. ATTACHMENTS:

1. quote city of chickasha z960m



JOHN DEERE

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

P & K Equipment, Inc.
627 N 16th Street
Chickasha, OK 73018
405-224-4411
chickasha@pkequipment.com

Quote Summary

Prepared For:

CITY OF CHICKASHA PURCHASING AGENT
117 N 4TH ST
CHICKASHA, OK 73018
Business: 405-222-6014
tracey.austin@chickasha.org

Delivering Dealer:

P & K Equipment, Inc.
Alvin Carden
627 N 16th Street
Chickasha, OK 73018
Phone: 405-224-4411
acarden@pkequipment.com

SW0190
exp.
30 Dec-22

Quote ID: 27841933

Created On: 28 November 2022

Last Modified On: 30 November 2022

Expiration Date: 28 December 2022 ✓

Equipment Summary

JOHN DEERE Z960M ZTrak

Selling Price

\$ 11,171.94 X

Qty

1 =

Extended

\$ 11,171.94

Contract: OK Mowers SW0190(PG 1L CG 22)

Price Effective Date: March 1, 2021

JOHN DEERE Z960M ZTrak

\$ 11,171.94 X

1 =

\$ 11,171.94

Contract: OK Mowers SW0190(PG 1L CG 22)

Price Effective Date: March 1, 2021

Equipment Total

\$ 22,343.88

* Includes Fees and Non-contract items

Quote Summary

Equipment Total

\$ 22,343.88

Trade In

SubTotal

\$ 22,343.88

Est. Service

\$ 0.00

Agreement Tax

Total

\$ 22,343.88

Down Payment

(0.00)

Rental Applied

(0.00)

Balance Due

\$ 22,343.88

Salesperson : X _____

Accepted By : X _____

Confidential



JOHN DEERE

Selling Equipment

Quote Id: 27841933

Customer Name: CITY OF CHICKASHA PURCHASING AGENT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

P & K Equipment, Inc.
627 N 16th Street
Chickasha, OK 73018
405-224-4411
chickasha@pkequipment.com

JOHN DEERE Z960M ZTrak

Hours:

Stock Number:

Contract: OK Mowers SW0190(PG 1L CG 22)

Selling Price *

Price Effective Date: March 1, 2021

\$ 11,171.94

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
2233TC	Z960M ZTrak	1	\$ 12,879.00	22.00	\$ 2,833.38	\$ 10,045.62	\$ 10,045.62
Standard Options - Per Unit							
001A	United States/Canada	1	\$ 0.00	22.00	\$ 0.00	\$ 0.00	\$ 0.00
1040	24x12N12 Michelin X Tweel Turf for 54 In. and 60 In. Decks	1	\$ 949.00	22.00	\$ 208.78	\$ 740.22	\$ 740.22
1504	60 In. Side Discharge Mower Deck	1	\$ 0.00	22.00	\$ 0.00	\$ 0.00	\$ 0.00
2093	Fully Adjustable Suspension Seat with Armrests (24" High Back)	1	\$ 495.00	22.00	\$ 108.90	\$ 386.10	\$ 386.10
Standard Options Total			\$ 1,444.00		\$ 317.68	\$ 1,126.32	\$ 1,126.32
Value Added Services Total			\$ 0.00			\$ 0.00	\$ 0.00
Total Selling Price			\$ 14,323.00		\$ 3,151.06	\$ 11,171.94	\$ 11,171.94

JOHN DEERE Z960M ZTrak

Equipment Notes:

Hours:

Stock Number:

Selling Price *

Contract: OK Mowers SW0190(PG 1L CG 22)

\$ 11,171.94

Price Effective Date: March 1, 2021

* Price per item - includes Fees and Non-contract items



JOHN DEERE

Selling Equipment

Quote Id: 27841933

Customer Name: CITY OF CHICKASHA PURCHASING AGENT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

P & K Equipment, Inc.
627 N 16th Street
Chickasha, OK 73018
405-224-4411
chickasha@pkequipment.com

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
2233TC	Z960M ZTrak	1	\$ 12,879.00	22.00	\$ 2,833.38	\$ 10,045.62	\$ 10,045.62
Standard Options - Per Unit							
001A	United States/Canada	1	\$ 0.00	22.00	\$ 0.00	\$ 0.00	\$ 0.00
1040	24x12N12 Michelin X Tweel Turf for 54 In. and 60 In. Decks	1	\$ 949.00	22.00	\$ 208.78	\$ 740.22	\$ 740.22
1504	60 In. Side Discharge Mower Deck	1	\$ 0.00	22.00	\$ 0.00	\$ 0.00	\$ 0.00
2093	Fully Adjustable Suspension Seat with Armrests (24" High Back)	1	\$ 495.00	22.00	\$ 108.90	\$ 386.10	\$ 386.10
Standard Options Total			\$ 1,444.00		\$ 317.68	\$ 1,126.32	\$ 1,126.32
Value Added Services Total			\$ 0.00			\$ 0.00	\$ 0.00
Total Selling Price			\$ 14,323.00		\$ 3,151.06	\$ 11,171.94	\$ 11,171.94



JOHN DEERE

Customer:

Quotes are valid for 30 days from the creation date or upon contract expiration, whichever occurs first.

A Purchase Order (PO) or Letter of Intent (LOI) including the below information is required to proceed with this sale. The PO or LOI will be returned if information is missing.

- Vendor: Deere & Company
- ☐ 2000 John Deere Run
Cary, NC 27513
 - ☐ Signature on all LOIs and POs with a signature line
 - ☐ Contract name or number; or JD Quote ID
 - ☐ Sold to street address (no PO box)
 - ☐ Ship to street address (no PO box)
 - ☐ Bill to contact name and phone number
 - ☐ Bill to address
 - ☐ Bill to email address (required to send the invoice and/or to obtain the tax exemption certificate)
 - ☐ Membership number if required by the contract

For any questions, please contact:

Alvin Carden

P & K Equipment, Inc.
627 N 16th Street
Chickasha, OK 73018

Tel: 405-224-4411

Fax: 405-224-1066

Email: acarden@pkequipment.com

Quotes of equipment offered through contracts between Deere & Company, its divisions and subsidiaries (collectively "Deere") and government agencies are subject to audit and access by Deere's Strategic Accounts Business Division to ensure compliance with the terms and conditions of the contracts.



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.h.

AGENDA ITEM: Public Hearing - to discuss and consider the rezoning for 1627 W. Iowa Avenue for Applicant Elsie Wilkerson.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Hold Public Hearing.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.i.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-01 rezone request for 1627 Iowa for Elsie Wilkerson

I. BACKGROUND/DESCRIPTION:

This is for a rezoning for Elsie Wilkerson for 1627 W Iowa. She has been trying to sell the lot for many years and has been unsuccessful. The lot is really too small for residential development.

The owner is requesting a rezone to C1, which is located across the street from the lifeline building. The owner has a buyer interested in opening a snack shop to serve the hospital and schools.

A small drive-through convenience store.

At one time, the last known use for this location was also a commercial laundry mat.

The Planning commission recommends approval.

II. RECOMMENDED ACTION:

Approve Ordinance 2023-01 as presented..

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Image 1627
2. 20221227121631367
3. ORD 2023-01- Rezoning 1627 IOWA Wilkerson





City of
Chickasha
Community Development

Received: _____
Planning Commission Date: _____
City Council Date: _____

APPLICATION FOR ZONING CHANGE

Applicant(s) Name: Elsie L. Wilkerson

Address: P.O. Box 181 - ANADARKO, OK. 73005

Phone: 405-438-2676

Legal Description: Lot 7 - Block 2, West Hills Addition
to the City of Chickasha, Oklahoma

Address of subject property: 1627 Iowa

Present zoning of subject property: Resident

Proposed zoning of subject property: Commercial C1

Physical Characteristics of subject property: lot

Frontage on Street: 50 ft

Lot Depth: 145 ft

Drawing Attached: ✓ YES _____ NO

Proposed Use for the Property: Retail

Public Utilities Which Serve the property: PSO electric Arka Gas

Street, Surface Material: paved

City Water: ✓ YES _____ NO, then list source of water _____

City Sanitary Sewer: ✓ YES _____ NO, then list provider _____

Number of Off-Street Parking Spaces: 12-14 spaces

Surface Material of Parking Spaces: Gravel + Dirt Presently

Owner of Record: Elsie L. Wilkerson

Address: P.O. Box 181 - ANADARKO, OK. 73005 Phone Number: 405-438-2676
606 W. LOUISIANA

ALL INFORMATION ON THIS FORM MUST BE COMPLETED IN ORDER TO PROCESS YOUR REQUEST

Applicant(s) Signature: Elsie L. Wilkerson 10-19-22 Date: SPRINKLEMEPINKboutique@gmail.com

October 21, 2022

To Whom It May Concern:

I own a residential lot in Chickasha at the corner of 17th St. and Iowa Ave. The physical address is 1627 W. Iowa. The lot is currently vacant. Though it is zoned residential, Lifeline Home Health Care is just across the street.

I currently have the property listed for sale with Century 21 Mosley. They have received interest in the property, but only for commercial use. They do have a contract on the property that would be contingent on the zoning change.

Due to the location of the property and proximity to schools and healthcare, I feel the highest and best use for this parcel of land would be for a commercial venture.

Please consider this request for rezoning of 1627 W. Iowa.

Sincerely,



Elsie Wilkerson

W Iowa Ave

S 17th St



S 17th St



*Lot Dimensions are Estimated

25 yards
Map data ©2022



S 18th St

W Iowa Ave

S 17th St



S 16th St

W Kansas Ave
S 14th St
S 15th St

S 14th St

S 15th St

W Minnesota Ave

S 17th St

S 18th St

S 19th St

W Dakota Ave

W Idaho Ave

200 yards
Map data ©2022

Legal Publication
(Published in The Express-Star November 17th, 2022)

From: Community Development

Applicant: Elsie Wilkerson

Re: Rezoning from R-1 Residential to C-1 Local Commercial.

Location: 1627 W Iowa Ave.

Legal: Lot Seven (7) in Block Two (2) in West Hill Addition to the City of Chickasha, Grady County, Oklahoma, according to the recorded plat thereof.

When: Planning Commission December 13, 2022 at 4 pm in the City of Chickasha City Council Chambers, City Council Hearing will be January 3, 2023 at 6:30 PM in the City Council Chambers.

Please contact community development with questions or concerns. 405-222-6010; rachel.bernish@chickasha.org

Proof of Publication

~~In the District Court of Grady County, State of Oklahoma~~

Case No: 1627 W Iowa Ave

Affidavit of Publication

State of Oklahoma, County of Grady, ss:

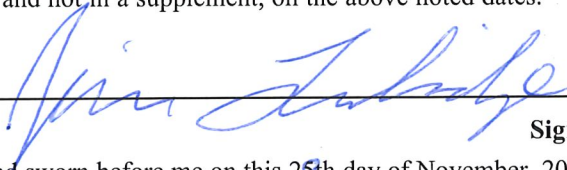
I, the undersigned publisher, editor or Authorized Agent of the Chickasha Daily Express, do solemnly swear that the attached advertisement was published in said paper as follows:

1st Publication

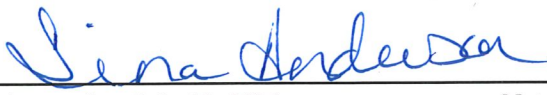
November 17, 2022

That said newspaper is Weekly, in the city of Chickasha, Grady County, Oklahoma, a Weekly newspaper qualified to publish legal notices, advertisements and publications as provided in Section 106 of Title 25, Oklahoma Statutes 1971, as amended, and complies with all other requirements of the laws of Oklahoma with reference to legal publications.

That said Notice, a true copy of which is attached hereto, was published in the regular edition of said newspaper during the period and time of publications and not in a supplement, on the above noted dates.


Signature

Subscribed and sworn before me on this 25th day of November 2022.


My commission expires July 10, 2024.

Notary Public
Commission #

20008340

Cost of Publication \$ 15.45

Ad # 00510255

Acct # 23151928

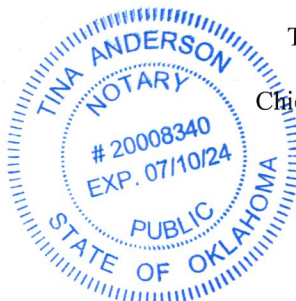
Copies: 1

PAY TO

The Express Star
PO Drawer E
Chickasha, OK 73023

A copy of this affidavit of publication was delivered to the Office of the Grady County Court Clerk on November 25, 2022.

Please include the case number on your check.



ORDINANCE NO. 2023-01

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, AMENDING THE ZONING MAP AND ORDINANCES FOR 1627 WEST IOWA AVENUE BY CHANGING THE ZONING DISTRICT TO C-2 GENERAL COMMERCIAL.

WHEREAS, a rezoning was requested, and the Planning Commission held a public hearing and voted unanimously to forward a recommendation for approval to the City Council;

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION 1. That the zoning map and ordinances of Chickasha, Grady County, State of Oklahoma, be changed to General Commercial covering the hereinafter described property:

Legal Description:

Lot Seven (7) in Block Two (2) in West Hill Addition to the City of Chickasha, Grady County, Oklahoma, according to the recorded plat thereof;

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.j.

AGENDA ITEM: Public Hearing - to discuss and consider the rezoning request for 1420 N 16th for applicant Buffie Howe

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Hold Public Hearing.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.k.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-02 rezoning request for 1420 N 16th for applicant Buffie Howe

I. BACKGROUND/DESCRIPTION:

This application is for a rezoning to build a new home for a family member. All the surrounding property is owned by the same family.

The use for this property has always been farm land, but in 1982 it was zoned industrial.

This will rezone all 116 acres.

The planning commission recommends approving

II. RECOMMENDED ACTION:

Approve Ordinance 2023-022 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Image 1420
2. 20221227122700446

3. ORD 2023-02 Rezoning 1420 N 16TH





City of
Chickasha
Community Development

Received: _____
Planning Commission Date: _____
City Council Date: _____

APPLICATION FOR ZONING CHANGE

Applicant(s) Name: Buffie Howe
Address: 1419 N 16th Street Chickasha OK 73018
Phone: 405-274-0546 or 405-224-1333
Legal Description: BG. 1321.30 S 00 02'33"W of NW/C
NW/4th S 00 02'33"W 208.7', N 89 55'35"E
258.7', N 00 02'33"E 208.7', S 89 55'35"W 258.7' + POB
Address of subject property: 1420 N 16th maybe?
Present zoning of subject property: I-2
Proposed zoning of subject property: R-1
Physical Characteristics of subject property: Farm land
Frontage on Street: 208.70 ft
Lot Depth: 258.70 ft
Drawing Attached: X survey YES _____ NO _____
Proposed Use for the Property: Build New House
Public Utilities Which Serve the property: N/A
Street, Surface Material: concrete
City Water: _____ YES X NO, then list source of water N/A
City Sanitary Sewer: _____ YES X NO, then list provider N/A
Number of Off-Street Parking Spaces: Farm land ?
Surface Material of Parking Spaces: N/A
Owner of Record: Buffie Howe
Address: 1419 N 16th Street Chickasha Phone Number: 405 274 05
OK 73018

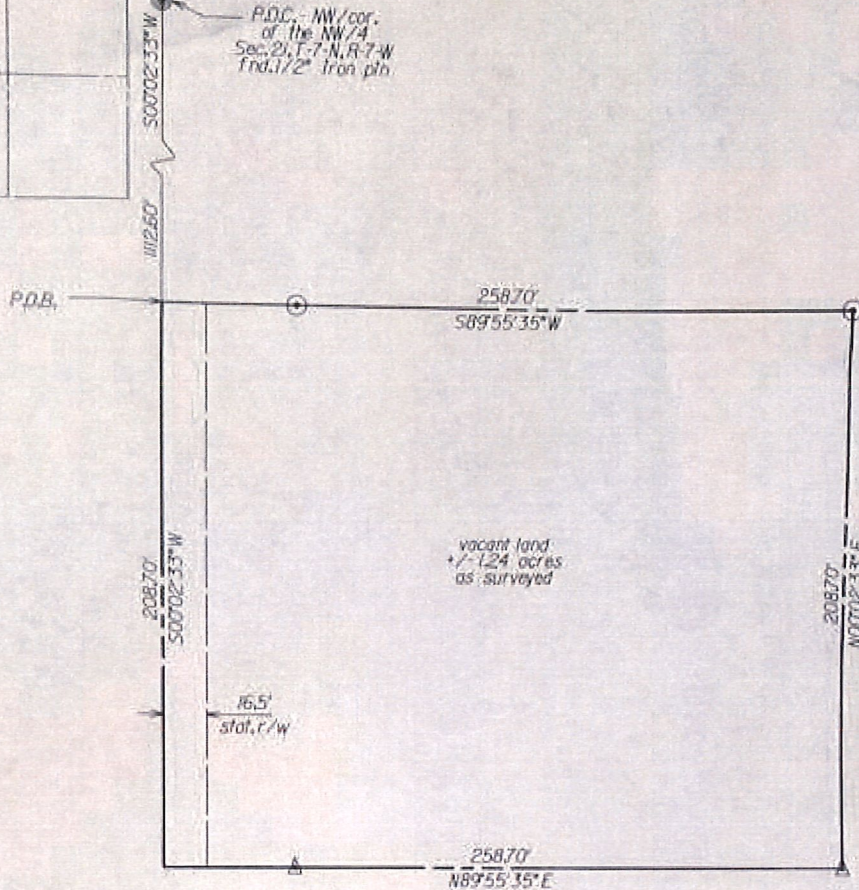
ALL INFORMATION ON THIS FORM MUST BE COMPLETED IN ORDER TO PROCESS YOUR REQUEST

Applicant(s) Signature: Buffie Howe Date _____

Vicinity Map
(not to scale)
Sec. 21, T-7-N, R-7-W

CERTIFICATE OF SURVEY
a part of the NW/4
Section 21, T-7-N, R-7-W,
Grady County, Oklahoma

P.D.C. - NW/cor.
of the NW/4
Sec. 21, T-7-N, R-7-W
fnd. 1/2" Iron pin



DESCRIPTION OF PROPERTY

A tract of land located in the Northwest Quarter (NW/4) of Section Twenty-one (21), Township Seven (7) North, Range Seven (7) West of the Indian Meridian, Grady County, Oklahoma, more particularly described as follows:

Commencing at the NW/cor. of said NW/4 at a found 1/2" iron pin, thence S00°02'33"W and along the West line of said NW/4 a distance of 1112.60 feet to the POINT OF BEGINNING. Thence continuing S00°02'33"W a distance of 208.70 feet; Thence N89°55'35"E a distance of 258.70 feet; Thence N00°02'33"E a distance of 208.70 feet; Thence S89°55'35"W a distance of 258.70 feet to the POINT OF BEGINNING.

The above described tract contains +/- 1.24 acres as surveyed.

Bearings shown herein are referenced to the West line of the NW/4 = N00°02'33"E, as shown on survey dated 1-17-2006 by PLS No. 189.

This property description was prepared on Jan. 13, 2022 by Matthew A. Sutterfield, Licensed Professional Land Surveyor No. 1962.

SURVEYOR'S NOTES

This survey was performed without the benefit of a Title Commitment.
No assumptions were provided or requested to be shown on the survey.



- ▲ - found & accepted monument
- - set 1/2" iron pin w/colBATT cap
- ⊙ - fixed public corner

MATTHEW A. SUTTERFIELD, PLS NO. 1962

Jan. 13, 2022

DATE / DATE OF REVISION

Jan. 12, 2022

LAST DATE ON SITE

CERTIFICATE OF SURVEY:

This plat of survey meets the Oklahoma Minimum Standards for the practice of land surveying as adopted by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors.



SUTTERFIELD
LAND SURVEYING

Sutterfield Land Surveying, LLP
CA 8477 exp. June 30, 2023
PO Box 294

Legal Publication
(Published in The Express-Star November 17th, 2022)

From: Community Development

Applicant: Buffie Howe

Re: Rezoning from I-2 Industrial to R-1 Residential.

Location: 1420 N 16th.

Legal: A Tract of Land in the NW ☐ Section 21 , Township 7 North, Range 7 West of the Indian Meridian.

When: Planning Commission December 13, 2022 at 4 pm in the City of Chickasha City Council Chambers, City Council Hearing will be January 3, 2023 at 6:30 PM in the City Council Chambers.

Please contact community development with questions or concerns. 405-222-6010; rachel.bernish@chickasha.org

Proof of Publication

~~In the District Court of Grady County, State of Oklahoma~~

Case No: 1420 N 16th

Affidavit of Publication

State of Oklahoma, County of Grady, ss:

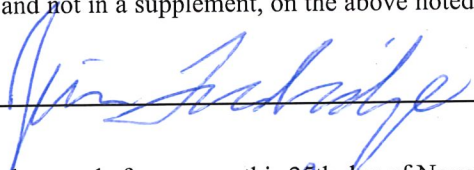
I, the undersigned publisher, editor or Authorized Agent of the Chickasha Daily Express, do solemnly swear that the attached advertisement was published in said paper as follows:

1st Publication

November 17, 2022

That said newspaper is Weekly, in the city of Chickasha, Grady County, Oklahoma, a Weekly newspaper qualified to publish legal notices, advertisements and publications as provided in Section 106 of Title 25, Oklahoma Statutes 1971, as amended, and complies with all other requirements of the laws of Oklahoma with reference to legal publications.

That said Notice, a true copy of which is attached hereto, was published in the regular edition of said newspaper during the period and time of publications and not in a supplement, on the above noted dates.


Signature

Subscribed and sworn before me on this 25th day of November 2022.


My commission expires July 10, 2024.

Notary Public
Commission #

20008340

Cost of Publication \$ 14.40

Ad # 00510256

Acct # 23151928

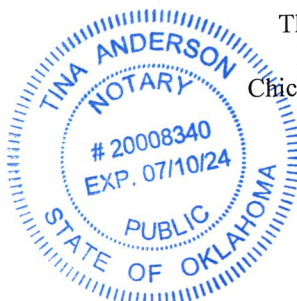
Copies: 1

PAY TO

The Express Star
PO Drawer E
Chickasha, OK 73023

A copy of this affidavit of publication was delivered to the Office of the Grady County Court Clerk on November 25, 2022.

Please include the case number on your check.





To: Property Owners within 300 feet of 1420 N 16th Street Chickasha OK 73018

Legal Description: A Tract of land in NW ¼ of Section 21, Township 7 North, Range 7 West of the Indian Meridian.

Location: 1420 N 16th Street Chickasha OK 73018

From: Community Development

Date: November 17, 2022

Applicant: Buffie Howe

Re: Rezoning from I-2 Heavy Industrial to R-1 Residential.

Public hearings have been scheduled regarding the request for a rezoning at 1420 N 16th Street,

If you wish to voice your support or protest regarding the above application you should attend the Planning Commission meeting on **December 13, 2022 at 4:00 PM** in the City Council Chambers Rm. 210 at City Hall, 117 North 4th Street, Chickasha, Oklahoma

and the **City Council** meeting on **January 3, 2023 at 6:30 PM** in the City Council Chambers Room. 210 at City Hall, 117 North 4th Street, Chickasha, Oklahoma. Written comments, if received prior to the meetings, may be entered into the record.

If you have any questions regarding this matter, please contact me at 405-222-6010 or email me at rachel.bernish@chickasha.org

Sincerely

Rachel Bernish
Community Development Director
Emergency Manager
405-222-6010
Rachel.bernish@chickasha.org
117 N 4th Street
Chickasha, OK 73018

ORDINANCE NO. 2023-02

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, AMENDING THE ZONING MAP AND ORDINANCES FOR 1420 N 16th STREET BY CHANGING THE ZONING DISTRICT TO R-1 SINGLE FAMILY RESIDENTIAL.

WHEREAS, a rezoning was requested, and the Planning Commission held a public hearing and voted unanimously to forward a recommendation for approval to the City Council;

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION 1. That the zoning map and ordinances of Chickasha, Grady County, State of Oklahoma, be changed to General Commercial covering the hereinafter described property:

Legal Description:

A tract of land in NW ¼ of Section 21, Township 7 North, Range 7 West of the I.M. Grady County, Oklahoma.

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Library

Agenda Item No. 6.I.

AGENDA ITEM: Discussion, consideration and possible action to approve an amendment to the Ready2Read grant for the library.

I. BACKGROUND/DESCRIPTION:

The library received a Ready2Read grant for \$2,000. ODL (Oklahoma Department of Libraries) extended the deadline for the completion of the purchases from December 10 to December 30, 2022. The funds will be used to purchase books and materials to enhance early literacy programs, i.e. storytime. Some of the books will be given to children.

II. RECOMMENDED ACTION:

To approve the amendment to the Ready2Read grant and authorize staff and the mayor to execute the appropriate documents.

III. FISCAL INFORMATION - The grant provides \$2,000.

IV. FUND INFORMATION:

Dept. Director: Lillie Huckaby Library Director	Fund	Account	Amount
	(To)44-508-001		\$2,000
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ready2Read contract Chickasha
2. Chickasha - ARPA RDY2RD Contract Amendment

**CONTRACT
BETWEEN THE OKLAHOMA DEPARTMENT OF LIBRARIES
AND CITY OF CHICKASHA**

I. CONTRACTING PARTIES

The American Rescue Plan Act (ARPA) Ready2Read Collection grant is offered through the American Rescue Plan Act of 2021 (Public Law 117-2) and the IMLS authorization statute (20 U.S.C. § 9101 et seq.) by the Institute of Museum and Library Services (IMLS) and administered by the Oklahoma Department of Libraries. The contracting parties are the Oklahoma Department of Libraries, a state agency (Department), and the City of Chickasha, a municipal government (Contractor), collectively known as the Parties.

II. TERM OF THE CONTRACT

This Contract shall begin on the date of execution and shall terminate on December 30, 2022.

- a. In the event the Contractor fails to comply with the terms and conditions of this Contract, the Department may, upon written notice of such non-compliance to the Contractor, cancel the Contract effective upon receipt of notice. Such cancellation shall be in addition to any other rights and remedies provided for by law.
- b. The Parties of this Contract understand and acknowledge any future contracts or renewals are not automatic nor implied by this Contract.

III. OBLIGATIONS OF THE CONTRACTOR

The Contractor shall render diligently and competently the services as indicated and in the manner set forth herein which shall be binding on the Parties of this Contract. The Contractor shall:

- a. Use grant funds to purchase picture books to add to the library's early literacy collection.
- b. Will fully expend all grant funds by December 10, 2022.
- c. Agree to and sign the *ARPA Terms and Conditions Agreement*.
- d. Acknowledge receipt of ARPA funds with the following acknowledgement:
"This project is made possible by the Institute of Museum and Library Services under the provisions of the American Rescue Plan Act, administered by the Oklahoma Department of Libraries. However, the opinions expressed by a grant supported outside agent do not necessarily reflect the position or policy of ODL or IMLS, and no official endorsement by those entities should be inferred."
- e. The Institute of Museum and Library Services (IMLS) and Department must be referenced in all publicity.
- f. Maintain receipts for five (5) years for all purchases paid with grant funds.
- g. Submit copies of invoices and a list of purchased items to ODL by December 20, 2022.

IV. OBLIGATIONS OF THE DEPARTMENT

The Department shall carry out the subsequent administrative responsibilities:

- a. Approve proposal and provide a contract, *ARPA Terms and Conditions Agreement*, claim form, and digital images of IMLS and ODL logos.
- b. Process grant payment to the Contractor upon receipt of notarized claim form.
- c. Review and approve final invoices and list of purchased items.

V. PROJECT FUNDING

In accordance with the terms of this Contract, the Department will pay **Two Thousand Dollars (\$2,000.00)** to the contractor.

- a. Expenditures for this project must conform to the approved budget and to applicable local, state, and federal laws and regulations, and are subject to all conditions of this Contract. Any deviations from the approved budget must be approved in writing by the Department.
- b. Payment will be made via electronic deposit within 45 days of receipt of the notarized claim form.
- c. The Contractor assures that expenditures under this Contract will be included in its next regular audit.

VI. GENERAL PROVISIONS

- a. Notices

Any notices to be given herein are deemed to be given when deposited with the United States Postal Service, certified or registered mail, return receipt requested, with sufficient postage prepaid, addressed as specified below. Either party may at any time designate any other address by giving written notice to the other party.

As to the Department:

Oklahoma Department of Libraries
Attn: Tara McCleod
200 NE 18 Street
Oklahoma City, OK 73105-3205

As to the Contractor:

Chickasha Public Library
Attn: Courtney Mayall
527 W Iowa Avenue
Chickasha, OK 73018-3947

- b. No Grant of Authority

Nothing herein shall be construed as conferring upon Contractor the authority to assume or incur any liability or obligation of any kind, expressed or implied, in the name of or on behalf of the Department. The Contractor agrees not to assume or incur any such liability without the prior written consent of the Department.

- c. Performance Suspension

Performance may be suspended by either party for any act of God, war, riots, fire, explosion, strike, injunction, inability to obtain fuel, power, labor, or transportation, accident, national defense requirements, or any cause beyond the control of such party, which prevents the

performance of such party. An alleged breach of this Contract by either party shall be grounds for immediate suspension of performance.

d. Liability

The Department shall not be liable for any injuries or damages to persons or property resulting from acts or omissions of the Contractor, its officers, employees, agents, or trustees, in carrying out the activities of this Contract.

e. Accident or Illness

The Contractor agrees that any accident or illness during the performance of this Contract will not be the responsibility of the Department and in no way holds the Department liable for such accident or illness.

f. Understanding of Terms

The Parties hereto have read and fully understand the terms of this Contract and the *ARPA Terms and Conditions Agreement* and agree to be bound by the same.

VII. RECORDS MAINTENANCE AND ACCESS REQUIREMENTS

The Contractor agrees to keep and maintain appropriate books and records reflecting the services performed and costs and expenses incurred in connection with its performance of the services, including accounting procedures, practices or any other items relevant to this Contract, for a period of five (5) years from the ending date of this Contract. Upon reasonable notice, the Department, Office of the Attorney General (OAG), the State Auditor's Office, the State Purchasing Director, or their representatives, shall be entitled to any books, records, and other documents and items for purpose of audit and examination at Contractor's premises during normal business hours. The Contractor further agrees to provide appropriate access by the aforementioned parties to any subcontractor's associated records. In the event any audit, litigation, or other action involving these pertinent records is started before the end of the five (5) year period, the Contractor agrees to retain these records until all issues arising out of the action are resolved or until the end of the five (5) year period, whichever is later.

VIII. VENUES AND APPLICABLE LAW

If any legal action is taken to enforce the terms of this contract, the Parties agree that the venue for all legal action is Oklahoma City, Oklahoma. This contract shall be governed by and construed in accordance with the laws of the State of Oklahoma.

IX. ADDITIONAL REQUIREMENTS

- a. It is expressly agreed that the Contractor under this contract is an independent Contractor and under no circumstances shall any owners, officers, employees or volunteers of the Contractor be considered employees of the Department or the State of Oklahoma. The Contractor is responsible for all types of claims due its volunteers, employees, or any third parties. Unless prohibited by Oklahoma law, the Contractor will indemnify and hold harmless the Department and the State of Oklahoma from and against any and all claims arising out of

the Contractor's, or any of the Contractor's employees' or volunteers' performance, including but not limited to the use of automobiles or other transportation.

- b. In the event the Contractor does not comply with the terms of this contract, including the timetable, budget, and objectives, the Contractor will be given written notification of such noncompliance by the Department. The Contractor may appeal for reconsideration by giving written evidence of compliance within twenty (20) days following receipt of such notification. Should noncompliance be confirmed, the Department may take possession of items purchased under this contract for reassignment to other programs and projects.
- c. Evidence of failure to comply with the above policies shall result in a hold being placed on pending payments for all future grants until compliance can be assured.
- d. It is expressly agreed that any solicitation for, or receipt of, funds of any type by the Contractor is for the sole benefit of the Contractor and is not a solicitation for, or receipt of, funds for the Department.
- e. The Contractor will comply with regulations under the Open Meetings Act and the Open Records Act.

X. AMENDMENTS

Any alterations, additions, or deletions to the terms of this Contract shall be in writing and executed by all Parties.

XI. ENTIRE CONTRACT

This instrument, consisting of five pages, constitutes the entire Contract between the Parties. All oral or written agreements between the Parties relating to the subject matter of this Contract have been reduced to writing and are contained herein.

XII. EXECUTION OF CONTRACT

The Contractor affirms that all information, documentation, and representations submitted in securing this Contract are true and correct to the best of their knowledge.

The Contractor certifies that neither the Contractor, nor anyone subject to the Contractor's direction or control, has paid, given, or donated, or agreed to pay, give, or donate to any officer or employee of the Department or the State of Oklahoma any money or other thing of value, either directly or indirectly, in procuring this Contract.

Each signatory to this Contract declares that he/she has legal authority for obligating the entity he/she represents for the benefits and/or liabilities resulting under said Contract and accepts liability for any misrepresentation of such authority.

IN WITNESS WHEREOF, the Contractor and the Department have each caused this Contract to be executed in their behalf.

SIGNATURES

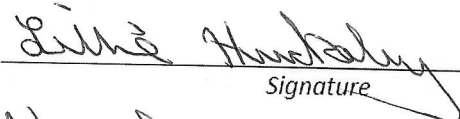
On behalf of the Contractor

On behalf of the Department

Lillie Huckaby, Director

Typed name and title of signor

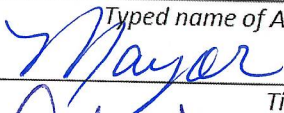
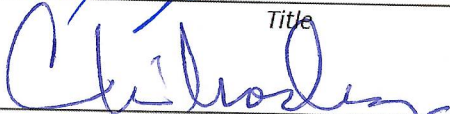
Natalie Currie, Director

*Signature*

November 9, 2022

*Date**Signature**Date*

Chris Mosley

Typed name of Authorizing Official*Title**Signature*

November 7, 2022

Date

FOR USE BY THE OKLAHOMA DEPARTMENT of LIBRARIES

Assurances: Fund 41500 is encumbered for this Contract

FPO/Business Manager:



Date: Oct 6, 2022

CONTRACT
BETWEEN THE OKLAHOMA DEPARTMENT OF LIBRARIES
AND THE CITY OF CHICKASHA

The following amendment is added to contract F-23-157 between the Oklahoma Department of Libraries (Department) and the City of Chickasha (Contractor).

1. It is agreed between the parties that this amendment will clarify and amend the Obligations of the Contractor in the original contract to the following:
 - a. Use grant funds to purchase fiction and non-fiction books to add to the library's early literacy collection. Use grant funds to purchase early literacy programming aids and materials to use in the library's early literacy program. For this grant, early literacy is birth to first grade (ages 0-6).
 - b. Will fully expend all grant funds by December 30, 2022.
 - g. Submit copies of invoices and a list of purchased items to ODL by January 17, 2023.
2. It is agreed between the parties that this amendment will extend the dates of the contract by one month. The contract shall terminate on January 30, 2023.
3. All requirements and restrictions described in the original contract apply to this contract amendment.

SIGNATURES

On Behalf of the Contractor

Lillie Huckaby, Director

Signature

Date

Chris Mosley, Mayor

Signature

Date

On behalf of the Department

Natalie Currie, Director

Signature

Date

FOR USE BY THE OKLAHOMA DEPARTMENT OF LIBRARIES

Assurances Fund 41500 is encumbered for this Contract

Business Manager/FPO Approval: McCloud Date: Nov 8, 2022



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Administration

Agenda Item No. 6.m.

AGENDA ITEM: Discussion, consideration, and possible action on a tort claim filed by Courtney Chaney.

I. BACKGROUND/DESCRIPTION:

- OMAG has investigated the claim and finds no liability on the City regarding this incident.
- OMAG has denied coverage and forwarded back to the City for disposition. Typically, the City would deny the claim based on OMAG investigations and findings of no liability.

II. RECOMMENDED ACTION:

Deny claim based on OMAG findings.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Susan M. McDaniel, City Clerk	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Tort Claim - C. Chaney
2. OMAG Correspondence - Courtney Chaney

NOTICE OF TORT CLAIM**OKLAHOMA MUNICIPAL ASSURANCE GROUP - MUNICIPAL LIABILITY PROTECTION PLAN****A. CLAIMANT REPORT**To the City of Chickasha

Public entity you are filing this claim against.

PLEASE PRINT OR TYPE AND SIGN

IMPORTANCE NOTICE: The filing of this form with the City Clerk's office is only the initial step in the claim process and does not indicate in any manner the acceptance of responsibility by the City or its related entities. Written notice is required by law and shall be filed with the City Clerk within one (1) year from the date of occurrence. It will then be sent to OMAG Claims Dept. for investigation. You may expect them to contact you. Failure to file within such time frame may result in the claim being barred in its entirety. Other limitations to your claim may apply (See Oklahoma Statutes Title 51, Section 151-172).

CLAIMANT(S) Courtney H. ChaneyCLAIMANT(S) SOCIAL SECURITY NO. [REDACTED]ADDRESS [REDACTED]CLAIMANT(S) DATE OF BIRTH [REDACTED]Chickasha, Ok 73018PHONE: HOME(405) [REDACTED] BUS.()Continue on another sheet if needed
for any information requested)

1. DATE AND TIME OF INCIDENT 11/25/2022 (2:30)a.m. ()p.m.
2. LOCATION OF INCIDENT 5th and Missouri
3. DESCRIBE INCIDENT There is a manhole there that is about 5 inches deep. I was driving home from work and it was dark outside. I hit the manhole and my vehicle jerked hard to the left. I drove home to 13th and Dakota. The next day when I went to leave for work I began to drive and my vehicle pulled to the left really bad and my tire shakes

4. LIST ALL PERSONS AND/OR PROPERTY FOR WHICH YOU ARE CLAIMING DAMAGES:**BODILY INJURY:** WAS CLAIMANT INJURED? YES ☐ NO ☒ If yes, complete this section

Describe injury _____

WERE YOU ON THE JOB AT THE TIME OF INJURY? YES ☐ NO ☐ If so, please give name, address and
phone number of company _____

NAME OF DOCTOR OR HOSPITAL _____

ALL MEDICAL BILLS (attach Copies) \$ _____

LIST OTHER DAMAGES CLAIMED \$ _____

TOTAL BODILY INJURY. \$ _____

PROPERTY DAMAGE: Proof that you are the owner of the vehicle or property allegedly damaged as specified in your claim will be required.VEHICLE NAME KIA BODY TYPE SEDONA YEAR 2002**NOTE:** If damage is to a vehicle, a photocopy of your motor vehicle title is required.IF NOT A VEHICLE, DESCRIBE PROPERTY AND LOSS I have not taken it to get looked at by a mechanic I notified you first.

PROPERTY DAMAGE (Attach repair bills or two estimates) \$ _____

LIST OTHER DAMAGES CLAIMED \$ _____

TOTAL PROPERTY \$ _____

5. NAME OF YOUR INSURANCE CO. POLICY NO. AMOUNT CLAIMED AMOUNT RECEIVED**6. The names of any witnesses known to you.**N/A

Name Address Phone Number

Name Address Phone Number

STATE THE EXACT AMOUNT OF COMPENSATION YOU WOULD ACCEPT AS FULL SETTLEMENT ON THIS CLAIM.

TOTAL CLAIM \$ Unknown at this time

SIGNATURE(S)

11/30/2022

DATE



3650 S. Boulevard • Edmond, OK 73013 • omag.org
405.657.1400 • 800.234.9461 • FAX 405.657.1401

December 15, 2022

Ms. Courtney Chaney
603 S. 13th
Chickasha, Oklahoma 73018

RE: Member : City of Chickasha
 Claimant : Courtney Chaney
 Date of Loss : November 25, 2022
 Claim No. : 212224-1-LN

Dear Ms. Chaney:

As the adjuster for the Oklahoma Municipal Assurance Group, the insurer for the City of Chickasha, I am recommending denial of this claim and find no liability on the City of Chickasha's part for this claim.

A municipality may be liable only if it had prior notice of a defect or problem and failed to take appropriate remedial action within a reasonable time before the damage occurred.

The City of Chickasha had no notice of this issue prior to your incident. Based on this information we are recommending denial of this claim to the City of Chickasha.

Sincerely,

A handwritten signature in black ink, reading "Leslie Noriega", is written over a light gray dotted signature line.

Leslie Noriega,
Claims Adjuster

cc: City of Chickasha



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: City Clerk

Agenda Item No. 6.n.

AGENDA ITEM: Discussion, consideration, and possible action to adopt Resolution 2023-01R - Safe Routes to School policy.

I. BACKGROUND/DESCRIPTION:

- This policy was originally adopted the Safe Routes to School policy in 2019. TSET has requested updating the policy periodically.
- By adopting this policy, the City would be making a commitment to the following:
 - The research and identification of areas in need of safer routes to school.
 - Support in finding opportunities to create safer routes to school.
 - Collaboration with other stakeholders to identify and resolve barriers to safe routes to school.
- The City is not committing any funds to this program at this time. This policy is a commitment to research only.
- Research would include walkability studies and identifying methods of slowing traffic to provide safer routes to school. This could be in the form of painting crosswalks, signage, or sidewalks. A lower walkability score would make an area a higher priority.
- The Safe Routes to School program is a part of the TSET Healthy Living Program.
- The City would work with TSET and seek opportunities to partner with ODOT and the Chickasha Public Schools to bring safer routes to schools.
- One of the overall goals of the safe routes to school program is to increase physical activity by providing safer walking and biking routes for pedestrian traffic.
- Our hope is that through the adoption of this policy, the City would be in a better position to apply for grants related to the Safe Routes for School program.

II. RECOMMENDED ACTION:

Adopt Resolution 2023-01R - Safe Routes to School Policy.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Susan M. McDaniel, City Clerk	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Res. 2023-01R Safe Routes to School Update

Resolution 2023-01R

A RESOLUTION of the *City Council* of the *City of Chickasha* Adopting a Safe Routes to School Policy.

Findings

WHEREAS, obesity is one of the most serious threats to American public health, putting people at risk for many of the leading causes of death in the United States,

WHEREAS, motor vehicle crashes are also a leading cause of death and injury to children

WHEREAS, low-income and moderate-income areas, whether they are located in rural, urban, or suburban communities, are typically the least safe for pedestrians and bicyclists, especially for children walking and biking to school, due to longstanding infrastructure disparities and a higher concentration of streets with faster-moving and/or higher-volume traffic,

WHEREAS, between 1969 and 2009 the percentage of children walking and biking to school dramatically declined from 48% to 13%,

WHEREAS, an overall decrease in daily physical activity corresponds with a dramatic increase in childhood obesity that has resulted in a nationwide health epidemic,

WHEREAS, when students walk or bike to school they get more physical activity, reduce their risk of obesity and diabetes, and improve their overall health, and healthier children miss fewer days of school,

WHEREAS, when students exercise before school, they arrive focused and ready to learn, without taking time away from existing school-day activities or placing additional burdens on teachers,

WHEREAS, when more people walk and bicycle, neighborhood streets become safer and more welcoming for anyone who is not driving,

WHEREAS, 10% to 14% of morning rush-hour traffic is attributable to families driving their children to school, so children walking or riding bikes to school can reduce traffic congestion,

WHEREAS, encouraging people to walk, bicycle, and use public transit saves energy resources, reduces air pollution and related chronic diseases, and reduces emissions of global warming gases,

WHEREAS, a balanced transportation system where people can easily and safely walk and bicycle to everyday destinations like schools enhances neighborhood economic vitality,

NOW THEREFORE BE IT RESOLVED that the *City of Chickasha* will improve its commitment to safe routes to school by adopting the safe routes to school policy attached hereto as Exhibit A, and made part of this resolution.

PASSED AND ADOPTED by the City Council of the City of Chickasha, State of Oklahoma,

On January 3, 2023, by the following vote: _____ Ayes _____ Nays

Chris Mosley, Mayor

ATTEST:

Susan M McDaniel, CMC - City Clerk

(S E A L)

Attachment: Exhibit A (Safe Routes to School Policy)

Section 1: Definitions

High-need area means any area within 2 miles of a school in which:

1. At least 50% of the children are eligible to receive free and reduced-price meals under the National School Lunch Program,
2. There is limited access to safe routes for walking and biking compared with other such areas in the community, or
3. There is a high number of pedestrian and/or bicycle collisions.

Safe routes to school means the methodology and set of tools used by governments, local leaders, advocacy groups, schools, and the families of students to improve the safety, health, and connectedness of their communities by making schools safe and easy to access via walking, biking, and public transit.

Underrepresented people means residents of a local population that historically and/or currently have limited involvement in decisions that affect their lives. Limited involvement may be related to age, gender, race, ethnicity, religion, or socioeconomic factors—to name a few—and will vary by community.

Section 2: Safe Routes to School Actions

Chickasha shall take the following actions immediately upon or within two years of the effective date of this policy:

1. **IDENTIFY a lead entity to take responsibility for implementing this policy, which shall include the following action(s):**
 - Work with all affected departments or agencies, and with the community more broadly to implement safe routes to school through the actions listed in this policy.
2. **COLLABORATE with local stakeholders from at least three sectors affected by this policy to coordinate implementation, which shall include the following action:**
 - Connect with existing community partners working in areas related to safe routes to school such as organizations working on issues related to physical activity, transportation, students, schools, and health equity.
3. **ASSESS community needs to establish a baseline and set priorities for safe routes to school efforts, which shall include the following actions:**
 - The lead will undertake an assessment to determine community needs and to identify high-need areas (if any).
 - Based on this assessment, the lead will prioritize the areas and activities that are most needed in the community, to guide implementation efforts.

- 4. PLAN to take safe routes to school considerations into account during related city-wide decisions and processes, which shall include the following action:**
 - Encourage schools to incorporate safe routes to schools goals into their wellness policies.
- 5. SUPPORT safe routes to school by identifying and facilitating funding opportunities for new projects and for the ongoing maintenance of this policy, which shall include the following action:**
 - Identify local, state, federal, and non-governmental funding opportunities for all safe routes to school actions to be taken by the government as a direct result of this policy, or to be taken by other organizations and institutions to support this policy.
- 6. IMPROVE local infrastructure to increase the availability of accessible, safe active transportation options to and from schools, especially in high-need areas, which shall include the following actions:**
 - Invest in transportation improvements to increase: the types of active transportation options available to and from schools, the connections between various types of transportation options, and the services offered along school routes
 - Invest in improvements to increase the safety of people using active transportation to and from schools, such as: speed-zone enforcement measures, signals, striping and signage, and streetscape changes to slow traffic and increase bicycle and pedestrian visibility.
- 7. EDUCATE stakeholders and the community about safe routes to school goals and benefits, which shall include the following action:**
 - Other information about safe routes to school through a variety of outlets and types of media to reach different ages and types of stakeholders.
- 8. PROMOTE safe routes to school efforts and successes at the local, state, and federal level, which shall include the following actions:**
 - Facilitate walking school bus days using volunteers from schools and nearby neighborhoods.
 - Host, sponsor, or participate in parades and health fairs, as opportunities to promote safe routes to school efforts.
 - Coordinate promotional events with Oklahoma-based and national organizations that support safe routes to school efforts, such as National Walk to School Days with the Safe Routes to School National Partnership.
- 9. TRACK implementation by gathering reports about how safe routes to school activities have affected nearby residents, which shall include the following actions:**
 - Follow up with any participating departments, agencies, or schools to gather information about the status of their safe routes to school efforts.
 - Using the performance measures determined in Section 3 of this policy, monitor the policy's impact and look for potential unintended consequences for all affected stakeholders.

10. EVALUATE and improve the actions taken as a result of this policy, which shall include the following actions:

- In accordance with the reporting requirements under Section 4 of this policy, evaluate all identified consequences with a focus on how the policy and its implementation may be improved.
- Compare the effects of implementation on all stakeholders, such as rates of physical activity, use of active transportation, and/or statistics concerning pedestrian and bicyclist safety.

Section 3: Performance Measures

The *City of Chickasha*, through or with the help of the lead entity, will develop performance measures to track the effects of this policy in accordance **with Section 2(9), Track**. This include intended benefits and unintended consequences, both good and bad.

Section 4: Reporting

One year from the effective date of this policy, and annually thereafter, the lead entity will provide a report to the *Chickasha City Council* of the tracking and evaluation components of this policy, which include, at a minimum, the following:

1. Baseline and updated tracking information, based on the **Performance Measures** created under **Section 3**, as applicable
2. A summary and evaluation, per **Section 2(10): Evaluate**, of:
 - Identification and activities of the lead entity
 - Collaboration activities and specific stakeholders
 - Assessment activities and tools used
 - Planning, decision-making, and priorities
 - Support and funding activities
 - Infrastructure improvements and maintenance priorities
 - Educational activities and tools used
 - Promotional activities
 - Tracking efforts and conversations
 - Evaluation results and conclusions, as applicable
3. Any recommendations for improving implementation of this policy.

Section 5: General Statement of Policy

It is the intent of the *Chickasha City Council* that this resolution is a general statement of Chickasha policy that cannot form the basis of a private right of action.

Section 6: Severability

If any section, subsection, subdivision, paragraph, sentence, clause, or phrase of this resolution, or its application to any person or circumstance, is for any reason held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases of this resolution, or its application to any other person or circumstance. The City Council of the City of Chickasha hereby declares that it would have adopted each section, subsection, subdivision, paragraph, sentence, clause, or phrase hereof, irrespective of the fact that any one or more other sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases hereof be declared invalid of unenforceable.

Attachment: Exhibit A (Safe Routes to School Policy)

Section 1: Definitions

High-need area means any area within 2 miles of a school in which:

4. At least 50% of the children are eligible to receive free and reduced-price meals under the National School Lunch Program,
5. There is limited access to safe routes for walking and biking compared with other such areas in the community, or
6. There is a high number of pedestrian and/or bicycle collisions.

Safe routes to school means the methodology and set of tools used by governments, local leaders, advocacy groups, schools, and the families of students to improve the safety, health, and connectedness of their communities by making schools safe and easy to access via walking, biking, and public transit.

Underrepresented people means residents of a local population that historically and/or currently have limited involvement in decisions that affect their lives. Limited involvement may be related to age, gender, race, ethnicity, religion, or socioeconomic factors—to name a few—and will vary by community.

Section 2: Safe Routes to School Actions

Chickasha shall take the following actions immediately upon or within two years of the effective date of this policy:

11. IDENTIFY a lead entity to take responsibility for implementing this policy, which shall include the following action(s):

- Work with all affected departments or agencies, and with the community more broadly to implement safe routes to school through the actions listed in this policy.

12. COLLABORATE with local stakeholders from at least three sectors affected by this policy to coordinate implementation, which shall include the following action:

- Connect with existing community partners working in areas related to safe routes to school such as organizations working on issues related to physical activity, transportation, students, schools, and health equity.

13. ASSESS community needs to establish a baseline and set priorities for safe routes to school efforts, which shall include the following actions:

- The lead will undertake an assessment to determine community needs and to identify high-need areas (if any).
- Based on this assessment, the lead will prioritize the areas and activities that are most needed in the community, to guide implementation efforts.

14. PLAN to take safe routes to school considerations into account during related city-wide decisions and processes, which shall include the following action:

- Encourage schools to incorporate safe routes to schools goals into their wellness policies.

15. SUPPORT safe routes to school by identifying and facilitating funding opportunities for new projects and for the ongoing maintenance of this policy, which shall include the following action:

- Identify local, state, federal, and non-governmental funding opportunities for all safe routes to school actions to be taken by the government as a direct result of this policy, or to be taken by other organizations and institutions to support this policy.

16. IMPROVE local infrastructure to increase the availability of accessible, safe active transportation options to and from schools, especially in high-need areas, which shall include the following actions:

- Invest in transportation improvements to increase: the types of active transportation options available to and from schools, the connections between various types of transportation options, and the services offered along school routes
- Invest in improvements to increase the safety of people using active transportation to and from schools, such as: speed-zone enforcement measures, signals, striping and signage, and streetscape changes to slow traffic and increase bicycle and pedestrian visibility.

17. EDUCATE stakeholders and the community about safe routes to school goals and benefits, which shall include the following action:

- Other information about safe routes to school through a variety of outlets and types of media to reach different ages and types of stakeholders.

18. PROMOTE safe routes to school efforts and successes at the local, state, and federal level, which shall include the following actions:

- Facilitate walking school bus days using volunteers from schools and nearby neighborhoods.
- Host, sponsor, or participate in parades and health fairs, as opportunities to promote safe routes to school efforts.
- Coordinate promotional events with Oklahoma-based and national organizations that support safe routes to school efforts, such as National Walk to School Days with the Safe Routes to School National Partnership.

19. TRACK implementation by gathering reports about how safe routes to school activities have affected nearby residents, which shall include the following actions:

- Follow up with any participating departments, agencies, or schools to gather information about the status of their safe routes to school efforts.
- Using the performance measures determined in Section 3 of this policy, monitor the policy's impact and look for potential unintended consequences for all affected stakeholders.

20. EVALUATE and improve the actions taken as a result of this policy, which shall include the following actions:

- In accordance with the reporting requirements under Section 4 of this policy, evaluate all identified consequences with a focus on how the policy and its implementation may be improved.
- Compare the effects of implementation on all stakeholders, such as rates of physical activity, use of active transportation, and/or statistics concerning pedestrian and bicyclist safety.

Section 3: Performance Measures

The *City of Chickasha*, through or with the help of the lead entity, will develop performance measures to track the effects of this policy in accordance **with Section 2(9), Track**. This include intended benefits and unintended consequences, both good and bad.

Section 4: Reporting

One year from the effective date of this policy, and annually thereafter, the lead entity will provide a report to the *Chickasha City Council* of the tracking and evaluation components of this policy, which include, at a minimum, the following:

4. Baseline and updated tracking information, based on the **Performance Measures** created under **Section 3**, as applicable
5. A summary and evaluation, per **Section 2(10): Evaluate**, of:
 - Identification and activities of the lead entity
 - Collaboration activities and specific stakeholders
 - Assessment activities and tools used
 - Planning, decision-making, and priorities
 - Support and funding activities
 - Infrastructure improvements and maintenance priorities
 - Educational activities and tools used
 - Promotional activities
 - Tracking efforts and conversations
 - Evaluation results and conclusions, as applicable
6. Any recommendations for improving implementation of this policy.

Section 5: General Statement of Policy

It is the intent of the *Chickasha City Council* that this resolution is a general statement of Chickasha policy that cannot form the basis of a private right of action.

Section 6: Severability

If any section, subsection, subdivision, paragraph, sentence, clause, or phrase of this resolution, or its application to any person or circumstance, is for any reason held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases of this resolution, or its application to any other person or circumstance. The City Council of the City of Chickasha hereby declares that it would have adopted each section, subsection, subdivision, paragraph, sentence, clause, or phrase hereof, irrespective of the fact that any one or more other sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases hereof be declared invalid of unenforceable.



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Administration

Agenda Item No. 6.o.

AGENDA ITEM: Discussion, consideration and possible action to authorize staff to solicit bids for carpet replacement in Finance and Community Development offices located in City Hall.

I. BACKGROUND/DESCRIPTION:

- Carpet and wall trim were damaged in the Finance and Community Development offices when the fire system leaked and flooded both offices.
- An insurance claim was submitted and collected on the damage.
- Carpet and trim in the public areas of the hallway have already been replaced.

II. RECOMMENDED ACTION:

Authorize Staff to solicit bids for carpet replacement in Finance and Community Development offices located in City Hall.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: NAME, TITLE	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Carpet Replacement Bid Packet Draft

INVITATION TO BID

MAIL SEALED BIDS TO:	PERSONAL OR COMMON CARRIER DELIVERY
Chickasha City Clerk	Chickasha Finance Department
117 NORTH 4TH STREET	117 North 4th Street
CHICKASHA, OKLAHOMA 73018	CHICKASHA, OKLAHOMA 73018

DATE BID TYPED: 12/5/2022	BID NO: 2022-	TITLE: Replacement of Carpet and Wall Trim- 2 offices at City Hall	
NO BIDS WILL BE ACCEPTED AFTER: 2022@ 1:30pm		CONTRACT PERIOD	
VENDORS NAME:		REASON FOR NO BID:	
MAILING ADDRESS:			
CITY:	STATE:	ZIP:	TERMS:
AREA CODE:	TELEPHONE NO.	FAX NO.	DELIVERY:
E-MAIL ADDRESS			FEDERAL EMPLOYER IDENTIFICATION NO. OR SOCIAL SECURITY NO.

NON-COLLUSION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF _____, COUNTY OF _____,

_____ of lawful age, being first duly sworn on oath, says that 1. (s)he is the duly authorized agent of the above bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and city officials or employees, as well as facts pertaining to the giving or offering of things of value to city personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached. 2. (s)he is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and 3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:

- a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
- b. to any collusion with any city official or employee as to quantity, quality, or price in the prospective contract, nor
- c. in any discussions between bidders and any city official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Bidder

Subscribed and sworn to before me this _____ day of _____, 20____

Notary

My Commission Expires:

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

BUSINESS RELATION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF _____, COUNTY OF _____,

_____ of lawful age, being first duly sworn on oath, says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships herein above mentioned exist; Affiant should so state).

Bidder

Subscribed and sworn to before me this _____ day of _____, 20____

Notary

My Commission Expires:

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

SEALED BIDS: All sheets bid on and this form must be executed and submitted in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE BID PER ENVELOPE). The face of the envelope shall contain, in addition to the mailing address, the words "SEALED BID" the date of the bid opening and the contract number. Bids submitted in Federal Express or other specialized delivery envelopes shall be enclosed in a separate envelope marked as indicated above. Bids not submitted in properly marked envelopes or on the attached bid form shall be rejected. In the case of "No Bid" the vendor shall return the "Invitation to Bid" with the "Reason for No Bid" properly filled in, to remain on the City of Chickasha's active vendor/contractor list

EXECUTION OF BID: Bid must contain an original signature of an authorized representative in the space provided. Bids must be typed or printed in ink. Use of erasable ink is not permitted. ALL CORRECTIONS MADE BY BIDDER TO HIS BID MUST BE INITIALED.

BID OPENING: It is bidder's responsibility to assure that his bid is delivered at the proper time and place of the bid opening. Bids which for any reason are not so delivered, will not be considered. Offers by telegram or telephone **are not acceptable.** **NOTE:** Bid files may be examined during normal working hours by appointment. Bid tabulations WILL NOT be provided by telephone.

MISTAKES: Bidders are expected to examine the specifications, delivery schedule, bid prices and all instructions pertaining to supplies and services. Failure to do so will be at bidder's risk. In case of mistake in extension, the unit price will govern.

INVOICING AND PAYMENT: The vendor shall be paid upon submission of proper certified invoices to the City of Chickasha at the prices stipulated on the contract. Invoices shall contain the contract number and purchase order number. Failure to follow these instructions may result in delay of processing invoices for payment.

WAIVER: City of Chickasha reserves the right to waive any general provision, special provision or minor specification deviation when considered to be in the best interest of the City of Chickasha. Any bid received by the awarding public agency or an officer or employee thereof, more than ninety-six (96) hours excluding Saturdays, Sundays and holidays before the time set for the opening of bids, or any bid so received after the time set for opening of bids, shall not be considered by the awarding public agency and shall be returned unopened to the bidder submitting same.

GENERAL PROVISIONS

1. Definitions

- A. “City” means the City of Chickasha Finance Department.
- B. “Acquisition” means items, products, materials, supplies, services, and equipment the City acquires by purchase, lease purchase, or rental.
- C. “Bid” means an offer in the form of a bid, proposal, or quote a bidder submits in response to a solicitation;
- D. “Bidder” means an individual or business entity that submits a bid in response to a solicitation;
- E. “Solicitation” means a request or invitation by the Director of Public Works for a supplier to submit a priced offer to sell acquisitions to the City. A solicitation may be an invitation to bid, request for proposal, or a request for quotation; and
- F. “Supplier” or “Vendor” means an individual or business entity that sells or desires to sell acquisitions to the city.

2. Submission

Sealed bids will be received by the City of Chickasha for furnishing of equipment, materials, and supplies and incidental items necessary to perform the work as outlined in these specifications. Copies of all bid documents are available for inspection in the Office of the City Clerk. Bids are to be submitted to the Office of the City Clerk, 117 N. 4th Street, Chickasha, OK 73018, no later than the date and time indicated on the BID FORM. Submission of a Bid shall constitute an agreement on the part of the Bidder to all terms and conditions contained therein.

Bids received by the city after the response due date and time shall be deemed non-responsive and shall NOT be considered for any resultant award.

3. Insurance

The policies of insurance shall be executed by insurance or indemnity carrier authorized to do business in the State of Oklahoma and shall in all respects conform to the requirement of Governmental Tort Claims Act, Title 51 Oklahoma Statutes Sections 151 et seq. With liability limits to be no less than the amount specified therein and with the City of Chickasha to be additional insured on all such required policies of insurance.

The successful Bidder will be required to execute the agreement and provide all necessary insurance within ten (10) calendar days from the date the Notice of Award is delivered to the Bidder.

1. Rejection of Bid

The city reserves the right to reject any bids that do not comply with the requirements and specifications of the solicitation. A bid may be rejected when the bidder imposes terms or

conditions that would modify requirements of the solicitation or limit the bidder's liability to the city.

2. Award of Contract

The Director of Finance may award the contract to more than one bidder by awarding the Contract(s) by item or groups of items, or may award the Contract on an ALL OR NONE basis, whichever is deemed by the Finance Director to be in the best interest of the City of Chickasha.

Contract awards will be made to the lowest and best bidder(s) unless the solicitation specifies that the best value criteria is being used.

Only properly completed bids will be considered. A completed Bid shall include the following:

1. A fully completed "Bid Form."
2. A completed and Notarized "Non-Collusion Affidavit," "Business Relation Affidavit."

BID OPENING

Sealed bids shall be opened by the Finance Department Director at City Hall 117 N. 4th Street, Chickasha, Oklahoma 73018 on **XXXX, XXXXX, 2022**.

PRE-BID MEETING

No pre bid meeting is planned but it is advised that vendor inspect location before bidding.

Purpose and Scope:

The purpose of this document is to provide minimum specifications for the removal, disposal and replacement of carpet and wall trim in the Finance office and Community Development office of City Hall. It is the intent of these specifications to describe the minimum requirements for the work to be performed. All material and work is expected to be to professional standards in quality and workmanship.

Bids are solicited pursuant to the Public Competitive Bidding Act of 1974 as amended (Title 61, O.S. 1981, Sections 101-136 et seq.)

The purchaser reserves the right to reject any and all bids, waive all irregularities or technicalities without assigning reason therefore, and make awards in the best interest of the purchaser.

No bidder may withdraw his bid within 45 days after the actual date of opening thereof.

**CITY OF CHICKASHA
BID SPECIFICATIONS – BID 2022–
CARPET AND TRIM REMOVAL AND REPLACEMENT**

SCOPE OF WORK:

This project is for the removal and disposal, and replacement of the carpet and wall trim in the Finance and Community Development offices at 117 N. 4th Street Chickasha, Ok. 73018. All parts not specifically mentioned which are required to complete the work shall conform in design, strength, quality of material and workmanship of existing materials in the building.

Material Delivery:

Material will be delivered to the appropriate job site.

Certificate of Insurance

Each bidder shall provide, with their proposal, a Certificate of Product Liability Insurance for a minimum of \$25,000,000. Failure to provide documentation shall render the proposal non-responsive and the bid will be rejected. This certificate shall be from the primary builder only. Certificates submitted from various sub-contractors to reach the sum of \$25,000,000 will not be accepted.

This Certificate must be made out to the City of Chickasha and be original. Copies will not meet the requirements of this section.

Bid Bond

A bid security in the form of a Bid Bond, cashier's check, or certified check made payable to the City of Chickasha in the amount of 10% of the total bid shall be required. This shall serve as a guarantee which may be forfeited and retained by the City of Chickasha in lieu of its other legal remedies if a successful bidder's proposal is accepted by the City of Chickasha and the bidder shall fail to execute and return to the City of Chickasha the required contract and bonds within 10 days of delivery. If a Bid Bond is provided, it shall be issued by a bonding company licensed in Oklahoma.

**CITY OF CHICKASHA
BID SPECIFICATIONS – BID 2022–
CARPET AND TRIM REMOVAL AND REPLACEMENT**

MINIMUM SPECIFICATIONS:

- Furniture moved prior to and after work being completed.
- Carpet removed and disposed of from designated areas and replaced with Aladdin Commercial Rule Breaker Stripe Tile/ 28135/GA135.
- Existing cove base trim removed and disposed of from designated areas and replaced with appropriate cove base trim.
- Any wall damage due to removal or installation of cove base trim or carpet work repaired.

CERTIFICATION

I certify that this quote is correct, and I understand that if the quote is not honored that the City may withdraw the award and as a result my firm may be disqualified as a bidder for the City of Chickasha.

DATE: _____ FIRM NAME: _____

PHONE: _____ BY: _____

FAX: _____ TITLE: _____

E-MAIL ADDRESS: _____

PRICE QUOTE

Furniture moved prior to and after work \$ _____

Removal and disposal of existing carpet and trim \$ _____

Replacement of carpet tiles \$ _____

Replacement of cove base trim \$ _____

Total bid \$ _____

Estimated starting date: _____



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Fire Department

Agenda Item No. 6.p.

AGENDA ITEM: Discussion, consideration and possible action to award bid RFP-COC-2201 to Emergency Vehicle Sales and Service of Oklahoma for a price not to exceed \$177,995.00. .

I. BACKGROUND/DESCRIPTION:

The Fire Department was awarded ARPA funding through County Commissioners for the purchase of a new brush truck in the amount of \$154,453.95. Staff received 4 sealed bids from 3 reputable vendors with varying potential delivery dates and pricing. Pricing ranged from \$154,453.95 to \$193,000.00. Delivery dates ranged from October 2023 to August 2024. Staff looked at other options to potentially expedite delivery of the brush pumper with no good options.

II. RECOMMENDED ACTION:

Based on potential delivery time, staff recommends accepting and awarding the sealed bid to Emergency Vehicle Sales and Service of Oklahoma for a price not to exceed \$177,995.00.

III. FISCAL INFORMATION - Price not to exceed \$177,995.00 of which \$154,453.95 will be reimbursed from Grady County ARPA funds. Total out of pocket for Chickasha is \$23,541.05.

IV. FUND INFORMATION:

Dept. Director: Tony Samaniego, Fire Chief	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Daco
2. Banner

3. Emergency Vehicles

SPECIFICATIONS
FOR
**CHICKASHA
FIRE DEPARTMENT**

FOR A
Quick Attack

Wildlands Fire Fighting Apparatus

Minimum Specifications for a Wildlands Fire Fighting Apparatus
(Any Mention of a specific brand name – shall be or equivalent)

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3 Year Graphics Warranty:	21
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
<u>Intent of Specifications:</u> It is the intent of these specifications to clearly describe the furnishing and delivery to the Purchaser, a complete apparatus equipped as specified. The primary objective of these specifications is to obtain the most acceptable apparatus for service in the Fire Department. These specifications cover specific requirements as to the type of construction and tests the apparatus must conform, together with certain details as to finish, material preferences, equipment, and appliances with which the successful bidder must conform. The design of the apparatus must embody the latest approved automotive design practices. The workmanship must be of the highest quality in its respective field. Special consideration shall be given to service access to areas needing periodic maintenance, ease of operation, and symmetrical proportions. Construction must be heavy-duty and ample safety factors must be provided to carry loads as specified. The construction method employed will be in such a manner as to allow ready removal of any component for service or repair. The apparatus shall conform to the National Fire Protection Association Standard for Automotive Fire Apparatus, number 1901 and the National Fire Protection Association Standard for Wildland Fire Apparatus, number 1906, in its most recent edition, unless otherwise specified in this document. Only the specified firefighting support equipment listed in these specifications shall be provided. The apparatus shall further conform to all Federal Motor Vehicle Safety Standards. NO EXCEPTION. Each bidder shall furnish satisfactory evidence of their ability to design, engineer, and construct the apparatus specified and shall state the location of the factory producing the apparatus. They shall also substantiate they are able to render prompt and proper service and to furnish replacement parts for the apparatus. Bids will be addressed and submitted in accordance with the instructions provided on the cover sheet. The bid number, the date, and bid opening time shall be stated on the front of the bid envelope. It shall be the responsibility of the bidder to assure that their proposal arrives at the location and time indicated. Late proposals, telegrams, facsimile, or telephone bids will not be considered. NO EXCEPTION. All bidders are required to detail the payment terms for apparatus on the bidder's proposal page. Any required prepayments or progress payments must be explained in detail.	✓	
<u>Service and Warranty Support:</u> To ensure full service after delivery, the bidder must be capable of providing service when required. The bidder shall show that the company is in position to render prompt service and furnish replacement parts. Each bidder must be able to display that they are actively in the fire apparatus service business by operating an authorized service center located within the State of Oklahoma, and shall stock parts equating to \$250,000.00, No Exceptions.		✓
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Detailed information shall be provided on service facilities, personnel, service vehicles, and how long the service facility has operated in the State of Oklahoma. Service is a criteria for award of this bid.		
<u>Service Certification:</u> Each bidder shall supply with their bid an Emergency Vehicle Technician certification, and photos of the full-service repair facility that is located within the State of Oklahoma, these documents must be provided with the proposal. No Exceptions.		✓
<u>Brand Names:</u> Any brand names, trade names, manufacturer's names, or other product identification names included in these specifications are included to establish a minimum quality and standard. These products listed in our specifications which have name brands attached in no manner limit any bidder, however the items included in your bid must meet or exceed our minimum specifications. The Fire Departments will make the sole determination as to which items meet or exceed the specifications.		
<u>Oklahoma Motor Vehicle License:</u> Each manufacturer, dealer, and salesperson must furnish a copy of their Oklahoma Motor Vehicle Commission License. <u>This is an Oklahoma Law and must be furnished, No Exceptions.</u>		
<u>Proposal Price:</u> Each bidder's proposal must include all items required in the specifications unless a specific exception is taken. Any bidder who options prices an item included in these specifications that does not specifically require option pricing will have their proposal rejected without further cause.		
<u>Proposal Format:</u> Each bid must be accompanied by a set of detailed contractor's specifications consisting of a detailed description of the apparatus and equipment proposed. All bid proposal specifications must be in the same sequence as the advertised specification for ease of comparison. These specifications shall include size, location, type, and model of all component parts being furnished. Detailed information shall be provided on the materials used to construct all facets of the apparatus body. Any bidder who fails to submit detailed construction specifications, or who photocopies and submits these specifications as their own construction details, or any proposals		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
found to have deviations without listing them will be considered non-responsive and shall render their proposal ineligible for award. NO EXCEPTION. <u>Exceptions:</u> The following apparatus specifications are considered minimum design and construction standards against which the apparatus will be inspected. It is the intent to receive proposals on equipment/apparatus meeting the attached detailed specifications in their entirety. Any proposals being submitted, without "Full Compliance" with these specifications shall so state on the bid proposal page, followed by a detailed "Letter of Exceptions" listing the areas of non-compliance. The reference must include page number, paragraph, and the exact nature of the exception. Failure to follow this format, provided for the convenience of the Purchaser, will render the vendor's proposal non-responsive and ineligible for award of contract. If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary. The Purchaser may add the statement "No Exception" to a component or design feature in these specifications. In the interest of fleet conformity or specific performance requirements, the Purchaser will not permit exceptions taken to these item(s). The Purchaser reserves the right to reject any or all bid proposals and purchase the equipment it deems most suitable to its needs. The Purchaser does not, in any way, obligate itself to accept the lowest or any bid. Any bidder taking total exception to the complete specification, or a major element will result in immediate rejection of the proposal. <u>Delivery:</u> The bidder shall state the time required for delivery of the completed unit on the proposal page. The completed unit shall be delivered to the purchaser with full instructions provided to Fire Department personnel on operation, care, and maintenance of apparatus. <u>Cab & Chassis:</u> The chassis shall be a 2023 F550 4x4 supercrew cab chassis with XL trim with the following options: Specs: - GVWR: 19,500 lbs. - 4.88 Ratio Limited Slip Axle - Extra Heavy Service Suspension Package - Rear and Front stabilizer bar - 60" Cab to axle		

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Any Mention of Brand Name Shall be "or Equivalent"		BIDDER COMPLIES	
		YES	NO
- 179" Wheelbase			
Power Train:			
- 6.7L V8 Diesel - 10-Speed Automatic Transmission - Engine Block Heater - Heavy Duty Alternator			
Interior Requirements:			
- Vinyl 40/20/40 Split front bench seat - Vinyl 60/40 Flip-up/fold-down bench seat - XL Trim - Air Conditioning - AM/FM Stereo/ Clock			
Exterior Requirements:			
- Two (2) front tow hooks - 40-Gallon Fuel Capacity - Roof Clearance lights - Windshield Wipers – Interval			
Safety & Security:			
- Airbag – Driver and front passenger - Belt-Minder safety belt reminder			
Off Road Package:			
An off-road package shall be supplied. The apparatus will undergo the following modifications:			
- Wheel conversion kit to a 20x8.5 rim with a dully rear rim - Six (6) 285/55-R20 Nitto Ridge Grappler Tires			
Cab Console:			
An electrical console and enclosure shall be provided to house cab mounted electrical switching devices and equipment.			
The console shall be located between the driver's and the officer's seating up to the OEM dash.			
There shall be sufficient space available to house siren control, department radio's, Setcom system and monitor joystick.			
The center seat will need to be removed.			
Front Bumper:			
A full front bumper replacement shall be supplied. The front bumper shall be manufactured with 1 ¼" square tubing with the 90-degree corners on the square tubing to give the grille guard unmatched strength & durability. The body of the front bumper shall be constructed from 1/8" black gloss tread plate and shall mount to the apparatus frame using a combination 3/8" and ½" steel plate.			
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The front bumper shall have an integrated speaker mount, integrated receiver tube and monitor deck. Step Bars: Heavy duty step bars shall be supplied and mounted to the cab & chassis. These step bars shall be located under the cab doors to allow for the ease of entering and exiting the apparatus. Mud Flaps: Mud flaps shall be provided behind each rear wheel. Chassis Fuel Fill: There shall be a fuel fill provided in a recessed area on the rear of the truck. Chassis DEF Tank Fill: There shall be a DEF (Diesel Exhaust Fluid) fill provided in an accessible location on the body. <u>Body:</u> The fire body shall be constructed entirely of heavy-duty extruded aluminum. The fire body dimensions shall be 119" L x 96" W. The perimeter of the fire body shall be constructed of a custom heavy duty 5.0" x 3.0" 6061-T6 aluminum extrusion. The fire body cross members shall be constructed of heavy duty 2.0" x 3.0" 6061-T6 National Standard extruded aluminum channel. The extruded aluminum cross members shall be located on 16" centers. The fire body mounting sills shall be constructed of heavy duty 6.0" 6061-T6 National Standard extruded aluminum channel. A rubber isolation barrier shall be provided between the fire body extruded aluminum mounting sills and chassis' steel frame rails. There shall be .125" aluminum diamond plate covering the non-standing areas of the deck of the fire body. There shall be .125 embossed aluminum on all walking or standing areas of the deck.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The .125" aluminum diamond plate deck shall be stitch welded to the bottom side of the perimeter extrusions. Headache Rack: There shall be a headache rack located at the front of the fire body. The headache rack shall be constructed of heavy duty 3.0" x 2.0" 6061-T6 extruded aluminum tube. The headache rack shall have .125" aluminum diamond plate covering the bottom half on the front side and expanded aluminum on the top half. There shall be an approximate 60" W x 10" D aluminum plate light bar mounting platform located on top of the fire body headache rack. Walkway: There shall be step wells provided at the front corners of the fire body. The step wells shall be approximately 24" W x 24" D x 16" T with a step along the back wall. There shall be 44" T gates provided at the entrance to the step wells. The gates shall be held in the closed position by a pneumatic piston and have a positive stop as to not let the gate swing outward. The gates shall have a .125 aluminum diamond plate cover. Rear Apron: There shall be a 95" W x 12.0" D x .1875 smooth aluminum apron provided at the rear of the fire body. Tow Eyes: There shall be two (2) ¾" plate steel tow eyes protruding through the rear apron. Rear Receiver: There shall be a 2.0" receiver tube provided at the rear of the apparatus. The receiver tube shall be integrated into the fire body mounting sills. Rear Bumper:		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
A heavy-duty steel bumper shall be supplied on the rear of the apparatus. This bumper shall be designed as to not interfere with the apparatus departure angle but allow for access to the fire body. An NFPA not slip surface shall be applied to the top of the rear step bumper. Compartmentation: L1 Compartment: There shall be one (1) compartment with one (1) lift up compartment door provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 58"L x 20"D x 30"H. R1 Compartment: There shall be one (1) compartment with two (2) lift up compartment doors provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 88"L x 20"D x 30"H. B1 Compartment: There shall be a 72" D x 30" W x 5.0" H long tool storage compartment provided.		✓ ✓

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The compartment shall be located between the fire body mounting sills, with the door opening facing the rear of the apparatus.		
The compartment door shall be constructed of .125" aluminum smooth plate and shall be horizontally hinged. Thumb latches shall be provided to open and close the door.		
Pre-Connect Tray:		
There shall be a 4"W x 96"L x 8"H transverse pre-connect hose tray located at the rear of the walkway. This tray shall be set on the floor.		
<u>Skid Unit:</u>		
The water tank, pump and plumbing shall be mounted on a heavy-duty poly frame to allow for the unit to be removed as a single unit.		
The skid unit shall be bolt directly through the bed to the apparatus frame utilizing heavy duty grade 8 bolts.		
Polypropylene Water Tank:		
A 500-gallon water tank shall be supplied and shall have a 4" overflow. The construction shall be of co-polymer polypropylene and shall be rectangular shaped. No Fiberglass! No Exception!		
The tank body and end bulkheads shall be constructed of 0.5" thick, polypropylene tested inside and out.		
The transverse and longitudinal swash partitions shall be interlocked and welded to each other as well as to the walls of the tank. The partitions shall be designed and equipped with vent holes to permit air and liquid movement between compartments. The 0.5" thick cover shall be recessed .375" from the top of the side walls. Hold down dowels shall extend through and be welded to both the covers and the transverse partitions, providing rigidity during filling operations. Drilled pegs for lifting eyes shall be provided in the top area of the water tank.		
The water fill tower shall be 0.5" thick polypropylene stock with a hinged lid and a removable polypropylene screen.		
The water fill tower shall be located on the front driver's side of the water tank. A sight glass shall be supplied on the rear driver's corner of the water tank, so the operator can see the lifeline of water remaining during pumping operations from the rear of the apparatus.		
Two (2) tank mounting tabs shall be provided. One shall be at the front and one at the rear to allow the tank to be fastened to the fire body.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The water tank shall have an overflow tube. The overflow tube shall exit below the body, ahead of the rear wheels. Fire Pump Plumbing System: The engine driven fire pump plumbing system shall be built completely of stainless-steel piping, stainless steel and/or brass fittings, and connections. Tank connections, front discharges, and other piping shall use high-pressure flexible piping. Flexible hose couplings shall be threaded stainless steel or Victaulic connections. Plumbing shall not be welded for ease of disassembly, no exceptions. Hose Threads: The hose threads shall be National Standard (NST) on all base threads on the apparatus intakes and discharges, unless otherwise specified. Intake and Discharge Valves: All valves used in the plumbing installation shall be stainless steel or brass quarter turn full flow type valves. Steel – Industrial valves shall not be used due to rusting. Hose Reel Discharge(s): One (1) 1" discharge shall be provided and piped to the redline hose reel with flexible high-pressure hose and a 1" Stainless steel valve or equivalent will be provided for this connection on manifold. Whipline Discharge(s): Two (2) whipline discharges shall be supplied and mounted in the walkway area of the apparatus. These discharges shall have a 90-degree swivel to allow firefighting operations to be conducted off the side of the apparatus. The whiplines shall be located with one (1) each side of the pump panel. Bumper Monitor Discharge(s): One 1.5" discharge shall be provided and plumbed to the front bumper monitor. This discharge shall be located at the rear of the skid unit. Pre-Connect Discharge(s):		✓
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
One (1) 1.5" valve shall be provided and plumbed to the pre-connect crosslay tray located on in the walkway of the apparatus bed. Plumbing for this unit shall run underneath the apparatus bed. Fire Pump to Water Tank bypass Line: A 1" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow quarter turn ball valve. A 1" piping and flex hose will be provided from valve to tank. The valve control shall be directly on the valve. Water Tank to Pump & Suction: A 2½" water tank to fire pump line shall be provided with a full flow 2½" quarter turn ball valve. Suction will be provided with a full flow 2½" quarter turn ball valve so that while pumping you can also be connecting to an additional water source. A 2½" chrome plug and chain will be provided at the rear for the suction. Manifold: A common 304 stainless steel manifold will be provided for all discharges. Fire Pump: A Hale HPX200-B23 pump shall be supplied and mounted to the rear of the skid unit. Performance The pump/engine shall be capable of meeting the NFPA 1906 performance rating of 50 GPM @ 150 PSI and 150 GPM @ 100 PSI. Typical pump performance from 5-foot draft at sea level shall be: 90 GPM @ 150 PSI, 170 GPM @ 100 PSI and 250 GPM @ 30 PSI. Pump The pump body shall be made of anodized alloy aluminum castings coupled together with a stainless-steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 300 PSI. The impeller shall be bronze. The renewable clearance rings shall be made of bronze to inhibit galvanic corrosion. The impeller shall be 8.75 inches (222.3 mm) in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Priming The pump shall be equipped with an exhaust venturi primer of brass and stainless-steel construction. The primer shall be capable of priming at 13 feet lift. The primer shall be actuated with a spring return, single control lever located at the operator's panel. The primer to pump line shall be equipped with an automatic check valve for priming from an open body of water and a manual shut -off for pumping from a pressurized water source. Suction/Discharge The suction and discharge ports shall be female pipe thread, designed and located to accept applicable hose thread adapters (3" NPT / 4" Victaulic Suction, 2.5" NPT Discharge flange). Engine The engine shall be a 4 cycle gasoline Briggs and Stratton Vanguard 386447 series V-Twin, overhead valve, air cooled design. Engine rating shall be 23 BHP at 3600 RPM. Engine displacement shall be 627cc and shall be designed to meet current CARB (California Air Resources Board) and EPA (Environmental Protection Agency) standards. A 12-volt electric system shall be provided with electric starter and a 16-amp alternator. Engine shall be equipped with a residential muffler with USDA approved spark arrestor. Pump Panel: A standard pump panel shall be supplied and located in the walkway of the apparatus. The pump panel shall be installed on a tilted pump panel for the ease of visibility. Pump Panel shall have the following controls: • Pump Panel Light switch • Start/Stop switch • Low oil pressure light • Pump pressure gauge • Idle control • Choke Fuel Tank: A heavy-duty aluminum 6-gallon fuel tank shall be supplied and mounted to the skid unit frame. The fuel tank shall have fuel level sight gauge and an overflow tube. Battery Supply: The skid unit of the apparatus shall have a heavy-duty separate battery supply to power the unit. The engine will include a 36-watt alternator to keep separate battery charged. Emergency Back-up:		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
An emergency back-up system that runs off the chassis electrical system shall be supplied that will assist in starting the skid unit in case of a battery failure. Pump Test: The skid unit shall be tested after all its associated piping and valves have been installed on the apparatus. The tests shall be conducted at the manufacturer's facility. Tank Level Gauge(s): Water Gauge: A lighted LED water tank level gauge will be provided on the pump panel for view of lifeline of water during nighttime operations. A mini lighted tank level gauge will be provided inside cab, so operator is able to view tank water levels from the safety of the cab. Skid Work Light: One (1) LED flood/spotlights shall be installed in accordance with customer requirements. Lights shall be 12v 20W low current draw lights and shall be mounted as follows: - One (1) on top of the water tank offset the rear, to illuminate the pump and plumbing. This shall be controlled by a single switch on the pump panel. Features: • 10- and 60-degree spot and flood • 2,112 Lumen output ea. • Black, cast-aluminum housing • Lifetime Warranty <u>Bumper Monitor:</u> The adjustable 30, 60, 90 or 125 GPM rated monitor is to be an all-electric single waterway monitor constructed of lightweight Pyrolite. The monitor shall have cast-in turning vanes in each elbow. The monitor shall have fully enclosed motors and gears with manual overrides for both horizontal and vertical rotation and may be operated simultaneously. The monitor is not to exceed 13 3/16" high and 11 9/16" wide. The vertical travel shall be from 45° below to 90° above horizontal with adjustable stops at -20° and +45°. The horizontal rotation shall be 320° with adjustable stops at 90°.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The control system electronics shall be integrated with the monitor wiring harness. The control system shall use sealed, locking connectors for the monitor and nozzle motors. Two additional sealed, locking connectors shall be supplied for input power/electric valve control and J1939 CAN bus interface. A sealed USB connector shall be provided for updating control system firmware. All electrical connectors shall be minimum IP65 rated. The operator interface shall consist of a CAN bus compatible joystick which will provide up, down, right, left, fog, and stream control of the monitor. The joystick shall have a trigger switch to control an optional electric discharge valve. The monitor shall include a 5' long power/valve harness and 20' long CAN joystick harness.		
<u>Hose Reel(s):</u> Booster Hose Reel: One (1) Hannay hose reel, model EF-16.5-17-18-RT with electric rewind shall be provided with a single mounted roller and spool assembly and a brake to adjust tension on the spool. The hose reel shall be mounted on the Driver's side of the apparatus bed, with the capability to pull off the rear of the apparatus. Hose Reel Electric Rewind: Two (2) electric rewind push buttons will be installed. The electric rewind controls shall be a weather-resistant enclosed momentary push button switch. Switches shall be installed as follows: One (1) switch at each hose reel location.		
<u>Hose:</u> Booster Hose: 100' of 1" booster hose shall be provided for the booster hose reel. Whipline Hose: Two (2) sections of 8' x 1" red 800 psi booster line shall be provided. Pre-Connected Hose: 100' of 1.5" double jacket pre-connected hose shall be provided for the pre-connect discharge.		
<u>Electrical System:</u> Low Voltage Electrical System Specifications		

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13

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The following specifications describe the low voltage electrical system on the specified brush truck type fire apparatus. The electrical system shall include all panels, electrical components, switches, and relays, wiring harnesses and other electrical components. All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be run in a loom with a minimum 289-degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction. The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels. All connections shall be crimp-type to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system. Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in an electrical junction box or covered with a removable electrical panel or wire loom. The wiring shall be secured in place and protected against heat, liquid contaminants, and damage. The electrical system shall include the following: A) The electrical wiring shall be harnessed or be placed in a protective loom. B) No holes shall be made in the roof of chassis, unless approved by end user. C) Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it. Breaker: A 100-amp breaker shall be supplied and located near the master disconnect switch that will prevent potential upfitter electrical issues from affecting chassis battery system. Electronic Siren:		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
One (1) Carson 409 Commander full function electronic siren shall be mounted in the cab console. The siren shall have the following features: electronic air horn, siren tones, radio rebroadcast, P.A. and shall have a hard-wired microphone. Features: • 100/200-Watt SAE J1849 and Class A output • Internal programmable siren functions • Four Position progressive slide switch • Six backlit and rubberized relay push-button switches • Scrolling TAP II intersection clearing feature Speaker: One (1) Federal Signal ES100, 100-watt speaker shall be mounted behind the front of the chassis bumper or grille. The speaker shall be wired to the electronic siren located in the cab. Features: • Neo-driver for increased dependability • 100-Watt high output power • Sound output meets SAE J1849 and Class A • Impedance of 11 ohms Back-up Alarm: An automatic electric 97 dB back-up alarm shall be wired to activate when the transmission is placed into reverse. The alarm shall be mounted under the rear of the apparatus body. Radio: A power cable shall be provided in the cab console for the two (2) 800 Mhz radios. Radio Faceplates shall be provided and installed. Antenna: Antenna wiring with mounting "L" bracket shall be supplied and ran to the driver's side light bar mounting platform. The Antenna shall be customer supplied. Communication System: A wireless Setcom communication system with two (2) under the helmet wireless headsets, digital intercom with interface cable and base station shall be installed in the cab console. Lighting: Compartment Light(s):		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Each compartment shall be provided with two (2) LED vertically mounted lights. The compartment lights shall be installed one (1) on each side of the compartment door opening with the light actuation with the door opening. License Plate Light: A license plate light and bracket shall be supplied and mounted to the rear of the apparatus. Switch(es): Master Disconnect Switch: A battery disconnect switch shall be located on the front face of the console offset to the driver of the apparatus. The switch shall disconnect the upfitter conversion from the 12-volt battery system. Camera System(s): Rear View Camera: A rearview camera system shall be supplied. The screen shall be a windshield-mounted rearview mirror with an integrated 7" LCD monitor that displays the rear-view image when the apparatus is shifted into reverse. The monitor shall automatically adjust in day and night modes and shall have a resolution of 800*480 pixels. The camera shall be a high-mounted, wide-angle look-down camera with 150-degree visibility and night vision capabilities. Thermal Imaging Camera: A vehicle mounted driver vision enhancement thermal imaging camera shall be supplied and mounted to the apparatus. The camera shall allow for thermal imaging to be routed through the review mirror monitor. Camera shall be mounted to the headache rack. Features: • 56 deg- horizontal field of view • Made of stainless-steel construction • Provides NTSC video Door Ajar: Each compartment light shall be controlled by a magnetic "On-Off" switch located on each compartment door.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The magnetic switch shall control a door ajar light located inside the cab. Emergency Lighting: The warning lights shall be switched in the chassis cab with labeled switching in the cab console. A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and call for the right of way. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator and passenger. Upper Warning Lights: Light Bar: A TOMAR 970L Scorpion 53" Red/Blue LED low profile light bar shall be supplied. The light bar shall have clear lenses to the front and to the rear and will be mounted on the headache rack mounting platform. Features: • NFPA 1901 Compliant • Variety of selectable flash patterns • Hermetically sealed Lower Warning Lights: Fourteen (14) Tomar RECT-14 LED Warning lights shall be provided. These warning lights have eleven (11) different flash patterns to customize to department specifications. Warning Lights shall be installed as follows: • Four (4) Red/Blue LEDs on the front grille guard with Two (2) each side • Two (2) Red/Blue LEDs on apparatus chassis with one (1) each side above the front wheel well area. • Four (4) Red/Blue on the apparatus body: with Two (2) each side: One (1) offset as forward as possible and one (1) offset rearward as possible. • Four (4) Red/Blue LEDs on the rear of the apparatus with Two (2) each side Features: • Four (4) Ultra-High intensity LEDs • Multiple selectable flash patterns • Made of optical Lexan and hermetically sealed • Meets SAE J845, SAE J595 and CAL Title 13 • Five-year manufacturer's warranty. Scene Lighting:		

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Flood Light(s): One (1) 75-watt 15 LED High Intensity 20" single row light bar shall be supplied. The flood lights shall be provided at the following locations: • One (1) mounted on the front bumper on the upper section of the bumper. Features: • 7290 Lumens • Flood pattern • Lifetime Warranty • Durable aluminum extrusion housing D.O.T Lighting: The 12-volt lighting on the brush truck body shall conform to FMVSS 108 standards. All DOT lighting shall be LED type. Clearance: There shall be a minimum of five (5) red clearance lights on the rear of the truck (three (3) in the rear center and one on each outside corner of the rear apparatus bed). One (1) red clearance light shall be on each side rear corner and one (1) amber clearance light on each front side corner. Signal, Brake and Reverse: The rear shall also contain a minimum of two (2) each Stop/Turn/Taillights and two (2) clear reverse lights. These lights shall be oval, flush mounted lights. <u>Label(s):</u> Fastened labels shall be supplied and mounted in accordance with their function: On each walkway entrance door shall have a label that states "All personnel must be seated in cab with seatbelt fastened while vehicle is in motion. Riding elsewhere may cause serious injury or death" All appropriate switches inside the cab shall be properly labeled with their function. All appropriate valves on the pump panel shall have a corresponding function label. <u>Loose Equipment:</u> The following loose equipment shall be supplied with the apparatus:		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Nozzle(s): 1" Nozzle: Three (3) Crestar SF-40 select flow nozzles with pistol grip handles and bell shut off shall be supplied. Features: • Selectable gallonage nozzle with multiple flow settings • Stainless steel spinning teeth • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant 1.5" Nozzle: One (1) Crestar SF-125 select flow nozzle with pistol grip handles and bell shut off shall be supplied. Features: • Selectable gallonage nozzle with multiple flow settings • Stainless steel spinning teeth • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant <u>Scotchlite Striping & Lettering:</u> Cab and Body: The apparatus cab and body shall be provided with Scotchlite striping and installed to department's requirements. Color to be determined at prebuild meeting. Lettering: Scotchlite lettering with shading will be installed to department requirements and colors to be determined at prebuild meeting. Rear Body: Chevron "A" style Scotchlite striping shall be provided on rear of body (outboard rearward facing smooth plate panels of the rear apron). The colors shall be Yellow/ Red diamond grade. Rev. 1		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
<u>Apparatus Paint:</u> Cab and Chassis: The apparatus cab and chassis shall be painted in accordance with the policies with the chassis manufacturer with all applicable warranties. The color of the cab shall be Ford Red. Apparatus Body: The apparatus body shall be made of aluminum and shall not be painted. <u>Warranty:</u> 1 Year Standard Warranty: The apparatus manufacturer shall provide a full 1-year standard warranty. All components manufactured by the apparatus manufacturer shall be covered against defects in materials or workmanship for a 1-year period. All components covered by separate suppliers such as engines, transmissions, tires, and batteries shall maintain the warranty as provided by the component supplier. A copy of the warranty document shall be provided with the proposal. No Exceptions 2 Year Pump Warranty: Pump manufacturer shall warranty products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of two years or 2000 hours of usage, whichever comes first. Products used for rental or contracting purposes are warranted for a period of six months or 2000 hours of usage, whichever comes first. This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence, or accident, and is not altered, treated, or repaired by someone other than pump manufacturer or its designee. A copy of the warranty document shall be provided with the proposal. No Exceptions 10 Year 100,000 Mile Structural Warranty: The apparatus manufacturer shall provide a comprehensive 10 year/100,000-mile structural warranty. This warranty shall cover all structural components of the cab and/or body manufactured by the apparatus manufacturer against defects in materials or workmanship for 10 years or 100,000 miles, whichever occurs first. Excluded from this warranty are all hardware, mechanical items, electrical items, or paint finishes. A copy of the warranty document shall be provided with the proposal. No Exceptions 10 Year Stainless Steel Plumbing Warranty: The apparatus manufacturer shall provide a full 10-year stainless steel plumbing components warranty. This warranty shall cover defects in materials or workmanship of apparatus		
Rev. 1	20	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
manufacturer designed foam/water plumbing system stainless steel components for 10 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
3 Year Graphics Warranty:		
The apparatus manufacturer shall provide a full 3-Graphics warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's graphic components for 3 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
5 Year Electrical Warranty:		
The apparatus manufacturer shall provide a full 5 year-electrical warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's electrical components for 5 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
Lifetime Polypropylene Tank Warranty:		
The tank manufacturer warranties that tanks will be free from defects in materials and workmanship for a period equal to the service life of the original vehicle on which tank was installed. Original vehicle must be in active fire suppression for warranty to be in full effect. A copy of the warranty document shall be provided with the proposal. No Exceptions.		
Rev. 1	21	

INVITATION TO BID

MAIL SEALED BIDS TO:

CITY OF CHICKASHA
CITY CLERK
117 NORTH 4TH STREET
CHICKASHA, OKLAHOMA 73018

DATE BID TYPED

BID NO:

TITLE:

NO BIDS WILL BE ACCEPTED AFTER:

CONTRACT PERIOD

VENDORS NAME:

REASON FOR NO BID:

MAILING ADDRESS:

CITY:

STATE:

ZIP:

TERMS:

AREA CODE:

TELEPHONE NO.

