NOTICE OF MEETING AND BOARD OF ALDERMEN AGENDA

CITY OF OSAGE BEACH
BOARD OF ALDERMEN MEETING

1000 City Parkway
Osage Beach, MO 65065
573.302.2000
www.osagebeach.org

TENTATIVE AGENDA

REGULAR MEETING

July 18, 2024 - 5:30 PM
CITY HALL

*** **Note:** All cell phones should be turned off or on a silent tone only. If you desire to address the Board, please sign the attendance sheet located at the podium. Agendas are available on the back table in the Council Chambers. Complete meeting packets are available on the City's website at www.osagebeach.org.*

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

CITIZEN'S COMMUNICATIONS

This is a time set aside on the agenda for citizens and visitors to address the Mayor and Board on any topic that is not a public hearing. For those here in person, speakers will be restricted to three minutes unless otherwise permitted. Minutes may not be donated or transferred from one speaker to another.

Any questions or comments for the Mayor and Board may also be sent to the City Clerk at tberreth@osagebeach.org no later than 10:00 AM on the Board's meeting day (the 1st and 3rd Thursday of each month). Submitted questions and comments may be read during the Citizen's Communications section of the agenda.

The Board of Aldermen will not take action on any item not listed on the agenda, nor will it respond to questions, although staff may be directed to respond at a later time. The Mayor and Board of Aldermen welcome and value input and feedback from the public.

Is there anyone here in person who would like to address the Board?

APPROVAL OF CONSENT AGENDA

If the Board desires, the consent agenda may be approved by a single motion.

UNFINISHED BUSINESS

NEW BUSINESS

STAFF COMMUNICATIONS

MAYOR AND MEMBERS OF THE BOARD OF ALDERMEN COMMUNICATIONS

ADJOURN

Remote viewing is available on Facebook at *City of Osage Beach, Missouri* and on YouTube at *City of Osage Beach.*

Representatives of the news media may obtain copies of this notice by contacting the following:

Tara Berreth, City Clerk
1000 City Parkway
Osage Beach, MO 65065
573.302.2000 x 1020

If any member of the public requires a specific accommodation as addressed by the Americans with Disabilities Act, please contact the City Clerk's Office forty-eight (48) hours in advance of the meeting at the above telephone number.

MINUTES OF THE REGULAR MEETING OF THE BOARD OF ALDERMEN OF THE CITY OF OSAGE BEACH, MISSOURI
July 2, 2024

The Board of Aldermen of the City of Osage Beach, Missouri, conducted a Regular Meeting on Thursday, June 20, 2024, at 5:30 PM. The following were present in person: Mayor Michael Harmison, Alderman Phyllis Marose, Alderman Justin Hoffman, Alderman Richard Ross, Alderman Kevin Rucker, Alderman Celeste Barela. Absent Alderman Bob O'Steen. City Clerk Tara Berreth was present and performed the duties for the City Clerk's office.

Appointed and Management staff present City Administrator Jeana Woods, Police Chief Todd Davis, City Attorney Cole Bradbury, Assistant City Administrator Mike Welty, Building Official Ron White, City Planner Cary Patterson, Public Works Operations Manager Zak Wilbur, and Communication Specialist Matt Markivee, City Engineer Drew Bowman, Airport Manager Ty Dinsdale, City Treasurer Karri Bell and Parks and Rec Manager Eric Gregory.

CITIZEN'S COMMUNICATIONS

None

APPROVAL OF CONSENT AGENDA

Alderman Rucker made a motion to approve the consent agenda as presented. This motion was seconded by Alderman Marose. Motion passes unanimously with a voice vote.

UNFINISHED BUSINESS

Bill 24-38 - An ordinance of the City of Osage Beach, Missouri, amending Chapter 705 Waterworks, Article IV, Section 705.300 Rates and Charges. ***Second Reading***

Alderman Barela made a motion to approve the second reading of Bill 24-38. This motion was seconded by Alderman Ross. A roll call was taken to approve the second and final reading of Bill 24-38 and to pass same into ordinance: "Ayes", Alderman Marose, Alderman Hoffman, Alderman Ross, Alderman Rucker, Alderman Barela. Bill 24-38 was passed and approved as Ordinance 24-38. Absent Alderman O'Steen.

Bill 24-39 - An ordinance of the City of Osage Beach, Missouri, amending Chapter 710 Sewers and Sewerage Systems, Article VII User Charge System, Section 710.470 Rate Schedule. ***Second Reading***

Alderman Hoffman made a motion to approve the second reading of Bill 24-39. This motion was seconded by Alderman Rucker. A roll call was taken to approve the second and final reading of Bill 24-39 and to pass same into ordinance: "Ayes", Alderman Marose, Alderman Hoffman, Alderman Ross, Alderman Rucker, Alderman Barela. Bill 24-39 was passed and approved as Ordinance 24-39. Absent Alderman O'Steen.

Bill 24-40 - An ordinance of the City of Osage Beach, Missouri, authorizing the Mayor to execute a service agreement with Gary L. Smith ESQ. for a Municipal Division Judge. ***Second Reading***

Alderman Marose made a motion to approve the second reading of Bill 24-40. This motion was seconded by Alderman Ross. A roll call was taken to approve the second and final reading of Bill 24-40 and to pass same into ordinance: "Ayes", Alderman Marose, Alderman Hoffman, Alderman Ross, Alderman Rucker, Alderman Barela. Bill 24-40 was passed and approved as Ordinance 24-40. Absent Alderman O'Steen.

Bill 24-42 - An ordinance of the City of Osage Beach, Missouri, authorizing the Mayor to sign a contract with CoMo Premium Exteriors for repairs to hangers at the Grand Glaize Airport for an amount not to exceed $54,162.58. ***Second Reading***

Alderman Rucker made a motion to approve the second reading of Bill 24-42. This motion was seconded by Alderman Ross. A roll call was taken to approve the second and final reading of Bill 24-42 and to pass same into ordinance: "Ayes", Alderman Marose, Alderman Hoffman, Alderman Ross, Alderman Rucker, Alderman Barela. Bill 24-42 was passed and approved as Ordinance 24-42. Absent Alderman O'Steen.

NEW BUSINESS

Presentation - City's FY2023 Annual Comprehensive Financial Report (Audit) Hood and Associates CPA, PC - Michael Keenan CPA

Michael Keenan presented the Board with the City's FY2023 Annual Comprehensive Financial Report. The annual audit was clean and found no issues. He thanked Karri Bell and all the staff for all their help in making the audit process a great success.

Bill 24-43 - An ordinance of the City of Osage Beach, Missouri, amending Section 115.110 Vacancies - Interim Appointed Officials; Section 115.185 Temporary Absence Acting City Administrator. ***First Reading***

Alderman Ross made a motion to approve the first reading of Bill 24-43. This motion was seconded by Alderman Marose. Motion passes unanimously with voice vote. Absent Alderman O'Steen.

Bill 24-44 - An ordinance of the City of Osage Beach, Missouri, authorizing the Mayor to sign a contract with Meyer Electric Co. for the Walker Cay Liftstation Project for an amount not to exceed $156,477.00. ***First Reading***

No Motion – Ordinance FAILED

Bill 24-45 - An ordinance of the City of Osage Beach, Missouri, authorizing the Mayor to sign a contract with 1st Choice Septic Plumbing LLC for the Elbow Cay Sewer Main Relocation Project for an amount not to exceed $118,000.49 ***First Reading***

No Motion – Ordinance FAILED

Bill 24-46 - An ordinance of the City of Osage Beach, Missouri, amending Section II Water System, Section III Sewerage System, Section IV Storm Drainage, Section V Roads, Streets and Parking Areas, Section VI Road Cut, Utility Trench & Excavation Permit to the Osage Beach Design Guidelines. ***First Reading***

Alderman Ross made a motion to approve the first reading of Bill 24-46. This motion was seconded by Alderman Rucker. Motion passes unanimously with voice vote. Absent Alderman O'Steen.

Bill 24-47 - An ordinance of the City of Osage Beach, Missouri, amending section 705.250 Meter Installation and Maintenance, section 705.310 Water Fee, and section 710.190 Connection Costs and Liabilities of the Osage Beach City Ordinances to match changes made to the Osage Beach Design Guidelines. ***First Reading***

Alderman Marose made a motion to approve the first reading of Bill 24-47. This motion was seconded by Alderman Barela. Motion passes unanimously with voice vote. Absent Alderman O'Steen.

Motion to the purchase of a new Freightliner 108SD Plus tandem axle dump truck, salt spreader, plow, and accessories from Premier Truck Group for a price not to exceed $219,035, disapproving and replacing all previously approved motions for said budgeted item.

Alderman Rucker made a motion to the purchase of a new Freightliner 108SD Plus tandem axle dump truck, salt spreader, plow, and accessories from Premier Truck Group for a price not to exceed $219,035, disapproving and

replacing all previously approved motions for said budgeted item**.** This motion was seconded by Alderman Ross. Motion passes unanimously with voice vote. Absent Alderman O'Steen.

Motion to proceed with the purchase of 35 Sulzer sewer pumps from Municipal Equipment Company for a price not to exceed $140,883.75 + shipping.

Alderman Rucker made a motion to proceed with the purchase of 35 Sulzer sewer pumps from Municipal Equipment Company for a price not to exceed $140,883.75 + shipping. This motion was seconded by Alderman Hoffman. Motion passes unanimously with voice vote. Absent Alderman O'Steen.

Motion to approve the appointment of Ms. Devin M Lake as City Administrator for the City of Osage Beach, pending Ms. Lake's formal acceptance of the appointment.

Alderman made a motion to approve the appointment of Ms. Devin M Lake as City Administrator for the City of Osage Beach, pending Ms. Lake's formal acceptance of the appointment. This motion was seconded by Alderman Marose. Motion passes unanimously with voice vote. Absent Alderman O'Steen.

STAFF COMMUNICATIONS

Parks and Rec Manager Eric Gregory – the parks staff is busy getting ready for the 4th.

Cochran Engineer Dave VanLeer – Welcome Sign is moving forward, Veterans Bid will go out next week, Water system review is going to be coming very soon.

A. Department Update List - July 2, 2024

MAYOR AND MEMBERS OF THE BOARD OF ALDERMEN COMMUNICATIONS

Alderman Rucker – Guideline evaluations need to be removed from the Department Update list. Please consider putting the generator back on the agenda.

Mayor Harmison asked for a small recess at 6:58 pm

Mayor Harmison ended recess at 7:05pm.

EXECUTIVE SESSION

Notice is given that the agenda includes a roll call vote to close the meeting as allowed by RSMo. Section 610.021 (1) Legal Actions, Causes of Action, or Litigation involving a public governmental body and any confidential or privileged communications between a public governmental body or its representatives and its attorneys.

Alderman Rucker moved to open the Executive Session. Alderman Hoffman seconded the motion. The following roll call vote was taken to open the meeting: "Ayes": Alderman Ross, Alderman Marose, Alderman Hoffman, Alderman Barela, and Alderman Rucker. The meeting was therefore open. Absent Alderman O'Steen.

No announcements were made following the closed session.

Alderman Hoffman moved to close the meeting. Alderman Ross seconded the motion. The following roll call vote was taken to close the meeting: "Ayes": Alderman Ross, Alderman Marose, Alderman Hoffman, Alderman Barela, and Alderman Rucker. The meeting was therefore closed. Absent Alderman O'Steen.

The board had a small discussion on when to schedule an executive session for personnel issues. The meeting will be set for Tuesday, July 9th at 8:30 am.

Alderman Hoffman made a motion to adjourn at 7:31pm. This motion was seconded by Alderman Rucker. Motion passes unanimously with a voice vote.

ADJOURN

There being no further business to come before the Board, the meeting was adjourned at 7:31pm. I, Tara Berreth, City Clerk of the City of Osage Beach, Missouri, do hereby certify that the above foregoing is a true and complete journal of proceedings of the regular meeting of the Board of Aldermen of the City of Osage Beach, Missouri, on July 2, 2024, and approved July 18, 2024.

Tara Berreth/City Clerk

Michael Harmison/Mayor

** All meetings may be viewed on Facebook and YouTube for further details and clarification.

CITY OF OSAGE BEACH
BILLS LIST
July 18, 2024

Bills Paid Prior to Board Meeting	**$**	**431,156.07**
Payroll Paid Prior to Board Meeting	**$**	**170,686.19**
SRF Transfer Prior to Board Meeting		
TIF Transfers		
Bills Pending Board Approval	**$**	**313,309.11**
Total Expenses	**$**	**915,151.37**

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
NON-DEPARTMENTAL	General Fund	MO DEPT OF REVENUE	State Withholding	4,516.00
		INTERNAL REVENUE SERVICE	Fed WH	11,643.23
			FICA	9,492.23
			Medicare	2,219.97
		MISSIONSQUARE RETIREMENT	Loan Repayment	111.88
			Loan Repayment	353.97
			Loan Repayment	69.40
			Loan Repayment	139.12
			Loan Repayment	98.17
			Loan Repayment	153.05
			Loan Repayment	112.29
			Loan Repayment	109.86
			Retirment 457 &	4,850.93
			Retirement 457	2,384.60
			Loan Repayments	157.02
			Loan Repayments	102.82
			Loan Repayments	85.61
			Loan Repayments	205.92
			Loan Repayments	495.14
			Loan Repayments	380.72
			Loan Repayments	38.24
			Retirement Roth IRA	327.00
		OPTUM BANK INC	HSA Contribution	430.83
			HSA Family/Dep. Contributi	2,352.24
		ONE TIME VENDOR	Bond Refund:190049941-01	253.00
			TOTAL:	41,083.24
City Administrator	General Fund	INTERNAL REVENUE SERVICE	FICA	840.95
			Medicare	196.67
		MISSIONSQUARE RETIREMENT	Retirement 401%	334.98
			Retirement 401	837.03
		OPTUM BANK INC	HSA Family/Dep. Contributi	225.00
			TOTAL:	2,434.63
City Clerk	General Fund	INTERNAL REVENUE SERVICE	FICA	208.75
			Medicare	48.82
		MISSIONSQUARE RETIREMENT	Retirement 401%	105.28
			Retirement 401	210.56
		OPTUM BANK INC	HSA Family/Dep. Contributi	112.50
			TOTAL:	685.91
City Treasurer	General Fund	GOVERNMENT FINANCE OFFICERS ASSOCIATIO	GFOA ACFR REVIEW FEE 2023	460.00
		INTERNAL REVENUE SERVICE	FICA	662.28
			Medicare	154.89
		MISSIONSQUARE RETIREMENT	Retirement 401%	329.76
			Retirement 401	659.52
		OPTUM BANK INC	HSA Family/Dep. Contributi	225.00
			TOTAL:	2,491.45
Municipal Court	General Fund	INTERNAL REVENUE SERVICE	FICA	107.98
			Medicare	25.25
		MISSIONSQUARE RETIREMENT	Retirement 401%	54.15
			Retirement 401	108.30
		OPTUM BANK INC	HSA Family/Dep. Contributi	75.00
			TOTAL:	370.68

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
City Attorney	General Fund	INTERNAL REVENUE SERVICE	FICA	379.60
			Medicare	88.78
		MISSIONSQUARE RETIREMENT	Retirement 401%	186.66
			Retirement 401	373.32
		OPTUM BANK INC	HSA Family/Dep. Contributi	75.00
			TOTAL:	1,103.36
Building Inspection	General Fund	INTERNAL REVENUE SERVICE	FICA	636.05
			Medicare	148.76
		MISSIONSQUARE RETIREMENT	Retirement 401%	275.76
			Retirement 401	642.45
		OPTUM BANK INC	HSA Family/Dep. Contributi	300.00
			TOTAL:	2,003.02
Building Maintenance	General Fund	REPUBLIC SERVICES #435	CH WASTE CONTAINER PICKUP	276.41
		INTERNAL REVENUE SERVICE	FICA	63.50
			Medicare	14.85
		SUMMIT NATURAL GAS OF MISSOURI INC	SERVICE 5/15-6/17/24	30.00
		COCHRAN ENGINEERING	BUILDING IMPROV ENG 05/202	632.50
		GFL ENVIRONMENTAL	CITY HALL TRASH SERVICE	175.00
			TOTAL:	1,192.26
Parks	General Fund	REPUBLIC SERVICES #435	PARK WASTE CONTAINER PICKU	147.12
		INTERNAL REVENUE SERVICE	FICA	681.53
			Medicare	159.39
		MISSIONSQUARE RETIREMENT	Retirement 401%	256.51
			Retirement 401	571.89
		AT&T MOBILITY-CELLS	PARK ELECTRIC SIGN 6/12/24	46.23
		COCHRAN ENGINEERING	IRRIGATION ENG 05/2024	1,940.90
			PARK IMPROV ENG 05/2024	1,080.00
		GFL ENVIRONMENTAL	PARKS TRASH SERVICE	200.00
		OPTUM BANK INC	HSA Contribution	150.00
			TOTAL:	5,233.57
Human Resources	General Fund	INTERNAL REVENUE SERVICE	FICA	226.81
			Medicare	53.04
		MISSIONSQUARE RETIREMENT	Retirement 401%	111.63
			Retirement 401	223.25
		CAPITAL ONE, N.A.	ICE CREAM FOR PUBLIC WORKS	48.48
		OPTUM BANK INC	HSA Contribution	37.50
			HSA Family/Dep. Contributi	37.50
			TOTAL:	738.21
Overhead	General Fund	LEWIS & ELLIS INC	2023 GASB 75 VALUATION	2,300.00
			TOTAL:	2,300.00
Police	General Fund	INTERNAL REVENUE SERVICE	FICA	3,985.89
			Medicare	932.18
		MISSIONSQUARE RETIREMENT	Retirement 401%	1,796.68
			Retirement 401	3,969.16
		CAPITAL ONE, N.A.	CHARCOAL	43.68
		OPTUM BANK INC	HSA Contribution	262.50
			HSA Family/Dep. Contributi	1,050.00
			TOTAL:	12,040.09
911 Center	General Fund	INTERNAL REVENUE SERVICE	FICA	892.97

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
			Medicare	208.85
		MISSIONSQUARE RETIREMENT	Retirement 401%	262.24
			Retirement 401	711.13
		OPTUM BANK INC	HSA Contribution	112.50
			HSA Family/Dep. Contributi	75.00
			TOTAL:	2,262.69
Planning	General Fund	INTERNAL REVENUE SERVICE	FICA	214.82
			Medicare	50.24
		MISSIONSQUARE RETIREMENT	Retirement 401%	107.45
			Retirement 401	214.90
		OPTUM BANK INC	HSA Family/Dep. Contributi	75.00
			TOTAL:	662.41
Engineering	General Fund	INTERNAL REVENUE SERVICE	FICA	259.92
			Medicare	60.79
		COCHRAN ENGINEERING	GENERAL ENG 05/2024	19,125.00
			TOTAL:	19,445.71
Information Technology	General Fund	INTERNAL REVENUE SERVICE	FICA	331.18
			Medicare	77.46
		MISSIONSQUARE RETIREMENT	Retirement 401%	107.48
			Retirement 401	327.06
		OPTUM BANK INC	HSA Family/Dep. Contributi	75.00
			TOTAL:	918.18
NON-DEPARTMENTAL	Transportation	MO DEPT OF REVENUE	State Withholding	398.50
		INTERNAL REVENUE SERVICE	Fed WH	776.07
			FICA	878.29
			Medicare	205.42
		MISSIONSQUARE RETIREMENT	Retirment 457 &	504.72
			Retirement 457	34.00
		OPTUM BANK INC	HSA Contribution	12.16
			HSA Family/Dep. Contributi	67.08
			TOTAL:	2,876.24
Transportation	Transportation	REPUBLIC SERVICES #435	TRANS WASTE CONTAINER PICK	20.21
		INTERNAL REVENUE SERVICE	FICA	878.29
			Medicare	205.43
		MISSIONSQUARE RETIREMENT	Retirement 401%	278.55
			Retirement 401	750.71
		SCOTTS CONCRETE	CONCRETE DISCOUNT CREDITS	1,987.79-
			CONCRETE FOR CULVERT	2,496.00
		AMEREN MISSOURI	5757 CHAPEL SVC 5/14-6/13/	268.08
		AMEREN MISSOURI	792 PASSOVER LTS 5/13-6/12	16.39
			1095 MACE RD LTS 5/13-6/12	26.97
			1075 NICHOLS LTS 5/14-6/13	44.14
			872 PASSOVER LTS 5/13-6/12	20.25
			MACE RD RNDABT 5/13-6/12/2	15.36
		LONG IV, ROBERT W	MILEAGE REIMB 6/30/24	15.00
		COCHRAN ENGINEERING	STREETS MISC ENG 05/2024	11,514.00
		CAPITAL ONE, N.A.	CLEANER FOR PAINT SPRAYER	27.72
			WATER	13.26
			GATORADE	56.58
			WATER & PROPEL	58.56
			WTR,PROPEL,KETCHUP,MUSTARD	28.36

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
			WATER & PROPEL	51.92
		ANDERSON ENGINEERING INC	PARKWAY EXT ENGINEERING	2,250.76
		GFL ENVIRONMENTAL	TRANS TRASH SERVICE	58.33
		OPTUM BANK INC	HSA Contribution	12.15
			HSA Family/Dep. Contributi	400.50
		SULLIVAN, JAMES	REIMB CDL- J. SULLIVAN	41.87
		SPRINGFIELD SIGN & GRAPHICS, INC.	OSAGE BEACH WELCOME SIGN	28,887.75
			TOTAL:	46,449.35
NON-DEPARTMENTAL	Water Fund	MO DEPT OF REVENUE	State Withholding	450.34
		INTERNAL REVENUE SERVICE	Fed WH	1,221.39
			FICA	866.07
			Medicare	202.55
		MISSIONSQUARE RETIREMENT	Retirment 457 &	704.87
			Retirement 457	33.00
		OPTUM BANK INC	HSA Contribution	121.84
			HSA Family/Dep. Contributi	80.62
			TOTAL:	3,680.68
Water	Water Fund	REPUBLIC SERVICES #435	WATER WASTE CONTAINER PICK	20.21
		GOEHRI, GEORGE	JULY INSURANCE PREMIUM	71.70
		INTERNAL REVENUE SERVICE	FICA	866.07
			Medicare	202.56
		POSTMASTER	JULY UTILITY BILL POSTAGE	600.00
		MISSIONSQUARE RETIREMENT	Retirement 401%	431.84
			Retirement 401	863.66
		AMEREN MISSOURI	5757 CHAPEL SVC 5/14-6/13/	268.07
		COCHRAN ENGINEERING	PROFESSIONAL SVC ENG 05/20	2,302.50
			CONNECTING WTR ENG 05/2024	2,931.84
			TWR & WELL IMPROV ENG 05/2	3,655.00
		CAPITAL ONE, N.A.	WATER	13.25
			GATORADE	56.57
			WATER & PROPEL	58.56
			WTR,PROPEL,KETCHUP,MUSTARD	28.37
			WATER & PROPEL	51.92
		GFL ENVIRONMENTAL	WATER TRASH SERVICE	58.33
		OPTUM BANK INC	HSA Contribution	88.19
			HSA Family/Dep. Contributi	249.75
			TOTAL:	12,818.39
NON-DEPARTMENTAL	Sewer Fund	FAMILY SUPPORT PAYMENT CENTER	Case #21281919	300.00
		MO DEPT OF REVENUE	State Withholding	663.16
		INTERNAL REVENUE SERVICE	Fed WH	1,566.14
			FICA	1,435.27
			Medicare	335.68
		MISSIONSQUARE RETIREMENT	Retirment 457 &	732.14
			Retirement 457	33.00
		OPTUM BANK INC	HSA Contribution	137.15
			HSA Family/Dep. Contributi	396.88
			TOTAL:	5,599.42
Sewer	Sewer Fund	REPUBLIC SERVICES #435	SEWER WASTE CONTAINER PICK	20.21
		INTERNAL REVENUE SERVICE	FICA	1,435.27
			Medicare	335.66
		POSTMASTER	JULY UTILITY BILL POSTAGE	600.00
		MISSIONSQUARE RETIREMENT	Retirement 401%	489.50

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
			Retirement 401	1,423.07
		STOCKMAN CONSTRUCTION CORP	SANDS GRAVITY SWR REPLACEM	58,644.77
			SANDS GRAVITY SWR REPLACEM	92,765.60
			SANDS GRAVITY SWR REPLACEM	56,672.25
		AMEREN MISSOURI	GRINDER PUMPS & LIFT STATI	3,312.03
			5757 CHAPEL SVC 5/14-6/13/	268.08
			GRINDER PUMPS & LIFT STATI	7,593.97
			GRINDER PUMPS & LIFT STATI	3,924.70
			GRINDER PUMPS & LIFT STATI	6,938.38
		COCHRAN ENGINEERING	REPAIR TO SYSTM ENG 05/202	6,757.50
			LIFT STN IMPROV ENG 05/202	4,528.30
			TTA ESTATES REHAB 05/2024	2,110.00
		MENARDS COMMERCIAL	TIMBERLINE BREAKERS	33.72
		CAPITAL ONE, N.A.	WATER	13.25
			GATORADE	56.57
			WATER & PROPEL	58.56
			WTR,PROPEL,KETCHUP,MUSTARD	28.37
			WATER & PROPEL	51.92
		GFL ENVIRONMENTAL	SEWER TRASH SERVICE	58.34
		OPTUM BANK INC	HSA Contribution	162.16
			HSA Family/Dep. Contributi	399.75
		BOMGAARS SUPPLY INC	WORK BOOTS- J. VERSTEEG	99.99
			BLADES	59.97
			TOTAL:	248,841.89
NON-DEPARTMENTAL	Ambulance Fund	MO DEPT OF REVENUE	State Withholding	426.00
		INTERNAL REVENUE SERVICE	Fed WH	1,186.45
			FICA	1,077.59
			Medicare	252.02
		MISSIONSQUARE RETIREMENT	Loan Repayment	156.06
			Loan Repayment	60.66
			Loan Repayment	43.54
			Loan Repayment	88.93
			Loan Repayment	45.57
			Retirment 457 &	202.49
			Loan Repayments	188.62
		OPTUM BANK INC	HSA Contribution	8.33
			HSA Family/Dep. Contributi	245.82
			TOTAL:	3,982.08
Ambulance	Ambulance Fund	INTERNAL REVENUE SERVICE	FICA	1,077.59
			Medicare	252.02
		MISSIONSQUARE RETIREMENT	Retirement 401%	202.49
			Retirement 401	811.51
		OPTUM BANK INC	HSA Contribution	37.50
			HSA Family/Dep. Contributi	225.00
			TOTAL:	2,606.11
NON-DEPARTMENTAL	Lee C. Fine Airpor	MO DEPT OF REVENUE	State Withholding	277.20
		INTERNAL REVENUE SERVICE	Fed WH	552.64
			FICA	526.61
			Medicare	123.16
		MISSIONSQUARE RETIREMENT	Retirment 457 &	31.99
			Retirement 457	90.00
			Loan Repayments	30.39
			Loan Repayments	37.15

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
		OPTUM BANK INC	HSA Contribution	57.50
			HSA Family/Dep. Contributi	153.33
			TOTAL:	1,879.97
Lee C. Fine Airport	Lee C. Fine Airpor	REPUBLIC SERVICES #435	LCF WASTE CONTAINER PICKUP	138.20
		INTERNAL REVENUE SERVICE	FICA	526.61
			Medicare	123.16
		MISSIONSQUARE RETIREMENT	Retirement 401%	91.88
			Retirement 401	499.99
		DISH NETWORK	SERV 6/29-7/28/24	94.86
		LAKE AREA DIESEL SERVICE INC	LCF JET FUEL TRUCK REPAIR	3,436.66
		CAPITAL ONE, N.A.	ICE	22.56
			SUNSCREEN & IBUPROFEN	25.08
			HAND SOAP	5.94
			COFFEE & CREAMER	37.04
		GFL ENVIRONMENTAL	LCF TRASH SERVICE	80.00
		OPTUM BANK INC	HSA Contribution	75.00
			HSA Family/Dep. Contributi	195.00
			TOTAL:	5,351.98
NON-DEPARTMENTAL	Grand Glaize Airpo	MO DEPT OF REVENUE	State Withholding	88.80
		INTERNAL REVENUE SERVICE	Fed WH	336.33
			FICA	300.87
			Medicare	70.36
		MISSIONSQUARE RETIREMENT	Retirment 457 &	15.38
			Retirement 457	60.00
		OPTUM BANK INC	HSA Family/Dep. Contributi	55.00
			TOTAL:	926.74
Grand Glaize Airport	Grand Glaize Airpo	REPUBLIC SERVICES #435	GG WASTE CONTAINER PICKUP	138.19
		INTERNAL REVENUE SERVICE	FICA	300.87
			Medicare	70.36
		MISSIONSQUARE RETIREMENT	Retirement 401%	55.31
			Retirement 401	278.27
		CHARTER COMMUNICATIONS HOLDING CO LLC	GG CABLE SVC 6/16-7/15/24	120.31
		CAPITAL ONE, N.A.	SUNSCREEN & IBUPROFEN	25.08
			HAND SOAP	5.94
			COFFEE & CREAMER	26.48
		GFL ENVIRONMENTAL	GG TRASH SERVICE	52.00
		OPTUM BANK INC	HSA Family/Dep. Contributi	105.00
			TOTAL:	1,177.81

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT

========== FUND TOTALS ==========		
10	General Fund	94,965.41
20	Transportation	49,325.59
30	Water Fund	16,499.07
35	Sewer Fund	254,441.31
40	Ambulance Fund	6,588.19
45	Lee C. Fine Airport Fund	7,231.95
47	Grand Glaize Airport Fund	2,104.55
	GRAND TOTAL:	431,156.07

TOTAL PAGES: 7

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
NON-DEPARTMENTAL	General Fund	LAKE SUN LEADER 81525 & 1586450	SURPLUS AUCTION	18.20
			TOTAL:	18.20
City Clerk	General Fund	STAPLES BUSINESS ADVANTAGE	APPROVED & RECEIVED STAMPS	25.71
			TOTAL:	25.71
City Treasurer	General Fund	STAPLES BUSINESS ADVANTAGE	BLACK TONER	96.40
			TOTAL:	96.40
Building Maintenance	General Fund	AMERICAN STAMP & MARKING PRODUCTS INC	NAMEPLATE- A. BOWMAN	27.09
		ATR LIGHTING ENTERPRISES INC	LIGHT BULBS	93.80
		CINTAS CORPORATION	CH FLOOR MATS	113.18
		STAPLES BUSINESS ADVANTAGE	COFFEE	35.05
			TOILET PAPER	87.51
			TRASH BAGS & BATHROOM TOWE	174.88
		LINDYSPRING LAKE OF THE OZARKS	JULY WTR COOLER RENTAL & W	61.85
			5-GAL BOTTLED WATER	7.95
			5-GAL BOTTLED WATER	7.95
			TOTAL:	609.26
Parks	General Fund	ADVANCED TURF SOLUTIONS INC	INFIELD CONDITIONER	1,041.00
		DULLE OVERHEAD DOORS INC	PARKS GARAGE DOOR REPAIRS	150.00
		AMAZON CAPITAL SERVICES INC	LIQUID SOAP	138.73
			TOTAL:	1,329.73
Human Resources	General Fund	PSYCHOLOGICAL RESOURCES	PSYCHOLOGICAL EVALUATIONS	300.00
			TOTAL:	300.00
Overhead	General Fund	STAPLES BUSINESS ADVANTAGE	PAPER,BLUE PAPER,CALCULATO	233.88
		HOOD & ASSOCIATES CPAS PC	2023 AUDIT BILLING FINAL	5,450.00
		PORCHLIGHT INSIGHTS LLC	PERFORMANCE MEASURE WRK FI	9,625.00
			TOTAL:	15,308.88
Police	General Fund	LEON UNIFORM CO INC	UNIFORM- H. VERNON	306.00
			UNIFORM SS SHIRT, PNTS-CHA	188.00
			SS UNDERVEST SHIRTS-PHILLI	104.00
			UNIFORM/ACCESSORIES-R. LEO	1,283.49
		HEDRICK MOTIV WERKS LLC	OIL CHANGE & BRAKE PADS-PD	425.30
		ALPHAGRAPHICS OF OSAGE BEACH	BUSINESS CARDS- P. CARSON	44.50
			BUSINESS CARDS- PD GENERIC	44.50
			BUSINESS CARDS- K. KEAGY	44.50
		ONE TIME VENDOR DEBBIE'S ALTERATIONS	UNIFORM PANTS HEMMED-CHAPM	45.00
			TOTAL:	2,485.29
911 Center	General Fund	INTRADO LIFE & SAFETY SOLUTIONS CORPOR	V-VAAS MTHLY FEE 7/1-7/31/	4,065.00
			TOTAL:	4,065.00
Information Technology	General Fund	FORWARD SLASH TECHNOLOGY LLC	PRK BARRACUDA 6/2024-5/202	619.20
			AIRPRT BARRACUDA 6/2024-5/	619.20
			JULY MANAGED SERVICES	6,154.57
			JULY EMAIL PHISHING SEC TR	375.00
			JULY VULNERABILITY SCAN	499.00
			JULY BARRACUDA EMAIL SEC	1,476.00
		ADOBE INC	ADDTNL ADOBE SUB 7/24-10/2	455.80
			TOTAL:	10,198.77