FAX NO.

DELIVERY:

E-MAIL ADDRESS

FEDERAL EMPLOYER IDENTIFICATION NO. OR SOCIAL SECURITY NO.

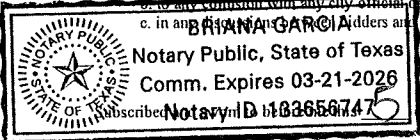
NON-COLLUSION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF Texas, COUNTY OF Lubbock

of lawful age, being first duly sworn on oath, says that 1. (s)he is the duly authorized agent of the above bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and city officials or employees, as well as facts pertaining to the giving or offering of things of value to city personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached. 2. (s)he is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and 3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party:

- to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
- to any collusion with any city official or employee as to quantity, quality or price in the prospective contract, nor
- in any manner to any city official concerning exchange of money or other thing of value for special consideration in the letting of a contract.



Notary Public, State of Texas
Comm. Expires 03-21-2026
Notary ID 133656745

Subscribed and sworn to before me this December day of 2022

Notary Brian Garcia

My Commission Expires: 03-21-2026

Wildland Apparatus (Brush Pumper)
Bidder Daco Fire Equip

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

BUSINESS RELATION AFFIDAVIT

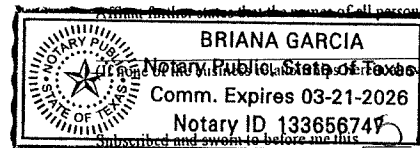
(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF Texas, COUNTY OF Lubbock

of lawful age, being first duly sworn on oath, says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:



Notary Public, State of Texas
Comm. Expires 03-21-2026
Notary ID 133656745

Subscribed and sworn to before me this December day of 2022

Notary Brian Garcia

My Commission Expires: 03-21-2026

Wildland Apparatus (Brush Pumper)
Bidder Daco Fire Equip

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

SEALED BIDS: All sheets bid on and this form must be executed and submitted in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE BID PER ENVELOPE). The face of the envelope shall contain, in addition to the mailing address, the words "SEALED BID" the date of the bid opening and the contract number. Bids submitted in Federal Express or other specialized delivery envelopes shall be enclosed in a separate envelope marked as indicated above. Bids not submitted in properly marked envelopes or on the attached bid form shall be rejected. In the case of "No Bid" the vendor shall return the "Invitation to Bid" with the "Reason for No Bid" properly filled in, to remain on the City of Chickasha's active vendor/contractor list.

EXECUTION OF BID: Bid must contain an original signature of an authorized representative in the space provided. Bids must be typed or printed in ink. Use of erasable ink is not permitted. ALL CORRECTIONS MADE BY BIDDER TO HIS BID MUST BE INITIALED.

BID OPENING: It is bidder's responsibility to assure that his bid is delivered at the proper time and place of the bid opening. Bids which for any reason are not so delivered, will not be considered. Offers by telegram or telephone are not acceptable. NOTE: Bid files may be examined during normal working hours by appointment. Bid tabulations WILL NOT be provided by telephone.

MISTAKES: Bidders are expected to examine the specifications, delivery schedule, bid prices and all instructions pertaining to supplies and services. Failure to do so will be at bidder's risk. In case of mistake in extension, the unit price will govern.

INVOICING AND PAYMENT: The vendor shall be paid upon submission of proper certified invoices to the City of Chickasha at the prices stipulated on the contract. Invoices shall contain the contract number and purchase order number. Failure to follow these instructions may result in delay of processing invoices for payment.

WAIVER: City of Chickasha reserves the right to waive any general provision, special provision or minor specification deviation when considered to be in the best interest of the City of Chickasha. Any bid received by the awarding public agency or an officer or employee thereof, more than ninety-six (96) hours excluding Saturdays, Sundays and holidays before the time set for the opening of bids, or any bid so received after the time set for opening of bids, shall not be considered by the awarding public agency and shall be returned unopened to the bidder submitting same.

MISCELLANEOUS INFORMATION

A Notice to Proceed letter will need to be issued after all contract, bonds, insurance and other requirements have been met by the vendor/contractor.

Requirements for samples of products (Submittals) may be required in the bid specifications. If used it is recommend you place a requirement that the submittals be provided within x-number of days after the project is awarded.

Liquidated Damages may also be included in the bid specifications. This is the number of calendar days or work days (Monday-Friday) that the contractor has to complete the project. If this is added then there will need to be a dollar amount to be charged to the contractor for each day over the contract time. This amount is charged in the form of a penalty with adjustments made for weather days or other delays that could not be foreseen.

A pre-bid conference may be added to the bid specifications. This meeting may be mandatory or not. If mandatory only bidders that sign in at the meeting will be eligible to bid on the project.

The award letter should include a requirement for the contract, bonds and insurance to be executed and returned within 10-days

A pre-work conference may be required as part of the bid award letter. This conference would be held prior to the work starting so that everyone is clear on the work or special conditions to be followed.

The vendor or contractor may request a Tax Exempt Letter. This letter will be issued by the Clerk if the project is eligible.

A Maintenance Bond is required on all projects over \$50,000 to cover a 1-year period after the project is accepted as complete by the City Council. This period may be extended if a longer period is included in the bid specifications. This requirement may also be added to any construction project even if it is under \$50,000. This insures that the contract maintained the work for the specified time period.

Change Orders may be issued after the contract has been awarded. Change orders in most cases must be approved by the City Council and are restricted to 15% of the bid amount for projects under \$1,000,000 and over that amount it is restricted to the greater of \$150,000 or 10% of the original contract amount.

In most cases Support Service can supply copies of the bid specification used for previously bid items. If a consultant is used they should know the requirements; however, you should still complete the appropriate Check List to track the documentation to make sure the bid file is complete and ready for audit review.

INVOICE AFFIDAVIT

Any invoice submitted to the City of Chickasha for more than \$ 1,000.00 shall have a copy of this statement attached before payment will be made.

STATE OF Texas)
) S.S.
COUNTY OF Lubbock)

The undersigned _____, of lawful age being
(Contractor, Supplier or Engineer)
first duly sworn, on oath says that this invoice or claim is true and correct.

Affidavit further states that the _____ as shown
(work services or materials)
by this invoice or claim have been _____ in accordance
(completed or supplied)
with the plans, specifications, orders or request furnished the affidavit. Affiant further states that he/she has made no payment directly or indirectly to any elected official, officer or employee of the State of Oklahoma, any County or Local Subdivision of the State, of money or any other thing of value to obtain payment.

(Contractor, Supplier or Engineer)

Subscribed and sworn to me before this _____ day of _____ 20____.

Notary

My commission expires: _____

EXCEPTION PAGE

Pg 1 Intent of Specifications – Daco Fire Equipment does not have a tilt table as required by NFPA.

Pg 1 Service and Warranty Support – Daco Fire Equipment is located in Texas and has two service center, one in the Ft Worth area and one in Lubbock. Our service centers have mobile service trucks that can take care of most issues on sites and most responses are within 24 hours of the first notification.

Pg 2 Service Certifications -Same as above, service centers are located in the Ft Worth area and in Lubbock. EVT certifications are attached.

Pg 7 Compartments – Our compartment latches are “T” handle.

Pg 9 Fire Pump Plumbing System – All stainless steel plumbing is tig welded for smoother water flow and less friction loss during pumping. Connections to the pump, tank and other components are connected using either bolted flanges or victalic couplings.



201 AVENUE R, LUBBOCK, TEXAS 79415

6000 HUDDLESTON ST, FORT WORTH TEXAS 76137

December 7, 2022

This proposal has been prepared for:

CHICKASHA FIRE DEPT

CHICKASHA OKLAHOMA

We hereby propose to furnish to you, subject to proper execution of the attached agreement by you and by a representative of this Company in Lubbock, Texas the following apparatus built in accordance with the attached specifications:

QUANTITY	MODEL	UNIT PRICE
ONE (1)	BRUSHFIGHTER SMALL BRUSH TRUCK	\$ 193,682.00
	➤ FORD F550 CREW CAB, 4X4	
	➤ FORD DIESEL ENGINE 10 SPEED AUTOMATIC TRANSMISSION	
	➤ ALUMINUM BODY	
	➤ WARNING LIGHTS	
	➤ HALE HPX200-B23	
	➤ 500 GALLON POLY TANK	
TOTAL		\$ 193,682.00

Delivery: The estimated delivery time for the completed apparatus, is to be made 547 days after receipt of order, subject to all causes beyond the Company's control. The quoted delivery time is based upon our receipt of the specified materials required to produce the apparatus in a timely manner. The Company cannot be held responsible for delays due to Acts of God, Labor Strikes, or Changes in Governmental Regulations that result in delayed delivery to our manufacturing facilities of these specified materials.

Changes required or requested by the Buyer during the construction process may be cause for an increase in the number of days required to build said apparatus.

Payment Terms: Final payment for the apparatus shall be made at time of delivery or pick up of the completed vehicle. It is the responsibility of the Buyer to have full payment ready when the apparatus is complete and ready to deliver. If payment is delayed or delivery is delayed pending payment, a daily finance and storage fee may apply. Upon delivery of the apparatus or upon pickup of the apparatus by the Buyer, Buyer agrees to provide all liability and physical damage insurance. It is further agreed that if on delivery and test, any defects should develop, the Company shall be given reasonable time to correct same. Guarantee of the chassis is subject to the guarantee of the chassis manufacturer.

This proposal shall expire unless accepted within 30 days after the date first set above. This expiration date may be extended, in writing, at the discretion of the Company.

BUYER

We accept the above Proposal and enter into contract with signature below.

DEALER REP. _____ Title _____ Date: _____

CUSTOMER REP. _____ Title _____ Date: _____

DELIVERY

The completed unit shall be delivered to the purchaser at location to be determined, with full instructions provided to the fire dept personnel on operation, care & maintenance of the unit.

FORD CHASSIS

Chassis - Cab shall be suitable for subsequent mounting of a modular (containerized); transferable equipped apparatus body conforming to the requirements specified herein.

Chassis shall meet or exceed the minimum requirements of this specification.

Model - Latest Model F550 Crew Cab/Chassis 4X4, XL

Wheelbase - 179"

Cab to Axle - 60"

GVWR - 19,500 lbs.

Engine - 6.7L Turbo Diesel

Fuel Tank - Single with minimum 40 gallon capacity.

Battery & Alternator - Dual 750 CCA batteries, and dual alternators, 377 amp total

Transmission - 10-Speed automatic

Manual transfer case, manual locking front hubs

Exhaust - Stainless steel

Front Axle – 7,000 lb. GVWR coil spring suspension, HD shock absorbers, standard stabilizer bars

Rear Axle – 14,700 lb. GVWR with 4.88 ratio with leaf suspension, HD shock absorbers with stabilizer bar

Brakes - 4-wheel ABS, disc front and rear

Steering - Power assisted steering.

Wheels - Front - Steel disc 19.5" X 6.00" with 225/70R19.5 G, All

Season Tires Wheels shall be painted gloss black.
Rear - Steel disc 19.5" X 6.00" with 225/70R19.5 G, All Season Tires

Airbags - Driver & Passenger front, side and curtain airbags, rear passenger side impact and curtain airbags

Seats - OEM HD vinyl 40/20/40 split bench,
4-way driver seat adjust, manual lumbar support.
4-way passenger seat adjust.
60/40 folding rear split bench
Belt Minder Safety Belt Reminder

Mirrors - Power remote heated, manual folding mirrors with turn signals,
trailer tow mirrors with manual telescoping

HVAC - OEM Air Conditioning/Heating

Windows/ - Tinted safety glass
Glass

Windows - OEM power windows, front and rear

Door Locks - OEM electric door locks

Cab Clearance Lights - OEM

Wipers - Intermittent front with standard windshield washer functions

Instruments - Full set of gauges including oil pressure, water temperature and
fuel level

Convenience Dual head dome light controlled by headlight/parking light switch and
Light Group door operated switches (driver and passenger); under hood light;
Headlight "ON" audible alert.

Lights - Halogen headlights with daytime running lights

Dome light front and rear with crew cab

Power points - OEM Standard, located on instrument panel (2)

Radio - OEM AM/FM radio with digital clock with six speakers.

Color - Interior - Medium Earth Gray
Exterior - Exterior -OEM Race Red

Warranty

3 year/36,000 mile Bumper to Bumper Coverage

5 year/60,000 mile Powertrain Coverage

5 year/100,000 mile Diesel Engine Coverage

5 year/unlimited mile Corrosion Perforation Coverage

TIRE UPGRADE**OFF ROAD PACKAGE**

Six (6) 285/55R20 Nitto Ridge Grappler Tires

Six (6) Wheels 20x8.5 offset dually wheels

ELECTRICAL CONSOLE WITH EMERGENCY LIGHT SWITCH PANEL

A Havis C-3010 designed for light and medium trucks shall be installed between the driver & passenger seat. The console will be 30" long X 10" high X 9" wide and extend to the dash. The console will have the necessary filler plates for the components specified.

HEAVY DUTY BUMPER

A custom built heavy duty bumper manufactured by DACO will be installed in lieu of the standard OEM bumper. The bumper shall be all steel construction full bumper replacement. The bumper will be a fully customized bumper to meet the needs of the customer. The bumper will be a sweep back design incorporating two upright push bars and sweep back grill and headlight protectors. The headlight protectors are constructed from 2" steel tubing fully welded. The completed bumper is sand blasted and either powder coated or coated with a durable textured coating.

FRONT RECEIVER

A front receiver hitch will be installed in the custom front bumper.

CAB STEP BARS

A pair of step bars shall be furnished and mounted for cab access. The step bars are to be black, with step surface.

MUD FLAPS

Mud Flaps- Rear mud flaps shall be installed behind the rear dual wheels.

CHASSIS FUEL FILL

A 2" fuel fill shall be installed on the rear driver side of the deck. Depending on layout of body deck fuel fill can be mounted thru the body or the side of the body.

CHASSIS DEF TANK FILL

A DEF tank refill will be provided in a location accessible.

APPARATUS BED

The "Brushfighter" heavy-duty truck bed is designed for rugged use. With our use of extruded aluminum you have a professional look, with the strength you need, for the environment the apparatus will be subjected too. Formed aluminum bed's are not acceptable.

The apparatus flatbed body shall be approximately 96" wide x 119" long. The outer perimeter platform mainframe is a "L" shaped aluminum extrusions 5" high with a 3" flange, with a 3/16" thickness.

The sub-frame crossmembers shall be 3" x 2-1/2" "I"-beam extrusions with a wall thickness of .190 on 16" centers. The crossmembers shall be welded to 4" x 2" C-channel extrusions that are 1/4" thick and run full length of the chassis frame rails. Standard "U" bolts are used to secure the bed to the chassis frame.

The standard flooring shall be 3/16" aluminum diamond plate attached to the cross-members and the outer perimeter extrusion.

If the bed is not furnished with a gated work station the headache rack shall be welded to the flat bed. The headache rack shall be constructed of 2" x 2" x .125" wall thickness aluminum tubing. The rear cab glass shall be protected with an aluminum mesh material welded to the center area of the headache rack. The lower 15" area shall be covered with 1/8" aluminum diamond plate. From the floor area to the top of the headache rack shall be approximately 52" depending upon the cab height.

The bidder shall warranty the bed for a period of ten (10) years. A copy of the warranty shall be included in the bid proposal.

The bed shall be built by the bidder. Subcontracted bed's by a 3rd party are not acceptable, NO EXCEPTIONS.

There shall be a **headache rack** integrated with the cross walk. The headache rack shall be fabricated from 2" x 2" square tubing and 3" x 2" tubing. The headache rack shall be constructed so that the light bar can be mounted off the front of the assembly. There will be expanded aluminum on the top half to protect the rear cab window. The lower area approximately 15" high shall be covered with aluminum treadplate.

WORK STATIONS

The work stations and transverse cross walk structure shall be separate and independent of the bed, NO EXCEPTIONS. This separation allows for the bed to flex when the truck is driven in very rough terrain. The cross walk shall be constructed using heavy wall aluminum extrusions, diamond aluminum treadplate and grip strut material.

Each cubicle shall be approximately 24" wide x 25-1/2" deep and have a single hinged gate 44" high from standing surface that pushes inward and returns to the closed position by means of a heavy duty gas shock. The gates shall be constructed of 1" x 2" rectangular aluminum tubing. The gate shall be 40" high x 20-1/8" wide. The push in style gate shall allow the firefighter to access the work station area without climbing up in the center of the cross walk. The work station floor area shall be fabricated from an aluminum grip strut material. The grip strut material allows for ease of cleaning this area with the open grid design.

To support the work station area a 2" x 2" tubing brace shall be furnished on the non-hinge side. Heavy duty stainless steel hinges shall attach the gates to the headache rack.

The rear face (**REAR APRON**) of the bed shall be 3/16" thick smooth aluminum plate and be approximately 15" deep x full width of the bed. (NOTE: The depth can be adjusted depending up the ground clearance you desire.) The DOT marker lights and 4" diameter LED stop, turn and backup lights shall be mounted in this area. A full width access step shall be furnished fabricated from grip strut aluminum and shall be 12" deep. The rear face shall have an "A" style Chevron applied using diamond grade 3M scotchlite reflective material.

REAR TOW EYES

Two (2) 3/4" plate tow eyes shall be installed to the frame and extend past the rear tailboard.

REAR RECEIVER

A 2" rear receiver hitch will be installed under the body below the rear step. Hitch shall be bolted to the chassis frame.

REAR BUMPER

One (1) rear bumper constructed from 2" X 4" X 0.190 rectangular steel stubing. Each end of the rear bumper shall have forward sweep design. The rear bumper will be properly installed using grade 8 fasteners. Rear bumper will be coat with a black bed liner type material for long lasting corrosion resistance.

L1 COMPARTMENT

One (1) aluminum compartment(s) shall be installed on the top side of the apparatus deck. The

compartment shall be 58" W X 30"T X 19"D. There shall be (1) lift up door within the 58" wide compartment. There shall be compartment lighting installed to come on when the door is open. Door shall have (2) heavy duty struts to hold the doors in the open position. "T" handle latches shall be installed in the doors. Full length stainless steel hinges.

R1 COMPARTMENT

One (1) aluminum compartment(s) shall be installed on the top side of the apparatus deck. The compartment shall be 88" W X 30"T X 19"D. There shall be (2) lift up door within the 88" wide compartment. There shall be compartment lighting installed to come on when the door is open. Door shall have (2) heavy duty struts to hold the doors in the open position. "T" handle latches shall be installed in the doors. Full length stainless steel hinges.

B1 REAR UNDERBODY STORAGE

There shall be a compartment furnished between the flat bed deck and the chassis frame rails. The compartment shall be approximately 34" wide x 5" high x as long as possible, unless otherwise specified, with a hinged drop down door at the rear. The door shall be furnished with a positive type latch. This compartment shall be for long handle tools, hard suction hoses or back boards & etc.

PRE-CONNECT TRAY

A custom aluminum hose tray will be installed at the front of the tank, floor mounted. The preconnect tray shall be transverse mounted. The tray shall be 4"W X 96"L X 8"H.

SKID FRAME

A poly skid frame shall be custom built to accommodate the proposed tank, pump and plumbing. The skid will be approximately 48" wide x 96" long. The skid shall be bolted to the deck of the apparatus.

WATER TANK

The booster tank shall be rectangular in configuration and shall have a capacity of 500 gallons. All tank sides, top and bottom, shall be constructed of 1/2" black UV stabilized copolymer polypropylene.

The tank shall be constructed utilizing latest thermo plastic welding technology. A clean, hot air controlled temperature process shall ensure that the weld reaches its plasticized state without cold or hot spots.

The tank shall undergo extensive testing prior to installation in the truck. The process shall include an electronic spark and water fill test after both the internal and external tank shell welds are completed.

The tank shall have a combination vent and manual fill tower. The tower shall be located front driver side corner of the tank. The tower shall have a hinged cover and thick polypropylene screen.

There shall be two (2) standard tank openings; one for the tank to pump suction line with an anti-swirl plate and one for a tank fill line.

Baffles, both longitudinal and latitudinal shall be interlocking and thermo welded to minimize water surge during travel, enhancing road-handling stability.

A 4" overflow shall be installed and directed below the bed and ahead of the rear wheels.

WATER TANK SIGHT LEVEL GAUGE

One (1) translucent sight level gauge shall be incorporated into the front driver side of the poly water tank.

PASS THROUGH

One (1) 1.5" pass through for whiplines

STAINLESS STEEL MANIFOLD

The discharge manifold shall be constructed of 4" stainless steel square tubing. The stainless tubing shall be constructed out of schedule 10 type 304 stainless steel. The manifold shall be connected to the pump discharge with a 2.5" Victaulic fitting. The Victaulic fitting will allow in the ease of pump maintenance if needed. The manifold shall incorporate all discharge plumbing. The nipples used in the plumbing shall be schedule 40 type 304 stainless. The manifold shall be hydrostatically pressure tested to 400 psi to ensure there will be no leaking of the manifold or valves. The manifold shall be mounted on a rubber square pad to cut down on the vibration. All manifolds will be custom built to the fire department specifications to accommodate all the discharges, re-circulate, and foam valves that will be needed.

PUMP COOLER

One (1) 1/4" pump cooling line shall be provided. Cooling line shall be equipped with a 1/4" shutoff valve for priming.

HOSE REEL VALVE

One (1) 1" brass valve will be installed at the hose reel and plumbed to the manifold.

WHIP LINE DISCHARGES

There shall be a 1.5" brass water valve installed on the stainless steel manifold. From the valve the rubber covered 250 psi hose shall be plumbed thru the tank or under the apparatus body. There shall be a 1.5" stainless steel tee mounted to the tank or crosswalk floor. Two (2) 1" brass water valves shall be installed on the tee with brass reducing adapters. The whip lines shall be installed to the valves for individual control.

BUMPER MONITOR VALVE

One (1) 1.5" manual discharge valve will be installed at the manifold for the bumper monitor.

PRE-CONNECT DISCHARGE VALVE

One (1) 1.5" manual discharge valve shall be located at the front pre-connect hose tray. Plumbing for the pre-connect hose tray shall run below the deck of the apparatus.

1" TANK FILL

A 1" tank fill valve shall be installed on the manifold, using 7/8" hose. The tank fill shall be plumbed to the tank with 800 psi hose. The fittings on the hose shall be JIC type fittings.

TANK TO PUMP

All plumbing shall be stainless steel schedule 40 pipe. A 2.5" quarter turn ball valve shall be installed at the tank with a victaulic fitting. There shall be a rubber hump style hose installed between the pump intake and 2.5" piping. There shall be custom fabricated aluminum brackets installed to support the plumbing. All pipe plumbing shall be welded to eliminate the need for fittings.

GATED SUCTION INLET

A 2.5" quarter turn ball valve shall be installed on the intake plumbing. There shall be a 2.5" chrome swivel inlet installed on the valve. A 2.5" male plug with chain shall be installed in the inlet.

HALE PUMP

The pump shall be a Hale Model HPX200-B23 Portable Pump

Performance

The pump/engine shall perform to the standards of ISO 9 and NFPA 1906 low pressure pump rating. Typical pump performance from 5 foot draft at sea level shall be: 90 GPM @ 150 PSI, 170 GPM @ 100 PSI, and 250 GPM @ 30 PSI.

Max Flow 255 GPM
Max Pressure 175 PSI

Pump

The pump body shall be made of alloy aluminum castings coupled together with a stainless steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 250 PSI. The impeller shall be bronze. The renewable clearance rings shall be made of bronze to inhibit corrosion. The impeller shall be 8.75 inches in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.

Priming

The pump shall be equipped with an exhaust venture primer of brass and stainless steel construction. The primer shall be capable of 15 to 20 inches of mercury vacuum. The primer shall be actuated with a spring return, single control lever located at the operator's panel. The primer to pump line shall be equipped with an automatic check valve for priming from an open body of water and a manual shut-off for pumping from a pressurized water source.

Suction/Discharge

The suction and discharge ports shall be female pipe thread, designed and located to accept applicable hose thread adapters.

Engine

The engine shall be a 4-cycle gasoline Briggs and Stratton Vanguard series 386447 Series V Twin, overhead valve, air cooled design. Engine rating shall be 23 BHP at 3600 RPM with a torque of 32.75 lb-ft at 2600 rpm. Engine displacement shall be 627cc and shall be designed to meet current CARB (California Air Resources Board) and EPA (Environmental Protection Agency) standards. A 12-volt electric system shall be provided with electric starter and a 16 amp alternator. Recoil backup engine starting shall be provided. Engine shall be equipped with a residential muffler with USDA approved spark arrestor.

Mounting Platform

The pump/engine shall be isolation mounted onto a steel base plate.

Instrumentation

The pump shall be supplied with a remote mounted control panel. This panel shall include a throttle lever, primer pull cable, master switch, push-on starter button, pull cable engine choke control, a 2.5 inch liquid filled discharge gauge and an oil pressure warning light.

Pump will have the ability to draft from 12 vertical feet.

PUMP CONTROLS-CROSSWALK

The pump controls shall be mounted in the crosswalk area. The controls will operate the pump engine only. There will be a start stop switch, throttle controls, pump panel light, and if applicable foam controls.

REMOTE FUEL TANK FOR HALE PUMP

A remote mounted 6 gallon fuel tank with sight level gauge shall be provided

AUXILIARY BATTERY

A heavy duty battery shall be supplied for the skid unit. The skid unit will be wired to the chassis electrical system, two means of supplying power to the skid unit.

PUMP TEST

The pump plumbing assembly will be tested after construction is completed & before delivery to ensure there are no leaks.

WATER TANK LEVEL GAUGE

An Innovative water level gauge will be installed on the crosswalk pump panel. The LED gauge shall use a transducer type sensor to determine the water level in the tank. Probe water level gauges shall not be used.

WATER TANK LEVEL GAUGE - REMOTE

An Innovative water level slave gauge will be installed in the cab. The slave gauge will be used in conjunction with the main tank level gauge installed on the pump panel. The LED gauge shall use a transducer type sensor to determine the water level in the tank. Probe water level gauges shall not be used.

DECK LIGHTING, PUMP AREA

One (1) LED light shall be installed at the pump area. The switch for the light shall be installed on the pump panel. Light will be an LED light for better illumination at night.

BUMPER MONITOR (

Akron Forestry 3462 monitor, 12 volt electrically controlled remote wild land monitor shall be furnished and installed on the front bumper extension of the apparatus.

The monitor shall have a two (2") inch waterway plumbed to the discharge manifold and be capable of flowing up to 125 gpm with adjustable nozzle or 200 gpm with fixed nozzle.

Controls for the monitor shall be mounted inside the chassis cab with a joy stick. Low flow nozzle shall come standard, adjustable 30, 60, 95 or 125 GPM. Customer shall specify desired flow.

All plumbing shall be routed under the apparatus body and be protected from any hazards that shall occur during operations.

HOSE REEL

One (1) Hannay electric rewind booster reel shall be installed driver side rear and deploy to the rear, model EF-16.5-17-18-RT. The reel shall be constructed utilizing an all welded base. Reel bushings shall be manufactured from Nylatron to insure maintenance free operation. A 12-volt electrical motor shall be provided and will rewind the reel with a chain and sprocket drive mechanism. The reel shall have a capacity of 100 of 1" booster hose. A fully shielded rewind switch shall be provided on the body on the same side as the reel. Electrical switch connections shall be coated to protect against moisture. Chrome finish rollers and guides with nylon bushings shall be provided on each side of the reel. Plumbing to the reel shall be a 1" flexible 800 psi hose with the discharge valve located at the hose reel area.

BOOSTER HOSE, RED RUBBER

One (1) 1" x 100 ft. red booster hose shall be installed on the hose reel. The booster hose shall have chrome 1" NST couplings.

WHIP LINE HOSE

Two (2) 1" x 8' red 800 PSI rubber hose installed in the apparatus crosswalk.

PRE-CONNECT HOSE

Two (2) 50ft sections of 1.75" dbl jacket hose will be supplied with the apparatus.

CIRCUIT BREAKER

One 200 amp circuit breaker with manual reset shall be provided directly off the batteries. This will supply power to all inline fuses and added electrical wiring.

SIREN

One (1) Carson 409 Commander electronic siren shall be furnished and mounted in the cab console. The siren shall have the following features; 200 watt output, electronic air horn, three siren tones, radio rebroadcast, PA and microphone.

SPEAKER

One (1) Federal Signal ES100, 100 watt speaker shall be mounted behind front bumper.

BACK-UP ALARM

Back up alarm- An electronic back-up alarm shall be supplied. A 97 db alarm shall be wired into the chassis back-up lights to signal when the vehicle is in reverse.

RADIO

A power cable shall be provided in the cab console for the two (2) 800 Mhz radios. Radio faceplates shall be provided and installed.

ANTENNA INSTALLATION

Install customer supplied antenna on light bar, driver side.

INTERCOM SYSTEM

A wireless Setcom intercom system shall be installed. Intercom system shall have a base station. Two (2) under helmet headsets with PTT features, two (2) hanger hooks & interface cable.

COMPARTMENT LIGHT(S)

Four (4) LED compartment light shall be installed, two (2) per compartment. The LED light shall activate when the door is opened.

LICENSE PLATE LIGHT

One (1) license plate light will be installed & located above the license plate mount.

MASTER DISCONNECT

One (1) Master Disconnect switch shall be located on the center console. The Master Disconnect shall disconnect the upfitters conversion from the chassis OEM 12 volt system.

BACK-UP CAMERA

A rear view camera system shall be installed. The display shall be a windshield mounted rearview monitor with an integrated 7" LCD monitor that displays the rear-view when the apparatus is shifted to reverse. The monitor automatically adjust from day to night modes and shall have a resolution of 800*480 pixels.

The camera shall be located as high as practical to give a wide angle view, 150 degree visibility and night vision capabilities.

THERMAL IMAGING CAMERA

A vehicle mounted thermal imaging camera shall be installed in plain site of the driver while in the seated position. The camera shall allow for thermal imaging to be displayed in the through the rear view mirror monitor. Locate camera on headache rack.

DOOR AJAR LIGHT

One (1) door ajar warning light shall be provided and installed in the console to indicate open body compartment door.

LIGHTBAR

A Tomar970L 53" red/blue LED light bar shall be installed on the roof of the vehicle. The light bar shall have clear lenses. Mount light bar to headache rack.

LOWER WARNING LIGHTS

Fourteen (14) Tomar RECT-14 LED warning lights.

Locate lights as follows;

- (4) Grille guard, (2) each side facing forward
- (2) Front fenders, (1) each side facing outward
- (4) Side of body, (2) each side facing outward, one forward & one to the rear of the body
- (4) Rear, (2) each side facing to the rear

20" LED WORK LIGHTS

One (1) 20" LED light bar to be installed as per customer request.

Each light assembly has a cast aluminum housing, 18,000 lumens at 200 watts.

3 year warranty covering the casing, bulbs & wiring.

MARKER LIGHTS

LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements.

SEAT BELT WARNING

A seat belt use warning label shall be placed on the entrance gates to the walkway.

NOZZLE 1"

(3) Crestar SF-40 select flow nozzles with pistol grip shall be furnished.

NOZZLE 1.5"

One (1) Crestar SF-125 select flow nozzle with pistol grip shall be furnished.

REFLECTIVE STRIPE

A single reflective stripe shall be installed on the side of the cab and side of the body, up to 4" wide. Customer will determine the color of the striping. Stripes on the cab will be 4" wide reflective material & 2" wide reflective material on the body.

SCOTCHLITE REFLECTIVE LETTERING

The lettering shall be applied with Scotchlite reflective material, shaded in black.

A quantity up to fifty (50), four (4) inch letters are to be placed on the cab and on the body as directed by fire department.

CHEVRON STRIPING

The entire rear portion of the body shall have Diamond Grade reflective red and yellow striping installed. The chevron style striping shall be applied at a 45-degree upward angle pointing towards the center upper portion of the rear panel.

WARRANTY

We warrant each new motorized fire apparatus manufactured by Daco Fire Equipment, for a period of ONE YEAR from the date of delivery, except for chassis and other components noted herein.

Under this warranty we agree to furnish any parts to replace those that have failed due to defective material or workmanship where there is no indication of abuse, neglect, unusual or other than normal service providing that such parts are, at the option of DACO FIRE EQUIPMENT, made available for our inspection at our request, returned to our factory or other location designated by us with transportation prepaid within thirty days after the date of failure or within one year from the date of delivery of the apparatus to the original purchaser, whichever occurs first, and inspection indicates the failure was attributed to defective material or workmanship.

The warranty on the chassis and chassis supplied components, storage batteries, generators, electrical lamps and other devices subject to deterioration is limited to the warranty of the manufacturer thereof and adjustments for the same are to be made directly with the manufacturer by the customer.

This warranty will not apply to any fire apparatus that has been repaired or altered outside our factory in any way, which in our opinion might affect its stability or reliability.

This warranty shall not apply to those items that are usually considered normal maintenance and upkeep services: including, but not limited to, normal lubrication or proper adjustment of minor auxiliary pumps or reels.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability in connection with the sales of our apparatus unless made in writing by Daco Fire Equipment.

DACO STAINLESS STEEL PLUMBING WARRANTY

Subject to the provisions, limitations and conditions set forth in this warranty, Daco Fire Equipment inc. (hereby referred to as "seller"), hereby warrants to each original purchaser only that stainless steel plumbing components and ancillary brass fittings used in the construction of the water/foam plumbing system shall be warranted for a period of ten (10) years. This covers structural failures caused by defective design or workmanship, or perforation caused by corrosion, provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original purchaser for a period of ten years from the date of the delivery and shall terminate upon the transfer of possession or ownership by original purchaser.

This warranty is conditioned upon normal use and reasonable maintenance of such plumbing; prompt written notice of all defects to seller or one of the seller's then authorized dealers in the area; no repair or additions there to except by seller or authorized by it; said defect not resulting from misuse, negligence, accident, remount, overloading beyond applicable weight rating by customer or third parties. If any such conditions are not complied with, this warranty shall become void and unenforceable.

Should repairs become necessary under the terms of the warranty, the extent of that repair shall be determined solely by the seller and shall be performed solely at Daco Fire Equipment inc. or a repair facility designated by the seller. The expense of any transportation to or from such repair facility shall be that of the purchaser and is not an item covered by this warranty.

Seller reserves the unrestricted right at any time from time to time to make changes in the design of and/or improvements on its products without thereby imposing any obligation on itself to make corresponding changes or improvements in or on its products theretofore manufactured.

EXCLUSIONS AND LIMITATIONS: THIS MANUFACTURER'S WARRANTY IS PROVIDED IN PLACE OF ANY AND ALL OTHER REPRESENTATIONS OR IMPLIED WARRANTIES. NO PERSON IS AUTHORIZED TO MAKE ANY REPRESENTATIONS OR WARRANTY ON BEHALF OF DACO FIRE EQUIPMENT INC. OR ANY OF ITS DISTRIBUTORS OTHER THAN SET FORTH IN THIS MANUFACTURER'S WARRANTY. YOUR RIGHT TO SERVICE AND REPLACEMENT OF PARTS ON THE TERMS EXPRESSLY SET FORTH HERIN ARE YOUR EXCLUSIVE REMEDIES AND NEITHER THE MANUFACTURER NOR ANY OF ITS DISTRIBUTORS SHALL BE LIABLE FOR DAMAGES, WHETHER ORDINARY, INCIDENTAL OR CONSEQUENTIAL.

BODY WARRANTY

We warrant each new motorized fire apparatus body manufactured by Daco Fire EQUIPMENT, for a period of TEN YEARS from the date of delivery,.

Under this warranty we agree to furnish any parts to replace those that have failed due to defective material or workmanship where there is no indication of abuse, neglect, unusual or other than normal service providing that such parts are, at the option of DACO FIRE EQUIPMENT, made available for our inspection at our request, returned to our factory or other location designated by us with transportation prepaid within thirty days after the date of failure or within one year from the date of

delivery of the apparatus to the original purchaser, whichever occurs first, and inspection indicates the failure was attributed to defective material or workmanship.

The warranty on the components, storage batteries, generators, electrical lamps and other devices subject to deterioration is limited to the warranty of the manufacturer thereof and adjustments for the same are to be made directly with the manufacturer by the customer.

This warranty will not apply to any fire apparatus bodies that has been repaired or altered outside our factory in any way, which in our opinion might affect its stability or reliability.

This warranty shall not apply to those items that are usually considered normal maintenance and upkeep services: including, but not limited to, normal lubrication or proper adjustment of minor auxiliary pumps or reels.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability in connection with the sales of our apparatus unless made in writing by Daco Fire Equipment.

ELECTRICAL WARRANTY

We warrant each new motorized fire apparatus body manufactured by Daco Fire Equipment, for a period of FIVE YEARS from the date of delivery,.

Under this warranty we agree to furnish any parts to replace those that have failed due to defective material or workmanship where there is no indication of abuse, neglect, unusual or other than normal service providing that such parts are, at the option of DACO FIRE EQUIPMENT, made available for our inspection at our request, returned to our factory or other location designated by us with transportation prepaid within thirty days after the date of failure or within one year from the date of delivery of the apparatus to the original purchaser, whichever occurs first, and inspection indicates the failure was attributed to defective material or workmanship.

The warranty on the components, storage batteries, generators, electrical lamps and other devices subject to deterioration is limited to the warranty of the manufacturer thereof and adjustments for the same are to be made directly with the manufacturer by the customer.

This warranty will not apply to any electrical system component that has been repaired or altered outside our factory in any way, which in our opinion might affect its stability or reliability.

This warranty shall not apply to those items that are usually considered normal maintenance and upkeep services: including, but not limited to, normal lubrication or proper adjustment of minor auxiliary pumps or reels.

This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on our part. We neither assume nor authorize any person to assume for us any liability in connection with the sales of our apparatus unless made in writing by Daco Fire Equipment.

BOOSTER TANK

Custom Composites LLC, herein referred to as the Seller, warranties that tanks manufactured by Seller will be free from defects in materials and workmanship for a period of time equal to the service life of the original vehicle on which tank was installed. Original vehicle must be in active fire suppression for warranty to be in full effect.

Notification should be made to Seller by calling toll free 1-877-912-6297 as soon as defect is discovered so that repair procedure can be carried out quickly. Please include photographs, documentation, serial numbers, contact number and name, and any other pertinent information.

Seller's obligation under this warranty is solely limited to repairing and or replacing, at Seller's discretion, F.O.B.

manufacturing plant, tanks manufactured by Seller found to be defective. Seller is not liable for incidental or consequential damage including loss of profit, or any other type of damage which may be caused in whole or part by any failure, defect or other problem of the tanks manufactured by Seller. Alteration made to tanks without approval will void warranty.

This warranty does not apply to tanks damaged by misuse, neglect, accident or improper installation. User will be responsible for cost to repair tank found to be not caused by defect. Reasonable costs to remove and or reinstall defective product must be agreed upon by both parties prior to beginning repair and will be paid by Seller. Seller makes no other warranties expressed or implied.

HALE PUMP WARRANTY

Hale Products, Inc., herein referred to as "Hale", warrants products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of two years or 2000 hours of usage, whichever comes first. Products used for rental or contracting purposes are warranted for a period of six months or 2000 hours of usage, whichever comes first. This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence or accident, and is not altered, treated or repaired by someone other than Hale or its designee. Items not manufactured by Hale shall bear only the limited warranties offered by their respective manufacturers.

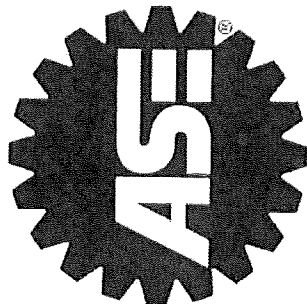
The exclusive remedy for breach of this warranty shall be to give Hale written notice thereof and to request a Returned Goods Authorization. Upon receipt of the Returned Goods Authorization, the buyer will return the non-conforming material to Hale F.O.B. its plant within thirty days after the buyer has received the Returned Goods Authorization. Thereupon Hale at its own election shall repair or replace the same or repay the price thereof. No proximate, incidental, consequential or other damages shall be recoverable.

Hale shall not be liable for consequential damages or contingent liabilities including; but not limited to, loss of life, personal injury, loss of crops, loss due to fire or water property damage, and consequential trade or other commercial loss arising out of the failure of Manufacturer's product.

HALE MAKES NO WARRANTIES OF FREEDOM FROM PATENT INFRINGEMENT, OF MERCHANTABILITY, OF FITNESS FOR A PARTICULAR PURPOSE OR ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE OR OTHER LIKE OR DIFFERENT EXPRESS OR IMPLIED WARRANTIES EXCEPT AS MADE ABOVE.

GRAPHIC WARRANTY

The graphics shall have a 3 year warranty to cover defects in materials & workmanship. This warranty will not cover damages that are out of our control.



National Institute for
**AUTOMOTIVE
SERVICE
EXCELLENCE**

Be it known that

JOSHUA W FOX



has successfully passed the examinations and met the work experience requirement prescribed by the National Institute for Automotive Service Excellence and is hereby **ASE CERTIFIED** in the service areas listed below.

MEDIUM/HEAVY TRUCK TECHNICIAN

AREAS OF DEMONSTRATED ACHIEVEMENT

GASOLINE ENGINES

DIESEL ENGINES

DRIVE TRAIN

BRAKES

SUSPENSION AND STEERING

ELECTRICAL/ELECTRONIC SYSTEMS

HEATING, VENTILATION, AND A/C

EXPIRES

JUNE 30, 2027

JUNE 30, 2027

JUNE 30, 2027

JUNE 30, 2027

JUNE 30, 2027

JUNE 30, 2027

JUNE 30, 2027

JUNE 30, 2027

** ** ** ** **

ASE-5300-3079

ASE IDENTIFICATION NUMBER

GIVEN THIS 8TH DAY OF APRIL 2022, AT LEESBURG, VIRGINIA

Timothy A. Zilke
TIMOTHY A. ZILKE, President



JOSHUA W FOX

MASTER MEDIUM/HEAVY VEHICLE TECHNICIAN

EXPIRES

JUNE 30, 2027

THOMAS A. ZILKE, President

Certificate of Training

Certifies that

Joshua Wayne Fox

has completed

**Electronic Engine,
Transmission and Drive Train
Course #654758**

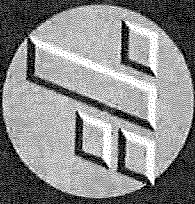
160 Hours

June 7, 2019

SUPERINTENDENT



INSTRUCTOR



Emergency Vehicle Technician

Certification Commission, Inc.

Recognizes

Joshua Fox

as meeting the requirements of the following levels of EVT Certification

LEVEL I ARFF TECHNICIAN

LEVEL II ARFF TECHNICIAN



This certification expires:

March 31, 2027

Kevin Roberts, President

The technician must maintain the individual ASE and EVT requirements for each level

Emergency Vehicle Technician

Certification Commission, Inc.



Joshua Fox

is certified in the areas listed below:

Fire Pumps and Accessories

Allison Automatic Transmissions

Expires:

03/19/2026

03/19/2026

Kevin Roberts, President



Emergency Vehicle Technician

Certification Commission, Inc.

Justin Shaw

is certified in the areas listed below:



Expires:

Maintenance, Inspection, & Testing of Fire Apparatus	03/19/2026
Design & Performance Standards of Fire Apparatus	06/05/2026
Fire Pumps and Accessories	03/22/2024
Fire Apparatus Electrical Systems	03/19/2026
Aerial Fire Apparatus	03/25/2027
Allison Automatic Transmissions	06/05/2026


Kevin Roberts, President

Emergency Vehicle Technician

Certification Commission, Inc.



Joshua Fox

is certified in the areas listed below:

Fire Pumps and Accessories

Allison Automatic Transmissions

Expires:

03/19/2026

03/19/2026

A handwritten signature in black ink, appearing to read "Kevin Roberts".

Kevin Roberts, President

Emergency Vehicle Technician Certification Commission, Inc.

Recognizes

Joshua Fox

as meeting the requirements of the following levels of EVT Certification

LEVEL I FIRE APPARATUS TECHNICIAN




Kevin Roberts, President

The technician must maintain the individual ASE and EVT requirements for each level

This certification expires:

June 30, 2026

Emergency Vehicle Technician Certification Commission, Inc.

Recognizes

Joshua Fox

as meeting the requirements of the following levels of EVT Certification

**LEVEL I FIRE APPARATUS TECHNICIAN
LEVEL II FIRE APPARATUS TECHNICIAN
MASTER FIRE APPARATUS TECHNICIAN**




Kevin Roberts, President

June 30, 2027

This certification expires:

The technician must maintain the individual ASE and EVT requirements for each level



Emergency Vehicle Technician

Certification Commission, Inc.

Justin Shaw

is certified in the areas listed below:

Expires:

Maintenance, Inspection, & Testing of Fire Apparatus

03/19/2026

Fire Pumps and Accessories

03/22/2024

Fire Apparatus Electrical Systems

03/19/2026




Kevin Roberts, President

Emergency Vehicle Technician

Certification Commission, Inc.



is certified in the areas listed below:

Justin Shaw



Expires:

Maintenance, Inspection, & Testing of Fire Apparatus

03/19/2026

Design & Performance Standards of Fire Apparatus

06/05/2026

Fire Pumps and Accessories

03/22/2024

Fire Apparatus Electrical Systems

03/19/2026

Allison Automatic Transmissions

06/05/2026


Kevin Roberts, President

Emergency Vehicle Technician

Certification Commission, Inc.



Justin Shaw

is certified in the areas listed below:

Fire Pumps and Accessories

Expires:

03/22/2024

Kevin Roberts, President



Emergency Vehicle Technician

Certification Commission, Inc.

Justin Shaw

is certified in the areas listed below:

Expires:

Maintenance, Inspection, & Testing of Fire Apparatus

03/19/2026

Fire Pumps and Accessories

03/22/2024

Fire Apparatus Electrical Systems

03/19/2026




Kevin Roberts, President

Emergency Vehicle Technician Certification Commission, Inc.



Jimmy Vest

is certified in the areas listed below:

Maintenance, Inspection, & Testing of Fire Apparatus
Design & Performance Standards of Fire Apparatus
Fire Pumps and Accessories
Fire Apparatus Electrical Systems
Advanced Electrical Systems
Aerial Fire Apparatus
Allison Automatic Transmissions

Expires:
03/22/2024
03/22/2024
03/18/2023
03/19/2026
03/25/2027
03/19/2026
03/25/2027

Kevin Roberts, President



Emergency Vehicle Technician

Certification Commission, Inc.

Darryl Bernsen

is certified in the areas listed below:

Expires:

Maintenance, Inspection, & Testing of Fire Apparatus

03/19/2026

Fire Pumps and Accessories

03/25/2027

Fire Apparatus Electrical Systems

06/15/2022

Aerial Fire Apparatus

03/23/2023

Foam Systems

10/14/2022




Kevin Roberts, President



Emergency Vehicle Technician

Certification Commission, Inc.

Darryl Bernsen

is certified in the areas listed below:

Fire Pumps and Accessories

Fire Apparatus Electrical Systems

Expires:

03/17/2022

06/15/2022



Stephen Wilde
Stephen Wilde, President

Emergency Vehicle Technician

Certification Commission, Inc.



Darryl Bernsen

is certified in the areas listed below:

Maintenance, Inspection, & Testing of Fire Apparatus

Fire Pumps and Accessories

Fire Apparatus Electrical Systems

Aerial Fire Apparatus

Foam Systems

Expires:

03/19/2026

03/17/2022

06/15/2022

03/23/2023

10/14/2022

Kevin Roberts, President

Texas and Oklahoma Associations of Emergency Technicians

Certify That

Darryl Bernsen

M A R C H

2 0 1 8

Completed 32 Hours

of

Emergency Vehicle Design and Maintenance

Continuing Education

Danny Tiller, President, OKEVT

Francisco Gomez, President, TAEVT



Emergency Vehicle Technician

Certification Commission, Inc.

Darryl Bernsen

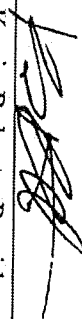
is certified in the areas listed below:

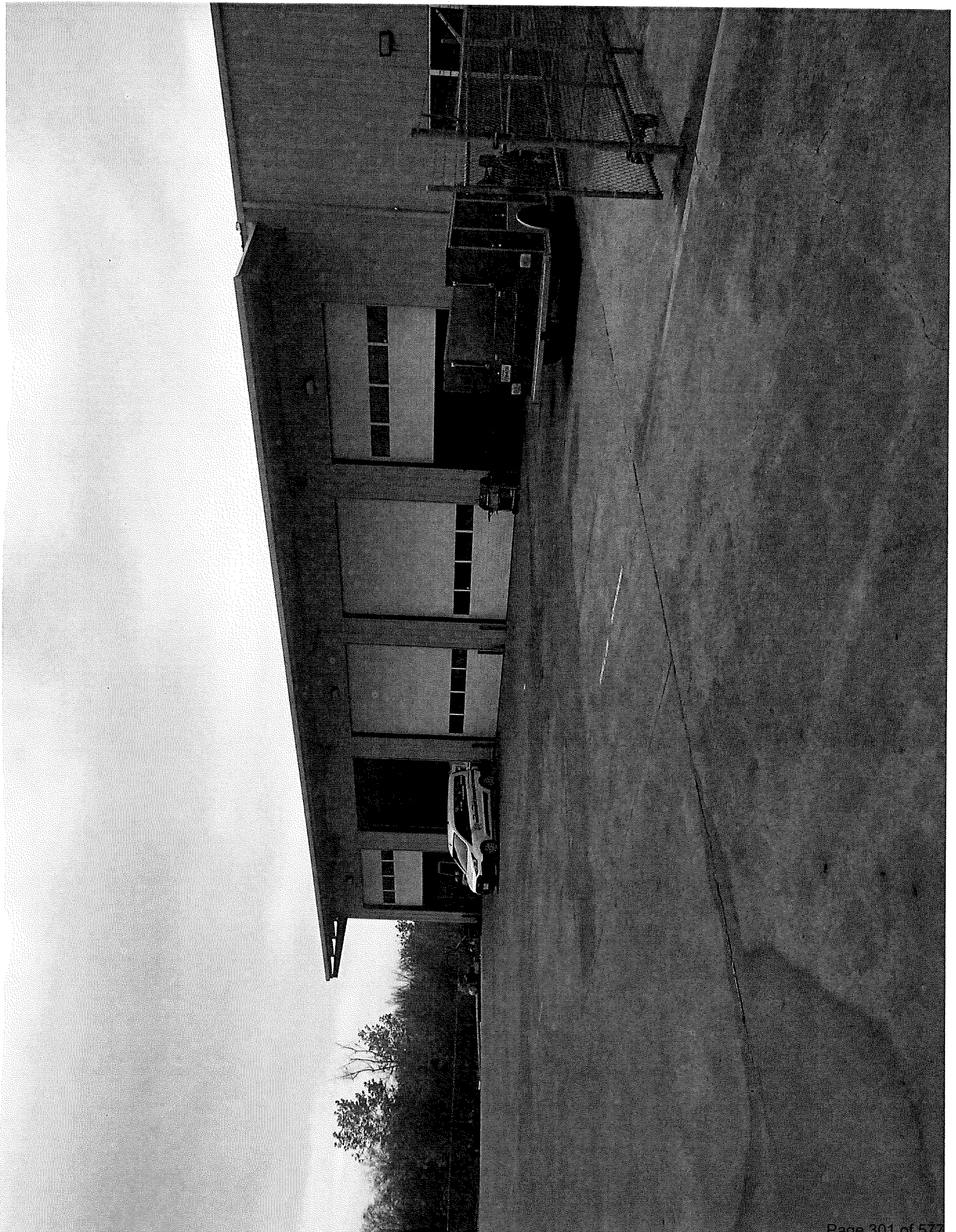
Chassis and Vehicle Components of Aircraft Rescue and
Fire-Fighting Vehicles

Expires:

03/22/2024




Kevin Roberts, President





BID PROPOSAL PAGE

BID SUBMITTED BY: BANNER FIRE EQUIPMENT, INC.

ADDRESS: 927 SOUTH 4TH STREET

CITY, STATE, ZIP: CHICKASHA, OKLAHOMA 73018

DEALER SALESMAN: SHANE FLOYD

MANUFACTURER: BANNER FIRE EQUIPMENT, INC.

TOTAL FOR F550 CHASSIS:.....\$62,860.00

****CHASSIS PAYMENT IS DUE ON CHASSIS ARRIVAL AT LOCAL FORD DEALERSHIP, UPON PAYMENT MSO WILL BE PROVIDED.****

TOTAL FOR 500 GALLON WILDLANDS UPFIT:.....\$91,593.95

TOTAL BID PRICE: \$154,453.95

DELIVERY: 510 TO 530 DAYS
AFTER RECEIPT OF ORDER

DATE SUBMITTED: DECEMBER 12TH, 2022

BID SUBMITTED BY: _____

(SIGNATURE OF AUTHORIZED REPRESENTATIVE)

SHANE FLOYD – GENERAL MANAGER

**** PLEASE BE ADVISED DUE TO SUPPLY CHAIN DELAYS, THE DELIVERY OF YOUR APPARATUS MAY BE DELAYED. ****



CHICKASHA DIVISION

PROPOSAL

FOR

**CHICKASHA
FIRE DEPARTMENT**

FOR A

Quick Attack

Wildlands Fire Fighting Apparatus

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Proposal for: Chickasha Fire Department

Delivery:

The delivery time shall be approximately 510 -530 days after receipt of the order.

****Note: Apparatus delivery time is an estimate and is based off the receipt of the chassis from our vendor. Delivery time of the chassis may increase or decrease apparatus delivery time. ****

Cab & Chassis:

The chassis shall be a 2023 F550 4x4 supercrew cab chassis with XL trim with the following options:

Specs:

- GVWR: 19,500 lbs.
- 4.88 Ratio Limited Slip Axle
- Extra Heavy Service Suspension Package
- Rear and Front stabilizer bar
- 60" Cab to axle
- 179" Wheelbase

Power Train:

- 6.7L V8 Diesel
- 10-Speed Automatic Transmission
- Engine Block Heater
- Heavy Duty Alternator

Interior Requirements:

- Vinyl 40/20/40 Split front bench seat
- Vinyl 60/40 Flip-up/fold-down bench seat
- XL Trim
- Air Conditioning
- AM/FM Stereo/ Clock

Exterior Requirements:

- Two (2) front tow hooks
- 40-Gallon Fuel Capacity
- Roof Clearance lights
- Windshield Wipers – Interval

Safety & Security:

- Airbag – Driver and front passenger
- Belt-Minder safety belt reminder

TOTAL FOR 2023 FORD F550:.....\$62,860.00

**** Chassis payment is due upon chassis receipt at local Ford dealership. Upon payment MSO will be provided ****



Proposal for: Chickasha Fire Department

Off Road Package:

An off-road package shall be supplied. The apparatus will undergo the following modifications:

- Wheel conversion kit to a 20x8.5 rim with a dully rear rim
- Six (6) 285/55-R20 Nitto Ridge Grappler Tires

Cab Console:

An electrical console and enclosure shall be provided to house cab mounted electrical switching devices and equipment.

The console shall be located between the driver's and the officer's seating up to the OEM dash.

There shall be sufficient space available to house siren control, department radio's, Setcom system and monitor joystick.

The center seat will need to be removed.

Front Bumper:

A full front bumper replacement shall be supplied. The front bumper shall be manufactured with 1 ¼" square tubing with the 90-degree corners on the square tubing to give the grille guard unmatched strength & durability. The body of the front bumper shall be constructed from 1/8" black gloss tread plate and shall mount to the apparatus frame using a combination 3/8" and ½" steel plate.

The front bumper shall have an integrated speaker mount, integrated receiver tube and monitor deck.

Step Bars:

Heavy duty step bars shall be supplied and mounted to the cab & chassis. These step bars shall be located under the cab doors to allow for the ease of entering and exiting the apparatus.

Mud Flaps:

Mud flaps shall be provided behind each rear wheel.

Chassis Fuel Fill:

There shall be a fuel fill provided in a recessed area on the rear of the truck.

Chassis DEF Tank Fill:



Proposal for: Chickasha Fire Department

There shall be a DEF (Diesel Exhaust Fluid) fill provided in an accessible location on the body.

Body:

The fire body shall be constructed entirely of heavy-duty extruded aluminum.

The fire body dimensions shall be 119" L x 96" W.

The perimeter of the fire body shall be constructed of a custom heavy duty 5.0" x 3.0" 6061-T6 aluminum extrusion.

The fire body cross members shall be constructed of heavy duty 2.0" x 3.0" 6061-T6 National Standard extruded aluminum channel.

The extruded aluminum cross members shall be located on 16" centers.

The fire body mounting sills shall be constructed of heavy duty 6.0" 6061-T6 National Standard extruded aluminum channel.

A rubber isolation barrier shall be provided between the fire body extruded aluminum mounting sills and chassis' steel frame rails.

There shall be .125" aluminum diamond plate covering the non-standing areas of the deck of the fire body.

There shall be .125 embossed aluminum on all walking or standing areas of the deck.

The .125" aluminum diamond plate deck shall be stitch welded to the bottom side of the perimeter extrusions.

Headache Rack:

There shall be a headache rack located at the front of the fire body.

The headache rack shall be constructed of heavy duty 3.0" x 2.0" 6061-T6 extruded aluminum tube.

The headache rack shall have .125" aluminum diamond plate covering the bottom half on the front side and expanded aluminum on the top half.

There shall be an approximate 60" W x 10" D aluminum plate light bar mounting platform located on top of the fire body headache rack.

Walkway:



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There shall be step wells provided at the front corners of the fire body.

The step wells shall be approximately 24" W x 24" D x 16" T with a step along the back wall.

There shall be 44" T gates provided at the entrance to the step wells.

The gates shall be held in the closed position by a pneumatic piston and have a positive stop as to not let the gate swing outward.

The gates shall have a .125 aluminum diamond plate cover.

Rear Apron:

There shall be a 95" W x 12.0" D x .1875 smooth aluminum apron provided at the rear of the fire body.

Tow Eyes:

There shall be two (2) ¾" plate steel tow eyes protruding through the rear apron.

Rear Receiver:

There shall be a 2.0" receiver tube provided at the rear of the apparatus.

The receiver tube shall be integrated into the fire body mounting sills.

Rear Bumper:

A heavy-duty steel bumper shall be supplied on the rear of the apparatus. This bumper shall be designed as to not interfere with the apparatus departure angle but allow for access to the fire body. An NFPA not slip surface shall be applied to the top of the rear step bumper.

Compartmentation:

L1 Compartment:

There shall be one (1) compartment with one (1) lift up compartment door provided on the deck of the fire body.

The body of the compartments shall be constructed of .125" aluminum diamond plate.

The compartment door shall be constructed of .125" aluminum diamond plate.



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The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners.

The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts.

The compartment door latches shall be D-Ring slam latches.

Dimensions of the driver's side compartment shall be 58"L x 20"D x 30"H.

R1 Compartment:

There shall be one (1) compartment with two (2) lift up compartment doors provided on the deck of the fire body.

The body of the compartments shall be constructed of .125" aluminum diamond plate.

The compartment door shall be constructed of .125" aluminum diamond plate.

The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners.

The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts.

The compartment door latches shall be D-Ring slam latches.

Dimensions of the driver's side compartment shall be 88"L x 20"D x 30"H.

B1 Compartment:

There shall be a 72" D x 30" W x 5.0" H long tool storage compartment provided.

The compartment shall be located between the fire body mounting sills, with the door opening facing the rear of the apparatus.

The compartment door shall be constructed of .125" aluminum smooth plate and shall be horizontally hinged. Thumb latches shall be provided to open and close the door.

Pre-Connect Tray:

There shall be a 4"W x 96"L x 8"H transverse pre-connect hose tray located at the rear of the walkway. This tray shall be set on the floor.



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Skid Unit:

The water tank, pump and plumbing shall be mounted on a heavy-duty poly frame to allow for the unit to be removed as a single unit.

The skid unit shall be bolt directly through the bed to the apparatus frame utilizing heavy duty grade 8 bolts.

Polypropylene Water Tank:

A 500-gallon water tank shall be supplied and shall have a 4" overflow. The construction shall be of co-polymer polypropylene and shall be rectangular shaped. **No Fiberglass! No Exception!**

The tank body and end bulkheads shall be constructed of 0.5" thick, polypropylene tested inside and out.

The transverse and longitudinal swash partitions shall be interlocked and welded to each other as well as to the walls of the tank. The partitions shall be designed and equipped with vent holes to permit air and liquid movement between compartments. The 0.5" thick cover shall be recessed .375" from the top of the side walls. Hold down dowels shall extend through and be welded to both the covers and the transverse partitions, providing rigidity during filling operations. Drilled pegs for lifting eyes shall be provided in the top area of the water tank.

The water fill tower shall be 0.5" thick polypropylene stock with a hinged lid and a removable polypropylene screen.

The water fill tower shall be located on the front driver's side of the water tank. A sight glass shall be supplied on the rear driver's corner of the water tank, so the operator can see the lifeline of water remaining during pumping operations from the rear of the apparatus.

Two (2) tank mounting tabs shall be provided. One shall be at the front and one at the rear to allow the tank to be fastened to the fire body.

The water tank shall have an overflow tube. The overflow tube shall exit below the body, ahead of the rear wheels.

Fire Pump Plumbing System:

The engine driven fire pump plumbing system shall be built completely of stainless-steel piping, stainless steel and/or brass fittings, and connections.

Tank connections, front discharges, and other piping shall use high-pressure flexible piping. Flexible hose couplings shall be threaded stainless steel or Victaulic connections.



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Plumbing shall not be welded for ease of disassembly, no exceptions.

Hose Threads:

The hose threads shall be National Standard (NST) on all base threads on the apparatus intakes and discharges, unless otherwise specified.

Intake and Discharge Valves:

All valves used in the plumbing installation shall be stainless steel or brass quarter turn full flow type valves.

Steel – Industrial valves shall not be used due to rusting.

Hose Reel Discharge(s):

One (1) 1" discharge shall be provided and piped to the redline hose reel with flexible high-pressure hose and a 1" Stainless steel valve or equivalent will be provided for this connection on manifold.

Whipline Discharge(s):

Two (2) whipline discharges shall be supplied and mounted in the walkway area of the apparatus. These discharges shall have a 90-degree swivel to allow firefighting operations to be conducted off the side of the apparatus.

The whiplines shall be located with one (1) each side of the pump panel.

Bumper Monitor Discharge(s):

One 1.5" discharge shall be provided and plumbed to the front bumper monitor. This discharge shall be located at the rear of the skid unit.

Pre-Connect Discharge(s):

One (1) 1.5" valve shall be provided and plumbed to the pre-connect crosslay tray located on in the walkway of the apparatus bed. Plumbing for this unit shall run underneath the apparatus bed.

Fire Pump to Water Tank bypass Line:

A 1" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow quarter turn ball valve.



Proposal for: Chickasha Fire Department

A 1" piping and flex hose will be provided from valve to tank. The valve control shall be directly on the valve.

Water Tank to Pump & Suction:

A 2½" water tank to fire pump line shall be provided with a full flow 2½" quarter turn ball valve.

Suction will be provided with a full flow 2½" quarter turn ball valve so that while pumping you can also be connecting to an additional water source.

A 2½" chrome plug and chain will be provided at the rear for the suction.

Manifold:

A common 304 stainless steel manifold will be provided for all discharges.

Fire Pump:

A Hale HPX200-B23 pump shall be supplied and mounted to the rear of the skid unit.

Performance

The pump/engine shall be capable of meeting the NFPA 1906 performance rating of 50 GPM @ 150 PSI and 150 GPM @ 100 PSI. Typical pump performance from 5-foot draft at sea level shall be: 90 GPM @ 150 PSI, 170 GPM @ 100 PSI and 250 GPM @ 30 PSI.

Pump

The pump body shall be made of anodized alloy aluminum castings coupled together with a stainless-steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 300 PSI. The impeller shall be bronze. The renewable clearance rings shall be made of bronze to inhibit galvanic corrosion. The impeller shall be 8.75 inches (222.3 mm) in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.

Priming

The pump shall be equipped with an exhaust venturi primer of brass and stainless-steel construction. The primer shall be capable of priming at 13 feet lift. The primer shall be actuated with a spring return, single control lever located at the operator's panel. The primer to pump line



Proposal for: Chickasha Fire Department

shall be equipped with an automatic check valve for priming from an open body of water and a manual shut -off for pumping from a pressurized water source.

Suction/Discharge

The suction and discharge ports shall be female pipe thread, designed and located to accept applicable hose thread adapters (3" NPT / 4" Victaulic Suction, 2.5" NPT Discharge flange).

Engine

The engine shall be a 4 cycle gasoline Briggs and Stratton Vanguard 386447 series V-Twin, overhead valve, air cooled design. Engine rating shall be 23 BHP at 3600 RPM. Engine displacement shall be 627cc and shall be designed to meet current CARB (California Air Resources Board) and EPA (Environmental Protection Agency) standards. A 12-volt electric system shall be provided with electric starter and a 16-amp alternator. Engine shall be equipped with a residential muffler with USDA approved spark arrestor.

Pump Panel:

A standard pump panel shall be supplied and located in the walkway of the apparatus. The pump panel shall be installed on a tilted pump panel for the ease of visibility.

Pump Panel shall have the following controls:

- Pump Panel Light switch
- Start/Stop switch
- Low oil pressure light
- Pump pressure gauge
- Idle control
- Choke

Fuel Tank:

A heavy-duty aluminum 6-gallon fuel tank shall be supplied and mounted to the skid unit frame. The fuel tank shall have fuel level sight gauge and an overflow tube.

Battery Supply:

The skid unit of the apparatus shall have a heavy-duty separate battery supply to power the unit.

The engine will include a 36-watt alternator to keep separate battery charged.

Emergency Back-up:



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An emergency back-up system that runs off the chassis electrical system shall be supplied that will assist in starting the skid unit in case of a battery failure.

Pump Test:

The skid unit shall be tested after all its associated piping and valves have been installed on the apparatus. The tests shall be conducted at the manufacturer's facility.

Tank Level Gauge(s):

Water Gauge:

A lighted LED water tank level gauge will be provided on the pump panel for view of lifeline of water during nighttime operations.

A mini lighted tank level gauge will be provided inside cab, so operator is able to view tank water levels from the safety of the cab.

Skid Work Light:

One (1) LED flood/spotlights shall be installed in accordance with customer requirements.

Lights shall be 12v 20W low current draw lights and shall be mounted as follows:

- One (1) on top of the water tank offset the rear, to illuminate the pump and plumbing. This shall be controlled by a single switch on the pump panel.

Features:

- 10- and 60-degree spot and flood
- 2,112 Lumen output ea.
- Black, cast-aluminum housing
- Lifetime Warranty

Bumper Monitor:

The adjustable 30, 60, 90 or 125 GPM rated monitor is to be an all-electric single waterway monitor constructed of lightweight Pyrolite. The monitor shall have cast-in turning vanes in each elbow.

The monitor shall have fully enclosed motors and gears with manual overrides for both horizontal and vertical rotation and may be operated simultaneously. The monitor is not to exceed 13 3/16" high and 11 9/16" wide. The vertical travel shall be from 45° below to 90° above horizontal with adjustable stops at -20° and +45°. The horizontal rotation shall be 320° with adjustable stops at 90°.



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The control system electronics shall be integrated with the monitor wiring harness. The control system shall use sealed, locking connectors for the monitor and nozzle motors. Two additional sealed, locking connectors shall be supplied for input power/electric valve control and J1939 CAN bus interface. A sealed USB connector shall be provided for updating control system firmware.

All electrical connectors shall be minimum IP65 rated. The operator interface shall consist of a CAN bus compatible joystick which will provide up, down, right, left, fog, and stream control of the monitor.

The joystick shall have a trigger switch to control an optional electric discharge valve. The monitor shall include a 5' long power/valve harness and 20' long CAN joystick harness.

Hose Reel(s):

Booster Hose Reel:

One (1) Hannay hose reel, model EF-16.5-17-18-RT with electric rewind shall be provided with a single mounted roller and spool assembly and a brake to adjust tension on the spool.

The hose reel shall be mounted on the Driver's side of the apparatus bed, with the capability to pull off the rear of the apparatus.

Hose Reel Electric Rewind:

Two (2) electric rewind push buttons will be installed. The electric rewind controls shall be a weather-resistant enclosed momentary push button switch. Switches shall be installed as follows: One (1) switch at each hose reel location.

Hose:

Booster Hose:

100' of 1" booster hose shall be provided for the booster hose reel.

Whipline Hose:

Two (2) sections of 8' x 1" red 800 psi booster line shall be provided.

Pre-Connected Hose:

100' of 1.5" double jacket pre-connected hose shall be provided for the pre-connect discharge.



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Electrical System:

Low Voltage Electrical System Specifications

The following specifications describe the low voltage electrical system on the specified brush truck type fire apparatus. The electrical system shall include all panels, electrical components, switches, and relays, wiring harnesses and other electrical components.

All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be run in a loom with a minimum 289-degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels.

All connections shall be crimp-type to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system.

Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions.

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in an electrical junction box or covered with a removable electrical panel or wire loom. The wiring shall be secured in place and protected against heat, liquid contaminants, and damage.

The electrical system shall include the following:

- A) The electrical wiring shall be harnessed or be placed in a protective loom.
- B) No holes shall be made in the roof of chassis, unless approved by end user.
- C) Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it.

Breaker:



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A 100-amp breaker shall be supplied and located near the master disconnect switch that will prevent potential upfitter electrical issues from affecting chassis battery system.

Electronic Siren:

One (1) Carson 409 Commander full function electronic siren shall be mounted in the cab console. The siren shall have the following features: electronic air horn, siren tones, radio rebroadcast, P.A. and shall have a hard-wired microphone.

Features:

- 100/200-Watt SAE J1849 and Class A output
- Internal programmable siren functions
- Four Position progressive slide switch
- Six backlit and rubberized relay push-button switches
- Scrolling TAP II intersection clearing feature

Speaker:

One (1) Federal Signal ES100, 100-watt speaker shall be mounted behind the front of the chassis bumper or grille. The speaker shall be wired to the electronic siren located in the cab.

Features:

- Neo-driver for increased dependability
- 100-Watt high output power
- Sound output meets SAE J1849 and Class A
- Impedance of 11 ohms

Back-up Alarm:

An automatic electric 97 dB back-up alarm shall be wired to activate when the transmission is placed into reverse. The alarm shall be mounted under the rear of the apparatus body.

Radio:

A power cable shall be provided in the cab console for the two (2) 800 Mhz radios. Radio Faceplates shall be provided and installed.

Antenna:

Antenna wiring with mounting "L" bracket shall be supplied and ran to the driver's side light bar mounting platform. The Antenna shall be customer supplied.

Communication System:



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A wireless Setcom communication system with two (2) under the helmet wireless headsets, digital intercom with interface cable and base station shall be installed in the cab console.

Lighting:

Compartment Light(s):

Each compartment shall be provided with two (2) LED vertically mounted lights.

The compartment lights shall be installed one (1) on each side of the compartment door opening with the light actuation with the door opening.

License Plate Light:

A license plate light and bracket shall be supplied and mounted to the rear of the apparatus.

Switch(es):

Master Disconnect Switch:

A battery disconnect switch shall be located on the front face of the console offset to the driver of the apparatus. The switch shall disconnect the upfitter conversion from the 12-volt battery system.

Camera System(s):

Rear View Camera:

A rearview camera system shall be supplied.

The screen shall be a windshield-mounted rearview mirror with an integrated 7" LCD monitor that displays the rear-view image when the apparatus is shifted into reverse. The monitor shall automatically adjust in day and night modes and shall have a resolution of 800*480 pixels.

The camera shall be a high-mounted, wide-angle look-down camera with 150-degree visibility and night vision capabilities.

Thermal Imaging Camera:

A vehicle mounted driver vision enhancement thermal imaging camera shall be supplied and mounted to the apparatus. The camera shall allow for thermal imaging to be routed through the review mirror monitor. Camera shall be mounted to the headache rack.

Features:



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- 56 deg- horizontal fired of view
- Made of stainless-steel construction
- Provides NTSC video

Door Ajar:

Each compartment light shall be controlled by a magnetic “On-Off” switch located on each compartment door.

The magnetic switch shall control a door ajar light located inside the cab.

Emergency Lighting:

The warning lights shall be switched in the chassis cab with labeled switching in the cab console. A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and call for the right of way.

All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator and passenger.

Upper Warning Lights:

Light Bar:

A TOMAR 970L Scorpion 53” Red/Blue LED low profile light bar shall be supplied. The light bar shall have clear lenses to the front and to the rear and will be mounted on the headache rack mounting platform.

Features:

- NFPA 1901 Compliant
- Variety of selectable flash patterns
- Hermetically sealed

Lower Warning Lights:

Fourteen (14) Tomar RECT-14 LED Warning lights shall be provided. These warning lights have eleven (11) different flash patterns to customize to department specifications.

Warning Lights shall be installed as follows:

- Four (4) Red/Blue LEDs on the front grille guard with Two (2) each side
- Two (2) Red/Blue LEDs on apparatus chassis with one (1) each side above the front wheel well area.
- Four (4) Red/Blue on the apparatus body: with Two (2) each side: One (1) offset as forward as possible and one (1) offset rearward as possible.



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- Four (4) Red/Blue LEDs on the rear of the apparatus with Two (2) each side

Features:

- Four (4) Ultra-High intensity LEDs
- Multiple selectable flash patterns
- Made of optical Lexan and hermetically sealed
- Meets SAE J845, SAE J595 and CAL Title 13
- Five-year manufacturer's warranty.

Scene Lighting:

Flood Light(s):

One (1) 75-watt 15 LED High Intensity 20" single row light bar shall be supplied. The flood lights shall be provided at the following locations:

- One (1) mounted on the front bumper on the upper section of the bumper.

Features:

- 7290 Lumens
- Flood pattern
- Lifetime Warranty
- Durable aluminum extrusion housing

D.O.T Lighting:

The 12-volt lighting on the brush truck body shall conform to FMVSS 108 standards. All DOT lighting shall be LED type.

Clearance:

There shall be a minimum of five (5) red clearance lights on the rear of the truck (three (3) in the rear center and one on each outside corner of the rear apparatus bed).

One (1) red clearance light shall be on each side rear corner and one (1) amber clearance light on each front side corner.

Signal, Brake and Reverse:

The rear shall also contain a minimum of two (2) each Stop/Turn/Taillights and two (2) clear reverse lights. These lights shall be oval, flush mounted lights.

Label(s):



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Fastened labels shall be supplied and mounted in accordance with their function:

On each walkway entrance door shall have a label that states "All personnel must be seated in cab with seatbelt fastened while vehicle is in motion. Riding elsewhere may cause serious injury or death"

All appropriate switches inside the cab shall be properly labeled with their function.

All appropriate valves on the pump panel shall have a corresponding function label.

Loose Equipment:

The following loose equipment shall be supplied with the apparatus:

Nozzle(s):

1" Nozzle:

Three (3) Crestar SF-40 select flow nozzles with pistol grip handles and bell shut off shall be supplied.

Features:

- Selectable gallonage nozzle with multiple flow settings
- Stainless steel spinning teeth
- Straight stream to wide fog and flush without shutting down
- Metal horseshoe handle
- 100 psi (7.0 BAR) standard
- NFPA 1964 compliant

1.5" Nozzle:

One (1) Crestar SF-125 select flow nozzle with pistol grip handles and bell shut off shall be supplied.

Features:

- Selectable gallonage nozzle with multiple flow settings
- Stainless steel spinning teeth
- Straight stream to wide fog and flush without shutting down
- Metal horseshoe handle
- 100 psi (7.0 BAR) standard
- NFPA 1964 compliant



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Scotchlite Striping & Lettering:

Cab and Body:

The apparatus cab and body shall be provided with Scotchlite striping and installed to department's requirements. Color to be determined at prebuild meeting.

Lettering:

Scotchlite lettering with shading will be installed to department requirements and colors to be determined at prebuild meeting.

Rear Body:

Chevron "A" style Scotchlite striping shall be provided on rear of body (outboard rearward facing smooth plate panels of the rear apron).

The colors shall be Yellow/ Red diamond grade.

Apparatus Paint:

Cab and Chassis:

The apparatus cab and chassis shall be painted in accordance with the policies with the chassis manufacturer with all applicable warranties. The color of the cab shall be Ford Red.

Apparatus Body:

The apparatus body shall be made of aluminum and shall not be painted.

Warranty:

1 Year Standard Warranty:

The apparatus manufacturer shall provide a full 1-year standard warranty. All components manufactured by the apparatus manufacturer shall be covered against defects in materials or workmanship for a 1-year period. All components covered by separate suppliers such as engines, transmissions, tires, and batteries shall maintain the warranty as provided by the component supplier.

2 Year Pump Warranty:

Pump manufacturer shall warranty products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of two years or 2000



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hours of usage, whichever comes first. Products used for rental or contracting purposes are warranted for a period of six months or 2000 hours of usage, whichever comes first. This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence, or accident, and is not altered, treated, or repaired by someone other than pump manufacturer or its designee

10 Year 100,000 Mile Structural Warranty:

The apparatus manufacturer shall provide a comprehensive 10 year/100,000-mile structural warranty. This warranty shall cover all structural components of the cab and/or body manufactured by the apparatus manufacturer against defects in materials or workmanship for 10 years or 100,000 miles, whichever occurs first. Excluded from this warranty are all hardware, mechanical items, electrical items, or paint finishes.

10 Year Stainless Steel Plumbing Warranty:

The apparatus manufacturer shall provide a full 10-year stainless steel plumbing components warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer designed foam/water plumbing system stainless steel components for 10 years.

3 Year Graphics Warranty:

The apparatus manufacturer shall provide a full 3-Graphics warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's graphic components for 3 years.

5 Year Electrical Warranty:

The apparatus manufacturer shall provide a full 5 year-electrical warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's electrical components for 5 years.

Lifetime Polypropylene Tank Warranty:

The tank manufacturer warranties that tanks will be free from defects in materials and workmanship for a period equal to the service life of the original vehicle on which tank was installed. Original vehicle must be in active fire suppression for warranty to be in full effect.

Request for Proposal --- RFP BP-2201

2022 Chickasha Fire Department

Wildland Apparatus (Brush Pumper)

Advertise Dates: November 17, 24 2022

December 1, 8 2022

The City of Chickasha, Oklahoma is accepting sealed proposals for a new wildland apparatus/brush pumper for the Chickasha Fire Department.

The project consists of designing and building of a new wildland apparatus for the Chickasha Fire Department.

Bids shall be made in accordance with this Invitation for Bids and the Bidding Documents.

Bidding documents can be obtained via email from the Fire Chief or City Clerk.

(Tony.samaniego@chickasha.org, Susan.mcdaniel@chickasha.org)

Sealed proposals shall be addressed to Tony Samaniego, Fire Chief, City of Chickasha, 117 North 4th Street, Chickasha, Oklahoma 73018 and shall be labeled "RFP BP-2201, DO NOT OPEN" and "2022 Wildland Apparatus." Proposals shall be submitted no later than 2:30 p.m. central time on December 15, 2022. It is the responsibility of the proponent to ensure that the proposal is in the City Hall Conference Room of Chickasha prior to the date and time above. Bids will be opened the same date at 2:35 p.m. in the City Hall Conference Room, Second Floor—city Hall, 117 N. 4th Street, Chickasha, Oklahoma 73018.

The Issuing Office for the Bidding Documents is: City of Chickasha, Fire Department. Technical questions should be emailed to the Tony Samaniego, Fire Chief at Tony.samaniego@chickasha.org.

Upon consideration of the proposals, the City of Chickasha reserves the right to accept or reject any and all proposals, to waive technicalities and to make any investigation deemed necessary concerning the proponent's ability to provide the services as covered by the specifications, and to accept what is in their judgment to be the most advantageous proposal.

Tony Samaniego, Fire Chief

CERTIFICATION

I CERTIFY THAT THE ABOVE "Request for Proposal" was posted on the bulletin board of City Hall, City of Chickasha, Oklahoma, on the 10th day of November 2022.

Susan McDaniel, CMC- City Clerk

SPECIFICATIONS
FOR
**CHICKASHA
FIRE DEPARTMENT**

FOR A
Quick Attack

Wildlands Fire Fighting Apparatus

Minimum Specifications for a Wildlands Fire Fighting Apparatus
(Any Mention of a specific brand name – shall be or equivalent)

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
<u>Intent of Specifications:</u> It is the intent of these specifications to clearly describe the furnishing and delivery to the Purchaser, a complete apparatus equipped as specified. The primary objective of these specifications is to obtain the most acceptable apparatus for service in the Fire Department. These specifications cover specific requirements as to the type of construction and tests the apparatus must conform, together with certain details as to finish, material preferences, equipment, and appliances with which the successful bidder must conform. The design of the apparatus must embody the latest approved automotive design practices. The workmanship must be of the highest quality in its respective field. Special consideration shall be given to service access to areas needing periodic maintenance, ease of operation, and symmetrical proportions. Construction must be heavy-duty and ample safety factors must be provided to carry loads as specified. The construction method employed will be in such a manner as to allow ready removal of any component for service or repair. The apparatus shall conform to the National Fire Protection Association Standard for Automotive Fire Apparatus, number 1901 and the National Fire Protection Association Standard for Wildland Fire Apparatus, number 1906, in its most recent edition, unless otherwise specified in this document. Only the specified firefighting support equipment listed in these specifications shall be provided. The apparatus shall further conform to all Federal Motor Vehicle Safety Standards. NO EXCEPTION. Each bidder shall furnish satisfactory evidence of their ability to design, engineer, and construct the apparatus specified and shall state the location of the factory producing the apparatus. They shall also substantiate they are able to render prompt and proper service and to furnish replacement parts for the apparatus. Bids will be addressed and submitted in accordance with the instructions provided on the cover sheet. The bid number, the date, and bid opening time shall be stated on the front of the bid envelope. It shall be the responsibility of the bidder to assure that their proposal arrives at the location and time indicated. Late proposals, telegrams, facsimile, or telephone bids will not be considered. NO EXCEPTION. All bidders are required to detail the payment terms for apparatus on the bidder's proposal page. Any required prepayments or progress payments must be explained in detail.		
<u>Service and Warranty Support:</u> To ensure full service after delivery, the bidder must be capable of providing service when required. The bidder shall show that the company is in position to render prompt service and furnish replacement parts. Each bidder must be able to display that they are actively in the fire apparatus service business by operating an authorized service center located within the State of Oklahoma, and shall stock parts equating to \$250,000.00, No Exceptions.		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Detailed information shall be provided on service facilities, personnel, service vehicles, and how long the service facility has operated in the State of Oklahoma. Service is a criteria for award of this bid.	P	
<u>Service Certification:</u> Each bidder shall supply with their bid an Emergency Vehicle Technician certification, and photos of the full-service repair facility that is located within the State of Oklahoma, these documents must be provided with the proposal. No Exceptions.	P	
<u>Brand Names:</u> Any brand names, trade names, manufacturer's names, or other product identification names included in these specifications are included to establish a minimum quality and standard. These products listed in our specifications which have name brands attached in no manner limit any bidder, however the items included in your bid must meet or exceed our minimum specifications. The Fire Departments will make the sole determination as to which items meet or exceed the specifications.	P	
<u>Oklahoma Motor Vehicle License:</u> Each manufacturer, dealer, and salesperson must furnish a copy of their Oklahoma Motor Vehicle Commission License. <u>This is an Oklahoma Law and must be furnished, No Exceptions.</u>	P	
<u>Proposal Price:</u> Each bidder's proposal must include all items required in the specifications unless a specific exception is taken. Any bidder who options prices an item included in these specifications that does not specifically require option pricing will have their proposal rejected without further cause.	P	
<u>Proposal Format:</u> Each bid must be accompanied by a set of detailed contractor's specifications consisting of a detailed description of the apparatus and equipment proposed. All bid proposal specifications must be in the same sequence as the advertised specification for ease of comparison. These specifications shall include size, location, type, and model of all component parts being furnished. Detailed information shall be provided on the materials used to construct all facets of the apparatus body. Any bidder who fails to submit detailed construction specifications, or who photocopies and submits these specifications as their own construction details, or any proposals	P	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
found to have deviations without listing them will be considered non-responsive and shall render their proposal ineligible for award. NO EXCEPTION.		
<u>Exceptions:</u>	P	
The following apparatus specifications are considered minimum design and construction standards against which the apparatus will be inspected. It is the intent to receive proposals on equipment/apparatus meeting the attached detailed specifications in their entirety. Any proposals being submitted, without "Full Compliance" with these specifications shall so state on the bid proposal page, followed by a detailed "Letter of Exceptions" listing the areas of non-compliance. The reference must include page number, paragraph, and the exact nature of the exception.		
Failure to follow this format, provided for the convenience of the Purchaser, will render the vendor's proposal non-responsive and ineligible for award of contract.		
If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary.		
The Purchaser may add the statement "No Exception" to a component or design feature in these specifications. In the interest of fleet conformity or specific performance requirements, the Purchaser will not permit exceptions taken to these item(s). The Purchaser reserves the right to reject any or all bid proposals and purchase the equipment it deems most suitable to its needs.		
The Purchaser does not, in any way, obligate itself to accept the lowest or any bid. Any bidder taking total exception to the complete specification, or a major element will result in immediate rejection of the proposal.	P	
<u>Delivery:</u>	P	
The bidder shall state the time required for delivery of the completed unit on the proposal page.		
The completed unit shall be delivered to the purchaser with full instructions provided to Fire Department personnel on operation, care, and maintenance of apparatus.		
<u>Cab & Chassis:</u>	P	
The chassis shall be a 2023 F550 4x4 supercrew cab chassis with XL trim with the following options:		
Specs: - GVWR: 19,500 lbs. - 4.88 Ratio Limited Slip Axle - Extra Heavy Service Suspension Package - Rear and Front stabilizer bar - 60" Cab to axle		
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Any Mention of Brand Name Shall be "or Equivalent"		BIDDER COMPLIES	
		YES	NO
- 179" Wheelbase		P	
Power Train:			
- 6.7L V8 Diesel - 10-Speed Automatic Transmission - Engine Block Heater - Heavy Duty Alternator		P	
Interior Requirements:			
- Vinyl 40/20/40 Split front bench seat - Vinyl 60/40 Flip-up/fold-down bench seat - XL Trim - Air Conditioning - AM/FM Stereo/ Clock		P	
Exterior Requirements:			
- Two (2) front tow hooks - 40-Gallon Fuel Capacity - Roof Clearance lights - Windshield Wipers – Interval		P	
Safety & Security:			
- Airbag – Driver and front passenger - Belt-Minder safety belt reminder		P	
Off Road Package:		P	
An off-road package shall be supplied. The apparatus will undergo the following modifications:			
- Wheel conversion kit to a 20x8.5 rim with a dully rear rim - Six (6) 285/55-R20 Nitto Ridge Grappler Tires		P	
Cab Console:			
An electrical console and enclosure shall be provided to house cab mounted electrical switching devices and equipment.			
The console shall be located between the driver's and the officer's seating up to the OEM dash.			
There shall be sufficient space available to house siren control, department radio's, Setcom system and monitor joystick.			
The center seat will need to be removed.			
Front Bumper:		P	
A full front bumper replacement shall be supplied. The front bumper shall be manufactured with 1 1/4" square tubing with the 90-degree corners on the square tubing to give the grille guard unmatched strength & durability. The body of the front bumper shall be constructed from 1/8" black gloss tread plate and shall mount to the apparatus frame using a combination 3/8" and 1/2" steel plate.			
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The front bumper shall have an integrated speaker mount, integrated receiver tube and monitor deck.	<i>g</i>	
Step Bars:		
Heavy duty step bars shall be supplied and mounted to the cab & chassis. These step bars shall be located under the cab doors to allow for the ease of entering and exiting the apparatus.	<i>g</i>	
Mud Flaps:		
Mud flaps shall be provided behind each rear wheel.	<i>g</i>	
Chassis Fuel Fill:		
There shall be a fuel fill provided in a recessed area on the rear of the truck.	<i>g</i>	
Chassis DEF Tank Fill:		
There shall be a DEF (Diesel Exhaust Fluid) fill provided in an accessible location on the body.	<i>g</i>	
<u>Body:</u>	<i>g</i>	
The fire body shall be constructed entirely of heavy-duty extruded aluminum.		
The fire body dimensions shall be 119" L x 96" W.		
The perimeter of the fire body shall be constructed of a custom heavy duty 5.0" x 3.0" 6061-T6 aluminum extrusion.		
The fire body cross members shall be constructed of heavy duty 2.0" x 3.0" 6061-T6 National Standard extruded aluminum channel.		
The extruded aluminum cross members shall be located on 16" centers.		
The fire body mounting sills shall be constructed of heavy duty 6.0" 6061-T6 National Standard extruded aluminum channel.		
A rubber isolation barrier shall be provided between the fire body extruded aluminum mounting sills and chassis' steel frame rails.		
There shall be .125" aluminum diamond plate covering the non-standing areas of the deck of the fire body.		
There shall be .125 embossed aluminum on all walking or standing areas of the deck.		
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Any Mention of Brand Name Shall be "or Equivalent"		BIDDER COMPLIES	
		YES	NO
The .125" aluminum diamond plate deck shall be stitch welded to the bottom side of the perimeter extrusions.			
Headache Rack:			
There shall be a headache rack located at the front of the fire body.			
The headache rack shall be constructed of heavy duty 3.0" x 2.0" 6061-T6 extruded aluminum tube.			
The headache rack shall have .125" aluminum diamond plate covering the bottom half on the front side and expanded aluminum on the top half.			
There shall be an approximate 60" W x 10" D aluminum plate light bar mounting platform located on top of the fire body headache rack.			
Walkway:			
There shall be step wells provided at the front corners of the fire body.			
The step wells shall be approximately 24" W x 24" D x 16" T with a step along the back wall.			
There shall be 44" T gates provided at the entrance to the step wells.			
The gates shall be held in the closed position by a pneumatic piston and have a positive stop as to not let the gate swing outward.			
The gates shall have a .125 aluminum diamond plate cover.			
Rear Apron:			
There shall be a 95" W x 12.0" D x .1875 smooth aluminum apron provided at the rear of the fire body.			
Tow Eyes:			
There shall be two (2) ¾" plate steel tow eyes protruding through the rear apron.			
Rear Receiver:			
There shall be a 2.0" receiver tube provided at the rear of the apparatus.			
The receiver tube shall be integrated into the fire body mounting sills.			
Rear Bumper:			
Rev. 1			

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
A heavy-duty steel bumper shall be supplied on the rear of the apparatus. This bumper shall be designed as to not interfere with the apparatus departure angle but allow for access to the fire body. An NFPA not slip surface shall be applied to the top of the rear step bumper.		
Compartmentation:	P	
L1 Compartment: There shall be one (1) compartment with one (1) lift up compartment door provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 58"L x 20"D x 30"H.		
R1 Compartment: There shall be one (1) compartment with two (2) lift up compartment doors provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 88"L x 20"D x 30"H.	P	
B1 Compartment: There shall be a 72" D x 30" W x 5.0" H long tool storage compartment provided.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The compartment shall be located between the fire body mounting sills, with the door opening facing the rear of the apparatus. The compartment door shall be constructed of .125" aluminum smooth plate and shall be horizontally hinged. Thumb latches shall be provided to open and close the door. Pre-Connect Tray: There shall be a 4"W x 96"L x 8"H transverse pre-connect hose tray located at the rear of the walkway. This tray shall be set on the floor. Skid Unit: The water tank, pump and plumbing shall be mounted on a heavy-duty poly frame to allow for the unit to be removed as a single unit. The skid unit shall be bolt directly through the bed to the apparatus frame utilizing heavy duty grade 8 bolts. Polypropylene Water Tank: A 500-gallon water tank shall be supplied and shall have a 4" overflow. The construction shall be of co-polymer polypropylene and shall be rectangular shaped. No Fiberglass! No Exception! The tank body and end bulkheads shall be constructed of 0.5" thick, polypropylene tested inside and out. The transverse and longitudinal swash partitions shall be interlocked and welded to each other as well as to the walls of the tank. The partitions shall be designed and equipped with vent holes to permit air and liquid movement between compartments. The 0.5" thick cover shall be recessed .375" from the top of the side walls. Hold down dowels shall extend through and be welded to both the covers and the transverse partitions, providing rigidity during filling operations. Drilled pegs for lifting eyes shall be provided in the top area of the water tank. The water fill tower shall be 0.5" thick polypropylene stock with a hinged lid and a removable polypropylene screen. The water fill tower shall be located on the front driver's side of the water tank. A sight glass shall be supplied on the rear driver's corner of the water tank, so the operator can see the lifeline of water remaining during pumping operations from the rear of the apparatus. Two (2) tank mounting tabs shall be provided. One shall be at the front and one at the rear to allow the tank to be fastened to the fire body.	f f f	
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The water tank shall have an overflow tube. The overflow tube shall exit below the body, ahead of the rear wheels.	<i>P</i>	
Fire Pump Plumbing System:		
The engine driven fire pump plumbing system shall be built completely of stainless-steel piping, stainless steel and/or brass fittings, and connections.		
Tank connections, front discharges, and other piping shall use high-pressure flexible piping. Flexible hose couplings shall be threaded stainless steel or Victaulic connections.		
Plumbing shall not be welded for ease of disassembly, no exceptions.	<i>P</i>	
Hose Threads:		
The hose threads shall be National Standard (NST) on all base threads on the apparatus intakes and discharges, unless otherwise specified.	<i>P</i>	
Intake and Discharge Valves:		
All valves used in the plumbing installation shall be stainless steel or brass quarter turn full flow type valves.	<i>P</i>	
Steel – Industrial valves shall not be used due to rusting.	<i>P</i>	
Hose Reel Discharge(s):		
One (1) 1" discharge shall be provided and piped to the redline hose reel with flexible high-pressure hose and a 1" Stainless steel valve or equivalent will be provided for this connection on manifold.	<i>P</i>	
Whipline Discharge(s):		
Two (2) whipline discharges shall be supplied and mounted in the walkway area of the apparatus. These discharges shall have a 90-degree swivel to allow firefighting operations to be conducted off the side of the apparatus.		
The whiplines shall be located with one (1) each side of the pump panel.	<i>P</i>	
Bumper Monitor Discharge(s):		
One 1.5" discharge shall be provided and plumbed to the front bumper monitor. This discharge shall be located at the rear of the skid unit.	<i>P</i>	
Pre-Connect Discharge(s):	<i>P</i>	

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
One (1) 1.5" valve shall be provided and plumbed to the pre-connect crosslay tray located on in the walkway of the apparatus bed. Plumbing for this unit shall run underneath the apparatus bed.	<i>P</i>	
Fire Pump to Water Tank bypass Line:		
A 1" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow quarter turn ball valve.		
A 1" piping and flex hose will be provided from valve to tank. The valve control shall be directly on the valve.	<i>P</i>	
Water Tank to Pump & Suction:		
A 2½" water tank to fire pump line shall be provided with a full flow 2½" quarter turn ball valve.		
Suction will be provided with a full flow 2½" quarter turn ball valve so that while pumping you can also be connecting to an additional water source.		
A 2½" chrome plug and chain will be provided at the rear for the suction.		
Manifold:	<i>P</i>	
A common 304 stainless steel manifold will be provided for all discharges.		
Fire Pump:	<i>P</i>	
A Hale HPX200-B23 pump shall be supplied and mounted to the rear of the skid unit.		
Performance	<i>P</i>	
The pump/engine shall be capable of meeting the NFPA 1906 performance rating of 50 GPM @ 150 PSI and 150 GPM @ 100 PSI. Typical pump performance from 5-foot draft at sea level shall be: 90 GPM @ 150 PSI, 170 GPM @ 100 PSI and 250 GPM @ 30 PSI.		
Pump	<i>P</i>	
The pump body shall be made of anodized alloy aluminum castings coupled together with a stainless-steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 300 PSI. The impeller shall be bronze. The renewable clearance rings shall be made of bronze to inhibit galvanic corrosion. The impeller shall be 8.75 inches (222.3 mm) in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Priming	<i>P</i>	
The pump shall be equipped with an exhaust venturi primer of brass and stainless-steel construction. The primer shall be capable of priming at 13 feet lift. The primer shall be actuated with a spring return, single control lever located at the operator's panel. The primer to pump line shall be equipped with an automatic check valve for priming from an open body of water and a manual shut -off for pumping from a pressurized water source.	<i>P</i>	
Suction/Discharge		
The suction and discharge ports shall be female pipe thread, designed and located to accept applicable hose thread adapters (3" NPT / 4" Victaulic Suction, 2.5" NPT Discharge flange).	<i>P</i>	
Engine		
The engine shall be a 4 cycle gasoline Briggs and Stratton Vanguard 386447 series V-Twin, overhead valve, air cooled design. Engine rating shall be 23 BHP at 3600 RPM. Engine displacement shall be 627cc and shall be designed to meet current CARB (California Air Resources Board) and EPA (Environmental Protection Agency) standards. A 12-volt electric system shall be provided with electric starter and a 16-amp alternator. Engine shall be equipped with a residential muffler with USDA approved spark arrestor.	<i>P</i>	
Pump Panel:		
A standard pump panel shall be supplied and located in the walkway of the apparatus. The pump panel shall be installed on a tilted pump panel for the ease of visibility.		
Pump Panel shall have the following controls:		
• Pump Panel Light switch • Start/Stop switch • Low oil pressure light • Pump pressure gauge • Idle control • Choke	<i>P</i>	
Fuel Tank:		
A heavy-duty aluminum 6-gallon fuel tank shall be supplied and mounted to the skid unit frame. The fuel tank shall have fuel level sight gauge and an overflow tube.	<i>P</i>	
Battery Supply:		
The skid unit of the apparatus shall have a heavy-duty separate battery supply to power the unit.		
The engine will include a 36-watt alternator to keep separate battery charged.	<i>P</i>	
Emergency Back-up:		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
An emergency back-up system that runs off the chassis electrical system shall be supplied that will assist in starting the skid unit in case of a battery failure.	<i>P</i>	
Pump Test:		
The skid unit shall be tested after all its associated piping and valves have been installed on the apparatus. The tests shall be conducted at the manufacturer's facility.	<i>P</i>	
Tank Level Gauge(s):	<i>P</i>	
Water Gauge:	<i>P</i>	
A lighted LED water tank level gauge will be provided on the pump panel for view of lifeline of water during nighttime operations.		
A mini lighted tank level gauge will be provided inside cab, so operator is able to view tank water levels from the safety of the cab.	<i>P</i>	
Skid Work Light:		
One (1) LED flood/spotlights shall be installed in accordance with customer requirements.		
Lights shall be 12v 20W low current draw lights and shall be mounted as follows:		
- One (1) on top of the water tank offset the rear, to illuminate the pump and plumbing. This shall be controlled by a single switch on the pump panel.		
Features:		
• 10- and 60-degree spot and flood • 2,112 Lumen output ea. • Black, cast-aluminum housing • Lifetime Warranty		
<u>Bumper Monitor:</u>	<i>P</i>	
The adjustable 30, 60, 90 or 125 GPM rated monitor is to be an all-electric single waterway monitor constructed of lightweight Pyrolite. The monitor shall have cast-in turning vanes in each elbow.		
The monitor shall have fully enclosed motors and gears with manual overrides for both horizontal and vertical rotation and may be operated simultaneously. The monitor is not to exceed 13 3/16" high and 11 9/16" wide. The vertical travel shall be from 45° below to 90° above horizontal with adjustable stops at -20° and +45°. The horizontal rotation shall be 320° with adjustable stops at 90°.		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The control system electronics shall be integrated with the monitor wiring harness. The control system shall use sealed, locking connectors for the monitor and nozzle motors. Two additional sealed, locking connectors shall be supplied for input power/electric valve control and J1939 CAN bus interface. A sealed USB connector shall be provided for updating control system firmware. All electrical connectors shall be minimum IP65 rated. The operator interface shall consist of a CAN bus compatible joystick which will provide up, down, right, left, fog, and stream control of the monitor. The joystick shall have a trigger switch to control an optional electric discharge valve. The monitor shall include a 5' long power/valve harness and 20' long CAN joystick harness.		
<u>Hose Reel(s):</u>	P	
Booster Hose Reel:	P	
One (1) Hannay hose reel, model EF-16.5-17-18-RT with electric rewind shall be provided with a single mounted roller and spool assembly and a brake to adjust tension on the spool. The hose reel shall be mounted on the Driver's side of the apparatus bed, with the capability to pull off the rear of the apparatus.		
Hose Reel Electric Rewind:	P	
Two (2) electric rewind push buttons will be installed. The electric rewind controls shall be a weather-resistant enclosed momentary push button switch. Switches shall be installed as follows: One (1) switch at each hose reel location.		
<u>Hose:</u>	P	
Booster Hose:	P	
100' of 1" booster hose shall be provided for the booster hose reel.	P	
Whipline Hose:	P	
Two (2) sections of 8' x 1" red 800 psi booster line shall be provided.	P	
Pre-Connected Hose:	P	
100' of 1.5" double jacket pre-connected hose shall be provided for the pre-connect discharge.		
<u>Electrical System:</u>	P	
Low Voltage Electrical System Specifications		
Rev. 1		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The following specifications describe the low voltage electrical system on the specified brush truck type fire apparatus. The electrical system shall include all panels, electrical components, switches, and relays, wiring harnesses and other electrical components. All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be run in a loom with a minimum 289-degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction. The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels. All connections shall be crimp-type to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system. Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in an electrical junction box or covered with a removable electrical panel or wire loom. The wiring shall be secured in place and protected against heat, liquid contaminants, and damage. The electrical system shall include the following: A) The electrical wiring shall be harnessed or be placed in a protective loom. B) No holes shall be made in the roof of chassis, unless approved by end user. C) Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it. Breaker: A 100-amp breaker shall be supplied and located near the master disconnect switch that will prevent potential upfitter electrical issues from affecting chassis battery system. Electronic Siren:	<i>[Handwritten mark]</i>	<i>[Handwritten mark]</i>

Rev. 1

14

Any Mention of Brand Name Shall be "or Equivalent"		BIDDER COMPLIES	
		YES	NO
One (1) Carson 409 Commander full function electronic siren shall be mounted in the cab console. The siren shall have the following features: electronic air horn, siren tones, radio rebroadcast, P.A. and shall have a hard-wired microphone. Features: • 100/200-Watt SAE J1849 and Class A output • Internal programmable siren functions • Four Position progressive slide switch • Six backlit and rubberized relay push-button switches • Scrolling TAP II intersection clearing feature Speaker: One (1) Federal Signal ES100, 100-watt speaker shall be mounted behind the front of the chassis bumper or grille. The speaker shall be wired to the electronic siren located in the cab. Features: • Neo-driver for increased dependability • 100-Watt high output power • Sound output meets SAE J1849 and Class A • Impedance of 11 ohms Back-up Alarm: An automatic electric 97 dB back-up alarm shall be wired to activate when the transmission is placed into reverse. The alarm shall be mounted under the rear of the apparatus body. Radio: A power cable shall be provided in the cab console for the two (2) 800 Mhz radios. Radio Faceplates shall be provided and installed. Antenna: Antenna wiring with mounting "L" bracket shall be supplied and ran to the driver's side light bar mounting platform. The Antenna shall be customer supplied. Communication System: A wireless Setcom communication system with two (2) under the helmet wireless headsets, digital intercom with interface cable and base station shall be installed in the cab console. Lighting: Compartment Light(s):		f f f f f f f	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Each compartment shall be provided with two (2) LED vertically mounted lights.		
The compartment lights shall be installed one (1) on each side of the compartment door opening with the light actuation with the door opening.		
License Plate Light:		
A license plate light and bracket shall be supplied and mounted to the rear of the apparatus.		
Switch(es):		
Master Disconnect Switch:		
A battery disconnect switch shall be located on the front face of the console offset to the driver of the apparatus. The switch shall disconnect the upfitter conversion from the 12-volt battery system.		
Camera System(s):		
Rear View Camera:		
A rearview camera system shall be supplied.		
The screen shall be a windshield-mounted rearview mirror with an integrated 7" LCD monitor that displays the rear-view image when the apparatus is shifted into reverse. The monitor shall automatically adjust in day and night modes and shall have a resolution of 800*480 pixels.		
The camera shall be a high-mounted, wide-angle look-down camera with 150-degree visibility and night vision capabilities.		
Thermal Imaging Camera:		
A vehicle mounted driver vision enhancement thermal imaging camera shall be supplied and mounted to the apparatus. The camera shall allow for thermal imaging to be routed through the review mirror monitor. Camera shall be mounted to the headache rack.		
Features:		
• 56 deg- horizontal field of view • Made of stainless-steel construction • Provides NTSC video		
Door Ajar:		
Each compartment light shall be controlled by a magnetic "On-Off" switch located on each compartment door.		

Rev. 1

16

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The magnetic switch shall control a door ajar light located inside the cab.	<i>P</i>	
Emergency Lighting: The warning lights shall be switched in the chassis cab with labeled switching in the cab console. A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and call for the right of way. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator and passenger.	<i>P</i>	
Upper Warning Lights:	<i>P</i>	
Light Bar: A TOMAR 970L Scorpion 53" Red/Blue LED low profile light bar shall be supplied. The light bar shall have clear lenses to the front and to the rear and will be mounted on the headache rack mounting platform.		
Features: • NFPA 1901 Compliant • Variety of selectable flash patterns • Hermetically sealed	<i>P</i>	
Lower Warning Lights: Fourteen (14) Tomar RECT-14 LED Warning lights shall be provided. These warning lights have eleven (11) different flash patterns to customize to department specifications. Warning Lights shall be installed as follows: • Four (4) Red/Blue LEDs on the front grille guard with Two (2) each side • Two (2) Red/Blue LEDs on apparatus chassis with one (1) each side above the front wheel well area. • Four (4) Red/Blue on the apparatus body: with Two (2) each side: One (1) offset as forward as possible and one (1) offset rearward as possible. • Four (4) Red/Blue LEDs on the rear of the apparatus with Two (2) each side		
Features: • Four (4) Ultra-High intensity LEDs • Multiple selectable flash patterns • Made of optical Lexan and hermetically sealed • Meets SAE J845, SAE J595 and CAL Title 13 • Five-year manufacturer's warranty.	<i>S</i>	
Scene Lighting:		

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Flood Light(s): One (1) 75-watt 15 LED High Intensity 20" single row light bar shall be supplied. The flood lights shall be provided at the following locations: One (1) mounted on the front bumper on the upper section of the bumper.	P	
Features: 7290 Lumens - Flood pattern - Lifetime Warranty - Durable aluminum extrusion housing	P	
D.O.T Lighting: The 12-volt lighting on the brush truck body shall conform to FMVSS 108 standards. All DOT lighting shall be LED type.	P	
Clearance: There shall be a minimum of five (5) red clearance lights on the rear of the truck (three (3) in the rear center and one on each outside corner of the rear apparatus bed). One (1) red clearance light shall be on each side rear corner and one (1) amber clearance light on each front side corner.	P	
Signal, Brake and Reverse: The rear shall also contain a minimum of two (2) each Stop/Turn/Taillights and two (2) clear reverse lights. These lights shall be oval, flush mounted lights.	P	
<u>Label(s):</u> Fastened labels shall be supplied and mounted in accordance with their function: On each walkway entrance door shall have a label that states "All personnel must be seated in cab with seatbelt fastened while vehicle is in motion. Riding elsewhere may cause serious injury or death" All appropriate switches inside the cab shall be properly labeled with their function. All appropriate valves on the pump panel shall have a corresponding function label.	P	
<u>Loose Equipment:</u> The following loose equipment shall be supplied with the apparatus:	P	

Any Mention of Brand Name Shall be "or Equivalent"		BIDDER COMPLIES	
		YES	NO
Nozzle(s):		<i>P</i>	
1" Nozzle:		<i>P</i>	
Three (3) Crestar SF-40 select flow nozzles with pistol grip handles and bell shut off shall be supplied.			
Features:			
• Selectable gallonage nozzle with multiple flow settings • Stainless steel spinning teeth • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant			
1.5" Nozzle:		<i>P</i>	
One (1) Crestar SF-125 select flow nozzle with pistol grip handles and bell shut off shall be supplied.			
Features:			
• Selectable gallonage nozzle with multiple flow settings • Stainless steel spinning teeth • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant			
<u>Scotchlite Striping & Lettering:</u>		<i>P</i>	
Cab and Body:		<i>P</i>	
The apparatus cab and body shall be provided with Scotchlite striping and installed to department's requirements. Color to be determined at prebuild meeting.			
Lettering:		<i>P</i>	
Scotchlite lettering with shading will be installed to department requirements and colors to be determined at prebuild meeting.			
Rear Body:		<i>P</i>	
Chevron "A" style Scotchlite striping shall be provided on rear of body (outboard rearward facing smooth plate panels of the rear apron).			
The colors shall be Yellow/ Red diamond grade.			
Rev. 1			

Any Mention of Brand Name Shall be "or Equivalent"		BIDDER COMPLIES	
		YES	NO
<u>Apparatus Paint:</u>		✓	
Cab and Chassis:		✓	
The apparatus cab and chassis shall be painted in accordance with the policies with the chassis manufacturer with all applicable warranties. The color of the cab shall be Ford Red.			
Apparatus Body:		✓	
The apparatus body shall be made of aluminum and shall not be painted.			
<u>Warranty:</u>		✓	
1 Year Standard Warranty:		✓	
The apparatus manufacturer shall provide a full 1-year standard warranty. All components manufactured by the apparatus manufacturer shall be covered against defects in materials or workmanship for a 1-year period. All components covered by separate suppliers such as engines, transmissions, tires, and batteries shall maintain the warranty as provided by the component supplier. A copy of the warranty document shall be provided with the proposal. No Exceptions			
2 Year Pump Warranty:		✓	
Pump manufacturer shall warranty products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of two years or 2000 hours of usage, whichever comes first. Products used for rental or contracting purposes are warranted for a period of six months or 2000 hours of usage, whichever comes first. This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence, or accident, and is not altered, treated, or repaired by someone other than pump manufacturer or its designee. A copy of the warranty document shall be provided with the proposal. No Exceptions			
10 Year 100,000 Mile Structural Warranty:		✓	
The apparatus manufacturer shall provide a comprehensive 10 year/100,000-mile structural warranty. This warranty shall cover all structural components of the cab and/or body manufactured by the apparatus manufacturer against defects in materials or workmanship for 10 years or 100,000 miles, whichever occurs first. Excluded from this warranty are all hardware, mechanical items, electrical items, or paint finishes. A copy of the warranty document shall be provided with the proposal. No Exceptions			
10 Year Stainless Steel Plumbing Warranty:		✓	
The apparatus manufacturer shall provide a full 10-year stainless steel plumbing components warranty. This warranty shall cover defects in materials or workmanship of apparatus			

Rev. 1

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
manufacturer designed foam/water plumbing system stainless steel components for 10 years. A copy of the warranty document shall be provided with the proposal. No Exceptions 3 Year Graphics Warranty: The apparatus manufacturer shall provide a full 3-Graphics warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's graphic components for 3 years. A copy of the warranty document shall be provided with the proposal. No Exceptions 5 Year Electrical Warranty: The apparatus manufacturer shall provide a full 5 year-electrical warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's electrical components for 5 years. A copy of the warranty document shall be provided with the proposal. No Exceptions Lifetime Polypropylene Tank Warranty: The tank manufacturer warranties that tanks will be free from defects in materials and workmanship for a period equal to the service life of the original vehicle on which tank was installed. Original vehicle must be in active fire suppression for warranty to be in full effect. A copy of the warranty document shall be provided with the proposal. No Exceptions.	✓ ✓ ✓	
Rev. 1	21	

MISCELLANEOUS INFORMATION

A Notice to Proceed letter will need to be issued after all contract, bonds, insurance and other requirements have been met by the vendor/contractor.

Requirements for samples of products (Submittals) may be required in the bid specifications. If used it is recommend you place a requirement that the submittals be provided within x-number of days after the project is awarded.

Liquidated Damages may also be included in the bid specifications. This is the number of calendar days or work days (Monday-Friday) that the contractor has to complete the project. If this is added then there will need to be a dollar amount to be charged to the contractor for each day over the contract time. This amount is charged in the form of a penalty with adjustments made for weather days or other delays that could not be foreseen.

A pre-bid conference may be added to the bid specifications. This meeting may be mandatory or not. If mandatory only bidders that sign in at the meeting will be eligible to bid on the project.

The award letter should include a requirement for the contract, bonds and insurance to be executed and returned within 10-days

A pre-work conference may be required as part of the bid award letter. This conference would be held prior to the work starting so that everyone is clear on the work or special conditions to be followed.

The vendor or contractor may request a Tax Exempt Letter. This letter will be issued by the Clerk if the project is eligible.

A Maintenance Bond is required on all projects over \$50,000 to cover a 1-year period after the project is accepted as complete by the City Council. This period may be extended if a longer period is included in the bid specifications. This requirement may also be added to any construction project even if it is under \$50,000. This insures that the contract maintained the work for the specified time period.

Change Orders may be issued after the contract has been awarded. Change orders in most cases must be approved by the City Council and are restricted to 15% of the bid amount for projects under \$1,000,000 and over that amount it is restricted to the greater of \$150,000 or 10% of the original contract amount.

In most cases Support Service can supply copies of the bid specification used for previously bid items. If a consultant is used they should know the requirements; however, you should still complete the appropriate Check List to track the documentation to make sure the bid file is complete and ready for audit review.

INVITATION TO BID

MAIL SEALED BIDS TO:	CITY OF CHICKASHA
	CITY CLERK
	117 NORTH 4 TH STREET
	CHICKASHA, OKLAHOMA 73018

DATE BID TYPED: 12/12/22	BID NO: RFP-BP2202	TITLE: Wildlands Apparatus (Brush Pumper)
NO BIDS WILL BE ACCEPTED AFTER:		CONTRACT PERIOD

VENDORS NAME: Banner Fire Equipment			REASON FOR NO BID:		
MAILING ADDRESS: 927 South 4th Street			TERMS: See Bid Proposal Page		
CITY: Chickasha	STATE: OK	ZIP: 73018	DELIVERY: 510-530 days after receipt of order		
AREA CODE: 405	TELEPHONE NO. 224-2596	FAX NO.	FEDERAL EMPLOYER IDENTIFICATION NO. OR SOCIAL SECURITY NO. 37-1202645		
E-MAIL ADDRESS: shane@bannerfire.com					

NON-COLLUSION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF Oklahoma COUNTY OF Canadian

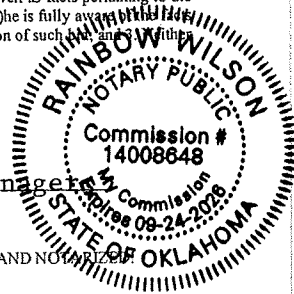
Shane Floyd of lawful age, being first duly sworn on oath, says that 1. (s)he is the duly authorized agent of the above bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and city officials or employees, as well as facts pertaining to the giving or offering of things of value to city personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached. 2. (s)he is fully aware of the law and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid and is not the bidder nor anyone subject to the bidder's direction or control has been a party:

- to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
- to any collusion with any city official or employee as to quantity, quality or price in the prospective contract, nor
- in any discussions between bidders and any city official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Subscribed and sworn to before me this 12 day of December, 2022
[Signature]
Notary My Commission Expires: 9-24-26

[Signature] - General Manager
Bidder

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED



BUSINESS RELATION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF Oklahoma COUNTY OF Canadian

Shane Floyd of lawful age, being first duly sworn on oath, says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:
Non-Exists

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding with any officer or director of the architectural or engineering firm or other party to the project is as follows:
Non-Exists

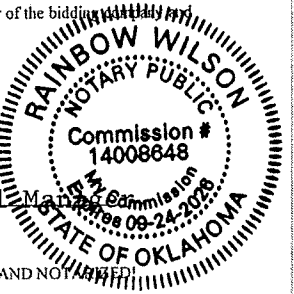
Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

Non-Exists
(If none of the business relationships herein above mentioned exist; Affiant should so state).

Subscribed and sworn to before me this 12 day of December, 2022
[Signature]
Notary My Commission Expires: 9-24-26

[Signature] - General Manager
Bidder

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED



SEALED BIDS: All sheets bid on and this form must be executed and submitted in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE BID PER ENVELOPE). The face of the envelope shall contain, in addition to the mailing address, the words "SEALED BID" the date of the bid opening and the contract number. Bids submitted in Federal Express or other specialized delivery envelopes shall be enclosed in a separate envelope marked as indicated above. Bids not submitted in properly marked envelopes or on the attached bid form shall be rejected. In the case of "No Bid" the vendor shall return the "Invitation to Bid" with the "Reason for No Bid" properly filled in, to remain on the City of Chickasha's active vendor/contractor list

EXECUTION OF BID: Bid must contain an original signature of an authorized representative in the space provided. Bids must be typed or printed in ink. Use of erasable ink is not permitted. ALL CORRECTIONS MADE BY BIDDER TO HIS BID MUST BE INITIALED.

BID OPENING: It is bidder's responsibility to assure that his bid is delivered at the proper time and place of the bid opening. Bids which for any reason are not so delivered, will not be considered. Offers by telegram or telephone are not acceptable. NOTE: Bid files may be examined during normal working hours by appointment. Bid tabulations WILL NOT be provided by telephone.
MISTAKES: Bidders are expected to examine the specifications, delivery schedule, bid prices and all instructions pertaining to supplies and services. Failure to do so will be at bidder's risk. In case of mistake in extension, the unit price will govern.

INVOICING AND PAYMENT: The vendor shall be paid upon submission of proper certified invoices to the City of Chickasha at the prices stipulated on the contract. Invoices shall contain the contract number and purchase order number. Failure to follow these instructions may result in delay of processing invoices for payment.

WAIVER: City of Chickasha reserves the right to waive any general provision, special provision or minor specification deviation when considered to be in the best interest of the City of Chickasha. Any bid received by the awarding public agency or an officer or employee thereof, more than ninety-six (96) hours excluding Saturdays, Sundays and holidays before the time set for the opening of bids, or any bid so received after the time set for opening of bids, shall not be considered by the awarding public agency and shall be returned unopened to the bidder submitting same.

INVOICE AFFIDAVIT

Any invoice submitted to the City of Chickasha for more than \$ 1,000.00 shall have a copy of this statement attached before payment will be made.

STATE OF _____)
) S.S.
COUNTY OF _____)

The undersigned _____, of lawful age being
(Contractor, Supplier or Engineer)

first duly sworn, on oath says that this invoice or claim is true and correct.

Affidavit further states that the _____ as shown
(work services or materials)
by this invoice or claim have been _____ in accordance
(completed or supplied)

with the plans, specifications, orders or request furnished the affidavit. Affiant further states that he/she has made no payment directly or indirectly to any elected official, officer or employee of the State of Oklahoma, any County or Local Subdivision of the State, of money or any other thing of value to obtain payment.

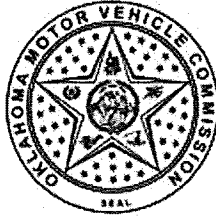
(Contractor, Supplier or Engineer)

Subscribed and sworn to me before this _____ day of _____ 20____.

Notary

My commission expires: _____

OKLAHOMA MOTOR VEHICLE COMMISSION



Certificate of License

692

THE OKLAHOMA MOTOR VEHICLE COMMISSION
has licensed

Banner Fire Equipment, Inc. dba
BANNER FIRE EQUIPMENT
927 S. 4TH ST
CHICKASHA, OKLAHOMA 73018

AS AN AUTHORIZED
Distributor

And is responsible for the management of its operations and
personnel as provided by the laws of the State of Oklahoma.

IN TESTIMONY WHEREOF WE SET OUR HAND AND CAUSE TO BE AFFIXED

THE SEAL OF THE

OKLAHOMA MOTOR VEHICLE COMMISSION

Carol Camer
Chairperson

Brad Bailey
Executive Director

Issue Date: 06/07/2022

Expires: 06/30/2023

OKLAHOMA MOTOR VEHICLE COMMISSION

This Certifies that the following is
duly licensed by this Commission as a

MOTOR VEHICLE REPRESENTATIVE

SHANE R. FLOYD

**Director of Apparatus Sales
BANNER FIRE EQUIPMENT**

Lic# 1743

Expires: 06/30/2023

Brad Bailey

Executive Director

Emergency Vehicle Technician Certification Commission, Inc.



Joe Houtz

is certified in the areas listed below:

Maintenance, Inspection, & Testing of Fire Apparatus

Fire Apparatus Electrical Systems

Expires:

10/14/2027

10/14/2027

Kevin Roberts, President

WARRANTY POLICY

Hale Products, Inc., herein referred to as "Hale", warrants products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of two years or 2000 hours of usage, whichever comes first. Products used for rental or contracting purposes are warranted for a period of six months or 2000 hours of usage, whichever comes first. This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence or accident, and is not altered, treated or repaired by someone other than Hale or its designee. Items not manufactured by Hale shall bear only the limited warranties offered by their respective manufacturers.

The exclusive remedy for breach of this warranty shall be to give Hale written notice thereof and to request a Returned Goods Authorization. Upon receipt of the Returned Goods Authorization, the buyer will return the non-conforming material to Hale F.O.B. its plant within thirty days after the buyer has received the Returned Goods Authorization. Thereupon Hale at its own election shall repair or replace the same or repay the price thereof. No proximate, incidental, consequential or other damages shall be recoverable.

Hale shall not be liable for consequential damages or contingent liabilities including; but not limited to, loss of life, personal injury, loss of crops, loss due to fire or water property damage, and consequential trade or other commercial loss arising out of the failure of Manufacturer's product.

HALE MAKES NO WARRANTIES OF FREEDOM FROM PATENT INFRINGEMENT, OF MERCHANTABILITY, OF FITNESS FOR A PARTICULAR PURPOSE OR ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE OR OTHER LIKE OR DIFFERENT EXPRESS OR IMPLIED WARRANTIES EXCEPT AS MADE ABOVE.



**BULLSEYE PRECISION DESIGN
AND FABRICATING**

15381 NORTH COUNTY ROAD 3213
PAULS VALLEY, OK 73075

JAMES CAPERS
PHONE: 405-444-1517
PHONE: 405-444-0204

Lifetime Warranty Fire Apparatus Tanks

1. Bullseye Precision Design and Fabricating, herein referred to as the Seller, warrants that tanks manufactured by Seller will be free from defects in materials and workmanship for the period of the time equal to the service life of the original vehicle on which the tank was originally installed. Original vehicle must be in active fire suppression service for the warranty to be in full effect.
2. Seller's obligation under this warranty is solely limited to repairing and or replacing, at Seller's discretion, F.O.B. manufacturing plant, tanks manufactured by seller found to be defective. Seller is not liable for incidental or consequential damage including loss of profit, or any other type of damage which may be caused in whole or part by any failure, defect or any other problem of the tanks manufactured by the Seller. Alteration made to the tanks without approval will void warranty.
3. This warranty does not apply to tanks damaged by misuse, neglect, accident or improper installation. User will be responsible for the cost to repair tank found to be not caused by defect. Reasonable costs to remove and or reinstall defective product must be agreed upon by both parties prior to beginning repair and will be paid by Seller.
4. Seller makes no other warranties expressed or implied.
5. Notify Seller by calling (405)-444-1517 or (405)-444-0204 as defect is discovered so that repair procedure can be expedited. Please include photographs, contact number and name, and any other pertinent information.



1 YEAR STANDARD WARRANTY

Banner Fire Equipment Inc. (the "Company") warrants each new item of fire and rescue apparatus manufactured by it against defects in material and workmanship provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original user-purchaser for a period of one year from the date of delivery to the original user-purchaser. Banner Fire Equipment Inc. 's obligation under this warranty is strictly limited to replacing or repairing, as the Company may elect, any part or parts of such apparatus which the Company's examination discloses to be defective in material or workmanship.

The Company reserves the right to require any such repairs to be made either at a Company owned service facility or another approved service facility at the Company's option. Transportation cost to and from the servicing location is the responsibility of the user-purchaser.

The Banner Fire Equipment Inc. warranty shall not apply to:

1. Major components or trade accessories such as purchased chassis, engines, transmissions, tires, pumps, signaling devices, or batteries that have a separate warranty by the original manufacturer or to ancillary equipment used in firefighting.
2. Normal adjustments and maintenance services.
3. Replacement of consumable parts including, but not limited to; filters, lubricants, belts, light bulbs, wiper blades, brake linings and brake pads.
4. Failure resulting from the apparatus being operated in a manner or for a purpose not recommended by Banner Fire Equipment Inc.
5. Any apparatus, which shall have been repaired, modified or altered in any way so as, in the Company's sole judgment, to have adversely affected the unit's stability or reliability.
6. Items subjected to misuse, negligence, accident or improper maintenance.
7. Loss of time or use of the vehicle, inconvenience or other incidental expenses.

Nothing contained in this warranty shall make Banner Fire Equipment Inc. liable beyond the express limitations hereof, for loss, injury or damage of any kind to any person or entity resulting from any defect or failure in this vehicle.

To the extent permitted by law, THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

To the extent permitted by law, this warranty is also in lieu of all other obligations or liabilities on the part of Banner Fire Equipment Inc. or the Seller, including liability for incidental and consequential damages.

Banner Fire Equipment Inc. makes no representation that the vehicle has the capacity to perform any functions other than as contained in the Company's written literature, catalogs or specifications accompanying delivery of the vehicle.

No person or affiliated Company representative is authorized to give any other warranties or to assume any other liability on behalf of Banner Fire Equipment Inc. in connection with sale, service or repair of any apparatus manufactured by the Company.

Banner Fire Equipment Inc. reserves the right to make design changes or improvements in its products without imposing any obligation upon itself to change or improve previously manufactured products.

Whenever a performance bond is required under a contract or purchase order, coverage under the performance bond shall only extend for one year from the delivery date of the equipment. This limitation under the performance bond shall not affect any extended warranties offered by Banner Fire Equipment Inc. or any OEM's.



THREE (3) YEAR MATERIAL AND WORKMANSHIP

Banner Fire Equipment Inc. (the "Company") warrants the graphics installed by the company against defects in material and workmanship provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original user-purchaser for a period of three years from the date of delivery to the original user-purchaser. Banner Fire Equipment Inc. 's obligation under this warranty is strictly limited to replacing or repairing, as the Company may elect, any part or parts of gold leaf lamination which the Company's examination discloses to be defective in material or workmanship.

The Company reserves the right to require any such repairs to be made either at a Company owned service facility or another approved service facility at the Company's option. Transportation cost to and from the servicing location is the responsibility of the user-purchaser.

The Banner Fire Equipment Inc. warranty shall not apply to:

1. Any products deemed by the company to not be a defect of material or workmanship.
2. Normal adjustments and maintenance services.
3. Defects that have been determined to be caused by normal wear and tear within the standards of operation in the fire industry.
4. Defects which has been caused by weather, acts of God, or improper usages and maintenance by the end-user.
5. Items subjected to misuse, negligence, accident or improper maintenance.
6. Loss of time or use of the vehicle, inconvenience or other incidental expenses.

Nothing contained in this warranty shall make Banner Fire Equipment Inc. liable beyond the express limitations hereof, for loss, injury or damage of any kind to any person or entity resulting from any defect or failure in this vehicle.

To the extent permitted by law, THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUR LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

To the extent permitted by law, this warranty is also in lieu of all other obligations or liabilities on the part of Banner Fire Equipment Inc. or the Seller, including liability for incidental and consequential damages.

Toll Free Out of State....1-800-654-4060

Toll Free in Oklahoma....1-800-522-4206

Banner Fire Equipment Inc. makes no representation that the vehicle has the capacity to perform any functions other than as contained in the Company's written literature, catalogs or specifications accompanying delivery of the vehicle.

No person or affiliated Company representative is authorized to give any other warranties or to assume any other liability on behalf of Banner Fire Equipment Inc. in connection with sale, service or repair of any apparatus manufactured by the Company.

Banner Fire Equipment Inc. reserves the right to make design changes or improvements in its products without imposing any obligation upon itself to change or improve previously manufactured products.

Whenever a performance bond is required under a contract or purchase order, coverage under the performance bond shall only extend for one year from the delivery date of the equipment. This limitation under the performance bond shall not affect any extended warranties offered by Banner Fire Equipment Inc. or any OEM's.



5 YEAR ELECTRICAL WARRANTY

Banner Fire Equipment Inc. (the "Company") warrants each new item of fire and rescue apparatus manufactured by it against electrical defects in material and workmanship provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original user-purchaser for a period of five years from the date of delivery to the original user-purchaser. Banner Fire Equipment Inc. 's obligation under this warranty is strictly limited to replacing or repairing, as the Company may elect, any part or parts of such apparatus which the Company's examination discloses to be defective in material or workmanship.

The Company reserves the right to require any such repairs to be made either at a Company owned service facility or another approved service facility at the Company's option. Transportation cost to and from the servicing location is the responsibility of the user-purchaser.

The Banner Fire Equipment Inc. warranty shall not apply to:

1. Major components or trade accessories such as purchased chassis, engines, transmissions, tires, pumps, signaling devices, or batteries that have a separate warranty by the original manufacturer or to ancillary equipment used in firefighting.
2. Normal adjustments and maintenance services.
3. Replacement of consumable parts including, but not limited to; filters, lubricants, belts, light bulbs, wiper blades, brake linings and brake pads.
4. Failure resulting from the apparatus being operated in a manner or for a purpose not recommended by Banner Fire Equipment Inc.
5. Any apparatus, which shall have been repaired, modified or altered in any way so as, in the Company's sole judgment, to have adversely affected the unit's stability or reliability.
6. Items subjected to misuse, negligence, accident or improper maintenance.
7. Loss of time or use of the vehicle, inconvenience or other incidental expenses.

Nothing contained in this warranty shall make Banner Fire Equipment Inc. liable beyond the express limitations hereof, for loss, injury or damage of any kind to any person or entity resulting from any defect or failure in this vehicle.

To the extent permitted by law, THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

To the extent permitted by law, this warranty is also in lieu of all other obligations or liabilities on the part of Banner Fire Equipment Inc. or the Seller, including liability for incidental and consequential damages.

Banner Fire Equipment Inc. makes no representation that the vehicle has the capacity to perform any functions other than as contained in the Company's written literature, catalogs or specifications accompanying delivery of the vehicle.

No person or affiliated Company representative is authorized to give any other warranties or to assume any other liability on behalf of Banner Fire Equipment Inc. in connection with sale, service or repair of any apparatus manufactured by the Company.

Banner Fire Equipment Inc. reserves the right to make design changes or improvements in its products without imposing any obligation upon itself to change or improve previously manufactured products.

Whenever a performance bond is required under a contract or purchase order, coverage under the performance bond shall only extend for one year from the delivery date of the equipment. This limitation under the performance bond shall not affect any extended warranties offered by Banner Fire Equipment Inc. or any OEM's.



STATEMENT OF WARRANTY STAINLESS STEEL PLUMBING COMPONENTS 10 YEAR WARRANTY POLICY

BANNER FIRE EQUIPMENT INC. (the "Company") warrants all BANNER FIRE EQUIPMENT INC. 's manufactured stainless steel plumbing components used in the construction of BANNER FIRE EQUIPMENT INC. fire apparatus water/foam plumbing systems against defects and workmanship provided the apparatus is used in a normal and reasonable manner. This warranty is extended to the original user-purchaser for a period of ten years from the date of delivery to the original user-purchaser, whichever occurs first.

The Company reserves the right to require any such repairs to be made either at a Company owned service facility or another approved service facility at the Company's option. Transportation cost to and from the servicing location is the responsibility of the user-purchaser.

BANNER FIRE EQUIPMENT INC. will repair, or replace the specific BANNER FIRE EQUIPMENT INC. manufactured stainless steel plumbing component, at our option, with a new BANNER FIRE EQUIPMENT INC. manufactured stainless steel plumbing component. BANNER FIRE EQUIPMENT INC. will cover all customary and reasonable costs to remove and install the BANNER FIRE EQUIPMENT INC. manufactured stainless steel plumbing component.

This warranty will not cover components that have been misused or abused, or due to accident or natural disaster. BANNER FIRE EQUIPMENT INC. will not cover any unauthorized third party repairs or alterations. Any of these actions may void the warranty.

Nothing contained in this warranty shall make BANNER FIRE EQUIPMENT INC. liable beyond the express limitations hereof, for loss, injury or damage of any kind to any person or entity resulting from any defect or failure in the BANNER FIRE EQUIPMENT INC. manufactured stainless steel plumbing components.

To the extent permitted by law, THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Toll Free Out of State....1-800-654-4060

Toll Free in Oklahoma....1-800-522-4206

To the extent permitted by law, this warranty is also in lieu of all other obligations or liabilities on the part of BANNER FIRE EQUIPMENT INC. or the Seller, including liability for incidental and consequential damages.

BANNER FIRE EQUIPMENT INC. makes no representation that the BANNER FIRE EQUIPMENT INC. manufactured stainless steel plumbing components have the capacity to perform any functions other than as contained in the Company's written literature, catalogs or specifications accompanying delivery of the apparatus.

No person or affiliated Company representative is authorized to give any other warranties or to assume any other liability on behalf of BANNER FIRE EQUIPMENT INC. in connection with sale, service or repair of any apparatus manufactured by the Company.

BANNER FIRE EQUIPMENT INC. reserves the right to make design changes or improvements in its products without imposing any obligation upon itself to change or improve previously manufactured products.



STATEMENT OF WARRANTY
10 YEAR/ 100,000 MILE
STRUCTURAL WARRANTY

The Statement of Warranty ensures the original user-purchaser that any Banner Fire Equipment Inc. body is, and will remain, free of structural defects, provided they are used in a normal and reasonable manner. The body is defined as modular structure, fabricated with aluminum extrusion and plate. Excluded is all hardware, mechanical items, electrical items or paint finishes. Structural componentry is defined as the body supports and mountings as identified in Banner Fire Equipment Inc. specifications.

The Statement of Warranty is strictly limited to the repairing or replacing, as Banner Fire Equipment Inc. (the "Company") may elect any parts or parts of such apparatus which the company's examination discloses to be defective in material or workmanship.

The Statement of Warranty shall extend for a period of 10 years / 100,000 miles from delivery date to the original user-purchaser. Banner Fire Equipment Inc. reserves the right to require any such repairs to be made either at the company owned service facility or another approved service facility at the company's option. Transportation cost to and from the servicing location is the responsibility of the user-purchaser.

The Statement of Warranty shall not cover the following:

1. Damage caused by fire, misuse, negligence, or accident.
2. Damage caused by theft, vandalism, riot or explosion.
3. Damage caused by lighting, earthquake, windstorm, hail, water or flood.
4. Any body, which has been repaired, modified or altered without Banner Fire Equipment Inc. authorization.
5. Damage caused from exposure to road de-icing compounds or use in an acidic environment.
6. Damage from lack of maintenance and cleaning.
7. Loss of time, loss of use of the product, inconvenience, lodging, food, or other consequential loss that may result from failure.

Nothing contained, or implied in the Statement of Warranty shall make Banner Fire Equipment Inc. liable beyond the express limitations hereof, for loss, injury or damage of any kind to any person or entity resulting from any defect or failure in the body.

Banner Fire Equipment Inc. reserves the right to make design changes or improvements in its products without imposing any obligations upon itself to change or improve previously built products.

Phone 405-224-2596 ° Post Office Box 1214 ° 927 South Fourth ° Chickasha, Oklahoma 73023 i

Request for Proposal --- RFP BP-2201

2022 Chickasha Fire Department

Wildland Apparatus (Brush Pumper)

Advertise Dates: **November 17, 24 2022**

December 1, 8 2022

The City of Chickasha, Oklahoma is accepting sealed proposals for a new wildland apparatus/brush pumper for the Chickasha Fire Department.

The project consists of designing and building of a new wildland apparatus for the Chickasha Fire Department.

Bids shall be made in accordance with this Invitation for Bids and the Bidding Documents.

Bidding documents can be obtained via email from the Fire Chief or City Clerk.

(Tony.samaniego@chickasha.org, Susan.mcdaniel@chickasha.org)

Sealed proposals shall be addressed to Tony Samaniego, Fire Chief, City of Chickasha, 117 North 4th Street, Chickasha, Oklahoma 73018 and shall be labeled "RFP BP-2201, DO NOT OPEN" and "2022 Wildland Apparatus." Proposals shall be submitted no later than 2:30 p.m. central time on December 15, 2022. It is the responsibility of the proponent to ensure that the proposal is in the City Hall Conference Room of Chickasha prior to the date and time above. Bids will be opened the same date at 2:35 p.m. in the City Hall Conference Room, Second Floor—city Hall, 117 N. 4th Street, Chickasha, Oklahoma 73018.

The Issuing Office for the Bidding Documents is: City of Chickasha, Fire Department. Technical questions should be emailed to the Tony Samaniego, Fire Chief at Tony.samaniego@chickasha.org.

Upon consideration of the proposals, the City of Chickasha reserves the right to accept or reject any and all proposals, to waive technicalities and to make any investigation deemed necessary concerning the proponent's ability to provide the services as covered by the specifications, and to accept what is in their judgment to be the most advantageous proposal.

Tony Samaniego, Fire Chief

CERTIFICATION

I CERTIFY THAT THE ABOVE "Request for Proposal" was posted on the bulletin board of City Hall, City of Chickasha, Oklahoma, on the 10th day of November 2022.

Susan McDaniel, CMC- City Clerk

INVOICE AFFIDAVIT

Any invoice submitted to the City of Chickasha for more than \$ 1,000.00 shall have a copy of this statement attached before payment will be made.

STATE OF OKLAHOMA)
COUNTY OF McClain GRADY) S.S.

The undersigned Donnie Neel, of lawful age being
(Contractor, Supplier or Engineer)

first duly sworn, on oath says that this invoice or claim is true and correct.

Affidavit further states that the Donnie Neel as shown
(work services or materials)
by this invoice or claim have been Donnie Neel in accordance
(completed or supplied)

with the plans, specifications, orders or request furnished the affidavit. Affiant further states that he/she has made no payment directly or indirectly to any elected official, officer or employee of the State of Oklahoma, any County or Local Subdivision of the State, of money or any other thing of value to obtain payment.

[Signature]
(Contractor, Supplier or Engineer)

Subscribed and sworn to me before this 15th day of December 2022



[Signature]
Notary

My commission expires: 12/20/2024

INVITATION TO BID

MAIL SEALED BIDS TO:		CITY OF CHICKASHA CITY CLERK 117 NORTH 4TH STREET CHICKASHA, OKLAHOMA 73018	
DATE BID TYPED:	BID NO:	TITLE:	
12-15-22	RFP BP-2201	OWNER	
NO BIDS WILL BE ACCEPTED AFTER:		CONTRACT PERIOD	
Emergency Vehicles			
VENDORS NAME:		REASON FOR NO BID.	
920 Huntclub RD Emergency Vehicles			
MAILING ADDRESS:			
Blanchard 920 Huntclub RD			
CITY:	STATE:	ZIP:	
Blanchard	OK	73010	
AREA CODE:	TELEPHONE NO.	FAX NO.	DELIVERY:
405	833-6677	N/A	
E-MAIL ADDRESS:		FEDERAL EMPLOYER IDENTIFICATION NO. OR SOCIAL SECURITY NO.	

NON-COLLUSION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF Oklahoma, COUNTY OF McClain

I, Donnie Neer of lawful age, being first duly sworn on oath, says that I (s)he is the duly authorized agent of the above bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and city officials or employees, as well as facts pertaining to the giving or offering of things of value to city personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached. 2. (s)he is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and 3. Neither the bidder, nor anyone subject to the bidder's direction or control has been a party:



I (s)he is not in collusion with any city official or employee as to quantity, quality or price in the prospective contract, nor has (s)he had any discussions between bidders and any city official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Subscribed and sworn to before me this 15th day of December, 2022
Denise L. Walker
 Notary
 My Commission Expires: 12/20/2024

[Signature]
 Bidder

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

BUSINESS RELATION AFFIDAVIT

(This bid is invalid if BOTH Affidavits are not signed and notarized)

STATE OF Oklahoma, COUNTY OF McClain

I, Donnie Neer of lawful age, being first duly sworn on oath, says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:



I (s)he is not in business relationships herein above mentioned exist; Affiant should so state).

Subscribed and sworn to before me this 15th day of December, 2022
Denise L. Walker
 Notary
 My Commission Expires: 12/20/2024

[Signature]
 Bidder

THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED!

SEALED BIDS All sheets bid on and this form must be executed and submitted in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE BID PER ENVELOPE). The face of the envelope shall contain, in addition to the mailing address, the words "SEALED BID" the date of the bid opening and the contract number. Bids submitted in Federal Express or other specialized delivery envelopes shall be enclosed in a separate envelope marked as indicated above. Bids not submitted in properly marked envelopes or on the attached bid form shall be rejected. In the case of "No Bid" the vendor shall return the "Invitation to Bid" with the "Reason for No Bid" properly filled in, to remain on the City of Chickasha's active vendor/contractor list

EXECUTION OF BID Bid must contain an original signature of an authorized representative in the space provided. Bids must be typed or printed in ink. Use of erasable ink is not permitted. ALL CORRECTIONS MADE BY BIDDER TO HIS BID MUST BE INITIALED.

BID OPENING: It is bidder's responsibility to assure that his bid is delivered at the proper time and place of the bid opening. Bids which for any reason are not so delivered, will not be considered. Offers by telegram or telephone are not acceptable. **NOTE:** Bid files may be examined during normal working hours by appointment. Bid tabulations WILL NOT be provided by telephone.

MISTAKES Bidders are expected to examine the specifications, delivery schedule, bid prices and all instructions pertaining to supplies and services. Failure to do so will be at bidder's risk. In case of mistake in extension, the unit price will govern.

INVOICING AND PAYMENT: The vendor shall be paid upon submission of proper certified invoices to the City of Chickasha at the prices stipulated on the contract. Invoices shall contain the contract number and purchase order number. Failure to follow these instructions may result in delay of processing invoices for payment.

WAIVER: City of Chickasha reserves the right to waive any general provision, special provision or minor specification deviation when considered to be in the best interest of the City of Chickasha.

Any bid received by the awarding public agency or an officer or employee thereof, more than ninety-six (96) hours excluding Saturdays, Sundays and holidays before the time set for the opening of bids, or any bid so received after the time set for opening of bids, shall not be considered by the awarding public agency and shall be returned unopened to the bidder submitting same.

EMERGENCY VEHICLES SALES & SERVICE OF OKLAHOMA

920 Hunt Club Road

Blanchard , OK 73010

(405) 833-6677 Phone

Email · Donnie@emergencyvehiclesok.com

Bid price and Exceptions

BID PRICE WITH AKRON BRASS VAVLES \$181,759.00

BID PRICE WITH WATTS BRASS VAVLES \$177,995.00

EXCEPTIONS

WE TAKE TOTAL EXCEPTION TO THE BID

CHASSIS WILL BE DODGE 5500 TRADESMAN 4X4 60 CA

THERMO CAMERA WILL BE FLIR K33

NOZZLES WILL BE TFT 1 INCH NOZZLES (3)

TFT FRONT BUMPER MOUNTOR WILL BE INSTALLED ON BUCKSTOP BUMPER

PUMP WILL BE DARLEY MODEL 2BE21V

PLUMBING WILL BE ALL BRASS WITH DJ FLEX HOSES

EMERGENCY LIGHTING ,SIREN, SPEAKERS WILL BE WHELEN PRODUCTS

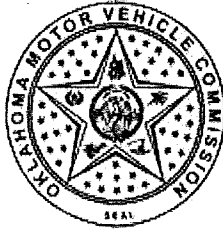
SAFE STOP ANTI THIEF SWITCH WILL BE INSTALLED

CUSTOM ALUMINUM BED WITH 2 CHANNEL TANK CRADLE MOUNT TO CHASSIS FRAME

500 GAL POLY TANK

100 FEET 1 INCH BOOSTER LINE

OKLAHOMA MOTOR VEHICLE COMMISSION



Certificate of License

236

THE OKLAHOMA MOTOR VEHICLE COMMISSION
has licensed

Emergency Vehicles of Oklahoma dba
EMERGENCY VEHICLES OF OKLAHOMA
920 HUNT CLUB ROAD
BLANCHARD, OKLAHOMA 73010

AS AN AUTHORIZED
Distributor

And is responsible for the management of its operations and
personnel as provided by the laws of the State of Oklahoma.

IN TESTIMONY WHEREOF WE SET OUR HAND AND CAUSE TO BE AFFIXED

THE SEAL OF THE
OKLAHOMA MOTOR VEHICLE COMMISSION

Carol Carter
Chairperson

Brad Bailey
Executive Director

Issue Date: 05/06/2022

Expires: 06/30/2023

SPECIFICATIONS
FOR
**CHICKASHA
FIRE DEPARTMENT**

FOR A
Quick Attack

Wildlands Fire Fighting Apparatus

Minimum Specifications for a Wildlands Fire Fighting Apparatus
(Any Mention of a specific brand name – shall be or equivalent)

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
<u>Intent of Specifications:</u> It is the intent of these specifications to clearly describe the furnishing and delivery to the Purchaser, a complete apparatus equipped as specified. The primary objective of these specifications is to obtain the most acceptable apparatus for service in the Fire Department. These specifications cover specific requirements as to the type of construction and tests the apparatus must conform, together with certain details as to finish, material preferences, equipment, and appliances with which the successful bidder must conform. The design of the apparatus must embody the latest approved automotive design practices. The workmanship must be of the highest quality in its respective field. Special consideration shall be given to service access to areas needing periodic maintenance, ease of operation, and symmetrical proportions. Construction must be heavy-duty and ample safety factors must be provided to carry loads as specified. The construction method employed will be in such a manner as to allow ready removal of any component for service or repair. The apparatus shall conform to the National Fire Protection Association Standard for Automotive Fire Apparatus, number 1901 and the National Fire Protection Association Standard for Wildland Fire Apparatus, number 1906, in its most recent edition, unless otherwise specified in this document. Only the specified firefighting support equipment listed in these specifications shall be provided. The apparatus shall further conform to all Federal Motor Vehicle Safety Standards. NO EXCEPTION. Each bidder shall furnish satisfactory evidence of their ability to design, engineer, and construct the apparatus specified and shall state the location of the factory producing the apparatus. They shall also substantiate they are able to render prompt and proper service and to furnish replacement parts for the apparatus. Bids will be addressed and submitted in accordance with the instructions provided on the cover sheet. The bid number, the date, and bid opening time shall be stated on the front of the bid envelope. It shall be the responsibility of the bidder to assure that their proposal arrives at the location and time indicated. Late proposals, telegrams, facsimile, or telephone bids will not be considered. NO EXCEPTION. All bidders are required to detail the payment terms for apparatus on the bidder's proposal page. Any required prepayments or progress payments must be explained in detail. <u>Service and Warranty Support:</u> To ensure full service after delivery, the bidder must be capable of providing service when required. The bidder shall show that the company is in position to render prompt service and furnish replacement parts. Each bidder must be able to display that they are actively in the fire apparatus service business by operating an authorized service center located within the State of Oklahoma, and shall stock parts equating to \$250,000.00, No Exceptions.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Detailed information shall be provided on service facilities, personnel, service vehicles, and how long the service facility has operated in the State of Oklahoma. Service is a criteria for award of this bid. <u>Service Certification:</u> Each bidder shall supply with their bid an Emergency Vehicle Technician certification, and photos of the full-service repair facility that is located within the State of Oklahoma, these documents must be provided with the proposal. No Exceptions. <u>Brand Names:</u> Any brand names, trade names, manufacturer's names, or other product identification names included in these specifications are included to establish a minimum quality and standard. These products listed in our specifications which have name brands attached in no manner limit any bidder, however the items included in your bid must meet or exceed our minimum specifications. The Fire Departments will make the sole determination as to which items meet or exceed the specifications. <u>Oklahoma Motor Vehicle License:</u> Each manufacturer, dealer, and salesperson must furnish a copy of their Oklahoma Motor Vehicle Commission License. <u>This is an Oklahoma Law and must be furnished, No Exceptions.</u> <u>Proposal Price:</u> Each bidder's proposal must include all items required in the specifications unless a specific exception is taken. Any bidder who options prices an item included in these specifications that does not specifically require option pricing will have their proposal rejected without further cause. <u>Proposal Format:</u> Each bid must be accompanied by a set of detailed contractor's specifications consisting of a detailed description of the apparatus and equipment proposed. All bid proposal specifications must be in the same sequence as the advertised specification for ease of comparison. These specifications shall include size, location, type, and model of all component parts being furnished. Detailed information shall be provided on the materials used to construct all facets of the apparatus body. Any bidder who fails to submit detailed construction specifications, or who photocopies and submits these specifications as their own construction details, or any proposals		
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Any Mention of Brand Name Shall be "or Equivalent"		BIDDER COMPLIES	
		YES	NO
found to have deviations without listing them will be considered non-responsive and shall render their proposal ineligible for award. NO EXCEPTION. <u>Exceptions:</u> The following apparatus specifications are considered minimum design and construction standards against which the apparatus will be inspected. It is the intent to receive proposals on equipment/apparatus meeting the attached detailed specifications in their entirety. Any proposals being submitted, without "Full Compliance" with these specifications shall so state on the bid proposal page, followed by a detailed "Letter of Exceptions" listing the areas of non-compliance. The reference must include page number, paragraph, and the exact nature of the exception. Failure to follow this format, provided for the convenience of the Purchaser, will render the vendor's proposal non-responsive and ineligible for award of contract. If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary. The Purchaser may add the statement "No Exception" to a component or design feature in these specifications. In the interest of fleet conformity or specific performance requirements, the Purchaser will not permit exceptions taken to these item(s). The Purchaser reserves the right to reject any or all bid proposals and purchase the equipment it deems most suitable to its needs. The Purchaser does not, in any way, obligate itself to accept the lowest or any bid. Any bidder taking total exception to the complete specification, or a major element will result in immediate rejection of the proposal. <u>Delivery:</u> The bidder shall state the time required for delivery of the completed unit on the proposal page. The completed unit shall be delivered to the purchaser with full instructions provided to Fire Department personnel on operation, care, and maintenance of apparatus. <u>Cab & Chassis:</u> The chassis shall be a 2023 F550 4x4 supercrew cab chassis with XL trim with the following options: Specs: - GVWR: 19,500 lbs. - 4.88 Ratio Limited Slip Axle - Extra Heavy Service Suspension Package - Rear and Front stabilizer bar - 60" Cab to axle			
Rev. 1		3	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
- 179" Wheelbase Power Train: - 6.7L V8 Diesel - 10-Speed Automatic Transmission - Engine Block Heater - Heavy Duty Alternator Interior Requirements: - Vinyl 40/20/40 Split front bench seat - Vinyl 60/40 Flip-up/fold-down bench seat - XL Trim - Air Conditioning - AM/FM Stereo/ Clock Exterior Requirements: - Two (2) front tow hooks - 40-Gallon Fuel Capacity - Roof Clearance lights - Windshield Wipers – Interval Safety & Security: - Airbag – Driver and front passenger - Belt-Minder safety belt reminder Off Road Package: An off-road package shall be supplied. The apparatus will undergo the following modifications: - Wheel conversion kit to a 20x8.5 rim with a dully rear rim - Six (6) 285/55-R20 Nitto Ridge Grappler Tires Cab Console: An electrical console and enclosure shall be provided to house cab mounted electrical switching devices and equipment. The console shall be located between the driver's and the officer's seating up to the OEM dash. There shall be sufficient space available to house siren control, department radio's, Setcom system and monitor joystick. The center seat will need to be removed. Front Bumper: A full front bumper replacement shall be supplied. The front bumper shall be manufactured with 1 ¼" square tubing with the 90-degree corners on the square tubing to give the grille guard unmatched strength & durability. The body of the front bumper shall be constructed from 1/8" black gloss tread plate and shall mount to the apparatus frame using a combination 3/8" and ½" steel plate.		
Rev. 1		4

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The front bumper shall have an integrated speaker mount, integrated receiver tube and monitor deck. Step Bars: Heavy duty step bars shall be supplied and mounted to the cab & chassis. These step bars shall be located under the cab doors to allow for the ease of entering and exiting the apparatus. Mud Flaps: Mud flaps shall be provided behind each rear wheel. Chassis Fuel Fill: There shall be a fuel fill provided in a recessed area on the rear of the truck. Chassis DEF Tank Fill: There shall be a DEF (Diesel Exhaust Fluid) fill provided in an accessible location on the body. <u>Body:</u> The fire body shall be constructed entirely of heavy-duty extruded aluminum. The fire body dimensions shall be 119" L x 96" W. The perimeter of the fire body shall be constructed of a custom heavy duty 5.0" x 3.0" 6061-T6 aluminum extrusion. The fire body cross members shall be constructed of heavy duty 2.0" x 3.0" 6061-T6 National Standard extruded aluminum channel. The extruded aluminum cross members shall be located on 16" centers. The fire body mounting sills shall be constructed of heavy duty 6.0" 6061-T6 National Standard extruded aluminum channel. A rubber isolation barrier shall be provided between the fire body extruded aluminum mounting sills and chassis' steel frame rails. There shall be .125" aluminum diamond plate covering the non-standing areas of the deck of the fire body. There shall be .125 embossed aluminum on all walking or standing areas of the deck.		
Rev. 1	5	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The .125" aluminum diamond plate deck shall be stitch welded to the bottom side of the perimeter extrusions. Headache Rack: There shall be a headache rack located at the front of the fire body. The headache rack shall be constructed of heavy duty 3.0" x 2.0" 6061-T6 extruded aluminum tube. The headache rack shall have .125" aluminum diamond plate covering the bottom half on the front side and expanded aluminum on the top half. There shall be an approximate 60" W x 10" D aluminum plate light bar mounting platform located on top of the fire body headache rack. Walkway: There shall be step wells provided at the front corners of the fire body. The step wells shall be approximately 24" W x 24" D x 16" T with a step along the back wall. There shall be 44" T gates provided at the entrance to the step wells. The gates shall be held in the closed position by a pneumatic piston and have a positive stop as to not let the gate swing outward. The gates shall have a .125 aluminum diamond plate cover. Rear Apron: There shall be a 95" W x 12.0" D x .1875 smooth aluminum apron provided at the rear of the fire body. Tow Eyes: There shall be two (2) ¾" plate steel tow eyes protruding through the rear apron. Rear Receiver: There shall be a 2.0" receiver tube provided at the rear of the apparatus. The receiver tube shall be integrated into the fire body mounting sills. Rear Bumper:		
Rev. 1	6	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
A heavy-duty steel bumper shall be supplied on the rear of the apparatus. This bumper shall be designed as to not interfere with the apparatus departure angle but allow for access to the fire body. An NFPA not slip surface shall be applied to the top of the rear step bumper. Compartmentation: L1 Compartment: There shall be one (1) compartment with one (1) lift up compartment door provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 58"L x 20"D x 30"H. R1 Compartment: There shall be one (1) compartment with two (2) lift up compartment doors provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 88"L x 20"D x 30"H. B1 Compartment: There shall be a 72" D x 30" W x 5.0" H long tool storage compartment provided.		

Rev. 1

7

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The compartment shall be located between the fire body mounting sills, with the door opening facing the rear of the apparatus. The compartment door shall be constructed of .125" aluminum smooth plate and shall be horizontally hinged. Thumb latches shall be provided to open and close the door. Pre-Connect Tray: There shall be a 4"W x 96"L x 8"H transverse pre-connect hose tray located at the rear of the walkway. This tray shall be set on the floor. <u>Skid Unit:</u> The water tank, pump and plumbing shall be mounted on a heavy-duty poly frame to allow for the unit to be removed as a single unit. The skid unit shall be bolt directly through the bed to the apparatus frame utilizing heavy duty grade 8 bolts. Polypropylene Water Tank: A 500-gallon water tank shall be supplied and shall have a 4" overflow. The construction shall be of co-polymer polypropylene and shall be rectangular shaped. No Fiberglass! No Exception! The tank body and end bulkheads shall be constructed of 0.5" thick, polypropylene tested inside and out. The transverse and longitudinal swash partitions shall be interlocked and welded to each other as well as to the walls of the tank. The partitions shall be designed and equipped with vent holes to permit air and liquid movement between compartments. The 0.5" thick cover shall be recessed .375" from the top of the side walls. Hold down dowels shall extend through and be welded to both the covers and the transverse partitions, providing rigidity during filling operations. Drilled pegs for lifting eyes shall be provided in the top area of the water tank. The water fill tower shall be 0.5" thick polypropylene stock with a hinged lid and a removable polypropylene screen. The water fill tower shall be located on the front driver's side of the water tank. A sight glass shall be supplied on the rear driver's corner of the water tank, so the operator can see the lifeline of water remaining during pumping operations from the rear of the apparatus. Two (2) tank mounting tabs shall be provided. One shall be at the front and one at the rear to allow the tank to be fastened to the fire body.		
Rev. 1	8	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The water tank shall have an overflow tube. The overflow tube shall exit below the body, ahead of the rear wheels. Fire Pump Plumbing System: The engine driven fire pump plumbing system shall be built completely of stainless-steel piping, stainless steel and/or brass fittings, and connections. Tank connections, front discharges, and other piping shall use high-pressure flexible piping. Flexible hose couplings shall be threaded stainless steel or Victaulic connections. Plumbing shall not be welded for ease of disassembly, no exceptions. Hose Threads: The hose threads shall be National Standard (NST) on all base threads on the apparatus intakes and discharges, unless otherwise specified. Intake and Discharge Valves: All valves used in the plumbing installation shall be stainless steel or brass quarter turn full flow type valves. Steel – Industrial valves shall not be used due to rusting. Hose Reel Discharge(s): One (1) 1" discharge shall be provided and piped to the redline hose reel with flexible high-pressure hose and a 1" Stainless steel valve or equivalent will be provided for this connection on manifold. Whipline Discharge(s): Two (2) whipline discharges shall be supplied and mounted in the walkway area of the apparatus. These discharges shall have a 90-degree swivel to allow firefighting operations to be conducted off the side of the apparatus. The whiplines shall be located with one (1) each side of the pump panel. Bumper Monitor Discharge(s): One 1.5" discharge shall be provided and plumbed to the front bumper monitor. This discharge shall be located at the rear of the skid unit. Pre-Connect Discharge(s):		
Rev. 1	9	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
manufacturer designed foam/water plumbing system stainless steel components for 10 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
3 Year Graphics Warranty: The apparatus manufacturer shall provide a full 3-Graphics warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's graphic components for 3 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
5 Year Electrical Warranty: The apparatus manufacturer shall provide a full 5 year-electrical warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's electrical components for 5 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
Lifetime Polypropylene Tank Warranty: The tank manufacturer warranties that tanks will be free from defects in materials and workmanship for a period equal to the service life of the original vehicle on which tank was installed. Original vehicle must be in active fire suppression for warranty to be in full effect. A copy of the warranty document shall be provided with the proposal. No Exceptions.		
Rev. 1	21	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
One (1) 1.5" valve shall be provided and plumbed to the pre-connect crosslay tray located on in the walkway of the apparatus bed. Plumbing for this unit shall run underneath the apparatus bed. Fire Pump to Water Tank bypass Line: A 1" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow quarter turn ball valve. A 1" piping and flex hose will be provided from valve to tank. The valve control shall be directly on the valve. Water Tank to Pump & Suction: A 2½" water tank to fire pump line shall be provided with a full flow 2½" quarter turn ball valve. Suction will be provided with a full flow 2½" quarter turn ball valve so that while pumping you can also be connecting to an additional water source. A 2½" chrome plug and chain will be provided at the rear for the suction. Manifold: A common 304 stainless steel manifold will be provided for all discharges. Fire Pump: A Hale HPX200-B23 pump shall be supplied and mounted to the rear of the skid unit. Performance The pump/engine shall be capable of meeting the NFPA 1906 performance rating of 50 GPM @ 150 PSI and 150 GPM @ 100 PSI. Typical pump performance from 5-foot draft at sea level shall be: 90 GPM @ 150 PSI, 170 GPM @ 100 PSI and 250 GPM @ 30 PSI. Pump The pump body shall be made of anodized alloy aluminum castings coupled together with a stainless-steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 300 PSI. The impeller shall be bronze. The renewable clearance rings shall be made of bronze to inhibit galvanic corrosion. The impeller shall be 8.75 inches (222.3 mm) in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.		
Rev. 1	10	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Priming The pump shall be equipped with an exhaust venturi primer of brass and stainless-steel construction. The primer shall be capable of priming at 13 feet lift. The primer shall be actuated with a spring return, single control lever located at the operator's panel. The primer to pump line shall be equipped with an automatic check valve for priming from an open body of water and a manual shut -off for pumping from a pressurized water source. Suction/Discharge The suction and discharge ports shall be female pipe thread, designed and located to accept applicable hose thread adapters (3" NPT / 4" Victaulic Suction, 2.5" NPT Discharge flange). Engine The engine shall be a 4 cycle gasoline Briggs and Stratton Vanguard 386447 series V-Twin, overhead valve, air cooled design. Engine rating shall be 23 BHP at 3600 RPM. Engine displacement shall be 627cc and shall be designed to meet current CARB (California Air Resources Board) and EPA (Environmental Protection Agency) standards. A 12-volt electric system shall be provided with electric starter and a 16-amp alternator. Engine shall be equipped with a residential muffler with USDA approved spark arrestor. Pump Panel: A standard pump panel shall be supplied and located in the walkway of the apparatus. The pump panel shall be installed on a tilted pump panel for the ease of visibility. Pump Panel shall have the following controls: • Pump Panel Light switch • Start/Stop switch • Low oil pressure light • Pump pressure gauge • Idle control • Choke Fuel Tank: A heavy-duty aluminum 6-gallon fuel tank shall be supplied and mounted to the skid unit frame. The fuel tank shall have fuel level sight gauge and an overflow tube. Battery Supply: The skid unit of the apparatus shall have a heavy-duty separate battery supply to power the unit. The engine will include a 36-watt alternator to keep separate battery charged. Emergency Back-up:		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
An emergency back-up system that runs off the chassis electrical system shall be supplied that will assist in starting the skid unit in case of a battery failure. Pump Test: The skid unit shall be tested after all its associated piping and valves have been installed on the apparatus. The tests shall be conducted at the manufacturer's facility. Tank Level Gauge(s): Water Gauge: A lighted LED water tank level gauge will be provided on the pump panel for view of lifeline of water during nighttime operations. A mini lighted tank level gauge will be provided inside cab, so operator is able to view tank water levels from the safety of the cab. Skid Work Light: One (1) LED flood/spotlights shall be installed in accordance with customer requirements. Lights shall be 12v 20W low current draw lights and shall be mounted as follows: - One (1) on top of the water tank offset the rear, to illuminate the pump and plumbing. This shall be controlled by a single switch on the pump panel. Features: • 10- and 60-degree spot and flood • 2,112 Lumen output ea. • Black, cast-aluminum housing • Lifetime Warranty <u>Bumper Monitor:</u> The adjustable 30, 60, 90 or 125 GPM rated monitor is to be an all-electric single waterway monitor constructed of lightweight Pyrolite. The monitor shall have cast-in turning vanes in each elbow. The monitor shall have fully enclosed motors and gears with manual overrides for both horizontal and vertical rotation and may be operated simultaneously. The monitor is not to exceed 13 3/16" high and 11 9/16" wide. The vertical travel shall be from 45° below to 90° above horizontal with adjustable stops at -20° and +45°. The horizontal rotation shall be 320° with adjustable stops at 90°.		
Rev. 1	12	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The control system electronics shall be integrated with the monitor wiring harness. The control system shall use sealed, locking connectors for the monitor and nozzle motors. Two additional sealed, locking connectors shall be supplied for input power/electric valve control and J1939 CAN bus interface. A sealed USB connector shall be provided for updating control system firmware. All electrical connectors shall be minimum IP65 rated. The operator interface shall consist of a CAN bus compatible joystick which will provide up, down, right, left, fog, and stream control of the monitor. The joystick shall have a trigger switch to control an optional electric discharge valve. The monitor shall include a 5' long power/valve harness and 20' long CAN joystick harness. <u>Hose Reel(s):</u> Booster Hose Reel: One (1) Hannay hose reel, model EF-16.5-17-18-RT with electric rewind shall be provided with a single mounted roller and spool assembly and a brake to adjust tension on the spool. The hose reel shall be mounted on the Driver's side of the apparatus bed, with the capability to pull off the rear of the apparatus. Hose Reel Electric Rewind: Two (2) electric rewind push buttons will be installed. The electric rewind controls shall be a weather-resistant enclosed momentary push button switch. Switches shall be installed as follows: One (1) switch at each hose reel location. <u>Hose:</u> Booster Hose: 100' of 1" booster hose shall be provided for the booster hose reel. Whipline Hose: Two (2) sections of 8' x 1" red 800 psi booster line shall be provided. Pre-Connected Hose: 100' of 1.5" double jacket pre-connected hose shall be provided for the pre-connect discharge. <u>Electrical System:</u> Low Voltage Electrical System Specifications Rev. 1		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The following specifications describe the low voltage electrical system on the specified brush truck type fire apparatus. The electrical system shall include all panels, electrical components, switches, and relays, wiring harnesses and other electrical components. All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be run in a loom with a minimum 289-degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction. The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels. All connections shall be crimp-type to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system. Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in an electrical junction box or covered with a removable electrical panel or wire loom. The wiring shall be secured in place and protected against heat, liquid contaminants, and damage. The electrical system shall include the following: A) The electrical wiring shall be harnessed or be placed in a protective loom. B) No holes shall be made in the roof of chassis, unless approved by end user. C) Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it. Breaker: A 100-amp breaker shall be supplied and located near the master disconnect switch that will prevent potential upfitter electrical issues from affecting chassis battery system. Electronic Siren:		

Rev. 1

14

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
One (1) Carson 409 Commander full function electronic siren shall be mounted in the cab console. The siren shall have the following features: electronic air horn, siren tones, radio rebroadcast, P.A. and shall have a hard-wired microphone. Features: • 100/200-Watt SAE J1849 and Class A output • Internal programmable siren functions • Four Position progressive slide switch • Six backlit and rubberized relay push-button switches • Scrolling TAP II intersection clearing feature Speaker: One (1) Federal Signal ES100, 100-watt speaker shall be mounted behind the front of the chassis bumper or grille. The speaker shall be wired to the electronic siren located in the cab. Features: • Neo-driver for increased dependability • 100-Watt high output power • Sound output meets SAE J1849 and Class A • Impedance of 11 ohms Back-up Alarm: An automatic electric 97 dB back-up alarm shall be wired to activate when the transmission is placed into reverse. The alarm shall be mounted under the rear of the apparatus body. Radio: A power cable shall be provided in the cab console for the two (2) 800 Mhz radios. Radio Faceplates shall be provided and installed. Antenna: Antenna wiring with mounting "L" bracket shall be supplied and ran to the driver's side light bar mounting platform. The Antenna shall be customer supplied. Communication System: A wireless Setcom communication system with two (2) under the helmet wireless headsets, digital intercom with interface cable and base station shall be installed in the cab console. Lighting: Compartment Light(s):		
Rev. 1	15	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Each compartment shall be provided with two (2) LED vertically mounted lights. The compartment lights shall be installed one (1) on each side of the compartment door opening with the light actuation with the door opening. License Plate Light: A license plate light and bracket shall be supplied and mounted to the rear of the apparatus. Switch(es): Master Disconnect Switch: A battery disconnect switch shall be located on the front face of the console offset to the driver of the apparatus. The switch shall disconnect the upfitter conversion from the 12-volt battery system. Camera System(s): Rear View Camera: A rearview camera system shall be supplied. The screen shall be a windshield-mounted rearview mirror with an integrated 7" LCD monitor that displays the rear-view image when the apparatus is shifted into reverse. The monitor shall automatically adjust in day and night modes and shall have a resolution of 800*480 pixels. The camera shall be a high-mounted, wide-angle look-down camera with 150-degree visibility and night vision capabilities. Thermal Imaging Camera: A vehicle mounted driver vision enhancement thermal imaging camera shall be supplied and mounted to the apparatus. The camera shall allow for thermal imaging to be routed through the review mirror monitor. Camera shall be mounted to the headache rack. Features: • 56 deg- horizontal field of view • Made of stainless-steel construction • Provides NTSC video Door Ajar: Each compartment light shall be controlled by a magnetic "On-Off" switch located on each compartment door.		
Rev. 1	16	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The magnetic switch shall control a door ajar light located inside the cab. Emergency Lighting: The warning lights shall be switched in the chassis cab with labeled switching in the cab console. A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and call for the right of way. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator and passenger. Upper Warning Lights: Light Bar: A TOMAR 970L Scorpion 53" Red/Blue LED low profile light bar shall be supplied. The light bar shall have clear lenses to the front and to the rear and will be mounted on the headache rack mounting platform. Features: • NFPA 1901 Compliant • Variety of selectable flash patterns • Hermetically sealed Lower Warning Lights: Fourteen (14) Tomar RECT-14 LED Warning lights shall be provided. These warning lights have eleven (11) different flash patterns to customize to department specifications. Warning Lights shall be installed as follows: • Four (4) Red/Blue LEDs on the front grille guard with Two (2) each side • Two (2) Red/Blue LEDs on apparatus chassis with one (1) each side above the front wheel well area. • Four (4) Red/Blue on the apparatus body: with Two (2) each side: One (1) offset as forward as possible and one (1) offset rearward as possible. • Four (4) Red/Blue LEDs on the rear of the apparatus with Two (2) each side Features: • Four (4) Ultra-High intensity LEDs • Multiple selectable flash patterns • Made of optical Lexan and hermetically sealed • Meets SAE J845, SAE J595 and CAL Title 13 • Five-year manufacturer's warranty. Scene Lighting:		

Rev. 1

17

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Flood Light(s): One (1) 75-watt 15 LED High Intensity 20" single row light bar shall be supplied. The flood lights shall be provided at the following locations: - One (1) mounted on the front bumper on the upper section of the bumper. Features: 7290 Lumens - Flood pattern - Lifetime Warranty - Durable aluminum extrusion housing D.O.T Lighting: The 12-volt lighting on the brush truck body shall conform to FMVSS 108 standards. All DOT lighting shall be LED type. Clearance: There shall be a minimum of five (5) red clearance lights on the rear of the truck (three (3) in the rear center and one on each outside corner of the rear apparatus bed). One (1) red clearance light shall be on each side rear corner and one (1) amber clearance light on each front side corner. Signal, Brake and Reverse: The rear shall also contain a minimum of two (2) each Stop/Turn/Taillights and two (2) clear reverse lights. These lights shall be oval, flush mounted lights. <u>Label(s):</u> Fastened labels shall be supplied and mounted in accordance with their function: On each walkway entrance door shall have a label that states "All personnel must be seated in cab with seatbelt fastened while vehicle is in motion. Riding elsewhere may cause serious injury or death" All appropriate switches inside the cab shall be properly labeled with their function. All appropriate valves on the pump panel shall have a corresponding function label. <u>Loose Equipment:</u> The following loose equipment shall be supplied with the apparatus:		

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Nozzle(s): 1" Nozzle: Three (3) Crestar SF-40 select flow nozzles with pistol grip handles and bell shut off shall be supplied. Features: • Selectable gallonage nozzle with multiple flow settings • Stainless steel spinning teeth • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant 1.5" Nozzle: One (1) Crestar SF-125 select flow nozzle with pistol grip handles and bell shut off shall be supplied. Features: • Selectable gallonage nozzle with multiple flow settings • Stainless steel spinning teeth • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant <u>Scotchlite Striping & Lettering:</u> Cab and Body: The apparatus cab and body shall be provided with Scotchlite striping and installed to department's requirements. Color to be determined at prebuild meeting. Lettering: Scotchlite lettering with shading will be installed to department requirements and colors to be determined at prebuild meeting. Rear Body: Chevron "A" style Scotchlite striping shall be provided on rear of body (outboard rearward facing smooth plate panels of the rear apron). The colors shall be Yellow/ Red diamond grade. Rev. 1		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
<u>Apparatus Paint:</u> Cab and Chassis: The apparatus cab and chassis shall be painted in accordance with the policies with the chassis manufacturer with all applicable warranties. The color of the cab shall be Ford Red. Apparatus Body: The apparatus body shall be made of aluminum and shall not be painted. <u>Warranty:</u> 1 Year Standard Warranty: The apparatus manufacturer shall provide a full 1-year standard warranty. All components manufactured by the apparatus manufacturer shall be covered against defects in materials or workmanship for a 1-year period. All components covered by separate suppliers such as engines, transmissions, tires, and batteries shall maintain the warranty as provided by the component supplier. A copy of the warranty document shall be provided with the proposal. No Exceptions 2 Year Pump Warranty: Pump manufacturer shall warranty products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of two years or 2000 hours of usage, whichever comes first. Products used for rental or contracting purposes are warranted for a period of six months or 2000 hours of usage, whichever comes first. This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence, or accident, and is not altered, treated, or repaired by someone other than pump manufacturer or its designee. A copy of the warranty document shall be provided with the proposal. No Exceptions 10 Year 100,000 Mile Structural Warranty: The apparatus manufacturer shall provide a comprehensive 10 year/100,000-mile structural warranty. This warranty shall cover all structural components of the cab and/or body manufactured by the apparatus manufacturer against defects in materials or workmanship for 10 years or 100,000 miles, whichever occurs first. Excluded from this warranty are all hardware, mechanical items, electrical items, or paint finishes. A copy of the warranty document shall be provided with the proposal. No Exceptions 10 Year Stainless Steel Plumbing Warranty: The apparatus manufacturer shall provide a full 10-year stainless steel plumbing components warranty. This warranty shall cover defects in materials or workmanship of apparatus		

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
manufacturer designed foam/water plumbing system stainless steel components for 10 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
3 Year Graphics Warranty: The apparatus manufacturer shall provide a full 3-Graphics warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's graphic components for 3 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
5 Year Electrical Warranty: The apparatus manufacturer shall provide a full 5 year-electrical warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's electrical components for 5 years. A copy of the warranty document shall be provided with the proposal. No Exceptions		
Lifetime Polypropylene Tank Warranty: The tank manufacturer warranties that tanks will be free from defects in materials and workmanship for a period equal to the service life of the original vehicle on which tank was installed. Original vehicle must be in active fire suppression for warranty to be in full effect. A copy of the warranty document shall be provided with the proposal. No Exceptions.		
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Emergency Vehicles Sales
and Service of OK

SPECIFICATIONS

FOR

CHICKASHA

FIRE DEPARTMENT

FOR A

Quick Attack

Wildlands Fire Fighting Apparatus

Minimum Specifications for a Wildlands Fire Fighting Apparatus
(Any Mention of a specific brand name – shall be or equivalent)

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
<u>Intent of Specifications:</u> It is the intent of these specifications to clearly describe the furnishing and delivery to the Purchaser, a complete apparatus equipped as specified. The primary objective of these specifications is to obtain the most acceptable apparatus for service in the Fire Department. These specifications cover specific requirements as to the type of construction and tests the apparatus must conform, together with certain details as to finish, material preferences, equipment, and appliances with which the successful bidder must conform. The design of the apparatus must embody the latest approved automotive design practices. The workmanship must be of the highest quality in its respective field. Special consideration shall be given to service access to areas needing periodic maintenance, ease of operation, and symmetrical proportions. Construction must be heavy-duty and ample safety factors must be provided to carry loads as specified. The construction method employed will be in such a manner as to allow ready removal of any component for service or repair. The apparatus shall conform to the National Fire Protection Association Standard for Automotive Fire Apparatus, number 1901 and the National Fire Protection Association Standard for Wildland Fire Apparatus, number 1906, in its most recent edition, unless otherwise specified in this document. Only the specified firefighting support equipment listed in these specifications shall be provided. The apparatus shall further conform to all Federal Motor Vehicle Safety Standards. NO EXCEPTION. Each bidder shall furnish satisfactory evidence of their ability to design, engineer, and construct the apparatus specified and shall state the location of the factory producing the apparatus. They shall also substantiate they are able to render prompt and proper service and to furnish replacement parts for the apparatus. Bids will be addressed and submitted in accordance with the instructions provided on the cover sheet. The bid number, the date, and bid opening time shall be stated on the front of the bid envelope. It shall be the responsibility of the bidder to assure that their proposal arrives at the location and time indicated. Late proposals, telegrams, facsimile, or telephone bids will not be considered. NO EXCEPTION. All bidders are required to detail the payment terms for apparatus on the bidder's proposal page. Any required prepayments or progress payments must be explained in detail. <u>Service and Warranty Support:</u> To ensure full service after delivery, the bidder must be capable of providing service when required. The bidder shall show that the company is in position to render prompt service and furnish replacement parts. Each bidder must be able to display that they are actively in the fire apparatus service business by operating an authorized service center located within the State of Oklahoma, and shall stock parts equating to \$250,000.00, No Exceptions.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Detailed information shall be provided on service facilities, personnel, service vehicles, and how long the service facility has operated in the State of Oklahoma. Service is a criteria for award of this bid. <u>Service Certification:</u> Each bidder shall supply with their bid an Emergency Vehicle Technician certification, and photos of the full-service repair facility that is located within the State of Oklahoma, these documents must be provided with the proposal. No Exceptions. <u>Brand Names:</u> Any brand names, trade names, manufacturer's names, or other product identification names included in these specifications are included to establish a minimum quality and standard. These products listed in our specifications which have name brands attached in no manner limit any bidder, however the items included in your bid must meet or exceed our minimum specifications. The Fire Departments will make the sole determination as to which items meet or exceed the specifications. <u>Oklahoma Motor Vehicle License:</u> Each manufacturer, dealer, and salesperson must furnish a copy of their Oklahoma Motor Vehicle Commission License. <u>This is an Oklahoma Law and must be furnished, No Exceptions.</u> <u>Proposal Price:</u> Each bidder's proposal must include all items required in the specifications unless a specific exception is taken. Any bidder who options prices an item included in these specifications that does not specifically require option pricing will have their proposal rejected without further cause. <u>Proposal Format:</u> Each bid must be accompanied by a set of detailed contractor's specifications consisting of a detailed description of the apparatus and equipment proposed. All bid proposal specifications must be in the same sequence as the advertised specification for ease of comparison. These specifications shall include size, location, type, and model of all component parts being furnished. Detailed information shall be provided on the materials used to construct all facets of the apparatus body. Any bidder who fails to submit detailed construction specifications, or who photocopies and submits these specifications as their own construction details, or any proposals		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
found to have deviations without listing them will be considered non-responsive and shall render their proposal ineligible for award. NO EXCEPTION. <u>Exceptions:</u> The following apparatus specifications are considered minimum design and construction standards against which the apparatus will be inspected. It is the intent to receive proposals on equipment/apparatus meeting the attached detailed specifications in their entirety. Any proposals being submitted, without "Full Compliance" with these specifications shall so state on the bid proposal page, followed by a detailed "Letter of Exceptions" listing the areas of non-compliance. The reference must include page number, paragraph, and the exact nature of the exception. Failure to follow this format, provided for the convenience of the Purchaser, will render the vendor's proposal non-responsive and ineligible for award of contract. If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary. The Purchaser may add the statement "No Exception" to a component or design feature in these specifications. In the interest of fleet conformity or specific performance requirements, the Purchaser will not permit exceptions taken to these item(s). The Purchaser reserves the right to reject any or all bid proposals and purchase the equipment it deems most suitable to its needs. The Purchaser does not, in any way, obligate itself to accept the lowest or any bid. Any bidder taking total exception to the complete specification, or a major element will result in immediate rejection of the proposal. <u>Delivery:</u> The bidder shall state the time required for delivery of the completed unit on the proposal page. The completed unit shall be delivered to the purchaser with full instructions provided to Fire Department personnel on operation, care, and maintenance of apparatus. <u>Cab & Chassis:</u> The chassis shall be a 2023 F550 D5500 4x4 supercrew cab chassis with the following options: <u>Specs:</u> - GVWR: 19,500 lbs. - 4.88 Ratio Limited Slip Axle - Extra Heavy Service Suspension Package - Rear and Front stabilizer bar - 60" and or 84" Cab to axle		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
- Power Train: - Motor Gas and or Diesel - Automatic Transmission - Engine Block Heater - Heavy Duty Alternator Interior Requirements: - Vinyl 40/20/40 Split front bench seat - Vinyl 60/40 Flip-up/fold-down bench seat - Air Conditioning - AM/FM Stereo/ Clock Exterior Requirements: - Two (2) front tow hooks - 40-Gallon Fuel Capacity - Roof Clearance lights - Windshield Wipers – Interval Safety & Security: - Airbag – Driver and front passenger - Belt-Minder safety belt reminder Off Road Package: An off-road package shall be supplied. The apparatus will undergo the following modifications: - Wheel conversion kit to a 20x8.5 rim with a dully rear rim - Six (6) 285/55-R20 Nitto Ridge Grappler Tires Cab Console: An electrical console and enclosure shall be provided to house cab mounted electrical switching devices and equipment. The console shall be located between the driver's and the officer's seating up to the OEM dash. There shall be sufficient space available to house siren control, department radio's, Setcom system and monitor joystick. The center seat will need to be removed. Front Bumper: A Buckstop Outback full front bumper replacement shall be supplied. The front bumper shall be manufactured with 1 ¼" square tubing with the 90-degree corners on the square tubing to give the grille guard unmatched strength & durability. The body of the front bumper shall be constructed from 1/8" black gloss tread plate and shall mount to the apparatus frame using a combination 3/8" and ½" steel plate.		