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
Economic Development	General Fund	LAKE OF THE OZARKS CONVENTION & VISITO	CVB MEMB/WEB LNK 7/2024-6/	295.00
		ALPHAGRAPHICS OF OSAGE BEACH	REPLACEMENT STREET BANNERS	2,489.70
			TOTAL:	2,784.70
Transportation	Transportation	ECONO SIGNS & BARRICADE LLC	YIELD SIGNS	309.31
		O'REILLY AUTOMOTIVE STORES INC	DIESEL EXHAUST FLUID-VEHIC	109.90
		CROWN POWER & EQUIPMENT	TIRES- KUBOTA ZERO TURN MO	167.29
		PRECISION AUTO & TIRE SERVICE LLC	OIL CHANGE- VAN	64.21
		MAGRUDER LIMESTONE CO INC	4-6" CLEAN- ELM & PROCTOR	2,212.77
		CINTAS CORPORATION	TRANS DEPT UNIFORMS	261.62
			TRANS DEPT FLOOR MATS	14.12
			TRANS DEPT UNIFORMS	261.62
			TRANS DEPT FLOOR MATS	15.58
		PARKWAY PLAZA TIRE	CLEANED AIRFLOW SENSOR-TRK	115.00
			TIRE REPAIR- ZERO TURN	25.00
		SCOTTS CONCRETE	CONCRETE- PHILLIPS RD	834.50
			CONCRETE-BETWEEN PB2 & NIC	572.00
			CONCRETE-BUILD FLUME OFF P	1,681.00
			MAY DISCOUNT	35.00-
			CONCRETE- SHOP LOT	525.50
			CONCRETE- SHOP LOT	1,383.00
			CONCRETE-NICHOLS/PRKWY VIL	846.00
			CONCRETE-BUILD FLUME OFF P	1,756.00
		AMAZON CAPITAL SERVICES INC	DOLLY- ALL EQUIPMENT	89.99
			TIRES-KUBOTA ZERO TURN MOW	169.99
		GFI DIGITAL	PW PRNTR MAINT 7/19-8/18/2	35.32
		RUSH TRUCK CENTERS OF MISSOURI INC	OIL LEAK REPAIRS- TRK 66	4,893.09
		MARCO	PW PLOTTER SUPPRT 6/26-7/2	35.93
		RAFTELIS	PW ASSESSMENT 6/1-6/30/24	2,550.00
			TOTAL:	18,893.74
Water	Water Fund	TYLER TECHNOLOGIES INC	INSITE TRANSACTION FEES	3,320.00
		CORE & MAIN LP	RESETTERS	842.80
		CINTAS CORPORATION	WATER DEPT UNIFORMS	462.40
			WATER DEPT FLOOR MATS	14.11
			WATER DEPT UNIFORMS	223.06
			WATER DEPT FLOOR MATS	15.57
		AESTHETIX ELECTRIC	PASSOVER WELL ELECTRIC REP	641.00
		GFI DIGITAL	PW PRNTR MAINT 7/19-8/18/2	35.31
		MARCO	PW PLOTTER SUPPRT 6/26-7/2	35.93
		RAFTELIS	PW ASSESSMENT 6/1-6/30/24	2,550.00
			TOTAL:	8,140.18
NON-DEPARTMENTAL	Sewer Fund	LAKE SUN LEADER 81525 & 1586450	SURPLUS AUCTION	18.20
			TOTAL:	18.20
Sewer	Sewer Fund	AMOS SEPTIC SERVICE INC	PUMPOUT @ THE LEDGES	662.50
		RP LUMBER INC	LUMBER- ROCKWAY REPAIRS	19.00
		MUNICIPAL EQUIPMENT CO	6" PLUG VALVE	3,155.12
			HIGHTIDE INSTALL	1,125.00
			STOCK CONTROL PANELS	113,860.90
		TYLER TECHNOLOGIES INC	INSITE TRANSACTION FEES	3,320.00
		CONSOLIDATED ELECTRICAL DISTR, INC	WRENCH SET	14.03
			PVC PARTS- PANEL INSTALL	207.76
		BOWLING ELECTRIC MACHINE	STOCK CAPS & FUSES	130.00
		BUTLER SUPPLY CO	PARTS- JEFFRIES RD METER R	46.17

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT
			SEAL FITTING- CONDUIT REPA	52.80
			STOCK CONDUIT SEAL	18.52
			PARTS-TIMBERLANE MTR REPLC	161.45
			PARTS- TIMBERLINE METER RE	389.80
		CORE & MAIN LP	HYDRO PLUGS	107.38
			PVC- ROCKWAY PUMP PLUMBING	621.00
		CINTAS CORPORATION	SEWER DEPT UNIFORMS	312.78
			SEWER DEPT FLOOR MATS	14.12
			SEWER DEPT UNIFORMS	311.05
			SEWER DEPT FLOOR MATS	15.58
		REEVES-WIEDEMAN COMPANY	STOCK STAINLESS STEEL PART	274.10
			PARTS-TIMBERLINE BACKFLOW	64.40
		CARDINAL PUMP COMPANY	TRAILER PUMP	57,690.28
		GFI DIGITAL	PW PRNTR MAINT 7/19-8/18/2	35.32
		NICK'S TRUE VALUE HARDWARE	PARTS- STN 54-3 REPAIR	60.98
			PARTS FOR ROCKWAY REPAIR	28.03
			DRILL SETS, NUT SET, MAGNE	116.46
		MARCO	PW PLOTTER SUPPRT 6/26-7/2	35.94
		RAFTELIS	PW ASSESSMENT 6/1-6/30/24	2,550.00
			TOTAL:	185,400.47
Ambulance	Ambulance Fund	AIRGAS INC	OXYGEN	372.09
		BOUND TREE MEDICAL LLC	GLOVES	734.60
		HEDRICK MOTIV WERKS LLC	REPLACE BRAKE PADS- M8	185.15
		DOUGLAS G WILSON DO PC	JUNE MEDICAL DIRECTOR SVC	1,000.00
			TOTAL:	2,291.84
Lee C. Fine Airport	Lee C. Fine Airpor	NAEGLER OIL CO	7,609 GAL LCF JET FUEL	22,815.59
			4,927 GAL LCF AV GAS	20,745.30
		CAMDEN COUNTY FIRE & SAFETY	LCF AP FIRE EXTINGUISHER S	126.00
			LCF HNGR FIRE EXTINGUISHER	117.00
			TOTAL:	43,803.89
Grand Glaize Airport	Grand Glaize Airpo	NAEGLER OIL CO	2,953 GAL GG AV GAS	12,433.71
			1,590 GAL GG JET FUEL	4,895.54
		O'REILLY AUTOMOTIVE STORES INC	TRACTOR FLUID & DEGREASER	230.46
			RETURN TRACTOR FLUID	149.98-
			ANTIFREEZE	47.96
		SMITH PAPER & JANITOR SUPPLY CO INC	BATHROOM TOWELS	81.16
			TOTAL:	17,538.85

DEPARTMENT	FUND	VENDOR NAME	DESCRIPTION	AMOUNT

========== FUND TOTALS ==========		
10	General Fund	37,221.94
20	Transportation	18,893.74
30	Water Fund	8,140.18
35	Sewer Fund	185,418.67
40	Ambulance Fund	2,291.84
45	Lee C. Fine Airport Fund	43,803.89
47	Grand Glaize Airport Fund	17,538.85
	GRAND TOTAL:	313,309.11

TOTAL PAGES: 4

City of Osage Beach
1000 City Parkway
Osage Beach, MO 65065
573-302-2000 Phone
573-302-2039 Fax
www.osagebeach.org

FOR OFFICE USE ONLY

License #:_____

Received: 7-8-24

Paid : 1050.00

Printed:_____

RENEWAL LIQUOR LICENSE APPLICATION

All Business Licenses Expire on May 30th.

Date: 07/03/2024

Business Name: Lake of the Ozarks FW, LLC

Physical Address of Business: 4325 Osage Beach Pkwy City N Osage Beach State MO Zip 65065

Business Owner: James Tillman Business Owner Phone#: 417-848-7756

Mailing Address: 1840 S Ingram Mill Rd City Springfield State MO Zip 65804

Business Owner Main Phone #: 417-368-2431 Business Owner 2nd Phone#: 417-860-2719

The following must be submitted before your license will be accepted and/or submitted to the Liquor Board.

Office use only

- ☐ Background from Missouri Highway Patrol
- ☐ Copy of State Liquor License
- ☐ Copy of County Liquor License
- ☐ Fees – Applications due by May 1st. Late fees:
  May 2 – 31 – $100 June 1 – 30 – $200 July 1 – 31 – $300

Item	Fee	License Description	City Code
	375.00	Manufacturer and Distribution (not sales) Malt Liquor not more than 5% alcohol by weight	MDBWT
	150.00	Distribution of Wholesale of intoxicating liquor not more than 5% alcohol by weight	DBLQWT
	300.00	Manufacturer or Distilling of intoxicating liquors in excess of 5% alcohol by weight	MLQWT
	750.00	Distribution or Wholesale of intoxicating liquors in excess of 5% by weight	DLQWT
	75.00	Retail sales of intoxication liquors not more than 5% alcohol by weight in original package **to be consumed** on premises **(includes Sunday Sales)**	BPR
	75.00	Retail sales of intoxication liquors not more than 5% alcohol by weight in original package **not to be consumed** on premises **(includes Sunday Sales)**	BPK
	450.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight to be consumed on premises.	LDRK1
X	750.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight to be consumed on premises **(includes Sunday Sales)**	LDRK2
	150.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight in original package **not to be consumed or opened** on premises	LPKG1
	450.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight in original package **not to be consumed on or opened** on premises. **(Included Sunday Sales)**	LPKG2
	75.00	Retail sales of malt liquor not more than 5% alcohol by weight/or light wines containing in excess of 14% alcohol by weight	BWDRK1
	375.00	Retail sales of malt liquor not more than 5% alcohol by weight/or light wines containing in excess of 14% alcohol by weight **(Included Sunday Sales)**	BWDRK2

City of Osage Beach
1000 City Parkway
Osage Beach, MO 65065
573/302-2000 Phone
573/302-2039 Fax
www.osagebeach-mo.gov

Planning Dept: NA
Sewer Dept:
License #: 03458

Pd CK # 5585 ($1050.00)
7/1/24

LIQUOR LICENSE APPLICATION

Date of Application: 7/1/2024 Date Application Received: 7/1/24 AJ

Name of Establishment: Sergios Taqueria LLC

Physical Address: 4824 Osage Beach Pkwy #4 Osage Beach MO 65065

Mailing Address: 4824 Osage Beach Pkwy #4

Applicant Name: Vianney Cervantes
(As it is to appear on license. If corporation, name of corporation and managing officer)

☐ *Original Applications: Submit a copy of your Missouri voter registration card & background check performed by the Missouri Highway Patrol along with the application.*

☑ *Renewal Applications: Submit completed application and background check per Ordinance 15.81 (voter registration not required for renewals.)* *Completed applications must be received by May 1st.* Applications received after May 1 are subject to the following late fees: May 2 to May 31 - $100 late fee; June 1 to June 30 - $200 late fee; after June 30 - $300 late fee.

Item	Fee	License Description	City Code
a. ___	375.00	Manufacture and distribution (not sales) of intoxicating malt liquor not more than 5% alcohol by weight.	MDBWT
b. ___	150.00	Distribution or wholesale of intoxicating liquors not more than 5% alcohol by weight.	DBLQWT
c. ___	300.00	Manufacture or distilling of intoxicating liquors in excess of 5% alcohol by weight.	MLQWT
d. ___	750.00	Distribution or wholesale of intoxicating liquors in excess of 5% alcohol by weight.	DLQWT
e. ___	75.00	Retail sales of intoxicating liquors not more than 5% alcohol by weight in original package to be consumed on premises. (Includes Sunday Sales.)	BPR
f. ___	75.00	Retail sales of intoxicating liquors not more than 5% alcohol by weight in original package not to be consumed on premises. (Includes Sunday Sales.)	BPK
g. ___	450.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight to be consumed on premises.	LDRK1
h. ✓	750.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight to be consumed on premises. (Includes Sunday Sales.)	LDRK2
i. ___	150.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight in original package not to be consumed or opened on premises.	LPKG1
j. ___	450.00	Retail sales of intoxicating liquors in excess of 5% alcohol by weight in original package not to be consumed or opened on premises. (Includes Sunday Sales.)	LPKG2
k. ___	75.00	Retail sales of malt liquor not more than 5% alcohol by weight /or light wines containing in excess of 14% alcohol by weight.	BWDRK1
l. ___	375.00	Retail sales of malt liquor not more than 5% alcohol by weight /or light wines containing in excess of 14% alcohol by weight. (Includes Sunday Sales.)	BWDRK2
m. ___	300.00	Sunday Liquor Sales	LSUN
n. ___	15.00	*Caterer per day.	CTLQDY
o. ___	10.00	*Picnic per day.	PCLQDY
p. ___	N/C	Change of managing officer.	MGO
q. ___	N/C	Wine tasting.	WTG

*If applying for a Caterer or Picnic License describe the event in detail, including the event name, location and time.

City of Osage Beach
Agenda Item Summary

Date of Meeting:	July 18, 2024
Originator:	Tara Berreth, City Clerk
Presenter:	Cole Bradbury, City Attorney

Agenda Item:
Bill 24-43 - An ordinance of the City of Osage Beach, Missouri, amending Section 115.110 Vacancies - Interim Appointed Officials; Section 115.185 Temporary Absence Acting City Administrator. *Second Reading*

Requested Action:
Second Reading of Bill #24-43

Ordinance Referenced for Action:
Board of Aldermen approval required per Section 110.230. Ordinances, Resolutions, Etc. – Generally and Section 110.240 Adoption of Ordinances.

Deadline for Action:
Not Applicable

Budgeted Item:
Not Applicable

Budget Line Information (if applicable):
Not Applicable

Department Comments and Recommendation:
This ordinance spells out a process for interim officials in the event of a vacancy. We have ordinances for “Acting” City Administrator or City Attorney/Prosecutor, but those are written for periods when the appointed official is temporarily absent but will return. The current version only gives the Mayor the authority to appoint an interim replacement until the following Board meeting, which may not be enough time to find a replacement, especially for a specialized position such as attorney or planner. This ordinance applies to all appointed officials and provides a process for the Mayor (and Board President for the Clerk) to appoint an Interim official for up to 90 days, and gives the Board certain checks on that authority. As amended, our ordinances will now refer to “Acting” officials as temporary fill-ins (i.e. official on vacation, fell off a horse, etc.), while “Interim” officials will be those filling a vacancy in the medium-term while a permanent replacement is sought.

Staff recommends approval.

City Attorney Comments:
Per City Code 110.230, Bill 24-43 is in correct form.

City Administrator Comments:
The first reading was read and approved on July 2, 2024. I concur with the department's recommendation.

BILL NO. 24.43 ORDINANCE NO. 24.43

AN ORDINANCE OF THE CITY OF OSAGE BEACH, MISSOURI, AMENDING SECTION 115.110 VACANCIES – INTERIM APPOINTED OFFICIALS; SECTIONS 115.185 TEMPORARY ABSENCE ACTING CITY ADMINISTRATOR

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF OSAGE BEACH, MISSOURI, TO WIT:

Section 1. Within the City Code there are hereby enacted new Sections with material repealed and replacing set forth below with new material set out in **RED** and deleted material struck as follows:

ARTICLE I

Section 115.110 Vacancies – Interim Appointed Officials.

A. If a vacancy occurs in any elective office, the Mayor or the person exercising the duties of the Mayor shall cause a special meeting of the Board of Aldermen to convene where a successor to the vacant office shall be selected by appointment by the Mayor with the advice and consent of a majority of the remaining members of the Board of Aldermen. If the vacancy is in the office of Mayor, nominations of a successor may be made by any member of the Board of Aldermen and selected with the consent of a majority of the members of the Board of Aldermen. The Board of Aldermen may adopt procedures to fill vacancies consistent with this Section. The successor shall serve until the next regular municipal election.

B. If a vacancy occurs in any appointed office ~~not elective~~, the Mayor (or the President of the Board of Aldermen in the case of the City Clerk) shall appoint a suitable person or firm to discharge the duties of such office ~~until the first (1st) regular meeting of the Board of Aldermen thereafter,~~. Such appointment shall last until the earliest of:

1. The passage of ninety days;
2. Revocation of such appointment by the Mayor;
3. A motion disapproving such appointment passed by a majority of all the members of the Board of Aldermen; or
4. Such time as said ~~at which time such~~ vacancy shall be permanently filled.

Such person or firm shall be titled the "Interim [here name the office held]." Interim officials may be employed on the same terms as such regularly appointed official or such terms as may be fixed by contract, provided such contract complies with all applicable laws and ordinances.

The Mayor, with the advice and consent of a majority of the Board of Aldermen, may extend the term of an Interim appointed official for such time periods as may be fixed by ordinance.

ARTICLE II

Section 115.185 Temporary Absence – ~~Designation Of~~ Acting City Administrator.

A. Whenever the City Administrator may deem it necessary to designate an appropriate officer to act in his/her place when the City Administrator is out of the office or otherwise unavailable the City Administrator shall designate in writing, by name and title, the City official who shall perform the duties and exercise the powers of the City Administrator during the period of absence. Such written designation shall be filed with the City Clerk and promptly communicated to the Mayor,

members of the Board of Aldermen, and all department heads.

B. Whenever the City Administrator is out of the office or otherwise unavailable and has not designated an officer to act in his/her place pursuant to Subsection (A) above the Assistant City Administrator shall act in the place of the City Administrator. If the Assistant City Administrator is unavailable or unable to act, the Building Official shall then become acting City Administrator until the return of the City Administrator.

Section 2. Severability.

The chapters, sections, paragraphs, sentences, clauses and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional or otherwise invalid by the valid judgment or degree of any Court of any competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs, or sections of this ordinance since the same would have been enacted by the Board of Aldermen without the incorporation in this ordinance of any such unconstitutional or invalid phrase, clause, sentence, paragraph or section.

Section 3. Repeal of Ordinances not to affect liabilities, etc.

Whenever any part of this ordinance shall be repealed or modified, either expressly or by implication, by a subsequent ordinance, that part of the ordinance thus repealed or modified shall continue in force until the subsequent ordinance repealing or modifying the ordinance shall go into effect unless therein otherwise expressly provided; but no suit, prosecution, proceeding, right, fine or penalty instituted, created, given, secured or accrued under this ordinance previous to its repeal shall not be affected, released or discharged but may be prosecuted, enjoined and recovered as fully as if this ordinance or provisions had continued in force, unless it shall be therein otherwise expressly provided.

Section 4. That this Ordinance shall be in full force and effect shall be in full force and effect on signature and approval by the Mayor.

READ FIRST TIME: July 2, 2024 READ SECOND TIME

I hereby certify that Ordinance No.24.43 was duly passed on _by the Board of Aldermen of the City of Osage Beach.

The votes thereon were as follows:

Ayes: Nays: Abstain: Absent:

This Ordinance is hereby transmitted to the Mayor for his signature.

_____ _____

Date Tara Berreth City Clerk

Approved as to form:

_____

Cole Bradbury, City Attorney

I hereby approve Ordinance No. 24.43.

_____
Michael Harmison, Mayor

_____
Date

ATTEST:

_____
Tara Berreth, City Clerk

City of Osage Beach
Agenda Item Summary

Date of Meeting:	July 18, 2024
Originator:	Mike Welty, Assistant City Administrator
Presenter:	Mike Welty, Assistant City Administrator

Agenda Item:
Bill 24-46 - An ordinance of the City of Osage Beach, Missouri, amending Section II Water System, Section III Sewerage System, Section IV Storm Drainage, Section V Roads, Streets and Parking Areas, Section VI Road Cut, Utility Trench & Excavation Permit to the Osage Beach Design Guidelines. *Second Reading*

Requested Action:
Second Reading of Bill #24-46

Ordinance Referenced for Action:
Board of Aldermen approval required per Section 110.230. Ordinances, Resolutions, Etc. – Generally and Section 110.240 Adoption of Ordinances.

Deadline for Action:
Not Applicable

Budgeted Item:
Not Applicable

Budget Line Information (if applicable):
Not Applicable

Department Comments and Recommendation:
Comprehensive changes to all sections of the design guidelines that provide updates to construction processes and types of materials used that are preferred by the City and that meet industry standards. Attached you will find relined versions of all sections. Also, there is a document at the end that details everything that was removed and why.

We will have one of the City's engineers present at the meeting for questions concerning any of these changes.

I recommend approval.

City Attorney Comments:
Per City Code 110.230, Bill 24-46 is in correct form.

City Administrator Comments:

The reading was read and approved on July 2, 2024. The Planning Commission recommended approval on June 11, 2024. I concur with the department's recommendation.

BILL NO. 24-46 ORDINANCE NO. 24.46

AN ORDINANCE OF THE CITY OF OSAGE BEACH, MISSOURI, AMENDING SECTIONS II. WATER SYSTEM, SECTION III. SEWERAGE SYSTEM, SECTION IV. STORM DRAINAGE, SECTION V. ROADS, STREETS AND PARKING AREAS, SECTION VI. ROAD CUT, UTILITY TRENCH & EXCAVATION PERMIT TO THE OSAGE BEACH DESIGN GUIDELINES

Whereas, the City has adopted guidelines to aid developers and builders in complying with the requirements of the Osage Beach Code of Ordinances for the construction of industrial, commercial and multi unit residential structures.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF OSAGE BEACH, MISSOURI, AS FOLLOWS:

Section 1. That the section entitled Osage Beach Design Guidelines, is hereby amended as indicated on the attached Exhibit "A".

Section 2. This Ordinance shall be in full force and effect from and after its passage by the Board of Aldermen and approval by the Mayor.

READ FIRST TIME: July 2, 2024 READ SECOND TIME:

I hereby certify that the above Ordinance No. 24.46 was duly passed on by the Board of Aldermen of the City of Osage Beach. The votes thereon were as follows:

Ayes: Nays:

Abstentions: Absent:

This Ordinance is hereby transmitted to the Mayor for his signature.

_____

Date _____ Tara Berreth, City Clerk

Approved as to form:

_____
Cole Bradbury, City Attorney

I hereby approve Ordinance No. 24.46.

_____
Michael Harmison, Mayor

_____
Date

ATTEST:

_____

Tara Berreth, City Clerk

Design Guideline
City of Osage Beach
SECTION 2 - WATER SYSTEM

(Revised 23 OCT 2014-NLE)

OVERVIEW

The City of Osage Beach is authorized to construct, operate, and maintain a water system to serve the inhabitants, business establishments, and infrastructure needs of the city by Title VII Utilities of the City Code. The city water system is operated under license of the Missouri Department of Natural Resources (MDNR), Drinking Water Division as authorized under 10 CSR 60-3 and 10 CSR –10 of the Missouri Safe Drinking Water Act and the Missouri Public Drinking Water Regulations. The purpose of this guideline is to establish design policy and guidance for the design and construction of the city water system.

The design, construction, and operation of the city water system will conform to the requirements of the MDNR regulations, standards, and policies, the City of Osage Beach Design Guideline, and the applicable provisions of the International Plumbing Code and the International Building Code and with reference to requirements of the International Fire Code and the recommendations of the Insurance Services Organization (ISO)

REFERENCED CITY ORINANCES

Chapter 400.110 Subdivision Regulations
Chapter 410.130 Contents ~~(Location and design of water mains and appurtenances)~~
Chapter 410.190 ~~Design~~ Basic Standards
Chapter 410.320 Waterlines
Chapter 505~~.010~~ Fire Prevention and Protection Code
Chapter 705 Waterworks

GOALS AND OBJECTIVES

The basic goal of the City of Osage Beach is to provide an efficient, cost effective water system to supply the fire protection and drinking water needs of the city. This guideline will establish the basic parameters, design criterion, and material requirements for the system. The system will be designed to meet all of the appropriate standards for domestic water supply and to achieve a reasonable fire protection capability. The fire protection requirements will be developed in conjunction with the Osage Beach Fire Protection District.

OVERALL WATER SYSTEM STANDARDS AND CRITERION

The initial water system was designed by Archer Engineers offices in Lee Summit and Springfield, Missouri. A Water Master Plan was developed that establishes the basic requirement for the system. Essentially Osage Beach has two separate water systems, one on each side of the Grand Glaize Bridge. Basic requirements for the supply system are as follows:

EAST SIDE SYSTEM

	1999	2019	Ultimate
Average Daily Demand, gpd	433,000	845,000	1,015,000
Fire Fighting Demand, gpd	240,000	240,000	240,000
Required Storage, gpd	673,000	1,085,000	1,291,000
Available Storage:			
Columbia College, gpd	500,000		
Passover Tower, gpd	150,000		
Bluff Tower, gpd		800,000	1,300,000
Required Water Supply, gpm	451	880	1,094
Water Supply Available:			
Columbia College No. 1, gpm	250	250	250
Columbia College No. 2, gpm	550	550	550
Passover Well No. 1, gpm	260*	260*	260*
Bluff No 1, gpm (Future)		500	500
Bluff No. 2, gpm (Future)			500
Total Available, gpm	800	1,300	1,800

*limited Service Area

WESTSIDE SYSTEM

	1999	2019	Ultimate
Average Daily Demand, gpd	992,000	1,563,000	1,840,000
Fire Fighting Demand, gpd	240,000	240,000	240,000
Required Storage, gpd	1,232,000	1,803,000	2,089,000
Available Storage:			
Woodland Tower, gpd	(150,000)*	0	0
Swiss Village Tower, gpd	1,500,000	1,500,000	1,500,000
Future, gpd		800,000	800,000
Total Available	1,500,000	2,300,000	2,300,000
*Out of service - remove from service			
Water Supply Available:			
Swiss Village Well No. 1, gpm	550	550	550
Swiss Village Well No. 2, gpm	550	550	550
Swiss Village Well No. 3, gpm	550	550	550
Woodland Cove Well, gpm	OTS*	0	0
Future Wells, gpm		1,000	1,000
Total Available, gpm	1,100	2,100	2,100

*OTS = Out of Service

The master plan requires chlorination and fluoridation of the water system. No further treatment is proposed at this time. The system will be added to and/or modified as necessary to assure full compliance with MDNR Regulations.

WATER DISTRIBUTION – BASIC DESIGN CRITERION

A. Fire Demand and Supply

1. Industrial, commercial, and multi-unit residential structures:

   a. Provide not less ~~that~~ than 2000 gpm at a residual pressure of 20 psi at each building site.
   b. Provide two fire hydrants within 300 feet of each structure.
   c. Hydrant spacing in commercial and industrial areas shall not be less than 300'.
   d. Provide one hydrant within 125 feet of each fire main entrance into the structure.
   e. Provide fire main service to each structure with indicating type valve at the water main. Minimum size fire service line is four inches.
   f. Minimum static pressure at each structure shall be 35 psi.
   g. Commercial buildings, Condominiums and Multi-Family Occupancies, which have a fire suppression system, must also be served by an approved fire hydrant not further than 150', in the line of hose path travel, from the fire department connection.

2. Residential and Undeveloped

   a. Provide not less than 1000 gpm at a residual pressure of 20 psi.
   b. Provide not less than one fire hydrant within 300 feet.
   c. In the case of a structure or residence that is not connected to city water a fire hydrant must be available within ~~850~~ 600 feet.
   d. In undeveloped areas a fire hydrant shall be installed every 600 feet.

B. Fire Main Connections to Structures

1. Where required by the Osage Beach Fire District, NFPA, Internation Fire Code and/or International Plumbing Code a fire main shall be extended into each building as a separate fire main. This entrance main shall be only for fire protection system use. No meters or valves are allowed between the main and ~~the~~ building except for an indicating shut-off valve at the main and a post indicating valve which shall be located a minimum of 5 feet away from the building. Shut-off valves installed on fire mains shall be of the indicating type that clearly shows if the valve is open or closed.

C. Water Distribution Mains

1. Water distribution mains shall be looped to the maximum ~~extend~~ extent feasible.

2. The MDNR standard for a minimum size main is eight inches. The city standard allows for six inch mains in residential areas where a fire flow of 1000 gpm at a residual pressure of 20 psi can be maintained.

3. ~~The minimum size main allowable for domestic residential service is two inches so long as the main is less than 600 feet long, serves less than ten residences and fire protection is available within 300 ft~~.

4. The minimum static pressure for domestic service shall not be less than 35 psi.

5. A fire hydrant or blow-off valve shall be installed at the end of all water mains.

6. The maximum design flow velocity shall be 8 fps.

7. An isolation valve shall be installed at not less than every ~~1250 feet~~ 500 feet commercial, 800 feet residential and:
   a. At each branch main with one valve on the downstream main and one on the branch main.
   b. At loop connections on each leg of the connecting loop.

   Isolation valves shall be of the same nominal size as the main in which they are installed.

DOMESTIC SUPPLY CONNECTIONS AND METER POLICY

A. General Requirements for Customer Service Lines

1. City meter assemblies for single family residents and all 5/8 in. meter installations will not have a city owned backflow device installed.

2. Industrial and commercial connections and all meter installations of 1 in and larger shall have a ~~city~~ privately owned dual check device installed. This backflow device is exclusive of and specifically not intended for use in lieu of backflow devices required by the customer's use.

3. Materials used for customer service lines shall conform to materials specified herein.

4. All domestic services shall be metered.

5. Meters shall be sized in accordance with the following unless specifically directed otherwise by the Public Works ~~Director~~ Operations Manager or designee:

Meter size	Meter Demand	Requirements
5/8"x 3/4"	1 to 20 gpm	Single family residence with 2-1/2 baths, small commercial offices or retail ~~establishements~~ establishments. Maximum ~~continous~~ continuous flow 10 gpm.
1"	3 to 50 gpm	Large residences, swimming pools, lawn irrigation for lawns less than 6000 SF, apartments and condos with less than 10 units, motels of less than 15 units, small to medium restaurants, commercial uses with maximum continuous demand less than 25 gpm.
1-1/2"	5 to 100 gpm	Apartments and condos of less than 30 units, motels of less than 35 units, commercial uses with maximum continuous demand of less than 50 gpm.
2"	8 to 160 gpm	Apartments and condo of less than 60 units, hotels with less than 70 units, commercial uses with maximum continuous demand less than 80 gpm.
3"	4 to 320 gpm	Commercial applications with continuous demand of less than 160 gpm
4"	6 to 500 gpm	Commercial use less than 250 gpm continuous flow (Compound Meter)
	10 to 1200 gpm	Municipal Use Only (Turbine Meter)
6"	20 to 2500 gpm	Municipal Use Only (Turbine Meter)

B. Meter Connection Policy

1. Single Family Residential, and small commercial connections

   a. Each individually owned residence or business shall be connected through a single tap on the main, one meter, and receive one billing. Generally single family residences and small businesses will be setup with a 5/8 inch meter. Individual owners shall confer with the Public Works ~~Director~~ Operations Manager or designee to determine appropriate size to meet their requirements.
   b. Billing will be at the established monthly rate based upon water usage.