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The front bumper shall have an integrated speaker mount, integrated receiver tube and monitor deck. Step Bars: Heavy duty step bars shall be supplied and mounted to the cab & chassis. These step bars shall be located under the cab doors to allow for the ease of entering and exiting the apparatus. Mud Flaps: Mud flaps shall be provided behind each rear wheel. Chassis Fuel Fill: There shall be a fuel fill provided in a recessed area on the rear of the truck. Chassis DEF Tank Fill: There shall be a DEF (Diesel Exhaust Fluid) fill provided in an accessible location on the body. <u>Body:</u> The fire body shall be constructed entirely of heavy-duty extruded aluminum. The fire body dimensions shall be 119" L x 96" W. The perimeter of the fire body shall be constructed of a custom heavy duty 5.0" x 3.0" 6061-T6 aluminum extrusion. The fire body cross members shall be constructed of heavy duty 2.0" x 3.0" 6061-T6 National Standard extruded aluminum channel. The extruded aluminum cross members shall be located on 12" centers. The fire body mounting sills shall be constructed of heavy duty 6.0" 6061-T6 National Standard extruded aluminum channel. A rubber isolation barrier shall be provided between the fire body extruded aluminum mounting sills and chassis' steel frame rails. There shall be .125" aluminum diamond plate covering the non-standing areas of the deck of the fire body. There shall be .125 embossed aluminum on all walking or standing areas of the deck.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The .125" aluminum diamond plate deck shall be stitch welded to the bottom side of the perimeter extrusions. Headache Rack: There shall be a headache rack located at the front of the fire body. The headache rack shall be constructed of heavy duty 3.0" x 2.0" 6061-T6 extruded aluminum tube. The headache rack shall have .125" aluminum diamond plate covering the bottom half on the front side and expanded aluminum on the top half. There shall be an approximate 60" W x 10" D aluminum plate light bar mounting platform located on top of the fire body headache rack. Walkway: There shall be step wells provided at the front corners of the fire body. The step wells shall be approximately 24" W x 24" D x 16" T with a step along the back wall. There shall be 44" T gates provided at the entrance to the step wells. The gates shall be held in the closed position by a pneumatic piston and have a positive stop as to not let the gate swing outward. The gates shall have a .125 aluminum diamond plate cover. Rear Apron: There shall be a 95" W x 12.0" D x .1875 smooth aluminum apron provided at the rear of the fire body. Tow Eyes: There shall be two (2) ¾" plate steel tow eyes protruding through the rear apron. Rear Receiver: There shall be a 2.0" receiver tube provided at the rear of the apparatus. The receiver tube shall be integrated into the fire body mounting sills. Rear Bumper:		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
A heavy-duty steel bumper shall be supplied on the rear of the apparatus. This bumper shall be designed as to not interfere with the apparatus departure angle but allow for access to the fire body. An NFPA not slip surface shall be applied to the top of the rear step bumper. Compartmentation: L1 Compartment: There shall be one (1) compartment with one (1) lift up compartment door provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 58"L x 20"D x 30"H. R1 Compartment: There shall be one (1) compartment with two (2) lift up compartment doors provided on the deck of the fire body. The body of the compartments shall be constructed of .125" aluminum diamond plate. The compartment door shall be constructed of .125" aluminum diamond plate. The compartment doors shall be attached to the compartment body utilizing a full length stainless steel piano hinge with stainless steel fasteners. The compartment doors shall be held in the open position by two (2) heavy duty pneumatic struts. The compartment door latches shall be D-Ring slam latches. Dimensions of the driver's side compartment shall be 88"L x 20"D x 30"H. B1 Compartment: There shall be a 72" D x 30" W x 5.0" H long tool storage compartment provided.		

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The compartment shall be located between the fire body mounting sills, with the door opening facing the rear of the apparatus. The compartment door shall be constructed of .125" aluminum smooth plate and shall be horizontally hinged. Thumb latches shall be provided to open and close the door. Pre-Connect Tray: There shall be a 4"W x 96"L x 8"H transverse pre-connect hose tray located at the rear of the walkway. This tray shall be set on the floor. <u>Skid Unit:</u> The water tank, pump and plumbing shall be mounted on a heavy-duty poly frame to allow for the unit to be removed as a single unit. The skid unit shall be bolt directly through the bed to the apparatus frame utilizing heavy duty grade 8 bolts. Polypropylene Water Tank: A 500-gallon water tank shall be supplied and shall have a 4" overflow. The construction shall be of co-polymer polypropylene and shall be rectangular shaped. No Fiberglass! No Exception! The tank body and end bulkheads shall be constructed of 0.5" thick, polypropylene tested inside and out. The transverse and longitudinal swash partitions shall be interlocked and welded to each other as well as to the walls of the tank. The partitions shall be designed and equipped with vent holes to permit air and liquid movement between compartments. The 0.5" thick cover shall be recessed .375" from the top of the side walls. Hold down dowels shall extend through and be welded to both the covers and the transverse partitions, providing rigidity during filling operations. Drilled pegs for lifting eyes shall be provided in the top area of the water tank. The water fill tower shall be 0.5" thick polypropylene stock with a hinged lid and a removable polypropylene screen. The water fill tower shall be located on the front driver's side of the water tank. A sight glass shall be supplied on the rear driver's corner of the water tank, so the operator can see the lifeline of water remaining during pumping operations from the rear of the apparatus. Two (2) tank mounting tabs shall be provided. One shall be at the front and one at the rear to allow the tank to be fastened to the fire body.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The water tank shall have an overflow tube. The overflow tube shall exit below the body, ahead of the rear wheels.		
Fire Pump Plumbing System:		
The engine driven fire pump plumbing system shall be built completely of Brass piping, brass fittings, and connections.		
Tank connections, front discharges, and other piping shall use high-pressure flexible piping. Flexible hose couplings shall be threaded brass connections.		
All Valves must be Elkhart / Akron NO over the counter plumbing valves NO Exceptions		
Plumbing shall not be welded for ease of disassembly, no exceptions.		
Hose Threads:		
The hose threads shall be National Standard (NST) on all base threads on the apparatus intakes and discharges, unless otherwise specified.		
Intake and Discharge Valves:		
All valves used in the plumbing installation shall be brass quarter turn full flow type valves.		
Steel – Industrial valves shall not be used due to rusting.		
Hose Reel Discharge(s):		
One (1) 1" discharge shall be provided and piped to the redline hose reel with flexible high-pressure hose and a 1" Elkhart will be provided for this connection on manifold.		
Whipline Discharge(s):		
Two (2) whipline discharges shall be supplied and mounted in the walkway area of the apparatus. These discharges shall have a 90-degree swivel to allow firefighting operations to be conducted off the side of the apparatus.		
The whiplines shall be located with one (1) each side of the pump panel.		
Bumper Monitor Discharge(s):		
One 1.5" discharge shall be provided and plumbed to the front bumper monitor. This discharge shall be located at the rear of the skid unit.		
Pre-Connect Discharge(s):		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
One (1) ElkHart 1.5" valve shall be provided and plumbed to the pre-connect crosslay tray located on in the walkway of the apparatus bed. Plumbing for this unit shall run underneath the apparatus bed. Fire Pump to Water Tank bypass Line: A 1" fire pump to water tank refill and pump bypass cooler line shall be provided. The valve shall be a full flow ElkHart quarter turn ball valve. A 1" piping and flex hose will be provided from valve to tank. The valve control shall be directly on the valve. Water Tank to Pump & Suction: A 3" water tank to fire pump line shall be provided with a full flow 3" ElkHart quarter turn ball valve. Suction will be provided with a full flow 3" ElkHart quarter turn ball valve so that while pumping you can also be connecting to an additional water source. A 2½" chrome plug and chain will be provided at the rear for the suction. Manifold: A Brass manifold will be provided for all discharges. Fire Pump: A Hale/ Darley/ Waterous pump shall be supplied and mounted to the rear of the skid unit. Performance The pump/engine shall be capable of meeting the NFPA 1906 performance rating of 50 GPM @ 150 PSI and 150 GPM @ 100 PSI. Typical pump performance from 5-foot draft at sea level shall be: 90 GPM @ 150 PSI, 170 GPM @ 100 PSI and 250 GPM @ 30 PSI. Pump The pump body shall be made of anodized alloy aluminum castings coupled together with a stainless-steel band clamp with an O-ring seal which allows quick pump volute removal for servicing. The pump end shall be factory hydrostatically tested to 300 PSI. The impeller shall be bronze. The renewable clearance rings shall be made of bronze to inhibit galvanic corrosion. The impeller shall be 8.75 inches (222.3 mm) in diameter and designed with a sleeve back end to prevent water from coming in contact with the engine shaft. The pump shaft seal shall be an automatically adjusting, maintenance free, mechanical type. The pump body shall be equipped with a petcock drain valve.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	YES	NO
Priming The pump shall be equipped with an exhaust venturi primer of brass and stainless-steel construction. The primer shall be capable of priming at 13 feet lift. The primer shall be actuated with a spring return, single control lever located at the operator's panel. The primer to pump line shall be equipped with an automatic check valve for priming from an open body of water and a manual shut -off for pumping from a pressurized water source. Suction/Discharge The suction and discharge ports shall be female pipe thread, designed and located to accept applicable hose thread adapters (3" NPT / 4" Victaulic Suction, 2.5" NPT Discharge flange). Engine The engine shall be a 4 cycle gasoline Briggs and Stratton Vanguard 386447 series V-Twin, overhead valve, air cooled design. Engine rating shall be 23 BHP at 3600 RPM. Engine displacement shall be 627cc and shall be designed to meet current CARB (California Air Resources Board) and EPA (Environmental Protection Agency) standards. A 12-volt electric system shall be provided with electric starter and a 16-amp alternator. Engine shall be equipped with a residential muffler with USDA approved spark arrestor. Pump Panel: A standard pump panel shall be supplied and located in the walkway of the apparatus. The pump panel shall be installed on a tilted pump panel for the ease of visibility. Pump Panel shall have the following controls: • Pump Panel Light switch • Start/Stop switch • Low oil pressure light • Pump pressure gauge • Idle control • Choke Fuel Tank: A heavy-duty aluminum 6-gallon fuel tank shall be supplied and mounted to the skid unit frame. The fuel tank shall have fuel level sight gauge and an overflow tube. Battery Supply: The skid unit of the apparatus shall have a heavy-duty separate battery supply to power the unit. The engine will include a 36-watt alternator to keep separate battery charged. Emergency Back-up:			

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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
An emergency back-up system that runs off the chassis electrical system shall be supplied that will assist in starting the skid unit in case of a battery failure. Pump Test: The skid unit shall be tested after all its associated piping and valves have been installed on the apparatus. The tests shall be conducted at the manufacturer's facility. Tank Level Gauge(s): Water Gauge: A lighted LED water tank level gauge will be provided on the pump panel for view of lifeline of water during nighttime operations. A mini lighted tank level gauge will be provided inside cab, so operator is able to view tank water levels from the safety of the cab. Skid Work Light: One (1) LED flood/spotlights shall be installed in accordance with customer requirements. Lights shall be 12v 20W low current draw lights and shall be mounted as follows: - One (1) on top of the water tank offset the rear, to illuminate the pump and plumbing. This shall be controlled by a single switch on the pump panel. Features: • 10- and 60-degree spot and flood • 2,112 Lumen output ea. • Black, cast-aluminum housing • Lifetime Warranty <u>Bumper Monitor:</u> The adjustable 30, 60, 90 or 125 GPM rated monitor is to be an all-electric single waterway monitor constructed of lightweight Pyrolite. The monitor shall have cast-in turning vanes in each elbow. The monitor shall have fully enclosed motors and gears with manual overrides for both horizontal and vertical rotation and may be operated simultaneously. The monitor is not to exceed 13 3/16" high and 11 9/16" wide. The vertical travel shall be from 45° below to 90° above horizontal with adjustable stops at -20° and +45°. The horizontal rotation shall be 320° with adjustable stops at 90°.		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The control system electronics shall be integrated with the monitor wiring harness. The control system shall use sealed, locking connectors for the monitor and nozzle motors. Two additional sealed, locking connectors shall be supplied for input power/electric valve control and J1939 CAN bus interface. A sealed USB connector shall be provided for updating control system firmware. All electrical connectors shall be minimum IP65 rated. The operator interface shall consist of a CAN bus compatible joystick which will provide up, down, right, left, fog, and stream control of the monitor. The joystick shall have a trigger switch to control an optional electric discharge valve. The monitor shall include a 5' long power/valve harness and 20' long CAN joystick harness. <u>Hose Reel(s):</u> Booster Hose Reel: One (1) Hannay hose reel, model EF-16.5-17-18-RT with electric rewind shall be provided with a single mounted roller and spool assembly and a brake to adjust tension on the spool. The hose reel shall be mounted on the Driver's side of the apparatus bed, with the capability to pull off the rear of the apparatus. Hose Reel Electric Rewind: Two (2) electric rewind push buttons will be installed. The electric rewind controls shall be a weather-resistant enclosed momentary push button switch. Switches shall be installed as follows: One (1) switch at each hose reel location. <u>Hose:</u> Booster Hose: 100' of 1" booster hose shall be provided for the booster hose reel. Whipline Hose: Two (2) sections of 10' x 1" red 800 psi booster line shall be provided. Pre-Connected Hose: 100' of 1.5" double jacket pre-connected hose shall be provided for the pre-connect discharge. <u>Electrical System:</u> Low Voltage Electrical System Specifications		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The following specifications describe the low voltage electrical system on the specified brush truck type fire apparatus. The electrical system shall include all panels, electrical components, switches, and relays, wiring harnesses and other electrical components. All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be run in a loom with a minimum 289-degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction. The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels. All connections shall be crimp-type to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system. Any electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in an electrical junction box or covered with a removable electrical panel or wire loom. The wiring shall be secured in place and protected against heat, liquid contaminants, and damage. The electrical system shall include the following: A) The electrical wiring shall be harnessed or be placed in a protective loom. B) No holes shall be made in the roof of chassis, unless approved by end user. C) Any electrical component that is installed in an exposed area shall be mounted in a manner that will not allow moisture to accumulate in it. Breaker: A 100-amp breaker shall be supplied and located near the master disconnect switch that will prevent potential upfitter electrical issues from affecting chassis battery system. Electronic Siren:		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
One (1) Whelen 295SLSA1 features: electronic air horn, siren tones, radio rebroadcast, P.A. and shall have a hard-wired microphone. •		
Speaker: Two (2) SA315, 100-watt speakers shall be mounted behind the front of the chassis bumper or grille. The speaker shall be wired to the electronic siren located in the cab •		
Back-up Alarm: An automatic electric 97 dB back-up alarm shall be wired to activate when the transmission is placed into reverse. The alarm shall be mounted under the rear of the apparatus body.		
Radio: A power cable shall be provided in the cab console for the two (2) 800 Mhz radios. Radio Faceplates shall be provided and installed.		
Antenna: Antenna wiring with mounting "L" bracket shall be supplied and ran to the driver's side light bar mounting platform. The Antenna shall be customer supplied.		
Communication System: A wireless Setcom communication system with two (2) under the helmet wireless headsets, digital intercom with interface cable and base station shall be installed in the cab console.		
Lighting:		
Compartment Light(s):		
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Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Each compartment shall be provided with two (2) LED vertically mounted lights. The compartment lights shall be installed one (1) on each side of the compartment door opening with the light actuation with the door opening. License Plate Light: A license plate light and bracket shall be supplied and mounted to the rear of the apparatus. Switch(es): Master Disconnect Switch: A battery disconnect switch shall be located on the front face of the console offset to the driver of the apparatus. The switch shall disconnect the upfitter conversion from the 12-volt battery system. Camera System(s): Rear View Camera: A rearview camera system shall be supplied. The screen shall be a windshield-mounted rearview mirror with an integrated 7" LCD monitor that displays the rear-view image when the apparatus is shifted into reverse. The monitor shall automatically adjust in day and night modes and shall have a resolution of 800*480 pixels. The camera shall be a high-mounted, wide-angle look-down camera with 150-degree visibility and night vision capabilities. Thermal Imaging Camera: A vehicle mounted driver vision enhancement thermal imaging camera shall be supplied and mounted to the apparatus. The camera shall allow for thermal imaging to be routed through the review mirror monitor. Camera shall be mounted to the headache rack. Features: • 56 deg- horizontal field of view • Made of stainless-steel construction • Provides NTSC video Door Ajar: Each compartment light shall be controlled by a magnetic "On-Off" switch located on each compartment door.		
Rev. 1	16	

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
The magnetic switch shall control a door ajar light located inside the cab. Emergency Lighting: The warning lights shall be switched in the chassis cab with labeled switching in the cab console. A single warning light switch shall activate all required warning lights. This switch will allow the vehicle to respond to an emergency and call for the right of way. All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the operator and passenger. Upper Warning Lights: Light Bar: A WHELEN 55" Red/Blue LED low profile light bar shall be supplied. The light bar shall have clear lenses to the front and to the rear and will be mounted on the headache rack mounting platform. Features: • NFPA 1901 Compliant • Variety of selectable flash patterns • Hermetically sealed Lower Warning Lights: Fourteen (14) Whelen ION R/B Warning lights shall be provided. These warning lights have eleven (11) different flash patterns to customize to department specifications. Warning Lights shall be installed as follows: • Four (4) Red/Blue LEDs on the front grille guard with Two (2) each side • Two (2) Red/Blue LEDs on apparatus chassis with one (1) each side above the front wheel well area. • Four (4) Red/Blue on the apparatus body: with Two (2) each side: One (1) offset as forward as possible and one (1) offset rearward as possible. • Four (4) Red/Blue LEDs on the rear of the apparatus with Two (2) each side Features: • Multiple selectable flash pattern • Meets SAE J845, SAE J595 and CAL Title 13 • Five-year manufacturer's warranty. Scene Lighting:		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Flood Light(s): One (1) 75-watt 15 LED High Intensity 20" single row light bar shall be supplied. The flood lights shall be provided at the following locations: • One (1) mounted on the front bumper on the upper section of the bumper. Features: • 7290 Lumens • Flood pattern • Lifetime Warranty • Durable aluminum extrusion housing D.O.T Lighting: The 12-volt lighting on the brush truck body shall conform to FMVSS 108 standards. All DOT lighting shall be LED type. Clearance: There shall be a minimum of five (5) red clearance lights on the rear of the truck (three (3) in the rear center and one on each outside corner of the rear apparatus bed). One (1) red clearance light shall be on each side rear corner and one (1) amber clearance light on each front side corner. Signal, Brake and Reverse: The rear shall also contain a minimum of two (2) each Stop/Turn/Taillights and two (2) clear reverse lights. These lights shall be oval, flush mounted lights. <u>Label(s):</u> Fastened labels shall be supplied and mounted in accordance with their function: On each walkway entrance door shall have a label that states "All personnel must be seated in cab with seatbelt fastened while vehicle is in motion. Riding elsewhere may cause serious injury or death" All appropriate switches inside the cab shall be properly labeled with their function. All appropriate valves on the pump panel shall have a corresponding function label. <u>Loose Equipment:</u> The following loose equipment shall be supplied with the apparatus:		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
Nozzle(s): 1" Nozzle: Three (3) Elkhart select flow nozzles with pistol grip handles and bell shut off shall be supplied. Features: • Selectable gallonage nozzle with multiple flow settings • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant 1.5" Nozzle: One (1) Elkhart select flow nozzle with pistol grip handles and bell shut off shall be supplied. Features: • Selectable gallonage nozzle with multiple flow settings • Straight stream to wide fog and flush without shutting down • Metal horseshoe handle • 100 psi (7.0 BAR) standard • NFPA 1964 compliant <u>Scotchlite Striping & Lettering:</u> Cab and Body: The apparatus cab and body shall be provided with Scotchlite striping and installed to department's requirements. Color to be determined at prebuild meeting. Lettering: Scotchlite lettering with shading will be installed to department requirements and colors to be determined at prebuild meeting. Rear Body: Chevron "A" style Scotchlite striping shall be provided on rear of body (outboard rearward facing smooth plate panels of the rear apron). The colors shall be Yellow/ Red diamond grade.		

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
<u>Apparatus Paint:</u> Cab and Chassis: The apparatus cab and chassis shall be painted in accordance with the policies with the chassis manufacturer with all applicable warranties. The color of the cab shall be Red. Apparatus Body: The apparatus body shall be made of aluminum and shall not be painted. <u>Warranty:</u> 1 Year Standard Warranty: The apparatus manufacturer shall provide a full 1-year standard warranty. All components manufactured by the apparatus manufacturer shall be covered against defects in materials or workmanship for a 1-year period. All components covered by separate suppliers such as engines, transmissions, tires, and batteries shall maintain the warranty as provided by the component supplier. A copy of the warranty document shall be provided with the proposal. No Exceptions 2 Year Pump Warranty: Pump manufacturer shall warranty products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of two years or 2000 hours of usage, whichever comes first. Products used for rental or contracting purposes are warranted for a period of six months or 2000 hours of usage, whichever comes first. This limited warranty is effective only if the equipment or apparatus is used as directed, is not subjected to misuse, negligence, or accident, and is not altered, treated, or repaired by someone other than pump manufacturer or its designee. A copy of the warranty document shall be provided with the proposal. No Exceptions 10 Year 100,000 Mile Structural Warranty: The apparatus manufacturer shall provide a comprehensive 10 year/100,000-mile structural warranty. This warranty shall cover all structural components of the cab and/or body manufactured by the apparatus manufacturer against defects in materials or workmanship for 10 years or 100,000 miles, whichever occurs first. Excluded from this warranty are all hardware, mechanical items, electrical items, or paint finishes. A copy of the warranty document shall be provided with the proposal. No Exceptions 10 Year Stainless Steel Plumbing Warranty: The apparatus manufacturer shall provide a full 10-year stainless steel plumbing components warranty. This warranty shall cover defects in materials or workmanship of apparatus		
Rev. 1		20

Any Mention of Brand Name Shall be "or Equivalent"	BIDDER COMPLIES	
	YES	NO
manufacturer designed foam/water plumbing system stainless steel components for 10 years. A copy of the warranty document shall be provided with the proposal. No Exceptions 3 Year Graphics Warranty: The apparatus manufacturer shall provide a full 3-Graphics warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's graphic components for 3 years. A copy of the warranty document shall be provided with the proposal. No Exceptions 5 Year Electrical Warranty: The apparatus manufacturer shall provide a full 5 year-electrical warranty. This warranty shall cover defects in materials or workmanship of apparatus manufacturer's electrical components for 5 years. A copy of the warranty document shall be provided with the proposal. No Exceptions Lifetime Polypropylene Tank Warranty: The tank manufacturer warranties that tanks will be free from defects in materials and workmanship for a period equal to the service life of the original vehicle on which tank was installed. Original vehicle must be in active fire suppression for warranty to be in full effect. A copy of the warranty document shall be provided with the proposal. No Exceptions.		
Rev. 1	21	



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.q.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-04 - Adding Chapter 2, Article III-Officers and Employees; Section 2-113.- Community Development Director (Adding a new section to define responsibilities)

I. BACKGROUND/DESCRIPTION:

Currently, our ordinances do not define the Community Development Director or give authority to enforce the development codes to the Community Development Director. This addition to the section will help with enforcement of regulations.

This is adding a new section that we do not currently have.

The planning commission recommends this for approval

II. RECOMMENDED ACTION:

Approve Ordinance 2023-04 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ord. 2023-04 amending Chapter 2, Article III-Section 2-113

ORDINANCE NO. 2023-04

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, ADDING CHICKASHA CODE OF ORDINANCES, CHAPTER 2, ARTICLE III- OFFICERS AND EMPLOYEES, SECTION 2-113. COMMUNITY DEVELOPMENT DIRECTOR.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION I. Chickasha City Code of Ordinances; Chapter 2 Article III Officers and Employees, Section 2-113. Community Development Director is hereby added and shall henceforth read as follows:

Chapter 2, ARTICLE III. - OFFICERS AND EMPLOYEES

Sec. 2-113. - Community Development Director, ADD:

- (a) The City Council has established the Office of Community Development to plan and guide the orderly growth and development of the City of Chickasha. (paraphrased from web page) The Community Development Director shall be appointed by the city manager.
- (b) The Community Development Director shall have the following powers and duties:
 - (1) To enforce compliance with applicable regulations in order to meet the quality of life, health, and safety needs of our community, and to deliver to its customers courteous, efficient, and competent service.
 - (2) To enforce the regulations of the Zoning Ordinances and the Land Development Code.
 - (3) To receive, file and forward to the Board of Adjustment the records in all appeals and variance applications.
 - (4) To maintain permanent and current records of the Land Development Code, including but not limited to, zoning maps, amendments, conditional uses, variances, appeals and applications therefore and records of hearings thereon.
 - (5) To maintain for distribution to the public a supply of copies of the Official Zoning Map and the compiled text of the Zoning Ordinances and the Land Development Code.
 - (6) To serve as the Administrative Officer to the Planning Commission and to provide such clerical, technical and consultative assistance as may be required by the Planning Commission, Board of Adjustment and other Boards, Commissions and Officials in the exercise of their duties relating to Zoning Ordinances and the Land Development Code.

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.r.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-05 - Adding subparagraph (a); Chapter 2, Article V.-Boards, Commissions, Agencies and Similar Bodies, Section 2-166.- Planning Commission. (Adding a section to better describe responsibilities)

I. BACKGROUND/DESCRIPTION:

This paragraph will add statutory language to the code of ordinances to help the planning commission have enforcement power based on their decisions.

This is a small ordinance update to help with the planning commission's definition of duties and powers. The current code lacks this information.

The planning commission recommends this for approval

II. RECOMMENDED ACTION:

Approve Ordinance 2023-05 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ord. 2023-05 Amending Chapter 3, Article V

ORDINANCE NO. 2023-05

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, AMENDING CHICKASHA CODE OF ORDINANCES, CHAPTER 3, ARTICLE V.- BOARDS, COMMISSIONS, AGENCIES AND SIMILAR BODIES, SECTION 2-166-PLANNING COMMISSION

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION I. Chickasha City Code of Ordinances; Chapter 2, Article V.- Boards, Commissions, Agencies and Similar Bodies, section 2-166 – Planning Commission is hereby amended and shall henceforth read as follows:

Chapter 2, ARTICLE V. - BOARDS, COMMISSIONS, AGENCIES AND SIMILAR BODIES

Sec. 2-166. - Planning commission. Revise by adding sub-paragraph (a)

- (a) The city, pursuant to the provisions of Sections 45-101, et seq. Title 11 of the Oklahoma Statutes, hereby creates the City of Chickasha Planning Commission, to carry out a municipal plan for the orderly development and betterment of the city. The Planning Commission shall exercise all of the duties and powers specified in Oklahoma Statutes, Title 11, Sections 45-101, et seq., the Charter of the City of Chickasha, Oklahoma, and the planning and zoning ordinances of the city as codified in the Chickasha City Code as they now exist or may from time to time be amended.
- (b) Membership. The city council has created a city planning commission comprised of five members and two alternates appointed by the mayor and confirmed by the city council. Each member shall serve for a term of three years, except that the commission, when first appointed, shall serve as follows: one-third of the members shall serve a term of three years, one-third of the members shall serve a term of two years, and one-third of the members shall serve a term of one year as defined by O.S. title 11, art. 45. The two alternates shall be titled alternate #1 and alternate #2. In the event that a commission member resigns or is removed prior to the expiration of their term, alternate #1 shall become a commission member for the remaining portion of that term. At that time, alternate #2 shall become alternate #1 and a new alternate #2 shall be appointed by the mayor and confirmed by the city council.
- (c) Lack of quorum. In the event of a lack of quorum at a commission meeting, the chairperson of the planning commission shall empower one or both of the alternate members to act as voting members in order to fulfill the quorum.
- (d) Bylaws. The planning commission shall formulate procedures and adopt bylaws to carry one business that may, from time to time, be modified or changed by the commission as needed. In their bylaws, the planning commission shall create a procedure for the removal

of commission members who demonstrate egregious inefficiency, neglect of duty, nonattendance, or malfeasance in office.

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.s.

AGENDA ITEM: Discussion, consideration and Possible action to approve Ordinance 2023-06 - amending Chapter 50, Traffic and Vehicles, Section 34 Manual and Specifications for traffic control devices. (Creating uniform traffic control devices)

I. BACKGROUND/DESCRIPTION:

This ordinance will ensure new traffic control devices from this point forward will be uniformed and be required by this ordinance.

The planning commission recommends this for approval

II. RECOMMENDED ACTION:

Approve Ordinance 2023-06 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ord. 2023-06 Amending Chapter 54, Section 34

ORDINANCE NO. 2023-06

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, AMENDING CHICKASHA CODE OF ORDINANCES, CHAPTER 54, TRAFFIC AND VEHICLES, SECTION 34.- MANUAL AND SPECIFICATIONS FOR TRAFFIC CONTROL DEVICES.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION I. Chickasha City Code of Ordinances; Chapter 54, Traffic and Vehicles, Section 34.- Manual and Specifications for Traffic Control Devices is hereby amended and shall henceforth read as follows:

Chapter 50, TRAFFIC AND VEHICLES

Sec. 50-34 Revise to read:

All traffic control signs, signals and devices shall conform to the manual and specifications approved by the Oklahoma Department of Transportation. All signs and signals required hereunder for a particular purpose shall so far as practicable be uniform as to type and location throughout the city. All traffic control devices so erected and not inconsistent with the provisions of state law or this chapter shall be official traffic control devices.

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.t.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-07-Repealing Chapter 22 Floodplain Development and Management. (Moving this chapter to be located in Chapter 46 and Repealing chapter 22)

I. BACKGROUND/DESCRIPTION:

This chapter will be repealed and the text is added to chapter 46.
All wording will remain the same and in accordance with state statutes.

The planning commission recommends this for approval

II. RECOMMENDED ACTION:

Approve Ordinance 2023-07 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ord. 2023-07 Amending Chapter 22 - Floodplain Development and Management

ORDINANCE NO. 2023-07

**AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF
CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, REPEALING
CHICKASHA CODE OF ORDINANCES, CHAPTER 22 FLOODPLAIN
DEVELOPMENT AND MANAGEMENT**

**BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA,
STATE OF OKLAHOMA:**

SECTION 1. Chickasha City Code of Ordinances; Chapter 22 Floodplain Development and Management is hereby repealed.

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.u.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-03 - amending Chapter 52, Utilities, Section 79 Definitions POTW, and Section 52-137 Private Sewer line connections (Updating to match terminology located in the International Building Code)

I. BACKGROUND/DESCRIPTION:

These are changes to update the utility ordinance in accordance with the land development code, removing contradicting information.

The planning commission recommends this for approval

II. RECOMMENDED ACTION:

Approve Ordinance 2023-03 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ord. 2023-03 amending Chapter 52 Utilities, Section 52-79, 52-137

ORDINANCE NO. 2023-03

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, AMENDING CHICKASHA CODE OF ORDINANCES, CHAPTER 52 UTILITIES, SECTION 52-79 DEFINITIONS, SECTION 52-137 PRIVATE SEWER LINE CONNECTIONS

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION I. Chickasha City Code of Ordinances; Chapter 52, Utilities, Section 1 – Utility meter installation Manual, Section 79 Definitions POTW, and Section 52-137 Private Sewer line connections is hereby amended and shall henceforth read as follows:

Chapter 52 UTILITIES

Sec. 52-79 Definitions, Revise Definition of POTW to read:

“POTW means a treatment works as defined by section 212 of the Clean Water Act, 33 U.S.C. 1251, et seq, which is owned by the City of Chickasha. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the City of Chickasha, which has jurisdiction over the Indirect discharges to and the discharges from such a treatment works. Specifically excluded from this definition are private service lines connected to the POTW. All private service lines from the building to the point of connection to the POTW are the responsibility of the owner/occupant of said building.”

Sec. 52-137 Private Sewer line connections - Revise to read:

“All private service lines connected to the city public sewer system shall include a *backwater* device, or other city-approved backflow prevention device, connected to the sanitary sewer clean out, to protect against backflow. Said device shall be of sufficient size and quality to prevent backflow to individual residences or businesses. All installed *backwater* devices shall be registered with the city and properly maintained and secured by said property owner.”

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.v.

AGENDA ITEM: Discussion, consideration and possible action to approve the General Drainage Policy for the City of Chickasha.

I. BACKGROUND/DESCRIPTION:

This document will be approved by council and implemented on the drainage and run-off policy for properties in the city of Chickasha.

The planning commission recommends this for approval.

II. RECOMMENDED ACTION:

Staff Recommends to approve the General Drainage Policy for the City of Chickasha as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

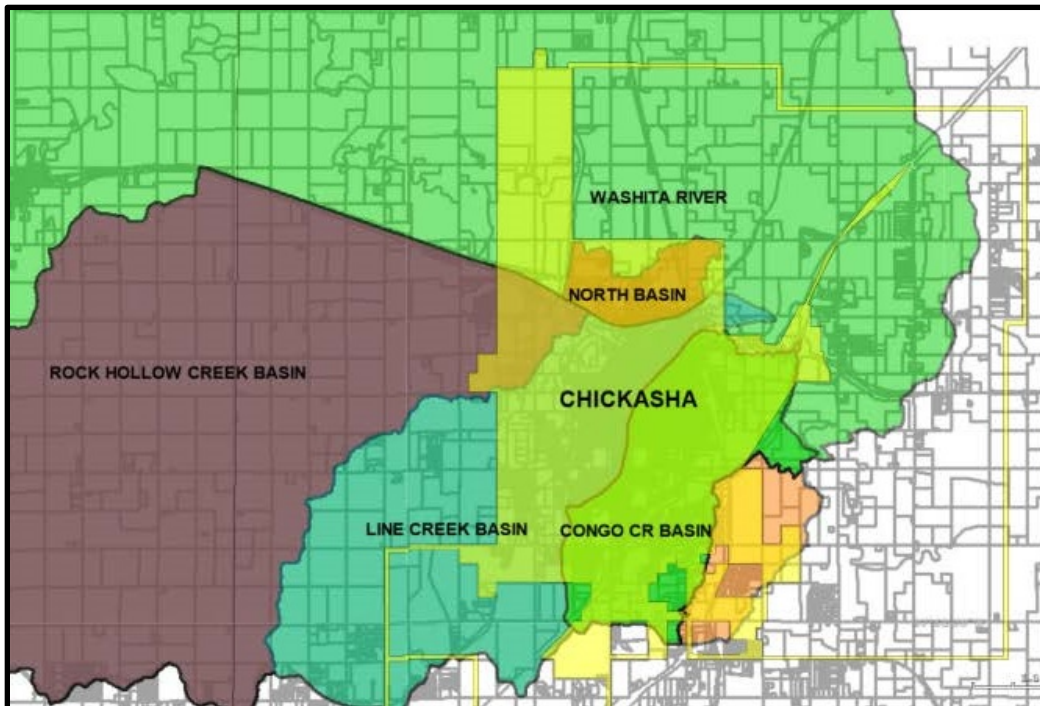
V. ATTACHMENTS:

1. General Drainage Policy for the City of Chickasha 22.11.30

CITY OF CHICKASHA, OKLAHOMA GENERAL DRAINAGE POLICY

Approved by Planning Commission

Approved by City Council



Updated November 30, 2022 by:



CHISHOLM TRAIL CONSULTING, LLC

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**CITY OF CHICKASHA
GENERAL DRAINAGE POLICY**

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SECTION 1.0

GENERAL DRAINAGE POLICY FOR THE CITY OF CHICKASHA

It is the goal of this policy to establish minimally acceptable standards to be utilized in the design of storm water drainage system improvements and where required by sections herein limit storm water runoff rates after development to their historic value.

1.1. PURPOSE:

The purpose of this Drainage Standard is to establish standard practices for the design and construction of storm water drainage systems within the City of Chickasha. The design factors, formula, graphs and procedures are intended for use as a minimum standard in the design of storm water drainage systems.

Methods of design other than those indicated herein should be considered where professional experience clearly indicates the minimum requirements as listed herein will not provide the level of service nor the level of protection intended. However, there should be no variations from the practices established herein without the express approval of the City Engineer.

In the event of conflict between this Policy and any other ordinance or regulation of the City of Chickasha, this Policy shall govern.

Performance Requirements: The overall goal of these standards is to provide guidance in the design, construction, operation, and maintenance of drainage system improvements. As such, an adequate drainage system could be designed, approved by the City and installed according to plan. However, if the proposed improvements do not function as intended by these standards, the site may be in violation of this standard. Therefore, the specific goal is not standards and specifications for practice, but the mandate that the improvements must function as intended. If additional control structures or improvements are needed to ensure total compliance with this standard, the design must be revised and approved, and the new measures shall be installed.

Compliance with Other Requirements: The design and construction of all developments shall comply with the provisions of Chapter 46, Article VI, Stormwater Quality and Chapter 46, Article VII, Floodplain Development and Management. In the event of conflict between any other ordinance or regulation of the City of Chickasha and these Articles, the provisions of these two articles shall govern.

1.2. MINIMUM SURFACE DRAINAGE REQUIREMENTS FOR THE CITY OF CHICKASHA

1.2.1. General Design Criteria:

1.2.1.1. Drainage facilities shall be designed to provide a sufficient storm water drainage system for the conveyance of storm water run-off received from upstream and from the subject property with due allowance having been made for continued conveyance of storm water runoff from adjacent properties as the drainage basin develops.

The drainage system including streets, bridges, culverts, open channels, detention/retention facilities and etc., shall be designed to carry all probable storm recurrence intervals up to and including the 100-year frequency storm event.

1.2.1.2.A dedicated drainage easement shall encompass all land lying below the water surface elevation generated by the 100-year frequency storm event and resulting storm water runoff.

1.2.1.3. Site improvement shall provide for the grading of all building pads to an elevation where the lowest finished floor elevations shall be one (1) foot above the water surface elevation generated by a 100-year frequency storm event. In all developments, surface water from each dwelling lot will flow away from each dwelling to an approved collection or disposal location as required under Section VI of this standard.

1.2.1.4. Erosion and sedimentation control facilities with construction specifications and operation and maintenance procedures detailing all erosion and sedimentation control measures which are established and required maintenance during the life of the development shall be provided.

1.2.1.5. No improvements shall be constructed which will have an adverse impact (e.g., increase flow volume or rate, increase the frequency of runoff occurrence, or increase the water surface elevation) during any storm event up to the 100 year frequency storm event upstream or downstream of the development.

1.2.2. Existing Drainage Structures:

Existing structures within and adjoining a proposed development shall be evaluated in terms of hydraulic capacity and structural soundness. Those structures found to be structurally inadequate shall be completely removed by the developer and replaced. Structures found to be hydraulically inadequate for flow and/or for protecting property as result of the changing runoff characteristics shall be replaced or modified to provide the required capacity and/or protection.

1.2.3. Utilities:

All utilities located within the floodplain, or any other open channel or swale shall be designed to prevent infiltration of floodwater and to protect against damage caused by erosion. Location of the utilities shall not restrict flood flows.

1.3. FLOOD PLAIN DESIGNATIONS

Any reference to official flood plain maps shall mean the highest order of flood plain designation recognized by the City of Chickasha. The City of Chickasha Floodplain Administrator will maintain an up-to-date file of such designations.

The highest available order of study shall be the basis of design unless it can be clearly shown that the subject study is in error. Contested studies shall be brought to the attention of the City Engineer.

1.4. DRAINAGE PLAN PREPARATION

1.4.1. Preparations:

1.4.1.1. Plan and profile shall be drawn on sheets 24" X 36" to a horizontal scale of 1" to 20', or 1" to 40' and vertical scale of 1" to 2' or 1" to 4' (except that scales may vary on special projects, such as culverts and channel cross sections).

1.4.1.2. Stationing shall proceed upstream with the North arrow pointing to the top of the sheet, or to the right. The 100-year frequency storm event water surface elevations on all channels shall be provided with cross sections at appropriate terrain changes. A stream profile shall also be provided to enable extrapolation of base flood elevations between the cross sections.

1.4.1.3. Plans for the proposed drainage system shall include property lines, lot and block numbers, dimensions, right-of-way and easement lines, flood plains, street names, paved surfaces (existing or proposed), contract limits, location, size and type of inlets, manholes, culverts, pipes, channels and related structures, outfall details, miscellaneous rip-rap placement, 2' contour lines, title block.

1.4.1.4. Profiles shall indicate the proposed storm drainage system (size and material) with elevations, flowlines, gradients, left and right bank channel profiles, station numbers, inlets, manholes, ground line and curb line elevations, typical sections, rip-rap construction, filling details, minimum permissible slab elevations adjacent to 100-year flood plains, open drainage features, pipe crossings, design flow capacities and title block.

1.4.1.5. Official flood plain designations and delineations of floodways denoting limits of permissible developments shall be shown on all preliminary plans and final plats submitted for approval wherever such plans and plats contain flood plains and/or floodway segments. In any case in which official flood plains are not delineated they shall be determined on the basis of these standards and shall be shown on all preliminary plans and final plats submitted for approval.

1.4.2. Submittals:

Computations and plans to support all drainage designs shall be submitted to the City Engineer for review. The computations and plans shall be in such form as to provide the basis for timely and consistent review and will be made a part of the permanent record for future evaluation. The computations and plans shall be accompanied by the certification of a registered professional engineer licensed to practice in the State of Oklahoma. Before final approval the submitting engineer shall provide a letter of certification stating that the submitted plan complies with all governing ordinances and adopted drainage standards of the City of Chickasha.

SECTION 2.0 DETERMINATION OF STORM RUNOFF

2.1 GENERAL

Numerous methods of runoff computation are available on which the design of storm drainage and flood control systems may be based. The Rational Method will be accepted as adequate for drainage areas up to 40 acres. For larger areas, the U.S. Army Corps of Engineers. Hydraulic Engineering Center River Analysis System (HEC-RAS) and Hydraulic Engineering Center Hydrologic Modeling System (HEC-HMS) shall be used. Other methods, such as the SCS Method, may be used if approved by the City Engineer.

2.2 RATIONAL METHOD OF RUNOFF COMPUTATION

Use of the Rational Method of Runoff computation shall use the following equations and variables, unless otherwise approved by the City Engineer.

$Q = CIA$, in which:

Q = Runoff in cubic feet per second;

A = Area to be drained in acres, as determined by field surveys, City contour maps, the latest government quadrangle maps for larger areas, or other source(s) approved by the City Engineer;

C = Runoff coefficient weighted for various ground covers, may vary between 0.05 and 0.95 (see Section 2.2.1)

I = Intensity of rainfall over entire drainage area in inches per hour, based on time of concentration (see Section 2.2.2)

2.2.1 Runoff Coefficient "C":

The runoff coefficient "C" shall be chosen to represent the integrated effects of infiltration, detention storage, evaporation, retention, now routing, and interception.

Acceptable ranges for "C" values are as follows:

<u>Land Use</u>	<u>C</u>
Business:	
Commercial	0.70 – 0.95
Office Park (Residential Type)	0.50 – 0.70
Residential:	
Single-family areas	0.30 – 0.50
Multi-units, detached	0.40 – 0.60
Multi-units, attached	0.60 – 0.75
Suburban	0.25 – 0.40
Apartment dwelling areas	0.50 – 0.70

Industrial:	
Light areas	0.50 – 0.80
Heavy areas	0.60 – 0.90
Parks, cemeteries	0.10 – 0.25
Playgrounds	0.20 – 0.40
Railroad yard areas	0.20 – 0.40
Unimproved areas	0.10 – 0.30

Surface Types:

Street:	
Asphalt	0.70 – 0.95
Concrete	0.80 – 0.95
Brick	0.70 – 0.85
Drives and walks	0.75 – 0.85
Roofs	0.75 – 0.85

Lawns:	
Sandy soil, flat – 2%	0.05 – 0.10
Sandy soil, average 2% - 7%	0.10 – 0.15
Sandy soil, steep 7%	0.15 – 0.35
Heavy soil, flat – 2%	0.13 – 0.17
Heavy soil, average 2% - 7%	0.18 – 0.22
Heavy soil, steep 7%+	0.25 – 0.35

Agriculture land:	
Bare, packed soil, smooth	0.30 – 0.60
Bare, packed soil, rough	0.20 – 0.50

Cultivated rows:	
Heavy soil, no crop	0.30 – 0.60
Heavy soil with crop	0.20 – 0.50
Sandy soil, no crop	0.20 – 0.40
Sandy soil, with crop	0.10 – 0.25

Pasture:	
Heavy soil	0.15 – 0.45
Sandy soil	0.05 – 0.25
Woodlands	0.05 – 0.25

2.2.2 Rainfall Intensity (I):

The average rainfall rate in inches per hour considered for a particular drainage basis or sub-basin and selected on the basis of design rainfall duration and design frequency of occurrence.

2.2.2.1 Intensity duration curves acceptable for Chickasha are shown on Figure 1. Rainfall intensity may also be determined by the following formula using the appropriate values from Table 1:

$$I = a/(t_c + b)^c$$

Where:

I = rainfall intensity, inches per hour

a, b and c are variables taken from Table 1

t_c = time of concentration, minutes

Table 1 IDF Curve Coefficients							
Values	2-year	5-year	10-year	25-year	50-year	100-year	500-year
a	53	64	74	93	104	108	130
b	10	12	12	15	15	15	15
c	0.82	0.79	0.79	0.79	0.79	0.77	0.75

This graph, equation and Table 1 were reproduced from the Oklahoma Department of Transportation Roadway Drainage Manual, Edition 1.0, November 2014.

2.2.2.2 The time of concentration is the time associated with the peak runoff from the watershed to the point of interest. Street flow shall be considered as being in an open paved channel. Manning's equation is acceptable for determining open channel and free water surface conduit flows.

An acceptable formula for use in determining overland flow is:

$$\text{Time} = K (L^{0.37}/S^{0.2})$$

L = Length of flow in Feet

S = Average Slope in Feet/Foot

K = Constant for Character of Surface

Values of K:

Pavement	0.37
Bare Soil	0.60
Poor Grass	0.90
Average Grass	1.00
Dense Grass	1.13

An acceptable formula for determining channel flow time is:

Time = $K (L^2/S)^{0.385}$	<u>K</u>
Curbed Street	.0035
Concrete Lined Channel	.006
Sodded Swale	.008
Bar Ditch	.012

The time of flow in a closed conduit is the quotient of the length of the conduit and velocity of flow as computed using the hydraulic factors of the conduit.

2.2.3 Drainage Area (A):

The size and shape of the watershed must be determined. Drainage areas shall be determined through the use of planimetric topographic maps, supplemented by field surveys. A drainage area map shall be provided for each project. The drainage area contributing to the system being designed and drainage sub-area contributing to each inlet point shall be identified. The outlines of the drainage divides must follow actual ridge lines rather than artificial land divisions. Each discharge point of all drainage areas shall be identified.

SECTION 3.0 FLOW IN STREETS

3.1. GENERAL

The location of inlets and permissible flow of water in the streets should be related to the extent and frequency of interference to traffic and the likelihood of flood damage to surrounding property. Interference to traffic is regulated by design limits of the depth and spread of water into traffic lanes, especially in regard to collector streets and arterials.

3.2. DESIGN CRITERIA:

- 3.2.1. Flow in gutters which are on straight or parabolic crown pavement may be determined by using Manning's Formula for channel flow or acceptable nomographs.
- 3.2.2. Minimum gutter slope on residential streets shall not be less than 0.004 ft./ft. (0.4%). Maximum gutter slope should not be more than 0.08 ft./ft. (8.0%). In a gutter which has a radius of 100' or less, the design flow depth shall not exceed 70% of the curb height.
- 3.2.3. No lowering of the standard height of street crown or splitting of curb heights shall be allowed for the purpose of hydraulic design unless approved by the City Engineer. In no case will it be allowed on collector streets or thoroughfares.
- 3.2.4. All street sections shall have a positive crown except alleys .
- 3.2.5. The flow depth in the gutter of arterial streets shall not exceed 4" for the 50-year frequency storm event nor 6" for the 100-year frequency storm event. The flow depth in the gutter on other classification of streets shall not exceed 6" for the 100-year frequency storm event. Where two (2) or more streets flowing 6" in depth intersect the flow shall be intercepted by appropriate storm sewer techniques prior to the intersection of said streets such that the depth of flow within the intersection will not exceed 4" in depth for the 100 year storm event.
- 3.2.6. The use of a cul-de-sac or dead end street as the terminal point of residential street flow shall not be allowed for drainage areas exceeding five (5) acres. A minimum of 70% of the flow in a residential street shall be removed to a storm sewer or drainage system prior to reaching the point of curvature of a cul-de-sac or the end of the street for drainage areas exceeding five (5) acres in size.

SECTION 4.0

ENCLOSED STORM SEWER

4.1.GENERAL:

An energy equation analysis shall be performed at all culvert locations for the design of these structures. For enclosed storm sewers, an energy equation analysis shall be utilized to design the structure if inlet control or backwater conditions exist. If inlet control or back water conditions do not exist, then the Manning Equation may be utilized for design purposes. Investigations of the capacity of all existing structures on the waterways shall be made. Investigations of the capacity of all existing structures on the waterway shall be made.

In addition, runoff from storms exceeding the design storm shall be anticipated by the developer and disposed of with minimum damages to surrounding property. The sewer must be accessible for maintenance.

4.2.REQUIREMENTS

- 4.2.1. All flow of water across continuous streets or alleys shall be through culverts or bridges. If bridges are used, design of said bridges shall meet the requirements of the Oklahoma Department of Transportation.
- 4.2.2. Bridges and culverts on primary drainage channels shall be sized to accommodate a 100-year frequency storm event, plus one foot of freeboard to low chord on bridges or inside top of structure on culverts, based on the drainage area involved.
- 4.2.3. Bridges and culverts on secondary drainage channels shall be sized to accommodate a hundred-year rain, plus one foot of freeboard to low chord on bridges or inside top of structure on culverts, based on the drainage area involved. However, a 50-year frequency storm event may be used when overflow provisions are incorporated to accommodate a 100-year frequency storm event.
- 4.2.4. Design calculations shall be submitted to and have the approval of the City Engineer.
- 4.2.5. Enclosed storm sewers shall be constructed of pre-cast or prefabricated pipe or built in-place of closed box design to serve a minimum 10-year frequency storm event for the drainage area involved. All storm sewers located in street rights-of-way shall be designed to augment the 100-year frequency storm event flow capacity of the street so that buildings will have 1-foot of free-board.

4.3.DESIGN CRITERIA:

4.3.1. Pipes which are a part of the storm sewer system shall have minimum diameter of fifteen (15) inches.

4.3.2. Enclosed storm drains will be designed for open-channel (free water surface) flow.

4.3.3. Minimum Grades: The slope shall be such to maintain a minimum velocity of 2.5 fps.

4.3.4. Acceptable Roughness coefficient "n" for storm sewers:

<u>Materials of Construction</u>	<u>Design Coefficient Manning's</u>
Concrete Pipe	0.012
Annular Plain Corrugated Metal Pipe	0.024
High-Density Polyethylene (HDPE)	0.009
Pipe Helical Plain Corrugated Metal Pipe	0.016
PVC Pipe (smooth interior wall)	0.009
Coated Corrugated Metal Pipe	"n" as approved by City Engineer

4.3.5. General rules to be observed:

4.3.5.1. Do not discharge a larger pipe into a smaller one.

4.3.5.2. At change in pipe size match top of pipes.

4.3.5.3. A one (1) foot freeboard shall be maintained below the proposed finish grade through the storm sewer system. The submittal of energy calculations shall be required on any reach of a system which exceeds 500 linear feet; on the total system that exceeds 1,500 linear feet; on a reach of a system which has an elevation change exceeding ten (10) feet.

4.3.6. Manhole Locations:

Manholes shall be located at intervals not to exceed 350 feet for pipe sizes 42" or less. Above 42", manholes shall be located at intervals proposed by the Design Engineer and accepted by the City Engineer. Manholes shall be located at conduit junctions, changes of grade, and changes of alignment, and changes in conduit size.

4.3.7. Pipe Extensions:

The use of one material to extend a sewer constructed of a different material shall not be allowed except at manholes, junction boxes or inlets.

4.3.8. Pipe Laid on Curves:

Degree of curvature shall be as per manufacturer's recommendations.

4.3.9. All storm sewer outlets shall have erosion protection provided by headwalls, flared end sections, curtain walls, etc.

4.3.10. A minimum of 2' of cover is required for storm sewer pipe unless otherwise approved by the City Engineer.

4.4.INLET SYSTEM:

4.4.1. Inlet design and location in street sections must be compatible with the allowable depth of water on the street section.

4.4.2. Inlet location shall not interfere with vehicular or pedestrian traffic.

4.4.3. Whenever possible inlets will intercept water before it reaches a pedestrian crosswalk, or street intersection.

4.4.4. Inlets shall not be located in a curb radius. Where existing conditions exist that necessitate an exception to this requirement, as approved by the City Engineer, the radius shall not be less than 38 feet.

4.4.5. Inlets shall be located to prevent water from minor streets spilling over and flooding major streets.

4.4.6. All hoods in a sump condition shall be 8" opening with the gutter lowered to accommodate the inlet. Transition section shall be 10' each way.

4.4.7. Where a curbed street crosses a bridge or reinforced concrete box structure, gutter flow shall be intercepted and not allowed to flow onto the structure.

4.4.8. Inlets shall be installed at all low points with sufficient inlet design to ensure the ponding depth does not exceed 4" in a 50 year storm event.

All storm sewer systems at a low point shall provide for an overflow channel with a designated drainage easement.

4.4.9. Inlet Capacities. No method of determining capacity is prescribed in this standard. Theoretical capacities using clear water in nomograph form have been published by various

sources such as the ASCE & Highway Research Board. When using nomographs submit the source along with drainage calculations.

4.4.10. Any inlet grates over which a bicyclist can ride shall be of a design considered bicycle safe.

SECTION 5.0

OPEN DRAINAGE CHANNELS

5.1.NATURAL DRAINAGE FLOW.

The creation of swales, alteration of small channel capacity or direction, changing of ground cover and the lining of existing channels with other materials, natural or man-produced, may be necessary in some parts of the system to achieve the objectives of this standard.

5.2.Classification of Drainage Channels.

For the purpose of these regulations, drainage shall be classified as follows:

- 5.2.1. A primary drainage channel is any channel having a drainage basin of more than 100 acres.
- 5.2.2. A secondary drainage channel is any drainage channel having a drainage basin of 100 acres or less in area.

5.3.OPEN STORM DRAINAGE REQUIREMENTS

- 5.3.1. All primary drainage channels with a floodway located within or adjacent to a development, subdivision, individual tract or building site shall be protected and improved by the developer as follows:

- 5.3.1.1. All land in the floodway of a 100-year flood, shall be improved and dedicated to the City as right-of-way for the purpose of performing maintenance and shall include sufficient access locations as approved by the City Engineer. The developer shall dedicate to the City as right-of-way or drainage easement the area of the 100-year flood event adjacent to the floodway for maintenance purposes.

If private ownership of the land in the floodway of a 100-year flood is desired, the developer must enter into an agreement with the City of Chickasha requiring that the private entity which owns said floodway will provide proper maintenance such that the area does not create a hazard or nuisance to the community and does not increase 100-year flood elevation. Failure to provide said maintenance will result in fines to be levied by the City, as set forth in said agreement, which will constitute a lien against the property.

- 5.3.1.2. The existing channel shall be cleaned to provide for the free flow of water; and the channel shall be straightened, widened and improved to the extent required to prevent overflow from the 100-year flood event beyond the limits of the dedicated drainage easement. All State and Federal permits shall be obtained in complying

with this requirement.

- 5.3.1.3. Whenever channel improvement is carried out, sodding, backsloping, cribbing and other bank protection shall be designed and constructed to control erosion for all the anticipated conditions of flow for the segment of channel involved.
- 5.3.1.4. Concrete trickle channels shall be constructed for all primary channels. A minimum of a 12 ft wide area adjacent to the top of bank with a maximum cross-slope of 12:1 shall be provided on each side of the channel for maintenance purposes and shall be within a dedicated right-of-way or easement.
- 5.3.1.5. A drainage channel shall not be located in a street right-of-way or easement unless it is placed in an enclosed storm sewer, or unless a paved street surface is provided on both sides of the paved channel to give access to abutting properties.
- 5.3.1.6. Bridges or reinforced concrete box structures shall be constructed in accordance with ODOT requirements at all locations where drainage channels intersect with continuous streets or alleys.
- 5.3.1.7. All drainage swales, channels, berms, and other drainage improvements shown on the approved plans shall be constructed prior to the acceptance of the subdivision final plat or to the issue of an occupancy permit for other types of developments.
- 5.3.1.8. No private wet detention facility (lake) may be constructed upon a primary channel. However, this provision shall not prohibit the City from constructing a detention facility upon a primary channel.
- 5.3.2. Secondary channels with a floodway located within or adjacent to a development shall be improved and shall meet the following conditions:
 - 5.3.2.1. When a development is traversed by or adjacent to a secondary drainage channel, watercourse or stream there shall be provided a right-of-way or drainage easement adequate to contain all of the floodway of a 100-year flood, including sufficient access locations. The developer shall dedicate a drainage easement for the area of the 100-year flood event adjacent to the floodway for maintenance purposes or said area shall be platted as Common Area and have a maintenance program carried out by the property owners' association.
 - 5.3.2.2. A drainage channel shall not be located in a street right-of-way or easement unless it is placed in a closed storm sewer or unless a paved street surface is located on both sides of a paved drainage channel to give access to abutting properties.

5.3.2.3.All secondary channels shall be improved by one of the following methods:

5.3.2.3.1. Open channels may be improved by providing a minimum five foot (5') wide concrete trickle channel with a sodded section to carry the runoff from a ten-year frequency rainfall in accordance with the Standard Drawings for drainage channels. However, the maximum water surface elevation resulting from a 100 year frequency storm event shall be one (1) foot below the finished floor elevation of any adjacent habitable structure; or

5.3.2.3.2. Open channels may be improved by the construction of a concrete channel liner with a sodded section to carry the runoff from a minimum 10-year frequency storm event in accordance with the Standard Drawings for drainage channels. However, the maximum water surface elevation resulting from a 100 year frequency storm event shall be one (1) foot below the finished floor elevation of any adjacent habitable structure.

5.3.2.4.Open paved storm drainage channels shall be designed and constructed in accordance with specifications approved by the City Engineer.

5.3.2.5.All drainage easements shall remain clear of obstructions and encroachments. Prohibited obstructions and encroachments shall include, but are not limited to, fences, driveways, mechanical and electrical equipment, storage sheds, trees and retaining walls.

5.3.2.6.Any channel improvements shall be approved by the City Engineer prior to the commencement of any work thereon.

5.3.2.7.Whenever channel improvements are carried out, sodding, backsloping, cribbing and other bank protection shall be designed and constructed to control siltation and erosion for the anticipated conditions and flow resulting from a 10- and 100-year frequency rainfall.

5.3.2.8.Any channel grading shall be such that water will not gather in pools.

5.3.2.9.Drainage easements sufficient in width to provide a buffer and provide working room for construction and access for channel maintenance shall be provided. A minimum of a 10-foot wide area in accordance with City of Chickasha Standard Drawings shall be provided on each side of the channel for maintenance purposes. A minimum drainage easement width of 25 feet shall be provided.

5.3.2.10. All drainage swales, channels, berms, and other drainage improvements

shown on the approved plans shall be constructed prior to the acceptance of the subdivision final plat or to the issue of an occupancy permit for other types of developments.

All land adjoining open storm drainage channels, whether natural or improved, having an elevation below the 100-year flood elevation of the channel shall be dedicated drainage easement for the purpose of providing a zone of protection to all property owners and the prohibition of obstructions to stormwater runoff.

5.4.DESIGN CONSIDERATIONS

- 5.4.1. Channels should be trapezoidal in shape, and on as flat a grade as possible.
- 5.4.2. The use of the Manning Equation in the calculations of hydraulic characteristics of open channel flows in prismatic channels without backwater control will be acceptable. When analyzing natural channels or when analyzing any overland conveyance system that has downstream control that could affect the 100-year event water surface elevations, the use of the HEC-RAS (U.S. Army Corps of Engineers Hydrologic Engineering Center River Analysis System) modeling program or other approved water surface profile modeling program shall be required. The "n" value(s) used for channels shall be based on the individual channel characteristics. When submitting calculations, include the source for the "n" value.
- 5.4.3. Constructed Channel Geometry. The minimum bottom width shall be 4 feet with side slopes of not steeper than 3 to 1 horizontal to vertical for sodded sections and a minimum bottom width of 4 feet with side slopes of not steeper than 1 to 1 for paved or rock-lined sections. Care must be exercised by the engineer to provide a safe design in relation to public areas.
- 5.4.4. Flow Velocities in Channels. Velocities shall not exceed 4 fps for sections in grass channels. Velocities in concrete lined or paved sections shall not exceed 15 fps. The dissipation of energy shall be required at the confluence of improved channels with natural channels through the use of dissipaters, stilling basins and etc.
- 5.4.5. Trickle Channels. All channels altered or improved from the natural state will require a paved trickle channel. Sodding, or other methods of erosion control shall be required adjacent to the trickle channel.
- 5.4.6. Concrete Flumes. Concrete flumes in lieu of enclosed pipe shall be allowed as overflow protection for storm sewer systems, and to drain areas not exceeding five (5) acres in size. All concrete flumes shall extend to the rear of adjacent lots and shall discharge into a dedicated drainage area or channel.

- 5.4.7. Bar ditches (often referred to as "drainage ditches") are an acceptable method to convey stormwater runoff along unimproved section line roads. All bar ditches and driveway culverts shall be designed by the engineer to convey the 100-year storm event. The minimum acceptable driveway culvert diameter is 15" along roadways.
- 5.4.8. Reinforced concrete box (RCB) structures shall have an apron reinforced with rebar tied to the box structure with rebar and shall have a toe wall. Adequately sized riprap shall be provided to protect the end of the apron and toe wall. Energy dissipaters also shall be used where riprap alone is inadequate to reduce discharge velocities. The RCB structure shall be designed to have a minimum freeboard at its inlet from the 100-year storm event water surface elevation to its low chord equal to 1 foot. The use of Manning's Equation for sizing reinforced concrete box structures at street crossings shall not be acceptable. Engineering programs such as HY-8, HEC-RAS, and others utilizing the energy equation and approved nomographs will be considered acceptable.

SECTION 6.0 DEVELOPMENT GRADING

6.1.PURPOSE

The purpose of this section is to require proper planning and execution of good grading layouts to ensure that the street grades, floor elevations and lot grades are in proper relation to each other and to existing topography, considering property protection, appeal and use.

6.2.IN GENERAL

In general, all development involving a change in surface elevations, contours or drainage patterns shall include submittal of a Grading Plan to the City of Chickasha.

6.3.DESIGN CONSIDERATIONS

6.3.1. Non-Residential (Including multi-family)

All roofs, paved areas, yards, courts and courtyards shall drain into a storm sewer system or to an approved place of disposal not generally including existing streets.

Site plans detailing the layout and design of the storm water run-off system shall be submitted prior to site plan review by the Planning Commission or City Council or the issuance of a building permit and/or work order. All design submittals shall detail the location and features of a proposed drainage system. The submittals shall include, but not be limited to, grading plans, drainage plans, utility plans and erosion control plans.

6.3.2. Residential (One-Family or Two-Family Structures)

6.3.2.1. In single family residential, duplex or mobile home developments, storm water run-off from each dwelling lot may be discharged onto flat areas such as streets or lawns if drainage is provided so that the storm water will flow away from the building.

It shall remain the responsibility of the Builder /Developer to ensure proper and prudent lot grading. The Builder /Developer shall follow the grading plan established for that lot, or in the absence of such a plan the Builder /Developer shall grade the lot following the existing, natural drainage patterns for the area, in no case shall a Builder /Developer direct, redirect or change the historic patterns of the storm water run-off.

6.3.2.2. Development Grading Plans

The submittal of a Master Development Grading Plan may be required as part of the Preliminary Plat submittal. Specific site conditions may dictate a more intensive review, as determined by the City Engineer or Community Development Director. The Master Development Grading Plan shall incorporate but not be limited to the following:

- 6.3.2.2.1. Determine the type (front to rear, side to rear, rear to front, etc.) of grading for each block, lot or portion of a development and indicate the grading type for each area by identifying letter or drainage arrows.
 - 6.3.2.2.2. Determine the necessity for easements and other provisions needed for satisfactory drainage and erosion control.
 - 6.3.2.2.3. Determine general grading limitations for local conditions, such as minimum gradients for grass slopes and swales.
 - 6.3.2.2.4. For each area, determine the necessity for specific grading limitations along a typical grading control line from street to the house and determine the minimum street-to- floor rise (if applicable).
 - 6.3.2.2.5. For each development, determine reference elevations for key points giving due consideration to street elevations, and existing topography.
- 6.3.3. The Owner/Developer shall provide a Builder/Developer with the approved grading plan. The Builder/Developer shall comply with the grading plan and the provisions of all ordinances regarding stormwater runoff and erosion control.

SECTION 7.0 STORM WATER STORAGE

7.1.GENERAL:

The purpose of stormwater storage is to not cause damage to adjacent or downstream property not owned by a developer who is changing the flow rate, location of discharge points or duration of flooding of stormwater leaving his property by limiting stormwater runoff rates after development to their historic value.

Detention basins can be used in an attempt to replicate the characteristics of natural infiltration, storage, and the attenuation of flow that is lost through urbanization. The objectives are to provide a volume of storage to compensate for that lost by development of the land, and to control the detention basin discharge so that the peak flow after urbanization remains below the pre-urban peak for a given year.

7.2.The terms, detention, retention, and sedimentation basin shall have the meanings used below:

- 7.2.1. DETENTION FACILITY - A surface water runoff storage facility that is normally dry but is designed to hold (detain) surface water temporarily during and immediately after a runoff event.
- 7.2.2. RETENTION FACILITY - A surface water runoff storage facility that normally contains (retains) a substantial volume of water to serve recreational, aesthetic, water supply, or other function. Surface water runoff is temporarily stored above the normal stage during and immediately after runoff events.
- 7.2.3. SEDIMENTATION BASIN - A surface water runoff storage facility intended to trap suspended solids, suspended and buoyant debris, and reduce potential pollutants which are carried by surface water runoff. The basin may be part of an overall multipurpose stormwater drainage system.

7.3.LOCATION CONSIDERATIONS FOR STORM WATER STORAGE:

- 7.3.1. Design of storm water storage facilities shall include an analysis of the downstream effects on peak flows based upon the following drainage area criteria:
 - 7.3.1.1.Residential developments including duplex and mobile home developments of 20 acres and larger shall submit a model of the storm water storage outflow hydrograph.
 - 7.3.1.2.Non-residential and all other developments not included in No.1 above, of 10 acres and larger shall submit a model of the storm water storage outflow

hydrograph.

- 7.3.2. Modeling of and routing of outflow hydrographs downstream shall be required under criteria above and will be accomplished through the use of HEC-RAS and HEC-HMS computer programs, or other programs acceptable to the City Engineer.
- 7.3.3. The length of a stream reach requiring modeling shall be either (1) to a point where no increase in peak flow is demonstrated or (2) to a point where an increase in peak flow does not increase the depth of flooding.
- 7.3.4. The storm events to be modeled shall be the 10, 25, 50 and 100 year storm events.
- 7.3.5. The City shall make available all existing data on storm water flows in its possession such as Master Storm Water studies or Flood Insurance Studies (FIS).
- 7.3.6. In the event peak flow studies indicate a development cannot comply with the criteria stated in 'C' above then alternative methods of storm water runoff control may be allowed, if the developer pays a fee in-lieu of detention. Alternative methods may include but not be limited to; release of larger peak flows, decrease of peak flows released, release of all or some certain storm events in lieu of detention, and/or provide channel improvements in lieu of detention.

7.4.DESIGN CONSIDERATIONS FOR STORM WATER STORAGE:

Retention and detention are two general terms relating to types of storm water runoff storage that can be utilized to reduce the likelihood of additional flooding due to development and the subsequent change in storm water runoff characteristics.

Storage may be accomplished by the detention or retention of water reservoirs, parks, side channels, or ponds either on or off site.

Storm water storage shall be required where proposed development will be changing the historic characteristic of the drainage area and subsequent storm water runoff.

However, in the event a complete drainage study by a licensed professional engineer demonstrates that no additional protection from flooding would be provided or that an increase in downstream flooding would occur, the requirement for storm water storage may be waived by the City Council, providing that a fee in-lieu of detention may be required.

- 7.4.1. Possible conditions where storm water storage may not be required could be as follows:

- 7.4.1.1. The lower reaches of a drainage basin where a well-defined floodplain or major water body provides potential storm water storage needs.
 - 7.4.1.2. Areas where channel improvements are existing which provide the capacity and flooding protection required for basin development.
 - 7.4.1.3. Areas where the confluence of two or more tributaries of a drainage channel might produce unfavorable increases in flooding depths.
 - 7.4.1.4. Changes in existing timing patterns such that peak lows are cumulative and might produce increases in flooding depths downstream.
- 7.4.2. The above examples should not be considered the only cases where storm water storage might be waived nor should the above be considered only those conditions requiring review. An engineer submitting a request to waive the storm water storage requirement will be required to produce a detailed drainage study containing any information necessary for the City to make a determination. No limits of the extent of a study should be assured by an engineer as none are provided.
- 7.4.2.1. The sizing of storage facilities shall be by an approved method such as APWA Unit Hydrograph, SCS, HEC-HMS, etc. All storm water storage facilities shall be analyzed by routing an inflow hydrograph through the storage outlet structure(s). All data, calculations and assumptions shall be provided in report form.
 - 7.4.2.2. The detention facility shall be designed based upon the maximum allowable release rates. The release rates will be established based upon historic runoff characteristics from the development site. A continuous probability or recurrence interval criterion shall be used in designing the outlet control structure. As a minimum the outlet control structure shall be designed for the 10, 25, 50 and 100 year recurrence intervals. A single stage outlet control structure will not be considered acceptable.
 - 7.4.2.3. Rooftop storage, if used, shall be designed into the original building plans and not added to existing structures as an afterthought due to possible structural failure as well as water damage to the building contents through leakage. Such plans shall bear the seal of a registered architect or engineer. The roof should drain within twelve (12) hours. Temporary roof dams of loose gravel shall not be allowed.
 - 7.4.2.4. When a combination of storage facilities is used to control runoff, the system as a whole shall be designed with discharge rates in accordance with B above.
 - 7.4.2.5. All facilities shall be provided with an emergency spillway with scour protection.

Earth embankments shall have side slopes not steeper than 4:1. Proper materials shall be specified with the corresponding optimum compaction to provide stability and minimum seepage.

7.4.2.6. The outlet of a detention pond should extend to the storm sewer, creek or other suitable location contained within a public right-of-way or easement.

7.4.2.7. The storage volume of a storage facility shall be oversized 10% to allow for sedimentation.

7.4.2.8. All storage ponds shall be provided with a concrete paved trickle channel from the inlet to the outlet structure to transmit low flows unless the flowline of the storage facility is entirely on rock.

7.4.2.9. Erosion control for storage and/or detention facilities shall be in accordance with Section VIII Erosion and Sedimentation.

7.4.2.10. At a minimum a gravel access road shall be provided to all storage areas for maintenance purposes, for those owned and maintained by the City. The access road shall be dedicated as part of the storage area.

7.4.2.11. Earth dams or other earth embankments shall be designed by a licensed professional engineer in accordance with accepted engineering practices to assure that dam or embankment failure will not occur. Design criteria used by the Natural Resources Conservation Service (NRCS) in the selection of materials and construction procedures will be acceptable.

7.4.2.12. Property line swale ponding and small on-site ponds, if used, shall be examined for possible adverse effects on building foundations due to saturation of the subsoil.

7.4.2.13. Parking lot storage shall be considered the last alternative of providing required detention. The use of parking lots for storage shall be well designed to minimize the potential damage and/or threat to pedestrians and parked vehicles. In no case shall the depth of ponding in a parking lot exceed six inches (6") during a 10-year storm.

7.4.2.14. Public safety of the detention pond and outlet works, both in a passive condition and when functioning shall be addressed in design.

7.4.2.15. The detention facility shall be designed as a visual amenity consistent with

the existing topography and proposed development and should be designed with multi- use potentials related to recreation taken into consideration.

The use of large unnatural depressions which disrupt the continuity of the landscape shall be avoided. Length to width ratios should be investigated in relation to depth of the proposed facility to improve the aesthetic appearance of storage facilities. The geometric layout of detention facilities shall be such that multi-purpose use is available.

All storage facilities shall be provided with landscaping to improve aesthetics and stormwater quality.

Outlet control facilities shall include headwalls, slopewalls, energy dissipaters and any additional outlet erosion and scour control measures approved by the City Engineer. The outlet facilities, as a visible part of any storage facility, shall include landscape plantings to improve aesthetics and provide a more pleasant and appealing appearance.

Detention facilities which are planned for dedication to the City shall be reviewed by the City Engineer for proper recreational layout and design. Landscaping of all facilities including access roads and parking areas (storage facilities 3 acres and larger) shall be of sufficient size and number to provide a park like setting.

SECTION 8.0

EROSION AND SEDIMENTATION

8.1.PURPOSE

The purpose of this section is to provide guidance in the design of effective management of erosion and sedimentation and to protect water quality and the general health, safety and welfare of the residents of the City of Chickasha.

8.2.GENERAL REQUIREMENTS

- 8.2.1. Development activity shall not be conducted unless appropriate erosion and sedimentation facilities are designed, installed and maintained throughout the life of the development.
- 8.2.2. All erosion and sediment control methods shall be indicated on the final construction and/or building permit plans.
- 8.2.3. All earth slopes and earth areas, new or existing, subject to erosion, such as, adjacent to trickle channels, inlet structures, and outlet structures, within any area designated for detention or drainage; shall be slab sodded with Bermuda sod or other approved perennial vegetation. All vegetation areas shall be fertilized, watered, and in an established growing condition prior to completion or acceptance of any storm water drainage facility, and/or development.

8.3.DESIGN CONSIDERATIONS

- 8.3.1. General Design Principals. Practical combinations of the following principles shall be utilized, as a minimum, in planning measures to be installed for any land disturbing activity.
 - 8.3.1.1.The land disturbing activity shall conform to existing topography and soil type so as to create the lowest practicable erosion potential.
 - 8.3.1.2.The disturbed area and the duration of exposure of bare earth to erosive elements shall be kept to a practicable minimum through construction scheduling and management.
 - 8.3.1.3.Cut and fill operations should be kept to a minimum.
 - 8.3.1.4.Disturbed soil shall be stabilized as quickly as practicable.

8.3.1.5. Natural vegetation shall be retained, protected, and supplemented whenever feasible.

8.3.1.6. Temporary vegetation or mulching shall be employed to protect exposed critical areas during development.

8.3.1.7. Permanent vegetation and structural erosion control measures shall be installed prior to final acceptance of developments, or as soon as seasonal planting restrictions allow.

8.3.2. General Practice: Soil and water conservation measures include but are not necessarily restricted to vegetation, sediment basins, dikes, grade stabilization structures, sediment traps, land grading, diversions, waterways or outlets, and riprap.

Vegetative practices shall be applied to control erosion. The practice can be either temporary and/or permanent depending on the site specific needs.

8.4. EROSION AND SEDIMENT CONTROL CRITERIA

8.4.1. Long term permanent seeding, sprigging, or planting which produces vegetative cover including Bermuda grass, Kentucky 31 Tall Fescue and Weeping Love grass shall be used to control erosion on a permanent basis.

8.4.2. Short term seeding, producing temporary vegetative cover such as small grains like oats, rye and wheat, and sudans and sorghums shall be used to control immediate erosion. This practice effective for areas where soil is left exposed for a period of 6 to 12 months shall not be deemed permanent erosion control.

Straw Bale Dikes may be utilized where no other practice is feasible, a temporary barrier with a life expectancy of three months or less can be installed across or at the toe of a slope for the contributing drainage areas, in accordance with the adopted standards.

Hay and sod mulching, as a temporary measure, may be used for embankment stabilization in areas where surface runoff is to be directed down a slope.

Erosion matting shall be used for channel embankment and slope stabilization where a permanent erosion control cover has not been established prior to use. The specified material shall be installed as recommended by the manufacturer of the proposed material.

- 8.4.3. A stabilized construction entrance shall be built in accordance with the adopted standards to reduce or eliminate the tracking or flowing of sediment onto public right-of-way.
- 8.4.4. A concrete or stone outlet structure shall be constructed in areas where the entire drainage area to the structure is not stabilized or where there is a need to dispose runoff at a protected outlet or where concentrated flow for the duration of the period of construction needs to be diffused.
- 8.4.5. A grade stabilization structure in the form of a paved chute or flume shall be constructed to prevent erosion, where concentrated flow of surface runoff is to be conveyed down a slope of 3% or greater.
- 8.4.6. Storm water detention facilities may be used temporarily as sediment basins. A temporary outlet structure for the storm water detention facility to work as a sediment pond shall be constructed. At the end of the construction activity, the developer shall remove all collected sediment from the detention facility and outlet structure and return the facility to a previous condition and/or to the approved cross-sectional area.

END OF DOCUMENT



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.w.

AGENDA ITEM: Discussion, consideration and possible action to approve the standard drawings for development, Sanitary Sewer Main Specifications and Water Main Specifications.

I. BACKGROUND/DESCRIPTION:

These drawings will make up the new standards to help with aging infrastructure and help the city grow with a better baseline for developers to follow.
The planning commission recommends this for approval.

These are designed specifically for the City of Chickasha based on what we currently have and how to take the appropriate steps to improve them.

II. RECOMMENDED ACTION:

Staff Recommends to approve the standard drawings for development, Sanitary Sewer Main Specifications and Water Main Specifications as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. CITY OF CHICKASHA STANDARD DRAWINGS 22.12.01 SNS
2. 500 WATER MAIN SPECS CHICKASHA 22.12.01
3. 600 SS MAIN SPECS CHICKASHA 22.12.01



STANDARD DRAWINGS

CITY COUNCIL

MAYOR CHRIS MOSLEY
KEA GINN, WARD 1
BRIAN GERDES, WARD 1
NATE MCCALLA, WARD 2
GEORGIANNE HEBBLETHWAITE, WARD 2
R.P. ASHANTI-ALEXANDER, WARD 3
OSCAR NELSON, WARD 3
ZACHARY GRAYSON, VICE-MAYOR, WARD 4
KELLY BOYD, WARD 4

COMMUNITY DEVELOPMENT DIRECTOR
RACHEL BERNISH

CHIEF BUILDING OFFICIAL
DARREN MARTIN

PUBLIC WORKS DIRECTOR
JIM CROSBY

PLANNING COMMISSION

JOHN GROTE
MIKE MOSLEY
GLENN SNEDEKER
JAMES SCHOPPA
TIM SMITH
JOE HUTMACHER (ALTERNATE)
JEFF MCCLURE (ALTERNATE)

INDEX OF SHEETS

P1	P.C. CONCRETE STREET PAVING DETAILS
P2	TYPICAL SECTIONS
P3	DRIVEWAY DETAILS
P4	SIDEWALK AND JOINT DETAILS
SSM1	SANITARY SEWER MAIN DETAILS
SSM2	SANITARY SEWER MAIN DETAILS
SSM3	CAST-IN-PLACE MANHOLE DETAILS
SSM4	PRECAST MANHOLE DETAILS
WM1	WATER MAIN DETAILS
WM2	WATER MAIN DETAILS
WM3	WATER MAIN DETAILS
WM4	WATER MAIN DETAILS
WM5	WATER MAIN DETAILS

REVISION DATE

12/1/2022
12/1/2022
12/1/2022
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12/1/2022
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12/1/2022

APPROVED AND ADOPTED BY THE PLANNING
COMMISSION THIS ____DAY OF____202__.

PLANNING COMMISSION CHAIRMAN

APPROVED AND ADOPTED BY THE CITY COUNCIL
THIS ____DAY OF____202__.

MAYOR

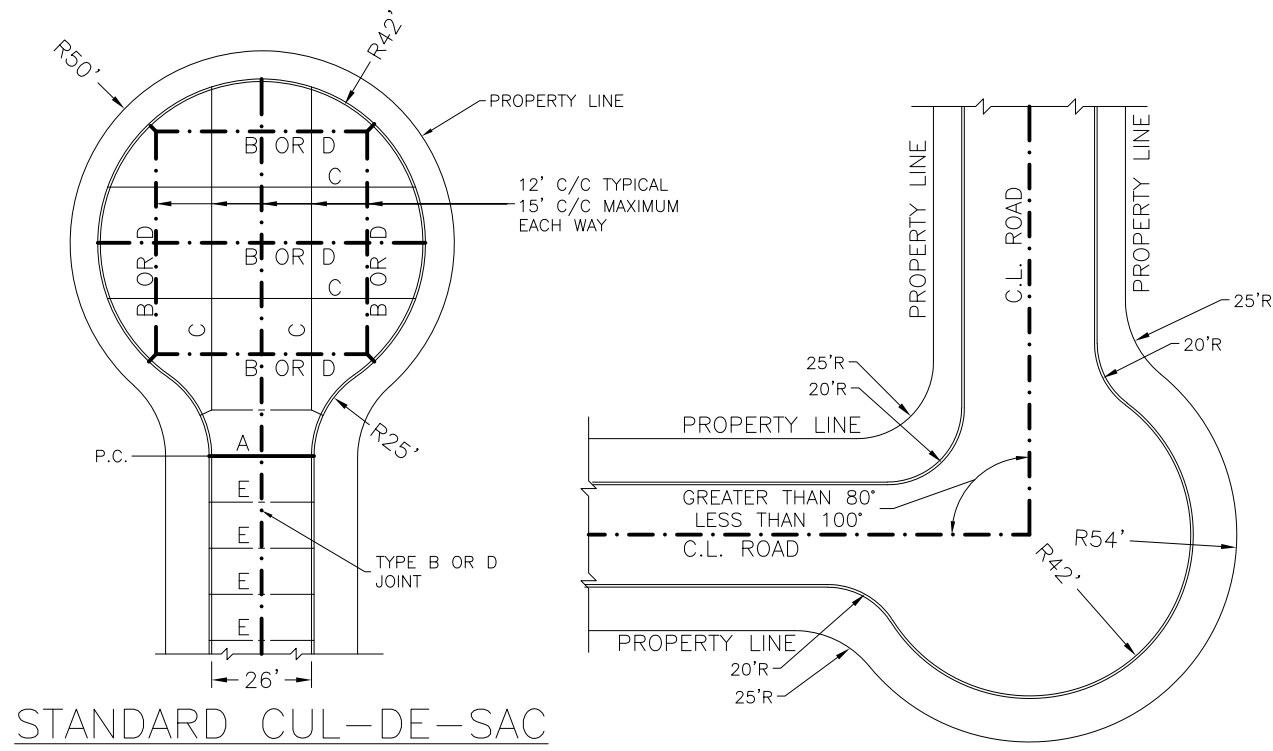
ATTEST: CITY CLERK

PREPARED BY:
CHISHOLM TRAIL CONSULTING, LLC
2124 SCOTT LANE
DUNCAN, OKLAHOMA 73533
CA OK7771
RANDALL SCOTT VAUGHN, P.E. 15194

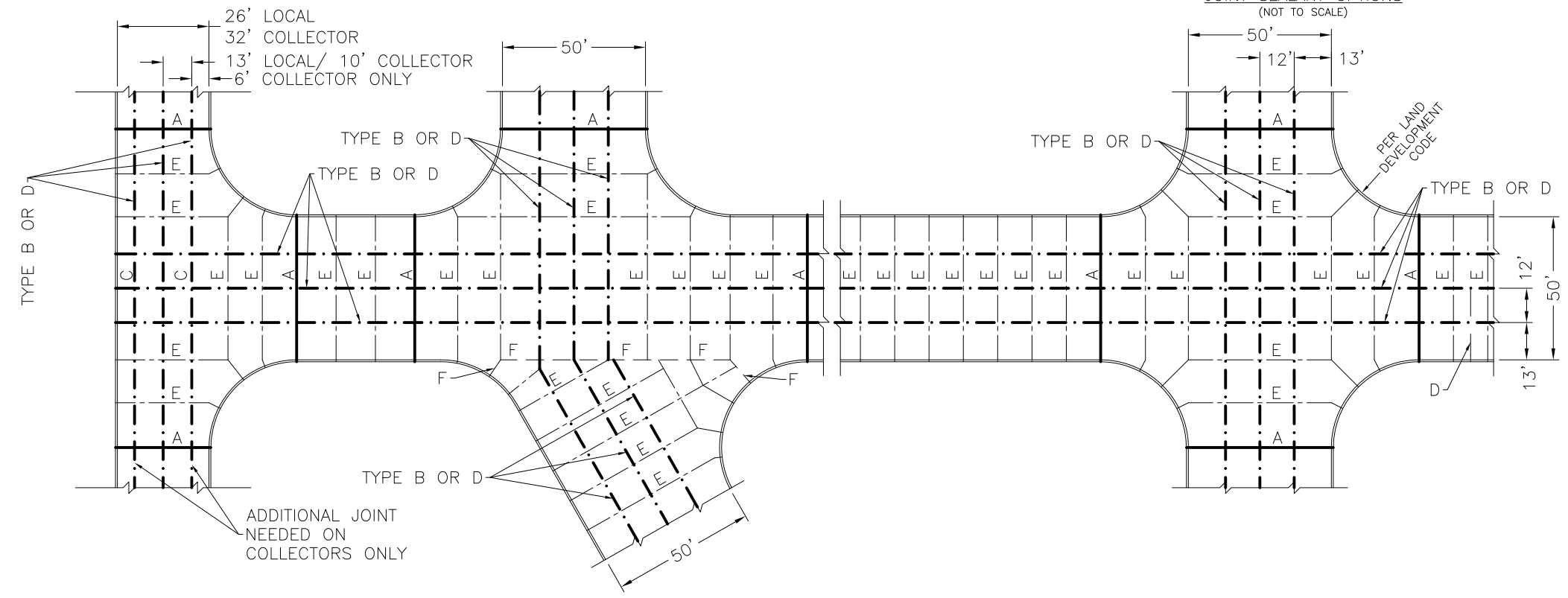
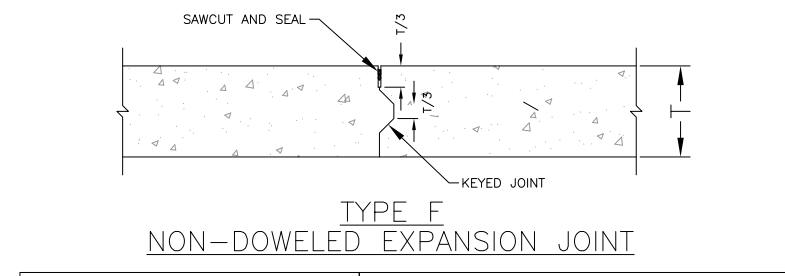
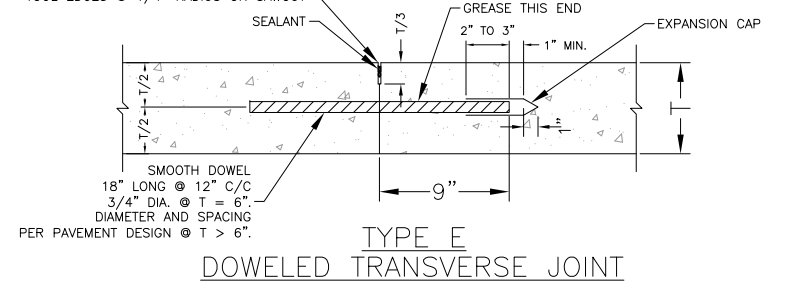
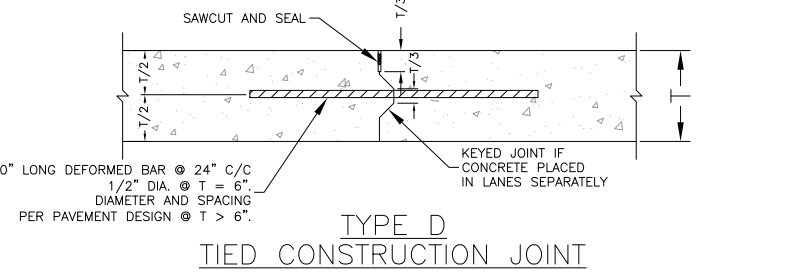
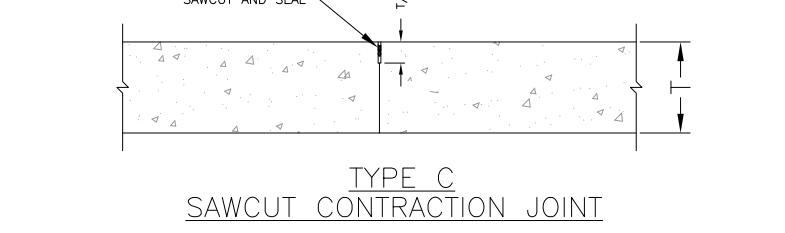
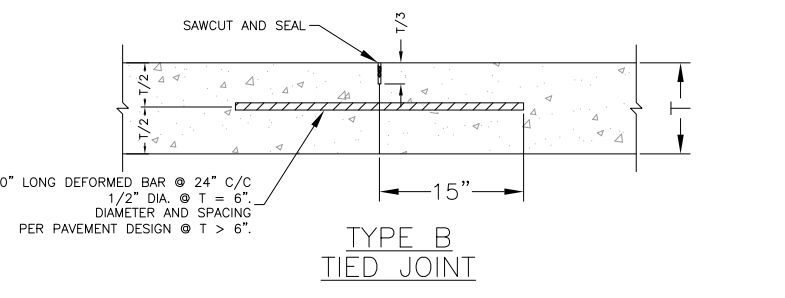
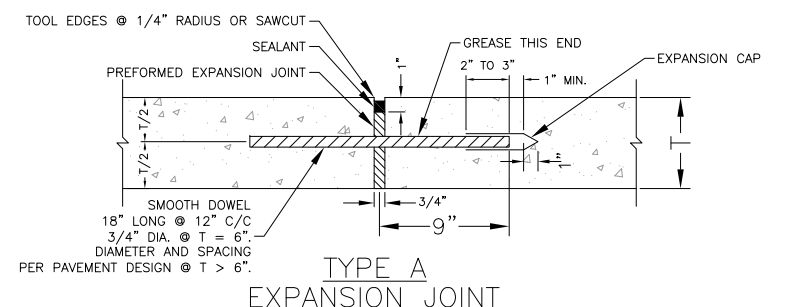


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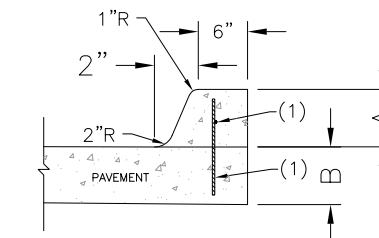
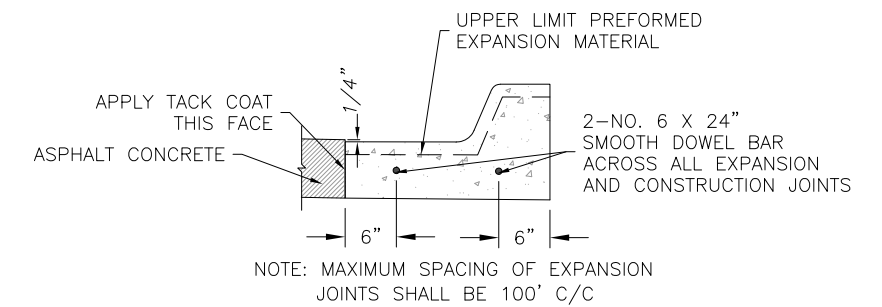
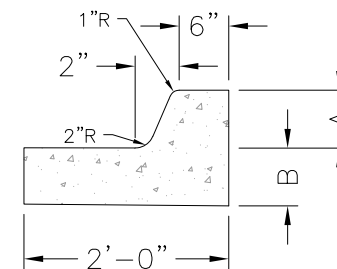
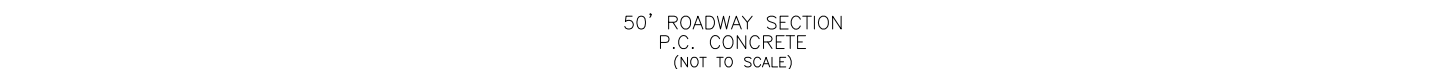
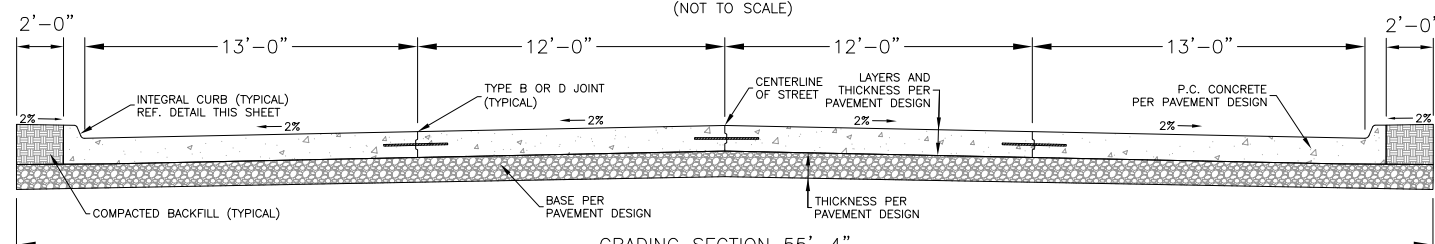
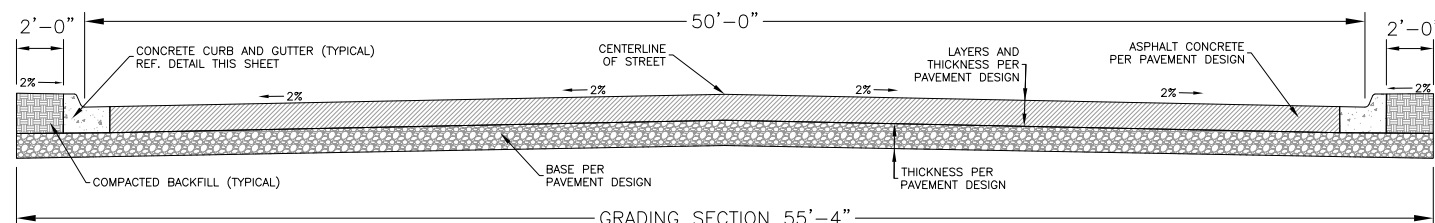
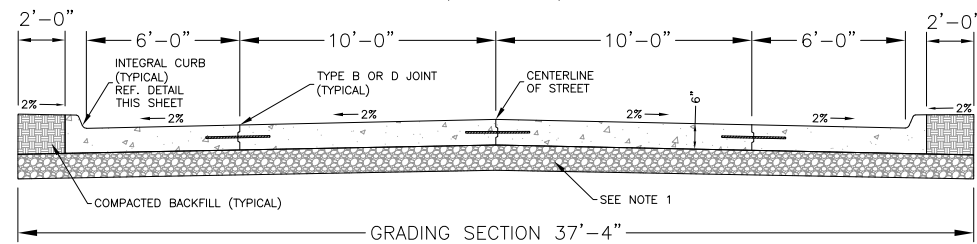
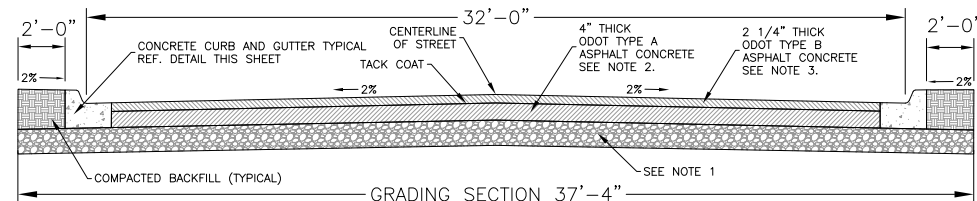
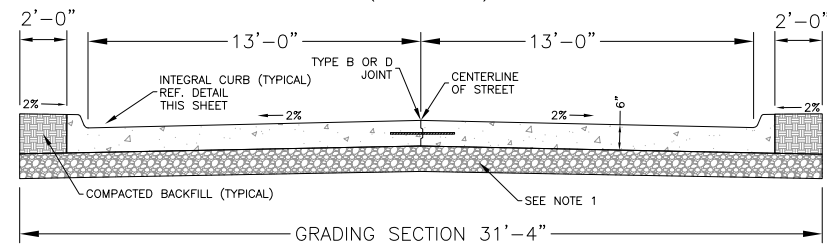
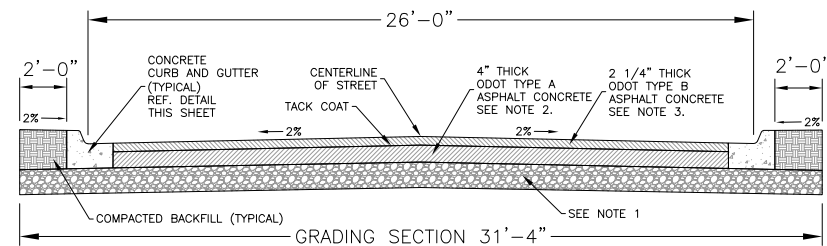
DATED 12/1/2022



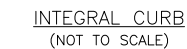
- NOTES**
1. TYPICAL TRANSVERSE JOINT SPACING = 12'
 2. MAXIMUM SPACING B/W EXPANSION JOINTS = 100'
 3. PLACE TYPE A, TYPE D OR TYPE E JOINT, AS APPROPRIATE, AT THE END OF DAYS' PLACEMENT OR WHEN PLACEMENT OPERATIONS ARE DELAYED MORE THAN 30 MINUTES.
- JOINT SEALANT OPTIONS (NOT TO SCALE)**
- TYPE A EXPANSION JOINT
 - TYPE B TIED LONGITUDINAL JOINT
 - TYPE C SAWCUT CONTRACTION JOINT
 - TYPE D TIED CONSTRUCTION JOINT
 - TYPE E DOWELED TRANSVERSE JOINT
 - TYPE F NON-DOWELED EXPANSION JOINT



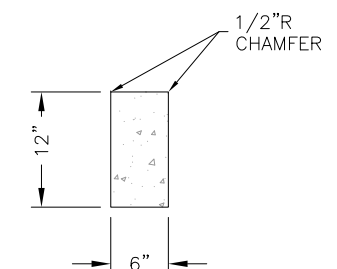
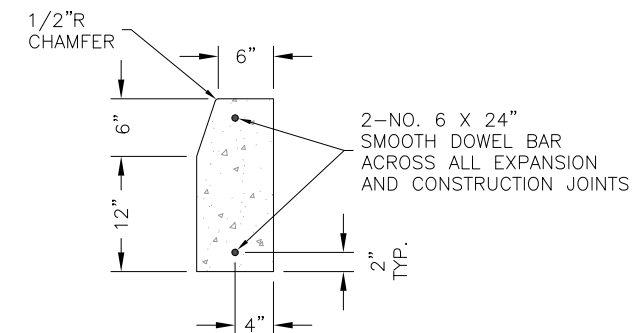
PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA OK7771 RANDALL SCOTT VAUGHN, P.E. 15194	CITY OF CHICKASHA, OKLAHOMA STANDARD PAVING DETAILS APPROVED AND ADOPTED BY THE CITY COUNCIL THIS ____ DAY OF ____ 202__. MAYOR _____ ATTEST: CITY CLERK _____ P.C. CONCRETE STREET PAVING DETAILS DO NOT SCALE
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(1) PLACE HORIZONTAL NO. 4 REBAR AND
VERTICAL NO. 4 REBAR ON 12" C/C
IF CURB PLACED SEPARATE FROM SLAB



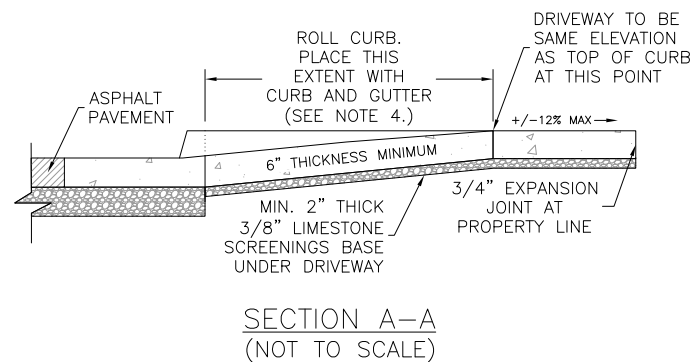
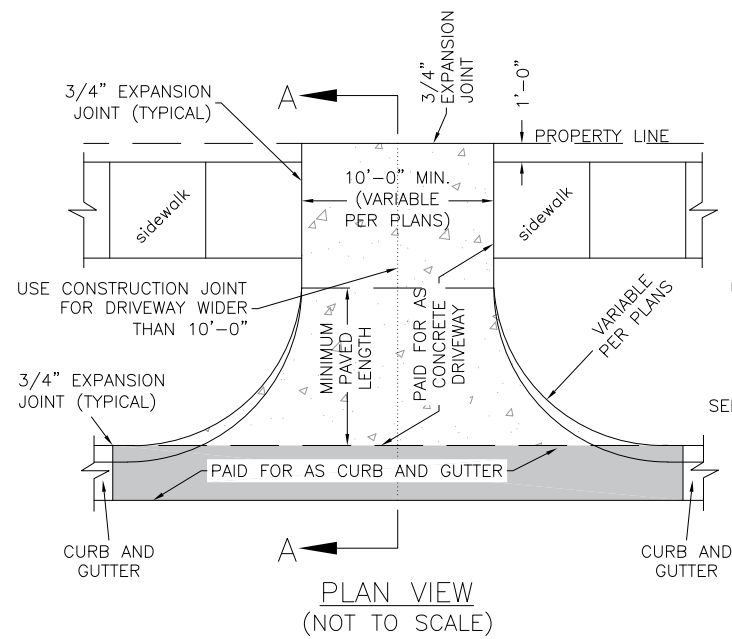
CURB HEIGHTS AND PAVEMENT THICKNESSES		
	LOCAL STREETS & COLLECTORS	ALL STREET WIDER THAN 32'
A	6 INCHES	8 INCHES
B	6 INCHES	PER PAVEMENT DESIGN



NOTES:

1. MINIMUM 6-INCH THICK LAYER OF ODOT TYPE A AGGREGATE BASE. OTHER BASE MATERIALS AND THICKNESSES MAY BE CONSIDERED BY THE CITY ENGINEER IF GEOTECHNICAL INVESTIGATION AND RECOMMENDATION IS PROVIDED.
2. SUBSTITUTION WITH 4-INCH THICK LAYER OF ODOT TYPE S3 SUPERPAVE MAY BE CONSIDERED BY THE CITY ENGINEER.
3. SUBSTITUTION WITH 2 1/2" THICK LAYER OF ODOT TYPE S4 SUPERPAVE MAY BE CONSIDERED BY THE CITY ENGINEER.

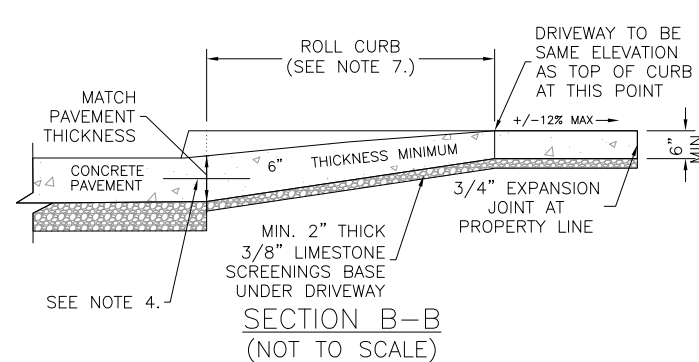
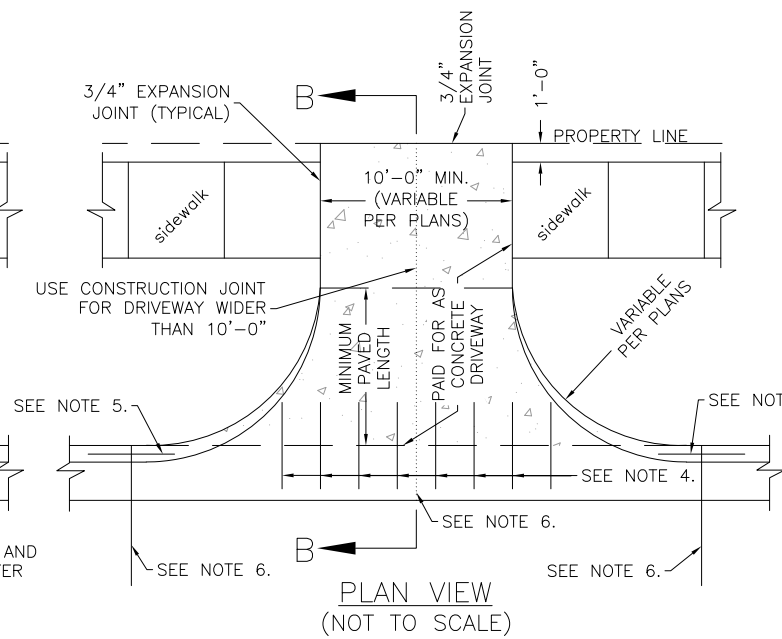
PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA OK 7771 RANDALL SCOTT VAUGHN, P.E. 15194  <i>R. Scott Vaughn</i>	CITY OF CHICKASHA, OKLAHOMA STANDARD PAVING DETAILS
DIGITALLY SIGNED 12/1/2022	APPROVED AND ADOPTED BY THE CITY COUNCIL THIS ____ DAY OF ____ 202__.
	____ MAYOR ____ ATTEST: CITY CLERK
	TYPICAL SECTIONS
	DO NOT SCALE
	Sheet P2



NOTES:

- REFER TO CHAPTER 46 OF CHICKASHA CITY ORDINANCES (LAND DEVELOPMENT CODE) FOR DETAILS NOT PROVIDED HEREIN.
- IF DETAILS ARE SPECIFIED IN THE APPROVED PLANS THAT DIFFER FROM THE DETAILS SHOWN HEREIN, THE PLANS SHALL GOVERN.
- BLOCKOUT OR REMOVE AND REPLACE CURB AND GUTTER WITHIN LIMITS OF DRIVEWAY.
- DRIVEWAYS FOR OTHER THAN ONE & TWO FAMILY DWELLINGS MAY HAVE FULL SECTION CURB THROUGHOUT CURB RETURN.
- ALTERNATE MATERIALS MAY BE APPROVED (e.g., ASPHALT, BRICK, ETC.), BUT ALL DRIVEWAYS MUST BE HARD-SURFACED AND MUST MEET STANDARD DIMENSION REQUIREMENTS. THINNER PAVING SURFACES MAY REQUIRE THICKER BASES, AS DETERMINED BY THE BUILDING OFFICIAL.

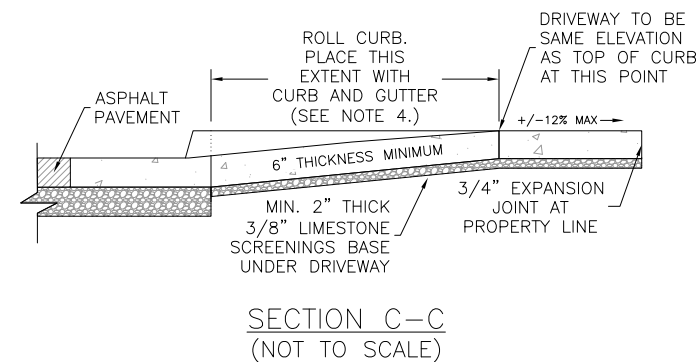
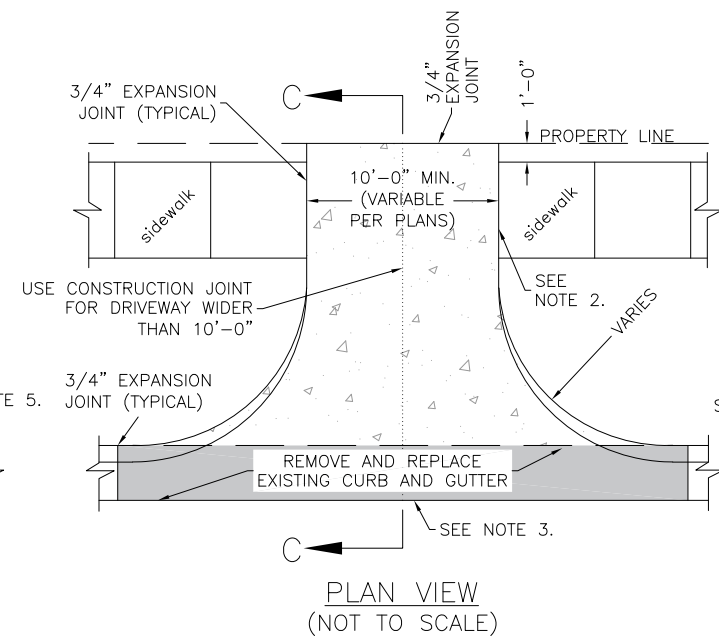
DRIVEWAY DETAILS FOR ASPHALT STREET
(BUILT WITH NEW STREET CONSTRUCTION)



NOTES:

- REFER TO CHAPTER 46 OF CHICKASHA CITY ORDINANCES (LAND DEVELOPMENT CODE) FOR DETAILS NOT PROVIDED HEREIN.
- IF DETAILS ARE SPECIFIED IN THE APPROVED PLANS THAT DIFFER FROM THE DETAILS SHOWN HEREIN, THE PLANS SHALL GOVERN.
- SAWCUT AND REMOVE INTEGRAL CURB TO NEAT LINES. DO NOT BLOCK OUT STREET PAVEMENT.
- IF DRIVEWAY IS NOT PLACED MONOLITHICALLY WITH STREET PAVEMENT, INSTALL NO. 4 X 18" LONG DEFORMED BARS AT 24" C/C (TYPICAL) WHERE SLAB WIDTH ALLOWS. MAINTAIN MINIMUM 2-INCH CLEARANCE BETWEEN END OF REBAR AND EDGE OF SLAB.
- IF DRIVEWAY IS NOT PLACED MONOLITHICALLY WITH STREET PAVEMENT, INSTALL 1 - NO. 4 X 18" DEFORMED BAR AT CENTER OF CURB.
- PLACE JOINTS IN CURB AND DRIVEWAY AT SAME LOCATION AS STREET TRANSVERSE JOINTS.
- DRIVEWAYS FOR OTHER THAN ONE & TWO FAMILY DWELLINGS MAY HAVE FULL SECTION CURB THROUGHOUT CURB RETURN.
- ALTERNATE MATERIALS MAY BE APPROVED (e.g., ASPHALT, BRICK, ETC.), BUT ALL DRIVEWAYS MUST BE HARD-SURFACED AND MUST MEET STANDARD DIMENSION REQUIREMENTS. THINNER PAVING SURFACES MAY REQUIRE THICKER BASES, AS DETERMINED BY THE BUILDING OFFICIAL.

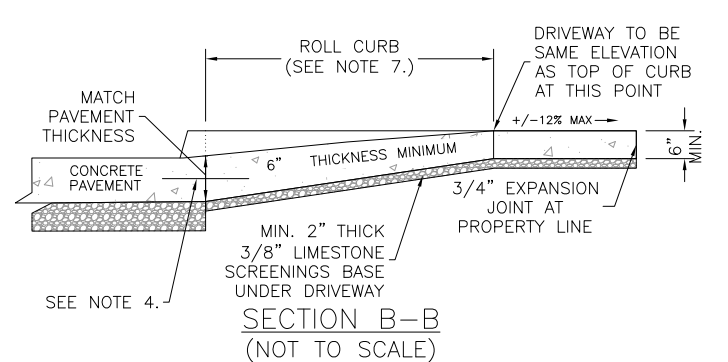
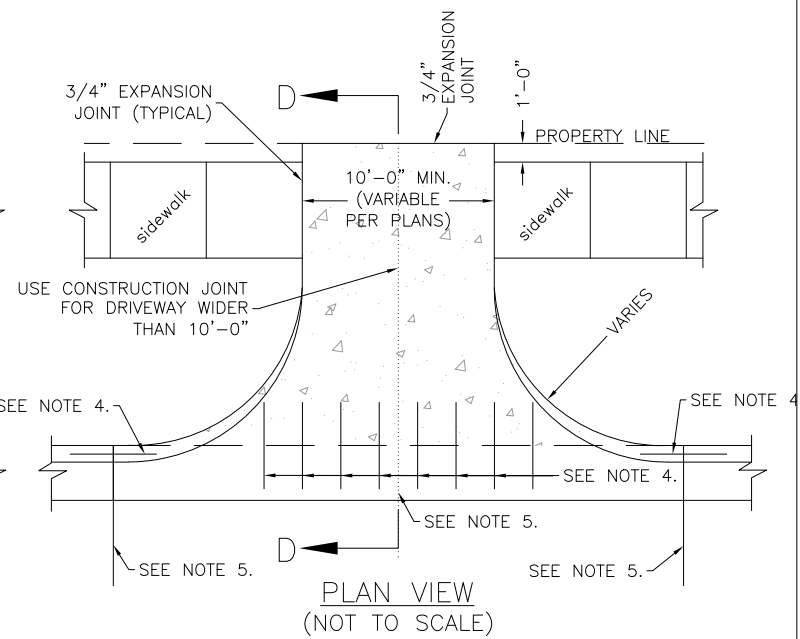
DRIVEWAY DETAILS FOR CONCRETE STREET
(BUILT WITH NEW STREET CONSTRUCTION)



NOTES:

- REFER TO CHAPTER 46 OF CHICKASHA CITY ORDINANCES (LAND DEVELOPMENT CODE) FOR DETAILS NOT PROVIDED HEREIN.
- SAWCUT FULL DEPTH AND REMOVE SIDEWALK FROM WITHIN LIMITS OF DRIVEWAY.
- SAWCUT FULL DEPTH AND REMOVE AND REPLACE CURB AND GUTTER WITHIN LIMITS OF DRIVEWAY.
- DRIVEWAYS FOR OTHER THAN ONE & TWO FAMILY DWELLINGS MAY HAVE FULL SECTION CURB THROUGHOUT CURB RETURN. IF WATER STANDS IN THE EXISTING GUTTER THE CONTRACTOR SHALL NOTIFY THE BUILDING OFFICIAL OF SUCH BEFORE STARTING WORK. NEW WORK WILL NOT BE ALLOWED THAT RESULTS IN STANDING WATER WITHIN LIMITS OF DRIVEWAY OR EITHER SIDE OF DRIVEWAY.
- ALTERNATE MATERIALS MAY BE APPROVED (e.g., ASPHALT, BRICK, ETC.), BUT ALL DRIVEWAYS MUST BE HARD-SURFACED AND MUST MEET STANDARD DIMENSION REQUIREMENTS. THINNER PAVING SURFACES MAY REQUIRE THICKER BASES, AS DETERMINED BY THE BUILDING OFFICIAL.

DRIVEWAY DETAILS FOR ASPHALT STREET
(BUILT ON EXISTING STREET)

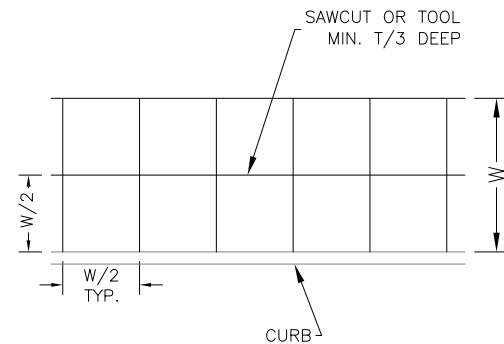
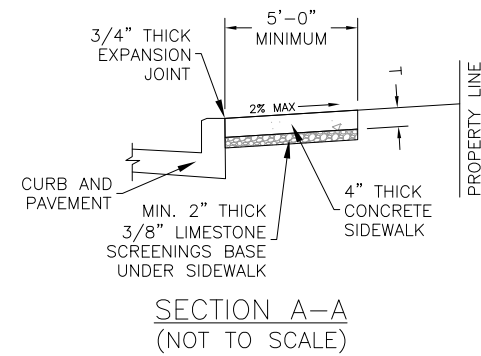
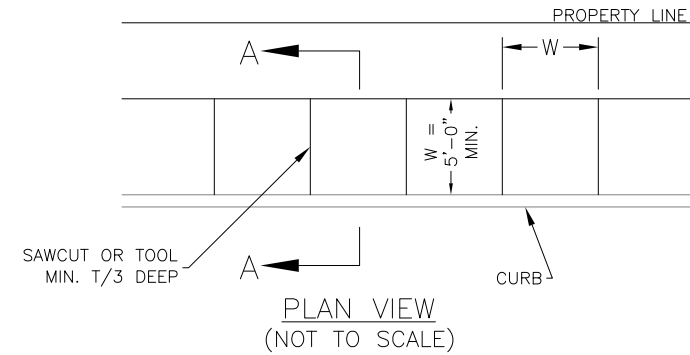


NOTES:

- REFER TO CHAPTER 46 OF CHICKASHA CITY ORDINANCES (LAND DEVELOPMENT CODE) FOR DETAILS NOT PROVIDED HEREIN.
- SAWCUT AND REMOVE INTEGRAL CURB TO NEAT LINES. DO NOT SAWCUT STREET PAVEMENT.
- INSTALL NO. 4 X 18" LONG DEFORMED BARS AT 24" C/C WHERE SLAB WIDTH ALLOWS. MAINTAIN MINIMUM 2-INCH CLEARANCE BETWEEN END OF REBAR AND EDGE OF SLAB.
- INSTALL 1 - NO. 4 X 18" DEFORMED BAR AT CENTER OF CURB.
- PLACE JOINTS IN CURB AND DRIVEWAY AT SAME LOCATION AS STREET TRANSVERSE JOINTS.
- DRIVEWAYS FOR OTHER THAN ONE & TWO FAMILY DWELLINGS MAY HAVE FULL SECTION CURB THROUGHOUT CURB RETURN.
- ALTERNATE MATERIALS MAY BE APPROVED (e.g., ASPHALT, BRICK, ETC.), BUT ALL DRIVEWAYS MUST BE HARD-SURFACED AND MUST MEET STANDARD DIMENSION REQUIREMENTS. THINNER PAVING SURFACES MAY REQUIRE THICKER BASES, AS DETERMINED BY THE BUILDING OFFICIAL.

DRIVEWAY DETAILS FOR CONCRETE STREET
(BUILT ON EXISTING STREET)

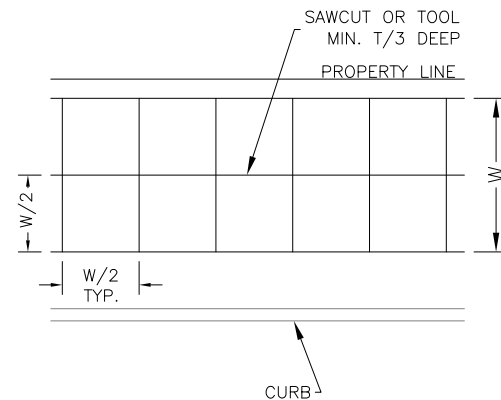
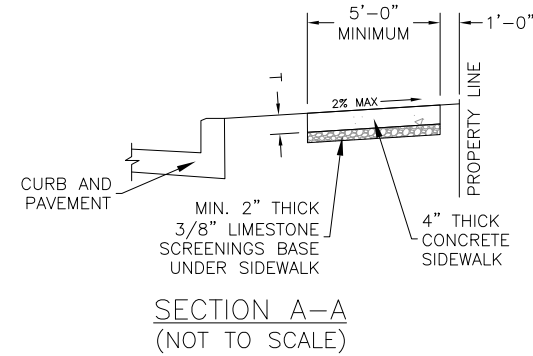
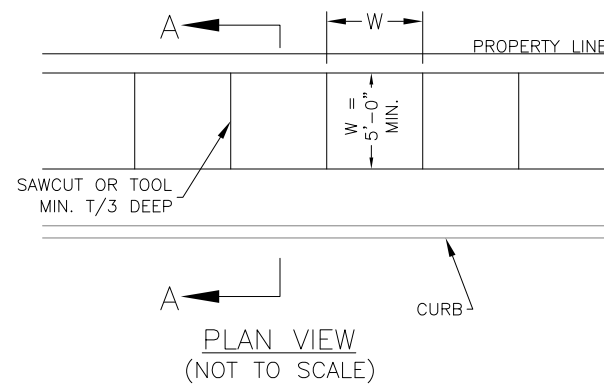
PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA OK7771 RANDALL SCOTT VAUGHN, P.E. 15194		CITY OF CHICKASHA, OKLAHOMA STANDARD PAVING DETAILS	
APPROVED AND ADOPTED BY THE CITY COUNCIL THIS ____ DAY OF ____ 202__.		MAYOR _____ ATTEST: CITY CLERK _____	
DRIVEWAY DETAILS DO NOT SCALE		Sheet P3	



NOTES:

1. REFER TO CHAPTER 46 OF CHICKASHA CITY ORDINANCES (LAND DEVELOPMENT CODE) FOR DETAILS NOT PROVIDED HEREIN.
2. PLACE 3/4" THICK X 4" WIDE EXPANSION JOINT MATERIAL BETWEEN SIDEWALK AND ALL CURBS, OTHER PAVEMENTS OR STRUCTURES.
3. PLACE 3/4" THICK X 4" WIDE TRANSVERSE EXPANSION JOINTS AT A MAXIMUM SPACING OF 100 FEET.

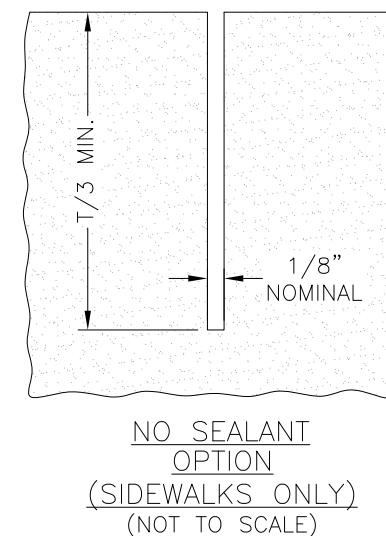
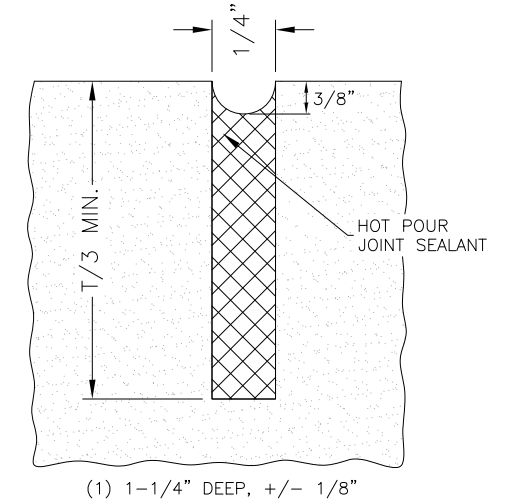
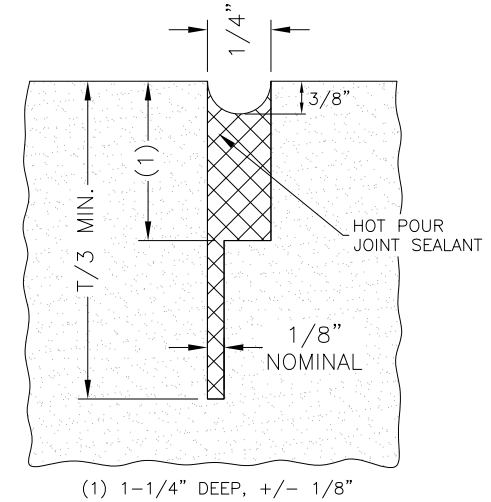
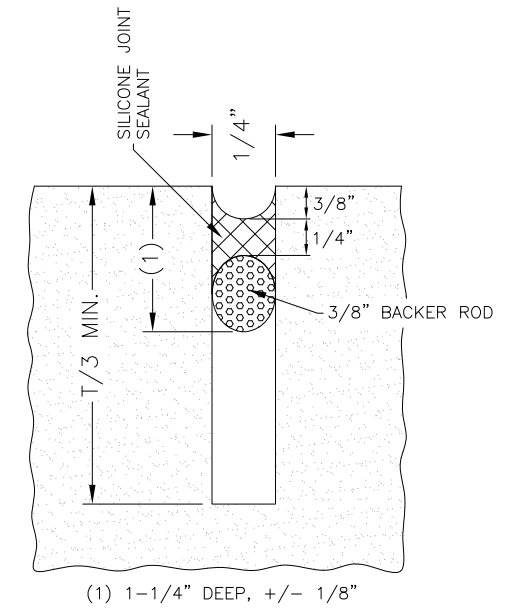
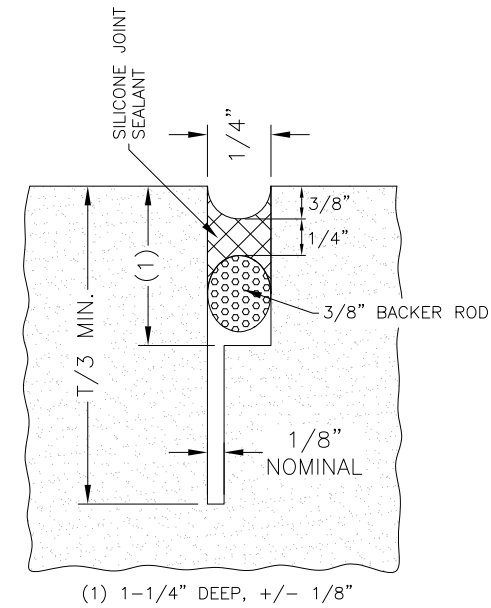
DETAILS FOR CONCRETE SIDEWALK
(LOCATED ADJACENT TO CURB)
(NOT TO SCALE)



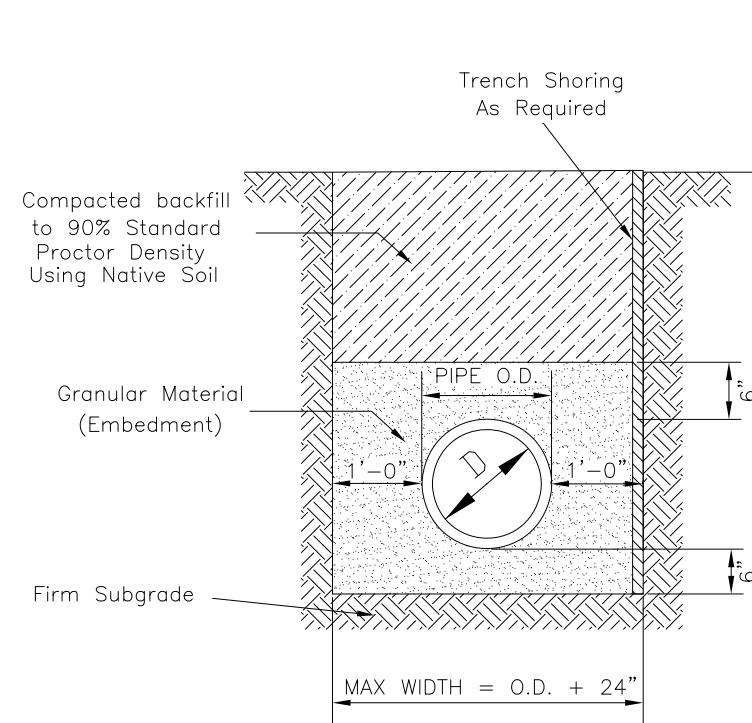
NOTES:

1. REFER TO CHAPTER 46 OF CHICKASHA CITY ORDINANCES (LAND DEVELOPMENT CODE) FOR DETAILS NOT PROVIDED HEREIN.
2. PLACE 3/4" THICK X 4" WIDE EXPANSION JOINT MATERIAL BETWEEN SIDEWALK AND ALL CURBS, OTHER PAVEMENTS OR STRUCTURES.
3. PLACE 3/4" THICK X 4" WIDE TRANSVERSE EXPANSION JOINTS AT A MAXIMUM SPACING OF 100 FEET.

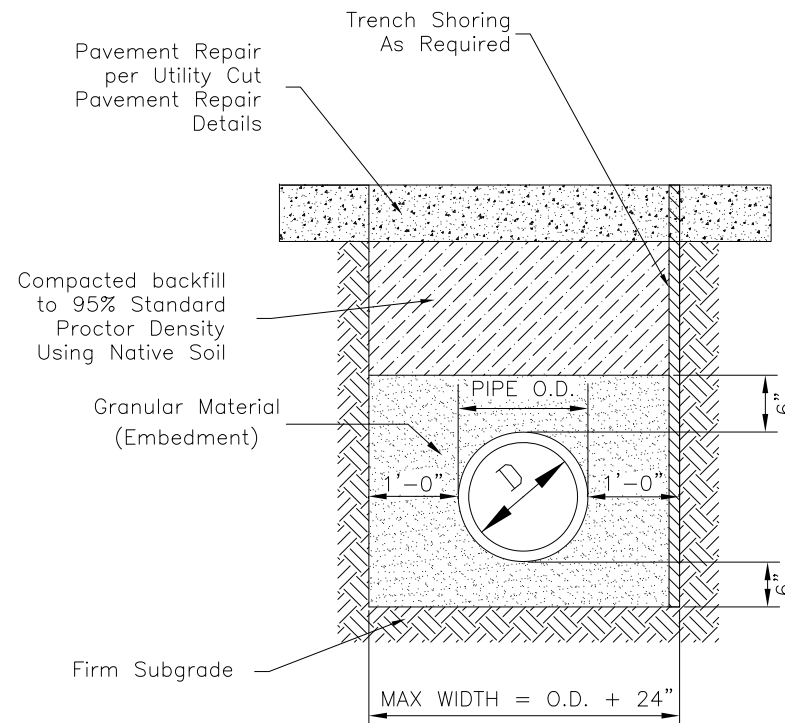
DETAILS FOR CONCRETE SIDEWALK
(LOCATED NEAR PROPERTY LINE)
(NOT TO SCALE)



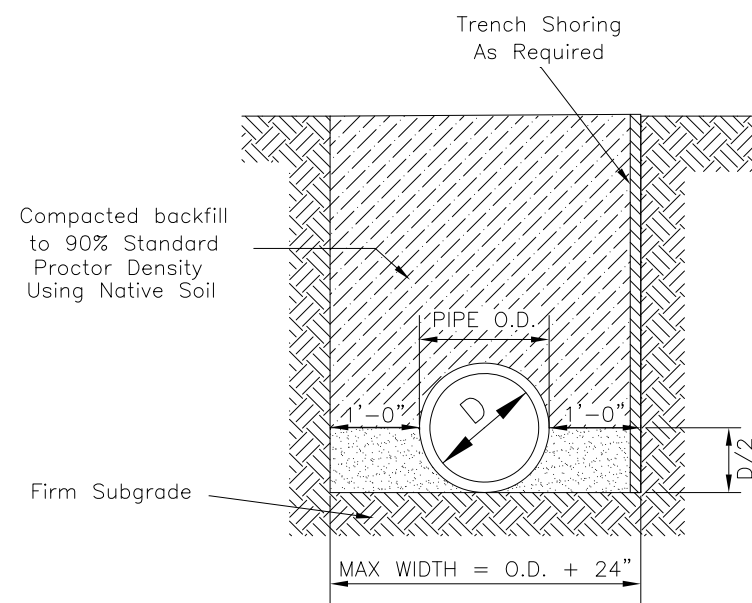
PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA OK7771 RANDALL SCOTT VAUGHN, P.E. 15194		CITY OF CHICKASHA, OKLAHOMA STANDARD PAVING DETAILS APPROVED AND ADOPTED BY THE CITY COUNCIL THIS ____ DAY OF _____, 202___.	
DIGITALLY SIGNED 		MAYOR _____ ATTEST: CITY CLERK _____ SIDEWALK AND JOINT DETAILS DO NOT SCALE	



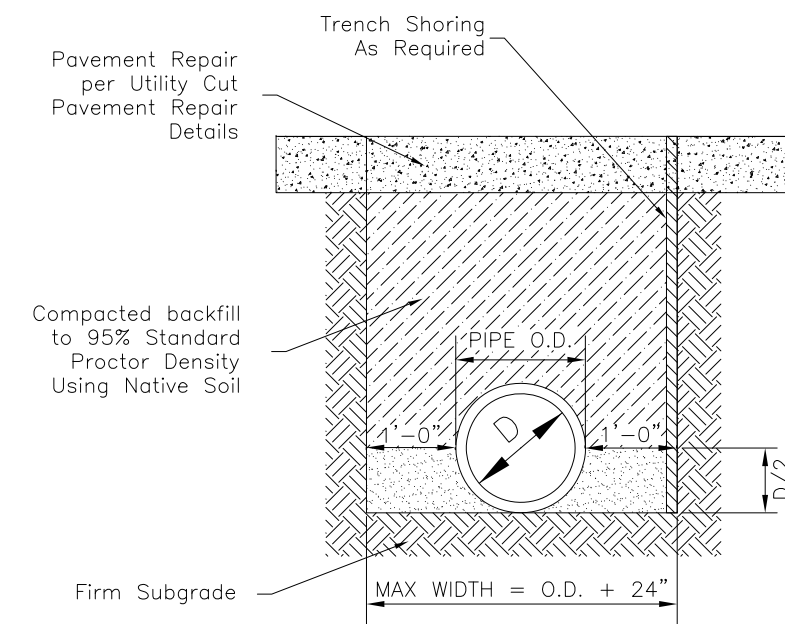
FLEXIBLE PIPE TYPICAL



FLEXIBLE PIPE UNDER PAVEMENTS



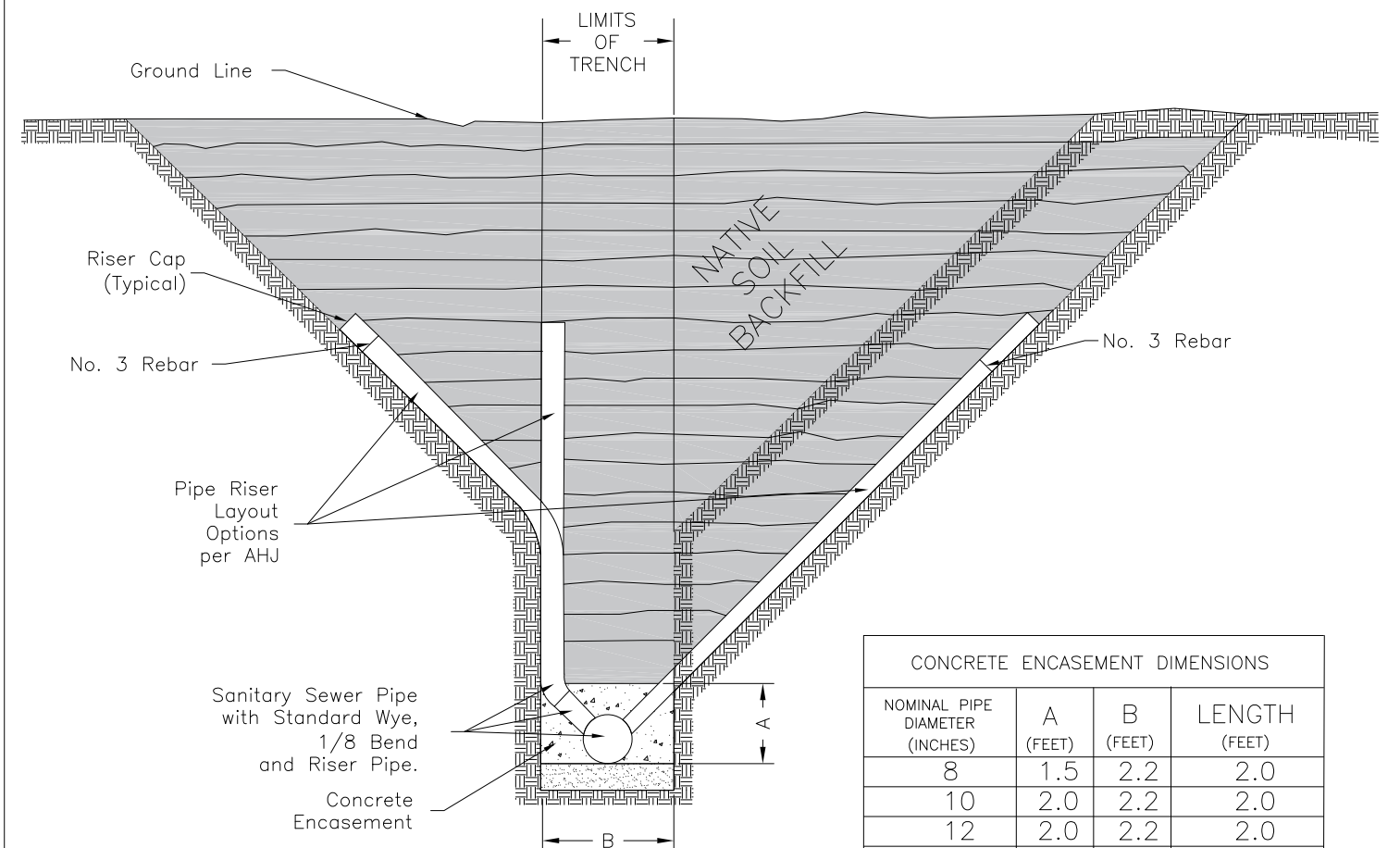
RIGID PIPE TYPICAL



RIGID PIPE UNDER PAVEMENTS

TRENCH WIDTHS		
NOMINAL PIPE DIAMETER (INCHES)	MINIMUM TRENCH WIDTH (INCHES)	MAXIMUM TRENCH WIDTH (INCHES)
8	22	34
10	24	38
12	28	40
15	34	42

TRENCH TYPICALS

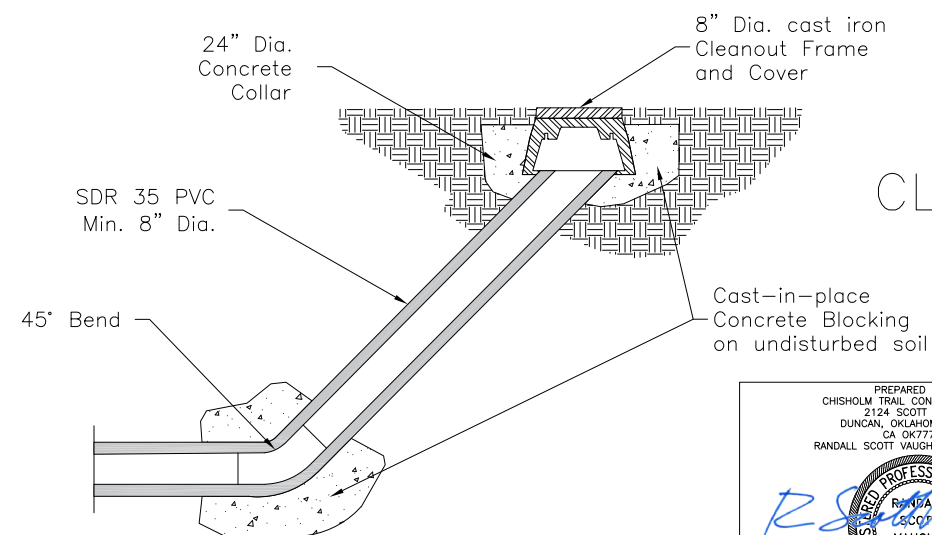


CONCRETE ENCASEMENT DIMENSIONS			
NOMINAL PIPE DIAMETER (INCHES)	A (FEET)	B (FEET)	LENGTH (FEET)
8	1.5	2.2	2.0
10	2.0	2.2	2.0
12	2.0	2.2	2.0
15	2.5	2.6	2.0

RISER PIPE OPTIONS

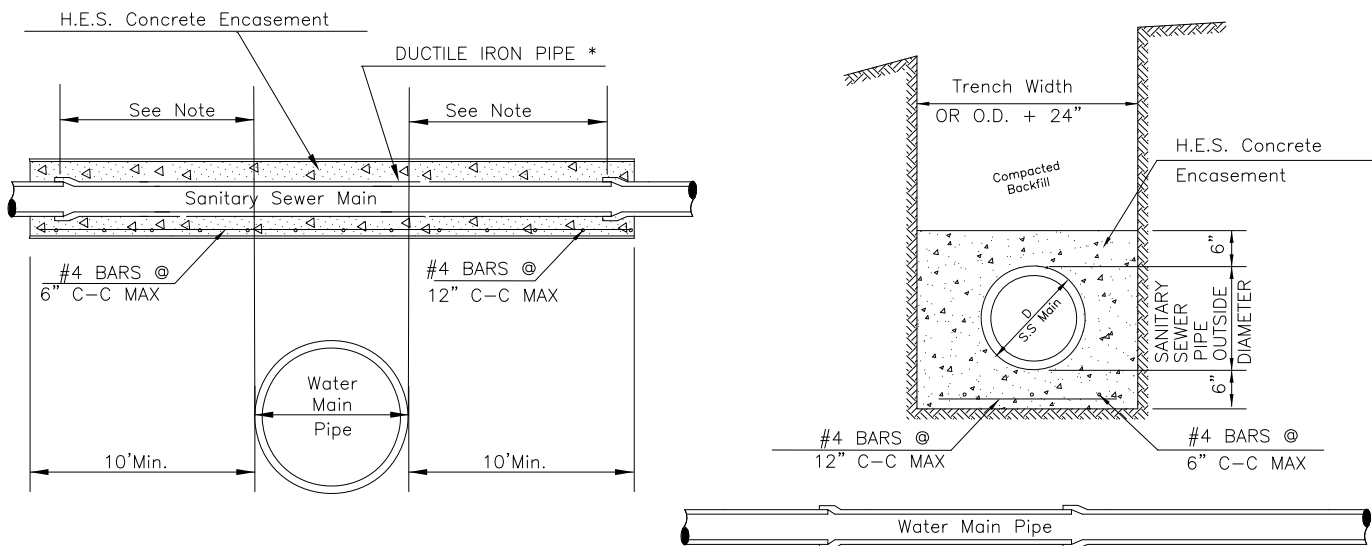
RISER PIPE ORPTIONS – TO BE APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ)

1. Riser Pipe constructed in a vertical trench with No. 3 Rebar supports as required, backfilled with suitable native soil in compliance with the specifications.
2. Riser Pipe constructed in a vertical trench with 1/8 bend on a 1:1 slope, supported by No. 3 Rebar as required, backfilled with suitable native soil in compliance with the specifications.
3. Riser Pipe constructed on a 1:1 slope connected to a Wye with No. 3 Rebar supports as required, backfilled with suitable native soil in compliance with the specifications.
4. When tapping existing sanitary sewer main, using a Wye saddle and clamp in accordance with AHJ requirements.



CLEANOUT DETAILS

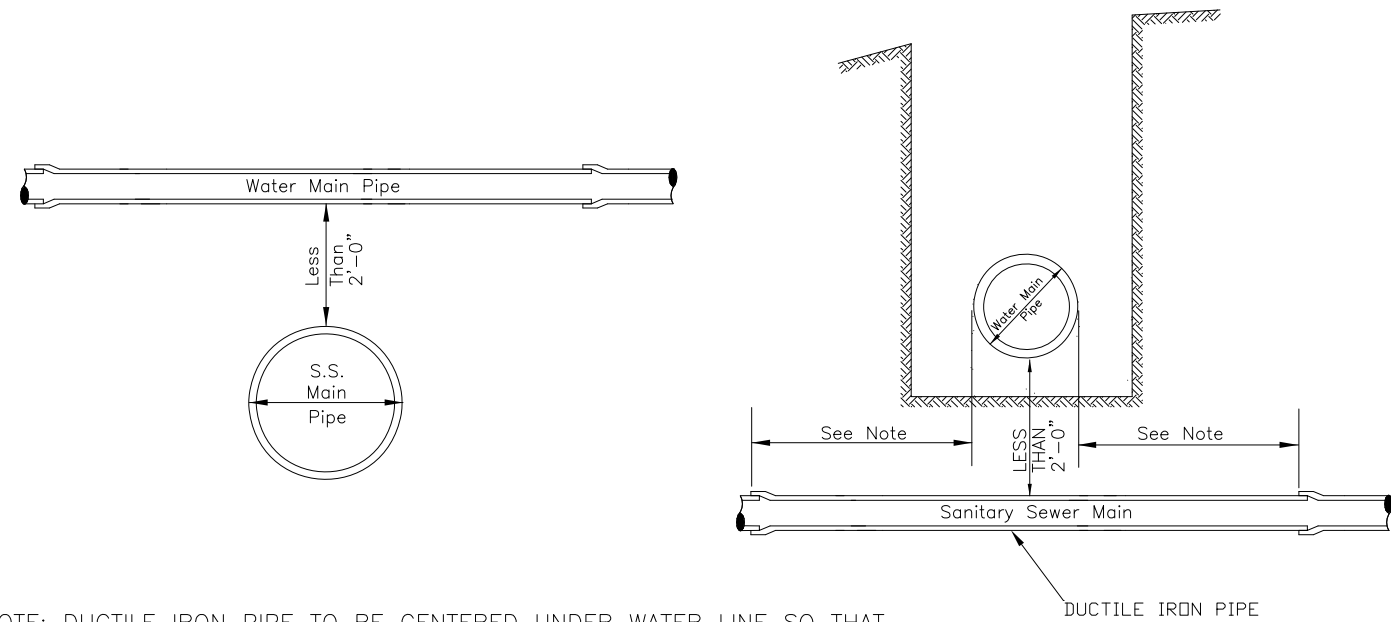
PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA 0K7771 RANDALL SCOTT VAUGHN, P.E. 15194	CITY OF CHICKASHA, OKLAHOMA STANDARD DRAWINGS APPROVED AND ADOPTED BY THE CITY COUNCIL THIS ____ DAY OF ____ 202___. MAYOR _____ ATTEST: CITY CLERK _____ SANITARY SEWER MAIN DETAILS DO NOT SCALE
DIGITALLY SIGNED 12/1/2022	Page 478 of 577



NOTE: CONCRETE ENCASEMENT IS TO EXTEND 4-INCHES PAST THE NEAREST JOINT AT OR BEYOND THE 10-FOOT MINIMUM SHOWN. REINFORCEMENT STEEL SHALL HAVE TWO INCHES OF CONCRETE COVER. THE ENGINEER MAY APPROVE OTHER MEANS OF STRUCTURAL SUPPORT OF THE SANITARY SEWER MAIN.

*NOTE: IF CLEARANCE BETWEEN WATER MAIN AND SS MAIN IS LESS THAN 2 FEET DUCTILE IRON PIPE TO BE CENTERED OVER WATER LINE SO THAT JOINTS ARE PLACED EQUAL DISTANCE FROM CROSSING AS SHOWN.

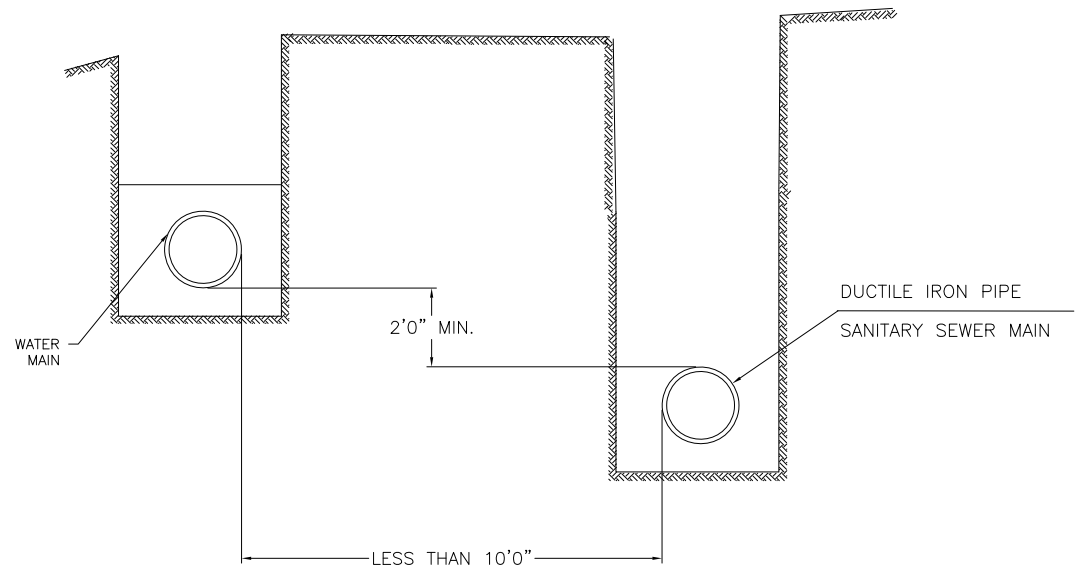
TYPICAL SECTIONS FOR WATER MAIN BELOW SEWER MAIN



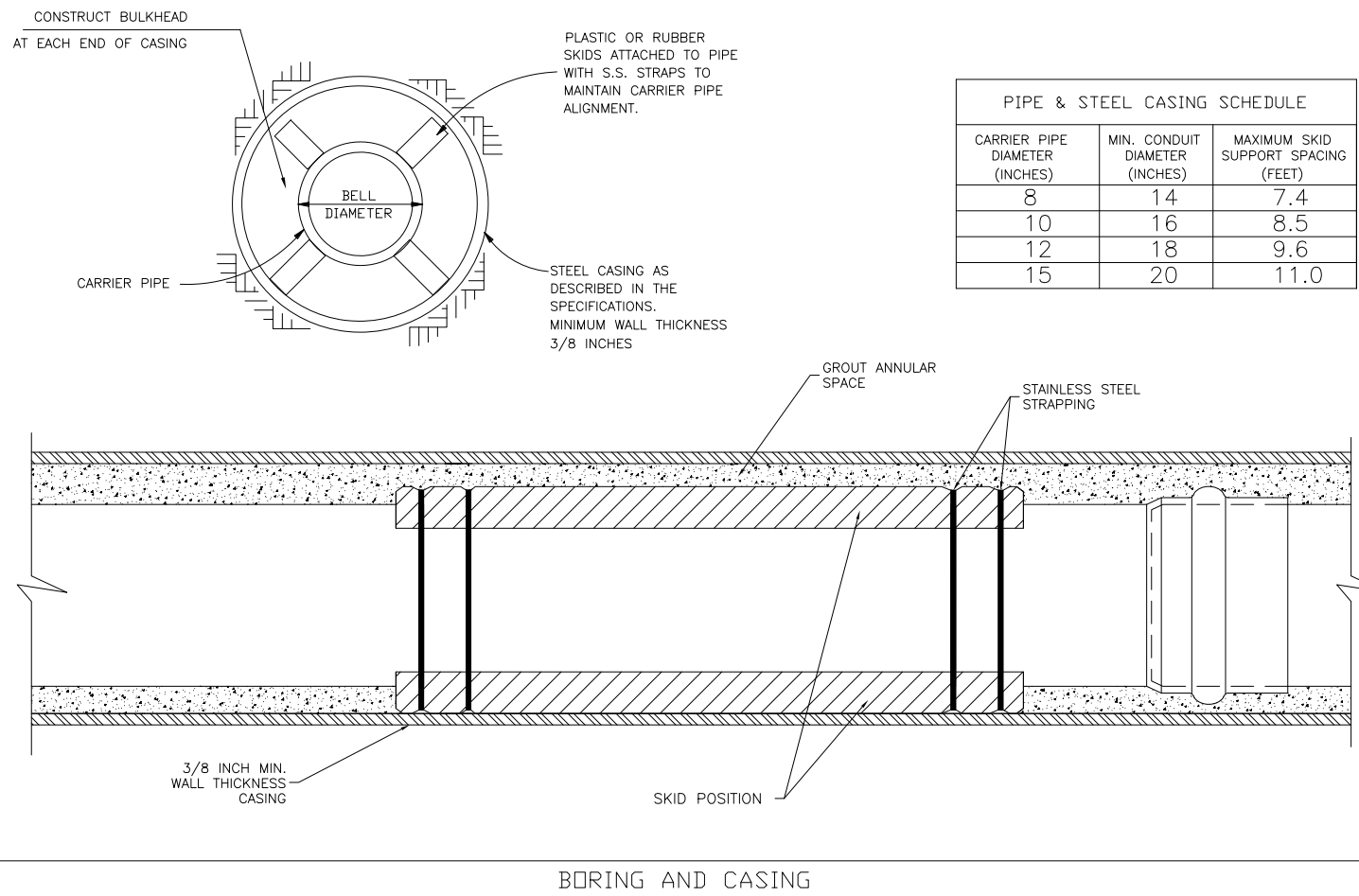
NOTE: DUCTILE IRON PIPE TO BE CENTERED UNDER WATER LINE SO THAT JOINTS ARE PLACED EQUAL DISTANCE FROM CROSSING AS SHOWN.

TYPICAL SECTIONS FOR WATER MAIN LESS THAN 2-FOOT ABOVE SEWER MAIN

WATER LINE AND SEWER CROSSINGS



WATER AND SEWER LINES WITH HORIZONTAL CLEARANCE OF LESS THAN TEN FEET



PIPE & STEEL CASING SCHEDULE		
CARRIER PIPE DIAMETER (INCHES)	MIN. CONDUIT DIAMETER (INCHES)	MAXIMUM SKID SUPPORT SPACING (FEET)
8	14	7.4
10	16	8.5
12	18	9.6
15	20	11.0

PREPARED BY:
CHISHOLM TRAIL CONSULTING, LLC
2124 SCOTT LANE
DUNCAN, OKLAHOMA 73533
CA 0K7771
RANDALL SCOTT VAUGHN, P.E. 15194

CITY OF CHICKASHA, OKLAHOMA
STANDARD DRAWINGS

APPROVED AND ADOPTED BY THE CITY COUNCIL
THIS ____ DAY OF ____ 202__.

MAYOR _____ ATTEST: CITY CLERK _____

SANITARY SEWER MAIN DETAILS
DO NOT SCALE

DIGITALLY SIGNED 12/1/2022

Page 479 of 577

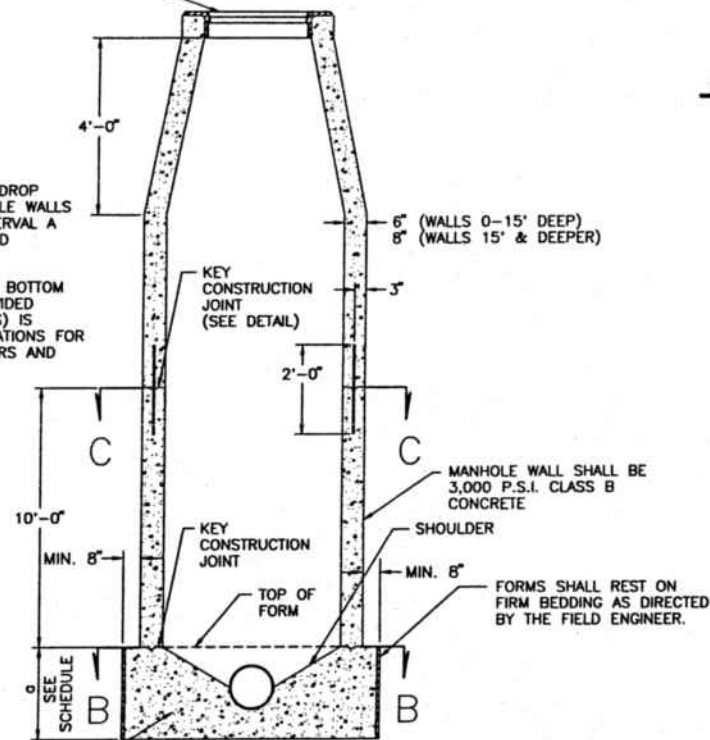
STANDARD POURED-IN-PLACE MANHOLE

TYPE "B" FRAME IS TYPICAL

CONCRETE POURS (ACTUAL VERTICAL DROP OF CONCRETE) FOR HEIGHT OF MANHOLE WALLS SHALL NOT EXCEED 10'. AT THIS INTERVAL A CONSTRUCTION JOINT WILL BE REQUIRED CONFORMING TO THE DETAILS SHOWN.

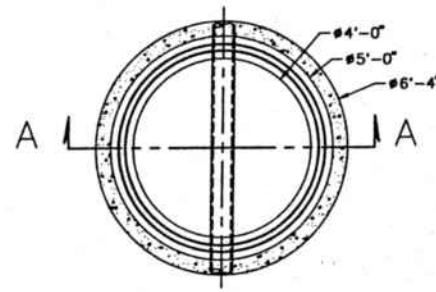
MONOLITHIC POURS OF THE MANHOLE BOTTOM AND WALLS SHALL BE PERMITTED PROVIDED THAT ALL CONCRETE (BOTTOM & WALLS) IS VIBRATED ACCORDING TO THE SPECIFICATIONS FOR THE CONSTRUCTION OF SANITARY SEWERS AND APPURTENANCES.

SCHEDULE OF THICKNESS	
PIPE DIAMETER	a
8"	1'-8"
10"	1'-10"
12"	2'-1"
15"	2'-4"
18"	2'-8"
21"	3'-0"
24"	3'-3"

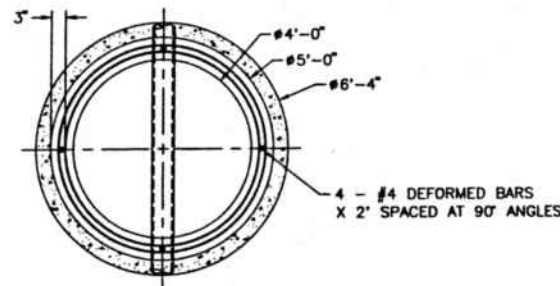


3500 P.S.I. CLASS A CONCRETE

SECTION A-A



SECTION B-B



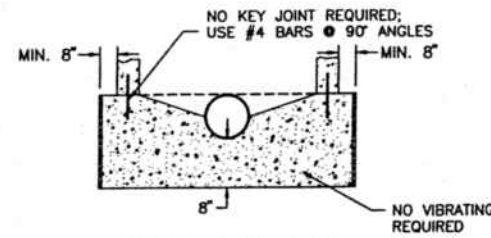
SECTION C-C

CASTING WEIGHTS (FOR COVERS)

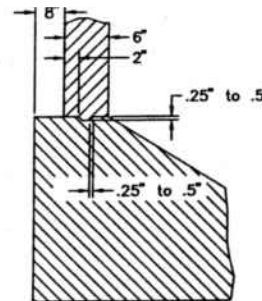
THE AVERAGE WEIGHTS OF CASTING WILL NOT BE LESS THAN 98% OF WEIGHTS SHOWN BELOW.

WEIGHTS OF INDIVIDUAL CASTINGS SHALL NOT BE LESS THAN 95% OF WEIGHTS SHOWN BELOW.

TOTAL TYPE "A" 300 LBS.
TOTAL TYPE "B" 551 LBS.



ALTERNATE JOINT



KEY CONSTRUCTION JOINT
DETAIL
FOR BOTTOM & WALLS

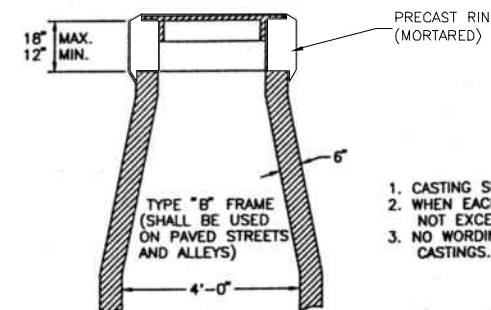
SCALE = 2X

THIS MANHOLE IS STANDARD ONLY FOR SEWERS 36" IN DIAMETER OR LESS, PROVIDED THAT AT JUNCTION POINTS, SPECIAL MANHOLES MAY BE REQUIRED FOR SEWERS SMALLER THAN 36" IN DIAMETER.

INTERIOR SURFACES OF ALL MANHOLE WALLS SHALL RECEIVE TWO (2) COATS OF INERTOL (BLACK SEWER TYPE) PAINT. A MINIMUM INTERVAL OF 24 HOURS SHALL ELAPSE BETWEEN APPLICATIONS OF COATINGS.

FORMS SHALL BE PROVIDED FOR THE SHAPING & FINISHING OF THE MANHOLE BOTTOMS. A MINIMUM OF 24 HOURS SHALL ELAPSE PRIOR TO POURING OF MANHOLE WALLS. CONSTRUCTION OF MANHOLE BOTTOM SHALL COMPLY WITH THE STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF SANITARY SEWERS AND APPURTENANCES.

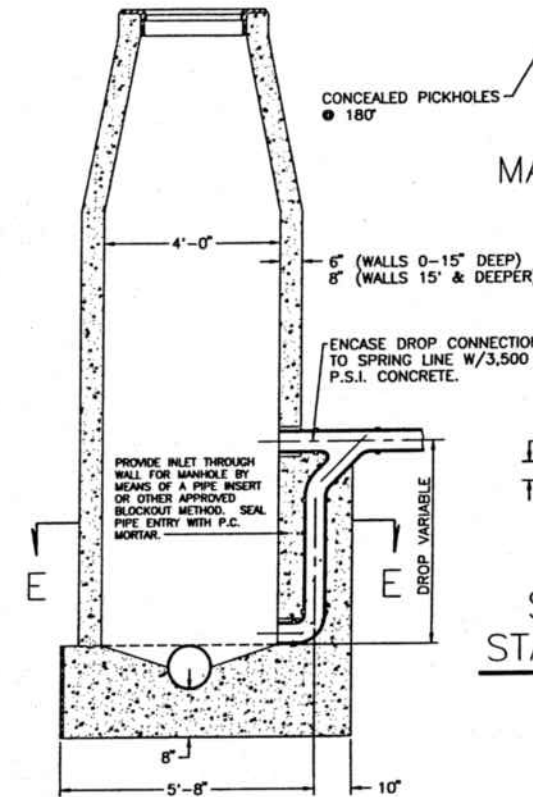
MORTAR FOR FINISHING AND SEALING SHALL BE CLASS "C". ANY HONEYCOMBING OF CONCRETE LESS THAN 2" DEEP IN 6" MANHOLE WALLS MAY BE REPAIRED USING CLASS "D" MORTAR.



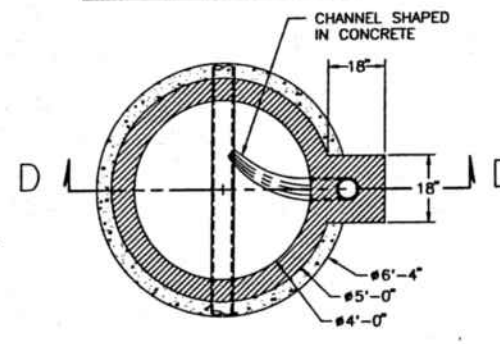
TYPICAL SECTION

TO BE USED ON EXISTING AND FUTURE PAVING

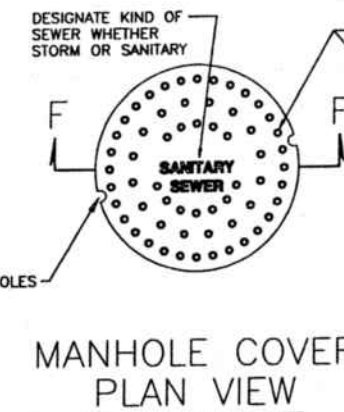
STANDARD POURED-IN-PLACE DROP MANHOLE



SECTION D-D

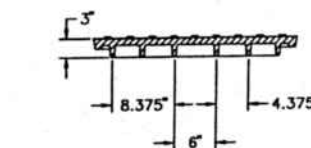


SECTION E-E



MANHOLE COVER
PLAN VIEW

SCALE = 2X



SECTION F-F
STANDARD COVER

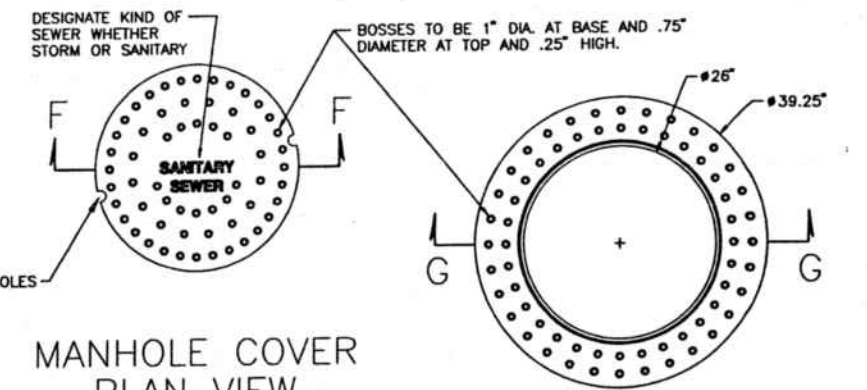
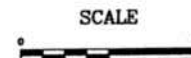
SCALE = 2X

MANHOLE COVER
UNDERSIDE PLAN VIEW

SCALE = 2X

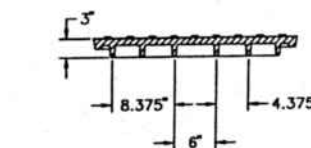
GENERAL NOTES

1. CASTING SHALL CONFORM TO THE A.S.T.M. SPECIFICATIONS FOR GRAY-IRON CASTINGS, SERIAL DESIGNATION A 48-74.
2. WHEN EACH COVER IS PLACED IN ANY POSITION IN ITS ASSOCIATED FRAME, THE SIDE PLAY IN ANY DIRECTION SHALL NOT EXCEED ONE-EIGHTH (1/8) INCH.
3. NO WORDING OR MARKINGS OF ANY KIND, OTHER THAN THOSE SHOWN ON THE PLAN, WILL BE PERMITTED ON THESE CASTINGS.