2. Multi-Family Residential Units

   a. The general rule shall be one property, one billing. Multi-family residential units are billed on the basis of the number of units times the basic monthly rate plus the water usage over the base amount.
   b. All multi-unit residential buildings that require a separate fire main and sprinkler system shall be constructed with a separate metered domestic supply line and a non-metered fire main entrance. The meter shall be sized to meet the demand requirements of the individual building. On properties with more than one building, each building shall be metered separately.

3. Duplex Residential Units – Multiple Single Family Rental Units on one Property

   a. The general rule is one owner of the property one meter. If there are multiple duplexes or single family units on one property and individual fire service mains are not required to any of the buildings then the one owner – one meter rule applies. The billing shall be at the established monthly rate per unit plus the gallons used over 1000 gal. per unit billed at the established rate per 1000 gal.
   b. In the case where each unit is individually owned then each unit shall be individually billed and metered. This specifically intended for duplex and single family cluster homes only.

4. All Non-Residential Properties with Fire Sprinkler Systems

   a. At all locations where the structures require a separate fire main to the building each building shall have a separate, metered, domestic supply main.

b. One commercial property with multiple overnight lodging units (a motel or hotel) not requiring fire mains shall be metered by one-meter assembly and billed on the water use.

c. One commercial property with multiple commercial units without fire mains, with individual tenants, may be metered with one meter, or individually, as mutually determined by the owner and the Public Works ~~Director~~ Operations Manager or designee.

d. One property with mixed residential long term, overnight rental, and commercial enterprises, may be metered on one-meter assembly, or multiple meters, as determined by the Public Works ~~Director~~ Operations Manager or designee. Billing will be on a water use basis.

e. Where there are multiple buildings on one property that require fire main services, each building's domestic supply will be metered. All meters will be billed to the property owner.

C. Fire Main Connections

1. Fire main connections are required for all sprinkled buildings and structures. The owner/developer shall submit appropriate drawings and computations by a Registered Professional Engineer for approval. The owner/developer shall furnish all valves, fittings, and incidentals required to make the connection and shall employ a city approved contractor to perform the work.

2. Indicating shut-off valves shall be installed at the fire main connection to the water main.

3. Pipe materials for the main between the building and post indicating valve shall be Ductile Iron as shown below in Materials for Waterlines and Appurtenances section A. point 1 subpoint a.

D. City Ordinance 98.41 - Owner Furnished Backflow Preventer Assembly

1. Owner furnished backflow assemblies shall be licensed, furnished, installed, and maintained by the owner at the locations specified in City Code 705.470. Most of these will be for lawn sprinkler systems and the like.
Note: *These units are required in addition to any dual check assembly installed by the city at the meter installation*.

MATERIALS FOR WATERLINES AND APPURTENANCES

A. Water Mains
1. All mains ~~four~~ six inches and larger:

a. Ductile Iron Pipe, AWWA C150 and C151, Class 350

1) Cement mortar lined per AWWA C104
2) Joints:
a) For buried pipe: push-on joints per AWWA C111
b) For exposed or interior: Flanged joints

b. PVC, AWWA C900 or C905, DR 14, Class ~~200~~ 305

1) Joints shall be push-on type rubber gasket

2. ~~Mains 1-1/2 inches to three inches:~~

~~a. PVC, ASTM 2241, SDR 21, Class 200~~

~~1) Joints shall be push-on type with rubber gasket~~

~~b. Schedule 40 PVC~~

~~1) Joints shall be solvent welded~~

B. Water Meter Service Lines and City Service Lines ~~two inch and less~~

1. HDPE AWWA C901, ~~PE 3408~~, CTS, ~~IDR 7~~ SDR9, Class 200 ~~for I.D. pipe, or DR 9, Class 200 for O.D. pipe~~.

2. Larger than two inch to be approved by Public Works Operations Manager

C. Water Service Lines from meter to building (Privately Owned Lines Only)

1. These lines shall conform to the requirements of the International Plumbing Code.
2. ~~Materials may be of the owner choice.~~

D. Water Fittings and Adapters Ductile Iron and PVC

1. ~~four~~ 6 inches and Larger:

a. Fittings:

1) Ductile iron fittings, cement mortar lined, conforming to AWWA C150 or C151.

2) All buried or flooded locations shall use grip restraint mechanical joint pipe and fittings, such as Megalug or approved equal.
3) Flanged fittings shall be provided for flanged pipe (above ground installations only). Faces shall be coated with rust Protective coating.
4) Cement mortar lined pipe and fittings shall be coated with coal tar epoxy paint with a minimum thickness of 24 mils.
5) Bolts shall be stainless steel, fluoropolymer coated, or approved equal.

b. Flanged Coupling Adapters:

1) Shall be Ford 193, Smith-Blair 913, Rockwell 913, or approved equal.
2) Bolts shall be Stainless Steel, Type 216.
3) Minimum rated operating pressure to match the line in which installed.

c. Joint Restraints:

~~1) Shall be Ford Style FR, Uni-Flange 1300 Series, or approved equal.~~ Bell Joints shall be restrained with all threads or approved equal.
2) Approved concrete thrust blocks required.

2. For pipe 1-1/2 inches to 3 inches:

a. Fittings:

1) For ASTM 2241, SDR 21, Class 200 fittings shall be approved by the Public Works ~~Director~~ Operations Manager ~~or designee~~.
~~2) PVC Schedule 40 shall have PVC Schedule 80 fittings.~~

~~b. Coupling Adapters:~~

~~1) Ford Style FC or approved equal.~~

3. For PE Pipe – 2 inches or less:

a. Shall be Ford CTS Pack Joint Couplings for PE Pipe rated at the same pressure class as the pipe in which they are to be installed or approved equal.

E. Waterline Valves and Valve Boxes (for Valve 2 in. and larger):

1. Shall be iron body, non-rising stem, resilient wedge, gate valves with stainless steel bolts, and shall be epoxy paint coated.

2. Valves shall be by Mueller, Clow, ~~or~~ M&H, or approved equal.

3. Valve Boxes shall be cast iron bonnet, PVC riser, with cast iron top and cover marked "water".

4. ~~Check Valves shall be similar and equal to Clow Valve Company horizontal swing check valves for 2 inch through 12 inch valves.~~

F. Fire Hydrants

1. Fire hydrants shall be Mueller Super Centurion 250, American-Darling B84 or Clow Medallion with 4-1/2 inch pumper inlet, and two 2-1/2 hose connections. Hydrants shall be fully compatible with the requirements of the Osage Beach Fire Protection District.

2. Fire hydrants shall be painted red with epoxy coating as approved by the Public Works ~~Director~~ Operations Manager or designee.

G. Blow-Off Assembly

1. Post Hydrants shall be non-freezing, self draining type with a minimum 42" ~~36"~~ cover to the main. Hydrants shall be furnished with a 2" FIP inlet, a NOT-Turning operating rod, and shall open to the left. All working parts shall be Bronze-to-Bronze design. The outlet shall also be Bronze and be 2 ½" NST. Hydrants shall be lockable to prevent unauthorized use.

2. Hydrant shall be as manufactured by Kupferle Foundry Co., St. Louis, MO, or approved equal.

H. Water Meter Assemblies:

1. 5/8 and 1 in. Residential Meters:

   a. Tapping saddle shall be Ford Brass Saddles Hinged Series S91 for PVC and Series 202B IP for DIP, Min. 1 inch.
   b. Corporation Stop shall be Ford or Ford Ballcorp F(B)1000 Series, with pack joint for PE pipe.
   c. Meter Setter shall Be Ford 70 Series Coppersetter~~, tandem~~ single yoke, with lockable angle valve, spreader bar, and CTS pack joint. *Do not place dual check assembly on residential service lines.*

d. Meter Vault shall be ADS N-12 corrugated plastic of appropriate size (min. ~~20~~ 24 in.), with Ford Wabash lid cover with Clay & Bailey extension ring. The lid cover must have a hole that accommodates the meter antenna.
e. If the distance from the angled valve to the top of the lid is greater than 24 inches, the meter pit shall be up sized to 36 inches in diameter.
f. All additional devices, equipment, and valves shall be down stream of the water meter and not located within the water meter pit.

2. 1, 1-1/2, and 2 in. Meters for Commercial or Multi-family Residential Use:
   a. Tapping saddle shall be Ford Brass Saddles Hinged Series S91 for PVC and Series 202B IP for DIP. It shall be a 2-in tap with 2-in service line to the meter., min. 1 inch for 1 inch meters and 2 inch for all larger.
   b. Corporation Stop shall be Ford or Ford Ballcorp F(B)1000 Series, with pack joint for PE pipe.
   c. Meter Setter shall Be Ford 70 Series Coppersetter~~, tandem~~ single yoke, with lockable angle valve, spreader bar, dual check assembly, and CTS pack joint.
      ~~*Do not place dual check assembly on single family residential service lines.*~~
   ~~d. The pressure reducing valve shall be Watts LF25AUB-23~~
   e. Meter Vault shall be ADS N-12 corrugated plastic of appropriate size (min. ~~20~~ 36 in.), with Ford Wabash lid cover with Clay & Bailey extension ring. The lid cover must have a hole that accommodates the meter antenna.
   f. All additional devices, equipment, and valves shall be down stream of the water meter and not located within the water meter pit.

3. Meter larger than two inches.

   a. Tap, valves, fittings, and meter service line shall be not less than 2 in. and shall be equal to or one size larger than the building service line. The meter, pressure reducing valve, and dual check backflow assembly may be one size smaller ~~that~~ than the meter service line (i.e., 4 in. tap, 4 in. gate valve, 4 in. meter service line, 3 in. meter, 3 in. PRV, 3 in. dual check assembly, 4 in stub-out for building service line).
   b. Tapping sleeve shall be Ford Style FAST, stainless steel flange.
   c. Gate Valve shall be as specified above.
   d. Fittings and flanged coupling adapters as specified above.
   ~~e. Pressure Reducing Valve shall be CLA-VAL Series 690, ductile iron body, pressure class 250.~~
   ~~f. Back-flow Assemblies shall be CLA-VAL Model DC7L~~

~~dual check valves, Class 250.~~

g. All additional devices, equipment, and valves shall be located on the customers side of the water meter and not located within the water meter pit.

WATERLINE AND APPURTENANCE INSTALLATION REQUIREMENTS

A. Waterline Installation

1. The minimum depth of cover is ~~36~~ 42 in. above the top of the pipe.

2. The maximum depth of cover for waterlines is ~~eight (8)~~ five (5) ft. unless specifically authorized in writing by the Public Works ~~Director~~ Operations Manager or designee.

3. ~~Green or~~ Blue minimum four inch wide marking tape marked "waterline below" shall be installed twelve inches above all waterlines.

4. Locator wire shall be standard tracer wire, a single No. 12 U.L. approved copper wire of the solid type with insulation for 600 volts. Wire for this service shall be blue in color and provided in standard rolls of not less than five hundred (500) foot lengths. Locator wire shall be placed on top of the water main and secured with tape at 8-foot intervals. Locator wire shall extend to al terminus, such as valves, hydrants, and meter pits. ~~No. 12 solid copper Toning wire shall be located three inches above taped to the top of all City owned waterlines and shall be extended to all valves, hydrants, meter sets, and terminus points.~~

   a. Splices shall only be allowed where accessible. Buried splices will not be allowed. If valve box locations are spaced more than 500 feet apart, contractor shall install a vertical piece of 6-inch diameter PVC adjacent to the water main topped with a cast iron bonnet and cover marked "water". The wire shall be run outside up alongside the valve box, then through a hole in the valve box just below ground level. The splice connector shall be left exposed at the top of the valve box. Wire contact points shall be provided at no more then 500-foot intervals.

   b. Prior to final acceptance by the City, the contractor shall demonstrate that the locator wire works to the satisfaction of the City Inspector, Public Works Operations Manager or designee.

5. Bedding shall be installed around the pipe from 6 inches below to 12 inches above the pipe. Bedding shall be ~~nominal ½ inch minus~~ crushed rock conforming to MoDOT Type 5 aggregate, Section 1007.

~~1004, Grade D, Chat, or pea-gravel, or Osage River Sand~~. ~~Any material used shall have a PI of six or less.~~ Trench backfill material shall not contain any material with a nominal particle size greater than six (6) inches.

6. Waterlines shall be separated by a minimum of 18 inches vertically and 10 feet horizontally from sanitary/storm sewer lines or sanitary/storm ~~sewer~~ sewer line appurtenances unless:

   a. At crossings the water or ~~sewer~~ non-potable main has an encasement to a point ten feet on either side of the sewer/water line crossing as appropriate. No joints shall occur in either the water or sewer line within the 20 ft. area. The encasement may be a free draining sleeve of a material that is approved for use as a water main or one of the water or sewer main shall be constructed of mechanical or manufactured restrained joint pipe, fusion welded pipe. ~~an impervious concrete encasement, a minimum of 12 in. thick.~~

   b. For parallel lines closer than ten feet, exceptions can be made with prior approval of the Public Works ~~Director~~ Operations Manager or designee. Either the water main or the non-potable main shall be constructed of mechanical or manufactured restrained joint pipe, fusion welded pipe, or cased in a continuous casing. Casing pipe must be a material that is approved for use as a water main. ~~or designee. Generally, this will require a separate trench with water main 18 inches above the sewer, or a benched trench with water 18 inches above the sewer or the waterline must be above and encased in a free draining sleeve drained to daylight.~~

7. Primary power lines of 480 volts or higher shall not be placed in the same trench with any other utility. See Section 6 Road Cuts, Utility Trenches, and Excavation.

8. Secondary power may be installed in an offset trench with water lines. See Section 6 Road Cuts, Utility Trenches, and Excavation.

B. Valve Locations

1. When valves must be located within roadways and paved surfaces a cast or ductile iron valve box with valve box cover marked “water”. The box shall be flush with the pavement to ¼ in. below the finished pavement surface. The cover shall be set in a minimum 6 in. deep by 18 in. square concrete pad.

2. Post Indicating Valves shall be located a minimum of 5 feet from the building that they are servicing.

C. Water Meter Locations

1. As a general case water meters will be located on the customer's property immediately inside the property line from the city roadway or platted roadway property line.
2. Meters will be set in traffic type boxes only with prior written consent of the Public Works ~~Director~~ Operations Manager or designee.

D. Installation of Meter Assembly:

1. Residential and commercial hookup – 5/8 inch through 1 inch:
   a. The Owner shall furnish and install the service saddle, corporation stop, curb valve and box, ~~tap~~, meter service line, meter set, lockable shut-off valve, ~~pressure-reducing valve~~, and the ~~tandem~~ single meter setter and the meter vault.
   b. Wet taps are to be performed by a City approved contractor and witnessed by the City.
   c. The City will furnish the water meter and transponder.
   d. The meter installation shall be as detailed in the attached Typical Meter Installation Detail.
   e. The water meter lid shall be easily accessible and visible.
   f. All hard surfaces, including concrete and asphalt, that surround the water lid assembly will need prior approval from the Public Works Operations Manager or designee.
   g. All obstructions within a 5-foot radius that present a clear obstacle to the maintenance of the city water meter shall be removed at the home owner's expense.

2. Residential and commercial hookup – 1-1/2 inch and 2 inch:

   a. The Owner shall furnish and install the service saddle, corporation stop, curb valve and box, ~~tap~~, meter service line, meter set, lockable shut-off valve, ~~pressure-reducing valve~~, and the ~~tandem~~ single meter setter and the meter vault.
   b. Wet taps are to be performed by a City approved contractor and witnessed by the City.
   c. The City will furnish the water meter and transponder.
   d. The meter installation shall be in accordance with the attached Typical Meter Installation for 1-1/2 and 2 inch Meters.
   e. The water meter lid shall be easily accessible and visible.
   f. All hard surfaces, including concrete and asphalt, that surround the water lid assembly will need prior approval

from the Public Works Operations Manager or designee.

g. All obstructions within a 5-foot radius that present a clear obstacle to the maintenance of the city water meter shall be removed at the home owner's expense.

3. Domestic Service Connections 2-1/2 inch and larger:

a. These are considered as custom installation with the technical requirements varying for each installation. The owner shall provide construction drawings by a Registered Professional Engineer for approval. The owner shall furnish and install all materials and appurtenances for a complete and operable service connection.

b. Any wet tap larger than 2-inch shall be performed by a City approved contractor and witnessed by City Staff.

E. Fire Hydrant Locations

1. Fire hydrants shall be located ~~ten~~ five feet from the edge of pavement or ~~immediately inside the property owners land per the easement which ever shall be the farthest from the edge of pavement~~ within the City's Right-of-way. Hydrant and auxiliary valve should both be outside the roadway ditch areas.

2. Fire hydrants shall be located such that a clear work area a minimum of five feet in diameter exists around the hydrant.

3. All fire hydrant locations must be immediately accessible by fire vehicle.

4. Fire hydrants shall be installed with the 4-1/2 in pumper outlet toward the street or access point.

5. Fire hydrants shall be installed such that the finish grade is between three inches below and level with the hydrant base ring.

WATERLINE INSPECTION AND TESTING FOR ACCEPTANCE

A. Inspections:

1. As a part of the platting and permitting process the developer/owner shall submit full and complete engineering drawings sealed by a Registered Professional Engineer in the State of Missouri; construction of one- and two-family dwellings and their accessory structures are excluded from this requirement, unless the design requires an extension to the City's system. The design and materials specified shall conform to the requirements of the City of Osage Beach Design Guidelines. Such drawings shall be reviewed and approved by the Public Works ~~Director~~ Operations Manager or

designee prior to any onsite construction.

2. During the progress of the work each utility line shall be inspected by the ~~Engineering Department~~ City Inspector prior to trench backfill.

B. Water Main Leakage Tests

1. All water mains constructed by or for the City of Osage Beach shall be tested for leakage to the standards specified herein before they shall be accepted for service. A representative of the City shall be present during all testing.

2. Testing shall be by hydraulic means only. Air or vacuum tests will not be accepted.

3. Testing procedure is as follows:
   a. Upon completion of the water main it shall be clean~~ed and~~ of all dirt, trash, debris, and deleterious materials removed from the line.
   b. Filled to capacity and all extraneous air removed.
   c. Pressurize to 75 psi above normal working pressure at the test location and hold for a period of not less than two hours.
   d. At the end of the testing period the line shall be refilled with water and the amount of water needed to refill the line shall be measured and recorded.

   e. The amount of water needed to refill the line must be less than the maximum allowable leakage. The maximum allowable leakage shall be computed thusly:

$$Q_{Loss} = SDP^{1/2} / 133000$$

Where:

Q_{Loss} = Maximum allowable leakage
S = Length of the section tested in feet D= Diameter of the pipe in inches
P = Test Pressure, PSI

C. Cleanup, Chlorination, and Bacteriological Testing

1. Prior to final acceptance and after pressure testing of the waterline the contractor/owner shall:

   a. Thoroughly flush all sediment, debris, and deleterious

materials out of the line.

b. Fill the line with chlorinated water, chlorinate~~d~~ to not less than 50 ppm, and let stand for 24 hours.

c. At the end of 24 hours the line shall be thoroughly flushed and refilled with chlorinated water, chlorinated to 200 ppm and allowed to stand for three hours.

d. The line shall then be thoroughly flushed and bacteriological samples taken ~~Samples shall be forwarded to a Certified labotatory for testing. Upon receipt of passing test results, and with the authorization of the City the line may be placed in service~~ in the following manner:

1) Two consecutive sets of samples taken at least 24 hours apart from the new main in accordance with AWWA.
   i. Samples to be taken every 1,200 of new main, plus one set from the end of the line and at least one set from each branch.
   ii. Samples shall be collected in sterile bottles treated with sodium thiosulfate. No hose or fire hydrant shall be used in the collection of samples.
2) Samples shall be tested by a Certified laboratory
3) Upon receipt of passing test results, and with the authorization of the City, the line may be placed in service.

Prior to placing the waterline in service, the City Representative shall be presented with certified pressure test results, certified passing biological test results, and written certification that the waterline and appurtenances have been constructed in accordance with MDNR and City of Osage Beach standards.

D. Privately Owned Systems

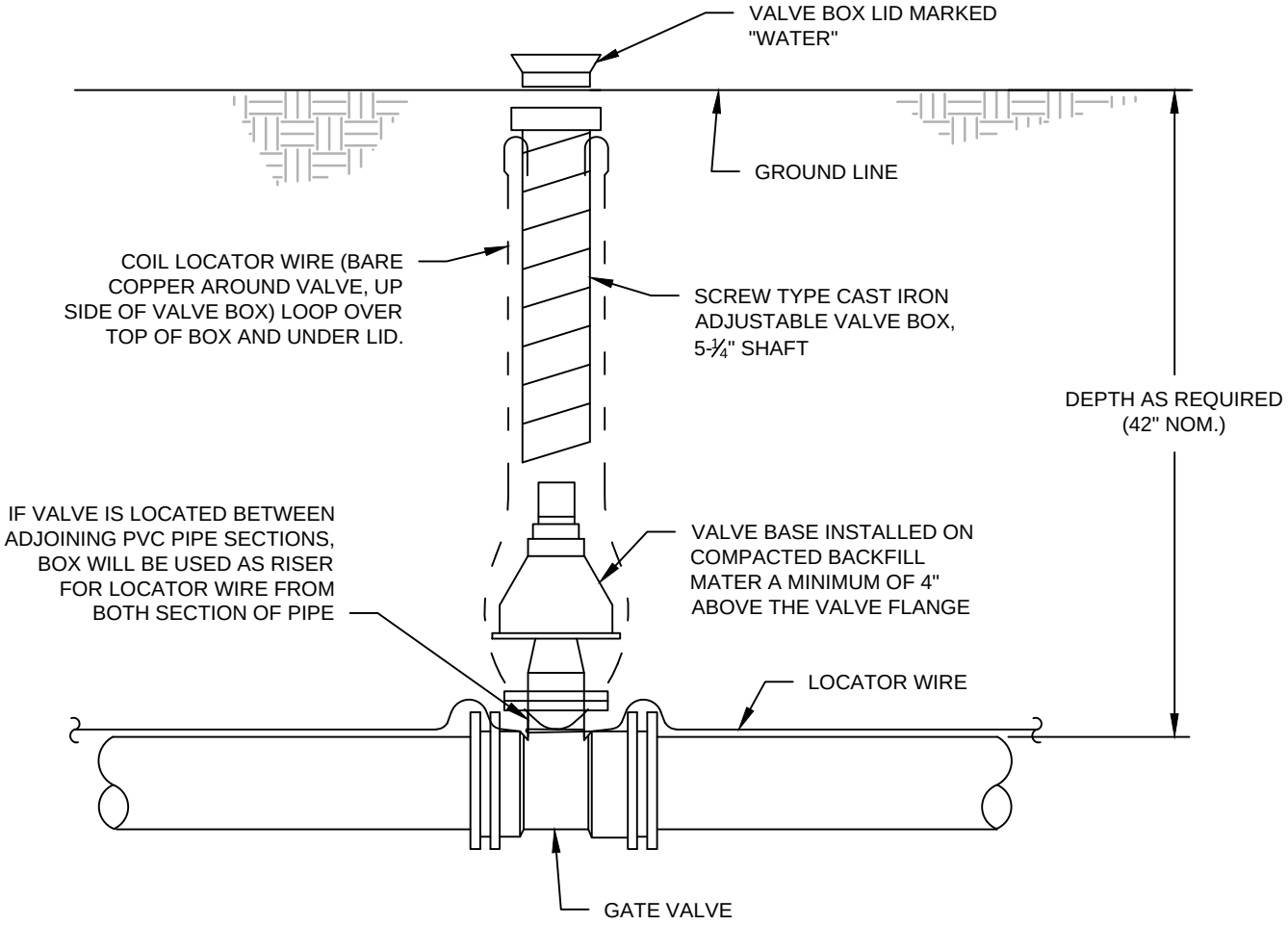
1. Privately owned water mains within subdivisions where the mains are to remain the property of, and be maintained, by the subdivision owner and connected to the City of Osage Beach water system shall be tested as specified herein. Building service lines between the water meter and the building shall be tested in accordance with the International Plumbing Code and as accepted by the Department of Public Works at the time the meter is activated.
2. A written certification of waterline test completion is required.

AS CONSTRUCTED DRAWINGS AND MAINTENANCE DOCUMENTS

The Developer/Contractor shall provide the Public Works Department with not less than two full sized "As Constructed" drawings certified as being correct record drawings by a Registered Professional Engineer or Land Surveyor. If fire pumps, specialized standby equipment, etc. are to be turned over the City two full sets of operational and maintenance data for each pump or system shall be provided to the Public Works ~~Director~~ Operations Manager ~~or designee~~.

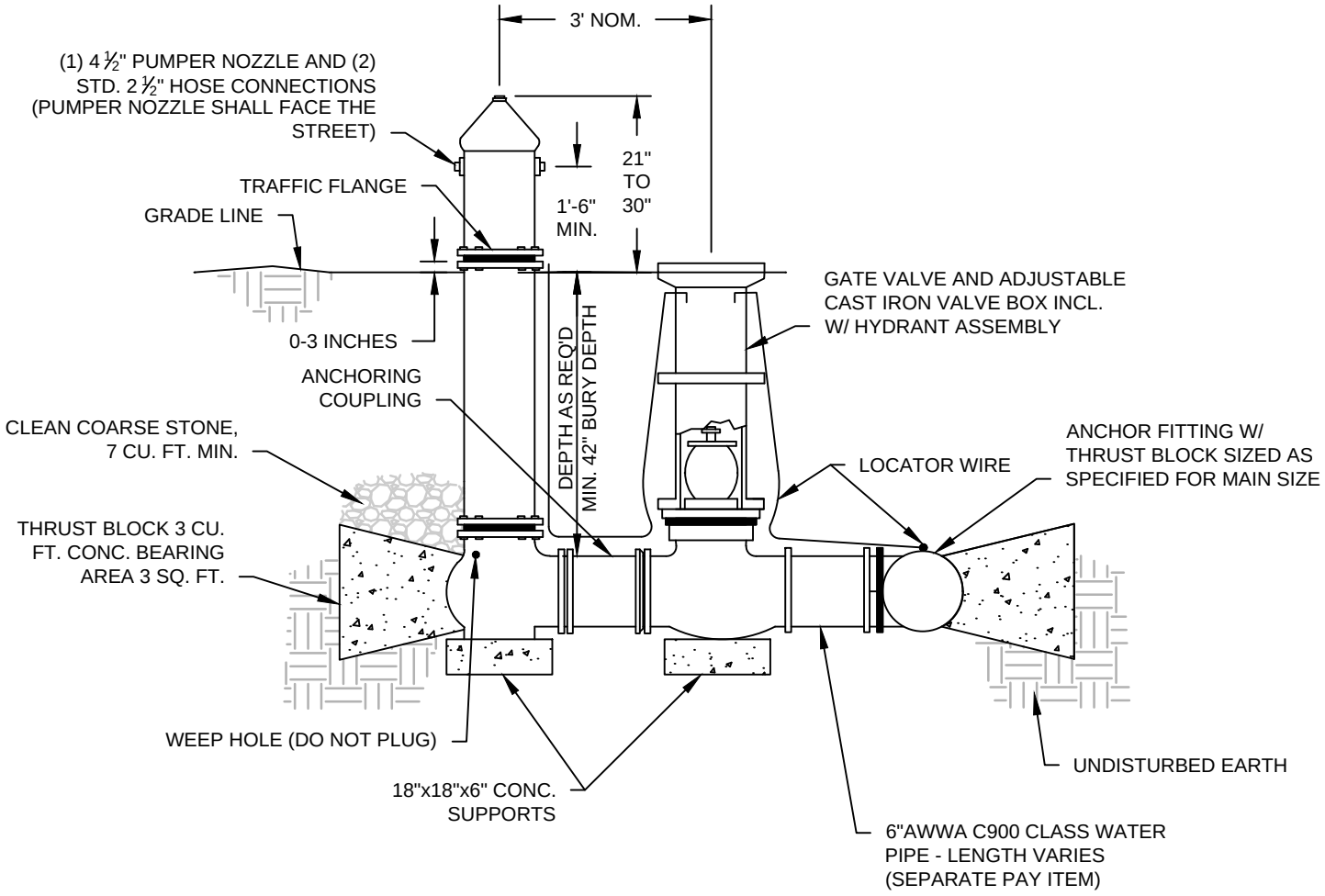
WATERLINE AND APPURTENANCES CONSTRUCTION DETAIL DRAWINGS

Construction details and sketches are attached.



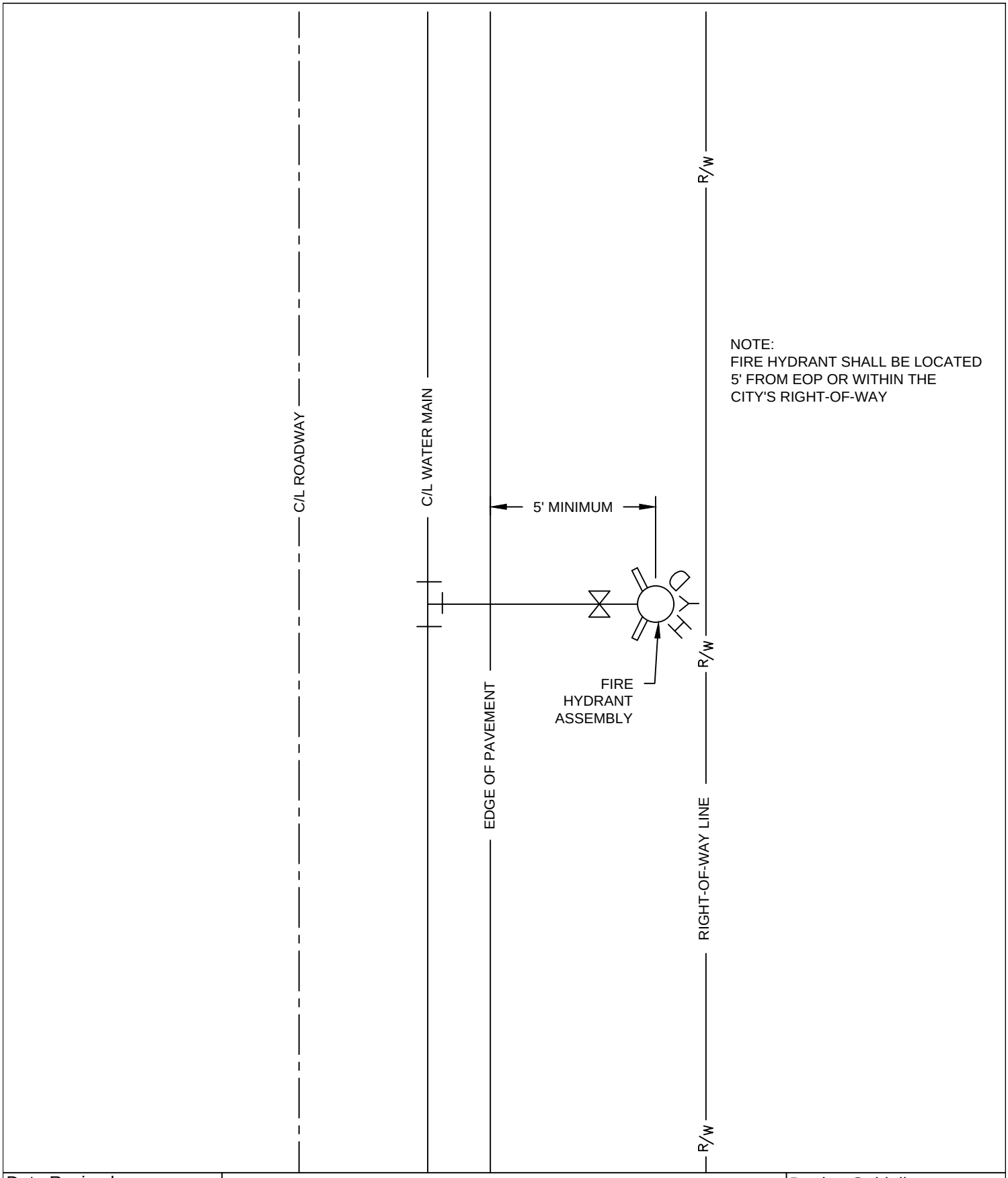
NOTE:
6" PVC PIPE WITH CAST IRON OR ALUMINUM CAP AND LID MAY BE SUBSTITUTED FOR SCREW TYPE CAST IRON VALVE BOX IN OUT OF TRAFFIC AREAS.

Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL GATE VALVE INSTALLATION	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-1



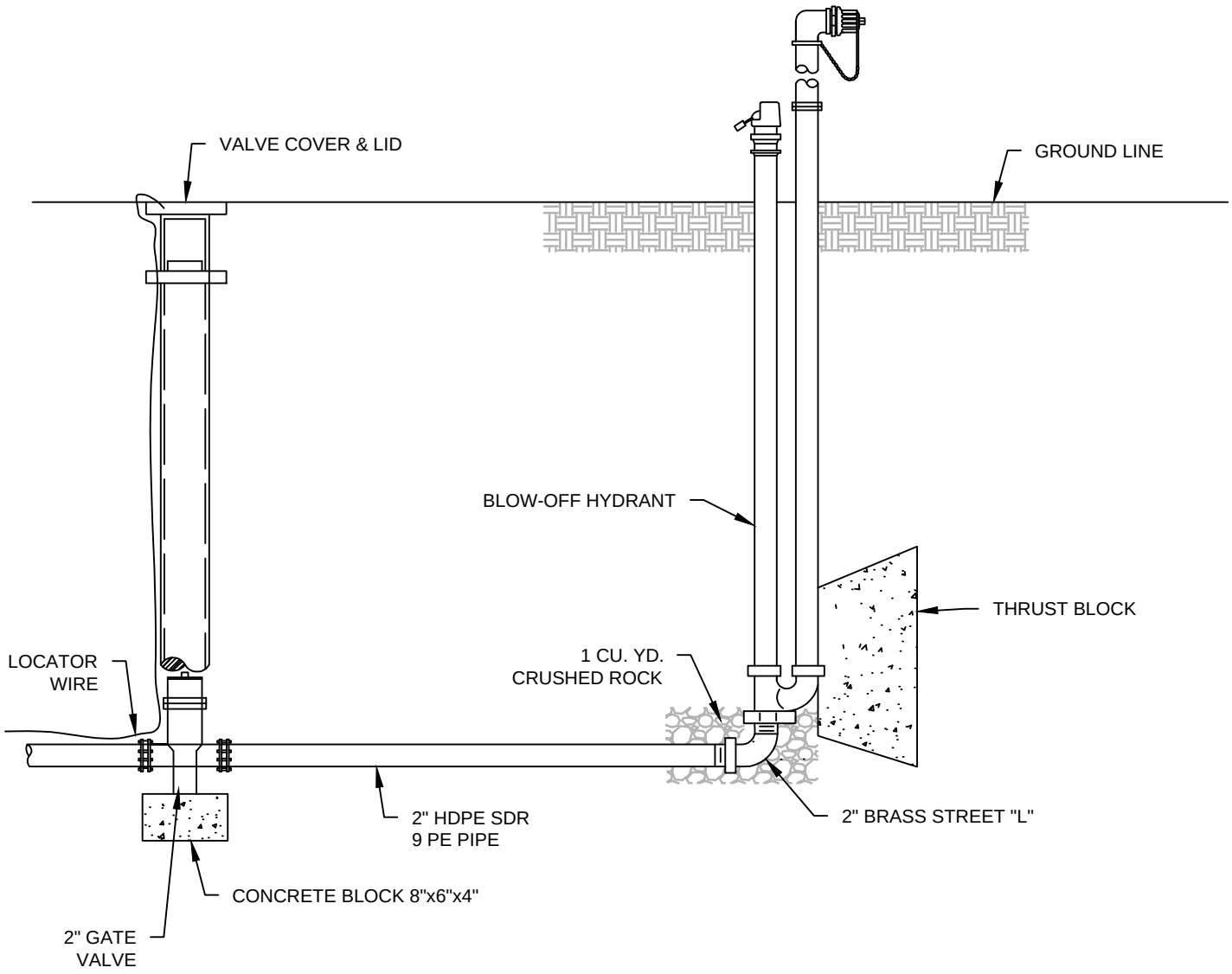
NOTE:
RETAINER GLANDS REQUIRED ON ALL FITTINGS. RESTRAINED JOINTS SHALL BE REQUIRED WHERE INDICATED OR DICTATED BY AVAILABLE SPACE OR UNSUITABLE SOIL CONDITIONS.

Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL FIRE HYDRANT	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-2



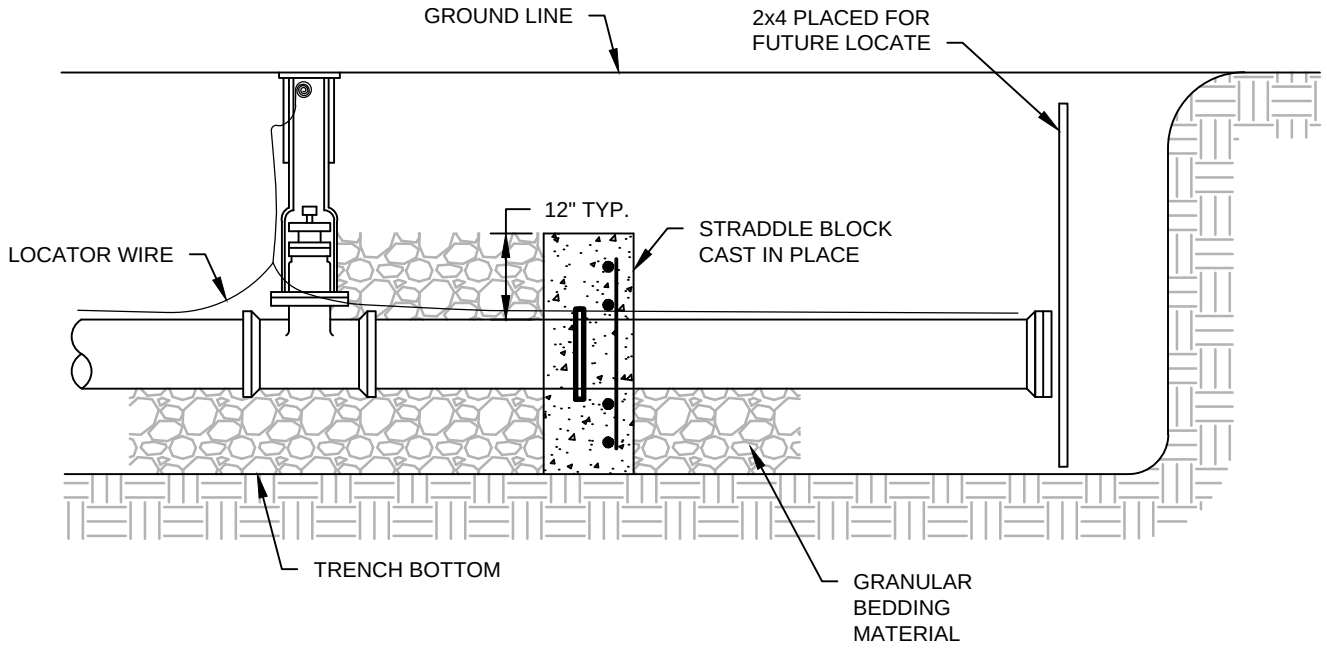
Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL FIRE HYDRANT LOCATION	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-3

NOTE:
CONTRACTOR SHALL FIELD VERIFY WITH
ENGINEER DIRECTION OF BLOW-OFF HYDRANT.

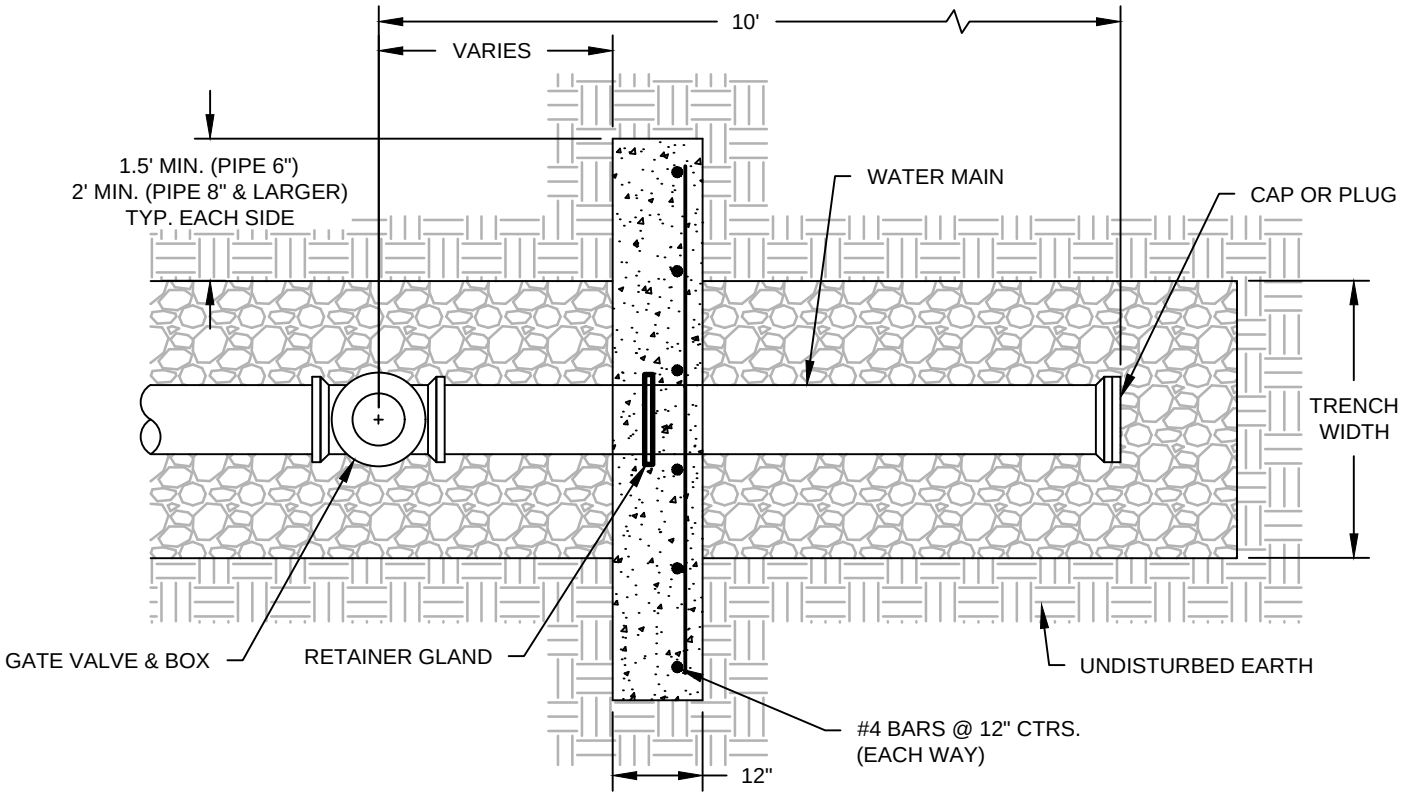


Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL BLOW-OFF ASSEMBLY	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-4

NOTE:
CONTRACTOR TO INCLUDE RETAINER
GLANDS FOR THE GAVE VALVE

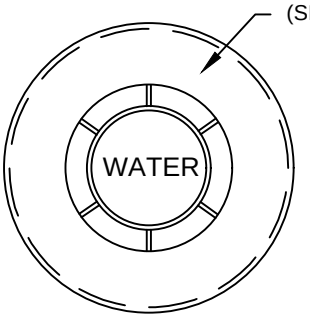


ELEVATION

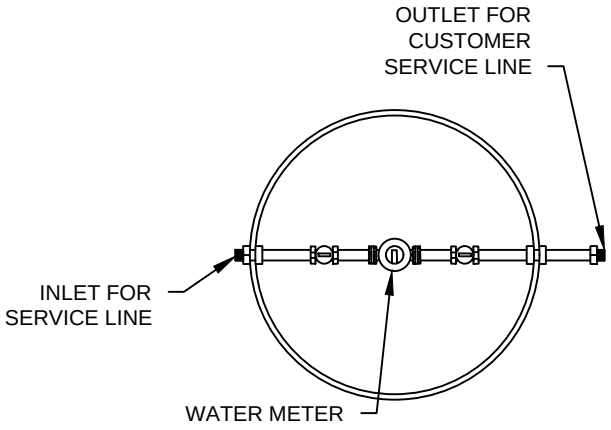


PLAN VIEW

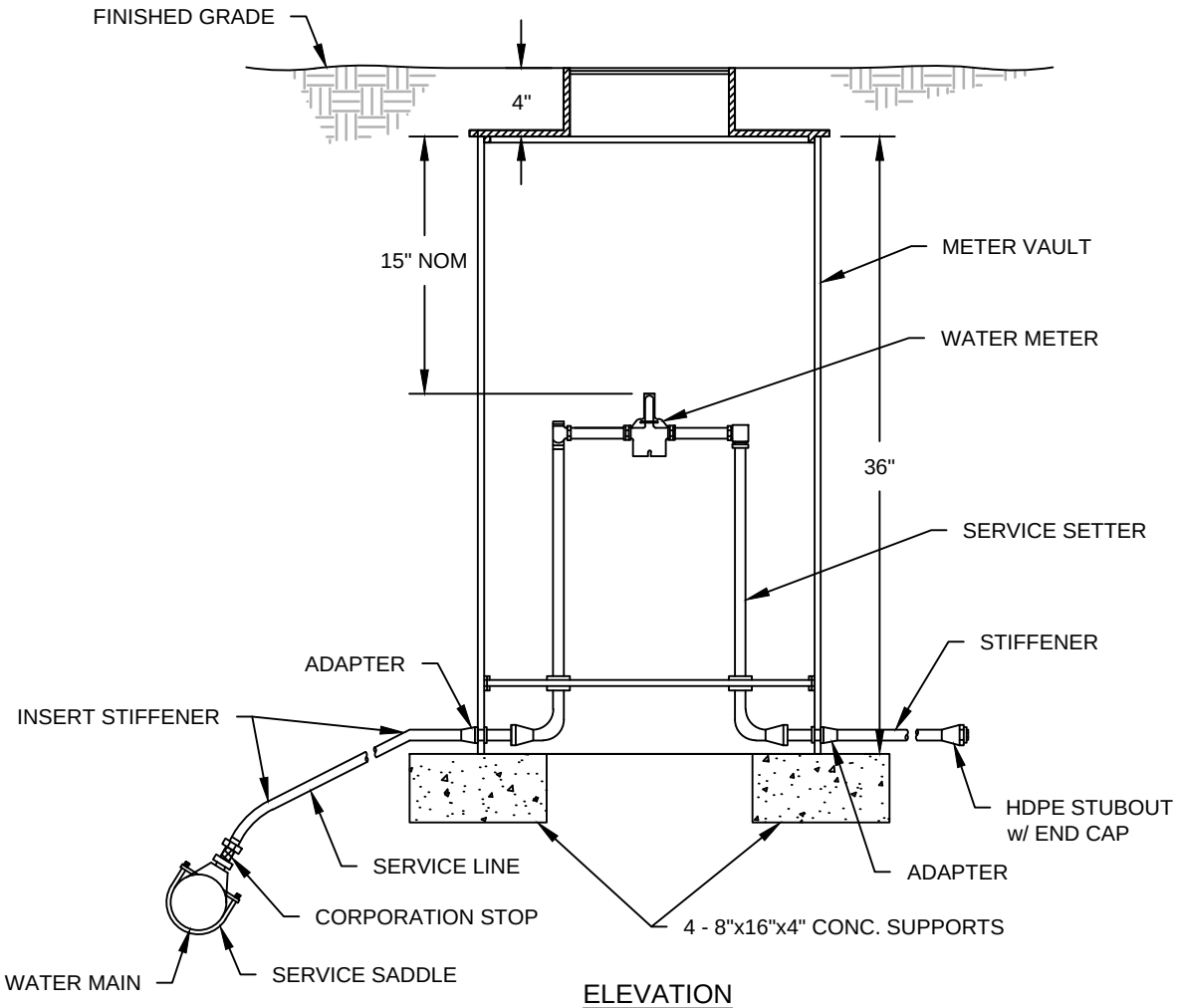
Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL WATER LINE TERMINATION	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-5



TOP

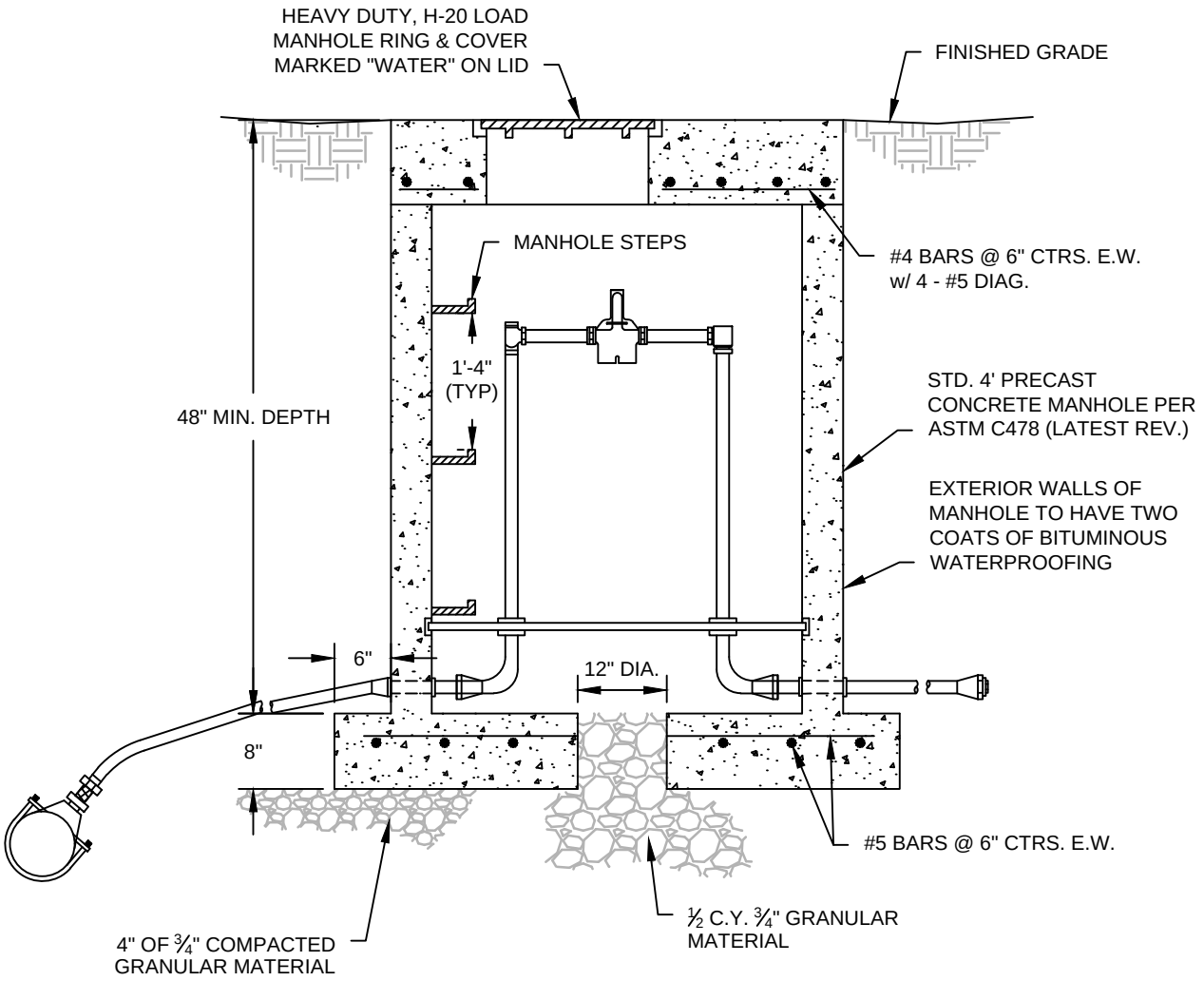


PLAN

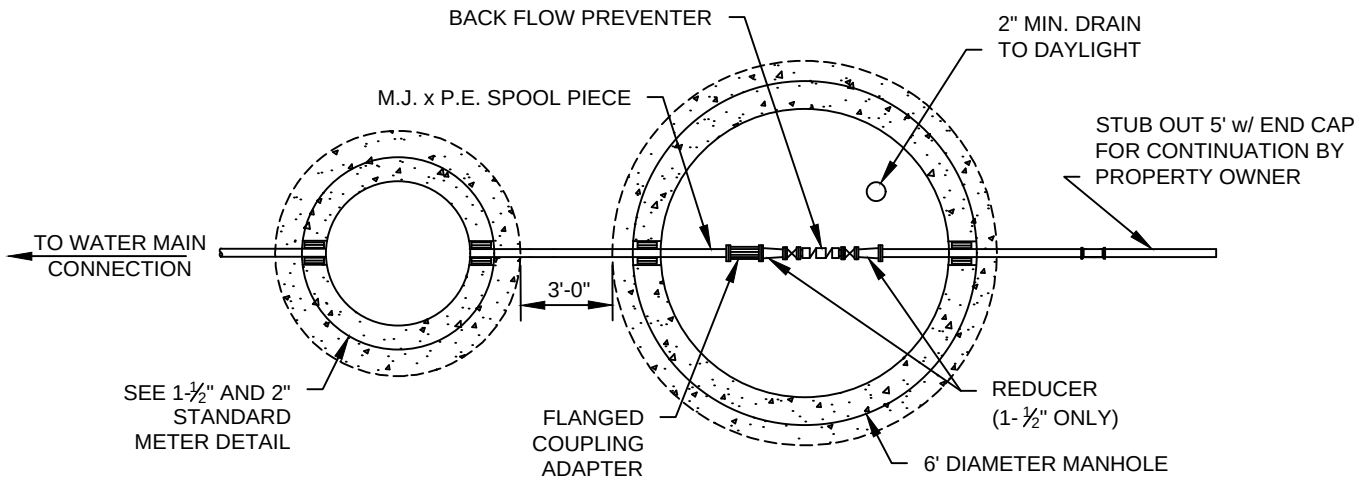


ELEVATION

Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL METER SETTING SIDEWALK OR LAWN ⅝"x¾", 1", 1-½", OR 2" METERS	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-6

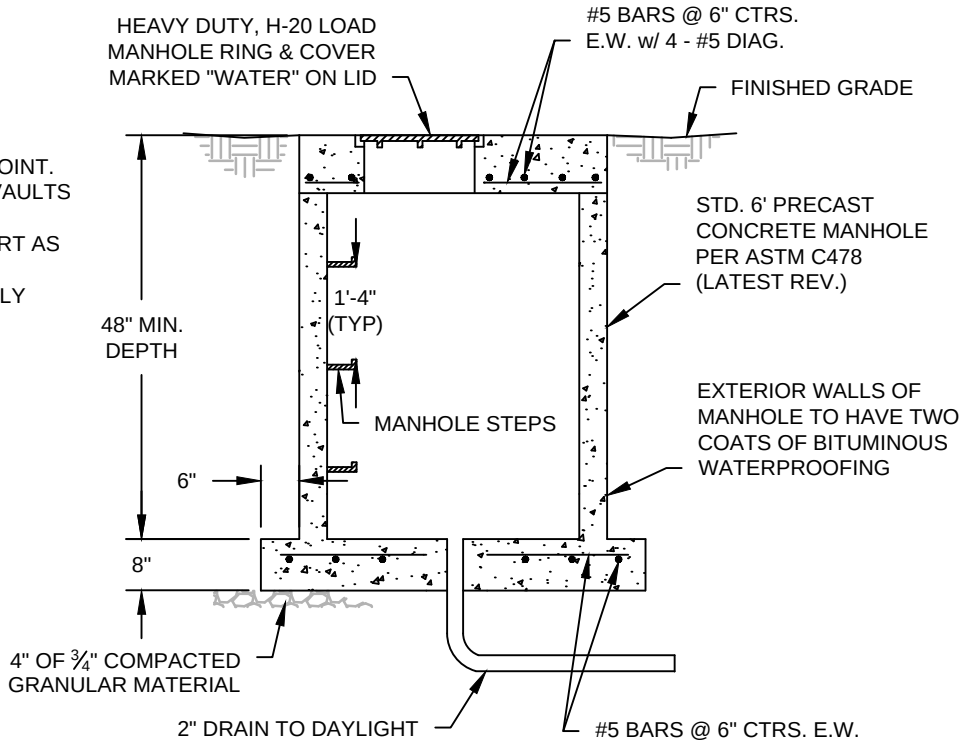


Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL METER VAULT DRIVEWAY OR PARKING AREA	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-7



PLAN VIEW (TOP REMOVED)

NOTES:
1. ALL PIPE AND FITTINGS OUTSIDE VAULTS SHALL BE MECHANICAL JOINT.
2. ALL PIPES AND FITTINGS INSIDE VAULTS SHALL BE FLANGED.
3. PROVIDE ADEQUATE PIPE SUPPORT AS REQUIRED.
4. BACK FLOW PREVENTER ASSEMBLY MIN. OF 12" OFF FLOOR.



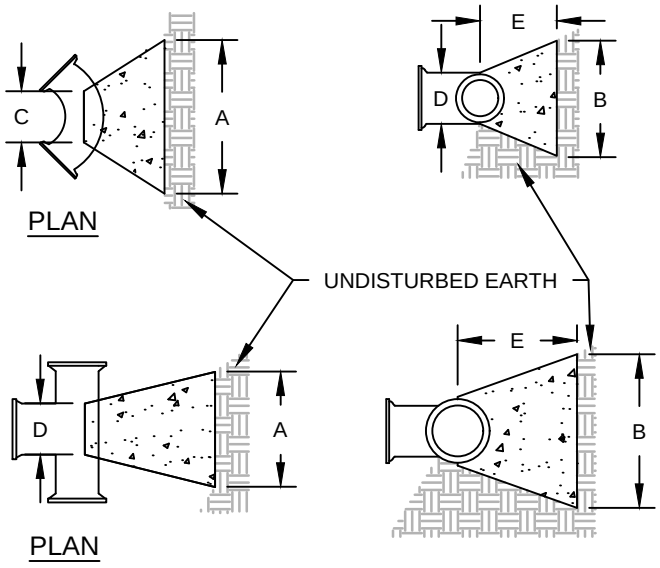
BACKFLOW PREVENTER ELEVATION

Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL 1-½" TO 2" METER WITH BACK FLOW PREVENTER	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-8

PIPE SIZE CHART

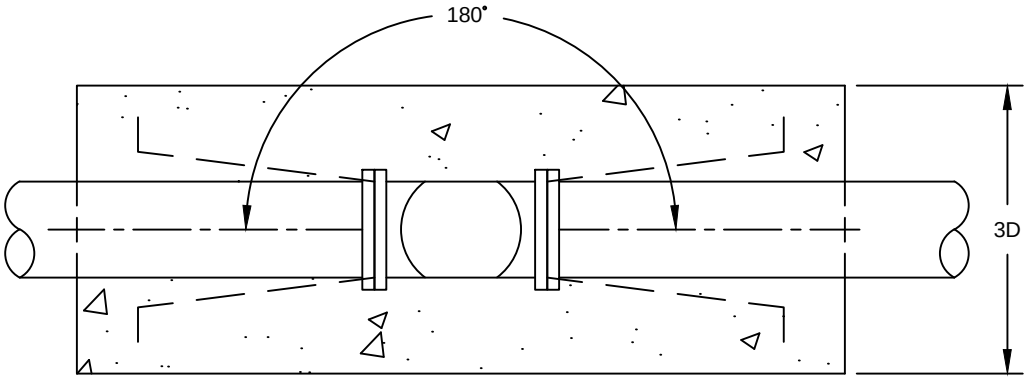
PIPE SIZE	FITTING	DISTANCE IN INCHES				
		A	B	C	D	E
4" AND SMALLER	11.25° & 22.5°	9	9	8	8	6
	45°	18	9	8	8	12
	90°	21	12	8	8	12
	TEE/PLUG	15	12	8	8	12
6"	11.25° & 22.5°	12	12	8	10	12
	45°	27	12	8	10	12
	90°	33	18	8	10	12
	TEE/PLUG	24	18	8	10	12
8"	11.25° & 22.5°	18	15	8	10	12
	45°	33	15	8	10	18
	90°	42	24	8	10	18
	TEE/PLUG	30	24	12	10	18
10" & 12"	11.25° & 22.5°	27	24	12	12	18
	45°	51	24	12	12	24
	90°	63	36	12	12	30
	TEE/PLUG	45	36	12	12	24
14" & 16"	11.25° & 22.5°	33	33	12	16	18
	45°	69	33	12	16	30
	90°	84	48	12	16	36
	TEE/PLUG	60	48	12	16	30

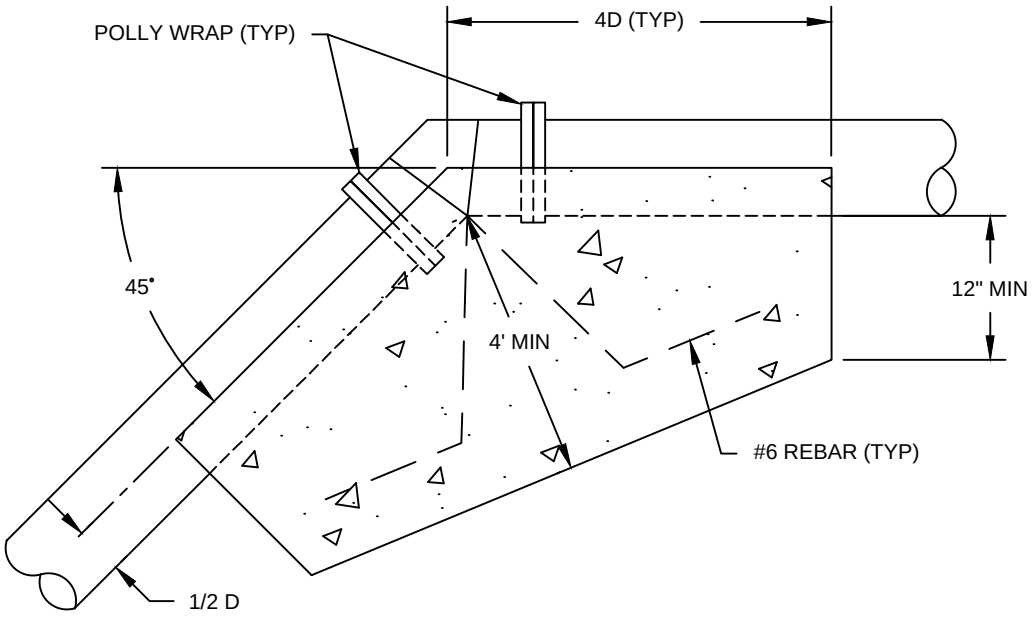
NOTES:
1. THRUST BLOCKS ARE BASED ON A WORKING PRESSURE OF 200 P.S.I. PLUS 0% SURGE & 2000 P.S.F. ALLOWABLE SOIL BEARING PRESSURE.
2. FOR PIPE SIZES NOT SHOWN USE DIMENSIONS FOR NEXT LARGER SIZE.
3. USE 3/8" PLYWOOD SEPARATOR BETWEEN BLOCKS AND PLUGS TO PROVIDE FOR FUTURE REMOVAL.