MANHOLE COVER
PLAN VIEW

SCALE = 2X

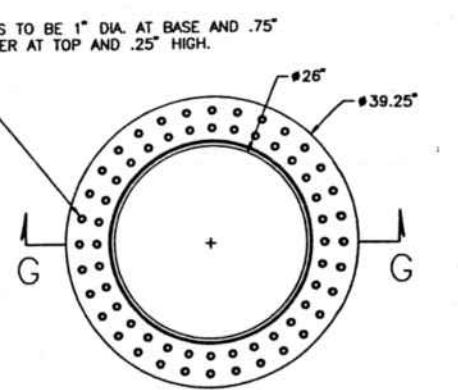


SECTION F-F
STANDARD COVER

SCALE = 2X

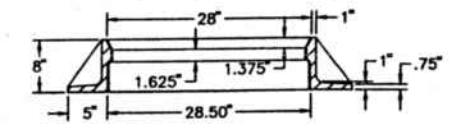
MANHOLE COVER
UNDERSIDE PLAN VIEW

SCALE = 2X



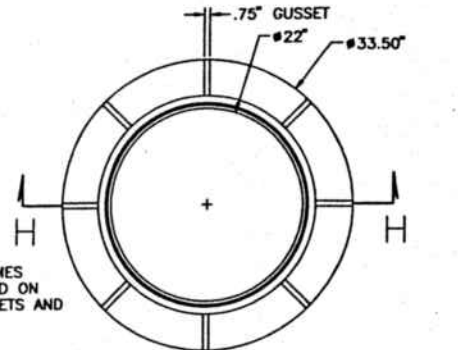
TYPE B
STANDARD FRAME

SCALE = 2X



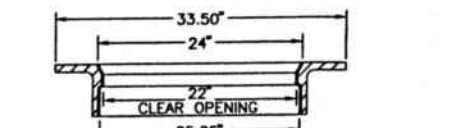
SECTION G-G

SCALE = 2X



TYPE A
STANDARD FRAME
PLAN VIEW

SCALE = 2X



SECTION H-H

SCALE = 2X

PREPARED BY:
CHISHOLM TRAIL CONSULTING, LLC
2124 SCOTT LANE
DUNCAN, OKLAHOMA 73533
C# 047771
RANDALL SCOTT VAUGHN, P.E. 15194

DIGITALLY SIGNED
12/1/2022

CITY OF CHICKASHA, OKLAHOMA
STANDARD DRAWINGS

APPROVED AND ADOPTED BY THE CITY COUNCIL
THIS _____ DAY OF _____, 202__.

MAYOR _____ ATTEST: CITY CLERK _____

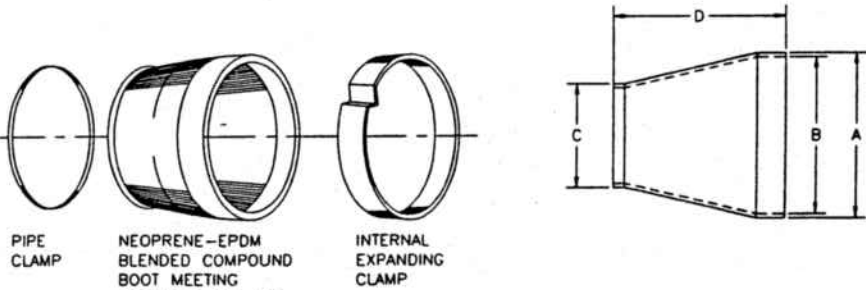
CAST-IN-PLACE MANHOLE DETAILS

DO NOT SCALE

Sheet SSM3

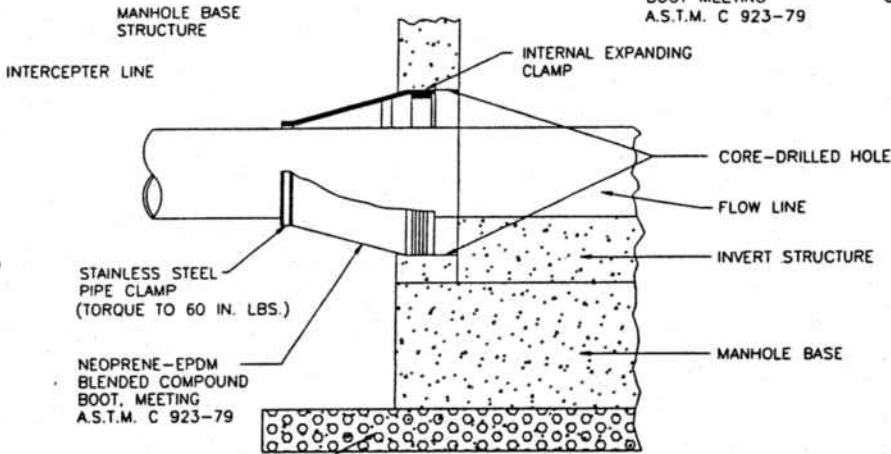
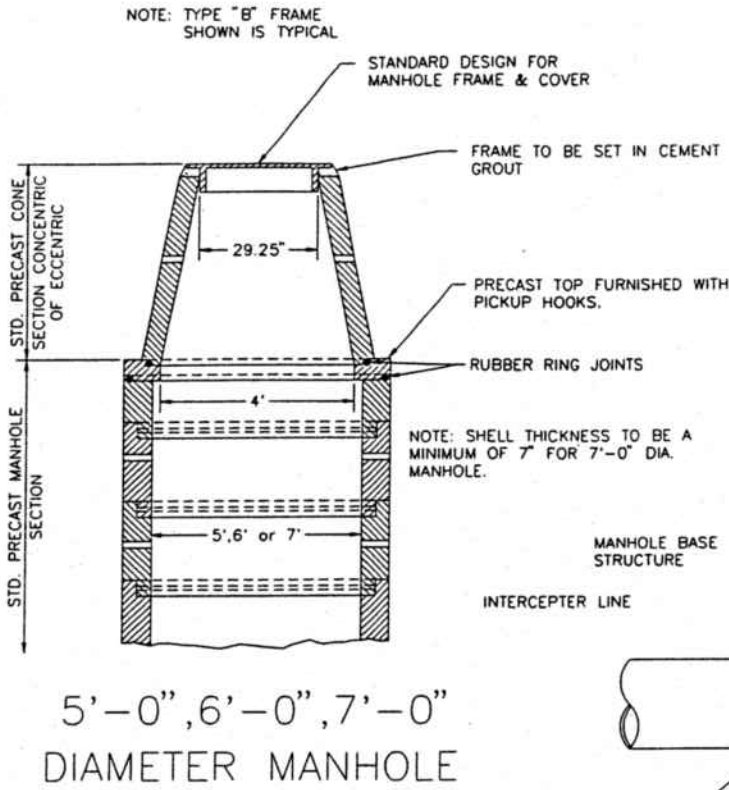
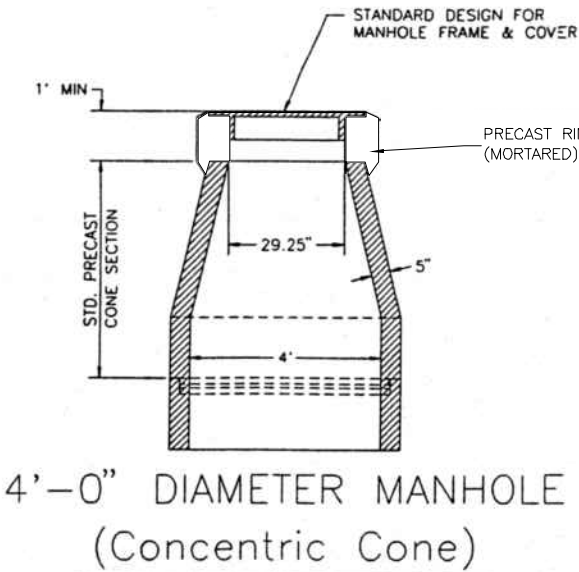
GENERAL NOTES

- 1. ALL PRECAST COMPONENTS SHALL BE REINFORCED WITH THE RESPECTIVE A.S.T.M. SPECIFICATIONS. (C-478-72)
- 2. REINFORCED CONCRETE WALL THICKNESS SHALL BE GOVERNED BY A.S.T.M. SPECIFICATIONS.
- 3. ALL JOINTS SHALL HAVE APPROVED RUBBER RINGS.
- 4. ALL LIFTING HOLES SHALL BE REPAIRED WITH A MIXTURE OF CEMENT AND SAND GROUT FIRMLY PACKED.
- 5. THE INTERIOR SURFACES OF MANHOLE AND CONE SECTIONS SHALL BE COATED WITH TWO COATS OF INERTOL OR APPROVED EQUAL.
- 6. ALL MASONRY FOR HANDWORK SHALL CONFORM TO STANDARD SPECIFICATIONS.
- 7. ALL CASTINGS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
- 8. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN MANHOLE AND CONE SECTIONS SHALL BE 4,000 P.S.I.



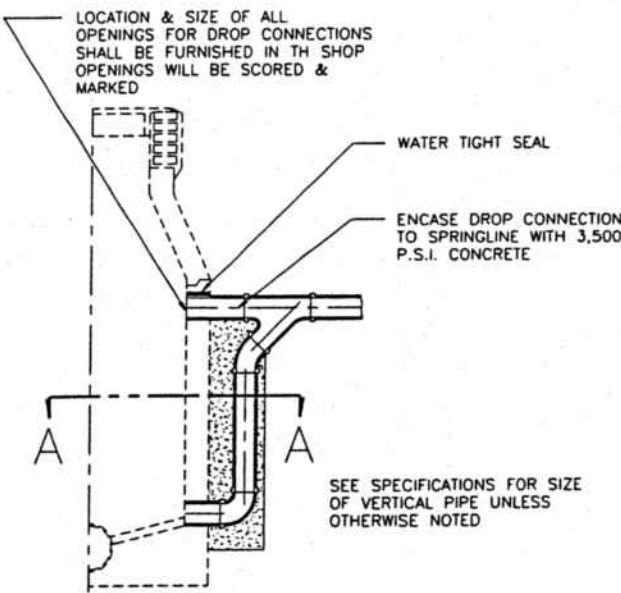
SUGGESTED PIPE O.D. RANGE	HOLE & BOOT DIAMETER DIMENSIONS			
	A	B	C	D
3.5" - 4.5"	7"	6.125"	4.25"	6"
5.375" - 7.0"	12"	10.875"	6.5"	8"
7.0" - 8.5"	12"	10.875"	8"	8"
8.1875" - 9.75"	12"	10.875"	9.25"	8"
9.25" - 11.0"	16"	14.875"	10.5"	8"
10.75" - 12.5"	16"	14.875"	12"	8"
12.0" - 12.75"	16"	14.875"	13.25"	8"
14.5" - 16.25"	20"	18.875"	15.75"	8"
15.75" - 17.5"	20"	18.875"	17"	8"
19.5" - 21.25"	24"	22.875"	20.75"	8"

NOTE: ALL CLAMPS SHALL BE STAINLESS STEEL.

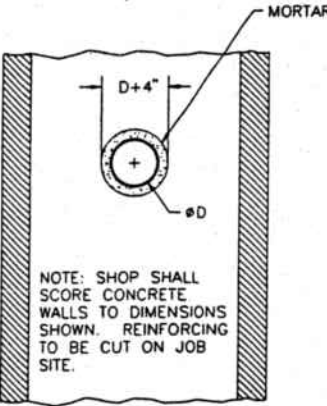


PIPE INSTALLATION DETAIL

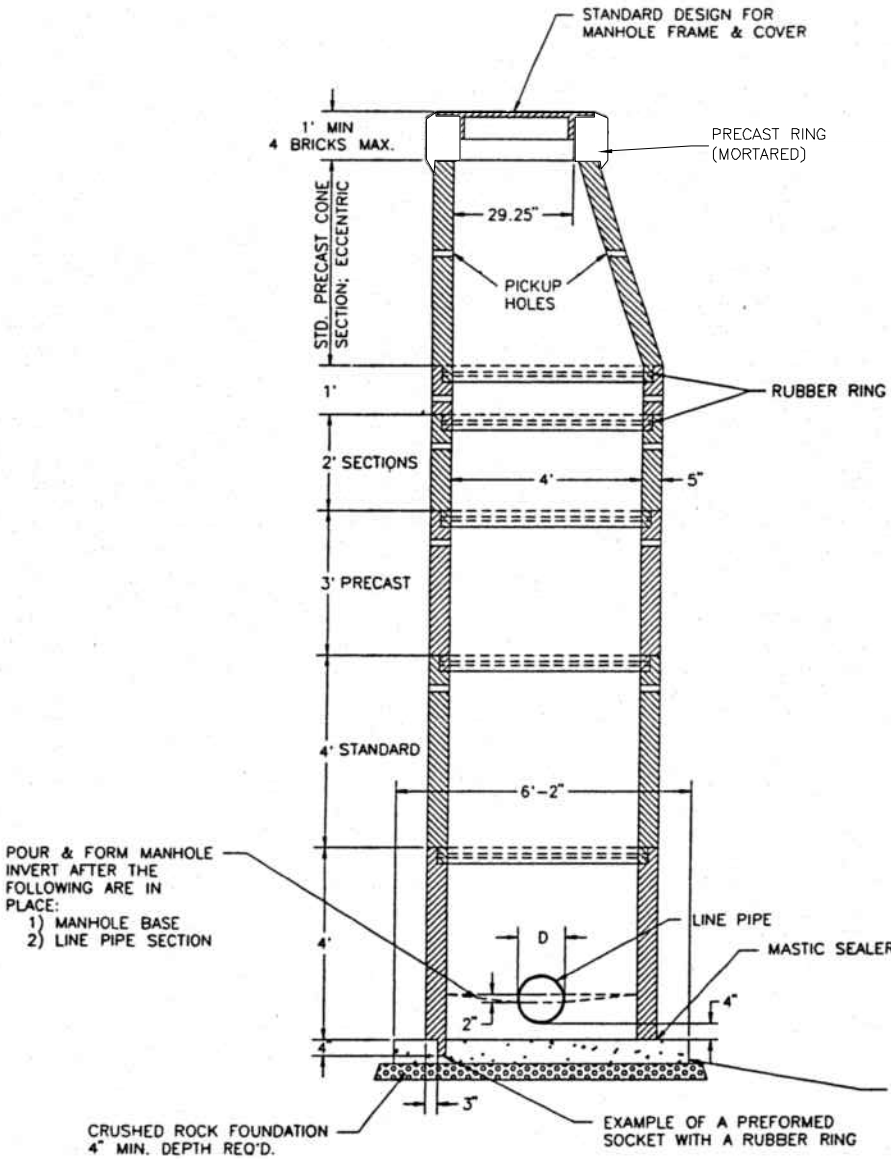
NOT TO SCALE



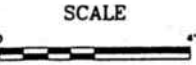
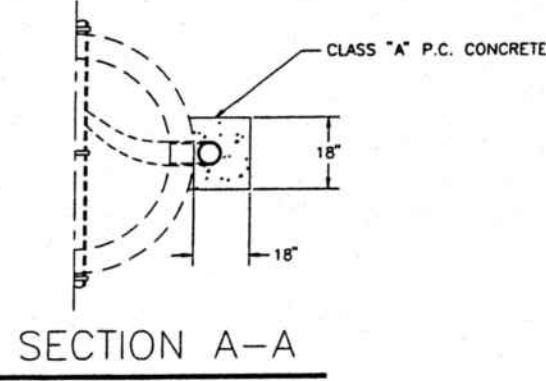
DROP MANHOLE CONNECTION



PIPE CONNECTION DETAILS



TYPICAL BASE DETAILS
4'-0" DIAMETER MANHOLE (Eccentric Cone)



PREPARED BY:
CHISHOLM TRAIL CONSULTING, LLC
2124 SCOTT LANE
DUNCAN, OKLAHOMA 73533
C# 047771
RANDALL SCOTT VAUGHN, P.E. 15194

PROFESSIONAL ENGINEER
RANDALL SCOTT VAUGHN
15194
OKLAHOMA

DIGITALLY SIGNED 12/1/2022

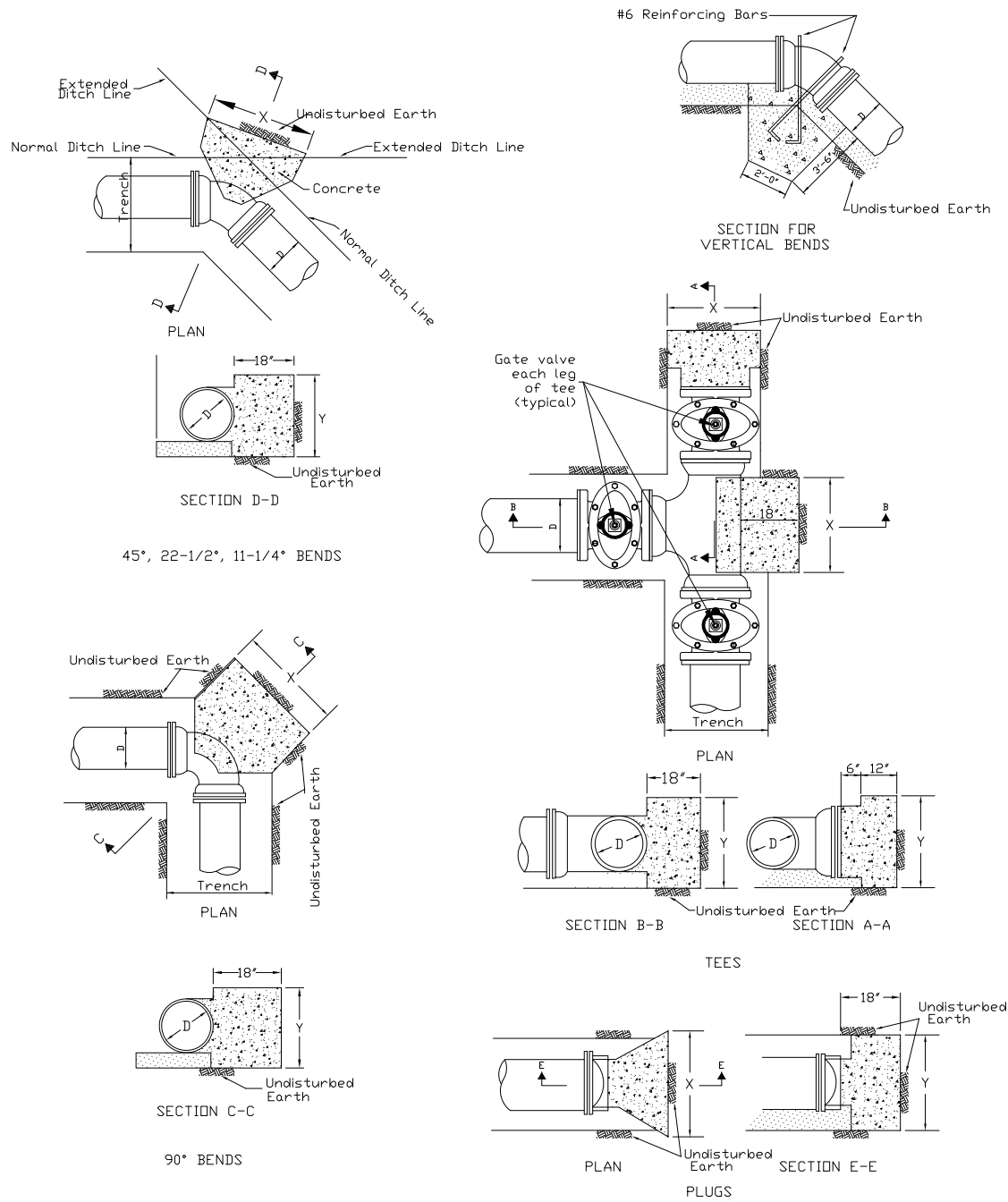
CITY OF CHICKASHA, OKLAHOMA
STANDARD DRAWINGS

APPROVED AND ADOPTED BY THE CITY COUNCIL
THIS ____ DAY OF ____ 202__.

MAYOR _____ ATTEST: CITY CLERK _____

PRECAST MANHOLE DETAILS
DO NOT SCALE

Sheet SSM4



Pipe Size (inches)	Trench Width (inches)	DIMENSIONS FOR CONCRETE THRUST BLOCKS (feet)											
		TEE, FH or PLUG		PLUG/BLOWOFF		90° Bends		45° Bends		22 1/2° Bends		11 1/4° Bends	
		X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
6	20	2.0	1.5	2.5	1.5	3.0	1.5	1.5	1.5	1.0	1.5	1.0	1.5
8	22	2.5	2.0	3.0	2.0	3.5	2.0	2.0	2.0	1.0	2.0	1.0	2.0
10	24	4.0	2.0	4.5	2.0	5.5	2.0	3.0	2.0	1.5	2.0	1.0	2.0
12	28	4.0	3.0	4.5	3.0	5.0	3.0	3.0	3.0	1.5	3.0	1.0	3.0

CONCRETE THRUST BLOCKS SHALL BE CAST IN PLACE CONCRETE WITH 3,500 PSI COMPRESSIVE STRENGTH AT 3 DAYS.

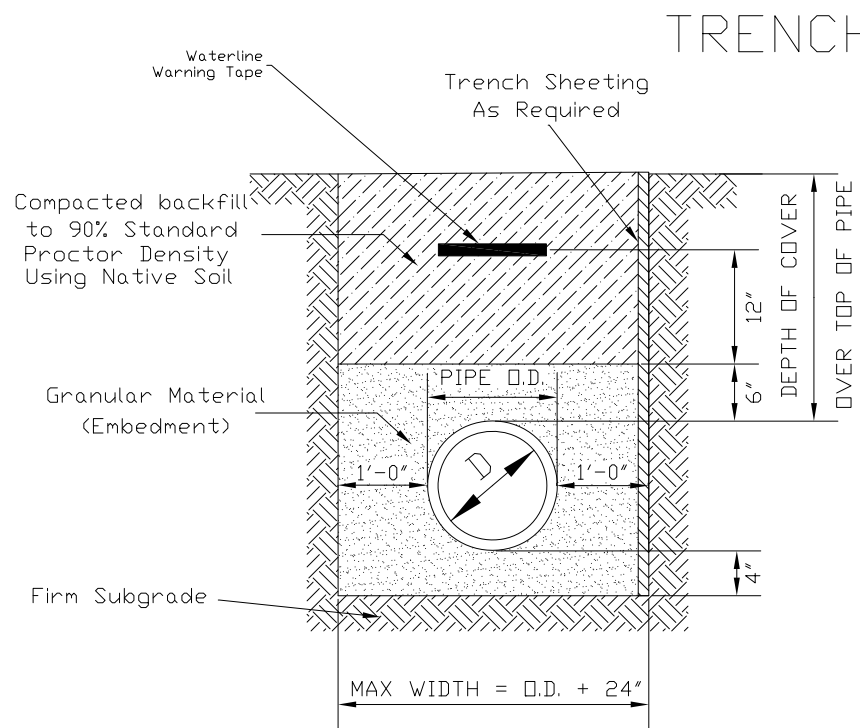
PLACE MINIMUM 8 MIL VISQUEEN BETWEEN THRUST BLOCK AND PIPE OR FITTING

ALL THRUST BLOCKS SHALL BE FORMED USING LUMBER OR SIMILAR SUITABLE MATERIAL

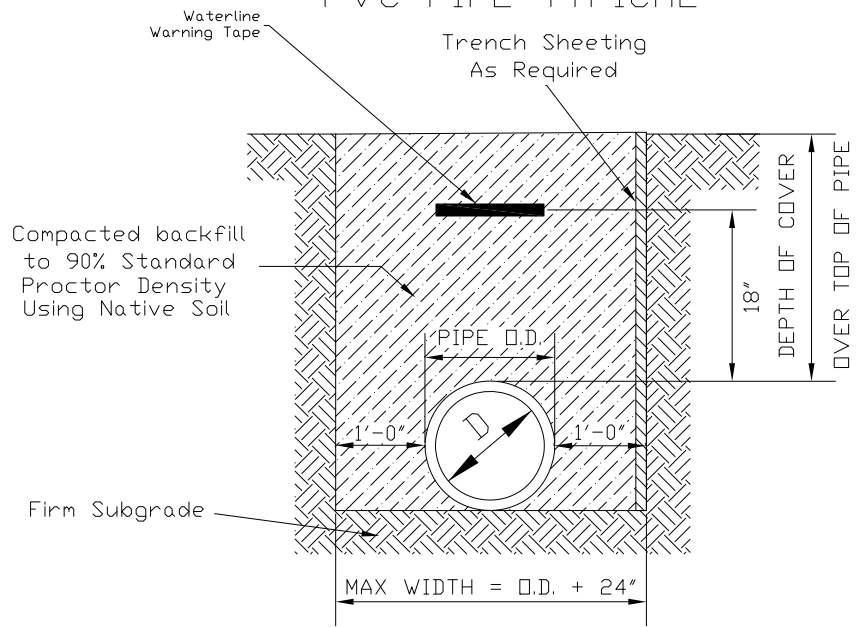
CONCRETE THRUST BLOCK DETAILS

GENERAL INSTALLATION NOTES

1. PLACE WATER MAIN THREE (3) FEET BEHIND CURB.
2. DO NOT PLACE WATER MAIN UNDER STREETS, ROADS OR CURBS, EXCEPT AT CROSSINGS.
3. PLACE GATE VALVES ON EACH LEG OF ALL TEES.



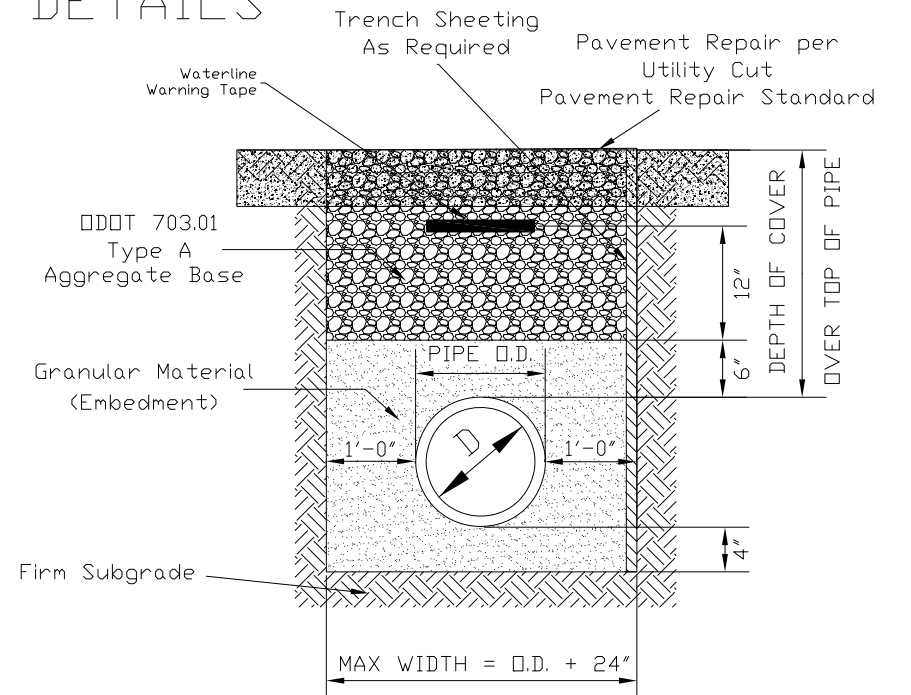
PVC PIPE TYPICAL



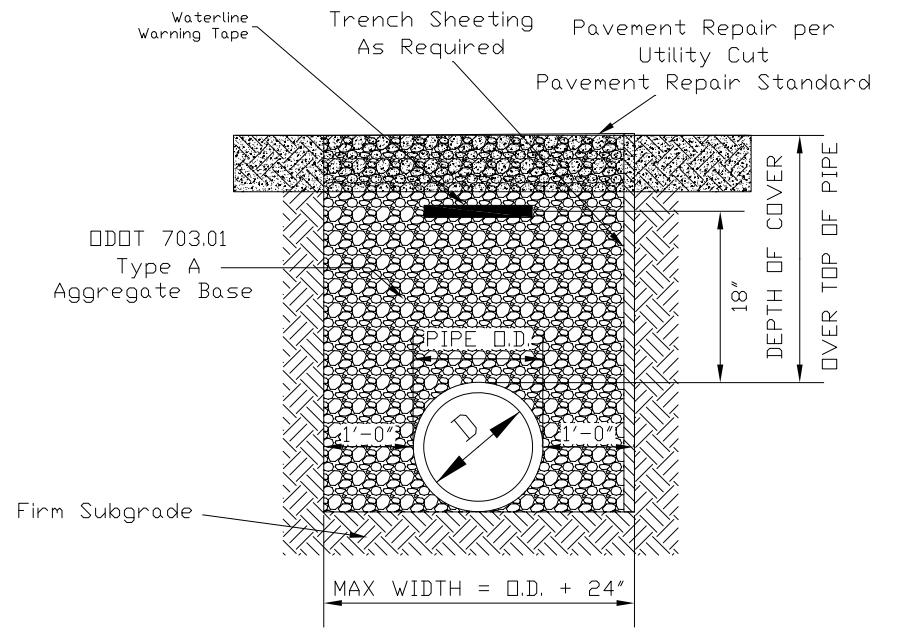
DUCTILE IRON PIPE TYPICAL

TRENCH WIDTHS		
NOMINAL PIPE DIAMETER (INCHES)	MINIMUM TRENCH WIDTH (INCHES)	MAXIMUM TRENCH WIDTH (INCHES)
6	20	31
8	22	36
10	24	38
12	28	40

TRENCH DETAILS

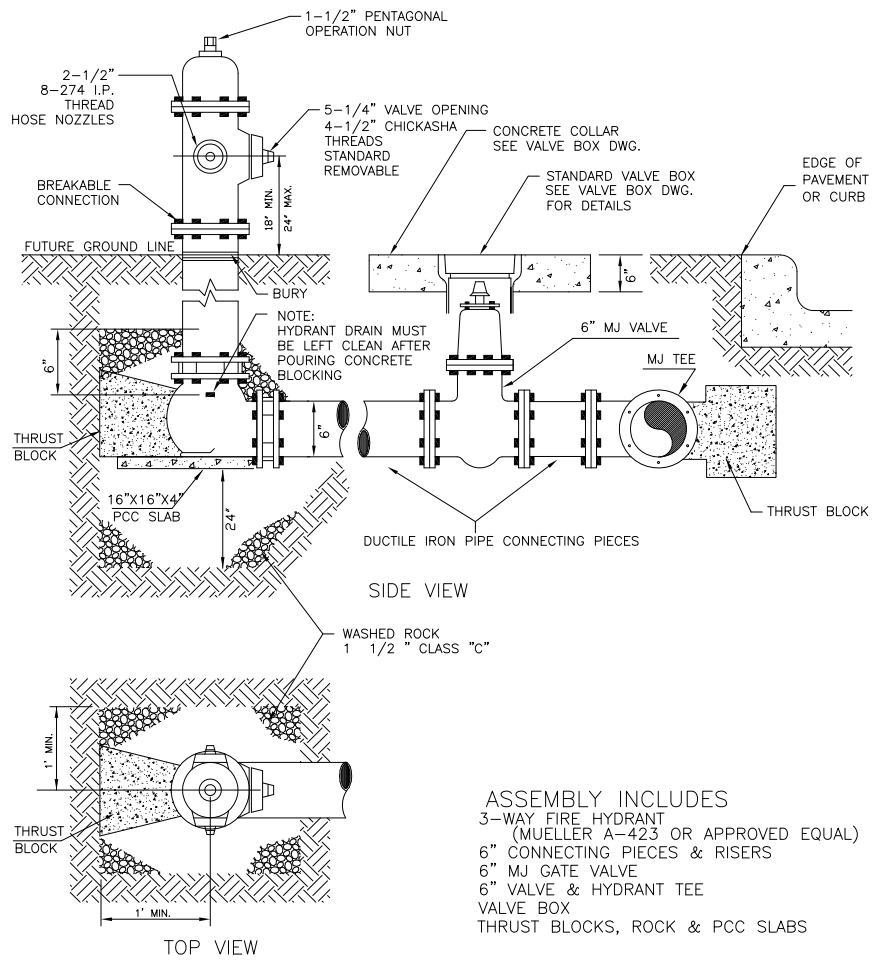


PVC PIPE UNDER DRIVES, STREETS AND ALLEYS

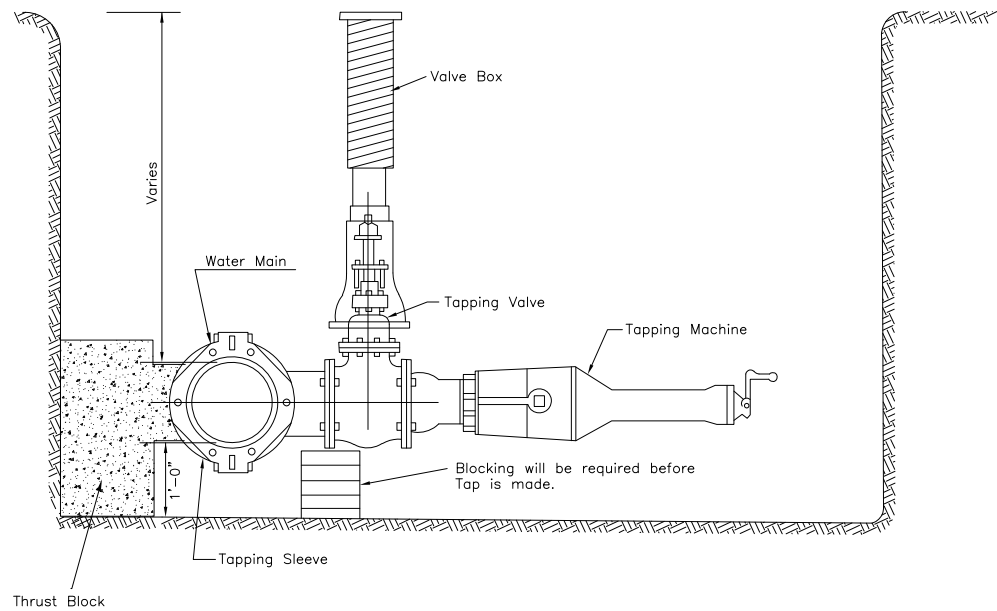


DUCTILE IRON PIPE UNDER DRIVES, STREETS AND ALLEYS

PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA 0K7771 RANDALL SCOTT VAUGHN, P.E. 15194		CITY OF CHICKASHA, OKLAHOMA STANDARD DRAWINGS	
APPROVED AND ADOPTED BY THE CITY COUNCIL THIS ____ DAY OF _____, 202___.		MAYOR _____ ATTEST: CITY CLERK _____	
WATER MAIN DETAILS DO NOT SCALE		Page 482 of 577	

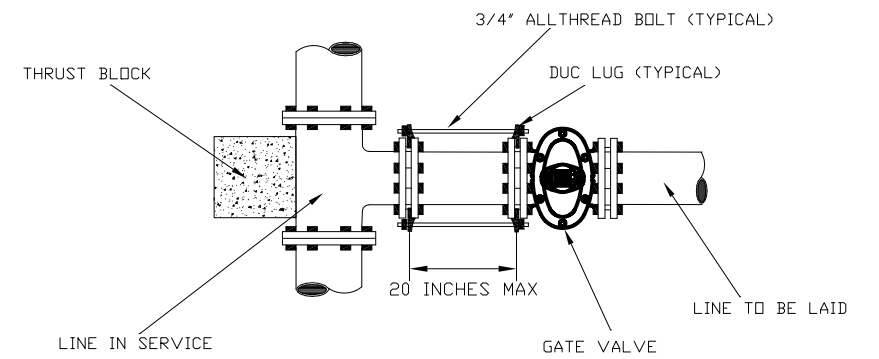
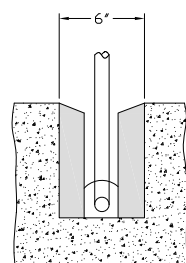
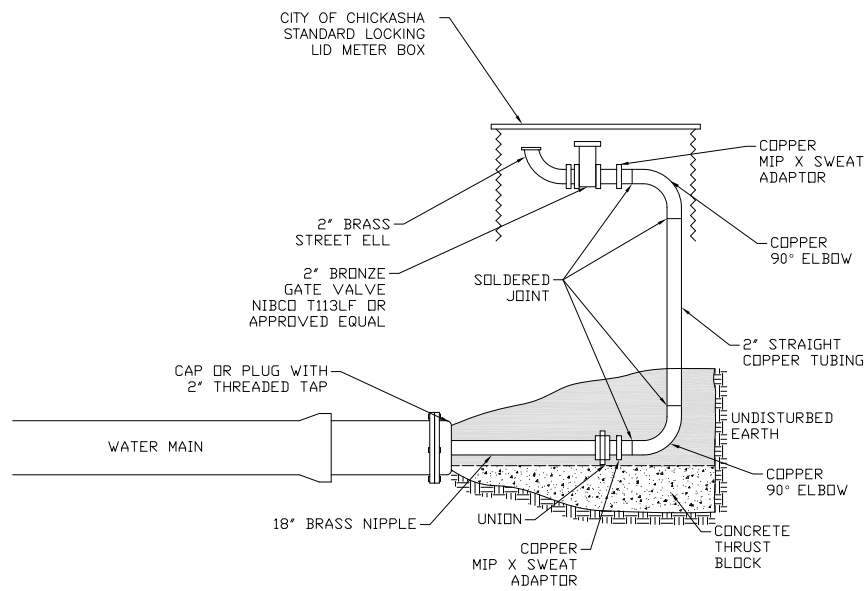
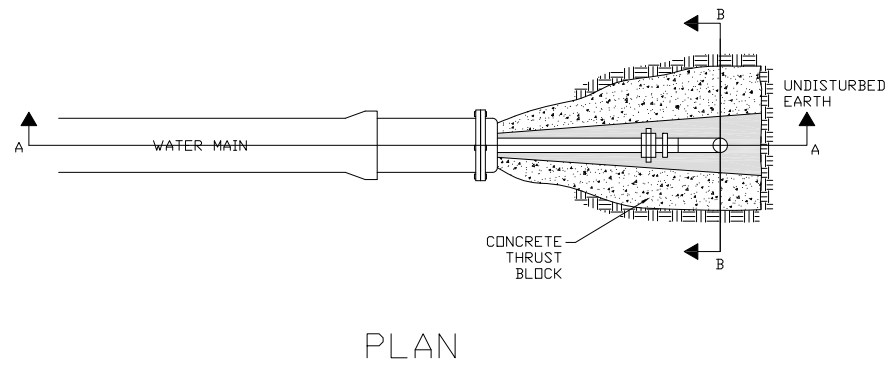


FIRE HYDRANT ASSEMBLY

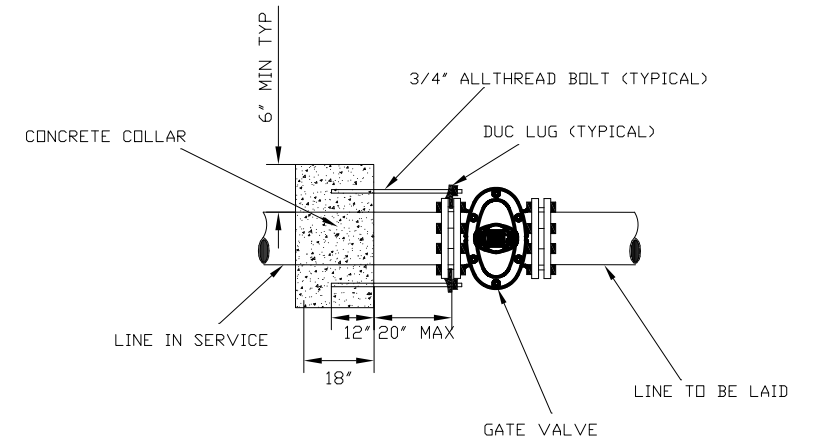


BLOCKING FOR TAPPING VALVE

2" BLOWOFF FOR DEAD END WATERLINE



NOTE: USE NUMBER OF BOLTS W/ DUC LUGS ACCORDING TO THE SCHEDULE BELOW, EQUALLY SPACED.



NOTE: USE NUMBER OF BOLTS W/ DUC LUGS ACCORDING TO THE SCHEDULE BELOW, EQUALLY SPACED.

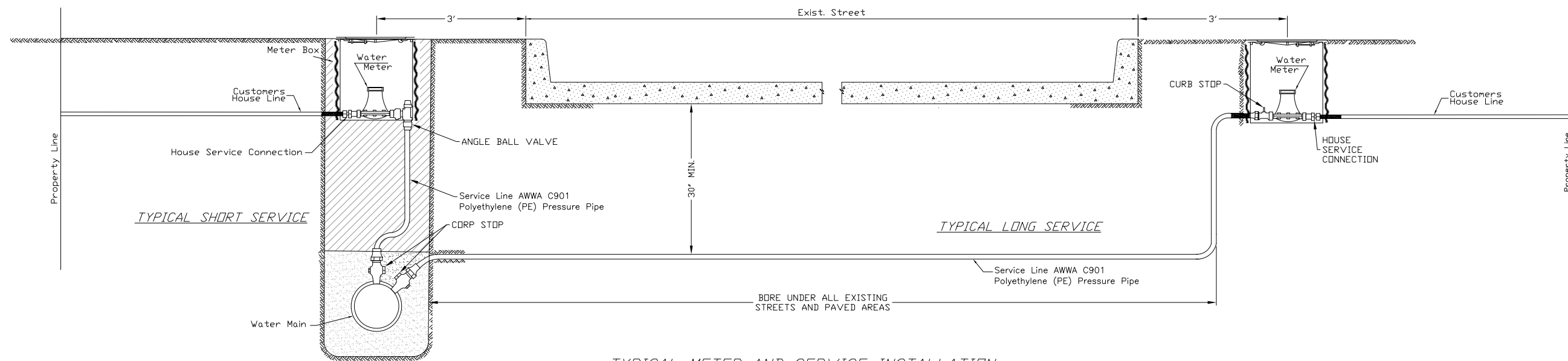
PIPE SIZE	MINIMUM NUMBER OF BOLTS
6"	2
8"	3
10"	4
12"	4

TYPICAL MECHANICAL JOINT RESTRAINTS
USING 3/4-INCH ALL-THREAD BOLTS AND DUC LUGS

PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA 0K7771 RANDALL SCOTT VAUGHN, P.E. 15194	CITY OF CHICKASHA, OKLAHOMA STANDARD DRAWINGS	
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DIGITALLY SIGNED 12/1/2022

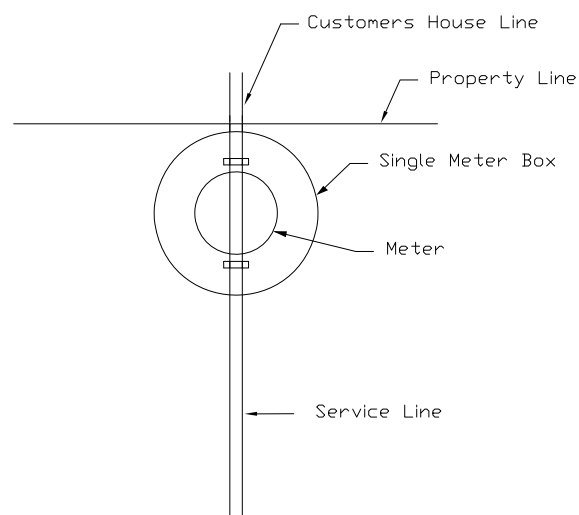
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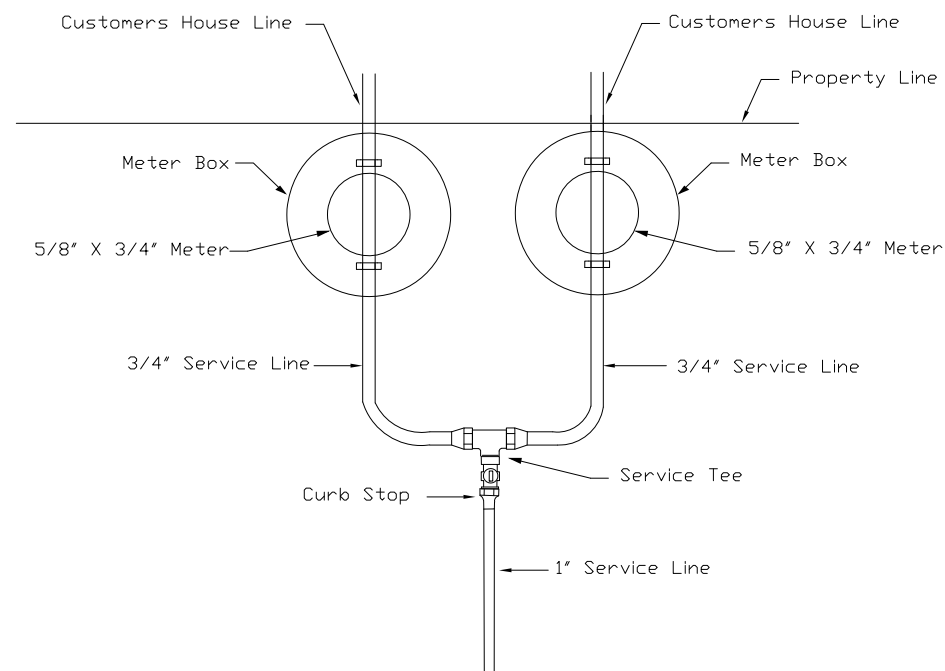
*TYPICAL METER AND SERVICE INSTALLATION
(NOT TO SCALE)*

METER AND SERVICE LINE INSTALLATION NOTES

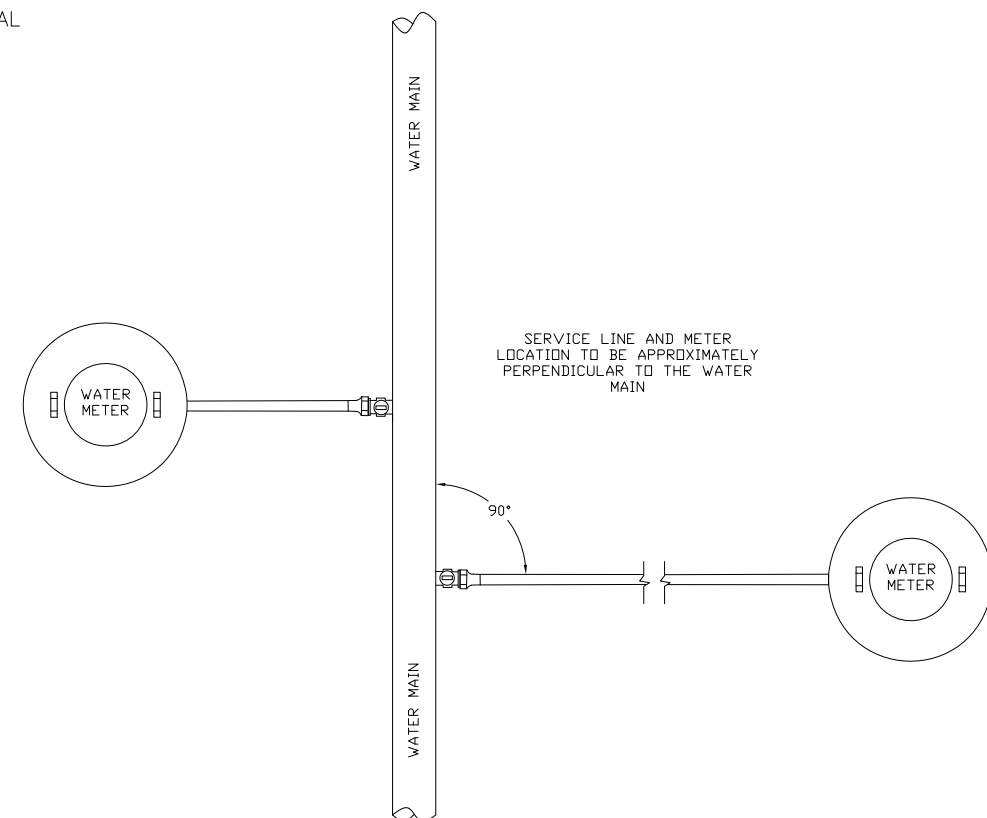
1. DEVELOPER SHALL INSTALL SERVICE LINES FROM CORP STOP TO CURB STOP OR ANGLE BALL VALVE, AS APPLICABLE.
2. DEVELOPER SHALL PLACE TEMPORARY MARKER PIPE APPROVED BY THE OWNER OVER END OF EACH SERVICE LINE.
3. PLACE TRACER WIRE WITH SERVICE LINE. REFER TO SHEET WM5 FOR TYPICAL INSTALLATION REQUIREMENTS.
4. DO NOT PLACE SERVICE LINES UNDER DRIVEWAYS.
5. CITY OF CHICKASHA/CHICKASHA MUNICIPAL AUTHORITY PERSONNEL WILL INSTALL METERS AND METER BOXES.



TYPICAL SINGLE METER SETTING



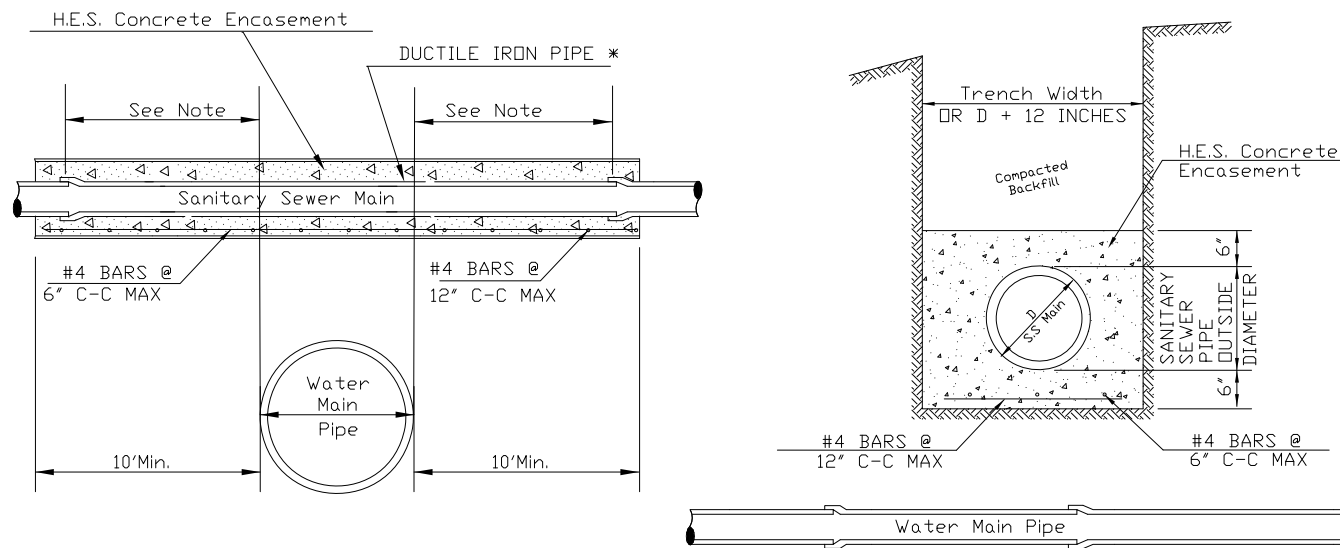
TYPICAL DOUBLE METER SETTING



ALL FITTINGS SHALL BE MUELLER OR APPROVED EQUAL
CORP STOP: MUELLER H-15000
CURB STOP: MUELLER H-15275
SERVICE TEE: MUELLER H-15386

NOTE: DOUBLE METER SETTINGS ARE ONLY PERMITTED WHEN SERVING TWO 5/8" X 3/4" METERS FROM A ONE INCH SERVICE LINE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

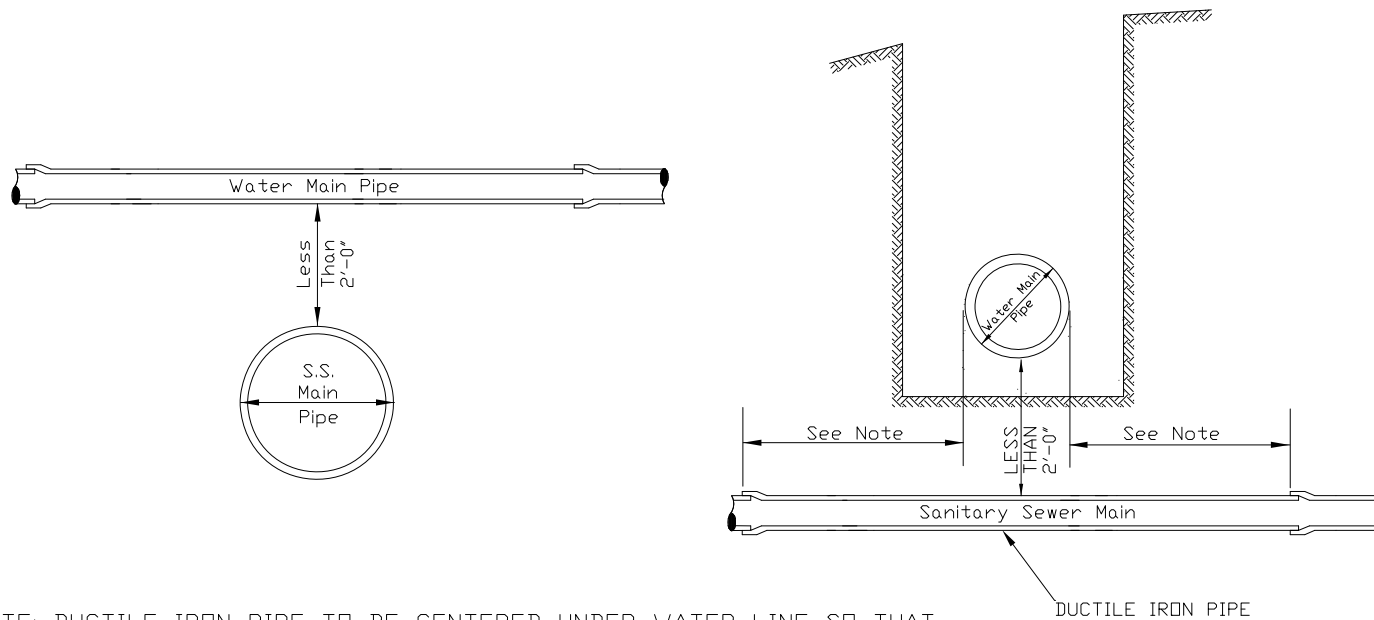
PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA 0K7771 RANDALL SCOTT VAUGHN, P.E. 15194		CITY OF CHICKASHA, OKLAHOMA STANDARD DRAWINGS	
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DIGITALLY SIGNED		WATER MAIN DETAILS DO NOT SCALE	
12/1/2022		Page 484 of 577	



NOTE: CONCRETE ENCASUREMENT IS TO EXTEND 4-INCHES PAST THE NEAREST JOINT AT OR BEYOND THE 10-FOOT MINIMUM SHOWN. REINFORCEMENT STEEL TO HAVE TWO INCHES OF CONCRETE COVER. THE ENGINEER MAY APPROVE OTHER MEANS OF STRUCTURAL SUPPORT OF THE SANITARY SEWER MAIN.

*NOTE: IF CLEARANCE BETWEEN WATER MAIN AND SS MAIN IS LESS THAN 2 FEET DUCTILE IRON PIPE TO BE CENTERED OVER WATER LINE SO THAT JOINTS ARE PLACED EQUAL DISTANCE FROM CROSSING AS SHOWN.

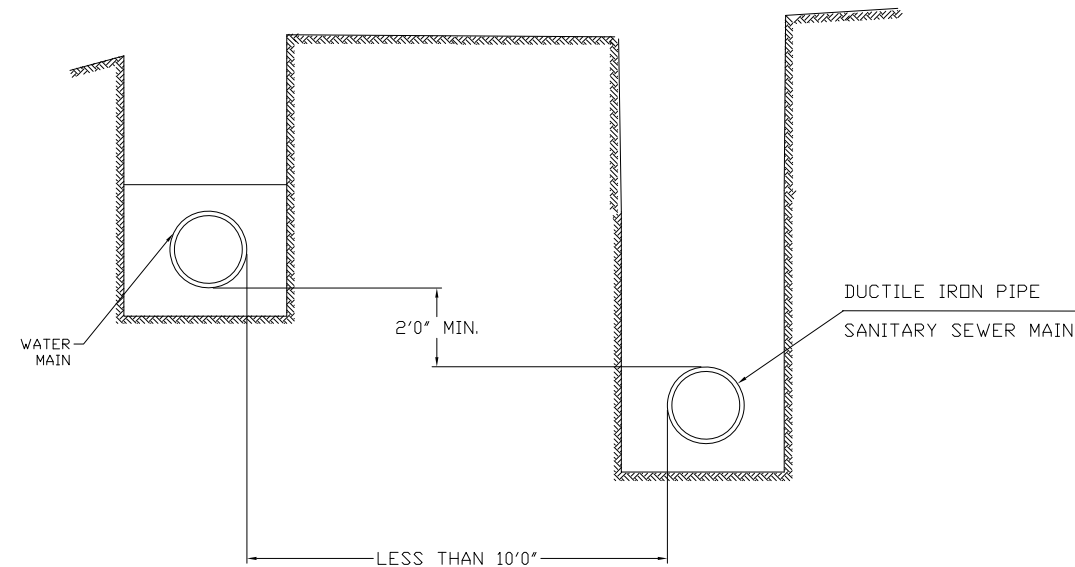
TYPICAL SECTIONS FOR WATER MAIN BELOW SEWER MAIN



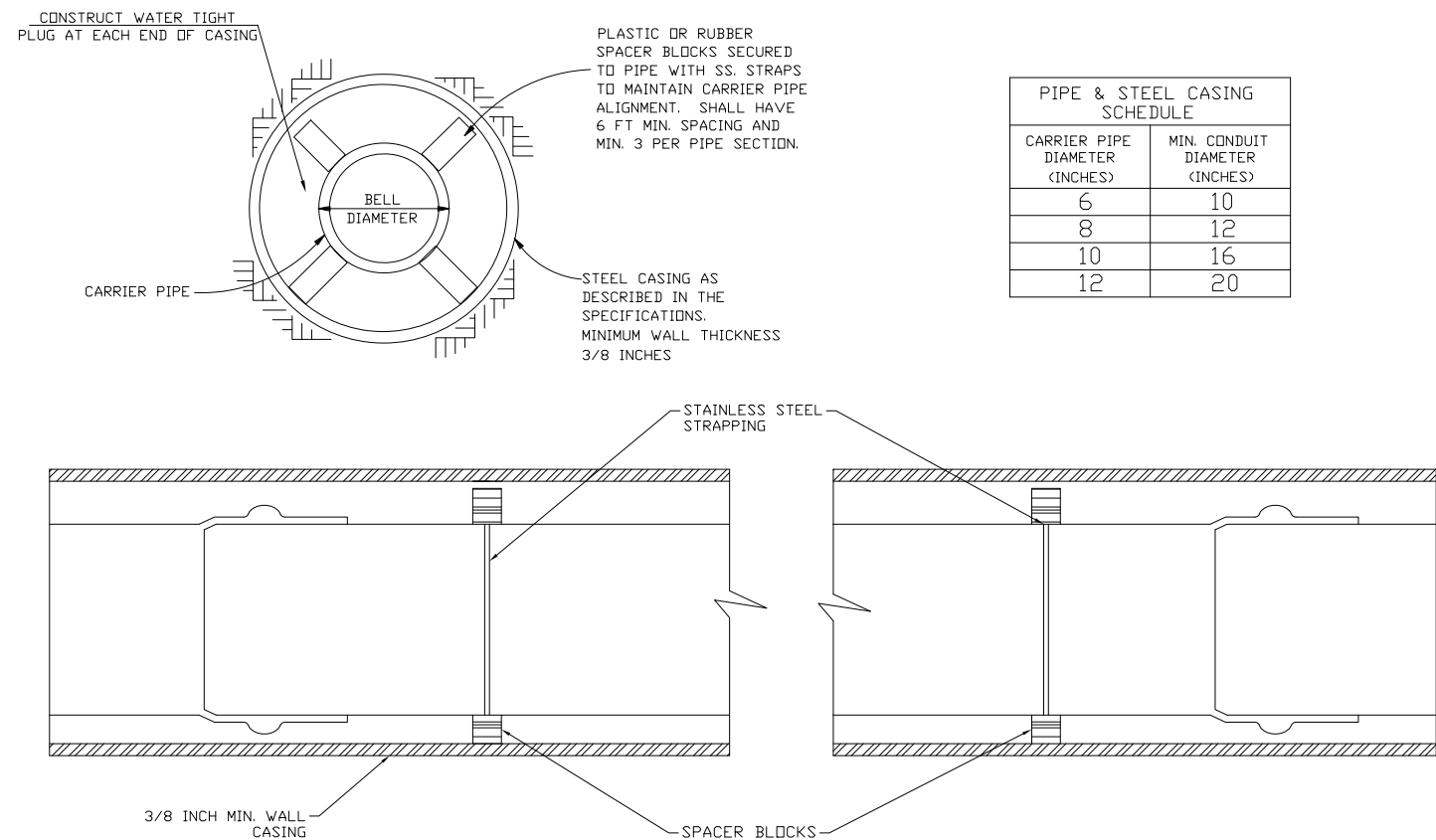
NOTE: DUCTILE IRON PIPE TO BE CENTERED UNDER WATER LINE SO THAT JOINTS ARE PLACED EQUAL DISTANCE FROM CROSSING AS SHOWN.

TYPICAL SECTIONS FOR WATER MAIN LESS THAN 2-FOOT ABOVE SEWER MAIN

WATER LINE AND SEWER CROSSINGS

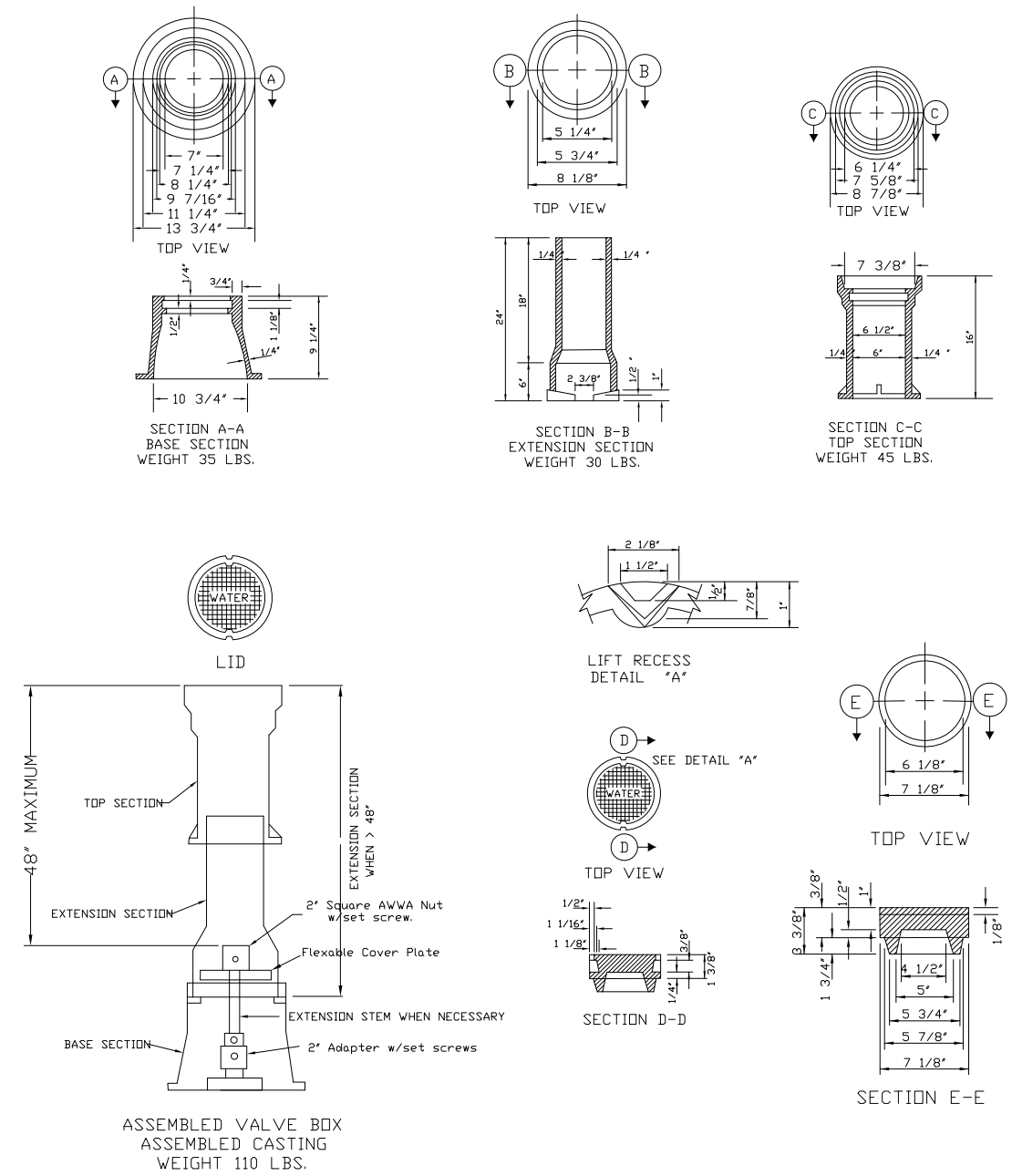
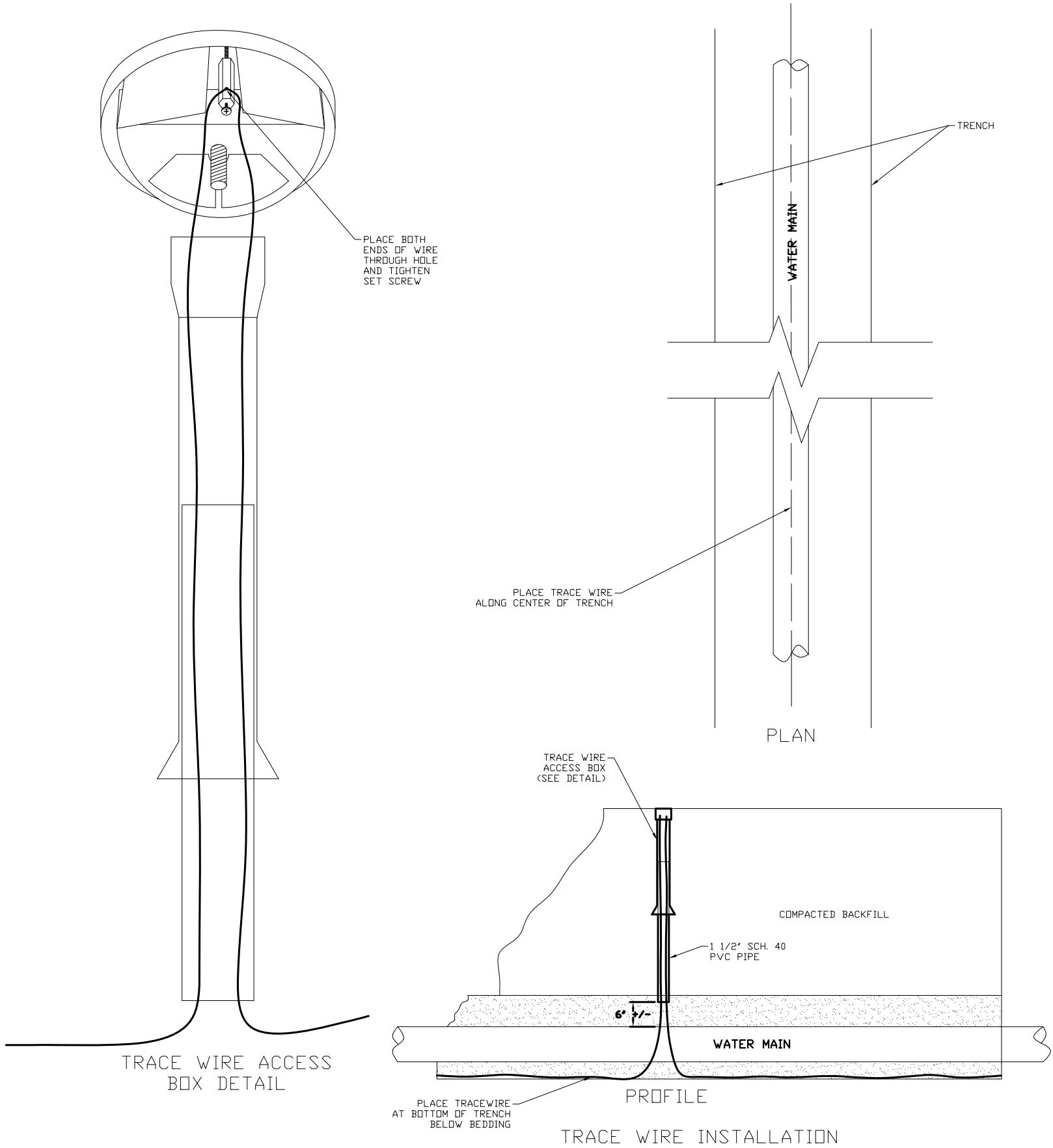


WATER AND SEWER LINES WITH HORIZONTAL CLEARANCE OF LESS THAN TEN FEET



BORING AND CASING

PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA 0K7771 RANDALL SCOTT VAUGHN, P.E. 15194		CITY OF CHICKASHA, OKLAHOMA STANDARD DRAWINGS APPROVED AND ADOPTED BY THE CITY COUNCIL THIS ____ DAY OF _____, 202___.	
MAYOR _____		ATTEST: CITY CLERK _____	
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- NOTES:
1. WATER LINE CONTRACTOR SHALL PLACE TWO FOOT (2') SQUARE CONCRETE COLLAR SIX INCHES (6") THICK AROUND EACH WATER VALVE BOX TOP AFTER FINAL GRADING HAS BEEN COMPLETED AND TRENCHES HAVE SETTLED. ALL COST OF COLLAR TO BE INCLUDED IN THE COST OF THE VALVE BOX.
 2. VALVE BOXES REQUIRING OVER TWO ADDITIONAL BOTTOM SECTIONS SHALL BE EXTENDED USING CAST OR DUCTILE IRON PIPE WITH A BOTTOM AND TOP SECTION PLACED ON TOP OF THE CAST OR DUCTILE IRON PIPE.

CAST IRON VALVE BOX AND LID

PREPARED BY: CHISHOLM TRAIL CONSULTING, LLC 2124 SCOTT LANE DUNCAN, OKLAHOMA 73533 CA 0K7771 RANDALL SCOTT VAUGHN, P.E. 15194	CITY OF CHICKASHA, OKLAHOMA STANDARD DRAWINGS	
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	MAYOR	ATTEST: CITY CLERK
	WATER MAIN DETAILS DO NOT SCALE	

DIGITALLY SIGNED 12/1/2022

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WATER MAIN CONSTRUCTION STANDARD SPECIFICATIONS

Approved by Planning Commission

Approved by City Council

Updated December 1, 2022 by:



CHISHOLM TRAIL CONSULTING, LLC

CA 7771
2124 Scott Lane
Duncan, Ok 73533
580-467-8130
rscottv11@gmail.com

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SECTION 500 – WATER MAINS

SECTION 500 – CONSTRUCTION REQUIREMENTS

500.01 – DESCRIPTION

This section covers general requirements for construction of water lines and appurtenances as described herein. The intent of these specifications is to provide for complete installation including materials, labor and equipment necessary to complete the work. These specifications shall apply to water mains with nominal diameter of 6" through 12" only.

All design, materials, construction, sampling and testing shall comply with ODEQ rules and regulations and AWWA Standards. ODEQ rules and regulations found at OAC 252:626, latest addition, shall govern. Construction compliance shall specifically include, but not will not be limited to, compliance with paragraphs 252:626-19-2 (h) (1) and (2) regarding horizontal and vertical separation between water mains and contamination sources. That is, maintain 1) at least 10 feet horizontally between the water main and any existing or proposed sanitary sewer mains and 2) at least two (2) feet vertically between the water main and any existing or proposed sanitary sewer mains. In the event these separation distances cannot be maintained, refer to the plans for details regarding installation.

The work to be done under this contract consists in general of the installation of pipe, fittings, specials, valves, and other pipe line appurtenances, shall include unloading such material at the point of delivery, hauling, distribution and installation thereof; the furnishing and installation of all jointing materials, gate valves, air valves and appurtenances, structures, concrete and all other materials required by the plans and specifications; making all specified and necessary connections with existing mains; making all required tests; restoration of all roadways, streets, driveways, sidewalks, crosswalks, and street crossing surfaces, and replacement or repair of all drains, sewers, conduits, water, oil and gas lines, fences, culverts, bridges and other structures which may be damaged in the prosecution of the work; maintenance of traffic across sites of the work where required, with all necessary barricades, lights and other safety provisions; making of all repairs to coatings and linings of pipe under the supervision of a representative of the pipe manufacturer; and the performance of all other work required by the plans and as specified herein.

500-02 - EXCAVATION AND BACKFILLING

- A.) DEFINITION – The terms “excavation” and “trenching”, as used herein or in any other reference to the work under contract shall refer to and mean any and all material excavated, for whatever purpose, in accordance with the terms of the specifications, plans, proposal and contract, and shall include all subsequent handling, backfilling, compacting, disposal of excess excavation materials, and the preparation of all sub-grades, etc., necessary for a first-class job.
- B.) EXCAVATION WORK – Excavation work shall include clearing and preparation of the trench or excavation size, including the removal of all surface vegetation, stumps and debris; all sheeting, shoring, bracing, protection of adjacent property, preparation of all sub-grades, storage of excavated materials off of the excavation site where necessary, backfilling, tamping and otherwise compacting of backfill and specified embankments, grading and surfacing; moving, hauling or otherwise transporting excavated materials from whatever source, where materials are to be returned to the excavation site for backfill purposes, as directed by the Engineer; and all other excavation stipulated in this specification.

C.) CLASSIFICATION OF EXCAVATION – There shall be no classification of excavated materials (except as otherwise provided for in the proposal) and the term “excavation” shall include all materials excavated or removed on the several sites of the work regardless of the type, character, composition or condition of the materials so excavated; and shall further include all debris, junk, broken concrete and all other materials within the excavation limits.

D.) PIPE TRENCH EXCAVATION – Pipe lines shall be installed to the alignment, grades and elevations shown on the drawings. Grade and alignment of pipe and pipe sub-grades will ordinarily be obtained from offset (hub) stakes. Trenches shall be dug by means of a backhoe, trackhoe or trenching machine wherever practicable. The use of any other type of power excavating equipment such as drag line or power shovel will not be permitted except with special authorization by the Engineer and under such requirements relative to uniformity of trench width and vertical trench banks as they may require. Hand digging will be required where the operation of trench digging machinery will damage trees, buildings, surface or subsurface structures.

The minimum width of trench cut for each size of pipe shall be as follows:

<u>SIZE OF PIPE</u>	<u>WIDTH OF TRENCH</u>
6"	20"
8"	22"
10"	24"
12"	28"

The trenching machine shall be maintained on a sufficiently level roadbed to provide substantially vertical trench walls. The maximum horizontal offset of the trench bottom from the trench top (undercutting) shall be two inches.

E.) Where soft foundation is encountered in the trench bottom, the Contractor shall excavate below grade and provide either a gravel cushion or a concrete cradle for the purpose of supporting the pipe, as directed by the Engineer.

F.) All bell holes shall be of ample size

G.) All excavated materials shall be deposited on the sides of trenches at such a distance that no additional load due to surcharge is placed on the bank, and shall also be deposited or moved after original deposit in such a manner that the pipe laying crew and the public, when the trench is in highway or city streets, will be inconvenienced as little as possible.

H.) It will be the Contractor's responsibility to maintain the trench banks in a stable and vertical position by use of all necessary bracing or sheeting required for safety.

I.) The Contractor will be required to keep the pipe trenches free from water and shall keep the natural ground water table or surface not less than four (4) inches below the elevation of the finished sub-grade, from the time the sub-grade preparation is started until the pipe has been backfilled. No work shall be done in trenches after rough excavation is completed if the sub-grade is submerged or within four (4) inches of ground water. All water removed in the dewatering of trenches and other excavations shall be disposed of in a satisfactory manner.

The Contractor shall be liable for all damages to private property caused by such disposal of water.

- J.) **Rock Excavation** – In rock excavation, the Contractor shall over-excavate six (6) inches and place 6 inches of screenings in the trench upon which the pipe is laid. The Contractor shall further backfill over pipe with same or earth free from stone or rocks, to a depth of 6 inches.
- K.) **BACKFILLING TRENCHES.** Except where water mains lie under drives, streets, or alleys, backfill shall be brought up around the pipe in six inches (6") loose measurement layers from materials selected from the trench excavation, compacted by means of mechanical or hand tampers to twelve inches (12") above the top of the pipe, compaction shall be to ninety percent (90%) standard proctor density. Where water main crosses under drives, streets or alleys, the backfill shall be brought up from the point twelve inches (12") above the pipe as outlined above in six inch (6") layers compacted by mechanical or hand tampers to a minimum of ninety (90%) standard proctor density with the exception that the top twelve inches (12") the backfill under the drive shall be compacted to ninety-five percent (95%).

Where the main crosses or lies within the paved portion of a street or alley, special construction details as shown on the plans shall govern. In open areas the back fill from the point twelve inches above the top of the pipe shall be placed within the trench by either hand or machine method and the top of the trench shall be left slightly mounded to allow for future settlement. All tamping and backfill shall be to the approval of the Engineer. In compacted backfill driveways, streets, or alleys, the backfill shall extend three feet (3') on each side of the driveway, street or alley.

- L.) **DISPOSAL OF EXCESS EXCAVATION MATERIALS.** In general, excess excavated materials from trenches located in open fields and unimproved property will be distributed directly back over the pipe line and within the pipe line right-of-way, to a maximum depth above the original ground elevation at any point of six (6) inches, at and across the trench, and sloping uniformly each way therefrom. Materials so wasted shall be carefully finished with a drag or blade machine to have a neat and uniform appearance without obstructing drainage at any point.

Except as stated in the above paragraph, all excess excavated material remaining after final settlement of the trenches has occurred shall be removed and disposed of by and at the expense of the Contractor, and to the satisfaction of the Engineer.

- M.) **REPLACEMENT OF SOD.** Where shown on the plans, the Contractor shall replace sod removed or destroyed in the excavation of pipe trenches with new sod of a quality and condition and from a source approved by the Engineer. All such sod furnished shall be equal to or better than the original sod removed. Sod replaced shall be kept watered for a period of one month after installation.
- N.) **TREES AND SHRUBBERY.** The Contractor shall use every possible precaution to prevent injury to trees and shrubbery on and adjacent to the site of work. He shall replace, at his own expense, any such trees or shrubbery damaged or destroyed by him, unless the removal thereof is required by the plans or is authorized by the Engineer. When tree roots one and one-half inches (1 ½") or larger are encountered in making the excavation the roots are not to be cut. Hand excavation shall be used, and any damaged root or roots 1 ½" or larger shall be treated with a creosote paint as directed by the Engineer.

O.) LENGTH OF DITCH TO BE OPENED. In no case shall more than three hundred (300) feet of ditch be opened at one time in advance of the pipe laid, without consent of the Engineer.

P.) DRIVEWAYS. When the water main passes underneath any private driveway, tunneling shall not be used, unless special permission is given by the Engineer. Driveway pavement shall be saw cut to the pipe trench width to allow the main to be laid and for the proper backfilling of the ditch. After the main is laid and ditch is properly backfilled, the driveway shall be restored to as good a condition as found. See standard detail drawings.

Where driveways are cut to private residences, they shall be cut, the pipe installed, and trench properly backfilled all in the same day.

Where the water main passes underneath any private or public driveway, where the driveway is used for parking cars such as at shopping centers, large business buildings, stores, etc., the Contractor shall confer with the Engineer for an approved method of procedure in doing work in order to minimize the interference of traffic to and from the parking area.

Q.) PUBLIC STREETS AND ROADS. All public streets and roads which are closed to traffic, under authority of proper permit, shall be protected in accordance with the requirements of the authority having jurisdiction over the street or road by means of effective barricades on which shall be placed acceptable warning signs.

Materials stored upon or alongside public streets and highways shall be so placed and the work at all times shall be conducted so as to cause the minimum obstruction and inconvenience to the traveling public.

All barricades, signs, warning lights and other protective devices shall be installed and maintained in conformity with applicable statutory requirements.

500.03 – MATERIALS CERTIFICATIONS

The Contractor, in all cases, shall furnish required samples without charge. A laboratory approved by the City shall perform all tests. When the Standard Specifications require testing of prefabricated products or any other materials, the City Engineer may waive local testing requirements in lieu of a certification from the manufacturer that the material or product furnished conforms to the appropriate Specifications as called for in the Standard Specifications.

GENERAL REQUIREMENTS

The Contractor shall be responsible for obtaining all certifications and arranging for their delivery to the proper destinations as required by this specification. A responsible representative of the company that issues the certification shall sign materials certifications. The official company title of the signer must be clearly shown immediately beneath the Contractor's signature.

All certifications shall be furnished in duplicate and each copy shall show the following information:

- A) City's Project Name or Number
- B) Name of Contractor
- C) Identification Markings on Shipment
- D) Quantity of Material Represented by the Certification

When certified mill tests are submitted as a Type A certification the quantity information need not be

furnished provided that the identifying heat number is permanently rolled, stamped or otherwise permanently affixed to each individual piece of material in the shipment covered by the certification.

TYPES OF CERTIFICATIONS

Unless otherwise specified, a certification shall be one of the following types:

A) Type A certification shall be prepared by the manufacturer and shall consist of a certified copy of a report covering tests conducted by an approved laboratory. Such tests shall have been conducted on samples obtained from the lot or lots of material in the shipment.

B) Type B certification shall consist of a certification prepared by the manufacturer and shall show the limits of test values as determined by an approved manufacturer's laboratory, a qualified commercial laboratory or other approved laboratory.

C) Type C certification shall be prepared by the manufacturer and shall certify that the material in the shipment conforms to the same formula and/or is essentially the same as the material previously approved by the City Engineer.

D) Type D certification shall be prepared by the manufacturer and shall state that the materials meet the applicable Specifications. These Specifications shall be listed by number, section reference or other appropriate identification acceptable to the City Engineer.

DISTRIBUTION OF CERTIFICATIONS

Certifications shall be mailed in triplicate to the Public Works Director and the Engineer designated by the Public Works Director.

These certifications will be checked for conformance with the applicable Specifications.

BASIS OF ACCEPTANCE

Whenever a certification as defined above is required or requested by the City Engineer, such material may be accepted on the basis of certification provided that all applicable requirements are met. Visual inspection at delivery and installation will also be used to verify the Workmanship and condition of the material to be satisfactory.

All material furnished under certification shall be tagged, stenciled, stamped or otherwise marked with a lot number, heat number, order number, or other appropriate identification which can be readily recognized and checked against the certification. Material accepted on certification shall not be incorporated in the Work until the City Engineer has approved the certificates.

STORED MATERIALS

Stored materials shall be located and protected to preserve their quality and fitness for the Work. Materials shall be placed on wooden platforms or other hard, clean surfaces and not on the ground and shall be placed under cover as required. Stored materials shall be located to facilitate prompt inspection. The City assumes no responsibility for materials located on the site or off-site. The Contractor assumes full responsibility for any damage or loss to any stored materials. No stored material shall be located off-site unless approved by the City Engineer. Material shall be insured prior to payment for stored materials.

All aggregates shall be handled in such a manner as to preserve their quality, gradation and fitness for the work. The provisions for transporting aggregates shall be such to assure a continuous and adequate supply of material to the work. Aggregate stockpiles shall be built up in such a manner that acceptable materials will be delivered to the plant or the Project. Aggregates from different sources and different gradations shall not be stockpiled together. The gradation requirements for the individual

stockpiles and proportioning from the stockpiles, shall be the responsibility of the Contractor. Aggregates that have become segregated, or mixed with earth or other foreign material, shall be considered unacceptable, and will not be utilized in the work until Contractor causes aggregate piles to be integrated, and all foreign materials to be removed.

500.04 – MISCELLANEOUS REQUIREMENTS

- A) All salvageable water pipe and fittings removed from the existing water mains and not re-used during construction of the new water mains shall remain the property of the City of Chickasha.
- B) Contractor shall remove and reset existing mailboxes as necessary during construction to avoid damaging them during the work. Contractor shall relocate the mailboxes to maintain access by the mail carrier and residents at all times. Contractor shall relocate mailboxes to original location after water main construction is complete. Cost to be included in the price bid for other items of work.

Any excavation within street right-of-way shall be backfilled with soil, temporary construction entrance materials and/or permanent pavement within 72 hours of starting such excavation. The applicant shall ensure that any water that accumulates within any excavation within street right-of-way that has not been backfilled shall be removed by pumping or other approved means within 24 hours of the beginning of such accumulation.

- C) All concrete used in making pavement repairs shall be Class A (HES), meeting the requirements of 2009 ODOT Standard Specifications. All concrete used in making sidewalk repairs shall be Class C, meeting the requirements of 2009 ODOT Standard Specifications. All asphalt used in making pavement repairs shall be Type B Asphalt meeting the requirements of ODOT Standard Specifications. TBSC Type E meeting 2009 ODOT Standard Specifications shall be used to repair gravel driveways. All repairs shall be made in accordance with City of Chickasha standard detail drawings.
- D) When water main shut down is required, CONTRACTOR shall coordinate the shut-down with OWNER'S water department staff and shall give a minimum 72-hour notice to said staff and the Public Works Director. OWNER'S water department staff will be responsible for operation of all valves which require closing.

500.05 – PROGRESS OF CONSTRUCTION

The Contractor shall work at enough different locations to complete the entire contract within the time limit specified. Water Line appurtenances shall be constructed as soon as the Water Line that they serve is constructed. Postponing the construction of appurtenances until the Water Line has been completed, or the building of appurtenances in advance of the construction of the Water Line, will not be permitted.

- A) The construction of Water Lines for more than six hundred feet (600') in advance of appurtenances which are incomplete or the construction of which has not been started, will not be permitted.
- B) All water lines that are to be abandoned in place shall be cut to the nearest connections and either capped or plugged as required to provide a tight connection. The Contractor shall be responsible for providing the appropriate plug or cap for the job. The cost of this work is considered incidental.

500.06 – DELIVERY OF MATERIALS

Construction materials shall not be delivered to the site of the work more than three (3) days in advance of their anticipated use nor shall the quantity of pipe or other materials on hand at the site of the work at any time be in excess of the amount required to complete six hundred feet (600') of Water Line unless with special permission of the Engineer.

500.07 – SURFACE DRAINAGE STRUCTURES

Unless otherwise specified or called for on the plans, all surface drainage structures and appurtenances shall not be disturbed.

500.08 – CONCRETE

Unless otherwise approved by the Engineer, all concrete used in construction of waterlines and their appurtenances shall be High Early Strength Concrete and shall have a minimum three (3) day compressive strength of three thousand five hundred pounds per square inch (3,500 psi). It is recognized that some situations may occur in which different requirements may be more suitable for completion of the work. The contractor shall receive approval from the Engineer prior to proceeding with the work in such situations.

500.09 – DEPTH OF COVER

Where not otherwise indicated on plans, the pipe shall be laid at an elevation that will provide after completion, a minimum depth of cover over the top of pipe of forty-eight (48) inches below the surface.

500.10 – STANDARD DESIGN CONDITIONS

A) **Standard Design Pressures** - Unless otherwise specified, all pipes and fittings shall be designed for the following minimum pressure conditions:

Minimum Internal Pressure (psi)		
Working	Surge	Design
150	100	250

B) **Live Loading** -Unless otherwise specified or called for on the plans, minimum pipe design corresponding to the specified design pressure shall be for highway live loading condition and where waterline is crossing or running parallel to the railroad, corresponding minimum pipe design for railroad live loading condition shall govern (with or without casing).

C) Water main pipe materials shall be ductile iron pipe (DIP) or polyvinyl chloride (PVC) pipe. All water main pipe shall be new.

500.11 – CLEAN-UP

Clean-up operations shall follow excavation and construction a distance not to exceed six hundred feet.

SECTION 505 – PIPE AND FITTINGS INSTALLATION

505.01 – DESCRIPTION

This section covers installation of pipes in open cuts, in conformity with the lines, grades, and dimensions and as provided in applicable sections of these specifications.

505.02 – MATERIALS

505.02.01 – PIPE AND FITTINGS

Acceptable pipe materials and fittings shall meet the requirements of the appropriate sections listed below:

Pipe Material	Section
Ductile Iron Pipe (DIP)	524

Polyvinyl Chloride (PVC) Pipe	525
High Density Polyethylene (HDPE) Pipe	529

All pipe and fittings shall be new.

505.02.02 – EMBEDMENT

- A) **General** -Embedment material shall be 3/8" screenings. Prior to delivery, the Contractor shall submit laboratory sieve analysis test reports for materials to be used for embedment. Materials shall be approved by the Engineer prior to placement.
- B) **Delivery Tickets** - The Contractor shall submit delivery tickets for the purpose of verifying use of minimum quantities necessary to complete installation pursuant to the appropriate standard details and the minimum dimensions specified.

505.04 – CONSTRUCTION METHODS

- A) **Polyvinyl Chloride (PVC) Pipe** – All PVC pipe shall be embedded in accordance with ASTM D-2274, "Standard Recommended Practice for Underground installation of Thermoplastic Pressure Piping", and ASTM D-2321, "Standard Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe", and as shown on Detail "Typical Bedding and Trench Detail for PVC Pipe" and meeting the requirements of Section 525.
- B) **Ductile Iron Pipe (DIP)** – All ductile iron pipe shall be embedded as shown on Detail "Typical Bedding and Trench Detail for Ductile Iron Pipe.
- C) **High Density Polyethylene (HDPE)** pipe if laid by direct burial shall be embedded as directed by the Engineer; if place by the directional drilling method, no embedment is required.

505.04.01 – Place blue polyethylene Underground Warning Tape over all water mains. Warning tape shall have black lettering stating "Caution Buried Water Line Below" imprinted on it. Use 6-inch wide tape. See standard drawings for placement location.

505.04.02 – INSTALLATION REQUIREMENTS

- A) **Shipping, Handling and Storage** -Pipe shall be transported from the plant, where it is manufactured, to the job site employing special methods of packaging to prevent damage to the pipe. After the pipe is received at the job site, it shall be carefully inspected for any damage that may have occurred in transit. The pipe shall be handled at all times with care using padded slings or hooks. The pipe shall not be dropped, skidded or rolled against pipe already on the ground. If any damage occurs to pipe, the pipe shall be rejected. All pipe and accessories shall be stored on flat, level ground with no rocks or other objects under the pipe. Gaskets for push-on joints and pipe shall be stored in cool location out of direct sunlight in accordance with the manufacturer's recommendations.
 1. Pipe, fittings, specials, and other accessories shall be unloaded at the point of delivery, hauled to and distributed at the site of the project by the Contractor, and shall at all times be handled with extreme care to avoid damage thereto. Equipment, tools and methods used in unloading, reloading, hauling, and laying pipe and accessories shall be such that no damage is done to the pipe or any lining therein.

2. Cement lining in pipes or fittings which is broken or loosened in unloading or subsequent handling shall be repaired by and at the expense of the Contractor, under the direct supervision of the representative of the pipe manufacturer. All outside pipe coating which is damaged by the contractor shall be repaired, prior to laying the pipe or placing the backfill, by removing all damaged coating, wire brushing the exposed metal, and applying two coats of a permanently elastic coal tar paint of a type and quality equal to that used in originally coating the outside of the pipe and preferably of the same brand and formula. This paint shall be sufficiently hard before backfilling so that it will not be damaged thereby.
3. Pipe lines shall be accurately installed to the alignment and profile indicated on the approved pipe installation drawings furnished for the purpose. Grades and elevations shall be determined by the pipe sub-grade prepared as specified.
4. The maximum deflection of any pipe joint, made necessary by vertical and horizontal curves or offsets, shall not exceed the amount as recommended by the manufacturer of the pipe.
5. PLACING PIPE IN TRENCH. Proper equipment, implements, tools, and facilities satisfactory to the Engineer shall be provided and used by the Contractor for the safe and convenient prosecution of the work. All pipe, fittings, hydrants and valves shall be carefully lowered into the trench, piece by piece, by means of cranes, derricks, tongs, slings, ropes or other suitable tools and equipment, in such a manner that no damage occurs to the pipe, pipe coating, pipe lining or to the trench sub-grade. Under no circumstances shall pipe or accessories be dropped or dumped into the trench.
6. PIPE TO BE KEPT CLEAN. All earth, rubbish, dirt and other foreign matter shall be removed from the inside of all pipe and other appurtenances (and from the outside of the spigots), before lowering into the trench, and shall be kept clean by approved means during and after laying. At times when pipe laying is not in progress, all open ends of pipe and fittings shall be closed by approved means, and no trench water shall be permitted to enter the pipe.
7. INSPECTION OF PIPE. Before lowering, and while still suspended, the pipe shall be inspected for defects. Any defective, damaged or unsound pipe shall be rejected.
8. CUTTING PIPE. Cutting of pipe for closure pieces or for other reasons shall be done in a neat and workmanlike manner by a method which will not damage either the pipe or the pipe lining.

B) **Pipe Foundation** - No waterline shall be laid unless the foundation is in a condition satisfactory to the Engineer. Where trenches are excavated in soft, unsuitable, or rock material, trench bottom shall be stabilized as directed by the Engineer.

C) **Laying Requirements** -All pipes, specials, fittings and other appurtenances shall be examined carefully for damage and other defects before installation. The City retains the right to reject damaged and defective materials.

The pipe ends shall be free of all lumps, blisters and they shall be wiped clean of foreign materials such as dirt and sand before installation.

Pipe shall be laid with the bell ends facing in the direction of laying unless directed otherwise by the Engineer. Where pipe is laid on a slope of ten (10%) percent or greater laying shall start at the bottom and proceed up the slope.

When laying pipe is not in progress during the noon hour or overnight, the open ends of the pipe shall

be closed by watertight plugs. If water is in the trench the plugs shall be left in place until the trench is pumped dry.

Bell holes for bell-and-spigot pipe shall be excavated at proper intervals so that the barrel of the pipe will rest for its entire length upon the bottom of the trench. Bell holes shall be large enough to permit proper installation of pipe. Bell holes shall not be excavated more than ten (10) joints ahead of pipe laying. Filling and ramming earth or other material beneath the pipe to raise it to grade shall not be permitted.

The Contractor shall use every precaution at all times during construction of the pipeline. All pipe, specials, fittings, and other appurtenances shall be lowered carefully into the trench with suitable equipment, to prevent damage to the waterline materials. In rock trenches, plywood shields or other approved means shall be used to prevent the cradled pipe from swinging against the sides of the trench.

All joint preparation and joining operations shall comply with the instructions and recommendations of the pipe manufacturer and meet the joint requirements in the appropriate material section. Rubber gaskets shall be positioned on the joint in accordance with the manufacturer's recommendations. Immediately before joints are pushed together, all joint surfaces shall be coated with the lubricant furnished with the pipe.

Any damage to the pipe, from any cause during installation of the pipeline shall be cause for replacement, as directed by the Engineer, and at the expense of the Contractor.

After a section of pipe is properly installed and approved for backfill, the trench shall be backfilled and compacted.

505.06 – METHOD OF MEASUREMENT

Payment for "Water Line" shall be made at the unit price bid per lineal foot of pipe installed for each size. The price established shall be full compensation for all materials including pipe, short pieces and specials, trench excavation, embedment material, backfilling, labor, tools, equipment and incidentals necessary to complete this item of work. "Water Line" shall be measured along the pipe.

Payment for fitting shall be paid for by the pound. The price established shall be full compensation for all materials including fittings, trench excavation, backfilling, embedment material, concrete thrust blocks, labor, tools, equipment and incidentals necessary to complete this item of work.

505.07 – BASIS OF PAYMENT

(SIZE) (TYPE) WATERLINE	L.F.
FITTINGS	LB.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 510 – WATER SERVICE LINE CONNECTIONS

510.01 – DESCRIPTION

510.01.01 – GENERAL

This section covers water service line connections in sizes five-eighths inch (5/8") through two inches (2") for use in buried service lines from the main to the meter valve or meter setting appurtenance in accordance with ANSI/AWWA C-800 Standard for Underground Service Line

Valves and Fittings or as modified herein. All water service lines and connections shall be installed as per city ordinances and standards.

510.01.02 – DEFINITIONS

The following definitions shall apply:

- A) **Adapter** -A fitting used to connect pipe, tubing, or other fittings with differing characteristics such as sizes, diameters, or material type.
- B) **Chamfer** - A bevel made on the end of a thread to facilitate thread engagement.
- C) **Corporation valve (stop)** - A valve attached to the water main to start a service connection, which is used to interrupt flow during installation or maintenance of the service line.
- D) **Coupling** - A fitting for connecting two pipes or tubing sections together.
- E) **Curb valve** -A valve installed in the water service line and accessible for operation from the surface of surface of the ground for routinely interrupting flow through the service line.
- F) **Driving thread** - A thread installed on the outlet end of corporation valves and used to hold the valve during installation.
- G) **Dry seal** -A type of pipe thread covered by ANSI/ASME B1.20.3. Dryseal pipe threads are based on the USA (American) pipe thread. They differ from the USA (American) pipe thread in that they are designed to seal pressure-tight joints without the need for sealing compounds.
- H) **Fitting** - A part used to connect piping or tubing.
- I) **Inlet** - The opening in a valve or fitting through which flow from the water main enters the valve or fitting.
- J) **N.P.T.** - National Pipe Thread as specified in ANSI/ASME B1.20.1.
- K) **Outlet** -The opening in a valve or fitting through which flow from the water main leaves the valve or fitting.
- L) **Tapping Clamp** - A fitting that attaches circumferentially to a pipe to provide for attachment of a corporation valve.

510.02 – MATERIALS

Fitting and valve materials in contact with potable water shall be copper or brass. No more than a weighted average of 0.25% of the wetted surface of pipes, pipe fittings, plumbing fittings and fixtures shall contain lead.

All service lines shall be seamless CTS pressure pipe meeting ANSI/AWWA C-901 and ASTM D2737. All corporation stops, curb stops and inlets and adapters shall be Mueller brand or approved equivalent Brass Fittings, unless noted otherwise. All service line installations, taps and connections shall comply with the City of Chickasha standards.

Component Parts - Component parts such as fasteners, seals, and packing may be of other materials selected for adequate endurance, corrosion resistance, and strength.

510.02.01 – DESIGN OF VALVES AND FITTINGS

General - Valves, fittings, and parts thereof shall be machined to the sizes and tolerances defined in

AWWA C-800. End connections shall be designed for the type of service line.

Pressure Rating - Service line valves and fittings shall be suitable for use with water at one hundred (100) degree F and one hundred fifty pounds per square inch pressure. (150 psi)

510.02.02 – DETAILED DESIGN OF VALVES AND FITTINGS

Dimensions of Corporation Valves:

A) **General** -Corporation valves shall be installed with drilling or tapping machines. Unless otherwise specified, the minimum inside diameter of the waterway through a corporation valve shall be large enough to accommodate the maximum drill sizes herein. Maximum drill sizes for installation of corporation valves and service clamps or saddles with a driving machine shall be as shown below.

Corporation Valve Size (inches)	Maximum Drill Size	
	Corporation Valve with AWWA Thread inlet	Corporation Valve with N.P.T Thread Inlet
¾	1 1/16	1 1/16
1	1 5/16	1 5/16
1 ½	1 7/16	1 7/16
2	1 15/16	1 3/4

B) **Overall Body Dimensions** -For corporation valves to be installed by a tapping machine, overall body dimensions shall conform with the dimensions listed below.

Corporation Valve Size (inches)	Maximum Radius (inches)	Maximum Length (less nut) (inches)
¾	1.50	4
1	1.50	4
1 ½	2.50	9 1/16
2	2.50	9 1/16

C) **Tapping Clamps** -Tapping Clamps shall conform to the requirements of Section 533.

D) Service Line Fittings

a. **General** -The fittings used in service lines shall be designed for connection to the service line. Small waterways and abrupt corners causing water turbulence and pressure drop shall be minimized.

510.02.03 – END CONNECTIONS

End connections shall be in conformance with AWWA C-800.

510.04 – CONSTRUCTION METHODS

510.04.01 – GENERAL

The following are general connection requirements only. Additional plumbing code and other requirements may be applicable, which are not included herein.

- A) Single taps shall be made at forty-five degree angles (45°) from crown of distribution main.
When two (2) or more taps are to be made, they shall be a minimum of thirty-six (36") inches

apart and alternate from forty-five degrees (45°) to thirty degrees (30°) from crown of distribution main.

- B) Back/reverse tap may be allowed only under adverse conditions and only when approved by the Engineer.
- C) No tap shall be allowed on fire hydrant leads except under adverse conditions and only when approved by the Engineer.
- D) Direct taps shall be allowed into cast iron or ductile iron mains only.
- E) Tapping clamps shall be Mueller Single Section Servi-Seal All Stainless Steel Pipe Repair Clamps with integral CC Threaded service outlet, minimum 15" length or approved equal for three quarter inch (¾") to two inch (2") service line connections. Tapping clamp shall also conform with the requirement of Section 533. All other taps shall be accomplished using tapping sleeves in accordance with Section 532.
- F) When tapping clamps are installed a pressure test shall be performed. Tapping clamps shall hold a minimum of one hundred pounds per square inch (100 psi) of pressure for thirty (30) minutes.
- G) Service connections two (2") inches and smaller shall be by corporation valve (stop) of the same size as the service line and meter to be installed. Corporation valves shall be as specified in Section 510.02. Service connections to the main for service lines larger than two (2") inches shall be a branch connection.
- H) When tapping mains where it is necessary to remove part of the polyethylene wrapping, the polyethylene wrap shall be repaired or replaced in such a manner as to protect both the pipe and corporation valve. Any bedding material removed during excavation shall be replaced in kind and compacted.
- I) No tees shall be connected to existing water service lines three inches (3") and smaller in diameter providing water to a single meter of the same size.

510.04.02 – MATERIAL CERTIFICATION

Contractor shall provide a Type D certification for all materials used in service lines and service line connections.

510.05 – TESTING

Any valves or fittings found to be defective shall be replaced with new valves or fittings at the Contractor's expense.

510.07 – BASIS OF PAYMENT

All cost of service line connections shall be included in the price bid for water services.

SECTION 511 – WATER SERVICE LINES

511.01 – DESCRIPTION

511.01.01 – GENERAL

This section covers water service lines intended to be used from the connection to the meter valve for meter setting appurtenance in accordance with AWWA C-800 Standard for Underground Service Line Valve and Fitting or as modified herein. All water service lines shall be connected as per city ordinances.

511.01.02 – TYPES

Long Service (EA) is for one service line from the new water meter to a meter or meters on the opposite side of the street, irrespective of the number of meters served by one line. Short Service (EA) is for one service line from the new water main to a meter or meters on the same side of the street, irrespective of the number of meters served by one line.

511.02 – MATERIALS

All service lines shall be seamless CTS pressure pipe meeting ANSI/AWWA C-901 and ASTM D2737. All corporation stops, angle ball valves, curb stops and inlets and adapters shall be Mueller brand or approved equivalent Brass Fittings. All service line installations, taps and connections shall comply with the City of Chickasha Standards.

511.04 – CONSTRUCTION METHODS

The following are general construction requirements only. Additional plumbing code and other requirements may be applicable, which are not included herein.

A) Boring

1. Lines for all long services will be bored or punched under the existing road.
2. Service lines under street pavement shall not be spliced.
3. Street bores shall be a minimum of thirty (30") inches below the bottom of the street.
4. Service line bores shall be level.

B) Warning tape

Place blue polyethylene Underground Warning Tape over all service lines. Warning tape shall have black lettering stating "Caution Buried Water Line Below" imprinted on it. Use 6-inch wide tape.

511.06 – METHOD OF MEASUREMENT

The price established shall be full compensation for all materials including copper service lines, boring, fittings, connections to meter, labor, tools, equipment, and incidentals necessary to complete this item of work.

511.07 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

SHORT SERVICE (SIZE)	EA.
LONG SERVICE (SIZE)	EA.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 513 - WET CONNECTIONS

513.01 – DESCRIPTION

This section covers wet connections for tie-in to existing mains. The connections shall be either a cross or tee as called for on the plans where tapping is not allowed.

513.04 – CONSTRUCTION METHODS

The wet connection shall begin with isolating the point of tie-in by closing of valves. The existing main shall then be cut where wet connection is to be made and the line drained. Contractor shall prevent all non-potable water and foreign materials from entering the water main by use of adequate pumps

and other necessary means.

513.06 – METHOD OF MEASUREMENT

"Wet Connection" will not be measured separately.

513.07 – BASIS OF PAYMENT

All cost of making wet connections shall be included in the price bid for fittings.

SECTION 514 – TAPPING CONNECTIONS

514.01 – DESCRIPTION

This section covers water main tapping for connections to existing water mains.

514.02 – MATERIALS

The following materials shall be used and meet the requirements of the appropriate Sections listed below.

Tapping Mechanism	Section
Tapping Sleeve	532
Tapping Valves	520.02.02

514.04 – CONSTRUCTION METHODS

A) Description - A tap is the cutting of a coupon, utilizing a tapping sleeve or saddle with tapping valve for a connection.

B) Methods

1. Direct taps -Direct taps shall be made when the main to be tapped is on the same horizontal plane as the branch. The cutting operation is to be done with a sharp shell-cutter tool, which shall be lubricated with the manufacturer's recommended cutting tool lubricant.

2. Swing Ties - Swing ties shall be made when the main to be tapped is either above or below the branch when called for on the plans or specified. A swing tie may consist of

- i. Waterline pipe
- ii. Tapping sleeve as necessary;
- iii. Tapping valve and Box;
- iv. Tap;
- v. Solid sleeve;
- vi. Forty-five degree (45°) bends.

514.06 – METHOD OF MEASUREMENT

Tapping Connection will not be measured separately.

514.07 – BASIS OF PAYMENT

All cost of making tap connections shall be included in the price bid for tapping valve with sleeve.

SECTION 516 – FIRE HYDRANTS

516.01 – DESCRIPTION

This section covers fire hydrants intended to be used for fire protection when specified or called for on the plans. The hydrant shall be located and positioned in such a way as to be accessible and protected from traffic.

516.02 – MATERIALS

516.02.01 – GENERAL

All fire hydrants furnished shall conform to AWWA C-502, as amended, or as modified herein. Fire hydrants shall be Mueller Super Centurion A-423, 3-way fire hydrant, 5 ¼" valve opening, 2-2 ½" hose nozzles, 1-4 1/2" pumper nozzle, 6" M.J. Shoe, red color, City of Chickasha threads or approved equal.

516.02.02 – SUBMITTALS

The Contractor shall provide three (3) copies of all submittals for fire hydrants. The submittal shall clearly identify the make, model, design, and metal characteristics for approval by the Engineer prior to installation.

Drawings shall show principal dimensions, metal thickness, construction details, materials used in all parts of the fire hydrant with ASTM designation and structural properties. Net assembled weight of hydrants shall be shown.

Specifications shall include comprehensive parts list with sufficient drawings or details to clearly identify parts.

516.02.03 – AFFIDAVIT OF COMPLIANCE

The Contractor shall provide an Affidavit of Compliance that fire hydrants furnished comply with all provisions of these specifications.

516.02.04 – TYPE OF SHUT-OFF

Type of shut-off shall be of the compression type with the flow.

516.02.05 – DELIVERY CLASSIFICATION

All hydrants shall be equipped with two (2) hose nozzles and one (1) steamer nozzle. Leaded in nozzles shall not be acceptable.

516.02.06 – INLET CONNECTION

Unless otherwise specified, the inlet connection shall be a mechanical joint hub complete with all joint accessories. All mechanical joint gland bolts shall be high strength, low alloy, corrosion resistant material, such as Cor-Ten or equal, as specified in ASTM A-252. The inlet valve opening shall be five and one-quarter (5¼") inches net.

516.02.07 – OUTLET CONNECTIONS

The outlet connections shall be two (2) hose nozzles, two and one-half inches (2½") in nominal I.D. 8-274 I.P. thread and one (1) pumper nozzle four and one-half inches (4 1/2") in nominal I.D. with NST threads.

516.02.08 – RESTRAINED JOINTS

Restrained Joints shall be furnished when specified or called for on the plans.

516.02.09 – NOZZLE CAP GASKET

Gaskets shall be furnished on all nozzle caps. Gaskets shall be neoprene.

516.02.10 – DRAIN VALVE AND OUTLET

A positive operating drain valve or valves shall be provided.

516.02.11 – PAINT

Fire hydrants shall be painted with two (2) coats of red enamel paint manufactured by Pittsburgh Paint or approved equal. Each coat of paint shall have a minimum dry thickness of two (2) mils.

516.02.12 – SHAPE AND SIZE OF OPERATING AND CAP NUTS

The operating and cap nuts shall be 1-1/2" Pentagonal nuts.

516.02.13 – BREAKABLE TYPE

Breakable type (traffic models) shall be furnished. A breakable type hydrant is one that requires no excavation and shall break at the design point.

516.02.14 – STAND PIPE, FLANGES, AND EXTENSIONS

Breakable parts of standpipe shall be located approximately three inches (3") but not more than five inches (5") above the ground line. These parts shall be of the breakable flange type, breakable coupling or integral flange with sawed bolts. Breakable flanges screwed to the standpipe shall not be accepted. The flange on each end shall have at least eight (8) bolts, or other acceptable method to permit proper orientation of nozzles in forty-five degree (45°) increments and shall be designed so that a wrench can be used on nuts and bolts. Extension of hydrant shall be made by adding at the ground line flange a new coupling and stem section equal to the length of the extension. Stem extensions made by adding new section of stem to the threaded section of the stem at the top of the hydrant shall not be acceptable.

516.02.15 – STEM

Provisions shall be made in the design of the stem to disconnect the stem from the hydrant parts above the standpipe break point in the event of traffic accidents.

516.02.16 – COUPLINGS

If breakable or sleeve type couplings are used, they shall have sufficient torsional strength such that a torsional failure of the stem shall occur at some point other than coupling. Design of the coupling shall be such that when the coupling is broken, no parts shall come loose and fall into hydrant, and the break shall not occur through the pins or bolts holding the coupling to the stem.

516.02.17 – GROUND LINE GASKETS

Gaskets furnished for ground line flanges shall be full face, or flange shall be recessed.

516.02.18 – MAIN AND VALVE SEATS

Main valve seats on the hydrant shall be of such design that incorrect positioning is impossible and

that the threads shall be adequately guided into position. Arrangements shall also be made to hold the main valve gasket in place during assembly. The main valve seat shall be made of bronze and threaded into a bronze retainer ring or it may be threaded into a heavy bronze bushing in the hydrant base. All bronze parts in constant contact with the water shall be of type "A", "D", or "E" bronze in accordance with Table 1, AWWA C-212.

516.02.19 – NOZZLE CAP CHAINS

All fire hydrants shall be equipped with nozzle cap chains.

516.02.20 – FLANGES

All flanges shall have a minimum thickness of seven-eighths inch (7/8"). Bolt hole edge distance shall be sufficient to provide full support for the bolt heads and nuts.

516.02.21 – OPERATING STEMS

Operating stems shall be high grade bronze, wrought iron or steel. Stem nuts shall be bronze. Where passing through O-rings, iron or steel stems shall have a bronze, stainless steel, or other non-corrodible metal sleeve. Operating threads shall be sealed against contact with water regardless of open or closed position of the main valve. An internal lubricant chamber shall be provided as a part of the dry top construction. An external access for adding lubricant shall be provided.

516.02.26 – O-RINGS

Fire hydrants shall be equipped with O-rings in lieu of stem packing.

516.02.27 – CAP NUTS

The hydrants shall have a cap nut to seal the bottom end of the stem threads against contact with water.

516.04 – CONSTRUCTION METHODS

516.04.01 – BURY LENGTH

Unless otherwise specified, hydrants shall be furnished with a depth of bury to match the water main depth.

516.04.02 – TAPPING OF DRAIN OPENING

Tapping of drain opening shall not be required.

516.04.03 – DIRECTION OF OPENING

The direction of opening shall be to the left or Counter-Clockwise. An arrow and the word "OPEN" shall be cast in relief to be clearly visible on the top of the hydrant, to designate the direction of opening. A minimum number of turns to open shall be ten (10).

516.04.04 – INSTALLATION

The hydrant shall be inspected and cleaned prior to installation. It shall be placed on a concrete mat not less than four inches (4") thick and sixteen inches (16") square. The rear side of the hydrant, opposite the pipe, shall be blocked with concrete between the hydrant and a vertical face of undisturbed earth. A minimum of seven (7) cubic feet of crushed rock shall be placed around and below the hydrant to allow the hydrant to properly drain. The hydrant shall be firmly supported prior to backfill.

516.05 – TESTING

Hydrostatic tests outlined in AWWA C-502 shall be complied with.

516.06 – METHOD OF MEASUREMENT

Payment for "Fire Hydrant Assembly" shall be made at the unit price bid per each. Price bid for "Fire Hydrant Assembly" shall be full compensation for equipment, labor and materials for complete and acceptable installation of a fire hydrant per City of Chickasha standards, including fire hydrant, TEE, Gate valve, extension pipe, riser pipe and up to five (5) linear feet of 6" diameter ductile iron pipe connection between fire hydrant and water main.

516.07 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

FIRE HYDRANT ASSEMBLY	EA.
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Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 518 – THRUST BLOCKS

518.01 – DESCRIPTION

This section covers thrust blocks intended to be used to transmit unbalanced thrust forces into undisturbed soil.

518.02 – MATERIALS

High Early Strength Concrete shall be used for thrust blocks. Compressive strength of concrete shall be minimum 3500 psi at three (3) days.

518.04 – CONSTRUCTION METHODS

All construction shall be in accordance with the Standard Details for Thrust Blocks.

518.06 – METHOD OF MEASUREMENT

"Thrust Blocks" will not be measured separately.

518.07 – BASIS OF PAYMENT

All cost of installing thrust blocks shall be included in the price bid for water line.

SECTION 519 – BLOW-OFF CONNECTIONS

519.01 – DESCRIPTION

This section covers blow-off connections intended to be used to provide outlets for draining waterlines at dead ends.

519.04 – CONSTRUCTION METHODS

Blow-off connections shall be constructed of the size, detail and location shown on the plans. Blow-offs shall be provided with a shut-off valve. Blow off connections shall be constructed in accordance with standard details in contract.

519.06 – METHOD OF MEASUREMENT

Blow-off Connections will not be measured separately.

519.07 – BASIS OF PAYMENT

All costs of providing and installing blow-off connections shall be included in the price bid for waterline.

SECTION 520 – WATER VALVES

520.01 – DESCRIPTION

This section covers water valves of size and type specified or called for on the plans. Unless otherwise specified, all valves shall be gate valves. Valves specified shall be of the types shown in the following table:

Valve Type	Reference Standard
Gate (Resilient Seated)	AWWA C-509, C-550 and C111
Tapping	AWWA C-509, C-550 and C111
Check	AWWA C-508

520.02 – MATERIALS

The Contractor shall submit the following for approval prior to installation:

- A) Valve make and model
- B) Valve detail drawings
- C) Type "A" and "D" Certifications.

520.02.01 – GATE VALVES

- A) General - Gate valves shall conform to the requirements of AWWA C-509, C-550 and C-111 and shall be, bronze mounted, outside screw and yolk, non-rising stem, open counter-clockwise, close clockwise, mechanical joint both ends, resilient seated, "O-ring" for non-rising stem, and shall have 2" square operating nut.
- B) Pressure Rating - Valves produced conforming to AWWA C-509, C-550, and C-111 shall have a design working pressure of two hundred pounds per square inch (200 psi).
- C) Acceptable Manufacturers – Gate valves shall be Mueller or approved equal.

520.02.02 – TAPPING VALVES

- A) General - Valves to be used with tapping sleeves shall have connecting flanges (Standard Class 125) with centering lip on the valve flange to fit recess or counterbore on the outlet tapping sleeve flange. The outlet end of the valve shall have a combination mechanical joint end and tapping machine flange.
- B) Tapping valves shall conform to AWWA C-509 and C-550, except as modified for passage and clearance of tapping machine cutters. The opening through the valve shall be at least one-quarter inch ($\frac{1}{4}$ ") larger than nominal valve diameter. The outlet end of the valve shall have the desired joint connection for the intended pipe. Tapping Valves shall be Mueller Tapping Valve, or approved equivalent.

Tapping valves shall allow full size cutters to be used. Seating of the disc gate shall not require any sliding or wedging to achieve a zero leakage. A maximum of three (3) internal moving parts shall be required for operation of the valve. The stem collar shall be protected from outside grit, sand, etc., by dual O-rings above stem collar. There shall be an O-ring below stem collar sealing off lubrication chamber from line fluid. Pressure energized O-rings may be used in place of flat gaskets on flanged joints in valve body/bonnet.

All interior and exterior ferrous surfaces shall be protected against corrosion by factory-coated fusion-bonded epoxy coating. Coating shall be applied prior to assembly to insure coverage of all exposed areas, including bolt holes.

c) Acceptable Manufacturers - Tapping valves shall be Mueller or an approved equal:

520.02.04 – CHECK VALVES

A) General - Check valves shall conform to the requirements of AWWA C-508 Standard for Swing-Check Valves for Waterworks Service, two (2") inches through twenty-four (24") inches NPS. Check Valves shall be Mueller A2600-06BB Gravity operated Swing Check Valve or approved equal.

B) Pressure Ratings – Check valves conforming to AWWA C-550 shall have a working pressure rating of one hundred seventy-five pounds per square inch (175 psi).

C) Acceptable Manufacturers - Check valves shall be Mueller or approved equal.

D) Pressure Rating- Tapping valves manufactured conforming to AWWA C-509 and C-550 shall have 200 psi working pressure rating

520.04 – CONSTRUCTION METHODS

Gate valves shall be set with the stems plumb.

Check valves shall be set horizontally.

Tapping valves shall be installed in accordance with the recommendations of the pipe manufacturer being tapped.

Other types of valves shall be set in position shown on the plans or as directed by the Engineer.

At the site of the work and just prior to placing the valve in the trench, the valve shall be fully opened and closed and a record of the number of turns required for full operation shall be furnished to the Engineer. The inside of the valve shall be thoroughly cleaned before installation.

The valve shall be set on a firm base. Valves in PVC pipelines shall be supported by concrete independently of the pipe. The valve and the valve box shall be firmly supported and centered prior to backfill. Installation of valves shall also comply with the appropriate standard detail.

520.06 – METHOD OF MEASUREMENT

Payment for valves, valve boxes and valve vaults shall be made at the unit price bid per each for each type and size of valve. The price established shall be full compensation for all material including valve, valve boxes, valve vaults, installation, labor, tools, equipment and incidentals necessary to complete this item of work.

520.07 – BASIS OF PAYMENT

Unless otherwise called out on plans, the item measured as provided above will be paid for at the contract unit price bid:

(SIZE) (GATE) VALVE WITH BOX EA.
(SIZE) TAPPING VALVE AND SLEEVE EA.
(SIZE) CHECK VALVE AND VAULT EA.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and

incidentals, and for performing the work in accordance with these specifications.

SECTION 521 – VALVE BOXES

521.01 – DESCRIPTION

This section covers valve boxes intended to provide means to operate the valve.

521.02 – MATERIALS

- A) Valve Boxes - All valve boxes shall be Chickasha Standard three (3) piece cast iron of the extension type suitable for a depth of cover over the pipeline as required by the backfill requirements at each valve. Each valve box shall be provided with a suitable cast iron base and cover. All parts of valve boxes, bases, and covers shall be coated by dipping in hot bituminous base material. Covers shall have cast thereon an appropriate name designating the service for which the valve is to be used.

521.07 – BASIS OF PAYMENT

Payment for valve boxes shall be paid for as per Section 520.07.

SECTION 522 – HYDROSTATIC PRESSURE TESTING

522. 01 – DESCRIPTION

This section covers hydrostatic pressure testing of installed water mains in accordance with the requirements specified herein.

All pipelines shall be tested by means of hydrostatic pressure of not less than 150 pounds per square inch. If test plugs are used, they shall be furnished and installed by the Contractor at his own expense, together with all necessary anchors, braces and other devices necessary to withstand the hydrostatic pressure on such plug or plugs without placing any hydraulic thrust on the pipe line or any part thereof. The Contractor shall be solely responsible for any and all damage to the pipeline and public and private property, which might be caused by the failure of such test plugs or supports therefore. The allowable leakage shall not exceed 10 gallons per inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.

After the section of line to be tested has been filled with water, the specified test pressure shall be applied by means of a force pump of such design and capacity that such pressure can be applied and maintained for the duration of the test period, which shall be not less than two (2) hours.

All water supplied to the line, after the initial filling thereof shall be metered by means of a tested water meter approved by the Engineer.

If any section of pipeline including specials, fitting and appurtenances are discovered to be damaged after the hydrostatic test, they shall be repaired or replaced with sound material and the test shall be repeated to the satisfaction of the Engineer. If any test of pipe installed indicates leakage greater than the allowable leakage, the contractor shall, at his own expense, locate and repair the source of leak in the pipeline until the leakage is within the specified allowance. All visible leaks are to be repaired regardless of the amount of leakage.

All pipelines shall meet the requirements of this section before any service taps are made, unless otherwise approved by the Engineer.

522.06 – METHOD OF MEASUREMENT

All costs for Hydrostatic Pressure Testing shall be included in the price bid for water line.

SECTION 523 – DISINFECTION

523.01 – DESCRIPTION

This section covers disinfection of water mains.

523.04 – CONSTRUCTION METHODS

523.04.01 – GENERAL

- A) Water Mains -All new water mains shall be disinfected before they are placed in service. All water mains taken out of service for inspecting, repairing, or other activity that might lead to contamination of water shall be disinfected before they are returned to service. All work shall comply with ODEQ regulations AWWA C-651 Standard for Disinfecting Water Mains and as described herein.
- B) Continuous-feed method disinfection per AWWA 651, Sec. 4.4.3 shall be used only. Contractor shall be responsible for collecting all water drained from the existing water main and from the new water main and disposing of it in accordance with all appropriate State and Federal regulations.
- D) All water mains shall meet the requirements of this section before any service taps are made.
- E) The City Engineer may require the water line be disinfected and tested for acceptance in sections less than 1,000 long.

523.04.02 – FLUSHING

Prior to chlorination, the line shall be completely flushed through all available hydrants and blow-offs with potable water at a velocity sufficient to adequately clean the pipe, hydrants and blow-offs. Valves shall be operated through their extreme open and closed positions during disinfection. During operations to collect samples for bacteriological testing, the Contractor shall completely flush the main through all available hydrants and blow-offs with potable water at a velocity sufficient to adequately clean the pipe, hydrants and blow-offs.

All water necessary for flushing shall be provided by the City.

523.04.03 – DISINFECTION

The disinfection of the pipeline and the bacteriologic and chemical tests shall be provided by the Contractor. The Contractor shall furnish the necessary equipment and materials for disinfection and testing. The Contractor shall furnish labor to make the necessary connections and shall provide any temporary drainage measures for disposal of the flushed water. Contractor shall obtain safe bacteriological samples on two consecutive days before placing the waterline into service.

All water mains shall meet the requirements of this section before any service taps are made.

523.06 – METHOD OF MEASUREMENT

Unless provide for otherwise, all costs of Disinfection shall be included in the price bid for water line. Contractor shall provide all material including disinfectants, flushing, de-chlorination, disinfection, hydrostatic pressure testing, labor, tools, equipment and incidentals necessary to complete this item of work.

SECTION 524 – DUCTILE IRON PIPE (DIP)

524.01 – DESCRIPTION

This section covers ductile iron pipe and fittings, for pressure applications, intended to be used for conveyance of potable water, in sizes six inches (6") through twelve inches (12").

524.02 – MATERIALS

524.02.01 – GENERAL

All ductile iron pipe and fittings and installation of same shall conform to the requirements of the following standards listed below or as modified herein.

- A) ANSI/AWWA C-150/A 21.50, Thickness design of Ductile Iron Pipe
- B) ANSI/AWWA C-151/A 21.51, Ductile Iron Pipe, Centrifugally Cast
- C) ANSI/AWWA C-111/A 21.11, Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings.
- D) ANSI/AWWA C-104/A 21.4, Cement Mortar Lining for Ductile Iron Pipe for Water.
- E) ANSI/AWWA C-600, Installation of Ductile Iron Water Mains and Their Appurtenances.
- F) ANSI/AWWA C-115/A 21.15, Flanged Ductile Iron Pipe with Threaded Flanges.
- G) ANSI/AWWA C-116/A 21.16, Protective Fusion-Bonded Epoxy Coatings for Interior and Exterior surface of Ductile Iron and Gray Iron Fitting
- H) ANSI/AWWA C-153/A 21.53, Ductile Iron Compact Fittings
- I) NSF/ANSI 61, Drinking Water System Components –Health Effects

524.02.02 – SUBMITTALS

The Contractor shall submit the following and shall receive approval of same from the Engineer prior to incorporating any materials into the work.

Review and approval of the Contractor submittals, by the Engineer, shall not be construed in any way as relieving the Contractor and the manufacturers of their responsibilities for manufacturing ductile iron pipe and fittings as described herein.

- A) General - Detail drawings of pipes, specials, fittings, and joints.
- B) Certification - Type "A" and "D" certification for pipe, specials, fittings, gaskets, and lining material pursuant to, but not limited to, applicable standards in Section 524. The affidavits of compliance and test reports shall be certified by a registered professional engineer.
- C) Copies - The Contractor shall provide three (3) copies of all submittals.

524.02.03 – DESIGN BASIS

- A) General - All ductile iron pipes are designed in accordance with AWWA C-150/ANSI 21.50. The designs are based on prism load of ordinary clay backfill with a unit weight of one hundred twenty pound per cubic feet (120 pcf), maximum horizontal ring deflection of three (3%) percent, design factor safety of two (2), and for AASHTO HS-20 truck highway (HWY) or Cooper axle E-80 railroad (RR) live loading conditions.

- B) Depth of Cover - The minimum design depth of cover shall be five (5') feet. Pipe to be installed inside a casing shall be designed for full cover including live load (a single H-20 or Railroad E-80) neglecting the casing.
- C) Deflection – The allowable deflection for the specified mortar lining system is three (3%) percent. Deflection calculation is in accordance with AWWA C-150.
- D) Bending and Hoop Stresses -The bending and hoop stress requirements are met in accordance with AWWA C-150.

E) Buckling

1. Buried Installations - The controlling load for buried pipes is determined from the greater of hydrostatic and earth loads plus vacuum or hydrostatic and earth load plus live load with a factor of safety of two (2.0) as determined in accordance with Section 6.3 of AWWA M-11. It is assumed that the groundwater level is equal to natural ground surface and the ground is fully saturated.
2. Unburied Installations - For unburied pipes, the internal collapsing vacuum pressure is used in determining the minimum wall thickness(es) in accordance with equation 4-2 of AWWA M11 for a factor of safety of 1.5 against buckling. The Poisson's ratio is 0.28 and modulus of elasticity is 52×10^6 psi.
3. Vacuum Pressure - For both buried and unburied installations, the internal collapsing vacuum pressure is taken as 14.7 psi.

524.02.04 – MINIMUM PIPE DESIGN FOR DUCTILE IRON PIPE

Unless otherwise specified, ductile iron pipe and fittings for buried installations, including boring, shall have the following minimum nominal thickness(es), shown below.

For boring, installations, the minimum pipe design shall be equal to or greater than the minimum pipe design on either side of the installation.

Minimum Pipe Design for Ductile Iron Pipe		
Pipe Size (inches)	Nominal Push on Joint Wall Thickness Class 50 (Inches)	Flange Joints Class 53 (inches)
6"	0.25"	0.34"
8"	0.27"	0.36"
10"	0.29"	0.38"
12"	0.31"	0.40"

524.02.06 – PIPE JOINTS AND FITTINGS

- A) General - All specials and fittings may be used with push-on, mechanical, or flanged joints conforming to the requirements of AWWA/ANSI C-110/A 21.16. Fittings with push-on joints shall be installed with thrust blocks. Mechanical joints shall be adequately protected against unbalanced forces. All joints shall have the same pressure rating as the pipe of which they are a part and shall meet the requirements of AWWA/ANSI C-111/A 21.11. All pipe shall be marked in accordance with Sec. 4.7 of AWWA C-151.
- B) Push-on Joints - Push-on joints are a rubber gasket compression type joint meeting the requirements of AWWA C-111. Push-on joints shall have a deflection capability of three degrees

(3°).

C) Mechanical Joints - A mechanical joint is a bolted joint of the stuffing-box type. Each joint shall consist of a bell that is cast integrally with the pipe or fitting and provided with an exterior flange having bolt holes or slots, and a socket with annular recesses for the sealing gasket and the plain end of the pipe or fitting, a pipe or fitting plain end, a sealing gasket, a follower gland with bolt holes, and T-head and hexagonal nuts.

D) Flanged Joints - The flanged joints for ductile iron pipe shall be in accordance with AWWA C-111. Bolts, gaskets, and installation shall meet the requirements of AWWA C-115, Appendix A. The flanged joints for specials and fittings shall meet the requirements of AWWA C-110.

The flanges shall be rated for two hundred fifty (250 psi) pounds per square inch working pressure with bolt-hole drillings as for Class 125 flanges for service at temperatures ranging from twenty degrees (20°) to one hundred fifty degrees F (150°F) are pressure temperature rated for one hundred fifty (150) to two hundred pounds per square inch (200 psi) as shown in ANSI B 16.1. All flanged joints shall be made with single piece, red rubber gaskets one-eighth (1/8") inch thick. Gaskets shall be full face for exposed installations and ring type or full faced for buried service meeting AWWA C-110, Appendix A requirements. As directed by the Engineer or shown on plans, flange joints meeting the requirements of ASME/ANSI B-16.1 may be used.

E) Mechanical Joint Restraints

Mechanical Joint Restraints may be used only at locations approved by the Engineer. Typical examples where the Engineer may permit use of Mechanical Joint Restraints are: creek crossings, locations where excavation depth exceeds five feet and bends greater than 22 1/2° are required to match new pipe to existing pipes and locations where required connections or other laying conditions do not permit sufficient time to complete thrust blocks prior to returning water mains to service.

Mechanical Joint Restraints will not be used in lieu of thrust blocks.

Mechanical Joint Restraints, if permitted, shall be as follows or approved equal. Mechanical Joint Restraints such as Ford Meter Box Company Uni-Flange Retainer Glands, EBAA Iron Sales Mega-Lug Series 1100 and other models that require set screws or bolts in direct contact with the pipe will not be permitted for use on PVC pipe.

Restrained Joints		
Company	Size	Type
American Cast Iron Pipe Co.	6" to 12"	Flex-Ring
EBAA Iron Sales Co.	6" to 12"	Mega-Lug Series 1100
Ford Meter Box Co.	6" to 12"	Uni-Flange
US Pipe and Foundry Co.	6" to 12"	TR-Flex
N/A	6" to 12"	¾" all thread with Duc Lug

F) Sleeve Couplings - All sleeve couplings, except as noted on the plans or otherwise specified, shall be restrained with tie rods and shall be designed for the pipe design pressure and maximum allowable stress not to exceed sixty-five percent (65%) of minimum yield strength of steel used. Sleeve couplings shall be:

Dresser Style 38
Rockwell Steel Coupling 511
Smith Blair
Approved Equal

Sleeve Couplings shall be compact fittings meeting the requirements of AWWA C-153 and AWWA C-110

524.02.07 – COATING AND LINING

- A) Exterior Coating - The exterior of ductile-iron pipe, specials and fittings shall be coated with the asphalt coating in accordance with AWWA C-151, Section 516. The coating shall have a minimum thickness of one (1) mil. The finished coating shall be smooth, continuous and strongly adherent to the pipe. Any damage to the outside coating during shipping, storage, handling and installation shall be field repaired with a fresh coating in accordance with the manufacturer's recommendations.
- B) Interior Lining - Unless otherwise called for on the plans or specified, the interior of ductile-iron pipe, specials and fittings shall be cement mortar lined in the shop, with centrifugally spun lining in accordance with AWWA C-104. The Portland cement for cement mortar lining shall be in accordance with the requirements of ASTM C-150, Type I cement. Field repair of lining shall be made in accordance with AWWA C-104, Section 4-7.2.

524.02.08 – CORROSION PROTECTION

When specified or called for on the plans, all ductile-iron pipe, specials, fittings and other appurtenances shall be polyethylene encased in accordance with AWWA C-105/ANSI A 21.5. Exposure to sunlight of polyethylene wrapped pipe shall be kept to a minimum to prevent deterioration of polyethylene. Damage to polyethylene wrapping shall be prevented during backfilling operations. The minimum thickness for polyethylene is eight (8) mils.

524.05 – SOURCE QUALITY CONTROL TESTING

- A) Ductile Iron Pipe shall be tested at the manufacturer's plant by the manufacturer in accordance with Sec. 5.2 of AWWA C-151.
- B) Ductile Iron fittings shall be tested at the manufacturer's plant by the manufacturer in accordance with Sec. 5.2 of AWWA C-153.
- C) Joint Testing – Joints shall be tested and meet the performance requirements established in AWWA C-111/ANSI A 21.11, Section 11-9 and as modified herein. The working pressure rating of the joint shall be established by subjecting the joints to three (3%) percent of the pipe produced to hydrostatic pressure of twice the rated working pressure, but in no event less than twice the minimum working pressure rating shown below. At least two (2) joints shall be hydrostatically tested at a deflected angle of the degrees (3°) at the above specified pressure rating.

The minimum working pressure ratings for joints shall be 350 psi.

- D) Contractor shall provide certifications stating the pipe and fittings meet these requirements.
- E) Welding - All welding shall be done by qualified welders. The ductile-iron pipe manufacturer shall be responsible for quality control and testing of all welding done in the plant during fabrication of special fittings.

Inspection - The City retains the right to inspect the pipe, specials and fittings, all work performed and materials furnished, at the manufacturer's plant and at the project site and to independently monitor the fabrication of the pipe, specials and fittings. Such inspection shall not relieve the Contractor or the manufacturer of their responsibilities to furnish material and perform work in accordance with these

specifications.

524.06 – METHOD OF MEASUREMENT

Payment shall be made pursuant to Section 505 for water line.

524.07 – BASIS OF PAYMENT

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 525 – POLYVINYL CHLORIDE (PVC) PIPE

525.01 – DESCRIPTION

This section covers polyvinyl chloride (PVC) pipe for pressure applications, intended to be used for conveyance of potable water, in sizes six inch (6") through twelve inch (12") diameter.

525.02 – MATERIALS

PVC pipe shall be produced by extrusion from Class 12454-A or 12454-B PVC compound providing a hydrostatic design basis (HDB) of four thousand pounds per square inch (4,000 psi).

525.02.01 – GENERAL

All PVC pipe and installation of same shall conform to the requirements of the following standards listed below or as modified herein.

AWWA C605 – Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for water

AWWA C-900-PVC pressure pipe, 4 inch through 12 inch for water distribution.

AWWA M-23 – PVC pipe Design and Installation.

ASTM D-2774-Recommended Practice for Underground Installation of Thermoplastic Pressure Piping.

ASTM D-2827-Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials.

ASTM D-3139-Specifications for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.

ASTM F-477-Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

NSF 14-Plastic Piping System Components and Related Materials. PPI TR3-Policies and Procedures for Developing Recommended Hydrostatic Design Stresses for Thermoplastic Pipe Materials.

NSF/ANSI 61 Drinking Water System Components – Health Effects.

525.02.02 – SUBMITTALS

The Contractor shall submit the following and shall receive approval of same from the Engineer prior to incorporating any materials into the work.

Review and approval of the Contractor submittals, by the Engineer, shall not be construed in any way as relieving the Contractor and the manufacturers of their responsibilities for manufacturing PVC pipe and fittings as described herein.

A) General -Detail drawings of pipes

B) Certification - Type "A" and "D" certification for pipe, specials, fittings, gaskets, and lining material. The affidavits of compliance and test reports shall be certified by a registered professional engineer.

C) Guides - The manufacturer's pipe installation guide, standard pipe material repair guide, and

written quality control manual shall be provided by all suppliers who have not previously provided same to the City of Chickasha, or if same has been revised since last provided to the City of Chickasha.

D) Mill Test Reports - Mill test reports of materials used in the fabrication of pipe.

E) Copies - The Contractor shall provide three (3) copies of all submittals.

525.02.03 – DESIGN BASIS

A) General - The PVC pipe is designed in accordance with AWWA M23, or as modified herein, and shall conform to DR 14.

B) Depth of Cover - The minimum design depth of cover shall be five feet (5'). The pipe to be installed inside a casing shall be designed for full cover including live load (a single H-20 or Railroad E-80) neglecting the casing.

C) Allowable Stresses – For pipes six (6") inches through twelve 12" inches, the allowable design stress is sixteen hundred pounds per square inch (1,600 psi), as established per AWWA C-900.

D) Dimension Ratio (DR) - Pipe DR shall be DR 14.

E) Deflection - The allowable deflection is five (5%) percent of the nominal diameter. Deflections are determined based on the following:

a. Deflection lag factor = 1.0

b. Bedding Constant = 0.10

c. Modulus of soil reaction, $E' = 1000$ psi

d. Earth load considered is the prism load of ordinary clay backfill with a unit weight of one hundred and twenty (120 pcf) pounds per cubic foot, compacted to 90% density (ASTM D-698).

e. A highway live loading of AASHTO HS-20 truck, or railroad live loading of Cooper Axle E-80.

525.02.04 – DIMENSION RATIO (DR)

PVC pipe for buried installations including boring, shall have dimension ratio (DR 14).

For boring installations, the minimum dimension ratio shall be equal to or greater than the minimum dimension ratio on either side of the installation.

525.02.05 – DIMENSIONS

All PVC pipe shall have Cast-Iron-Pipe equivalent (C.I.) outside diameter (O.D.) dimensions.

525.02.06 – PIPE JOINTS AND FITTINGS

A) Fittings for use with PVC pipe shall conform to provisions of AWWA C110/A21.10 and shall be short-bodied style. Fittings shall be mechanical joint type. Pressure rating shall conform to the requirements of Section 524.02.06 for ductile iron pipes and fittings. The outside coating for fittings shall conform to the requirements of Section 524.02.07.

B) Mechanical Joint Restraints -

Mechanical Joint Restraints may be used only at locations approved by the Engineer. Typical examples where the Engineer may permit use of Mechanical Joint Restraints are: creek crossings, locations where excavation depth exceeds five feet and bends greater than $22\frac{1}{2}^{\circ}$ are required to match new pipe to existing pipes and locations where required connections or other laying conditions do not permit sufficient time to complete thrust blocks prior to returning water mains to service.

Mechanical Joint Restraints will not be used in lieu of thrust blocks.

Mechanical Joint Restraints, if permitted, shall be as follows or approved equal. Mechanical Joint Restraints such as Ford Meter Box Company Uni-Flange Retainer Glands, EBAA Iron Sales Mega-Lug Series 1100 and other models that require set screws or bolts in direct contact with the pipe will not be permitted for use on PVC pipe.

Restrained Joints		
Company	Size	Type
American Cast Iron Pipe Co.	6" to 12"	Flex-Ring
Ford Meter Box Co.	6" to 12"	Uni-Flange
US Pipe and Foundry Co.	6" to 12"	TR-Flex
N/A	6" to 12"	¾" all thread with Duc Lug

525.03 – SOURCE QUALITY CONTROL TESTING

- A) Polyvinyl chloride Pipe shall be tested at the manufacturer's plant by the manufacturer in accordance with Sec. 5.1 of AWWA C-900.
- B) Ductile Iron Fittings shall be tested in accordance with Section 524.05 B)
- C) Contactor shall provide certifications stating the pipe meets the requirements of these specifications.

525.04 – CONSTRUCTION METHODS

The owner retains the right to inspect the pipe, specials and fittings, all work performed and materials furnished at the manufacturer's plant and at the project site and to independently monitor the fabrication of the pipe, specials and fittings. Such inspection shall not relieve the Contractor or the manufacturer of their responsibilities to furnish material and perform the work in accordance with these specifications.

During installation of PVC pipe, the contractor shall place a locator wire along with the pipe in accordance with the standard drawings. The wire is to be placed continuously throughout the extent of the pipeline. Wire shall be copper 14 AWG single conductor type THHN or THWN. All field splices shall be in waterproof couplings for underground installations. Wire shall extend up into access points as directed by the Engineer. Cost of locator wire shall be included with the price bid for water line.

525.05 – DISINFECTION AND HYDROSTATIC PRESSURE TESTING

Disinfection and Hydrostatic Pressure Testing shall be accomplished in accordance with Section 522 and Section 523.

525.07 – BASIS OF PAYMENT

Payment shall be made pursuant to Section 505.

SECTION 526 – TRACE WIRE INSTALLATION

526.01 - GENERAL

This Section governs trace wire installation on PVC water mains. Contractor shall provide and install a trace wire and trace wire access boxes. A 14 gauge or larger trace wire shall be installed on all PVC water mains.

Typical hydrant branches, that are perpendicular to the water main, do not require trace wire. Trace wire shall be installed on non-typical hydrant branches (i.e. dog-legged hydrant branch).

Take care to protect the wire insulation and repair it with electrical tape if the insulation is damaged.

Refer to the standard drawings for additional details.

526.02 - APPROVED TRACE WIRE MATERIAL

A.) Trace Wire

1. Trace wire for direct bury installations shall be #14 AWG Copper Clad Steel wire as manufactured by Copperhead Industries, LLC #14 AWG solid Copper wire with 30 mil high molecular weight polyethylene insulation as manufactured by Agave Wire LTD, or approved equal.

2. Direct Bury Splice Kits DBR/Y-6 as manufactured by 3M or approved equal.

A.) Trace Wire Access Box shall be Snake Pit Roadway Box as manufactured by Copperhead Industries, LLC or approved equal.

526.03 - TRACE WIRE CONNECTIONS

Joining Ends of Trace Wire: Connections into existing trace wire, connections between one spool of trace wire to another, and other similar connections shall be made using a direct bury splice kit.

Joining Trace Wire - Branch to Main: Connections of trace wire at tees, crosses, and at locations where the trace wire will be brought to the surface shall be conducted using a direct bury splice kit.

526.04 - INSTALLATION

Trace wire shall be installed in a continuous fashion. Install trace wire in the bottom of the trench along the centerline of the trench prior to placing bedding.

Bring trace wire to surface at every valve box, and dead end and as called out in the drawings. Trace wire shall be brought to the surface at least every five hundred (500) feet. Take care not to damage the wire coating. Repair damaged coating with electrical tape.

Trace wire shall be brought to the surface in a separate access box. The trace wire shall be brought to the surface according to standard drawings.

Testing – all trace wire shall be tested for continuity by the Contractor in the presence of the inspector prior to acceptance.

526.06 – METHOD OF MEASUREMENT

Trace wire and Trace wire access boxes will not be measured separately.

526.07 – BASIS OF PAYMENT

All costs of trace wire and access boxes shall be included in the price bid for waterline.

SECTION 527 – BORING

527.01 – DESCRIPTION

This section covers furnishing of pipe by boring and casing as shown on the plans or specified.

Boring and casing consists of the initial installation of a steel casing pipe, installed mechanically, and with a suitable assembly designed to produce a smooth, straight shaft at the established line and grade. The pipe is then installed inside the casing pipe pursuant to the Standard Detail for Boring.

527.02 – MATERIALS

For casing pipe materials and submittal requirements, refer to section 528.

527.04 - CONSTRUCTION METHODS

A) General – Where pipe is required to be installed under railroad embankments, highways, streets, or other facilities by boring and casing, construction shall be made in such a manner that will not interfere with the operation of the railroad, street, highway, or other facility, and shall not weaken or damage any embankment or structure. During construction operations, barricades and lights to safeguard traffic and pedestrians shall be furnished and maintained, until such time as the backfill has been completed after which the barricades and lights shall be removed from the site.

The Contractor shall take proper precautions to avoid excavating earth or rock or shattering rock beyond the limits of excavation shown on the plans. All damages caused by the construction to either surface or subsurface structures, shall be repaired or replaced by the Contractor at his own cost and expense.

Suitable pits, shafts, or trenches shall be excavated for the purpose of conducting the boring and casing operations and for placing end joints of the pipe. Wherever end trenches are cut in the sides of the embankment or beyond it, such work shall be sheeted securely and braced in a manner satisfactory to the Engineer to prevent earth caving.

The removal of any obstruction that may be found to conflict with the placing of the pipe shall not be measured for payment nor paid for as a separate contract pay item. The removal of any such obstruction shall be included in the cost of other items.

Once the casing installation has commenced it shall be continued uninterrupted around the clock until the pipe has been installed between the specified limits.

Any pipe damaged during operations shall be removed and replaced by the contractor at his expense.

The pits or trenches excavated to facilitate the operations shall be backfilled immediately after the pipe has been installed.

B) Boring Requirements - Work shall comply with the Standard Detail for Boring. The excavation and backfill for pits shall be as outlined in Section 500.

Boring without the concurrent installation of a casing pipe shall not be permitted, unless shown on plans or directed by the Engineer. All joints in casing pipe shall be welded. Casing pipe shall extend through the entire fill and be installed in a manner that shall not disrupt traffic nor damage roadway grade and surface. The introduction of water into the excavation shall be prohibited.

The size of the bored hole shall not exceed the outside diameter of the pipe bell or casing pipe more than one inch (1"). The use of water or other fluids in connection with the boring operation shall only be permitted when approved by the Engineer.

Nothing contained herein shall be construed as relieving the Contractor from his responsibility for the safety of the work and for all damage to persons and property.

C) Skid Supports

Plastic or rubber skid supports, shall be used and fastened securely to the carrier pipe with steel strapping, cables or clamps. Use of petroleum products shall not be allowed as a lubricant to ease installation. Skid support spacing and position shall be in accordance with the Standard Detail for Boring.

D) Casing Pipe End Seals - Both ends of the casing pipe shall be sealed with a pull-on type EPDM, neoprene or comparable material flexible end seal manufactured for this purpose. End Seals shall be secured with stainless steel straps or clamps.

E) Filling Annular Space - The annular space between the waterline pipe and the steel casing pipe shall not be filled.

527.06 – METHOD OF MEASUREMENT

Bored and cased pipe shall be measured by the lineal foot of pipe bored and cased. Payment shall be made at the unit price bid per lineal foot for each size. The price established shall be full compensation for furnishing and placing all materials including steel casing pipe, carrier pipe, grout or concrete, excavation and backfill, sheeting, shoring, bracing and drainage, disposal of all surplus materials, labor, tools, equipment, and incidentals necessary to complete this item of work

527.07 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

(PIPE SIZE) Bored/Cased..... L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 528 – STEEL CASING PIPE

528.01 - DESCRIPTION

This section covers steel pipe intended to be used as a casing pipe for boring installations.

528.02 – MATERIALS

528.02.01 – SUBMITTALS

The Contractor shall submit the following, provided that all applicable requirements are met, and that visual inspection at destination shows the workmanship and condition of material to be satisfactory.

- A) Type "A" certification for pipe
- B) Shop drawings of pipe, joints and seams
- C) Documentation of manufacturer's on-going quality control program.

528.02.02 – GENERAL

- A) General -Steel pipe shall conform to ASTM A-139, Standard Specification for Electric-Fusion (ARC)-Welded Steel Pipe (NPS 4 and Over). The steel material shall be new, smooth wall, carbon steel, Grade B, with minimum sixty thousand pounds per square inch (60,000 psi)

tensile strength, and minimum thirty-five thousand pounds per square inch (35,000 psi) yield strength.

The Pipe shall be straight seam pipe, shall be one hundred (100%) percent welded, and the weld's height over the outside wall surface shall be equal to or less than three-sixteenths (3/16") inch. All steel pipe shall be square cut and shall have a roundness such that the difference between the major and minor outside diameters shall not exceed one percent (1%) of the specified nominal outside diameter or one-fourth inch (1/4"), whichever is less. The outside circumference must be within plus or minus (±) one percent (1%) of the nominal circumference or within plus or minus (±) one-half inch (1/2"), which is less. The pipe shall have a maximum allowable straightness deviation in any ten foot (10') length of one-eighth inch (1/8"). Steel pipe joints shall be continuously welded with an approved butt weld. The welds shall attain the full strength of the pipe and shall result in a fully watertight section. The welded joints shall conform to the requirements of AWWA C-206.

B) Boring Installation

1. Casing Pipe Size – Steel casing pipe shall have the follow minimum inside diameters:

Pipe Nominal Size (inches)	Casing Pipe Inside Diameter (inches)
6	10
8	14
10	16
12	20

2. Casing Pipe Thickness - Steel casing pipe wall thickness shall be 3/8" minimum.

528.07 – BASIS OF PAYMENT

Payment shall be made pursuant to the appropriate Section of 505.

SECTION 529 – HIGH DENSITY POLYETHYLENE (HDPE) PIPE

529.01 – DESCRIPTION

This specification lists the requirements for the material (pipe and fittings) and joining methods for high density polyethylene pipe (HDPE) piping systems for potable water supply, in sizes six inches (6") through twelve inches (12").

529.02 – MATERIALS

529.02.01 – GENERAL

Unless otherwise specified, references to documents shall mean the latest published edition of the referenced document in effect at the bid date of the project.

- ANSI/AWWA C906 Polyethylene (PE) Pressure Pipe and Fittings, 4 In. through 65 In., for Waterworks
- AWWA M55 Manual of Water Supply Practices, PE Pipe–Design and Installation
- PPI Handbook of Polyethylene Pipe
- PPI Material Handling Guide for HDPE Pipe and Fittings
- PPI TR-38 Bolt Torque for Polyethylene Flanged Joints
- PPI TN-42 Recommended Minimum Training Guidelines for PE Pipe Butt Fusion Joining Operators for Municipal and Industrial Projects
- ASTM F 714 Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside

Diameter

- ASTM F 1055 Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and
- ASTM F 1290 Standard Practice for Electrofusion Joining Polyolefin Pipe and Fittings
- ASTM F 2164 Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure
- ASTM F2206 Standard Specification for Fabricated Fittings of Butt-Fused Polyethylene (PE) Plastic Pipe, Fittings, Sheet Stock, Plate Stock, or Block Stock
- ASTM F 2620 Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings
- ASTM D 2683 Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing
- ASTM D 2737 Standard Specification for Polyethylene (PE) Plastic Tubing
- ASTM F 2880 Standard Specification for Lap-Joint Type Flange Adapters for Polyethylene Pressure Pipe in Nominal Pipe Sizes 3/4 in. to 65 in.
- ASTM F 3124 Standard Practice for Data Recording the Procedure Used to Produce Heat Butt Fusion Joints
- ASTM D 3261 Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing
- ASTM D 3035 Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
- ASTM D 3350 Standard Specification for Polyethylene Plastics Pipe and Fittings Materials
- NSF/ANSI 61, Drinking Water System Components –Health Effects

529.02.02 – HIGH DENSITY POLYETHYLENE MATERIALS

A) Resin and Material Requirements

All material shall be manufactured from a PE 4710 resin listed in Plastic Pipe Institute (PPI) TR-4. The resin material shall meet the specifications of ASTM D 3350 with a minimum cell classification of 445474C. HDPE pipe and fittings shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. HDPE products shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, voids, or other injurious defects.

B) HDPE Pipe

1. Pipe shall be made of HDPE material with a minimum material designation code of PE4710 and with a minimum Cell Classification as noted above. The polyethylene compound shall be suitably protected against degradation by ultraviolet light by means of carbon black of not less than 2 percent. The manufacture of the HDPE resin shall certify the cell classification indicated.
2. Pipe sizes 3" and larger shall have a manufacturing standard of ASTM F 714. Pipe Dimension Ratio (DR) shall be as specified on plans. Pipe Outside Diameter shall be DIOD (ductile iron OD).
3. Pipe shall meet AWWA C906 (4" to 65"), and shall be listed as meeting NSF-61.
4. Pipe shall be manufactured by a manufacturer certified for such manufacture by the Plastic Pipes Institute.

C) HDPE Fittings

1. Butt Fusion Fittings- Fittings shall be made of HDPE material with a minimum material designation code of PE4710 and with a minimum Cell Classification as noted above. Fittings shall have a minimum long-term pressure rating equal to or greater than the pipe to which they are joined unless otherwise specified on the plans or accepted by owner/engineer. All fittings

shall meet the requirements of AWWA C906.

- a. Molded fittings shall comply with the requirements of ASTM D 3261.
 - b. Each fitting will be marked per ASTM F 2206.
 - c. Fusion pressure and temperature of fabricated fittings shall be recorded and such data shall be provided in the product submittal. Each fitting shall be stamped with unique joint number that corresponds to the joint report.
 - d. Socket fittings shall meet ASTM D 2683
2. Electrofusion Fittings - Fittings shall be made of HDPE material with a minimum material designation code of PE 4710 and with a minimum Cell Classification as noted in 2.01.A. Electrofusion Fittings shall have a manufacturing standard of ASTM F1055. Fittings shall have a minimum long-term pressure rating equal to or greater than the pipe to which they are joined unless otherwise specified on the plans.
 3. Bolted Connections – Flanged and Mechanical Joint Adapters can be made to ASTM D 3261 or if machined, must meet the requirements of ASTM F 2206. Flanges and MJ Adapters shall be fused onto the pipe and have a minimum long-term pressure rating equal to or greater than the pipe unless otherwise specified on the plans.

529.02.03 – SUBMITTALS

The Contractor shall submit the following and shall receive approval of same from the Engineer prior to incorporating any materials into the work. Review and approval of the Contractor submittals, by the Engineer, shall not be construed in any way as relieving the Contractor and the manufacturers of their responsibilities for manufacturing ductile iron pipe and fittings as described herein.

- A) General - Detail drawings of pipes, specials, fittings, and joints.
- B) Certification - Type "A" and "D" certification for pipe, specials, fittings, gaskets, and lining material pursuant to, but not limited to, applicable standards in Section 529.02.01. The affidavits of compliance and test reports shall be certified by a registered professional engineer.
- C) Copies - The Contractor shall provide three (3) copies of all submittals.

529.02.04 – DESIGN BASIS

- A) General - All HDPE pipes are to be designed in accordance with AWWA Manual M55.
- B) Depth of Cover - The minimum design depth of cover shall be five (5') feet. Pipe to be installed inside a casing shall be designed for full cover including live load (a single H-20 or Railroad E-80) neglecting the casing.

529.03 – SOURCE QUALITY CONTROL TESTING

- A) High Density Polyethylene Pipe shall be tested at the manufacturer's plant by the manufacturer in accordance with Section 5 of AWWA C-906.
- B) Contractor shall provide certifications stating the pipe and fittings meet these requirements.

Inspection - The Owner retains the right to inspect the pipe, specials and fittings, all work performed and materials furnished, at the manufacturer's plant and at the project site and to independently monitor the fabrication of the pipe, specials and fittings. Such inspection shall not relieve the Contractor or the manufacturer of their responsibilities to furnish material and perform work in

accordance with these specifications.

529.04 – TRANSPORTATION, HANDLING AND STORAGE

A) General - All HDPE pipe and fittings shall be cut, joined, and installed in accordance with the manufacturer's recommendations. Joining, laying, and pulling of polyethylene pipe shall be accomplished by personnel experienced in working with polyethylene pipe systems.

B) TRANSPORTATION, UNLOADING AND STORAGE

1. The manufacturer shall package product in a manner designed to deliver the pipe and fittings to the project neatly, intact and without physical damage. During transportation each pipe shall rest on suitable pads, strips skids, or blocks securely wedged or tied in place. The transportation carriers shall use appropriate methods and intermittent checks to insure the pipe is properly supported, stacked and restrained during transportation such that the pipe is not nicked, gouged, or physically damaged. The transportation carrier shall provide tarpaulins to cover any potable water pipe subject to exposure to diesel exhaust or smoke.
2. During loading, transportation, and unloading, every precaution should be taken to prevent damage to the pipe. Cuts or gouges that reduce the wall thickness by more than 10% is not acceptable. Locations with such damage shall be cut out and discarded at the expense of the contractor.
3. Handle the pipe in accordance with the PPI Handbook of Polyethylene Pipe. All pipe and accessories shall be loaded and unloaded by lifting with hoists or by skidding in order to avoid shock or damage. Under no circumstances shall materials be dropped. Pipe handled on skidways shall not be rolled or skidded against pipe on the ground. Slings, hooks or pipe tongs shall be padded and used in such a manner as to prevent damage to the exterior surface or interior of the pipe. All pipe and fittings shall be subjected to visual inspection at time of delivery and before they are lowered into the trench to be laid. Joints or fittings that do not conform to these specifications will be rejected and must be removed immediately by the Contractor.
4. The interior of the pipe as well as all sealing surfaces of mating components (i.e. flange faces) shall be kept free from dirt or foreign matter at all times.
5. Pipe shall not be stacked higher than the limits recommended by the manufacturer. The bottom tiers shall be kept off the ground on timbers, rails, or concrete. Pipe shall not be stored close to heat sources.
6. The open ends of all sections of joined and/or installed pipe (not in service) shall be plugged to prevent animals or foreign material from entering the pipe line or pipe section. The practice of stuffing cloth or paper in the open ends of the pipe will not be permitted. Waterproof nightcaps of approved design may be used but they shall be so constructed that they will prevent the entrance of any type of natural precipitation into the pipe and will be secured to the pipe in such a manner that the wind cannot blow them loose.
7. Where possible, the pipe shall be raised and supported at a suitable distance from the open end such that the open end will be below the level of the pipe at the point of support.

C) PIPE INSPECTION

All pipe and fittings shall be subjected to visual inspection at time of delivery and before they are installed or lowered into the trench to be laid. Defective, damaged, or unsound pipe will be rejected. Cuts, punctures, or gouges that penetrate or reduce the wall thickness by 10% or more are not acceptable. Locations with such damage shall be cut out and discarded at the expense of the contractor. Joints or fittings that do not conform to these specifications will be rejected and must be removed immediately by the Contractor.

D) HANDLING PIPE

1. The handling of the pipeline shall be in such a manner that the pipe is not damaged by dragging it over sharp and cutting objects. Sections of the pipes with cuts and gouges exceeding 10 percent of the pipe wall thickness or kinked sections shall be removed and the ends rejoined.
2. Refer to the PPI Material Handling Guide for HDPE Pipe and Fittings for recommendations, guidelines and instructions regarding the handling, lifting, loading, storing and installing polyethylene pipe and fittings.

529.05 – FUSING PIPE AND FITTINGS

E) FUSION JOINING REQUIREMENTS

1. All HDPE pipe shall be joined to itself by the heat fusion process which produces homogeneous, seal, leak tight joints. Tie-ins between sections of HDPE pipe shall be made by butt fusion whenever possible.
2. Butt Fusion: The pipe shall be joined by the butt fusion procedure outlined in ASTM F 2620 or PPI TR-33. All fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per PPI TN-42. A record or certificate of training for the fusion operator must be provided that documents training to the fundamentals of ASTM F 2620. Considerations should be given to and provisions made for adverse weather conditions, such as temperatures below freezing, precipitation, or wind, which is accepted by the owner/engineer.

F) FUSION OPERATORS

1. The employer of the fusion machine operator is responsible for the fusion joint quality of the fusion weld made by that individual. The employer is responsible for documenting all qualification and training records of that individual.
2. All HDPE fusion equipment operators shall be qualified to the procedure used to perform pipe joining for the type(s) and size(s) of pipes to be used in the project. Fusion equipment operators shall have current, formal training on all fusion equipment employed on the project. Training received more than two years prior to operation with no evidence of activity within the past 6 months shall not be considered current.
3. For Projects with at least 5,000 feet or with pipe larger than 24 inches, operators or their supervisor must have a current McElroy Fusion Training Certificate for the equipment to be used on the project.

D) BUTT FUSION EQUIPMENT

1. For 6" and larger pipe sizes, the pipe butt fusion machine shall be a self-contained hydraulic fusion machine capable of butt fusing HDPE pipe. The carriage must be removable from the chassis for in-ditch use. The machine must be compatible with an electronic data recording device. Accessories will include all butt fusion inserts for the specified range of pipe sizes, a pyrometer kit for checking the surface temperature of the heater, extension cord (25' minimum), and hydraulic extension hoses (minimum of four). The butt fusion machine will be McElroy, or approved equivalent.
2. In areas where there may be insufficient space to layout the entire length of fused pipe to be pulled-back, the Contractor shall utilize a continuous HDPE pipe fusion equipment such as a PolyHorse by McElroy or other means in order to fuse the length of pipe necessary for the installation. The Contractor shall be responsible for securing and obtaining permission/permits from adjacent property if necessary, for staging and/or fusing of the pipe and HDD equipment at no additional cost to the Owner.

E) FUSION DATA RECORDING

1. For 6" and larger pipe sizes, McElroy DataLogger or equivalent fusion data recorder shall be used to record all fusion welds on hydraulically operated fusion machines. The device shall be capable of meeting the requirements of ASTM F 3124, "Standard Practice for Data Recording the Procedure used to Produce Heat Butt Fusion Joints in Plastic Piping Systems or Fittings". The device, or combination of devices, shall record the following variables of each fused joint:
 - a. Heater surface temperature immediately before inserting the heater plate. Alternatively, the heater plate may be measured with a pyrometer and entered into the weld record.
 - b. Gauge pressure during the initial heat cycle
 - c. Gauge pressure and elapsed time during the heat-soak cycle
 - d. Heater removal (dwell) time
 - e. Gauge pressure and elapsed time during the fusing/cool cycle
 - f. Drag pressure
 - g. Pipe diameter and wall thickness
 - h. Type of HDPE material (Specification and Classification) and manufacturer
 - i. Fusion Machine Identification
2. The device shall record the operator, a unique operator ID number, the date and time of each weld.
3. Records showing the device is up to date on all required calibration shall be available for presentation when requested.
4. All fusion welds should be traceable to the report (via operator and weld ID) with an indentation weld stamp or by permanent paint marker/pen next to fusion weld.
5. When requested prior to commencement of work, a weld location map may be requested by the owner or owner's representative.

F) BUTT FUSION EXAMINATION AND TESTING

1. Examinations
 - a. Visual: For pipe sections, examine the full exterior circumference for bead uniformity before cutting. After cutting the pipe section, review the interior bead. All beads should have visually acceptable bead formation as shown in Fig 4 and Appendix X2 of ASTM F 2620. In addition, the following characteristics are expected:
 - 1) There shall be no evidence of cracks or incomplete fusing
 - 2) There shall be no evidence of captured objects (e.g., pipe shavings, facer ribbons) between bonded surfaces.
 - 3) Variations in upset bead heights on opposite sides of the cleavage and around the circumference of fused pipe joints are acceptable.
 - 4) The apex of the cleavage between the upset beads of the fused joint shall remain above the base material surface
 - 5) Fused joints shall not display visible angular misalignment, and outside diameter mismatch shall be less than 10% of the nominal wall thickness
 - 6) Fusion data record review that meet criteria as listed below can be used as additional verification of visual indicators.
 - b. Fusion Data Record Review: The fusion data record for each fused joint shall be compared to the approved fusion procedure. The reviewer shall verify the following:
 - 1) That all data required by section 529.02.05E) was recorded
 - 2) Interfacial pressure was within the acceptable range

- 3) Heater surface temperature was within the acceptable range
- 4) Butt fusion pressure applied during the fusing/cool cycle was correctly calculated to include drag pressure, fell within the acceptable range for the applicable size and agrees with the recorded hydraulic fusing pressure.
- 5) Butt fusing pressure was reduced to a value less than or equal to drag pressure at the beginning of the heat soak cycle.
- 6) Fusing machine was opened at the end of the heat soak cycle, the heater was removed, and the end were brought together at the fusion pressure with the acceptable time range
- 7) Cooling time at butt fusing pressure met the minimum time specified
- c. If the recorded data in section 529.02.05 F) is outside the limits of the acceptable range, the joint is unacceptable.
- d. Frequency. Records for test fusion joints should be reviewed immediately after the joint is completed. Fusion joints for jobsite fusions should be reviewed daily or before being covered with backfill.

2. Mechanical Tests

- a. The Owner reserves the right to require the Contractor to mechanically test the fused pipe if any other test or inspection indicates noncompliance with approved procedures.
- b. If Mechanical tests are required:
 - 1) The fusion shall be allowed to cool completely, then fusion test straps shall be cut out.
 - 2) All samples shall be labeled with operator information. Testing must be done at 73 degrees F plus or minus 5 degrees. The test temperature and sample size are critical to testing. Testing performed at cold or elevated temperatures may not give similar results to tests performed at ambient temperatures.
 - 3) Each pipe sample weld shall be subjected to testing at two locations 180 degrees apart from each other in the joint weld. All specimens shall be tested by one of the following methods:
 - 4) Reverse Bend Test are allowed for pipe sizes 4" IPS or smaller. The specimens shall be removed and tested in accordance with ASTM F 2620, Appendix X4.
 - 5) Guided Side Bend Test are allowed for all pipe sizes 4" IPS and larger. The specimens shall be removed and tested.
 - 6) Hydrostatic Burst Test is allowed for pipe sizes 2"-24". The specimen length should measure 6 times pipe diameter with the butt fusion joint in the center of the specimen. The specimen should be tested in a tank filled with water, and testing conditions monitored and recorded with computerized equipment. The specimen will be tested at 4 times pipe rated pressure for 5 minutes with no failure of joint allowed.
- c. Results of any mechanical test shall be documented. Information on the weld and operator shall be transferred from the sample to the testing record.

529.06 – INSTALLATION

A) INSTALLATION

1. Safety: The Contractor shall carry out his operations in strict conformance with all Occupational

Safety and Health Administration and manufacturers' safety requirements.

2. Direct Burial

- a. Buried HDPE pipe and fittings shall be installed in accordance with ASTM D 2321 or ASTM D 2774 for pressure systems and AWWA Manual of Practice M55 Chapter 8. The Design Window identified in AWWA M55 Chapter 5 (page 65 of 2006 version) shall be considered acceptable design and installation conditions.
- b. Unless noted otherwise, no thrust blocks shall be placed in the HDPE pipe system since the fused system is fully restrained.

3. Trenchless Installation Methods

- a. Installation of HDPE Pipe by Horizontal Directional Drilling shall follow the guidelines of ASTM F1962 or PPI TR-46 and the following requirements. If the following requirements conflict with ASTM F1962 or PPI TR-46, the following requirements shall govern.
 - 1.) HDD Subcontractor shall be a firm actively engaged in horizontal directional drilling for a minimum of five (5) years. Submit documentation verifying compliance prior to beginning work.
 - 2.) Contractor and its HDD Subcontractor shall be responsible for all Design Considerations, Construction Safety, Construction Practices and Drilling Fluid Containment and Disposal related to HDD installation of the steel casing. Contractor and its HDD Subcontractor shall follow the North American Society of Trenchless Technology (NASTT) Horizontal Directional Drilling (HDD) Good Practices Guidelines, latest edition.
 - 3.) Prior to beginning work, Contractor shall submit to the Owner a typewritten Work Plan providing detail of the proposed procedure and schedule to execute the project. The work plan will be comprehensive, realistic, and based on actual working conditions for this particular project. The work plan shall document the planning required to successfully complete the project. The work plan shall include complete descriptions of proposed plans, procedures, equipment, personnel, and if applicable, supporting material, for the following:
 - a.) Drilling operations: describe the pilot hole drilling procedure, the reaming operation, the pullback procedure and illustrate the plan.
 - b.) Profile of the bore plotted at a scale appropriate for the crossing and acceptable to the Engineer.
 - c.) HDD site layout including entry and exit points.
 - d.) Directional drilling equipment list to include at a minimum: drilling rig, drill bit, back-reamer, mud mixing and pumping systems, down-hole tools, guidance system, and rig safety system. Provide calibration records for guidance equipment.
 - e.) Drilling fluid management plan: drilling fluid types and specifications, cleaning and recycling equipment, estimated flow rates, procedures for minimizing drilling fluid escape, and the method/location for final disposal of waste drilling fluids. Provide the MSDS for all drilling fluid additives that will be used.
 - f.) Pipe storage and handling details.
 - g.) Pipeline assembly and installation procedures.
 - h.) MSDS of any potentially hazardous substances to be used.
 - i.) Contingency plans for possible problems.
 - 4.) Contractor shall clean the work site of all excess slurry or spoils within forty-eight (48) hours of completing installation.
 - 5.) Contractor shall submit to the Owner a bore log to the Owner within seven (7) days

- of the completion of each bore path. The bore log shall include all of the following:
 - a.) Name of person collecting data, including title, position and company name.
 - b.) The detection method used, bore diameter, utility diameter, drilling fluid composition, composition of any other materials used to fill the annular void between the bore and the utility diameter, or utilities placed out of service.
 - c.) A plan view of the bore path showing depths and offset dimensions to an accuracy of within one (1) inch of the physically exposed beginning and end points of the bore and other exposed points along the path and indicate if the bore failed.
 - d.) A profile or log of the bore depths to the nearest inch of the facility. Said profile or log shall be referenced to the benchmarks() shown on the plans.
 - 6.) Bore or reaming hole diameter shall not exceed 1.5 times the casing O.D.
 - 7.) Contractor shall conduct reaming and back-pulling operations continuously until completion of the installation of casing.
 - 8.) Contractor shall dispose of or recycle drilling fluids consistent with local, state and federal regulations.
4. Pipe Assembly: Pipe lengths shall be stored in such a location and manner as to eliminate the possibility of scoring, gouges or otherwise damaging the pipe.
- a. Sections of the pipe shall be assembled and joined together prior to insertion of the pipe. Assembly shall be accomplished above ground. If the liner is to be dragged when transported or inserted, then sleds, rollers or other similar devices shall be furnished and utilized by the contractor to protect the pipe wall from damage due to cuts, gouges, or scrapes.
 - b. Joining shall be accomplished by the Thermal Butt Fusion method, in strict accordance with the Manufacturer's recommendations and with ASTM F 2620 or PPI TR-33. During fusion, pipes shall be given adequate support on rollers to allow them free movement.
 - c. All completed joints shall be watertight at the rated pressure for the pipe and shall have strength characteristics equal to or greater than the pipe itself. Improperly made or damaged joints shall be repaired or replaced as directed by the Owner at the Contractor's expense. The Owner shall be provided with samples of butt fused joints for testing upon request.
 - d. Mechanical connection of HDPE to auxiliary equipment such as valves, pumps and fittings shall use mechanical joint adapters and other devices in conformance with the PPI Handbook of Polyethylene Pipe and AWWA Manual of Practice M55.
 - e. Mechanical coupling shall be made by qualified technicians. Qualification of the field technician shall be demonstrated by evidence of mechanical coupling training with the past year. This training shall be on the equipment and pipe components to be utilized for this project.
5. Installation of HDPE pipe and fittings shall be completed in accordance with ASTM D2321 or ASTM2774 for pressure systems and AWWA Manual of Practice M55.
- a. The HDPE shall be lubricated in such a manner and with such materials as recommended by the pipe manufacturer.
 - b. A pulling head shall be attached to the leading end of the polyethylene liner with a power winch cable connected thereto. The power winch and cable shall be of sufficient

rating to pull the liner through the existing pipeline. Winching forces shall be continuously monitored. The Contractor shall provide all pulleys, rollers, bumpers, and other equipment required to protect the existing pipeline and the pipe from damage during the pulling operation. Any damage to the existing pipeline or lining shall be rectified by the Contractor at his own expense.

- c. Caution must be taken not to stretch the pipe beyond its elastic limit in the event of an impediment. The Contractor shall maintain on hand such equipment as might be required to withdraw the liner.
- d. Once insertion is initiated, the Contractor shall complete the pull without interruption.
- e. After insertion, the liner shall be allowed a minimum of twelve hours (or as otherwise recommended by the pipe manufacturer) to reach temperature equilibrium with the existing pipeline and to stress-relieve itself. After the liner has reached temperature equilibrium and stress-relieved itself, the lining shall be cut and finished, as required.

B) FLUSHING, CLEANING AND DISINFECTING

- 1. All mains shall be cleaned and flushed to remove all foreign matter.
- 2. Cleaning and disinfecting of potable water systems shall be in accordance with AWWA C651 and AWWA Manual of Practice M55 Chapter 9, and PPI Handbook of Polyethylene Pipe Chapter 2 (2nd Edition). The disinfection chemicals should be limited to less than 12% active chlorine. The duration of the disinfection should not exceed 24 hours. Upon completion, the system should be thoroughly flushed with fresh water, and sampled to verify the disinfectant chlorine level has been reduced to potable drinking water concentrations in all service water tubing and branch lateral pipes.
- 3. Obtain safe bacteriological samples on two consecutive days before placing the waterline into service.

C) TESTING AND LEAKAGE

- 1. All pumps, valves, temporary connections, temporary bulkheads, meters, gauges and other measuring devices shall be furnished, installed and operated by the Contractor and all such equipment and devices and their installation shall be approved by the Owner's Representative. The contractor shall restrain pipe, components, and test equipment as required to insure testing can be accomplished in a safe manner, including protection of personnel, equipment, and public in the event of a failure during testing.
- 2. The pressure gauges or data recorders should be calibrated and sufficiently sized to provide mid-range data (pressure tested will not be below 10% or greater than 90% of gauge capacity) that result in easy reading, interpretation. Gauges shall be accurate to within 2% of full scale with increments no greater than 10 psi.
- 3. Pressure Pipelines-Pressure testing shall be conducted in accordance with requirements and recommendations of ASTM F 2164 (Field Leak Testing of Polyethylene Pressure Piping Systems Using Hydrostatic Pressure), AWWA Manual of Practice M55 Chapter 9, and PPI Handbook of Polyethylene Pipe Chapter 2 (2nd Edition). Pneumatic (compressed air) leakage testing of HDPE pressure piping is prohibited for safety reasons.
 - a. The section of pipe to be tested shall be filled with potable approved by the Owner/Engineer. While the system is being filled with water, air shall be carefully and completely exhausted. If permanent air vents are not located at all high points, the Contractor shall install fittings and valves at such points so the air can be expelled as the pipe system is slowly filled with water.
 - b. If the Contractor elects to perform hydrostatic testing against valves in an existing

distribution system, it does so at his own risk and will bear the cost of any damages to the existing valve, piping system, private or public property, or the new pipeline under test.

- c. The test procedure for HDPE pipe consists of two steps: 1) the initial phase or expansion phase and 2) the test phase. During the initial/expansion phase, sufficient make-up water shall be added hourly for 3 hours to return to the test pressure. During the test phase, the expansion phase pressure is reduced by 10 psi to test phase pressure and monitored for at least one hour (3 hours maximum).
- d. Under no circumstances shall the total time under test exceed eight (8) hours. If the test is not completed due to leakage, equipment failure or any other reason, depressurize the test section and permit the system to "relax" for eight (8) hours prior to the next testing sequence.
- e. The test pressure should be related to the lowest point in elevation along the test section's vertical pipeline profile.
- f. All pressure and leakage testing shall be done in the presence of a representative of the Owner.
- g. The test pressure shall be 1.5 times the operating pressure at the lowest point in the system. In accordance with section 9.8 of ASTM F 2164, the pipe shall pass if the final pressure is within 5% of the test phase pressure for the testing period (3 hours maximum). If the test section fails this test, the Contractor shall repair or replace all defective materials and/or workmanship at no additional cost to the Owner.
- h. Leakage must not exceed 10 gal/inch diameter per mile of pipe per 24 hours at 150 psi testing pressure.

529.07 – METHOD OF MEASUREMENT

Payment shall be made pursuant to Section 505 for water line.

529.08 – BASIS OF PAYMENT

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

532 – TAPPING SLEEVES

532.01 - DESCRIPTION

This section covers tapping sleeves intended to be used for tapping water mains.

532.02 - MATERIALS

Tapping sleeves shall be manufactured in accordance with AWWA C-110 and equipped with gaskets made in accordance with AWWA C-111. Tapping Sleeve shall be Ductile Iron. Tapping sleeves shall be Mueller H-615 M. J. Tapping sleeve, or approved equivalent. Stainless Steel sleeves will not be permitted.

532.04 – CONSTRUCTION METHODS

The installation shall conform to the recommendation of the manufacturer of the pipe being tapped. Tapping sleeves shall be pressure tested. Sleeves shall maintain 150 psi for a minimum of two hours.

532.06 – METHOD OF MEASUREMENT

Payment for "Tapping Sleeve" shall be included in the unit price bid per each for Tapping Valve and Sleeve. The price established shall be full compensation for furnishing and placing of all materials including tapping sleeve, labor, tools, equipment, and incidentals necessary to complete this item of work.

532.07 – BASIS OF PAYMENT The items measured as provided above will be paid for at the contract unit price bid:

(SIZE) TAPPING VALVE AND SLEEVE..... EA.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 533 – TAPPING CLAMPS

533.01 – DESCRIPTION

This section covers tapping clamps used for tapping water mains.