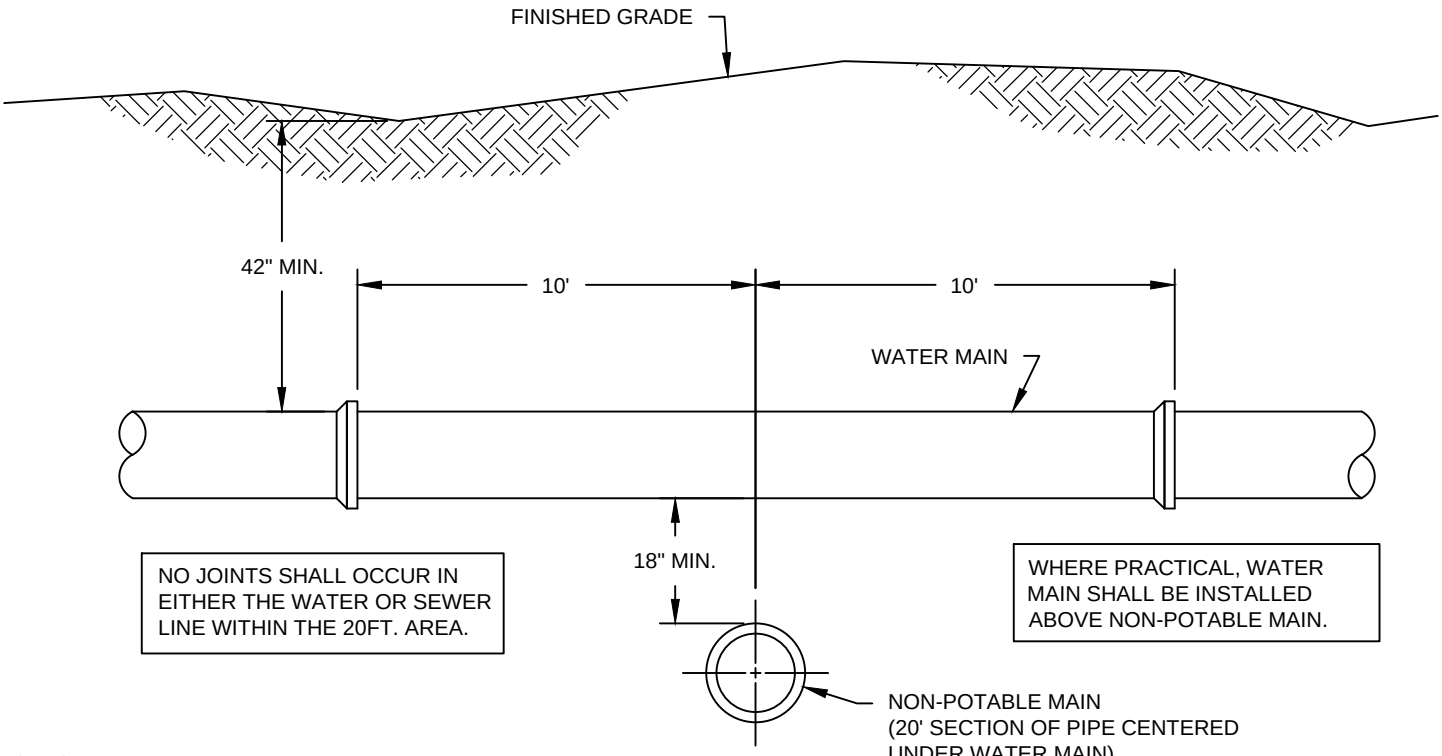
Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL THRUST BLOCK DETAIL	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-9

NOTE:
M.J. FITTING WITH RETAINER GLANDS
REQUIRED FOR ALL VERTICAL BENDS





Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL VERTICAL BEND THRUST BLOCK	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-10



NOTES:

1. IF VERTICAL SEPARATION CANNOT BE MAINTAINED, THE CONTRACTOR SHALL:

   1.1. PROVIDE ENCASEMENT TO A POINT OF TEN FEET ON EITHER SIDE OF THE SEWER/WATER LINE CROSSING AS APPROPRIATE. CASING PIPE MUST BE A MATERIAL THAT IS APPROVED FOR USE AS WATER MAIN.

   OR

   1.2. CONSTRUCT ONE OF THE WATER OR SEWER MAIN WITH MECHANICAL OR MANUFACTURED RESTRAINED JOINT PIPE OR FUSION WELDED PIPE.

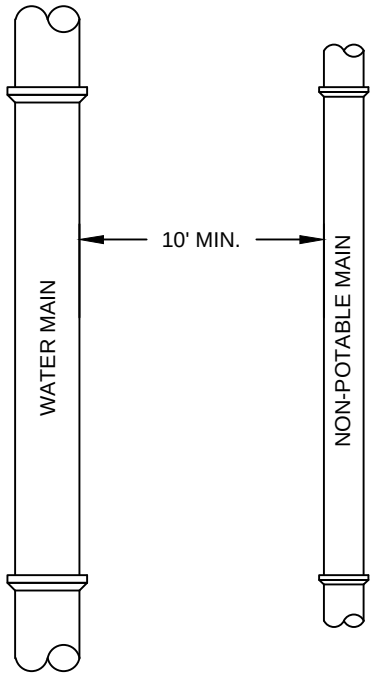
2. IF HORIZONTAL SEPARATION CANNOT BE MAINTAINED, THE CONTRACTOR SHALL:

   2.1. CONSTRUCT ONE OF THE WATER OR SEWER MAIN WITH MECHANICAL OR MANUFACTURED RESTRAINED JOINT PIPE OR FUSION WELDED PIPE.

   OR

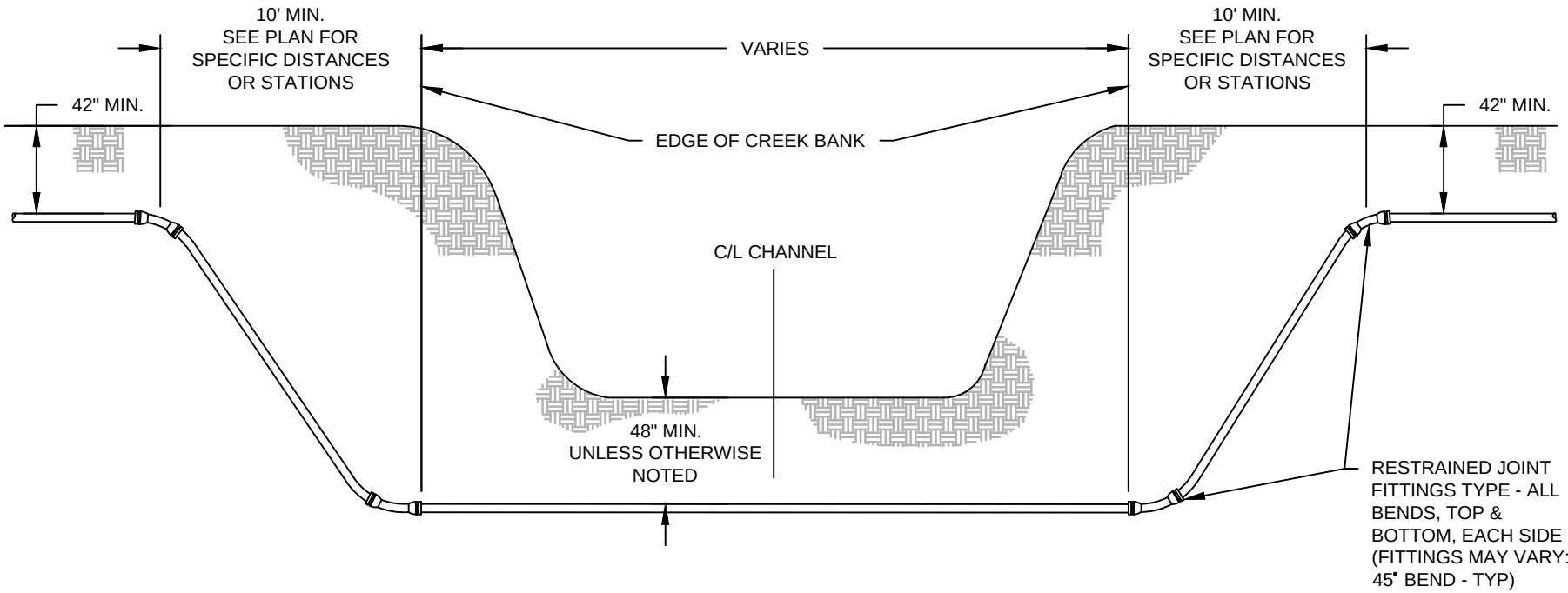
   2.2. PROVIDE A CONTINUOUS CASING. CASING PIPE MUST BE A MATERIAL THAT IS APPROVED FOR USE AS A WATER MAIN

VERTICAL SEPARATION



HORIZONTAL SEPARATION

Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL WATER / NON-POTABLE MAIN CROSSING	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-11



Date Revised: OCTOBER 2004	CITY OF OSAGE BEACH TYPICAL DETAIL CREEK CROSSING	Design Guideline: SECTION 2
By: SH		WATER SYSTEM
Checked By: JB		Drawing No: II-12

SECTION III – SEWER SYSTEM

OVERVIEW

The City of Osage Beach operates a sewage collection and treatment system in accordance with the Missouri Department of Natural Resources (MDNR) regulations. The system is comprised of pressure and gravity sewer lines, grinder stations, lift stations, and a jointly owned regional sewage treatment facility. The plant is managed by the Lake Ozark / Osage Beach Joint Sewer Board. The collection system within Osage Beach, and from the city to the plant, is owned and operated by the City of Osage Beach. At the current time, there are a few isolated areas within the city that are not served by the collection system. It is the policy of the city that all occupied facilities within the city will have city sewer service.

At the present time, there are over 1125 grinder stations and 56 sewage lift stations. These stations have been standardized to use ABS/Sulzer pumps and appurtenances. Grinder station packages, including simplex and duplex stations, can be purchased from the City of Osage Beach. Packages include the standard depth basin (6 feet), electrical panel, pumps, base elbow, guiderail, lifting chain, floats and bracket. Contact Public Works at (573) 302-2020 for additional information or questions. Packages may be purchased from a supplier so long as they conform to the City's standards described by this section. The Public Works Operations Manager reserves the rights to redirect anyone to a supplier for the purchase of multiple packages at one time. ~~This practice shall continue until determined by the city to be infeasible or otherwise unsatisfactory.~~

All modifications to the sewage treatment plant or the sewage collection system shall conform to the MDNR regulations and polices as supplemented herein.

REFERENCED CITY ORDINANCES

Chapter 400.110	Subdivision Regulations
Chapter 410.130	Contents ~~(Location and design of water mains and appurtenances)~~
Chapter 410.190	~~Design~~ Basic Standards
Chapter 410.260	Location of Utilities in Right-of-Ways
Chapter 410.330	Sanitary Sewers
Chapter 710	Sewers and Sewerage Systems

SEWERAGE DESIGN

Wastewater Treatment Facility

Modifications to the existing treatment facility must be made under the direction of the Lake Ozark/Osage Beach Joint Sewer Board. Such modifications must be designed in accordance with and approved by MDNR. If the City needs to have changes made in the plant, they must forward the request to the Lake Ozark/Osage Beach Joint Sewer Board.

Sewage Collection System

Modifications of and additions to the existing sewage collection system shall be made in accordance with MDNR regulations as supplemented herein.

Hydraulic Design

AVERAGE DAILY FLOWS

Type of Establishment	Pounds BOD per Person	Gallons/Day per Person
Residential		
Single Family	0.17	100
Apartments	0.17	100
Condos	0.17	100
Commercial Food & Drink		
Tavern	0.01	2
Fast Food	0.02	5
Restaurant w/ garbage grinder	0.04	5
Carwash (10.3 gpd/sf) (31.5 gpm Peak Hour/ Bay)	See Data To Left	
Institutions		
Day School w/ gym & showers	0.03	20
Day School w/ cafeteria (Add)	0.02	4
Day School w/ garbage grinding (Add)	0.02	1
Hospital (per bed)	0.22	200
Nursing Home	0.17	125
Park Restroom	0.02	5
Park Restroom w/ showers	0.06	25
Swimming Pool	0.06	25
Country Club (per resident)	0.17	100
Country Club (per member)	0.06	25
Service Station	0.01	5
Laundromat (per machine)	1.25	580
Hotels	0.15	50
Motel w/o Restaurant	0.1	40
Luxury Resort	0.17	75
Camp Trailer	0.08	30
Church (per seat)	0.01	5
Store/Shopping Center/Mall (per 1000 sf of floor area)	0.34	200
Stadium/Auditorium/Theater/Drive-In (per seat)	0.01	5

*Includes infiltration

Hydraulic Design shall be based upon the following criterion:

EQUIVALENT POPULATION

Facility	Persons/Unit

~~Single Family Residence~~	~~3.7~~
~~Apartment/Condo – One Bedroom~~	~~2~~
~~Apartment/Condo – Two Bedroom~~	~~3~~
~~Apartment/Condo – Three Bedroom~~	~~3.7~~
~~Mobile Home~~	~~3~~
~~Camper Trailer~~	~~3~~
~~Motels (per room)~~	~~3~~

Wastewater design shall be in accordance with MDNR's Wastewater Guidelines and Standards Document (PUB2754). For hydraulic capacity, refer to Table 1-1. Minimum Design Loadings in MoDNR's PUB2754. The designer shall provide data used for calculating the system flow data. For population per dwelling, refer to Table 1-2. Minimum Population Equivalent in the above referenced document.

Property Owners shall be responsible for improvements to existing stations due to increased flow volumes. If the City deems a property owner has changed the conditions of an existing station, a notice will be provided by the City's Compliance Officer. Common changes causing station upgrades includes, but are not limited to, overnight rentals, building expansion, excessive water use, change in dwelling type, etc.

PEAK HOURLY FLOW = 4 X AVERAGE DAILY FLOW

Gravity Sewers

Gravity Sewers design shall conform to the applicable MDNR regulations and as specified herein. The peak hourly flow shall be determined, and the gravity line sized accordingly with the following additions:

1. Gravity sewer laterals from a residence to grinder station or main:
   a. Shall be not less than 4-inch pipe.
   b. Shall have a cleanout located within 5 feet of the residence and at all vertical and horizontal bends; a sanitary tee within 5 feet of the grinder station or main; and a backflow valve adjacent the grinder station.
   ~~c. Shall not exceed 150 feet in length. Residence service lines over 150 feet in length shall be treated as sewer mains.~~
   d. Shall be SCH 40 with SCH 40 fittings or ASTM D3034 DR 26 PVC with sanitary sewer DR 26 PVC ~~or ductile iron~~ fittings.
   e. All bends shall be long radius bends. Short radius 90° bends are specifically prohibited.

2. Gravity Sewer mains:
   a. Sewer mains shall be designed for the peak hourly flow and shall be not less than 8-inch pipe.
   b. Gravity sewer pipe shall be:
      ~~i. Ductile iron, ASTM A746, Class 350 with cement lining. Ductile iron Push-on type joints and fittings shall be used, or~~
      ~~ii. ASTM 2241, DR 21, Class 150 with approved fittings.~~
      iii. ~~PVC~~, ASTM D3034, SDR 26, with SDR 26 PVC sanitary fittings. For depths greater than 8 feet.
      iv. ASTM D3034, SDR 35, with SDR 35 fittings where maximum depth of cover is eight (8) feet or less.
      ~~v. SCH 40 PVC with SCH 40 fittings~~

c. Manholes shall be constructed at the end of main and at changes in horizontal or vertical alignment, or not more than every 350 feet.

~~d. When a residence service line will exceed 150 feet, a manhole shall be constructed with a 4-inch service line to the residence and a minimum eight inch main to remainder of the system.~~

f. All bends shall be long radius bends. Short radius 90° bends are specifically prohibited.

3. Residential lateral connections to sewer mains shall be made using a sanitary wye tapping fitting.

4. Connections to grinder pump basins:
   a. Shall be made using a cast iron inlet hub of appropriate diameter and shall be bolted to the grinder basin and sealed with an approved silicone seal. A PVC backflow valve (check valve) shall be installed within 2 feet of the basin.
   b. Inlet pipes shall be installed 18-inches to 30-inches below the grinder station lid. ~~a minimum of 4 feet above the bottom of the grinder basin and not less than 18 inches below the top of the basin.~~

5. Bedding:
   a. Shall be installed around the pipe from ~~3~~ 6 inches below to 12 inches above the pipe. Bedding shall be ~~nominal ½ inch minus~~ crushed rock conforming to MoDOT Type 5 aggregate, Section 1007. ~~1004, Grade D, Chat, or pea gravel, or Osage River Sand. Any material used shall have a PI of 6 or less.~~ Trench backfill shall not contain any material with a nominal particle size greater than six (6) inches.

6. Detectable Marking Tape and Toning Wire:
   a. Metallic detectable marking tape, Type III, shall be placed in the trench above all sewers, gravity, and pressure, one foot above the pipe.
   ~~b.~~ Locator wire shall be standard tracer wire, a single No. 12 U.L. approved copper wire of the solid type with insulation for 600 volts. Wire for this service shall be green in color and provided in standard rolls of not less than five hundred (500) foot lengths. Locator wire shall be placed on top of the water main and secured with tape at 8-foot intervals. Locator wire shall extend to al terminus, such as manholes, valves, pump stations, and valve vaults. ~~No. 12 solid copper Toning wire shall be located three inches above taped to the top of the sewer line and shall be continuous from terminus to terminus and shall include all city owned sewers.~~
      i. Splices shall only be allowed where accessible. Buried splices will not be allowed. If valve box locations are spaced more than 500 feet apart, contractor shall install a vertical piece of 6-inch diameter PVC adjacent to the water main topped with a cast iron bonnet and cover marked “water”. The wire shall be run outside up alongside the valve box, then through a hole in the valve box just below ground level. The splice connector shall be left exposed at the top of the valve box. Wire contact points shall be provided at no more then 500-foot intervals.
      ii. Prior to final acceptance by the City, the contractor shall demonstrate that the locator wire works to the satisfaction of the City Inspector or Public Works Operations Manager or designee.

7. Minimum grades for gravity sewers:
   a. 4-inch sewer shall be not less than 1.00%
   b. 6-inch sewer shall be not less than 0.67%
   c. 8-inch sewer shall be not less than 0.50%
   d. 10-inch sewer shall be not less than 0.33%
   e. Larger shall be as approved by the ~~City Engineer~~ Public Works Operations Manager

8. Minimum depth of cover for gravity sewers:
   a. Shall be not less than ~~18 inches~~ 24 inches above the top of pipe.

9. Maximum depth of cover shall be 8 feet unless specifically authorized in writing by the ~~City Engineer~~ Public Works Operations Manager.

10. Manholes shall be as detailed (Drawing III-4/ III-5) in the Osage Beach Design Guidelines or as approved by the ~~City Engineer~~ Public Works Operations Manager.

    Sewer manhole casting and cover specification:
    a. All Osage Beach sanitary castings/ frames shall be Neenah Cat R-1642 or approved equal.
    b. Cover marked "Sanitary Sewer".
    c. Concealed pick holes (2) per NF 1015
    d. Mechanical Groove in lid for oil resistant T-gasket.
    e. Bolts are not required unless called out in special conditions

11. Valve Boxes shall be a vertical piece of 6-inch diameter PVC pipe ~~Buffalo type~~ with cast iron bonnet and cover ~~lid~~ marked "sewer".

12. Leak testing for gravity sewers may be tested by air or water method.
    f. **Water Tests**
       i. Gravity sewer lines shall be plugged at the bottom end and filled with water to the top of the next upstream manhole, left for 24 hours.
       ii. If no manhole, to the top of the farthest upstream cleanout left for 24 hours.
       iii. The line shall then be refilled with a measured amount of water.
       iv. The allowable leakage shall be 1 gallon per 100 feet of line tested.

    g. **Air Tests**
       i. Test lines between manholes with low-pressure air.
       ii. Safety requires a regulator or relief valve on pressurizing equipment, set at 8 psig
       iii. No one will be allowed in manholes while there is air pressure against test plugs.
       iv. Plug all pipe outlets to resist test pressure. Give special attention to laterals.
       v. Plug all other pipes in both upstream and downstream manholes and fill manholes with clear water to just above the line plugged for testing. Any bubbles appearing during the test indicate leakage past a plug or in part of the test equipment.
       vi. Compute the test pressure by multiplying 0.43 x the elevation difference (in feet) of the upstream manhole rim and the invert of the line under test at the downstream manhole. The result is in psig and may be rounded to the nearest half psig. The test pressure shall be not less than 3.5 psig, nor more than 6.0 psig. Total line length included in any test section shall not exceed 400 feet.
       vii. Supply air into the line until test pressure is attained. Allow at least 5 minutes for air temperature in the test section to stabilize.
       viii. Reestablish the test pressure and start a stopwatch. Determine the time required for pressure to drop 0.5 psig.
       ix. If the pressure does not drop during the stabilization period and no additional air has been added, the section undergoing test will have passed without further testing.
       x. The pipe section will also have passed if the time observed for the pressure to drop 0.5 psig is greater than that determined by using the following table:

Pipe Size, Inches	Time
~~4~~	~~4 minutes 2 seconds~~
~~6~~	~~6 minutes 0 seconds~~
8	7 minutes 37 seconds
10	9 minutes 8 seconds
12	10 minutes 58 seconds
14	12 minutes 30 seconds
16	14 minutes 32 seconds

*** When a combination of more than one pipe size is under test, the calculated time for the larger pipe shall apply**.

h. **Manholes** may be tested by vacuum or water method.
   i. Water Method - shall be tested by plugging inlet and outlet pipes and filling with water to the top of the manhole cover ring and letting set for 24 hours. The maximum leakage shall be a drop in water level of 3 inches.

Pressure Sewers

Pressure Sewers design shall conform to MDNR requirements and as supplemented herein. The design of additions to the City sewer system shall minimize the need for pressure sewer to the maximum extent practicable to reduce the number of lift or grinder stations to the minimum required. Pressure sewers shall conform to the following criterion:

1. Pressure sewers shall be designed for flow rates between 2.0 fps and a maximum of 5.0 fps. The minimum diameter of pipe used shall be 1-1/4 inches.

2. Pressure pipe:
   a. Less than 4 inches in diameter shall be schedule 80 PVC or ASTM 2241, DR 21, Class 150, or HDPE AWWA C906, ~~DR 9 copper tube size~~. SDR 21 class 200, or DR9 CTS.
   b. 4 inches and larger shall be: ~~AWWA C151 Class 350 ductile iron, or~~ AWWA C900 DR 18 Class ~~150~~ 235 PVC.

3. Joints:
   a. For SCH 80 pipe shall be solvent welded.
   b. For other pipe shall be neoprene lined push-on type joints or as approved by the ~~City Engineer~~ Public Works Operations Manager.

4. Fittings:
   a. For Schedule 80 pipe shall be Schedule 80 fittings.
   b. For other pipe may be appropriately rated and compatible PVC or ductile iron on PVC ~~and shall be ductile iron on ductile iron sewers.~~ All fittings shall be neoprene gasket push-on type or as approved by the ~~City Engineer~~ Public Works Operations Manager.
   c. Long radius bends or multiple fittings shall be used. Short radius 90° bends are specifically prohibited.

5. The minimum cover for all pressure sewer is 36 inches.

6. The maximum depth of cover for pressure sewers is ~~4~~ feet unless specifically authorized in writing by the ~~City Engineer~~ Public Works Operations Manager. Deeper main installation will be allowed to achieve minimum separation when crossing other utilities. Cover for crossing utilities shall not be greater than 8 feet.

7. Bedding shall be installed around the pipe from ~~3~~ 6 inches below to 12 inches above the pipe. Bedding shall be ~~nominal ½ inch minus~~ crushed rock conforming to MoDOT Type 5 aggregate, Section 1007. ~~Section 1004, Grade D, Chat, or pea-gravel, or Osage River Sand. Any material used shall have a PI of 6 or less.~~ Trench shall not contain any material with a nominal particle size greater than six (6) inches.

8. Detectable marking tape and Toning Wire:
   a. A metallic detectable marking tape, Type III, marked "Sewer Below" shall be placed in the trench 1 foot above all pressure sewers pipe.
   ~~b.~~ Locator wire shall be standard tracer wire, a single No. 12 U.L. approved copper wire of the solid type with insulation for 600 volts. Wire for this service shall be green in color and provided in standard rolls of not less than five hundred (500) foot lengths. Locator wire shall be placed on top of the water main and secured with tape at 8-foot intervals. Locator wire shall extend to al terminus, such as manholes, valves, pump stations, and valve vaults. ~~No. 12 solid copper Toning wire shall be located three inches above taped to the top of the sewer line and shall be continuous from terminus to terminus and shall include all city owned sewers.~~
      i. Splices shall only be allowed where accessible. Buried splices will not be allowed. If valve box locations are spaced more than 500 feet apart, contractor shall install a vertical piece of 6-inch diameter PVC adjacent to the water main topped with a cast iron bonnet and cover marked "water". The wire shall be run outside up alongside the valve box, then through a hole in the valve box just below ground level. The splice connector shall be left exposed at the top of the valve box. Wire contact points shall be provided at no more then 500-foot intervals.
      ii. Prior to final acceptance by the City, the contractor shall demonstrate that the locator wire works to the satisfaction of the City Inspector or Public Works Operations Manager or designee.

~~9. The check valve shall be brass body, single flap type.~~

10. The inlet connection hub shall be cast iron inlet hub bolted to the basin. The back of the hub shall be sealed to the basin using approved silicone sealant. Appropriate inlet hubs are stocked by the ABS supplier.

11. An isolation valve shall be installed at the connection to the sewer main.
    a. The valve shall be brass body, globe valve of the same nominal size as the pressure sewer.
    b. Shall be installed at the connection to the sewer force main.
    c. When possible, the valve should be located outside roadway or other similar traffic areas.
    d. Globe valve shall have integral checks for open and closed positions.
    e. Valve shall be placed upon a concrete, or approved, masonry pedestal to prevent settlement.
    f. Shall be covered with a PVC piece of pipe and cast iron bonnet market "sewer" extended to 3 to 6 inch above finished surface.
    g. If the finished surface is concrete or asphalt pavement, the valve box cover shall be flush with the paved surface.
    h. Valve box covers on pressure sewers shall be marked "SEWER" and the markings shall be cast into the cover.

12. The tapping saddle:
    a. Shall be Brass similar and equal to Ford.
    b. Shall be sealed to the pipe by means of a rubber "O" ring seal to provide a connection suitable for a working pressure of 200 psi.
    c. Shall have flanged or threaded outlets conforming to ANSI B16.1.
    d. If possible, all tapping saddles shall be in the horizontal position.
    e. The Owner shall provide all equipment necessary to complete the tap, including saddle, corporation stop, valve and pipe.
    f. All wet taps 2-inch and smaller are to be performed by City Staff or a City approved contractor and witnessed by the City. Taps larger than 2-inch shall be performed by an approved contractor and witnessed by the City.
    g. Under no circumstances shall anyone make a wet tap without approval and authorization by the City Public Works ~~Director~~ Operations Manager or designee.

13. Leakage testing procedure is as follows:
    a. Upon completion of the ~~water~~ force main, it shall be cleaned, and all dirt, trash, debris, and deleterious materials removed from the line.
    b. Filled to capacity and all extraneous air removed.
    c. Pressurized to 75 psi above normal working pressure at the test location and hold for a period of not less than 2 hours.
    d. At end of testing period, the line shall be refilled with water and the amount of water to refill the line shall be measured and recorded.
    e. Amount of water to refill the line must be less than the maximum allowable leakage.
    f. Maximum allowable leakage shall be computed thusly:

QLoss = SDP1/2 / 133000

Where:

QLoss	=	Maximum allowable leakage
S	=	Length of the section tested in feet
D	=	Diameter of the pipe in inches
P	=	Test Pressure, PSI

DESIGN OF GRINDER PUMPS AND SEWAGE LIFT STATIONS

The design of grinder pump installation shall be certified by a Registered Professional Engineer and shall conform to the City and MDNR requirements. To reduce maintenance and operational cost, the City has selected ABS/Sulzer pumps and equipment as their standard. Accordingly, all grinder pumps and lift stations shall be designed using ABS/Sulzer equipment ~~unless specifically authorized by the City Engineer~~. The size, type, and capacity of the grinder pump, or lift station, shall be based upon the hydraulic loading and gradient necessary to pump sewage from the source to an appropriate location.

To all practical extents, development shall utilize an existing lift station or a new lift station to serve the property or properties. Multiple new grinder stations for a single development are subject to review and approval by the Public Works Operations Manager. See Typical Detail III-12 for Lift Station Requirements.

Hydraulic Design Considerations

1. Using the previously presented charts determine the following:
   a. Average daily flow (ADF)
   b. Peak hourly flow (PHF)

2. Calculate the following and provide calculations in the design submittal:
   a. Total static head - from the proposed pump inlet to point of discharge. The point of discharge will be to the next lift station wet well on the sewer pressure main.
   ~~b.~~ Total dynamic head - this must include total static head plus line friction losses for pipe, fittings, and connections from the proposed pump to the point of discharge. This also must include friction losses for flow in the main assuming that a portion of the downstream pumps are running. The Public Works Operations Manager or a designee will assist with providing main pressure at a nearby lift station or connection point. ~~City Engineer will be able to assist in this determination.~~
   c. Pumping rate based upon wet well size and a maximum cycle time at peak hourly flow of 6 times per hour.
   d. Wet Well Capacity based upon a minimum storage above high pump off elevation of 2 hours of peak hourly flow or 45 minutes with SCADA installed. Wet well capacity shall be determined as follows:

VM = (QPHF x 120) + VHPO

Where:

VM = Volume in wet well below inlet pipe
QPHF = Peak hourly flow in gpm
VHPO = Volume in wet well below emergency pump on

3. The wet well design shall also conform to the following:
   a. Minimum diameter for simplex wet wells is 36 inches.
   b. Minimum diameter for duplex wet wells is 48 inches.
   c. Minimum depth of the inlet pipe shall be 18 inches to 30 inches as measured from the station lid. ~~from bottom invert of the inlet to bottom of the wet well is 48 inches.~~
   d. Maximum total depth of the wet well from lid to bottom is 12 feet.

4. Select the pump model and horsepower from the ABS pump curves.

5. Select the pressure line type and size as discussed under “pressure sewers” herein.

Additional Limitations or Specifications for Grinder Pumps

1. No more than 2 residences may be served by a simplex grinder station.

~~2.~~ No more than ~~15~~ 10 single-family residences, or their equivalent, may be served by a single duplex grinder station. ~~This is subject to the review of the City Engineer.~~ Multiple dwellings being served by a single simplex or duplex station is subject to review and approval by the Public Works Operations Manager.

3. All commercial facilities shall have a duplex grinder pump station. ~~In instances where a commercial facility has an average daily flow of less than 16 gpm, and no further development or additional capacity is contemplated, a simplex pump and controls may be installed in a duplex basin~~.

4. Triplex package units or custom-built lift stations are subject to the review and approval of the City Public Works Operations Manager ~~Engineer~~.

5. Each Grinder Pump Station shall include an ABS pump(s) fiberglass basin including internal piping, pump base and guide rail; and ABS Pump Control Panel as described in the specifications:
   a. The basin will be an ABS basin, or the equivalent thereof, and either simplex or duplex as required.
   b. All internal piping and pump guide rails shall be ~~galvanized~~ stainless steel.
   c. Concrete anti-floatation ring shall be cast around the basin base.
   d. Basin cover (lid) shall be of steel with minimum thickness of ¼ inch and coated with a high temperature baked epoxy or air-dried epoxy paint, green in color. No fiberglass lids will be allowed for grinder stations.
   e. Lid shall be fully bolted and/or hinged secured.

6. All grinder stations of 6.2 HP or less shall have internal discharge piping of 1-1/4 inch stainless steel pipe.

7. All grinder stations of more than 6.2 HP shall have stainless steel discharge piping of minimum 2 inch~~, or as approved by the City Engineer~~.

~~8. All grinder stations shall have a brass-bodied globe valve installed in each discharge line within the grinder station at a location approved by the City Engineer.~~

9. Minimum distance from top of grinder basin cover to top of inlet pipe shall be ~~18~~ 24 inches.

10. Minimum distance from top of grinder basin to bottom of discharge pipe(s) shall be 48 inches.

11. Maximum depth of the grinder station basin shall be 12 feet.

12. A finished grade around the station shall be established to be 2-inches below the lid and a 5-foot flat working area surrounding the station.

13. Access shall be provided to any grinder station for City access. The access is subject to review and approval by the Public Works Operations Manager and/or his/her designee.

Electrical Service for Sewage Lift Stations and Grinder Stations

1. AmerenUE is the provider for electrical service. The owner, developer, or contractor shall make arrangements with AmerenUE for electrical service to the grinder station.

2. Electrical energy shall be provided on a direct individually metered service of the appropriate capacity for the facility to be served.

3. The use of "Add-a-Phase" or other artificial phasing devices is prohibited.

4. When three phase service is required the owner or developer shall make all necessary arrangements with AmerenUE to provide the required service.

Grinder Station Electrical Panel

1. ABS~~/Electric Control Company~~ panel supplier shall provide the standard panel developed for the City, of the correct model to match the pump(s).

2. Control panel shall be fully and completely compatible and parts interchangeable with existing ~~City owned~~ units or as directed by the ~~City Engineer~~ Public Works Operations Manager.

3. Shall be mounted on galvanized steel rack at a height of four feet as measured from the top of station lid to the bottom of the station panel and four feet as measured horizontally away from the edge of the station. ~~approximately 5 feet above finished grade.~~

4. Each control panel shall have a wiring diagram, or schematic, attached to the inside of the outer door of the control panel box.

5. All exterior wiring shall be run in rigid metal conduit from the panel to the station and for at least 10 feet away from the panel in any direction. All ridged metal conduit installed below grade shall be wrapped or coated with a waterproofing sealer. No junction box will be allowed between the control panel and the station.

6. Each station shall have a City owned quick throw disconnect with the appropriate rating for the station's electrical requirements.

7. All work should be done in accordance with the National Electric Code and all material should be UL approved.

8. Control rack:
   a. Shall be a minimum of 24-inch frame width.
   b. Frame shall be 2-inch square steel tubing (#9 gauge minimum).

9. All components shall be hot dip galvanized.

10. Field cuts must be saw cut and saw cuts shall be painted with Rust-Oleum or Galva-Well.

11. Below grade metal components shall be painted with a minimum of two coats of Koppers Super Service (blk) Tenemec #450 Heavy Tenemecol coating/sealer or approved equal.

12. Legs shall be set in concrete and concrete shall be a minimum of 18 inches deep and 12 inches in diameter.

13. Electrical service wires, pump service wires, and float control wires, shall be run in minimum 2-inch galvanized rigid steel conduit. Minimum of two (2) conduits shall be run to the station, one (1) conduit for pump wires and one (1) conduit for communication controls.

14. All bends and fittings shall be long radius bends. A maximum of one (1) sweep will be allowed between the panel vertical bend and the grinder station perforations.

15. An explosion proof wye fitting shall be installed 6 inches below the control panel.

16. No splice boxes will be permitted within the grinder pump basin.

17. Riser for ground wire shall be in ½ inch rigid, galvanized steel, conduit with grounded bushings, with stubbed and bonding jumper.

18. Grounding Rod:
    a. Shall be copper clad grounding rod.
    b. ½ inch by 8 feet in length.
    c. Rod shall be driven vertically into the ground or as directed by the ~~City Engineer~~ Public Works Operations Manager or designee.

19. Electric meter, meter base, disconnect, and panel shall comply with AmerenUE Service Manual, latest edition. ~~Section 5.3.1 (bypass requirements).~~

20. ~~SCADA shall be provided by Systems Manufacturing, 14042 W 107th St. Lenexa, KS, 66215: phone (913) 485-3307.~~ Where SCADA is required the controls must be approved by the Public Works Operations Manager prior to installation.

REQUIRED INSPECTIONS, TESTING, AND START UP PROCEDURES

1. Construction Drawings are required for all gravity and pressure sewers and all grinder or sewage lift stations. Such drawings shall be designed and sealed by a Registered Professional Engineer in the State of Missouri. Construction of one- and two-family dwellings and their accessory structures are excluded from this requirement, unless the design requires an extension to the City's system.

2. ~~All~~ The design and materials ~~and equipment~~ shall conform to ~~these~~ the City of Osage Design Guidelines. Such drawings shall be reviewed and approved by the Public Works Operations Manager or designee prior to any onsite construction.

3. All gravity and pressure sewers shall be inspected by the City Inspector ~~Public Works Department Personnel~~ prior to backfill.

4. All gravity and pressure sewers, manholes, and wet wells shall be tested for leakage as specified herein and shall be performed in the presence of City personnel.

5. Grinder and sewage lift stations shall be fully tested for performance and operation in the presence of City personnel. Such testing shall include:
    a. Pumping rates
    b. Pumping cycle tests including emergency alarm and startup of standby equipment (if so equipped)
    c. Electrical current and voltage checks.
    d. The contractor/developer shall provide the services of a manufacturer's factory representative to be present during the tests.

6. Upon completion of all testing startup procedures the City will issue a certificate of acceptance. The system will not be connected to City Service or accepted by the City until the acceptance certificate is issued. ~~If the system cannot be accepted, no building occupancy permit will be issued.~~

AS CONSTRUCTED DRAWINGS AND MAINTENANCE DOCUMENTS

The contractor/developer shall provide the City with not less than two full sized "As Constructed" drawings certified as being correct record drawings by a Registered Professional Engineer in the State of Missouri.

The contractor/developer shall provide one copy of a certified and recorded utility easement for all sewer lines and grinder station sites to be turned over to the City. Easements shall be prepared and sealed by a Registered Land Surveyor in the State of Missouri.

TYPICAL DETAILS FOR SEWER APPURTENANCES

Sewer appurtenances shall conform to the typical details attached hereto.

PUBLIC INFORMATION PACKET – SEWER DESIGN

Applicants for a building or zoning permit will be provided with a “Sewer Information Packet” which reflects the requirements contained in this design manual and pertinent City ordinances. Such packet shall be considered as an approved part of the Design Guidelines.

SEPTIC TANK SYSTEMS

City Code Section 710~~.090~~ requires that any facility constructed within 300 feet of an existing City sewer must connect to such sewer. There are a few locations within the City where City sewer is not available. In those cases, the owner may be authorized by the City to construct or repair a septic system.

REQUIREMENTS FOR AUTHORIZED PRIVATE SEWAGE DISPOSAL SYSTEMS

A Septic Tank Permit from the City is required prior to construction. Approved soil morphology, permeability tests and soil percolation tests, site topography, septic tank, and absorption system, designed by a Registered Professional Engineer in the State of Missouri are required for the permit.

1. The system must be designed by a Registered Professional Engineer in accordance with Missouri Department of Health Regulations ~~710.025 through 710.059~~, Missouri Laws for On-site Sewage Disposal Systems, and 19 CSR 20-3.060 Minimum Standards for On-site Sewage Disposal Systems.

2. Soil morphology, permeability tests and soil percolation tests shall be made by a Registered Professional Engineer in the State of Missouri or State Certified Soil Scientist. Tests and reports shall be in accordance with 19 CSR 20-3, Para (2) Site Evaluation.

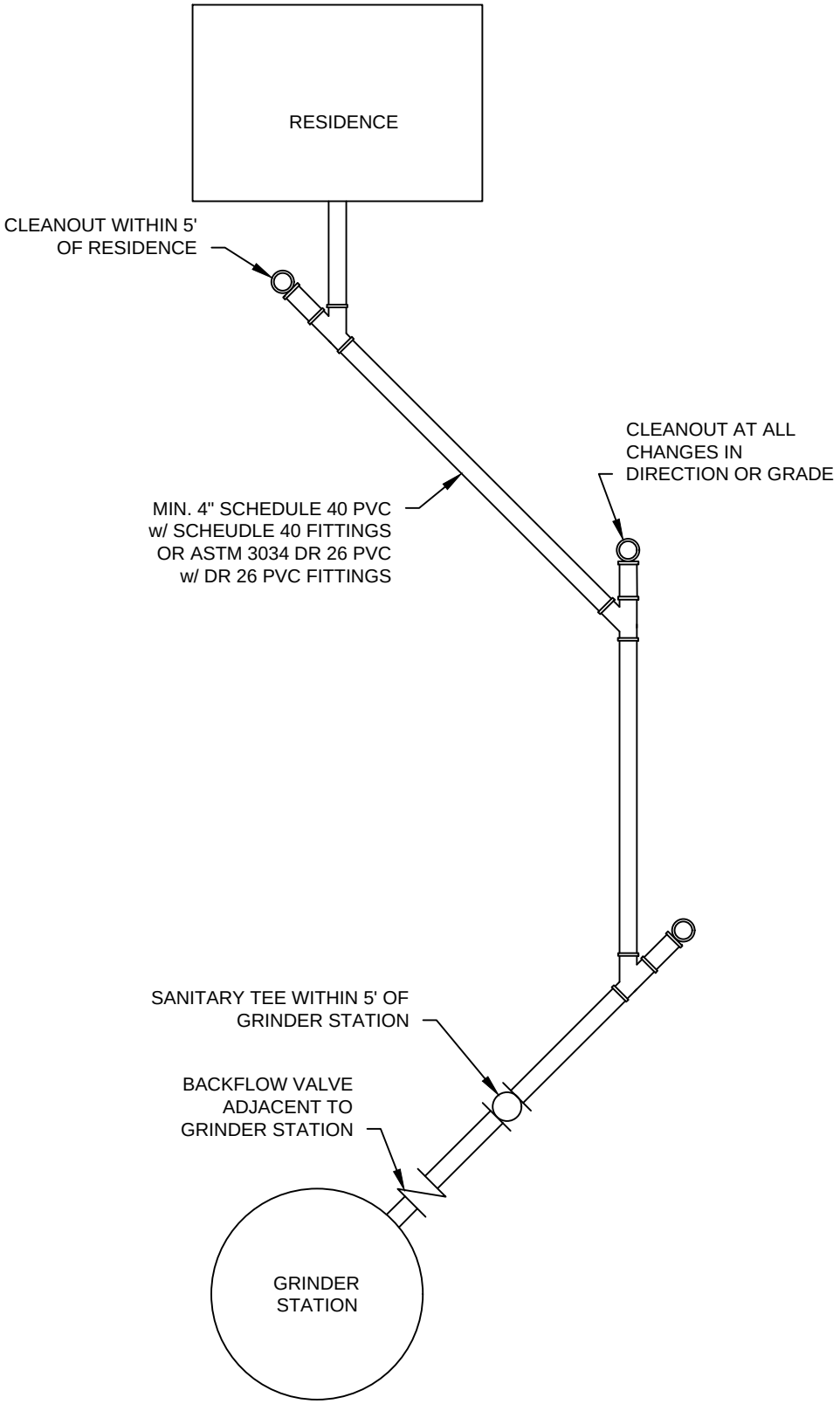
3. The minimum setback distances shown in 19 CSR 20-3, Table 1 Minimum Setback Distances shall be strictly followed.

4. Flow rates or volumes shall be computed based on 120 gal/day/bedroom or 60 gal/day/person, the minimum flow from a residence shall be 240 gal.

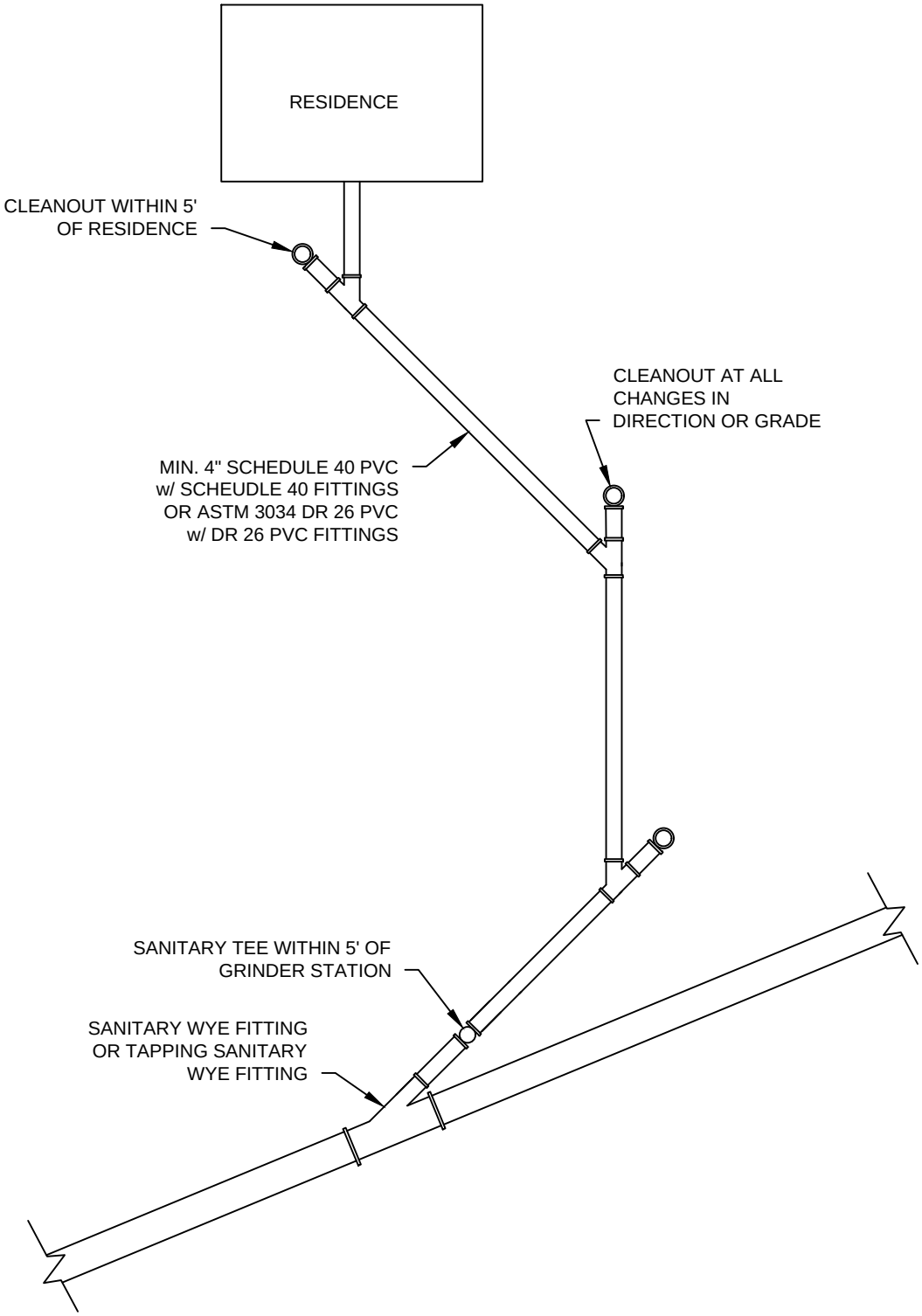
5. The minimum septic tank capacity shall be 1250 gallons. Septic tanks shall be constructed in strict conformance to 19 CSR 20-3, Para. (4) Sewage Tanks.

6. Absorption systems shall be in accordance with 19 CSR 20-3, Para. (5) Absorption Systems.

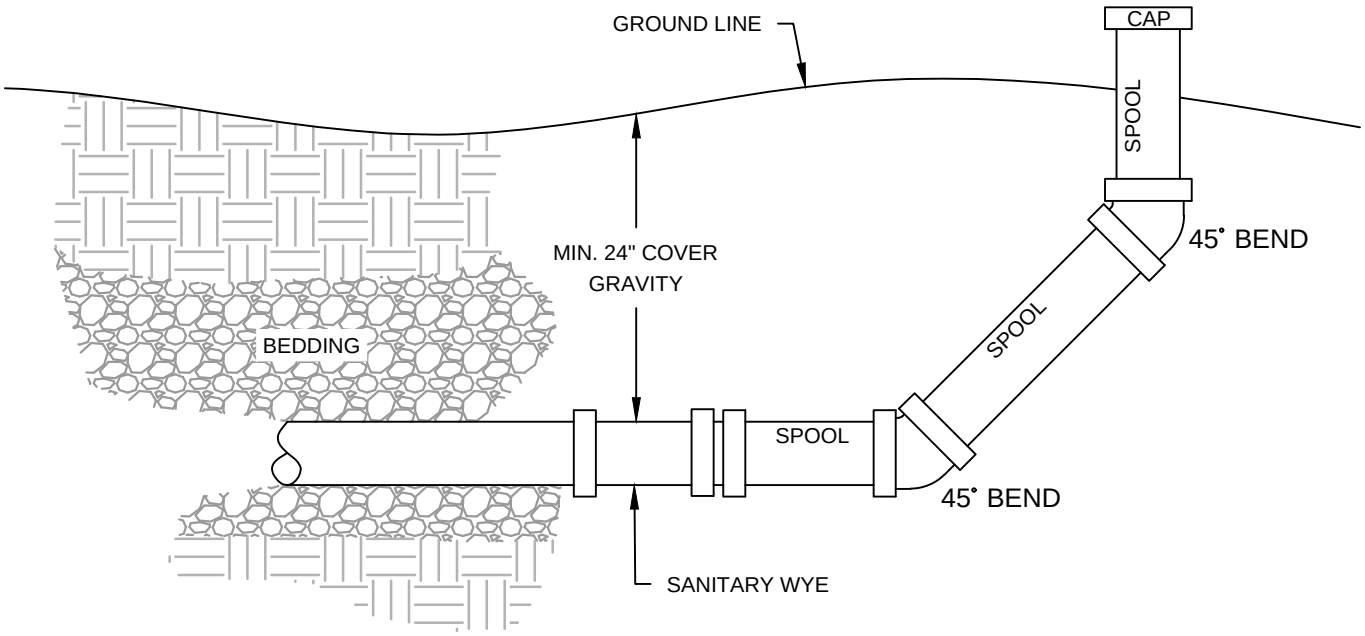
7. Alternative systems shall be in accordance with 19 CSR 20-3, Para (6) Alternative Systems.



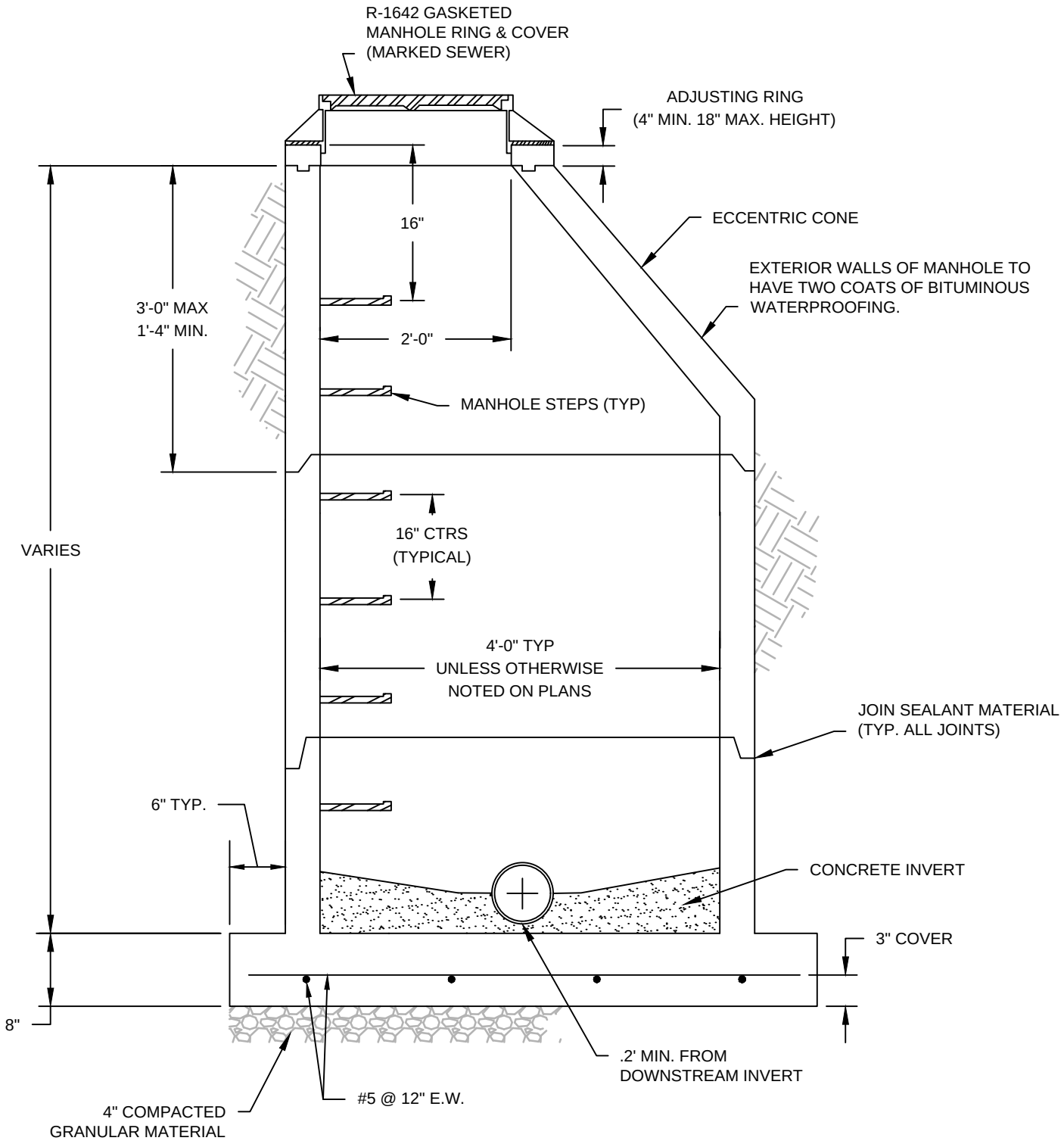
Date Revised: MARCH, 2007	CITY OF OSAGE BEACH TYPICAL DETAIL RESIDENTIAL SERVICE CONNECTION	Design Guideline: SECTION 3
By: sh		SEWERAGE DESIGN
Checked By: JB		Drawing No.: III-1



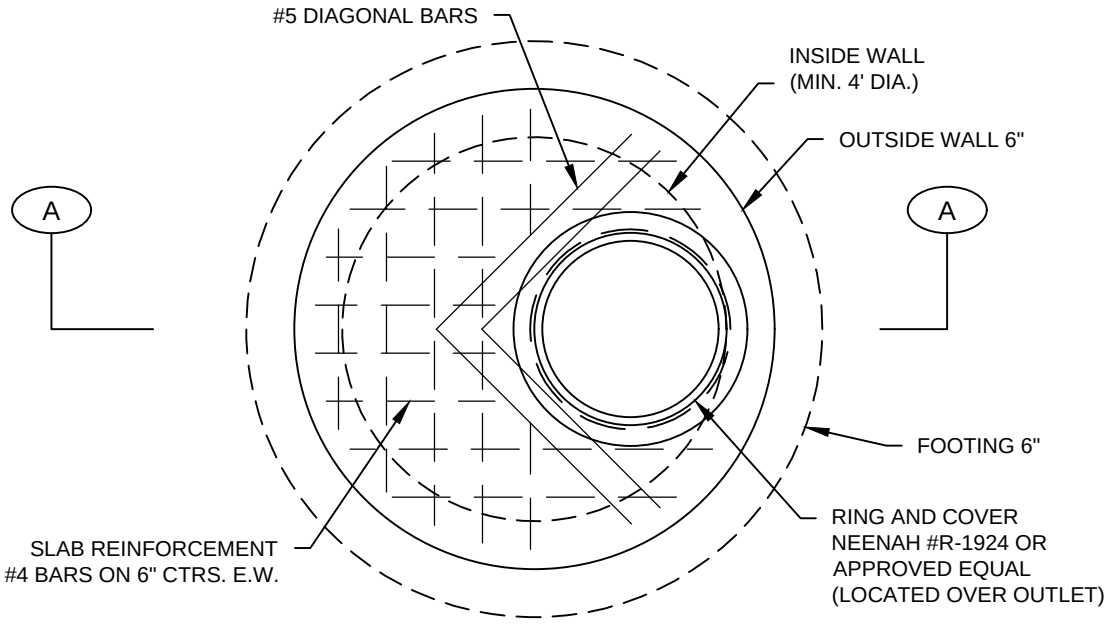
Date Revised: MARCH, 2007	CITY OF OSAGE BEACH TYPICAL DETAIL RESIDENTIAL SERVICE CONNECTION	Design Guideline: SECTION 3
By: sh		SEWERAGE DESIGN
Checked By: JB		Drawing No.: III-2



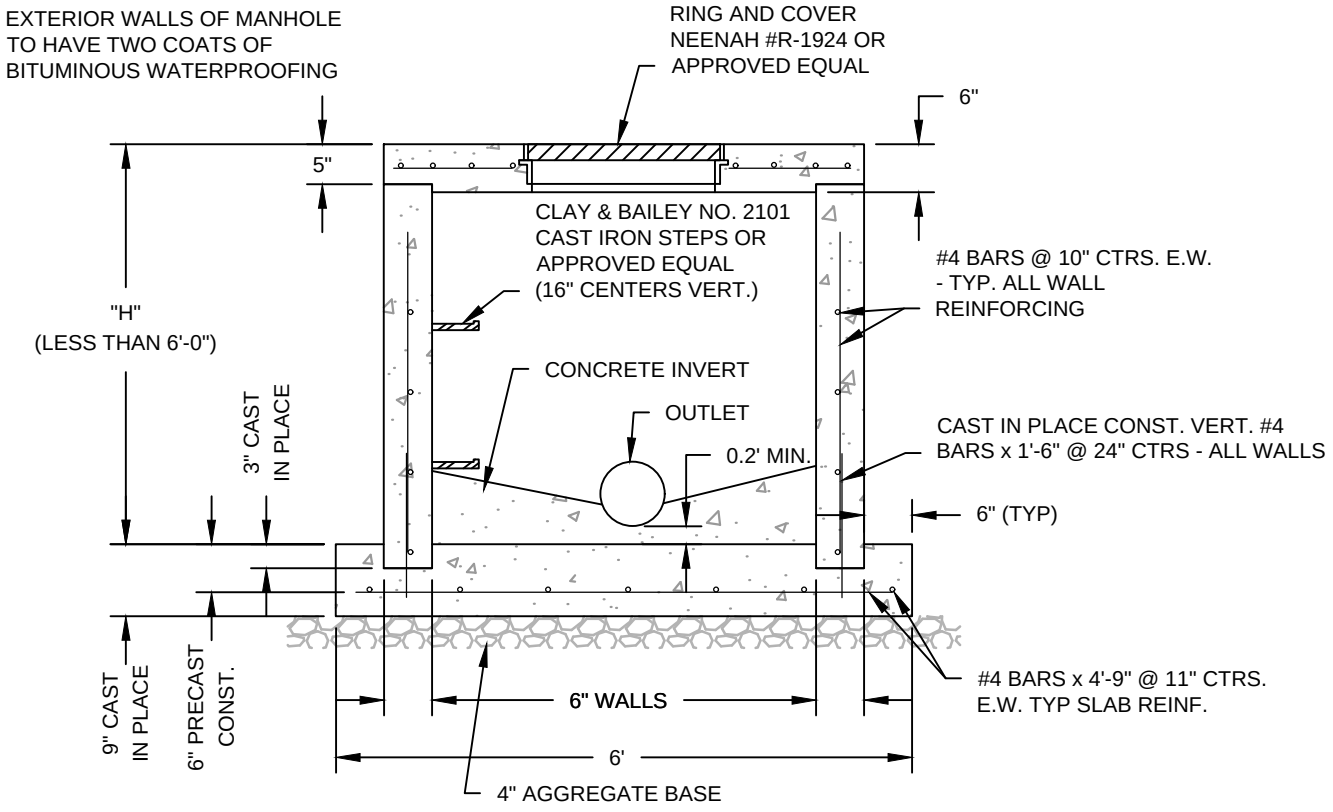
Date Revised: Oct., 2004	CITY OF OSAGE BEACH TYPICAL DETAIL SANITARY SEWER CLEANOUT DETAIL	Design Guideline: SECTION 3
By: sh		SEWERAGE DESIGN
Checked By: JB		Drawing No.: III-3



Date Revised: MARCH, 2023	CITY OF OSAGE BEACH TYPICAL DETAIL STANDARD PRECAST MANHOLE	Design Guideline: SECTION 3
By: NCW		SEWERAGE DESIGN
Checked By: DPV		Drawing No.: III-4

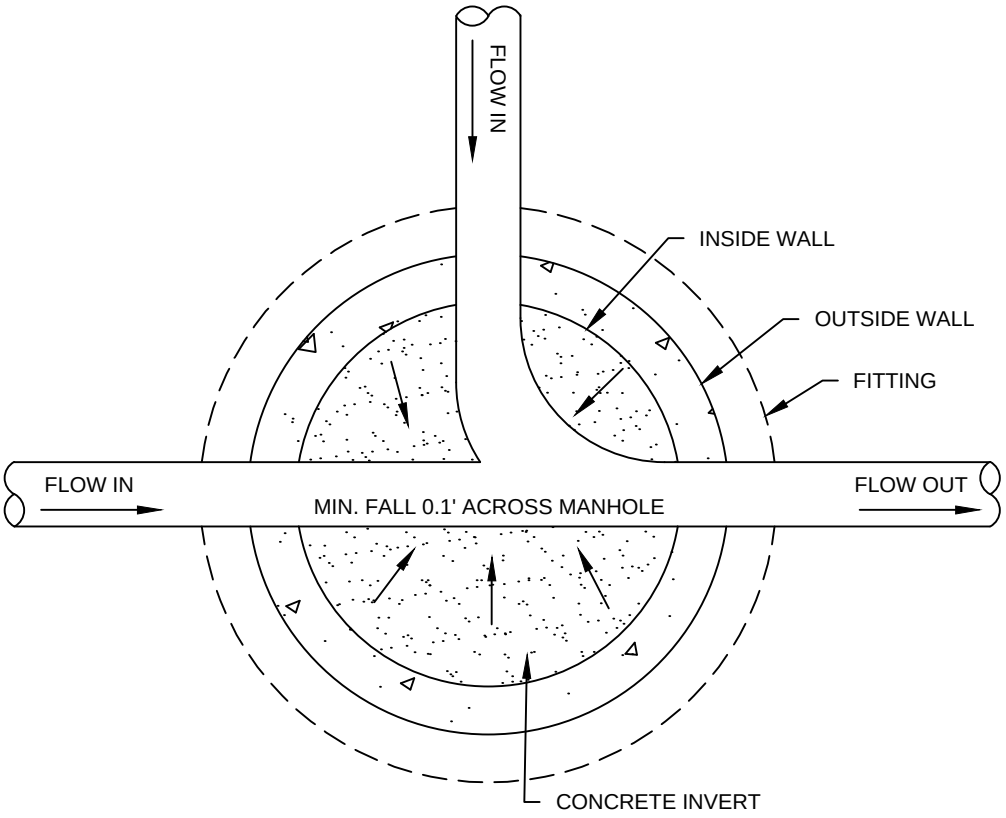


PLAN VIEW



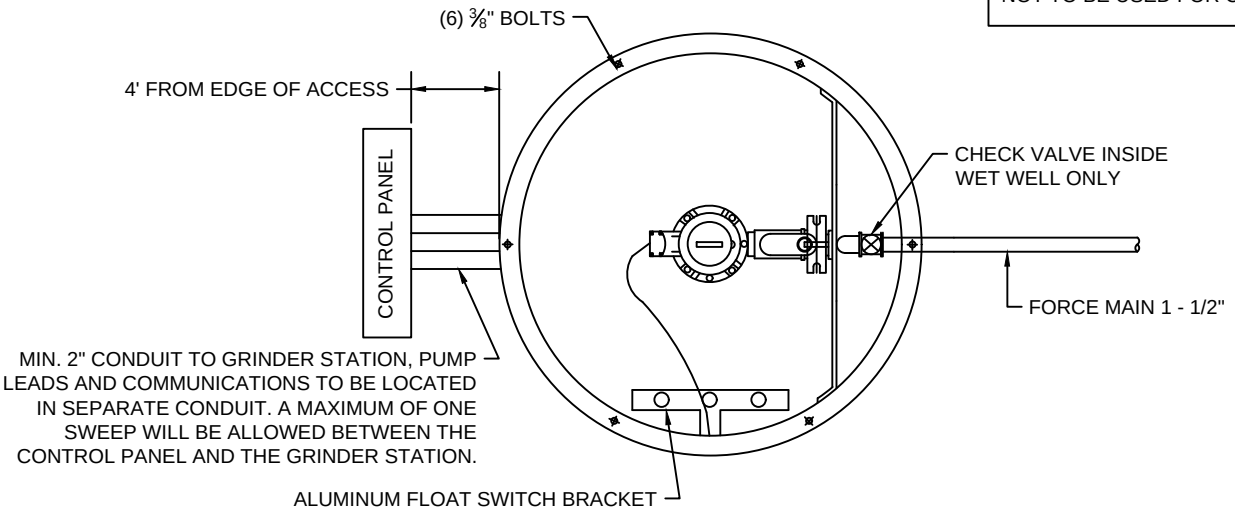
SECTION A-A

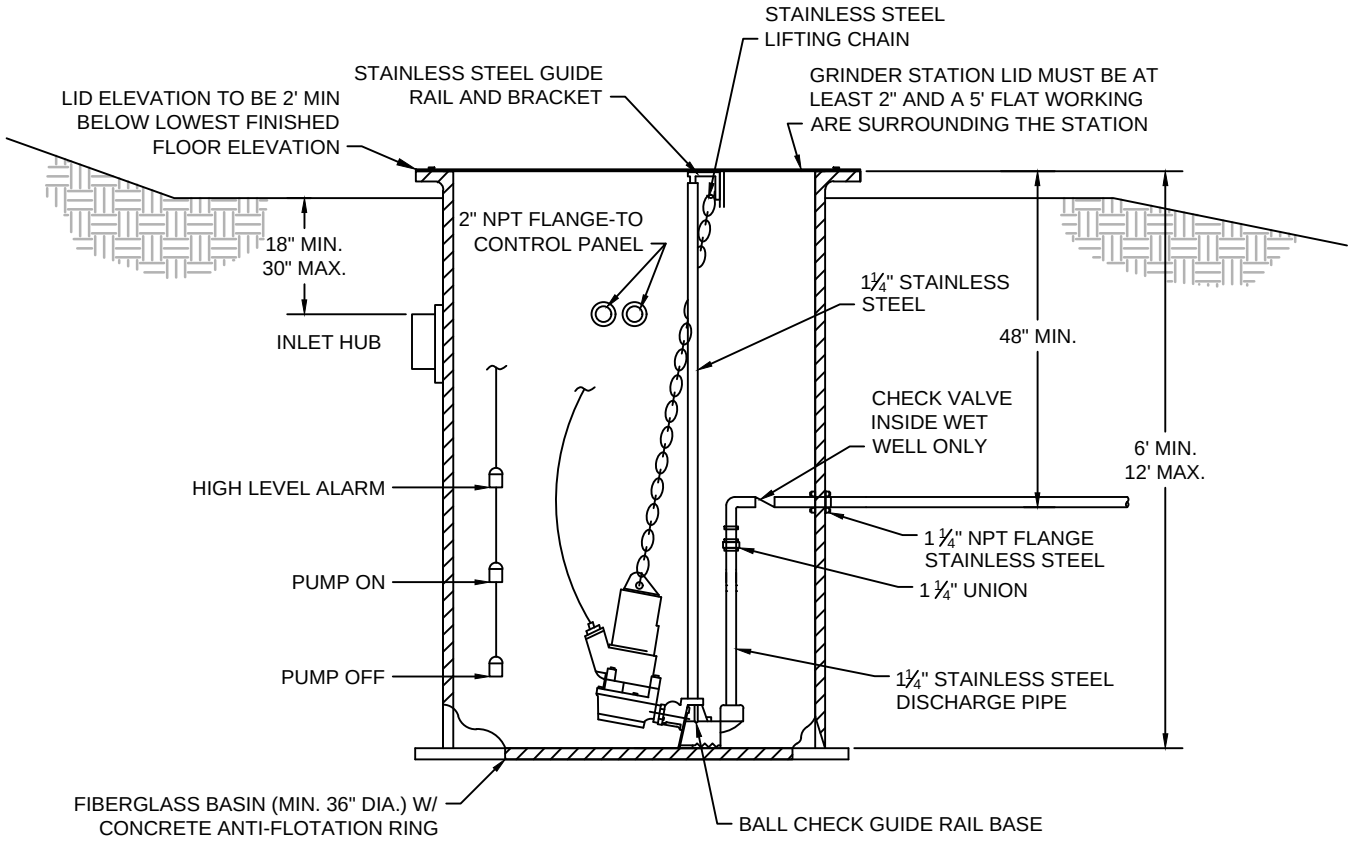
Date Revised: AUG., 2008	CITY OF OSAGE BEACH TYPICAL DETAIL FLAT TOP MANHOLE	Design Guideline: SECTION 3
By: jdb		SEWERAGE DESIGN
Checked By: nle		Drawing No.: III-5



Date Revised: Oct., 2004	CITY OF OSAGE BEACH TYPICAL DETAIL MANHOLE INVERT DETAIL	Design Guideline: SECTION 3
By: sh		SEWERAGE DESIGN
Checked By: JB		Drawing No.: III-6

THIS IS A TYPICAL INSTALLATION DRAWING.
NOT TO BE USED FOR CONSTRUCTION.





Date Revised: MARCH, 2023	CITY OF OSAGE BEACH TYPICAL DETAIL SIMPLEX PUMP STATION	Design Guideline: SECTION 3
By: NCW		SEWERAGE DESIGN
Checked By: DPV		Drawing No.: III-7

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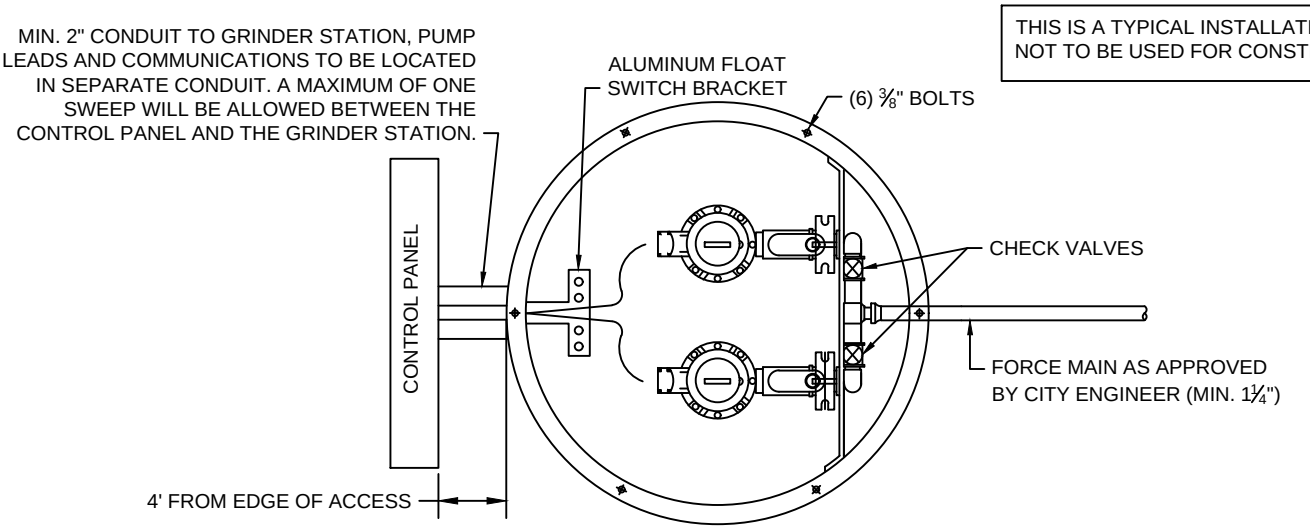
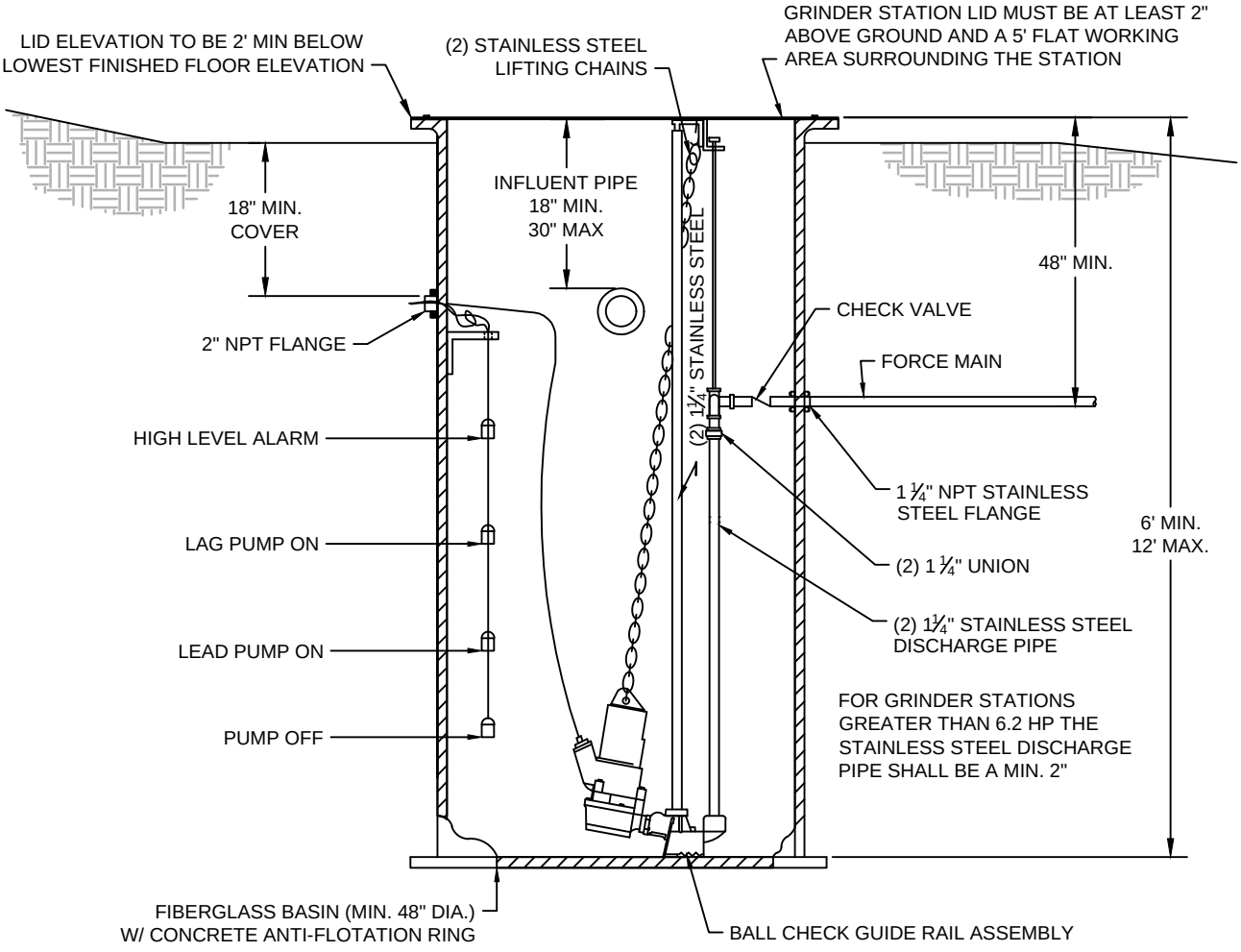
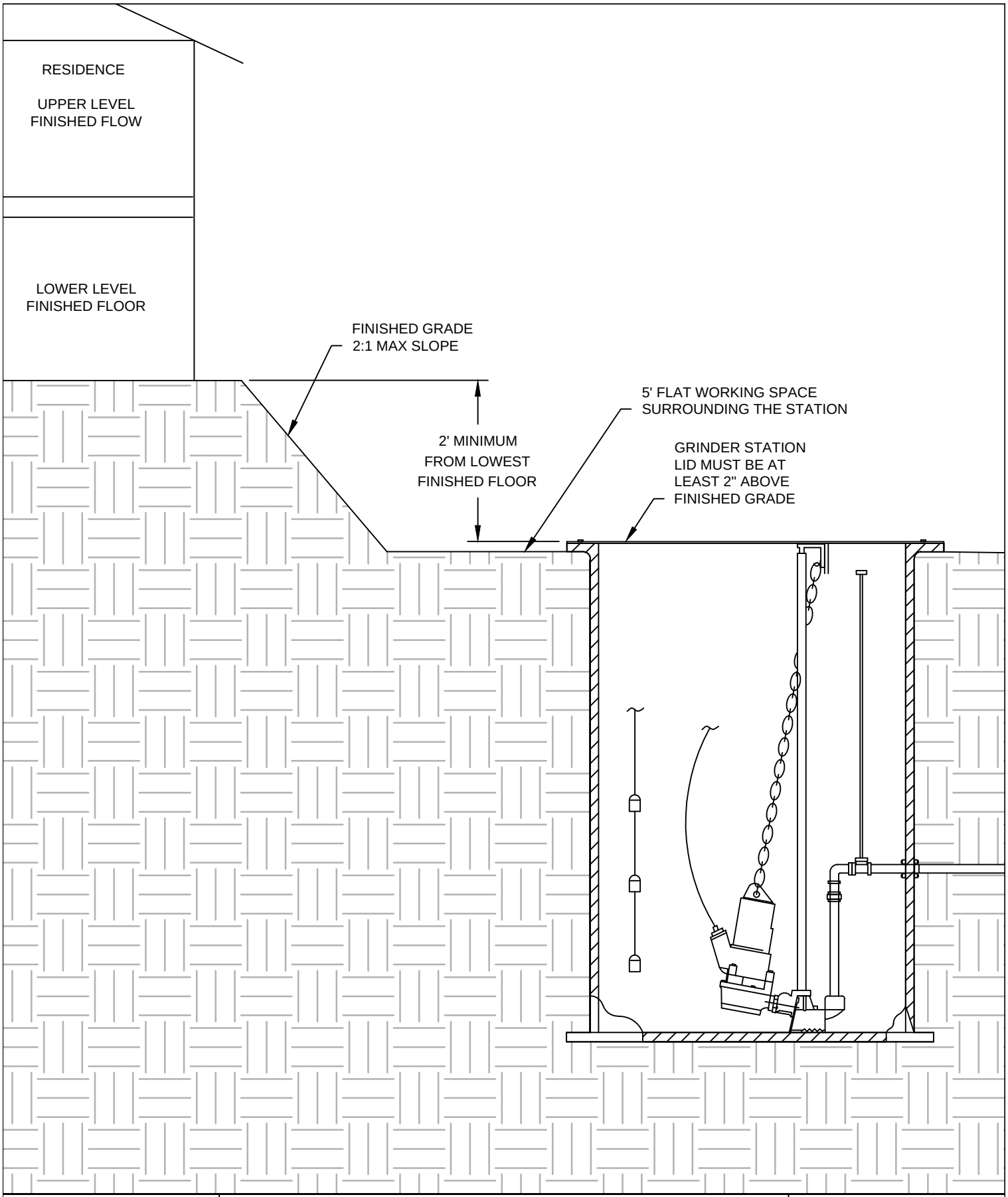
NOT TO BE USED FOR CONSTRUCTION.





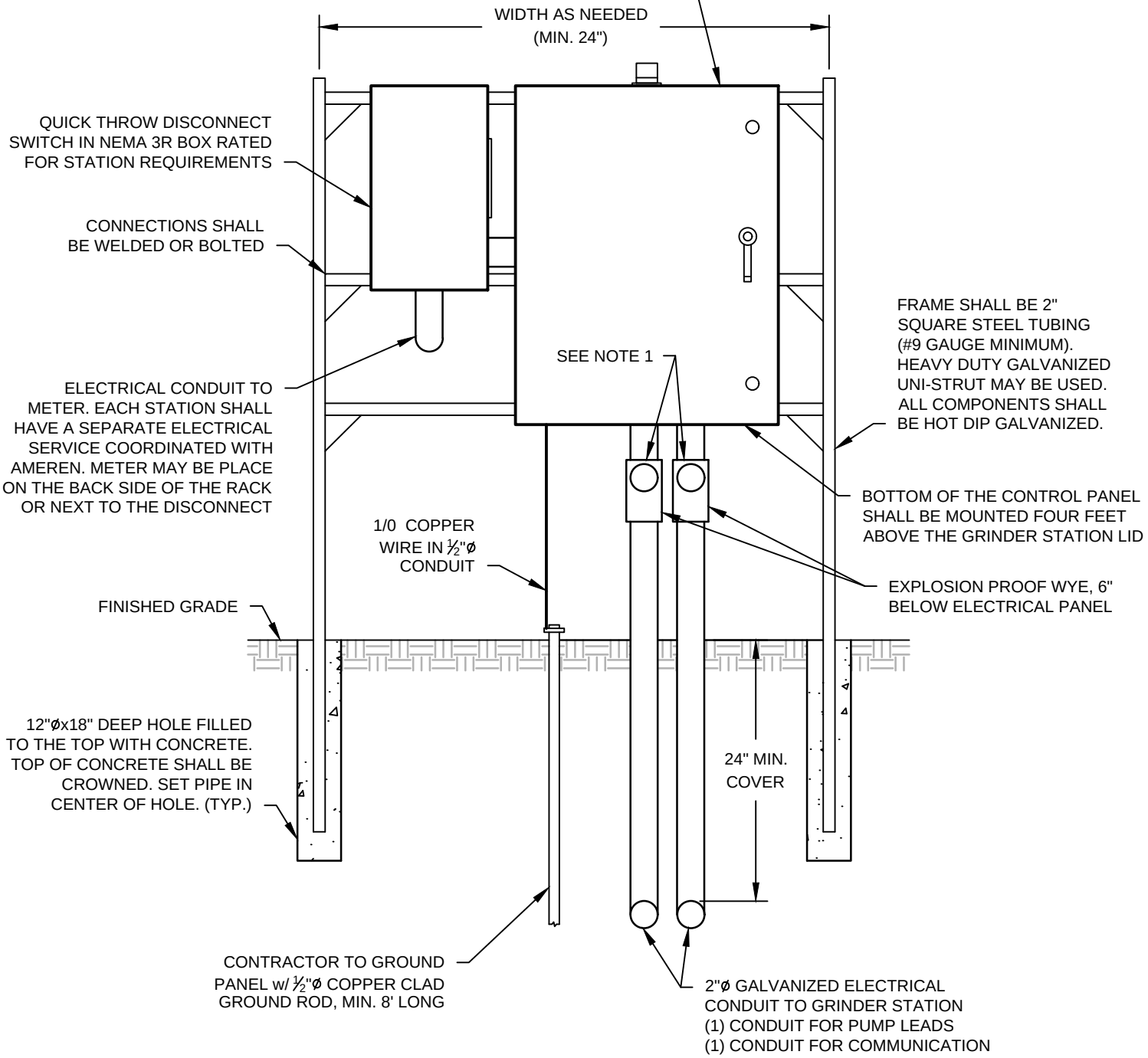
Date Revised: MARCH, 2023	CITY OF OSAGE BEACH TYPICAL DETAIL DUPLEX PUMP STATION	Design Guideline: SECTION 3
By: NCW		SEWERAGE DESIGN
Checked By: DPV		Drawing No.: III-8



Date Revised: NOV.,2009	CITY OF OSAGE BEACH TYPICAL DETAIL WET WELL ELEVATION	Design Guideline: SECTION 3
By: cps		SEWERAGE DESIGN
Checked By:		Drawing No.: III-9

ALL ELECTRIC WORK SHALL BE DONE IN ACCORDANCE WITH THE NATION ELECTRIC CODE AND ALL MATERIAL SHALL BE UL APPROVED.

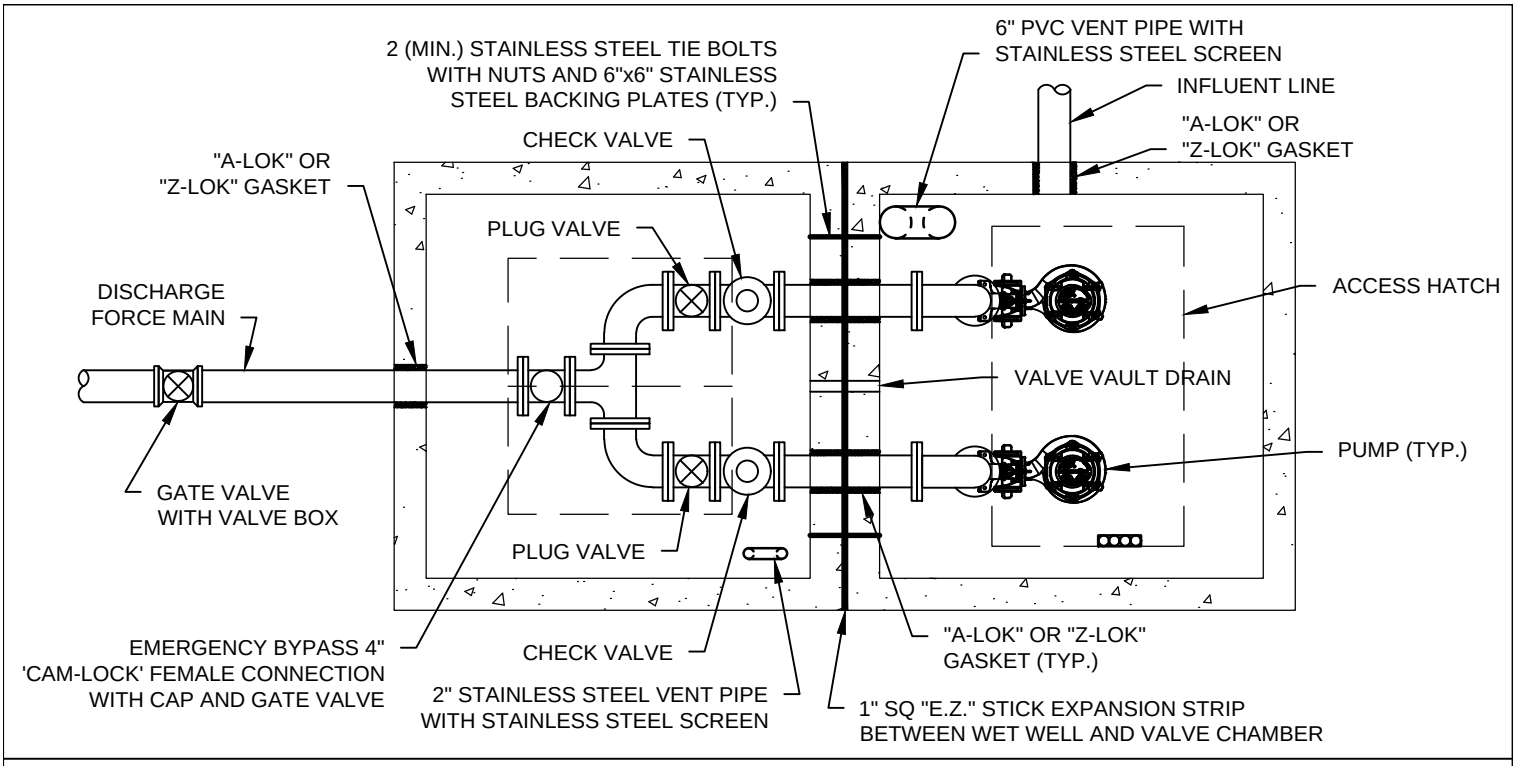
STATION CONTROL PANEL SHALL BE PROVIDED BY MUNICIPAL EQUIPMENT COMPANY, ST. LOUIS, MO., OF THE CORRECT MODEL TO MATCH THE PUMP. IT SHALL BE MOUNTED APPROXIMATELY 5' ABOVE FINISHED GRADE. EACH CONTROL PANEL SHALL HAVE A WIRING DIAGRAM OR SCHEMATIC ATTACHED TO THE INSIDE OF THE OUTER DOOR OR THE CONTROL PANEL BOX.

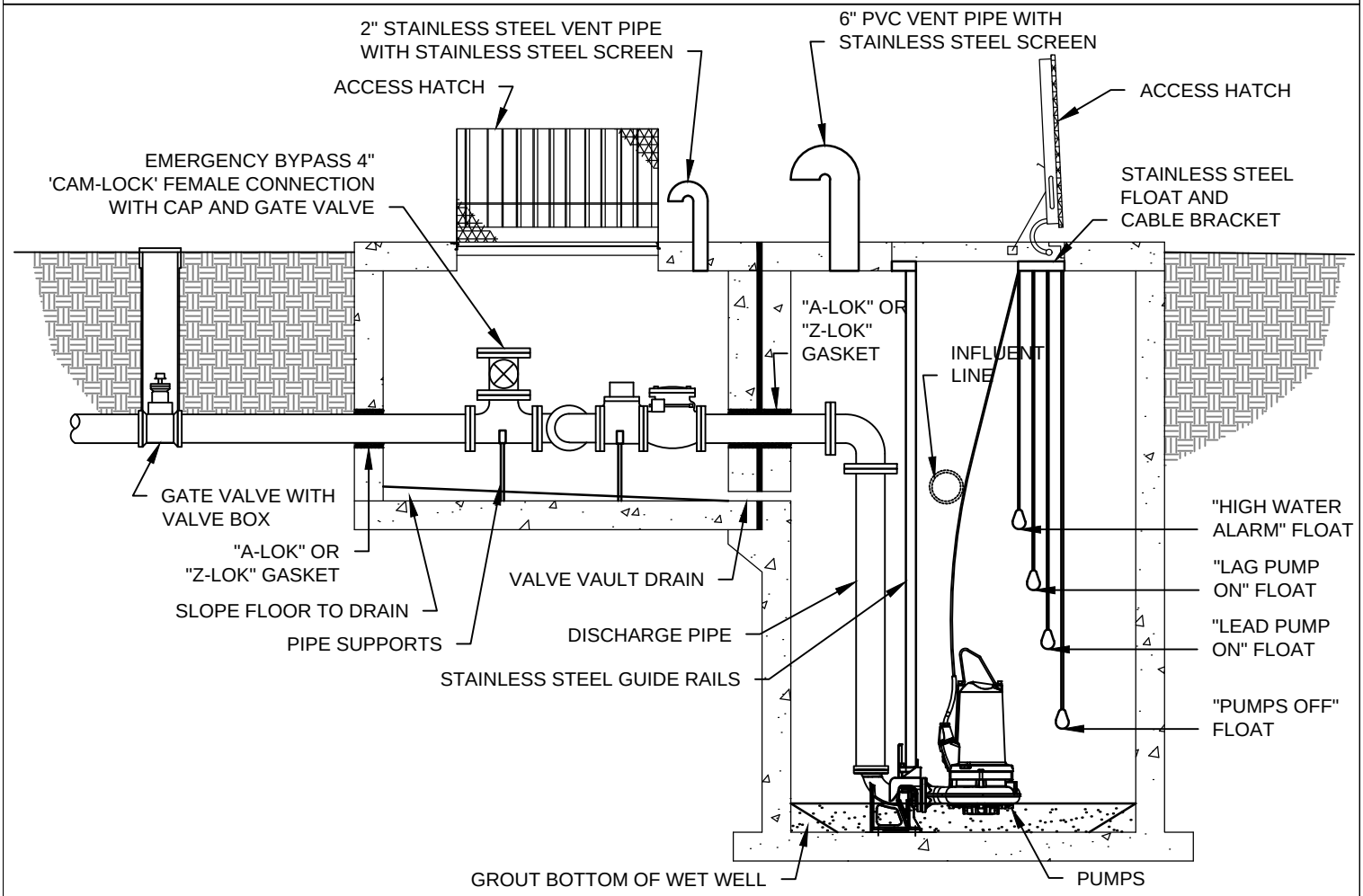


NOTE:
1. CONDUIT ENTRANCE AT TOP OF BOX TO BE SEALED AIRTIGHT TO PREVENT WET WELL GASES FROM ENTERING CONTROL PANEL

ALL GALVANIZED CONDUIT INSTALLED BELOW FINISHED GRADE SHALL HAVE WATERPROOF COATING OR WRAP.

Date Revised: OCT., 2004	CITY OF OSAGE BEACH TYPICAL DETAIL GRINDER STATION RACK	Design Guideline: SECTION 3
By: sh		SEWERAGE DESIGN
Checked By: JB		Drawing No.: III-10





Date Revised: APRIL 2023	CITY OF OSAGE BEACH TYPICAL DETAIL LIFT STATION	Design Guideline: SECTION 3
By: NCW		SEWERAGE DESIGN
Checked By: DPV		Drawing No.: III-11

(Revised October 2023)

OVERVIEW

Storm runoff accumulates pollutants, sediment, and debris as it flows over the landscape until it reaches a receiving waterway - the Lake of the Ozarks. These pollutants, sediments, and debris include oils and petroleum residues, animal refuse, garbage, organic debris from vegetation, silts, sands, and other objectionable materials. The U.S. Environmental Protection Agency (EPA) and the Missouri Department of Natural Resources, Water Pollution Control Division, considers these pollutants to have adverse effects upon the human and aquatic life that uses the lake for habitat or recreational needs. The water quality of the Lake of the Ozarks is vital to the health and economic well being of our residents, visitors, and community.

Storm drainage within the City of Osage Beach falls under regulatory authority of the U.S. Environmental Protection Agency (EPA) and the Missouri Department of Natural Resources (MDNR). The provisions of the U.S. Clean Water Act of 1978, Section 402 mandates the National Pollutant Discharge Elimination System (NPDES) and requires permitting for specific types of non-point pollutant sources under Phase II (Final Rule dated December, 1999) for areas where more than one acre of natural ground cover is disturbed. In addition, it mandates other control measures for designated cities, industries, and locations. The City of Osage Beach is not currently designated as a small city with a separate storm water system (MS4) or required to have a NPDES Permit. Several of the Phase II requirements do apply to the City. It is the policy of the City to reduce the contamination of the Lake of the Ozarks to comply with NPDES Phase II to the extent practicable for the city

The City of Osage Beach complies with these requirements through City Code, Title IV Land Use, Section 410.350 thru 410.380 ~~410.340, 410.350, 410.360, and 410.370~~ and the applicable portions of the Osage Beach Design Guidelines.

GOALS AND OBJECTIVES

The goal and objective of the City of Osage Beach's Storm Water Management Plan is to manage storm water drainage within the city limits so as to minimize the pollution of the Lake of the Ozarks and to prevent storm water run-off damage to the maximum extent practicable.

The primary source of visible pollutants during storm runoff is through sediment and debris picked up on construction sites or locations where the natural vegetation has been removed. The major secondary source is through volatile fuels, oils, animal wastes, and refuse picked up by storm runoff as it flows off large parking areas, roofs and over the terrain in route to the lake. These sources of contamination will be addressed separately through the application of a Sediment Control Plan and/or a Storm Drainage Plan.

Recent developments in the Storm Drainage Compliance area have lead to the development of "Best Management Practices" (BMP's) and less emphasis on retention facilities. Also the trend is toward reduction of contamination by: 1) reducing the quantity of storm water runoff, 2) reducing or removing the contamination of the runoff, and 3) by conveying the storm run-off without further contamination.

Our goal is to reduce the pollution of the lake through public education, awareness, and the application of MoDNR Best Management Practices (BMP's). Our immediate objective is to manage the storm drainage system to reduce collectable sediment or pollutants entering the lake and/or causing damage to adjacent or downstream properties.

The following design guidelines will establish the minimum steps or procedures required to reach these goals and objectives.

EROSION & SEDIMENT CONTROL PLAN

A. The Erosion and Sediment Control Plan shall be submitted as a part of the building permit process and shall be reviewed and approved by the City Engineer prior to the start of any onsite work for any and all projects involving two or more lots or ½ acre, whichever shall be the smaller.
Note: The MoDNR requires a Land Disturbance Permit for construction disturbance activities of one or more acres. Permitting with MoDNR is the responsibility of the property owner or their representative.

1. The Sediment Control Plan must be prepared by a Registered Professional Engineer in the State of Missouri stating the goals of the plan and depicting the locations and details of the construction of all sediment control devices to be utilized on the project during construction.
2. The plan shall clearly set out the contractor's schedule and requirements for maintaining the integrity of the plan.
3. The primary goal of the plan is to assure that no visible or measurable sediment or debris is allowed to leave the developed area.
4. The devices and measures utilized shall follow the recommended "Best Management Practices" as described in the publication "Protecting Water Quality" by MDNR and as directed herein. At the minimum the following shall be required:

    a. Wire backed silt fencing with steel tee-posts or an approved equal method shall be installed around the downhill edges of the disturbed area.
    b. Earth berms and swales shall be used to reduce sheet flow volumes and velocities.
    c. Straw bale check dams, earth berms and other BMP's shall be utilized as necessary to prevent run-off from carrying sediment and debris off site.
    d. Check dams or other BMP's shall be used to reduce velocities in areas of concentrated flow.

e. Approved engineering fabric or erosion control matting shall be used in all drainage courses or ditches where flow velocities exceed 5 fps. Velocities shall be calculated and included with permit submittal.

f. All denuded slopes or embankments shall be protected from erosion by the installation of earthen berms, straw bale dikes, or other appropriate BMP's.

g. Temporary catch basins, drop inlets and/or storm drains (culverts) shall be utilized as necessary to convey concentrated flow and prevent erosion.

h. Temporary sediment basins shall be provided for each drainage area with one or more acres disturbed at one time. Basins shall be maintained until final stabilization is achieved as approved by the City Engineer. Each sediment basin shall be sized, at a minimum, to provide a total storage volume of 4,000 cubic feet per acre of contributing area. The sediment basin shall include an outlet structure designed for the slow release of stored runoff to allow for sedimentation in the basin. A perforated riser wrapped in filter fabric and covered with a mound of clean 2-inch stone is the City's preferred outlet structure.

i. Depict existing and proposed contours.

j. Clearly depict the entire drainage area effecting the development site including downstream areas that will be affected by storm water run-off or drainage and upstream areas that contribute to the site.

k. The installation of all BMP's shall be inspected and approved by the City Engineer and the Engineer of Record prior to commencing land disturbance activities. The Engineer of Record shall provide a letter to the City stating he or she approves the installation of the BMP's. Phased projects may require multiple approvals.

l. Where soil disturbing activities on site have ceased either temporarily or permanently and will not resume for a period of 14 calendar days, stabilization shall be initiated immediately and completed within 14 calendar days. All denuded slopes or areas shall be reseeded with appropriate seed, fertilizer, and for final stabilization, approved slope stabilization fabric or stone armoring shall be installed on all slopes steeper than 3:1.

m. Phased clearing and grading of sites is encouraged to minimize denuded areas and potential for erosion.

5. In the event that the plan is deficient or inadequate to prevent sediment escaping the jobsite, the Owner/Developer shall immediately take any and all measures necessary to stop and prevent further contamination, and to clean up contaminated areas.

All calculation necessary for the Erosion and Sediment Control Plan shall be signed and sealed by an Engineer licensed in the State of Missouri and submitted with the permit application for review by the City Engineer. Calculations shall be prepared in a report format.

The City's Standard Erosion and Sediment Control Plan Note Block shall be included on the Plans prior to approval.

STORM DRAINAGE PLAN

A. A Storm Drainage Plan is required for all new construction sites within the jurisdictional boundaries of the City of Osage Beach in which the construction or clearing for construction disturbs an area exceeding two lots or one half acre, whichever shall be the smaller.

1. The Storm Drainage Plan shall be prepared by a Registered Professional Engineer in the state of Missouri stating the goals of the plan and depicting the locations and details of construction of all permanent sediment and drainage control devices, and post construction BMP's, to be utilized in the plan. The Storm Drainage Plan shall depict permanent drainage structures and post-construction BMP's.
2. The plan shall clearly state owners schedule and requirements for maintaining the components of the system.
3. The devices and measures utilized shall follow the recommended "Best Management Practices" as described in the publication "Protecting Water Quality" by and available through MDNR, the City of Osage Beach City Code and the City of Osage Beach Design Guidelines
4. At the minimum the Storm Drainage Plan shall provide the following technical data:

    a. Clearly depict all permanent drainage structures, conveyance devices, and post construction BMP's.
    b. Clearly depict the entire drainage area effecting the development site including downstream areas that will be affected by storm water run-off or drainage and upstream areas that contribute to the site.
    c. Accurately calculate the anticipated storm run-off from a theoretical twenty-five (25) year storm event. Storm duration shall be calculated to correspond to the time of concentration for the tributary drainage area.
    d. Determine the anticipated flows and capacities of all channels, culverts and conveyance devices. Conveyance structures shall be designed utilizing the criteria in A.4.c of this Section.
    e. Clearly identify and provide flow data for all velocity control and/or energy dissipation devices.

5. At the minimum the Storm Drainage Plan shall provide the following post construction sediment and drainage controls:

   a. Provide removal or containment of all silt, sediment, and debris carried onto or across the development so as to assure that no silt, sediment, or debris is allowed off the developed area. See Post Construction Water Quality.
   b. Assure that all storm run-off is controlled such that no damage will occur to adjacent downstream properties or facilities. Stormwater detention requirements are as follows:
      1. The rates (pre-developed and post-developed) of runoff shall be determined for the 2-year, 25-year and 100-year rainfall frequencies. The storm duration shall be calculated to correspond to the time of concentration of the tributary area. Minimum storm duration shall be 20 minutes.
      2. Storm water shall be detained on site or on adjacent property under agreement and released at the rate of an undeveloped site for the above frequencies and minimum duration to prevent possible flooding and erosion downstream.
      3. In the event the natural downstream channel or storm sewer system is inadequate to accommodate the release rate provided above, then the allowable release rate shall be reduced to that rate permitted by the capacity of the downstream channel or storm sewer system.
      4. Detention basin volume and outlet structure will be based on routing each post-developed runoff through the detention facility while not exceeding the pre-developed run-off. The routing computation shall be based on an application of the continuity principle. The discharge rate shall be based on the maximum head conditions in the detention facility.
      5. Project site discharging via right-of-way, easement, or land owned by developer to the Lake of the Ozarks shall be exempt from stormwater detention requirements.
      6. Project sites with a differential runoff of less than 2 cfs for the 25-year event shall be exempt from stormwater detention requirements.
      7. All calculations necessary for stormwater detention design shall be signed and sealed by an Engineer licensed in the State of Missouri and submitted with the permit application for review by the City Engineer. Calculations shall be prepared in report format.
   c. Where parking areas for more than twenty cars exist provide for removal of oils, grease and volatile wastes to the maximum practicable extent by the use of post construction BMP’s.

d. Assure that conveyance discharges into the Lake of the Ozarks will have a velocity of less than 5 fps.

This can be accomplished by the use of BMP's, filtration devices, retainage and sedimentation collection basins, filtered curb inlets/manholes or other devices as approved by the City Engineer.

STORM DRAINAGE COMPUTATIONS

A. The Rational Method shall be used for computation of stormwater run-off.

1. The base storm event for computation of run-off volumes shall be a twenty five-year (25) storm event.
2. The Rational Method of computation shall be used as herein.

$$Q=CIA$$

Where:

Q = Peak runoff in cubic feet per second (cfs)
I = Rainfall Intensity.[1]
A = Area of watershed in acres. This area includes the actual area drained through or in addition to the developed area.
C = Coefficient (weighted by area)[2]

[1] Storm duration shall be calculated to correspond to the time of concentration for the tributary drainage area.

[2]Values of C categorized by surface:

Surface Type	Value of C
Impervious (asphalt pavement, concrete pavement, stone/rock surfaces, rooftops, etc.)	0.95
Pervious (greenspace, lawns, unimproved areas)	0.35

If more than one surface type is included in the drainage area, the designer shall calculate the weighted coefficient for use in runoff calculations.

All stormwater calculation shall be signed and sealed by an Engineer licensed in the state of Missouri and submitted with the permit application for review by the City Engineer. Calculations shall be prepared in a report format.

DESIGN OF DRAINAGE STRUCTURES AND DEVICES

A. Culverts and Storm Drainage Piping Systems shall be designed using the Manning equation for open channel flow. Inlet conditions should be investigated and openings designed to handle the peak runoff condition. In addition, the following conditions shall be met:

1. The minimum pipe size shall be 18-inch diameter.
2. Bedding shall be installed around the pipe from ~~four~~ 6 inches below to 12 inches above the pipe. Bedding shall be ~~nominal ½ inch minus~~ crushed rock conforming to MoDOT Type 5 aggregate, Section 1007.
3. The minimum grade shall guarantee a minimum velocity of 2.0 fps.
4. Manholes or inlets shall be constructed at not more than 350-foot intervals and at all bends and changes of grade.
5. All pipe shall be run true to line and grade between manholes or inlets.
6. Outlets shall have intrusion gates to prevent entry by children or animals.
7. Outlets shall end in an energy-dissipating device that will reduce the outlet flow velocity to less than 5 fps.
8. Piping shall be designed to sustain any anticipated loading conditions

B. Curb Inlets of the "Kansas City Type" are preferred. See Drawing No. IV-11

1. The length of Curb Inlet opening shall be determined as in Chapter IX of the MoDOT Project Development Manual.
2. Floor of Inlet shall be shaped with invert to provide smooth flow.
3. Locate manhole ring and cover over outlet.
4. Each Inlet shall have cast iron steps spaced at 1'-4" centers vertically.
5. Bevel all exposed edges with ¾" chamfer or ½" tooled edge.
6. On grade Inlets shall conform to the street grade and sump Inlets shall be level.
7. The length plus the width shall not exceed 15' without special design.
8. Each Inlet shall be placed on a 4" compacted aggregate base.
9. Each Inlet shall have a steel inlet frame.
10. Each Inlet shall be designed to sustain any anticipated loading conditions. In no case shall materials and design not be sufficient to support an ASHTO HS-20 loading.
11. Transition curb in 10' on upstream side of inlet and in 5' on the downstream side. 10' transition on both sides for sump inlet. See detail.

C. Open Channel Design

1. Open Channel Drainage shall be designed using the Mannings Equation for open channel flow. The channel shape maybe trapezoidal, rectangular or circular at the designer's discretion.

   a. The channel depth shall be designed so that the peak runoff flow will be accommodated at 2/3rd of the channel depth.

b. Where channel depth will exceed one foot, a trapezoidal section with a maximum of 1:1 side slopes shall be used.
c. Where flow velocity will exceed 2 fps engineering fabric or erosion mat shall be utilized. Selected fabric or mat shall be rated for the intended application. Velocities shall be calculated and included with permit submittal.
d. Where velocity will exceed 5 fps riprap shall be installed to eliminate scouring. See Drawing No. IV-7. Velocities shall be calculated and included with permit submittal.

All stormwater calculation shall be signed and sealed by an Engineer licensed in the State of Missouri and submitted with the permit application for review by the City Engineer. Calculations shall be prepared in a report format.

POST CONSTRUCTION WATER QUALITY

1. It shall be required that appropriate filtration methods are used in order to assure that silt, sediment, and debris do not get into the conveyed storm drainage flow. Parking areas, roof tops and other similar surfaces (not including single or two family residential), will require the collection and isolation of silts, sediments, debris, oils, and volatile materials. Also see Strom Drainage Plan A.5.c. New developments that disturb less than 1 acre and are not part of a larger common plan of development that will disturb 1 or more acres over the life of the project are not required to meet the post construction water quality requirement. Water quality requirements shall not apply to City streets or new constructed streets to be dedicated to the City.

Approved filtering systems are as follows:

2. Fabricated Filtration Manholes or Curb Inlets

a. Several patented filtration devices are now available that can effectively reduce sediment discharges such as:

1) Treatment systems such as Stormceptor
2) Catch Basin or Curb Inlet inserts such as FloGard manufactured by Hancor, Inc. or Hydro-Kleen manufactured by ACF Environmental.
4) Or several non-patented devices by various highway departments, etc.

3. Post Construction Sediment Basin

a. Sediment Basin volume, or WQV, shall be based on the following calculation:

$WQV\ (ft^3) = (P/12)(R_v)(A*43{,}560)$
Where
P = rainfall depth = 1 inch
R_v = volumetric runoff coefficient = 0.05 + 0.009I
I = percent impervious cover (in percent, e.g. 80% = 80)
A = total site area in acres

b. The inlet should be designed to prevent short-circuiting between entrance and discharge to the maximum extent practicable. This can be accomplished by providing baffles in the channel, turns in the channel, etc.
c. The shape of the storage basin should allow for easy cleanout of sediment and debris. Proper maintenance is the responsibility of the property owner. Terrain and other site conditions will tend to dictate the shape of the facility. Sediment Basins with water depth greater than 4' shall be fenced for safety.
d. The sediment basin shall include an outlet structure designed for the slow release of stored runoff to allow for sedimentation in the basin. A perforated riser wrapped in filter fabric and covered with a mound of clean 2-inch stone is the City's preferred outlet structure. Basin shall be designed to prevent permanent standing water.

The details of the design are at the discretion of the designer subject to approval of the City Engineer.

All stormwater calculation shall be signed and sealed by an Engineer licensed in the state of Missouri and submitted with the permit application for review by the City Engineer. Calculations shall be prepared in a report format.

CONSTRUCTION MATERIALS

A. See Drainage ditches maybe stabilized earth, riprap, concrete, or other durable material.
B. Retention basin inlets, basin, and outlet structures maybe of any durable material subject to the approval of the City Engineer.
C. Storm drainage pipe and culvert pipe shall be reinforced concrete, or dual wall polypropylene pipe.

1. All pipes at a minimum must be capable of sustaining an ASHTO HS-20 loading.
2. The use of polypropolene pipe for storm drainage at drop inlets or in areas where leaf burning is allowed is prohibited.

D. Curb Inlets

1. Shall be prefabricated or cast-in-place.

    a. Shall be place on a 4” compacted aggregate base.
    b. Reinforcement in footing shall be #4 bars on 6” centers both ways.
    c. Reinforcement in walls shall be #4 bars on 12” centers both ways.
    d. Reinforcement in lid shall be a minimum of six #4 bars placed at 45 degree angle. See detail.

2. Shall have a 10” throat galvanized steel inlet frame.
3. Cast iron manhole ring and cover, Neenah R-1537 or approved equal.
4. Cast iron step, Clay & Bailey No. 2101 or approved equal.

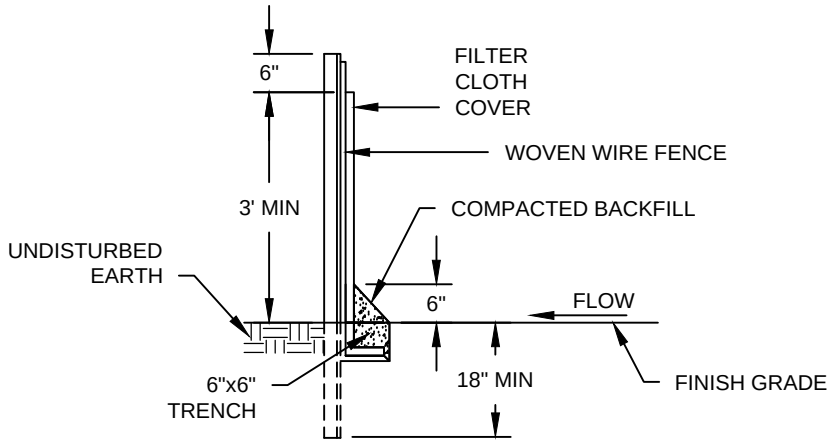
STORM DRAINAGE CONSTRUCTION DETAIL DRAWINGS

Construction details and sketches are attached.

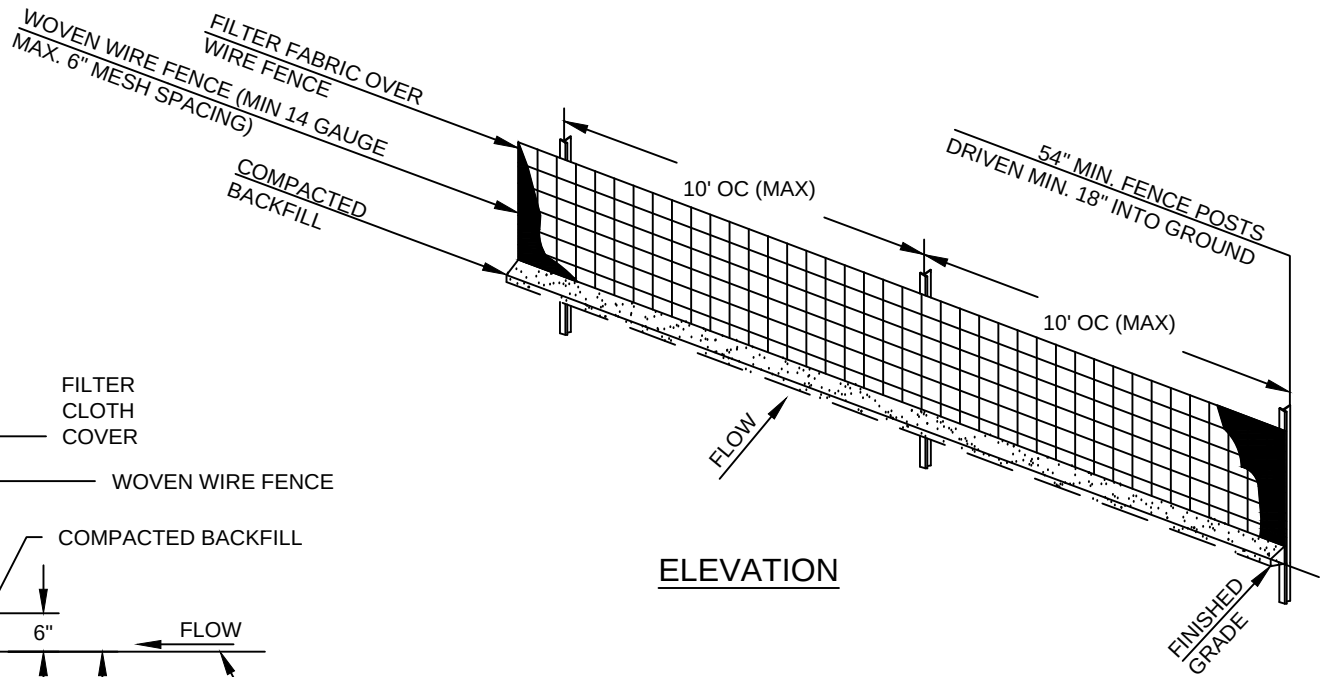
END

NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



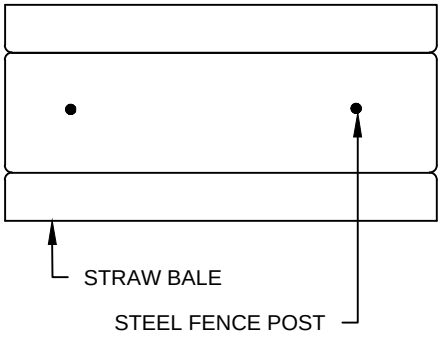
CROSS-SECTION



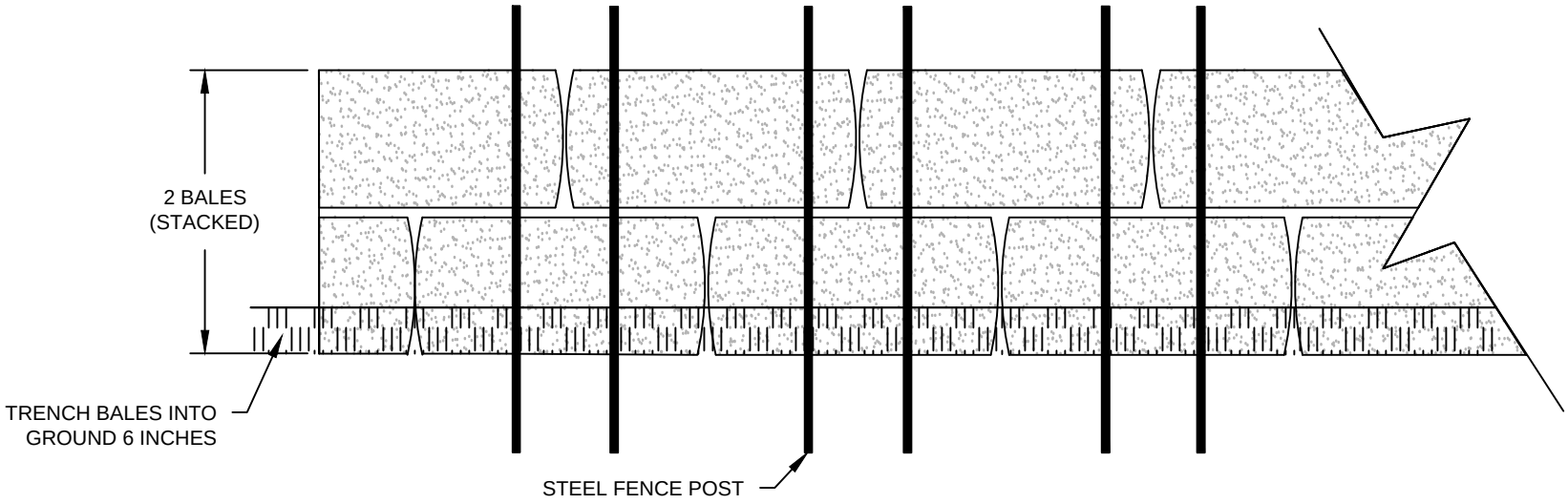
ELEVATION

POSTS: STEEL EITHER T OR U TYPE
FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL
PREFABRICATION UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL SILT FENCE	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-1

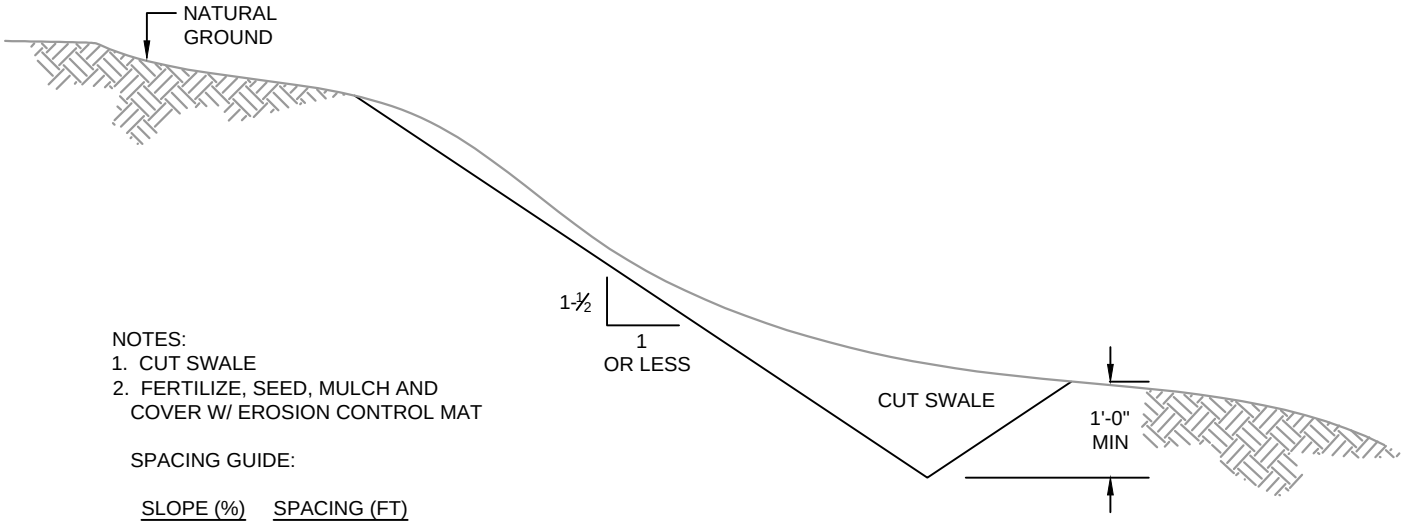


PLAN



FRONT

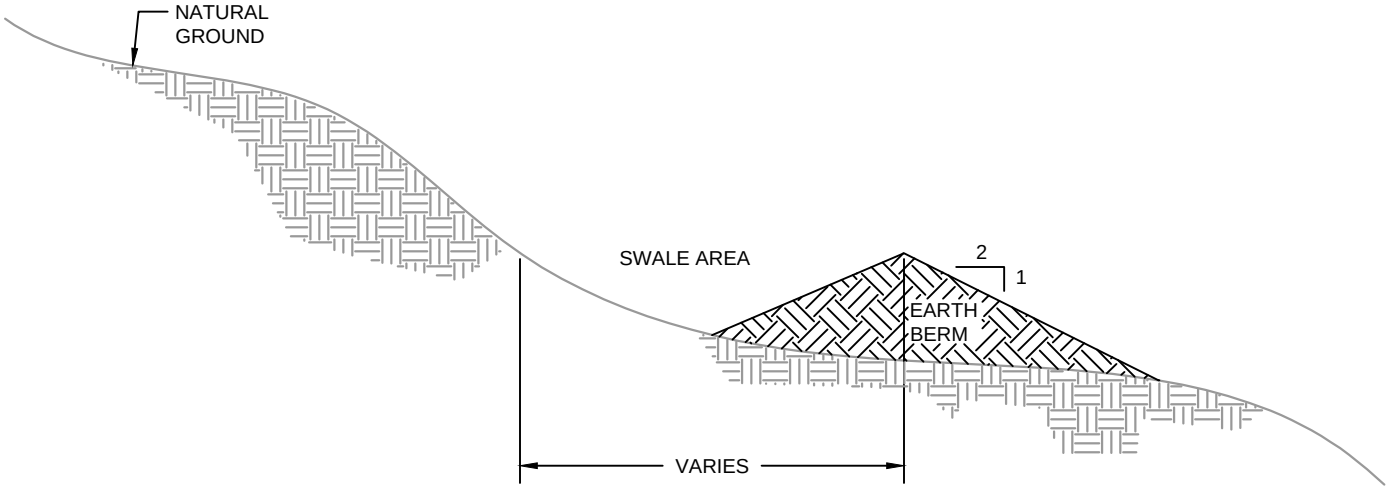
Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL STRAW BALE CHECK FENCE	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-2



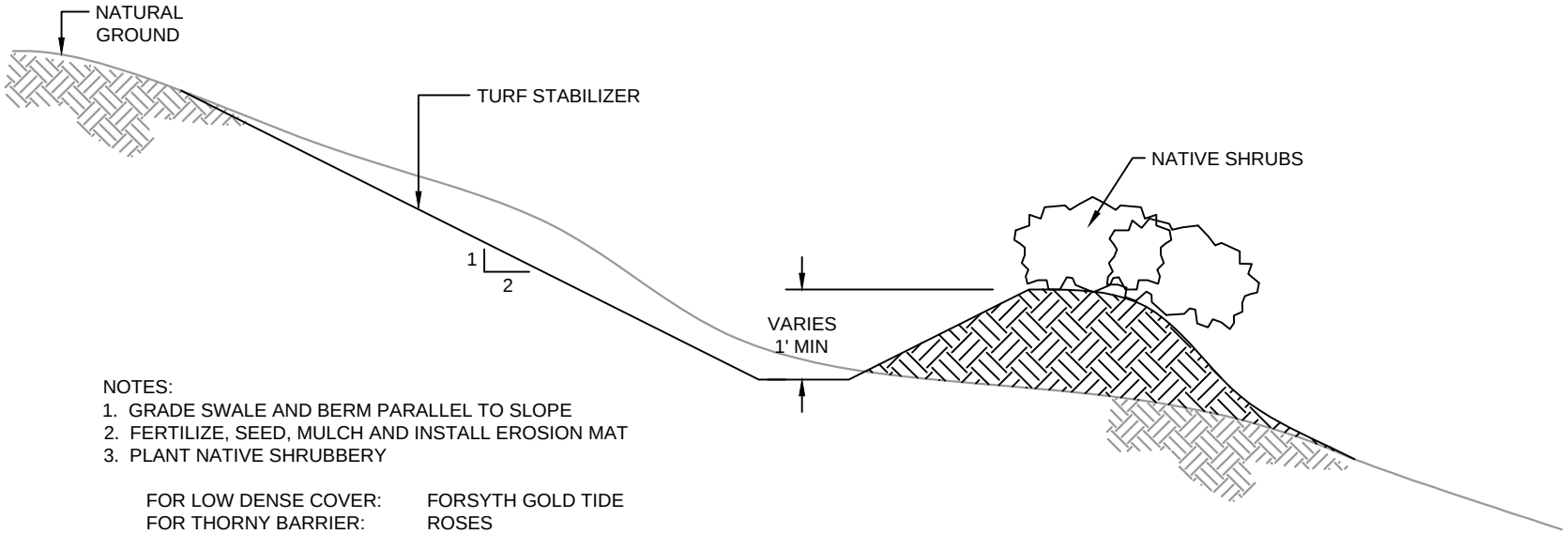
NOTES:
1. CUT SWALE
2. FERTILIZE, SEED, MULCH AND COVER W/ EROSION CONTROL MAT

SPACING GUIDE:

SLOPE (%)	SPACING (FT)
33-50	20
25-33	40
15-25	60
10-15	80
6-10	120
3-6	200



Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL SWALE	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-3

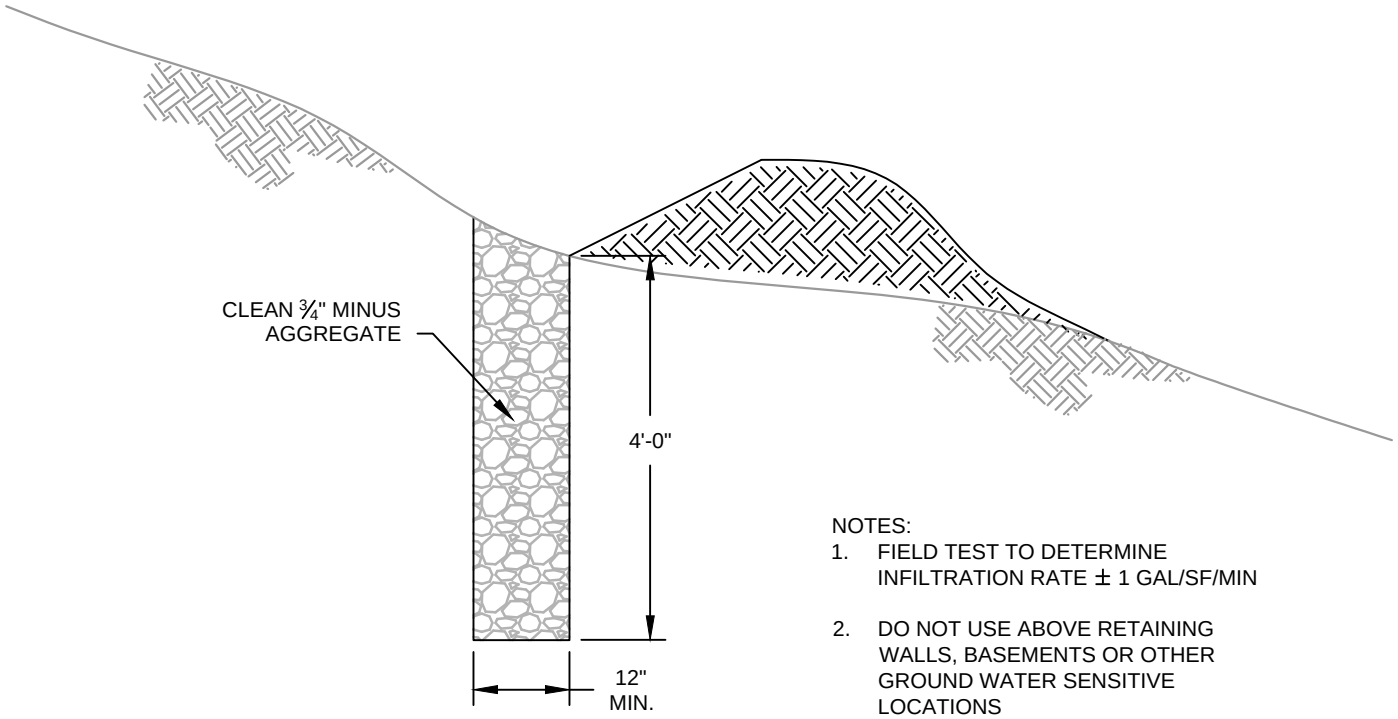


NOTES:
1. GRADE SWALE AND BERM PARALLEL TO SLOPE
2. FERTILIZE, SEED, MULCH AND INSTALL EROSION MAT
3. PLANT NATIVE SHRUBBERY

FOR LOW DENSE COVER:	FORSYTH GOLD TIDE
FOR THORNY BARRIER:	ROSES
FOR TALL NARROW SCREEN:	SPRING GROVE

SLOPE (%)	GRASS AREA	SHRUBS/TREES
0-5	10'	15'
OVER 5	20'	40'