533.04 – CONSTRUCTION METHODS

- A) General -Tapping clamps shall have a body with a threaded outlet, seal, and suitable means for attachment to the main. The body shall be made to conform to the outside configuration of the main. Tapping clamps shall be designed to provide a drip-tight connection when used as a service connection to the main.
- B) Tapping clamps shall be required when tapping other than cast iron or ductile iron pipe. Clamps may be required on older cast-iron and ductile iron as directed by the Engineer. Tapping clamps shall be the same size as the service line. The reducing of tapping clamps shall not be allowed.
- C) Tapping Clamps shall meet the requirements of Section 510.

533.06 – METHOD OF MEASUREMENTS

Tapping clamp(s) will not be measured separately.

533.07 – BASIS OF PAYMENT

All cost of tapping clamps shall be included in the price bid for water services.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.



SANITARY SEWER MAIN CONSTRUCTION STANDARD SPECIFICATIONS

Approved by Planning Commission

Approved by City Council

Updated December 1, 2022 by:



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SECTION 600 – SANITARY SEWER MAIN CONSTRUCTION

SECTION 600 – GENERAL REQUIREMENTS

600.1 – DESCRIPTION

This section covers general construction requirements of sanitary sewer mains and sewer appurtenances as described herein. All materials and work shall comply with Oklahoma Department of Environmental Quality (ODEQ) rules and regulations, specifically to include requirements in OAC 252:656.

600.2 – MATERIALS

Construction materials shall not be delivered to the site of the work more than three (3) days in advance of their anticipated use nor shall the quantity of pipe or other materials on hand at the site of the work at any time be in excess of the amount required to complete three hundred (300) feet of sewer main unless with special permission of the Engineer.

Unless otherwise specified, all concrete used in construction of sewer mains and their appurtenances shall have a minimum twenty-eight (28) day compressive strength of three thousand five hundred (3,500) pounds per square inch (psi). All steel reinforcement used shall be grade sixty (60) with a minimum yield strength of sixty thousand (60,000) psi.

600.4 – ORDER OF CONSTRUCTION

The Contractor shall start at enough different locations to complete the entire contract within the time limit specified. The construction of all sewer mains shall begin at the low point in the line in every case working toward the high point. When the construction involves the building of main or submain sewer mains having one or more lateral or tributary, the construction of tributary lines shall not be started until the main or submain sewer has been completed to the point where the tributaries or laterals discharge into it, except as may be approved by the Engineer. Approval by the Engineer does not relieve the Contractor of any responsibility for making the specified connections in reasonable conformance to the design.

Sewer appurtenances shall be constructed as soon as the sewer main to which they are to be connected is constructed to their locations. The postponing of the construction of appurtenances until the entire sewer main has been completed, or the building of appurtenances in advance of the construction of the sewer main, will not be permitted.

The construction of sewer mains eighteen (18) inches in diameter and smaller for more than six hundred (600) feet, and sewer mains twenty-one (21) inches in diameter and larger for more than three hundred (300) feet in advance of appurtenances which are incomplete or the construction of which has not been started, will not be permitted.

Unless otherwise directed by the Engineer, the Contractor shall leave no more than nine hundred (900) feet between backfilling operations and the complete restoration of paving, paving repairs, fencing, sodding, etc.

When temporary surfacing is provided for in the contract documents, the Contractor shall complete temporary paving repair immediately after backfill is completed.

600.4.1 – TEST HOLES

Test hole information, when shown on the plans or included in the specifications, shall only represent subsurface characteristics to the extent indicated, and only for the point location of the test hole.

Each bidder shall make his own interpretation of the character and condition of the materials that will be encountered between test hole locations. Each prospective Bidder may, at his own expense, make additional surveys and investigations as he may deem necessary to determine conditions which will affect performance of the work.

600.4.2 – SEWER GRADES

General - The grade line shown on the plans is the elevation of the invert or flow line of the sewer. The sewer grade shall be established by use of laser beam, or other methods approved by the Engineer.

Laser Beams - When laser beams are used to establish line and grade, they shall first be calibrated in accordance with the equipment manufacturers recommended procedures. The Contractor shall establish horizontal and vertical controls (offset stakes) with a transit or theodolite or any other equipment approved by the Engineer. The Contractor may then proceed to establish line and grade using the laser equipment. In conjunction with the laser beam, the Contractor may also be required to provide temporary benchmarks at intervals as specified by the Engineer.

600.4.3 – STOPPERS OR BULKHEADS

Dead ends of all sewer mains, wyes, tees, etc., shall be closed with approved stoppers securely cemented in place. When shown on the plans or required by the Engineer, such openings shall be tightly walled up with brick masonry or concrete. Tight fitting stoppers or bulkheads shall be securely placed in or across the end of all sanitary sewer lines when construction is stopped at the end of each day's work or for any other cause. When work is stopped temporarily on sanitary sewer mains twenty-four (24) inches in diameter and smaller, the exposed end of the pipe shall be closed to prevent trash or debris from entering the pipe. Such stoppers need not be watertight.

600.4.4 – SURFACE DRAINAGE STRUCTURES

When not called for on the plans or specified as separate bid item, all surface drainage structures and appurtenances shall be removed and replaced in a condition equal to or better than the original installation when required. No additional compensation shall be made for this work, and the cost of same shall be included in the other pay items.

600.4.5 – TEMPORARY SEWER AND DRAIN CONNECTIONS

When existing sewer mains have to be taken up or removed, the Contractor at his own expense, shall provide and maintain temporary outlets and connections for all private or public drains, sewer mains or sewer inlets. He shall also take care of all sewage and drainage which will be received from these drains, sewer mains and sewer inlets; and for this purpose he shall provide and maintain at his own expense, adequate pumping facilities and temporary outlets or diversions. He shall construct such trough, pipe or other structures necessary and be prepared at all times to dispose of drainage and sewage received from these temporary connections until such time as the permanent connections are built and in service. The existing sewer mains and connections shall be kept in service and maintained under the contract, save where specified or ordered to be abandoned by the Engineer. All water or sewage shall be disposed of in a satisfactory manner so that no nuisance is created and that the work under construction will be adequately protected.

600.4.6 – CLEANUP

After installation of each section of sewer line, the Contractor shall remove all spoils resulting from work, debris, construction materials and equipment from the site of work, grade, and smooth over surfaces on both sides of the line, and leave the right-of-way in a clean, neat, and serviceable condition prior to placement of permanent erosion control.

SECTION 610 - PIPE INSTALLATION

610.1 - DESCRIPTION

This section covers installation of pipes in open-cuts, in conformity with the lines, grades, and dimensions and as provided in applicable sections of these specifications.

610.2 – PIPE MATERIALS

610.2.1 – PIPE

Acceptable pipe materials and fittings shall meet the requirements of the appropriate sections listed below:

Pipe Type	Pipe Material	Section
Rigid	Vitrified Clay Pipe (VCP)	649
Flexible	Ductile-Iron Pipe (DIP)	650
	Polyvinyl Chloride (PVC) Pipe	652

610.2.2 - EMBEDMENT MATERIAL

General - Embedment material shall be 3/8-inch limestone screenings, or approved equivalent. Prior to delivery, the Contractor shall submit laboratory tests for materials to be used for embedment. Approval shall be issued by the Engineer prior to placement.

Invoices - The Contractor shall submit invoices for the purpose of complying with the minimum quantities necessary to complete installation pursuant to the appropriate standard details and the minimum dimensions specified.

610.4 - CONSTRUCTION METHODS

610.4.1 - BEDDING

Rigid Pipes - All rigid pipes shall be bedded a minimum of six (6) inches below the bottom of the pipe to the springline of the pipe (half the pipe diameter).

Flexible Pipes - All flexible pipes shall be bedded a minimum of six (6) inches below the bottom of the pipe to a minimum of six (6) inches above the top of the pipe.

610.4.2 - INSTALLATION REQUIREMENTS

Shipping, Handling and Storage - Pipe shall be transported from the plant, where it is manufactured, to the job site employing special methods of packaging to prevent damage to the pipe. After the pipe is received at the job site, it shall be carefully inspected for any damage that may have occurred in transit. The pipe shall be handled at all times with care using padded slings or hooks. The pipe shall not be dropped, skidded or rolled against pipe already on the ground. If any damage occurs to pipe, the pipe shall be rejected. All pipe and accessories shall be stored on flat, level ground with no rocks or other objects under the pipe. Gaskets for push-on joints and pipe shall be stored in cool location out of direct sunlight in accordance with the manufacturer's recommendations.

Quality of Work - Watertight joints, first grade material and accurate construction shall be required. Furthermore, utmost care shall be exercised in laying pipe to line and grade, constructing inverts in manholes, transitions, drop manhole connections and etc.

Pipe Foundation - No sewer shall be laid unless the foundation is in a condition satisfactory to the Engineer. Where trenches are excavated in soft, unsuitable soil, or rock, the trench bottom shall be stabilized as approved by the Engineer.

Laying Requirements - All pipes, specials, fittings and other appurtenances shall be examined carefully for damage and other defects before installation. The City retains the right to reject damaged and defective materials.

The pipe ends shall be free of all lumps, blisters and they shall be wiped clean of foreign materials such as dirt and sand before installation.

Pipe laying shall proceed upgrade, starting at the lower end of the grade and with the bells uphill, using laser beams or other methods approved by the Engineer.

Bell holes for bell-and-spigot pipe shall be excavated at proper intervals so that the barrel of the pipe will rest for its entire length upon the bottom of the trench. Bell holes shall be large enough to permit proper installation of pipe. Bell holes shall not be excavated more than ten (10) joints ahead of pipe laying. Filling and ramming earth or other material beneath the pipe to raise it to grade shall not be permitted.

The Contractor shall use every precaution at all times during construction of the pipeline. All pipe, specials, fittings, and other appurtenances shall be lowered carefully into the trench with suitable equipment, to prevent damage to the sewer main materials. In rock trenches, plywood shields or other approved means shall be used to prevent the cradled pipe from swinging against the sides of the trench.

All joint preparation and joining operations shall comply with the instructions and recommendations of the pipe manufacturer and meet the joint requirements in the appropriate material section. For reinforced concrete pipe the position of the rubber gasket shall be checked with a feeler after each joint is completed. Rubber gaskets shall be positioned on the joint in accordance with the manufacturer's recommendations. Immediately before joints are pushed together, all joint surfaces shall be coated with the lubricant furnished with the pipe.

Any damage to the pipe, from any cause during installation of the pipeline shall be cause for replacement, as directed by the Engineer, and at the expense of the Contractor.

610.4.3 BACKFILLING

After a section of pipe is properly installed and approved for backfill, the trench shall be backfilled and compacted in accordance with the following.

A) Description - Backfill is that portion of the total trench from the top of the pipe embedment material to the top of natural or proposed ground line. The backfill material shall be only material approved by the Engineer consisting of loose earth, free of clods, stones, organic matter, debris or other objectionable materials. All backfilling shall be done in such a manner so as not to disturb or injure the pipe or structures over or against which it is being placed. Damaging or moving any pipe or structure from its proper line or grade during backfilling operations shall be cause for excavating, repairing and replacing backfill in a manner approved by the Engineer.

The placing of backfill material shall not begin until approval for so doing has been given by the Engineer, but backfilling about structures or portions of structures shall be done immediately when so ordered by the Engineer. The top surface or slopes of all backfill shall be neatly graded off where select topsoil, sod or other material is removed and piled separately; such material shall be carefully replaced in a manner satisfactory to the Engineer. The top twelve inches (12") of backfill material shall be of as good quality as the original topsoil that was removed.

B) Compaction Requirements - All backfill shall be placed and compacted in six inch (6") lifts for hand-tamped equipment and eighteen inch (18") lifts for self-propelled or power-driven equipment to the following minimum percent of Standard Proctor Density or Relative Density as determined by ASTM D-698, "Tests for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures". Cohesive backfill material shall reach the indicated compaction levels at plus or minus ($\pm$) three percent (3%) of optimum moisture content. The lift thickness shall be reduced, if necessary, to meet the compaction requirements specified herein.

General Location	Percent Compaction (%)
Under Traffic Area or Existing Improved Surfaces	95
Urban and Residential areas not under pavement	90
Undeveloped areas	85

610.6 – METHOD OF MEASUREMENT

Payment for "Sanitary Sewer Main" shall be made at the unit price bid per lineal foot of pipe installed for each size. The price established shall be full compensation for all materials including pipe, material, labor, tools, equipment and incidentals necessary to complete this item of work. Payment shall include the cost of trench excavation, backfill AND foundation material, unless noted otherwise.

Measurement for "Sanitary Sewer Main" shall be from station to station through manholes, junction boxes and other small structures.

610.7 - BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

SANITARY SEWER MAIN (SIZE)

L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 611 – SEWER SERVICE CONNECTION

611.1 – DESCRIPTION

This section covers construction of sewer service connections where called for on the plans or as directed by the Engineer.

611.2 – MATERIALS

611.2.1 – PIPE MATERIALS

Acceptable pipe materials and fittings shall meet the requirements of the appropriate sections listed below:

Pipe Type	Pipe Material	Section
Rigid	Vitrified Clay Pipe (VCP)	649
Flexible	* Ductile-Iron Pipe (DIP)	650
	Polyvinyl Chloride (PVC) Pipe	652

* Not to be used for wye branches but for risers only.

611.2.2 – CONNECTION TYPES

The following connection types may be required to make sewer service connections:

External Connections for New Construction

Wye Branches - For new construction there shall be installed wye branches of size and type shown on the plans with a minimum of four inch (4") openings at locations shown on the plans or as designated by the Engineer.

External Connections to Existing Main - Connections to existing main may be accomplished as follows:

Saddles - Connections may be made by excavating to the existing main and cutting a hole using approved equipment and installing a saddle. When existing main has been rehabilitated by a trenchless method of construction, the saddle connection shall be made to the trenchless pipe and/or liner.

Tees - Connections may be made by removing a section of the existing pipe and installing a tee.

Wye Branches - Connections may be made by removing a section of the existing pipe and installing a wye branch.

Fittings, riser, and closure assembly shall be used to make the connection and shall be supplied in a nominal diameter a minimum of four inches (4"). The external connections shall be considered complete when backfilling and subsequent surface restoration is completed.

Internal Connections (Reinstatements) – Shall not be allowed.

611.2.3 – RISER

General - Risers shall be connected to sewer pipe using standard wyes, tees or saddles. No services may be connected to sewer pipe that is twenty-one inches (21") and larger in diameter unless approved by the Engineer. Concrete encasement support and collar shall be required in all cases and constructed in accordance with the following schedule:

Pipe Nominal Size (inches)	Depth of Encasement (feet)	Width of Encasement (feet)	Length of Encasement (feet)
8	1.5	2.2	2.0
10	2.0	2.2	2.0
12	2.0	2.2	2.0
15	2.5	2.6	2.0
18	3.0	3.0	2.5

Riser Construction - Particular care shall be exercised in cutting the sewer pipe so that no damage is done to the pipe and its strength impaired by shattering or cracking of the pipe wall. The end of the fitting shall not protrude beyond the inside surface of the sewer main. The annular space around the fitting shall be completely filled and smoothly finished with concrete, as specified in Section 600.2. The backfill shall be thoroughly compacted under and above the pipe in the main sewer trench and up to at least the top of the concrete riser support. The backfill around the vertical pipe shall be carefully placed and tamped avoiding disturbance of the alignment of the pipe and damage to the joints. The vertical pipe shall be anchored to sewer trench wall with one-fourth inch (1/4") round hairpin bars.

A locator tape, green in color, and stating "CAUTION - SANITARY SEWER RISER PIPE BURIED BELOW" shall be attached to the sanitary sewer riser and extend to a minimum of two feet (2') above ground. The tape shall be three inch (3") width DuraTec as manufactured by THOR Enterprises, Inc. of Sun Prairie, Wisconsin or approved equal.

611.4 – CONSTRUCTION METHODS

General - All work shall be constructed in accordance with the Standard Details. Unless otherwise specified, sanitary sewer connections shall be installed so that a plane through the center of the branch and the centerline of the main sewer shall make an angle of forty-five (45°) degrees with the horizontal. A minimum of one (1) cubic foot of concrete shall be placed around each connection, the cost of which shall be included in other items.

Wye Branches - Sewer Service Connections constructed with wye branches shall include a one-eighth (1/8°) degree bend, elbow, and when required, a closure piece.

Tees - Sewer Service Connections constructed with tees shall include a one-eighth (1/8°) degree bend, and when required, an elbow and a closure piece.

Saddles - Sewer Service Connections constructed with saddles shall include straps, a one-eighth (1/8°) degree bend, and a closure piece.

611.6 – METHOD OF MEASUREMENT

Payment for "Sewer Service Connection" shall be made at the unit price bid for each external connection. The price established shall be full compensation for all material, labor, equipment, trench excavation, backfill, and incidentals necessary to complete this item of work.

Payment for "Riser Pipe" shall be made at the unit price bid per lineal foot of pipe for new sewer construction. The price established shall be full compensation for materials, labor, tools, equipment and incidentals necessary to complete this item of work.

Payment for "Riser Pipe" for replacement and/or rehabilitative sewer construction shall not be made directly, but shall be included in the cost for "Sewer Service Line".

611.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

SEWER SERVICE CONNECTION

EA.

RISER PIPE

L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 612 – SEWER SERVICE LINE

612.1 – DESCRIPTION

This section covers service lines for future or existing connections. The service line shall be installed to a point where an acceptable connection can be made to the existing service if necessary. Pipe shall be supplied in nominal diameter a minimum of four inches (4").

612.2 – MATERIALS

Acceptable pipe materials and fittings shall meet the requirements of the appropriate sections listed below:

Pipe Type	Pipe Material	Section
Rigid	Vitrified Clay Pipe (VCP)	649
Flexible	Ductile-Iron Pipe (DIP)	650
	Polyvinyl Chloride (PVC) Pipe	652

612.4 – CONSTRUCTION METHODS

The installation of a service line includes removing any cap or plug from existing riser, cutting and removing any existing service line, and reconnecting the riser and the existing service line if necessary.

612.6 – METHOD OF MEASUREMENT

Payment for "Sewer Service Line" shall be made at the unit price bid per lineal foot of pipe, including closure piece, and when required, adapters and other fittings. The price established shall be full compensation for all material, labor, tools, equipment and incidentals necessary to complete this item of work.

612.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

SEWER SERVICE LINE

L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 613 - DELETED

SECTION 614 – ABANDONING SEWER MAINS AND MANHOLES

614.1 – DESCRIPTION

Abandoning sewer mains shall include construction of embedment plugs and/or pressure grouting in order to control groundwater infiltration and/or to provide stabilized fill of the interior of the existing pipe. Other methods may be approved by the Engineer.

Embedment plugs shall be placed as near as practical to the nearest manhole on each end of the sewer main segment. The minimum length of embedment plugs shall be ten feet (10'), and shall extend six inches (6") below the bottom and above top of pipe at the accessible end of the pipe. Embedment Plugs shall be made using Controlled Low-Strength Material (CLSM), as specified in Section 701.19 of ODOT Standard Specifications for Highway Construction, 2009 Edition having a minimum twenty-eight (28) day compressive

strength of five hundred pounds per square inch (500 psi).

Pressure grouting: Design grout mix to be pumped through a 2-inch-diameter hose for a distance of 1000 feet, with a minimum pressure at point of placement of 10 psi. The cast density shall be 55 pcf plus or minus 5 pcf. Minimum penetration resistance after 24 hours shall be 100 psi in accordance with ASTM C 403. The minimum compressive strength at 28 days shall be 500 psi in accordance with ASTM C 495. Grout mix shall have less than 1 percent shrinkage by volume.

The application system shall have sufficient gages, monitoring devices and tests to determine the efficiency and effectiveness of the grouting work and to provide a means of accurately determining the amount of grout injected. Contractor shall be prepared to modify the operation should grouting not perform as proposed.

Sewer mains to be abandoned shall first be cleaned by jetting, flushing and/or vacuuming to the satisfaction of the Engineer.

Unless otherwise noted or approved by the Engineer, remove the top two feet of manholes to be abandoned and fill the remaining void with CLSM.

614.2 – MATERIALS

The materials shall meet the requirements listed above.

614.6 – METHOD OF MEASUREMENT

Payment for "Abandoning Sewer" shall be made at the unit price bid per cubic yard. The price established shall be full compensation for furnishing and placing all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

614.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

ABANDONING SEWER

C.Y.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 618 – SEWER FLOW CONTROL

618.1 – DESCRIPTION

This section covers sewer flow control when necessary, to be completed in a manner approved by the Engineer.

618.2 – CONSTRUCTION METHODS

General - The line shall be completely blocked off and plugged and all flows shall be by-passed to the extent necessary or as required by the Engineer. In no event will an unpermitted bypass or overflow of the sanitary sewer system be permitted.

Plugging or Blocking - A sewer line plug shall be inserted into the line upstream of the section being worked. The plug shall be so designed that all or any portion of the sewage can be released.

Pumping and Bypassing - When pumping and bypassing is required the Contractor shall supply the pumps, conduits, and other equipment to divert the flow of sewage around the sewer main segment or manhole in which work is to be performed. The bypass system shall be of sufficient capacity to handle existing flow plus additional flow that may occur during a rainstorm. The Contractor will be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypassing system. If pumping is required on a twenty-four (24) hour basis, engines shall be equipment in a manner to keep noise to a minimum.

Flow Control Precautions - When flow in a sewer line is plugged, blocked, or bypassed; sufficient precautions must be taken to protect the sewer lines from damage that might result from sewer surcharging.

Further, precautions must be taken to insure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewer mains involved. The Contractor shall be liable for damages resulting from sewer surcharge.

618.6 – METHOD OF MEASUREMENT

Payment for "Sewer Flow Control" shall be made at the unit price bid per lump sum. The price established shall include furnishing and operation of pumping and by-passing, labor, tools, and incidentals necessary to complete this item of work.

Plugging or blocking of the sewer flow shall be considered incidental to the work and shall not be considered for payment.

618.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

SEWER FLOW CONTROL	L.S.
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Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 619 – CLEANING SEWER LINE

619.1 – DESCRIPTION

This section covers cleaning of existing sewer lines. The designated sewer manhole sections and the manholes themselves shall be cleaned using mechanical, hydraulically propelled and/or high velocity sewer cleaning equipment. Selection of the equipment shall be based on the condition of the sewer mains at the time the work commences. The equipment shall be capable of removing dirt, roots, sand, rocks, grease, and other materials from the sewer lines.

619.2 – EQUIPMENT

619.2.1 – APPROVAL OF CLEANING EQUIPMENT AND PROCEDURE

The Engineer shall approve the cleaning system and plan for each manhole section. The Contractor shall demonstrate the performance of the proposed cleaning equipment for use on the project. No work shall begin until the Engineer gives such time approval.

619.2.2 – MECHANICALLY POWERED CLEANING EQUIPMENT

Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of three hundred (300) feet of rod. The rod shall be heat-treated (tempered) steel. To ensure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve.

619.2.3 – HYDRAULICALLY PROPELLED CLEANING EQUIPMENT

Hydraulically propelled devices that require a head of water to operate shall utilize a collapsible dam to obtain the head. The dam shall be designed to easily collapse in the event of a sudden surcharge of the line to prevent damage to the sewer, property, etc. Sewer cleaning balls are acceptable for use only in sanitary sewer mains having a diameter of eighteen inches (18") or greater.

The movable dam shall be of equal diameter as the pipe being cleaned and shall provide a flexible scraper around the outer periphery to ensure effective operation.

Whenever possible, flows present in the sewer lines shall be used to provide necessary fluid for hydraulic cleaning devices.

619.2.4 – HIGH-VELOCITY CLEANING EQUIPMENT

All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The

equipment shall have a selection of two (2) or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from fifteen (15°) degrees to forty-five (45°) degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel. Filler piping on the tank shall have an air cap to prevent backflow and contamination of water supply system.

619.4 – CONSTRUCTION METHODS

619.3.1 – CLEANING PRECAUTIONS

Satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Whenever hydraulically propelled cleaning force or any tools which retard the flow of water in the sewer line are used, precautions shall be taken to ensure that the water pressure created does not cause any damage or flooding to public or private property being served by the manhole section involved. Additionally, the Contractor shall not allow the overflow from sanitary sewer mains to enter storm sewer mains.

The Contractor, at no additional cost to the City, and to the satisfaction of the Engineer, shall repair any damage inflicted upon the sewer, regardless of the cleaning method used.

619.4.2 – ROOT AND DEBRIS REMOVAL

All roots shall be removed. Special attention shall be given during the cleaning operation to assure complete removal of roots from the joints. Procedures may include the use of mechanical equipment such as rodding machines, bucket machines and winches using root cutters and porcupines, and equipment such as high-velocity jet cleaners. Chemical root treatment may also be used.

When chemicals are used to aid in the removal of roots, the chemical shall be EPA registered and labeled for use in sewer lines and acceptable to all applicable State and City agencies.

All materials and mixing/application procedures for chemical root treatment shall be consistent with the latest standards, requirements, and recommendations of the manufacturer of the chemical root treatment material used.

All sludge, dirt, sand, rocks, grease, and other solid or semi-solid material resulting from the cleaning operation shall be removed at the downstream manhole of the section being cleaned. Passing of debris from manhole to manhole shall not be permitted.

When hydraulic cleaning equipment is used, a suitable sand trap, weir, or dam shall be constructed in the downstream manhole in such a manner that the solids shall be trapped.

All solids or semi-solids resulting from the cleaning operations shall be removed from the site and disposed of at no additional cost to the City. The City shall provide a dumpsite for all debris removed from the sewer mains during the cleaning operation.

Under no circumstances shall sewage or solids removed therefrom be dumped onto streets or into ditches, catch basins, storm drains, or sanitary sewer manholes.

619.5 – TESTING (CLEANING AND FINAL ACCEPTANCE)

Acceptance of sewer line cleaning shall be made upon the successful completion of the television inspection and shall be to the satisfaction of the Engineer. If television inspection shows the cleaning to be unsatisfactory, the Contractor shall be required to clean and inspect the sewer line again until the cleaning is shown to be satisfactory.

619.6 – METHOD OF MEASUREMENT

Payment for "Cleaning Sewer Line" shall be made at the unit price bid per lineal foot of pipe regardless of size. The price established shall be full compensation for furnishing and operation of all equipment, labor, tools, and incidentals necessary to complete this item of work. No deduction shall be made for manholes.

619.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

CLEANING SEWER LINE

L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 620 – BORING

620.01 – DESCRIPTION

This section covers furnishing of pipe by boring and casing as shown on the plans or specified.

Boring and casing consists of the initial installation of a steel casing pipe, installed mechanically, and with a suitable assembly designed to produce a smooth, straight shaft at the established line and grade. The pipe is then installed inside the casing pipe pursuant to the Standard Detail for Boring.

620.02 – MATERIALS

For casing pipe materials and submittal requirements, refer to section 654.

620.04 - CONSTRUCTION METHODS

A) General – Where pipe is required to be installed under railroad embankments, highways, streets, or other facilities by boring and casing, construction shall be made in such a manner that will not interfere with the operation of the railroad, street, highway, or other facility, and shall not weaken or damage any embankment or structure. During construction operations, barricades and lights to safeguard traffic and pedestrians shall be furnished and maintained, until such time as the backfill has been completed after which the barricades and lights shall be removed from the site.

The Contractor shall take proper precautions to avoid excavating earth or rock or shattering rock beyond the limits of excavation shown on the plans. All damages caused by the construction to either surface or subsurface structures, shall be repaired or replaced by the Contractor at his own cost and expense.

Suitable pits, shafts, or trenches shall be excavated for the purpose of conducting the boring and casing operations and for placing end joints of the pipe. Wherever end trenches are cut in the sides of the embankment or beyond it, such work shall be sheeted securely and braced in a manner satisfactory to the Engineer to prevent earth caving.

The removal of any obstruction that may be found to conflict with the placing of the pipe shall not be measured for payment nor paid for as a separate contract pay item. The removal of any such obstruction shall be included in the cost of other items.

Once the casing installation has commenced it shall be continued uninterrupted around the clock until the pipe has been installed between the specified limits.

Any pipe damaged during operations shall be removed and replaced by the contractor at his expense. The pits or trenches excavated to facilitate the operations shall be backfilled immediately after the pipe has been installed.

B) Boring Requirements - Work shall comply with the Standard Detail for Boring. The excavation and backfill for pits shall be as outlined in Section 610.

Boring without the concurrent installation of a casing pipe shall not be permitted, unless shown on plans or directed by the Engineer. All joints in casing pipe shall be welded. Casing pipe shall extend through the entire fill and be installed in a manner that shall not disrupt traffic nor damage roadway grade and surface. The introduction of water into the excavation shall be prohibited.

The size of the bored hole shall not exceed the outside diameter of the pipe bell or casing pipe more than one inch (1"). The use of water or other fluids in connection with the boring operation shall only be permitted

when approved by the Engineer.

Nothing contained herein shall be construed as relieving the Contractor from his responsibility for the safety of the work and for all damage to persons and property.

C) Skid Supports

Plastic or rubber skid supports, shall be used and fastened securely to the carrier pipe with steel strapping, cables or clamps. Use of petroleum products shall not be allowed as a lubricant to ease installation. Skid support spacing and position shall be in accordance with the Standard Detail for Boring.

D) Casing Pipe End Seals - Both ends of the casing pipe shall be sealed with a pull-on type EPDM, neoprene or comparable material flexible end seal manufactured for this purpose. End Seals shall be secured with stainless steel straps or clamps.

E) Filling Annular Space - The annular space between the sewer pipe and the steel casing pipe shall not be filled. Sewers under highway crossings shall include annular space vents meeting ODOT requirements.

620.06 – METHOD OF MEASUREMENT

Bored and cased pipe shall be measured by the lineal foot of pipe bored and cased. Payment shall be made at the unit price bid per lineal foot for each size. The price established shall be full compensation for furnishing and placing all materials including steel casing pipe, carrier pipe, grout or concrete, excavation and backfill, sheeting, shoring, bracing and drainage, disposal of all surplus materials, labor, tools, equipment, and incidentals necessary to complete this item of work

620.07 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

(PIPE SIZE) Bored/Cased..... L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 623 – DEFLECTION TEST

623.1 – DESCRIPTION

This section covers deflection tests intended to be performed on all flexible pipe installations.

623.5 – TESTING

All testing shall be observed by the Owner's Representative. The test shall be performed not less than thirty (30) days after backfill has been placed. The maximum allowable deflection shall not exceed five (5%) percent of the pipe's base internal diameter.

A mandrel (go/no-go) device cylindrical in shape shall be hand-pulled by the Contractor through all sewer mains. Any sections of pipe not passing the mandrel test shall be uncovered and the Contractor, at no additional cost to the Owner, shall replace the pipe to the satisfaction of the Engineer. The repaired sections shall be re-tested.

The Engineer shall approve the mandrel and the testing procedures. Proving rings furnished by the Contractor shall be used to verify the mandrel diameter.

623.6 – METHOD OF MEASUREMENT

Payment for "Deflection Test" shall be made at the unit price bid per lump sum for pipes smaller than twenty-four inches (24") and per lineal foot for pipes twenty-four inches (24") and larger in diameter. The price established shall be full compensation for all material, labor, tools, equipment and incidentals necessary to complete this item of work.

623.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

DEFLECTION TEST (< 24") L.S.

DEFLECTION TEST (>= 24") L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 624 – TELEVISION INSPECTION

624.1 – DESCRIPTION

This section covers closed-circuit television (CCTV) inspection of existing sewer lines and rehabilitated and newly constructed sewer lines.

The work shall consist of furnishing all labor, materials, accessories, equipment, tools, transportation, services and technical competence for performing all operations required to professionally execute the internal inspection of sewer mains in strict accordance with these specifications.

Information concerning depths of flow, manhole depths, air quality in the sewer mains, accessibility of manholes, traffic conditions, and other safety considerations are to be the sole responsibility of the Contractor to obtain and to incorporate the necessary provisions into the overall contract price to complete the specified work under the conditions existing in the sewer mains to be inspected.

For large-diameter sewer inspections, the Contractor may be required to submit sample video recordings from recently completed projects demonstrating the picture quality obtained with each available inspection system for pipe diameters twenty-seven inches (27") and larger.

All television testing shall be performed in accordance with guidelines published by the National Association of Sewer Service Companies (NASSCO) and as modified or specified in these specifications.

624.3 – EQUIPMENT

All television cameras used for inspection shall be color units specifically designed and constructed for the method of inspection performed. Camera(s) may be modified by mounting on conventional or floating skids, or rafts, for use in multiple-diameter, sewer line inspection work. Units shall have either automatic or remote focus and iris controls, and the complete system(s) shall be operable in conditions of hundred (100) humidity.

Lighting shall be suitable to allow a clear picture of the entire periphery of the main sewer pipe. For large-diameter twenty-seven inches (27") and larger] pipe, the camera lens shall have not less than a sixty-five (65°) degree viewing angle. A radial viewing camera with a three hundred and sixty (360°) degree vertical rotation and a two hundred and seventy (270°) degree horizontal rotation, or any combination of the two, may be required to properly evaluate the condition of the main sewer and laterals. Lighting shall operate in a manner that allows the viewed object to be illuminated no matter what the angle of the lens. For a radial viewing camera, the lighting shall be built into the unit so that the lamp(s) remains aligned with the lens. A minimum illumination of three (3) lux with a light color in the twenty-two hundred (2200°) to thirty-two hundred (3200°) degree Kelvin range shall be provided. Auxiliary lighting acceptable to the Engineer shall be provided for large diameter pipe. For diameters of sixty inches (60") and greater, a minimum of one million (1,000,000) candlepower lighting in the thirty-two hundred (3200°) degree Kelvin range shall be made available.

The Contractor shall be responsible for having the necessary camera skids, floats, and rafts available to allow for inspection of lines in a manner acceptable to the City under live flow conditions.

In all cases, the complete video system (camera, lens, lighting, cables, monitors and recorders) shall be capable of providing a picture quality acceptable to the Engineer, and if unsatisfactory, equipment shall be removed and no payment shall be made for unsatisfactory inspections.

624.4 – CONSTRUCTION METHODS

624.4.1 – GENERAL

The Contractor shall use one of the following methods individually or in combination, as approved by the Engineer:

Conventional color inspection cameras specifically designed for use in sewer line inspection work, mounted on conventional camera skids or tracks.

Conventional color inspection cameras specifically designed for use in sewer line inspection work, mounted on floating skids or rafts.

Special industrial grade, color-inspection cameras contained in waterproof housings, and mounted on floating skids or rafts

Special industrial grade, color-inspection cameras, either hand held or contained in waterproof housings, and carried manually through the sewer during inspection work.

624.4.2 – PROCEDURE

Pre-work Submittals for Inspection of Large Diameter Pipes - For pipes twenty-seven inches and larger, the Contractor shall submit a listing of actual measured flow depths and times of measurement at a sufficient number of locations to indicate the flow depths that could be expected during inspection work.

A prestart-up meeting shall be scheduled prior to beginning any internal pipe inspection work to review the Contractor's proposed inspection methods for each of the line section groupings. At that time, the Contractor shall have available the necessary flow depth data as well as the overall listing of proposed inspection methods in each area.

Remote Inspections - Remote pipe inspections shall be permitted in cases where conditions are, as determined by the Engineer, to be unsafe or impractical for manual inspections, and where acceptable picture quality can be obtained by the Contractor.

The main sewer shall be cleaned as directed by the Engineer and in accordance with Section 619 of grease, roots and debris that may hinder movement of inspection equipment through the lines. Major line obstructions that require point repairs are excluded.

The maximum flow depth for remote inspection work in pipes twenty-four inches (24") and less is twenty (20%) percent of the pipe diameter.

For large pipe diameters [twenty-seven inches and greater], the maximum flow shall be thirty (30%) percent of the pipe diameter. The contractor may be required to perform inspections during off-peak hours (night inspections) when specifically requested by the Engineer to obtain this flow standard.

No inspections shall be performed where flow depths exceed fifty (50%) percent of pipe diameter without prior approval of the Engineer.

Suspended moisture or fog in pipes shall be cleared with blowers. Filming shall commence only when the ambient temperature above ground is a minimum of forty (40°) degrees Fahrenheit.

CCTV inspection shall be done one manhole section at a time and the flow in the section being inspected shall be suitably controlled as specified in Section 624. The inspection shall proceed from one section to another starting either upstream or downstream and completing in that order for the entire line. When an obstruction prevents the camera from passing through the entire manhole section, the inspection shall be continued from the opposite manhole before proceeding to the next section.

The camera shall be moved through the line at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. The maximum speed of the camera shall not exceed thirty (30) feet per minute. Caution shall be taken to not linger in one spot allowing the heat generated from the unit to ignite roots, debris, etc.

The camera shall be moved through the line by conventional means of manual winches, power winches, television cable, and powered rewinds or other devices, which do not obstruct camera view or interfere

with proper documentation of the sewer conditions. In instances where manual or remote power winches are used to pull the camera through the sewer constant two-way communication shall be set up between the two manholes of the line being inspected.

Accurate and continuous footage readings shall be superimposed on the video recording for each line inspected by remote inspection methods. Also shown shall be the date of inspection and a manhole number designation that corresponds to the field logs for each manhole on the line section inspected.

When specified, a lateral sewer camera shall be employed to inspect up to twenty-five feet (25') of the lateral. The lateral camera launcher shall be brought into position by the main sewer television camera. Lateral sewer mains entering manholes shall be inspected with a mini push camera. Actual footage inspected shall vary depending on the condition of the pipe. Videotapes of laterals may be in black and white, and shall show a view of the lateral connection by the main sewer camera before showing the internal view of the lateral by the launcher.

The Contractor shall provide photographs developed from the television screen of problems revealed by the CCTV camera upon the request of the Engineer, as long as such photographing does not interfere with the Contractor's operations.

Manual (Walk Through) Inspections - Manual inspections shall be required in lines where conditions will allow the Contractor's inspection crew to safely walk through the sewer. In general, lines sixty inch (60") in diameter and larger, and having flow depths of less than twenty (20%) percent of the pipe diameter, shall be manually inspected as directed by the Engineer.

Inspection crews shall consist of two or more people. Blowers and exhaust fans shall be available to provide ventilation for the sewer line being inspected.

Manual pipe inspections shall be conducted in such a manner as to transmit the video signal to an aboveground viewing room to permit the Engineer to watch the inspection work live on a color monitor in the viewing facility. In addition, direct voice communication between the Engineer, the in-pipe inspection personnel, and the recording technician in the aboveground unit shall be maintained at all times during the manual inspection work. Video recording equipment shall also be located above ground in the inspection truck and accurate, continuous footage readings shall be superimposed on the video recording for permanent record. Camcorders shall not be permitted for use as the sole means of obtaining video records.

During manual inspections, the video camera shall be used to look up sidelines and laterals, whenever practical. Conditions noted in these sidelines and laterals shall be noted on the inspection logs and videotapes for the project.

During manual inspections, thirty-five (35mm) millimeter color photographs shall be obtained as instructed by the Engineer or as deemed necessary by the in-pipe technicians to document line conditions.

624.5 – DOCUMENTATION

Television Inspection Logs - Printed location records shall be kept by the Contractor and will clearly show the location in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other points of significance such as locations of building sewer mains, unusual conditions, roots, storm sewer connections, broken pipe, presence of scale and corrosion, and other discernible features will be recorded and a copy of such records shall be supplied to the Engineer. The video audio recording and written report of the condition of each lateral, if inspected, shall be included along with an identification number corresponding to main sewer log and approximate locations of any pipe defects.

If preliminary inspection occurs in conjunction with a rehabilitation or replacement project, no construction activities shall begin without prior review and subsequent approval by the Engineer of the work outlined in the submittals.

During large-diameter pipe inspections, the Contractor shall document in writing observed conditions and comments given about each sewer line. These field logs shall then be reviewed by the Contractor's technical staff, along with reviewing the associated video record, as a means of insuring that no defects or entries are omitted or incorrect, and as a means of gaining a second opinion as to the condition of

each sewer line. Edited field logs shall then be reprinted or typed for use in the final project reports. Detailed, one-page summaries shall also be prepared for each line section inspected, during the data review, presenting the Engineer's synopsis of the general line condition and the relative severity of observed defects. These summaries shall also be included in all field report copies immediately before each associated inspection report. Direct submittal of copies of the field technician's field logs, without this secondary review and summary pages, shall not be acceptable.

Five (5) complete copies of the final project reports shall be submitted to the City within fifteen (15) calendar days of completion of all field activities. One of the five (5) copies shall contain the original photos.

An overall summary narrative shall be provided in the final report describing the overall conditions found in each associated line section grouping and detailed summary tables shall also be compiled showing those lines where major and significant defects were located.

Original recordings, along with the required submittals, shall be forwarded to the Engineer upon completion of the inspection and shall become the property of the City.

Video Audio Recordings - A forward introduction sequence stating the time and date, location or segment number, depth, diameter, and pipe material for each length between manholes shall precede the recording of each line segment. The camera shall progress through the pipe indicating the beginning manhole and destination manhole as it marks the footage continuously. Should there be a need to access the line from the other direction, a new introduction track shall precede the setup, and the footage shall begin at zero.

The camera shall pause as it approaches a service so that the connection between pipe and service may be evaluated. The lens shall then rotate to display the interior of the service. The service inspection should reveal any roots, cracks, or capped risers.

Audio description shall accompany the visual. Operator's comments shall contain verbal verification of footage and condition of each service, and any defects or unusual conditions noted in the main. When television inspection is performed as a part of final examination for acceptance of project, it shall be performed after all the lines have been constructed and within twenty-four hours of conducting deflection test on a line. It shall be continuous and present each segment in the order laid out in the plans (e.g., Line A: station 0+00 to 4+00, station 4+00 to 8+00, Line B: station 0+00 to 3+00, etc.).

All recordings shall be DVD format or a format specified by the Engineer. Each tape shall be professionally labeled showing the Owner's name, project number, project location, the date(s), etc., lines recorded on the tape, and name of the Contractor. If the quality of the recordings is not satisfactory to the Engineer, the lines shall be rerecorded at the Contractor's expense.

Photographs - All photographs taken during manual, walk-through inspections shall be properly mounted and labeled on eight and one half by eleven (8½" x 11") inch paper for inclusion in the final project reports. One (1) copy of the final reports shall contain the original thirty-five (35) millimeter photos, on fully laminated pages, and the remaining requested copies shall contain copier of pages of these photos. The photo pages shall be presented immediately following the inspection report for the line section in which they were taken.

Photographs taken from the monitor for remote television inspections shall also be presented in the same manner as described above.

624.6 – METHOD OF MEASUREMENT

Payment shall be made for pre-construction inspection, when required for construction, and post construction inspection only. Unless separately specified, all other recording and/or photographs requested by the Engineer shall be considered incidental to the project and the cost included in the price for other items.

"Television Inspection" shall be measured along the stations, through manholes, junction boxes and other small structures. Payment for "Television Inspection (CCTV)" shall be made at the unit price bid per lineal foot of pipe regardless of size. The price established shall be full compensation for all

equipment, labor, materials, mobilization, demobilization, reverse setups, recordings, reports, photographs, and incidentals necessary to complete these items of work.

624.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

TELEVISION INSPECTION (CCTV)	L.F.
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Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 625 – SEWER PIPE LEAKAGE TESTING

625.1 – DESCRIPTION

After backfilling has been completed, the Contractor shall conduct leakage tests as approved by the Engineer and shall submit the results of all testing to the Engineer. All tests shall be performed in the presence of the Owner's Representative.

Hydrostatic tests must use a two-foot head. The procedures listed in the *Handbook of PVC Pipe*, Uni-Bell PVC Pipe Association, 2001 may be used for PVC pipe. An air test result must assure a leakage limit equivalent to the hydrostatic test limit.

625.2– TESTING

If at any time the leakage between two adjacent manholes is observed and measured to exceed ten (10) gallons per inch of nominal pipe diameter per mile of sewer per day, the Contractor shall locate the leakage and shall make such repairs as are necessary to reduce the infiltration. The infiltration shall be measured under the direction of the Engineer by use of a weir or other suitable flow rate-measuring device furnished and installed by the Contractor.

For purposes of determining the maximum allowable leakage, manholes shall be considered as sections of pipe having an inside diameter equal to the diameter of the manhole times depth of the manhole.

The Contractor shall provide all necessary piping between the reach to be tested and the source of water supply, together with equipment and materials required for the tests. The methods used and the time of conducting the exfiltration tests shall be subject to the approval of the Engineer.

If the leakage in any reach exceeds the allowable maximum, the Contractor shall locate the leakage and shall make such repairs as are necessary for the pipe to pass testing. The pipe reach shall be retested after the leaks are repaired.

625.3. – METHOD OF MEASUREMENT

Payment for "Sewer Leakage Test" shall be made at the unit price bid per lump sum for pipes smaller than twenty-four inches (24") and per lineal foot for pipes twenty-four inches (24") and larger in diameter. The price established shall be full compensation for all material, labor, tools, equipment and incidentals necessary to complete this item of work.

625.4– BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

SEWER LEAKAGE TEST (SIZE)	L.S. (<24")
SEWER LEAKAGE TEST (SIZE)	L.F. (>=24")

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 626 – SANITARY SEWER MANHOLES

626.1 – DESCRIPTION

This section covers construction of sanitary sewer manholes, zero (0') to six (6') feet deep. Manholes may be constructed of the following types at locations specified or directed by the Engineer:

- A) Precast Reinforced Concrete
- B) Cast-In-Place Non-Reinforced Concrete

626.2 – MATERIALS

626.2.1 – PRECAST REINFORCED CONCRETE MANHOLES

General - This specification covers construction of precast reinforced concrete manhole base sections, riser sections (walls) and appurtenances in accordance with ASTM C-478 Standard Specification for "Precast Reinforced Concrete Manhole Sections" and as modified herein.

Submittals - When requested by the Engineer, the Contractor shall submit the following, but not limited to, for review and approval.

- 1) Concrete cylinder compressive test results as per ASTM C-478.
- 2) Amount and detail layout of steel reinforcement as per ASTM C-478.
- 3) Type "D" Certification for the specified protective coating.
- 4) Daily log of applied protective coating per Part "J".
- 5) Affidavit of compliance with these specifications.

Types - Components of manholes shall be as follows:

- 1) Precast Risers and Grade Rings - Precast risers and grade rings shall be cylindrical type.
- 2) Precast Tops - Precast tops shall be of the following two types:
 - a) Concentric cone
 - b) Eccentric cone
- 3) Precast Base Sections - Base section types shall be as follows:
 - a) Base riser section and separate base slab with Mastic sealer.
 - b) Base riser section with integral floor and preformed socket to accept a rubber ring.

Sizes - The standard internal diameter of a manhole shall be four feet (4').

Dimensions - The manholes shall be constructed pursuant to the appropriate Standard Details for Pre-Cast Manholes.

Materials - All materials for construction of manholes shall be in accordance with Section 6 of ASTM C-478.

Design - Design including concrete properties, reinforcement type and grade, joints, manufacturing and physical requirements shall be in accordance with Section 7 to 10 of ASTM C-478.

Base slabs or floors shall have a minimum riser thickness of six (6") inches for diameters up to and including forty-eight (48") inches.

Manhole Steps and Ladders - Steps and ladders shall not be constructed unless otherwise directed by the Engineer. If called for, they shall conform to Section 13 of ASTM C-478.

Handling - All lifting holes shall be repaired with a mixture of cement and sand grout firmly packed.

Protective Coating - All inside surfaces (walls, bottom, and etc.) of pre-cast concrete manholes shall be shop coated with a total dry film thickness of not less than 8 mils of TNEMEC Series 69 Hi-Build Epoxoline II, or approved equal. The material manufacturer shall furnish an affidavit attesting to the successful use of their material as a lining for applications where sewage conditions are recognized as corrosive or otherwise detrimental to concrete. Coating materials shall be stored, mixed, applied and cured in accordance with guidelines set by the manufacturer.

For every manhole coated as required, a daily log shall be kept indicating the date, weather conditions, size and identification numbers of manholes coated, and number of gallons of coating applied to each manhole. The average number of gallons applied per manhole shall be equal to or exceed the manufacturer's recommended coverage rate for the coating.

Field Testing - When directed by the Engineer, a set of three cylinders, three (3") inches in diameter, shall be cut from randomly selected manholes. Testing shall be performed to verify compliance with the requirements of these specifications. Basis of acceptance for testing shall be in accordance with the appropriate ASTM requirements.

Acceptance - Acceptance of manhole structure shall be based on the conformance and performance of materials required in ASTM C-478, and the Engineer's inspection of the installed product. The assessment shall include, but not be limited to, the Engineer's random plant inspections during production, the quantity and the placement of reinforcement, surface fractures and roughness, and the test results of compressive strength performed on cores and cured cylinders in accordance with Section 7 of ASTM C-497.

626.2.2 – CAST-IN-PLACE NON-REINFORCED CONCRETE MANHOLES

General - This specification covers construction of cast-in-place non-reinforced manholes consisting of plain concrete walls with brick masonry or precast grade ring at the surface and rings and covers (castings), shall be constructed in accordance with the dimensions and requirements of the standard details.

Types - Manholes may be constructed of the following three (3) types, when called for on the plans:

- 1) Concentric Manholes
- 2) Eccentric Manholes
- 3) Offset Manholes

Sizes - The standard manhole size shall be four (4') feet internal diameter.

Dimensions - The manholes shall be constructed pursuant to the appropriate Standard Details Cast-In-Place Concrete Manholes".

Materials - All materials for the construction of cast-in-place manholes shall be in accordance with the Material Specifications.

Protective Coating - Protective coating shall not be required unless otherwise called for on the plans or as directed by the Engineer.

Acceptance - Ready-mix concrete may be accepted on the basis of Type "E" Certification, provided that all applicable requirements are met, and that visual inspection at destination shows the workmanship and condition of the material to be satisfactory.

626.2.3 – MANHOLE INVERT AND BENCH

All loose materials shall be removed prior to shaping the invert. The invert shall be smooth, U-shaped, have a minimum depth of one half (1/2) pipe diameter and be channeled across the floor of the manhole using the materials specified herein to obtain the proper form and shape. The bench shall also be formed and built up with concrete approved by the Engineer. Additionally, all work shall comply with the appropriate "Standard Details for Precast Manholes" and the "Standard Details for Cast-In-Place Concrete Manholes".

For precast manholes, inverts and benches shall be formed and poured in place after manhole base and pipe sections are in place.

Materials used for invert or benches shall not be allowed to enter the sewer line. Finished benches shall be smooth and free of any defects that could cause the accumulation of debris.

626.3.4 – MANHOLE RING AND COVER

General - Cast iron rings, tops, covers, gratings and all cast iron fittings shall be sound, true to form and thickness and neatly finished and shall fit together in a satisfactory manner. Castings shall be clean, uniform and whole, and without blow or sand holes, deposits, hard spots, shrinkage, distortion or any other surface defects which would impair serviceability. Casting surfaces shall be smooth and well cleaned by shot blasting or other approved cleaning method. Plugging or filling of holes or other defects shall not be permitted. Parting fins and pouring gates shall be removed. Sharp edges resulting from fabrication shall be dulled by any acceptable method to ensure safety in handling. Casting shall conform to the requirements of the Standard Specifications for Grey Iron Fittings ASTM A-48, Class "30 B" for rings and "35 B" for covers and the appropriate Standard Details.

All rings and covers shall be accurately and carefully placed. All rings shall be bedded in a substantial layer of mortar, or a flexible ring seal, shall have a full bearing, and shall be set to the exact grade. Unless otherwise shown, the top of covers shall be flush with, or slightly above, the surrounding surface. When each cover is placed in any position on the ring, the side play shall not exceed one-eighth (1/8") inch in any direction. Wording and markings on covers shall be in accordance with the Standard Details.

Rings - Rings shall be manufactured in accordance with the Standard Details.

Covers -

- 1) General - Manhole covers shall be manufactured in accordance with the appropriate Standard Detail. Unless otherwise specified or directed by the Engineer, non-vented manhole covers shall not be used in the streets.
- 2) Coating - When called for on the plans or specified, the underside of all manhole covers shall be given one (1) coat of asphalt varnish after visual inspection and approval on the job site.

626.4 – CONSTRUCTION METHODS

Foundation - Manholes shall be constructed in a dry excavation. A crushed rock foundation mat shall be constructed under the manhole. The mat shall be a minimum of six (6) inches thick.

Backfilling - Backfilling for all manholes shall conform to the requirements of Section 610.

Manhole to Pipe Connection at Inverts - Manhole to pipe connections shall be made pursuant to manufacturer's recommendations and to the Standard Details. In addition, flexible gasket pipe seals shall be required where each pipe enters the wall of manholes. Where possible, the opening for each connecting sewer pipe shall be circular and match the diameter of the pipe. For manholes built over existing lines or for special conditions, horseshoe shaped openings shall be accepted. Flexible gaskets shall be ALoK, or an approved equal. The Engineer prior to construction shall approve the method and materials used for grouting any remaining annular space. Flexible pipe seals may be accepted on the basis of Type "D" Certification and a sample, provided that all applicable requirements are met, and that visual inspection shows the workmanship and condition of the material to be satisfactory. All material furnished under certification shall be tagged, stenciled, stamped or otherwise marked with a lot number, heat number, order number, or other appropriate identification which can be readily recognized and checked against the certification.

Finishing Manhole to Grade - The manhole ring and cover shall be adjusted to grade with concrete grade rings or course(s) of brick masonry.

Mortar shall be ASTM C270 Type M, composed of one volume Portland Cement, one volume of masonry cement and six volumes of sand. All brick shall be laid in a full bed of mortar and all joints shall be shoved joints completely filled with mortar. The joints on the inside face or exposed face of the masonry shall be rubbed full and cut as the brickwork is built up. The masonry shall be built up in level courses, true to line, grade and dimension. Bats shall be used only when necessary to close joints. All brick shall be thoroughly wet down immediately before being placed unless otherwise permitted by the Engineer. All work shall be completed and finished in a careful, workmanlike manner. Old brick masonry shall be thoroughly cleaned and wetted before joining new masonry thereto. Where a mortar coating is required it

shall have the minimum thickness shown on the plans, shall be troweled and re-troweled until a uniform, smooth and impervious surface is obtained.

All pipes that extend through masonry walls shall be tightly sealed in the wall with mortar throughout the circumference of the pipe. The mortar shall be pressed in and troweled off flush with the face of the wall.

626.5 – TESTING

626.5.1 – MANHOLE INSPECTION

After manhole construction has been completed, the manhole shall be visually inspected by the Engineer for acceptability. Visual inspection shall be done to check for leaks, thin spots, honey combs, voids, pinholes and conformance with these specifications.

626.5.2 – MANHOLE TESTING

Manhole testing shall be accomplished in accordance with Section 627.

626.6 – METHOD OF MEASUREMENT

Payment for "Sanitary Sewer Manhole" shall be made at the unit price bid. The price established shall be full compensation for excavation, backfill, crushed rock foundation, inverts and benches, walls and cones, ring and cover, protective coating, outside waterproofing when specified, removal of existing manhole when necessary or specified or called for on the plans, brick masonry or precast grade ring and all labor, materials, tools, equipment and incidentals necessary to complete this item of work.

626.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

SANITARY SEWER MANHOLE

EA.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 627 – MANHOLE TESTING

627.1 – DESCRIPTION

This section covers testing of manholes when called for on the plans or specified. Manholes shall be tested, before acceptance, by either performing exfiltration or vacuum test. The Engineer shall determine which test shall be performed.

627.5 – TESTING

627.5.1 – HYDROSTATIC TESTING

All incoming and outgoing lines (including services) shall be plugged and the manhole filled with water up to the bottom of the manhole ring. If the water loss exceeds the maximum allowable as shown, the manhole shall be considered to have failed the test. The Contractor shall drain, perform the necessary repairs as directed by the Engineer, and then retest the manhole until it passes, all at no additional cost to the City.

Manhole Depth (feet)	Maximum Allowable Water Loss
< 8	One (1") inch over Five (5) minutes
> 8	One-eighth (1/8") inch per vertical Foot of depth over five (5) minutes

627.5.2 – VACUUM TESTING

All incoming and outgoing sewer and service lines shall be plugged, the plugs restrained and the vacuum tester head placed on the manhole ring and sealed. A vacuum of ten inches (10") Hg shall

then be drawn on the manhole and the time measured for the vacuum to drop to nine inches (9") Hg. The time measured shall be not less than 60 seconds.

627.6 – METHOD OF MEASUREMENT

No separate payment will be made for "Manhole Testing".

627.7 – BASIS OF PAYMENT

No separate payment will be made for "Manhole Testing".

SECTION 649 – VITRIFIED CLAY SEWER PIPE (VCP)

649.1 – DESCRIPTION

This section covers vitrified clay pipe and fittings intended to be used for the conveyance of sewage and industrial waste. Pipe may be supplied in sizes ranging from four (4") inches to forty-two (42") inches.

649.2 – MATERIALS

649.2.1 – SUBMITTALS

The Contractor shall submit the following:

- A) Type "A" Certification for pipes and Type "D" Certification for fittings shall be prepared by the manufacturer and shall consist of a certified copy of a report covering tests conducted by an approved laboratory. Tests performed shall be sufficient to determine the conformance of the material to the Standard Specifications. Such tests shall have been conducted on samples obtained from the lot or lots of material in the shipment.
- B) Tests results for Three-Edge Bearing Tests, Hydrostatic Tests, Joint Tests, Joint Leakage, Absorption, and Compressive Strength Tests.
- C) The Contractor shall submit three (3) copies of all submittals requested in this specification.

649.4 – CONSTRUCTION METHODS

649.4.1 – OPEN-CUT CONSTRUCTION

- A) **General** - All vitrified clay pipes and fittings shall be extra strength and conform to the requirements of the appropriate ASTM listed below or as modified herein.
 - 1) ASTM C-700, Standard Specification for "Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.
 - 2) ASTM C-425, Standard Specification for "Compression Joints for Vitrified Clay Pipe and Fittings."
 - 3) ASTM C-12, Standard practice for "Installing Vitrified Clay Pipelines."

Minimum laying lengths shall not be less than five and one-half (5 ½') feet for pipes twelve (12") inches and smaller, and seven and one-half (7 ½') feet for pipes fifteen (15") inches and larger in diameter.

Pre-fabricated joints shall be of a type where the same resilient material is used both on the spigot end and the bell end of the pipe. Other type joints may be approved by the Engineer in writing, and shall similarly conform to the requirements of said ASTM C-425.

- B) **Maximum Depth of Cover** - The maximum depth of cover above top of the pipe shall not exceed the value shown in the table below. The maximum depth of cover for each pipe size is based on AASHTO HS-20 live loading, ordinary clay backfill with $k_{\mu'}$ of 0.130 and a unit weight of one hundred twenty (120 pcf) pounds per cubic foot, a design load safety factor of 1.30, Class "B" Bedding Installation, the maximum trench width, and the minimum required three-edge bearing strength, for each pipe size as specified in ASTM C-700.

TABLE 649.4.1 – Maximum Depth of Cover

Nominal Size (inches)	Minimum Three-Edge Bearing Strength (lb/ft)	Maximum Depth of Cover (feet)
4	2000	25
6	2000	25
8	2200	20
10	2400	18
12	2600	16
15	2900	15

649.6 – METHOD OF MEASUREMENT

Will be measured by the linear foot in place. Payment shall be by the linear foot in place, but not to exceed quantity shown on the plans or called for in the special provisions.

649.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

VITRIFIED CLAY SEWER PIPE (VCP)(SIZE)

L.F

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 650 – DUCTILE IRON PIPE (DIP)

650.1 – DESCRIPTION

This section covers Ductile Iron Pipe (DIP) and fittings intended to be used for conveyance of sewage and industrial waste. Pipes may be supplied in sizes ranging from four (4) to sixty-four (64) inches in diameter.

650.2 – MATERIALS

650.2.1 – SUBMITTALS

The Contractor shall submit the following provided that all applicable requirements are met, and that visual inspection at destination shows the workmanship and condition of the material to be satisfactory.

- A) Type "A" Certification for pipe
- B) Type "D" Certification for elastomeric gasket
- C) Shop drawings of the pipe and joints
- D) Documentation of an ongoing manufacturer's quality control program

All material furnished under certification shall be tagged, stenciled, stamped or otherwise marked with a lot number, heat number, order number, or other appropriate identification which can be readily recognized and checked against the certification.

The Contractor shall submit six (6) copies of all submittals requested in this specification.

650.2.2 – GENERAL, FITTINGS

All ductile iron pipe and fittings shall conform to the requirements of the following ASTM Standards listed below or as modified herein.

- A) ASTM A-746, Standard Specifications for Ductile Iron Gravity Sewer Pipe
- B) AWWA C-111/ANSI A21.11, Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings
- C) AWWA C-150/ANSI A21.60, Thickness Design of Ductile-Iron Pipe

- D) AWWA C-151/ANSI A21.61, Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lines Molds, for Water or Other Liquids
- E) AWWA C-600, Installation of Ductile Iron Water Mains and Their Appurtenances

Pipe shall be provided on nominal lengths of twenty (20') feet. Pipe joints shall be push-on joints and comply with all applicable requirements of AWWA C-111/ANSI A21.11.

650.2.3 – COATING AND LINING

- A) **Exterior Coating** - The exterior of ductile iron pipe, specials and fittings shall be coated with an asphaltic coating in accordance with ASTM A-746, Section 6.1. The coating shall have a minimum thickness of one (1) mil. The finished coating shall be smooth, continuous and strongly adherent to the pipe. Any damage to the outside coating during shipping, storage, handling and installation shall be field repaired with a fresh coating in accordance with the manufacturer's recommendations.
- B) **Interior Lining** - Interior surfaces of pipe and fittings shall be lined with forty (40) mils of Virgin Polyethylene complying with ASTM D-1248 or Madison Polyurethane Lining, Corropipe II TX-5 Minute Number 17115, manufactured by Madison Chemicals, Inc., Canada, or an approved equal. The lining materials shall be compounded with a minimum of two (2%) percent carbon black to resist ultra violet rays.

650.6 – METHOD OF MEASUREMENT

Will be measured by the linear foot in place. Payment shall be by the linear foot in place, but not to exceed quantity shown on the plans or called for in the special provisions.

650.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

DUCTILE IRON PIPE (DIP)(SIZE)

L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 652 – POLYVINYL CHLORIDE (PVC) PIPE

652.1 – DESCRIPTION

This section covers polyvinyl chloride (PVC) pipe and fittings intended to be used for conveyance of sewage and industrial waste.

652.2 – MATERIALS

652.2.1 – SUBMITTALS

Submittals shall be furnished in accordance with Section 650.2.

652.2.2 – SOLID WALL (PVC)

All solid wall PVC pipe and fittings shall conform to the requirements of the appropriate ASTM listed below or as modified herein.

- A) **ASTM D-3034** - Standard Specification for "Type PSM Poly (Vinyl Chloride) (VC) Sewer Pipe and Fittings". Pipe and fittings shall have a minimum stiffness of forty-six (46 psi) pounds per square inch and a minimum SDR of thirty-five (35). Pipe and fittings may be supplied in sizes ranging from four (4") inches to fifteen (15") inches in diameter.

The pipe shall be made of PVC plastic having a cell classification of 12454-B or 12454-C or 12364-C or 13364-B (with minimum tensile modulus of 500,000 psi) as defined in ASTM D- 1784. The fittings shall be made of PVC plastic having a cell classification of 12454-B, 12454- C, or 13343-C as defined in ASTM D-1784.

Elastomeric Gasketed Joints shall be used to provide a watertight seal and shall meet the requirements of ASTM D-3212.

- B) **ASTM F-679** - Standard Specification for "Poly (Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings". Pipe and fittings shall have a minimum stiffness of forty-six (46 psi) pounds per square inch and a minimum SDR of thirty-five (35). Pipe and fittings may be supplied in sizes ranging from eighteen (18") inches to thirty-six (36") inches in diameter.

The pipe and fitting materials shall be made of PVC plastic having a minimum cell classification of 12364-C or 12454-C as defined in ASTM D-1784. Homopolymer PVC compounds must equal or exceed the requirements of the above listed minimum cell classification number.

Integral Bell Gasket Joint shall be used to provide a watertight seal and shall meet the requirements of ASTM D-3212.

- C) **ASTM F789** - Standard Specification for "Type PS-46 Poly (Vinyl Chloride) (PVC) Plastic Gravity Flow Sewer Pipe and Fittings". Pipe and fittings shall have a minimum stiffness of forty-six (46 psi) pounds per square inch. Pipe and fittings may be supplied in sizes ranging from four (4") inches to eighteen (18") inches in diameter.

The pipe shall be made of PVC plastic having a minimum cell classification of 12164-B as defined in ASTM D-1784. The fittings shall be made of PVC plastic having a cell classification of 12454-C or 13343-C as defined in ASTM D-1784.

Elastomeric Gasketed Joints shall be used to provide a watertight seal and shall meet the requirements of ASTM D-3212. Joints shall also be compatible to ASTM D-3034 joint dimensions.

652.2.3 – PROFILE WALL (PVC)

All profile (open or closed) wall PVC pipe and fittings shall conform to the requirements of the appropriate ASTM listed below and modified herein. Regardless of size, open profile wall pipes will be allowed only on sections of pipe when there are no apparent service connections. Otherwise, open profile wall pipe will not be allowed.

- A) **ASTM F-794** - Standard Specification for "Poly (Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter". Pipe and fittings shall have a minimum stiffness of forty-six (46 psi) pounds per square inch. Pipe and fittings may be supplied in sizes ranging from twelve (12") inches to forty-eight (48") inches in diameter.

The pipe and fittings shall be made of PVC plastic having a minimum cell classification of 12454-B or 12364-C as defined in ASTM D-1784.

Gasketed Joint Systems shall be used. The integral bell gasketed joint, coupling or fitting joints shall be designed so that when assembled, the gasket will be compressed radially on the pipe spigot or in the bell to form a watertight seal. The joints shall be designed to comply with and show no leakage when tested in accordance with ASTM D-3212.

The pipe shall be made of PVC plastic having a minimum cell classification 12454-B or 12454-C as defined in ASTM D-1784. The fittings shall be made of PVC plastic having a cell classification of 12464-B, 12464-C, or 13343-C as defined in ASTM D-1784.

Elastomeric Gasketed Joints shall be used to provide watertight seal and shall meet the requirements of ASTM D-3212.

652.6 – METHOD OF MEASUREMENT

Will be measured by the linear foot in place. Payment shall be by the linear foot in place, but not to exceed quantity shown on the plans or called for in the special provisions.

652.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

POLYVINYL CHLORIDE (PVC) (SIZE)

L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.

SECTION 654 – STEEL CASING PIPE

654.1 – DESCRIPTION

This section covers steel pipe intended to be used as a carrier pipe for sanitary sewer aerial crossings or casing pipe for boring and micro and small diameter tunneling installations.

654.2 – MATERIALS

654.2.1 – SUBMITTALS

When requested, the Contractor shall submit the following, provided that all applicable requirements are met, and that visual inspection at destination shows the workmanship and condition of material to be satisfactory.

- A) Type "A" certification for pipe and coating
- B) Shop drawings of pipe, joints and seams
- C) Documentation of manufacturer's on-going quality control program.

654.2.2 – GENERAL

- A) General - Steel pipe shall conform to ASTM A-139, Standard Specification for Electric-Fusion (ARC)-Welded Steel Pipe (NPS 4 and Over). The steel material shall be new, smooth wall, carbon steel, Grade B, with minimum sixty thousand (60,000 psi) pounds per square inch tensile strength, and minimum thirty-five thousand (35,000 psi) pounds per square inch yield strength.

The pipe shall be straight seam pipe, seamless pipe, or spiral weld pipe. For spiral weld pipe, the spiral shall be one hundred (100%) percent welded, and the weld's height over the outside wall surface shall be equal to or less than three-sixteenths (3/16") inch. All steel pipe shall be square cut and shall have a roundness such that the difference between the major and minor outside diameters shall not exceed one (1%) percent of the specified nominal outside diameter or one-fourth (1/4") inch, whichever is less. The outside circumference must be within plus or minus ($\pm$) one (1%) percent of the nominal circumference or within plus or minus ($\pm$) one-half (1/2") inch, which is less. The pipe shall have a maximum allowable straightness deviation in any ten (10') foot length of one-eighth (1/8") inch. Steel pipe joints shall be continuously welded with an approved butt weld. The welds shall attain the full strength of the pipe and shall result in a fully watertight section. The welded joints shall conform to the requirements of AWWA C-206.

B) Boring Installations

- 1) Casing Pipe Size - Steel casing pipe shall have the following suggested inside diameters:

Pipe Nominal Size (inches)	Casing Pipe Inside Diameter (inches)
4	8 to 10
6	10 to 12
8	14 to 16
10	16 to 18
12	18 to 20
15	20 to 22

- 2) Casing Pipe Thickness - Steel casing pipe shall have a minimum wall thickness of 3/8 inch, unless special conditions required by Railroads for railroad crossings apply.

654.2.4 – EXTERIOR PROTECTIVE COATING

Exposed exterior surfaces shall have protective coating, shop applied coal-tar enamel, conforming to the requirements of AWWA C-203. The coating thickness shall be forty (40) mils, applied in two (2) coats.

654.6 – METHOD OF MEASUREMENT

Will be measured by the linear foot in place. Payment shall be by the linear foot in place, but not to exceed quantity shown on the plans or called for in the special provisions.

654.7 – BASIS OF PAYMENT

The items measured as provided above will be paid for at the contract unit price bid:

STEEL CASING PIPE (SIZE)

L.F.

Such payment shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals, and for performing the work in accordance with these specifications.



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Community Development

Agenda Item No. 6.x.

AGENDA ITEM: Discussion, consideration and possible action to approve Ordinance 2023-09 - repealing Chapter 54 Section 102 Sealed surface driveways. (Repealing the zoning code but language moved to Chapter 46)

I. BACKGROUND/DESCRIPTION:

This is a section we have added to chapter 46 so this will just remove it from the zoning code and place it in the development code.

II. RECOMMENDED ACTION:

Approve Ordinance 2023-09 as presented.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Rachel Bernish, Community Development Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Ord. 2023-09 Repealing Chapter 54 Section 102

ORDINANCE NO. 2023-09

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, GRADY COUNTY, STATE OF OKLAHOMA, REPEALING CHICKASHA CODE OF ORDINANCES, CHAPTER 54 SECTION 102 SEALED SURFACE DRIVEWAYS

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF CHICKASHA, STATE OF OKLAHOMA:

SECTION 1. Chickasha City Code of Ordinances; Chapter 54 Section 102 Sealed Surface Driveways is hereby repealed.

SECTION 2. **Severability.** If any section, subsection, sentence, clause, phase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the remaining portions of this ordinance.

SECTION 3. **Effective Date.** This Ordinance shall be in full force and effect 30 days from and after its passage, approval, and publication.

Adopted and approved this 3rd day of January 2023.

Chris Mosley, Mayor

ATTESTED:

Susan McDaniel, City Clerk
(SEAL)



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Public Works

Agenda Item No. 6.y.

AGENDA ITEM: Discussion, consideration, and possible action to accept Easements from the St. Luke's Episcopal Church in order to repair/replace public sidewalks on the property.

I. BACKGROUND/DESCRIPTION:

Sidewalks are in need of replacement/ repair on Kansas Avenue. The City needed easements in order to be to begin this project.

II. RECOMMENDED ACTION:

Accept Easements from St. Luke's Episcopal Church in order for the City to repair/replace public sidewalks on the property.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Jim Crosby, Public Works Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

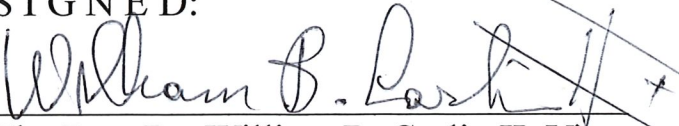
V. ATTACHMENTS:

1. Resolution and Easements - St. Luke's Episcopal Church

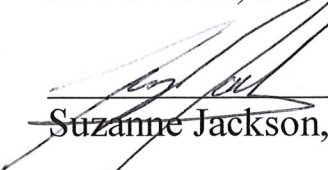
RESOLUTION

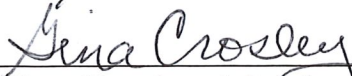
The Bishop's Committee of St. Luke's Episcopal Church, 124 S. 6th Street, Chickasha, Oklahoma, met on Sunday, December 11, 2022. At this meeting, the undersigned members of the Bishop's Committee, said church's governing body, approved granting the requested easement on Kansas Avenue to the City of Chickasha, Oklahoma, for the construction of a new sidewalk that will run in front of the church building.

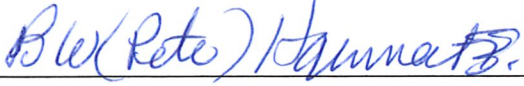
SIGNED:

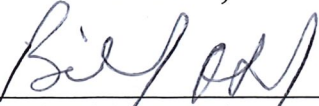

The Rev. Dr. William B. Carlin II, Vicar

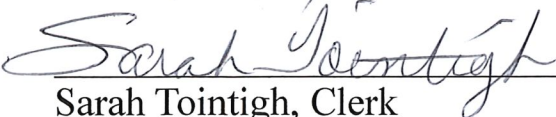

Bob Powell, Senior Warden


Suzanne Jackson, Junior Warden


Gina Crosley, Member-at-Large


Pete Hammert, Member-at-Large


Bill Ohl, Member-at-Large


Sarah Tointigh, Clerk

appeared before me on 12-11-22

Gayle S Chiles, Notary
5-11-24



TEMPORARY EASEMENT

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned, St. Luke Episcopal Church of Oklahoma, an Oklahoma limited liability company, the owner of the legal and equitable title to the following described real estate situated in Chickasha, Grady County, Oklahoma, for and in consideration of the sum of One Dollar (\$1.00), and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, paid by the City of Chickasha, a Municipal Corporation in the State of Oklahoma, does hereby grant and convey unto the City of Chickasha a Temporary Easement through, over and across the following described property situated in Chickasha, Grady County, Oklahoma, to-wit:

A tract of land described as beginning at the Southeast Corner of Lot 26, Block 49, Chickasha OT, Chickasha, Grady County, Oklahoma, according to the recorded plat thereof;

Thence N 0° 02' 12.56" E along the East line of said Lot 26 a distance of 15.00 feet; Thence S 89° 55' 42.25" W a distance of 48.48 feet; Thence S 0° 02' 12.56" E a distance of 15.00 feet to a point on South line of said Lot 26; Thence N 89° 55' 42.25" E, along said South line of said Lot 26, a distance of 48.48 feet to the Point of Beginning. Said tract contains 0.017 acres of land.

For the purpose of permitting the City of Chickasha to construct a public sidewalk, and to use the same and affording the City of Chickasha, its officers, agents and all persons under contract with it, the right to enter upon said premises and strip of land for the purpose of surveying, storing materials and excavating for the construction of such public sidewalk, and for the further purpose of enabling the City of Chickasha to do any and all convenient things incident to such construction of such public sidewalk, together with the right of ingress and egress to said premises and strip of land.

It being further agreed that the City of Chickasha shall upon completion of construction restore said premises and strip of land to a condition as good as in existence upon commencement of construction.

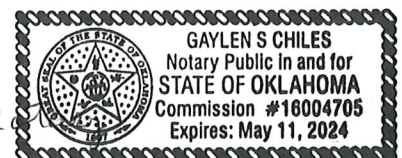
TO HAVE AND TO HOLD said Temporary Easement unto the said City of Chickasha for the purposes herein stated until construction is complete. The temporary easement herein granted to the City of Chickasha shall not be used for any other purpose by said City of Chickasha except as herein provided.

IN WITNESS WHEREOF, We have hereunto set our hands this 11TH day of December, 2022

William B. Port Jr. Vice
for A. Powell / Secretary

appeared before me on 12-11-22

Gayle S. Chiles, Notary
5-11-22



PUBLIC SIDEWALK EASEMENT

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned, St. Luke Episcopal Church of Oklahoma the owners of the legal and equitable title to the following described real estate situated in the City of Chickasha, Grady County, Oklahoma, for and in consideration of the sum of One Dollar (\$1.00), cash in hand paid by the City of Chickasha, Oklahoma, a Municipal Corporation, receipt of which is hereby acknowledged, do hereby grant and convey unto the City of Chickasha, Oklahoma, a Municipal Corporation, a Public Sidewalk Easement through, over and across the following described property situated in the City of Chickasha, Grady County, Oklahoma, to-wit:

A tract of land described as beginning at the Southeast Corner of Lot 26, Block 49, Chickasha OT, Chickasha, Grady County, Oklahoma, according to the recorded plat thereof;

Thence N 44° 57' 48.49" W a distance of 7.48 feet; thence S 89° 55' 42.25" W a distance of 22.40 feet; thence S 45° 02' 12.56" W a distance of 6.09 feet; thence S 89° 55' 42.25" W a distance of 16.12 feet; thence S 0° 34' 14.05" E a distance of 1.00 feet to a point on the South line of said Lot 26; thence N 89° 55' 42.25" E along the South line of said Lot 26 a distance of 48.11 feet to the Point of Beginning; containing 162.42 square feet, or 0.0037 acres, more or less.

For the purpose of permitting the City of Chickasha, Oklahoma, a Municipal Corporation, to construct and maintain a Public Sidewalk across said property, together with all necessary and convenient appurtenances thereto; and to use the same and affording the City of Chickasha, Oklahoma, a Municipal Corporation, its officers, agents and all persons under contract with it, the right to enter upon said premises and strip of land for the purpose of enabling the City of Chickasha, Oklahoma, to do any and all convenient things incident to such construction, operation, repairing and maintaining of such sidewalk.

TO HAVE AND TO HOLD such easement for the purposes herein stated, unto the said City of Chickasha, Oklahoma, a Municipal Corporation, its successors and assigns, a permanent easement. The easement herein granted to the City of Chickasha, Oklahoma, shall not be used for any other purpose by said City of Chickasha, Oklahoma except as herein provided and said easement, nor any part thereof, may not be assigned by the City of Chickasha, Oklahoma, to any private utility company nor shall the City of Chickasha, Oklahoma, grant permission to any private utility company the right to use any portion of said easement.

DATED this 11th day of December, 2022.

William R. Carlin
St. Luke Episcopal Church of Oklahoma
Bob Powell / Senior Warden

STATE OF OKLAHOMA)
COUNTY OF GRADY) ss

On this 11th day of December, 2022, before me, the undersigned, a Notary Public in and for the county and state aforesaid, personally appeared W.B. Carlin & Bob Powell known to be the identical person(s) who executed the foregoing grant of easement and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and seal the day and year last above written.

My Commission Expires:

5-11-24

Gaylen S Chiles
Notary Public



PUBLIC SIDEWALK EASEMENT

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned, St. Luke Episcopal Church of Oklahoma the owners of the legal and equitable title to the following described real estate situated in the City of Chickasha, Grady County, Oklahoma, for and in consideration of the sum of One Dollar (\$1.00), cash in hand paid by the City of Chickasha, Oklahoma, a Municipal Corporation, receipt of which is hereby acknowledged, do hereby grant and convey unto the City of Chickasha, Oklahoma, a Municipal Corporation, a Public Sidewalk Easement through, over and across the following described property situated in the City of Chickasha, Grady County, Oklahoma, to-wit:

Commencing at the Southwest Corner of Lot 26, Block 49, Chickasha OT, Chickasha, Grady County, Oklahoma, according to the recorded plat thereof;

Thence N 89° 55' 42.25" E along the south line of said Lot 26 a distance of 81.82 feet to the Point of Beginning;

Thence N 89° 55' 42.25" E along the south line of said Lot 26 a distance of 16.27 feet; thence N 0° 37' 54.57" E a distance of 1.00 feet; thence S 89° 55' 42.25" W a distance of 16.27 feet; thence S 0° 37' 54.57" W a distance of 1.00 feet to the Point of Beginning; containing 16.27 square feet, more or less.

For the purpose of permitting the City of Chickasha, Oklahoma, a Municipal Corporation, to construct and maintain a Public Sidewalk across said property, together with all necessary and convenient appurtenances thereto; and to use the same and affording the City of Chickasha, Oklahoma, a Municipal Corporation, its officers, agents and all persons under contract with it, the right to enter upon said premises and strip of land for the purpose of enabling the City of Chickasha, Oklahoma, to do any and all convenient things incident to such construction, operation, repairing and maintaining of such sidewalk.

TO HAVE AND TO HOLD such easement for the purposes herein stated, unto the said City of Chickasha, Oklahoma, a Municipal Corporation, its successors and assigns, a permanent easement. The easement herein granted to the City of Chickasha, Oklahoma, shall not be used for any other purpose by said City of Chickasha, Oklahoma except as herein provided and said easement, nor any part thereof, may not be assigned by the City of Chickasha, Oklahoma, to any private utility company nor shall the City of Chickasha, Oklahoma, grant permission to any private utility company the right to use any portion of said easement.

DATED this 11th day of December, 2022.

William B. Carl
St. Luke Episcopal Church of Oklahoma
Bob Powell / Shirley

STATE OF OKLAHOMA)
COUNTY OF Grady) ss

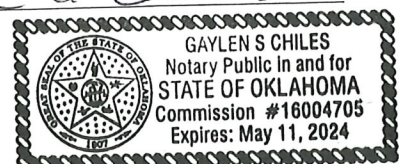
On this 11th day of December, 2022, before me, the undersigned, a Notary Public in and for the county and state aforesaid, personally appeared William B. Carl and Bob Powell known to be the identical person(s) who executed the foregoing grant of easement and acknowledged to me that they executed the same as their free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and seal the day and year last above written.

My Commission Expires:

5-11-24

Gaylen S Chiles
Notary Public





City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Public Works

Agenda Item No. 6.z.

AGENDA ITEM: Discussion, consideration, and possible action to approve and accept a Sanitary Sewer Easement Agreement with Chickasha Travel Plaza, LLC.

I. BACKGROUND/DESCRIPTION:

The Sanitary Sewer Easement Agreement with Chickasha Travel Plaza, LLC is necessary in order to move utilities due to the Bypass project. Grantor has agreed to \$10,000.00 as payment for the easement.

II. RECOMMENDED ACTION:

Approve a Sanitary Sewer Easement Agreement with Chickasha Travel Plaza, LLC.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director: Jim Crosby, Public Works Director	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:

1. Sanitary Sewer Easement Chickasha Travel Plaza, LLC

SANITARY SEWER EASEMENT

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned, Chickasha Travel Plaza, LLC, the owners of the legal and equitable title to the following described real estate situated in the City of Chickasha, Grady County, Oklahoma, as Grantor, for and in consideration of the sum of Ten Thousand and no/100 Dollars (\$10,000.00), cash in hand paid by the City of Chickasha, Oklahoma, a Municipal Corporation, as Grantee, receipt of which is hereby acknowledged, do hereby grant and convey unto the City of Chickasha, Oklahoma, a Municipal Corporation, a Sanitary Sewer Easement through, over and across the following described property situated in the City of Chickasha, Grady County, Oklahoma, to-wit:

Commencing at the Northeast Corner of Lot 1, Block 1, Chickasha Travel Plaza to Chickasha, Grady County, Oklahoma, according to the recorded plat thereof;

Thence S 00°04'06" E a distance of 1321.87 feet; thence S 31°21'00" W a distance of 75.19 feet; thence N 58°30'00" W a distance of 722.60 feet; thence northeasterly along a curve to the left having a radius of 480.00 feet a distance of 36.30 feet to the Point of Beginning;

Thence S 58°55'16.14" E a distance of 213.24 feet to a point, thence N 00°04'06.01" W a distance of 6.89 feet to point, thence N 55°31'53.00" W a distance of 213.67 feet to a point, thence southwesterly along a curve to the right having a radius of 480.00 feet a distance of 18.88 feet to the Point of Beginning; containing 2,581.35 square feet, or 0.059 acres, more or less.

For the purpose of permitting the City of Chickasha, Oklahoma, a Municipal Corporation, to construct and maintain a public Sanitary Sewer under and across said property, together with all necessary and convenient appurtenances thereto; and to use and maintain and re-lay the same and affording the City of Chickasha, Oklahoma, a Municipal Corporation, its officers, agents and all persons under contract with it, the right to enter upon said premises and strip of land for the purpose of enabling the City of Chickasha, Oklahoma, to do any and all convenient things incident to such construction, operation, repairing and maintaining of such sanitary sewer. Grantor shall have the right to make and use a connection to said Sanitary Sewer main in accordance with all applicable regulations.

TO HAVE AND TO HOLD such easement for the purposes herein stated, unto the said City of Chickasha, Oklahoma, a Municipal Corporation, its successors and assigns, a permanent easement. The easement herein granted to the City of Chickasha, Oklahoma, shall not be used for any other purpose by said City of Chickasha, Oklahoma except as herein provided and said easement, nor any part thereof, may not be assigned by the City of Chickasha, Oklahoma, to any private utility company nor shall the City of Chickasha, Oklahoma, grant permission to any private utility company the right to use any portion of said easement.

DATED this _____ day of _____, 20____.

STATE OF _____)
COUNTY OF _____) ss
Chickasha Travel Plaza, LLC

On this _____ day of _____, 20____, before me, the undersigned, a Notary Public in and for the county and state aforesaid, personally appeared Scott Bradford, Manager known to be the identical person(s) who executed the foregoing grant of easement and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and seal the day and year last above written.

My Commission Expires:

Notary Public

CITY OF CHICKASHA PURCHASE REQUEST

DATE: 12/13/2022

DEPT: LINE MAINTENANCE

DELIVER TO: PUBLIC WORKS

☐ open ☒ rec

PO # _____

VENDOR # _____

VENDORS	Vendor # 1 ☐	Vendor # 2 ☐	Vendor # 3 ☐
NAME	CHICKASHA TRAVEL PLAZA LLC		
ADDRESS	2220 OLD HWY 62		
CITY	CHICKASHA		

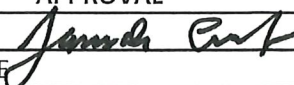
BUDGET BALANCE	ITEM-DESCRIPTION	QTY	TOTAL PRICE VENDOR # 1	TOTAL PRICE VENDOR # 2	TOTAL PRICE VENDOR # 3
	EASEMENT		\$ 10,000.00		
TOTAL			\$ 10,000.00	\$ 0.00	\$ 0.00
CASH DISCOUNT			()	()	()
TOTAL GROSS PRICE			\$ 10,000.00	\$ 0.00	\$ 0.00
TOTAL FREIGHT					
TOTAL			\$ 10,000.00	\$ 0.00	\$ 0.00

DISBURSEMENT
FUND: 52
DEPT: 552
ITEM: 6450-044.2

COMMENTS: q

ALL EXPENDITURES OF MORE THAN \$500 MUST BE SUPPORTED BY VERBAL OR WRITTEN QUOTATIONS, MORE THAN \$1,000 MUST BE SUPPORTED BY FORMAL WRITTEN QUOTATIONS AND MORE THAN \$3,500 MUST BE DONE THROUGH A FORMAL BID PROCESS.
QUOTATIONS MUST BE FROM AT LEAST THREE (3) RESPONSIBLE BIDDERS AND MUST BE ATTACHED.

QUOTATIONS TAKEN BY: (Printed Name/Signature) _____

CIRCLE ONE			APPROVAL	
BID ONLY	RUSH	CONTRACT ONLY	DEPARTMENT HEAD	
QUOTATIONS ONLY	EMERGENCY PURCHASE		DIRECTOR OF FINANCE	
			CITY MANAGER	

10/14/2013



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Administration

Agenda Item No. 7.a.

AGENDA ITEM: Discussion, consideration and possible action to enter into an executive session to discuss confidential communications between the City and City's Attorneys concerning a pending investigation, claim or action which the City with the advice of the City's Attorneys, has determined that disclosure will seriously impair the ability of the City to process the claim or conduct the pending investigation, litigation, or proceeding in the public interest in compliance with its duty of confidentiality under the provisions of 25 O.S. §307B(4). (Chief of Police's Charge of discrimination filed with the Equal Employment Opportunity Commission (EEOC), Charge Number 564-2022-02157, and information resulting from pending investigations)

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

Enter into Executive Session.

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS:



City of
CHICKASHA

Meeting Type: Council Agenda 1-3-2023

Meeting Date: 1/3/2023

Department: Administration

Agenda Item No. 7.b.

AGENDA ITEM: Consideration to reconvene the open meeting and take appropriate action on any matter discussed including possible approval of a resolution of all pending matters involving the Chief of Police including possible approval and execution of a Release and Separation Agreement.

I. BACKGROUND/DESCRIPTION:

II. RECOMMENDED ACTION:

III. FISCAL INFORMATION -

IV. FUND INFORMATION:

Dept. Director:	Fund	Account	Amount
	(To)		
	FUND	ACCOUNT	AMOUNT
Meeting Date: January 3, 2023	(From)		

V. ATTACHMENTS: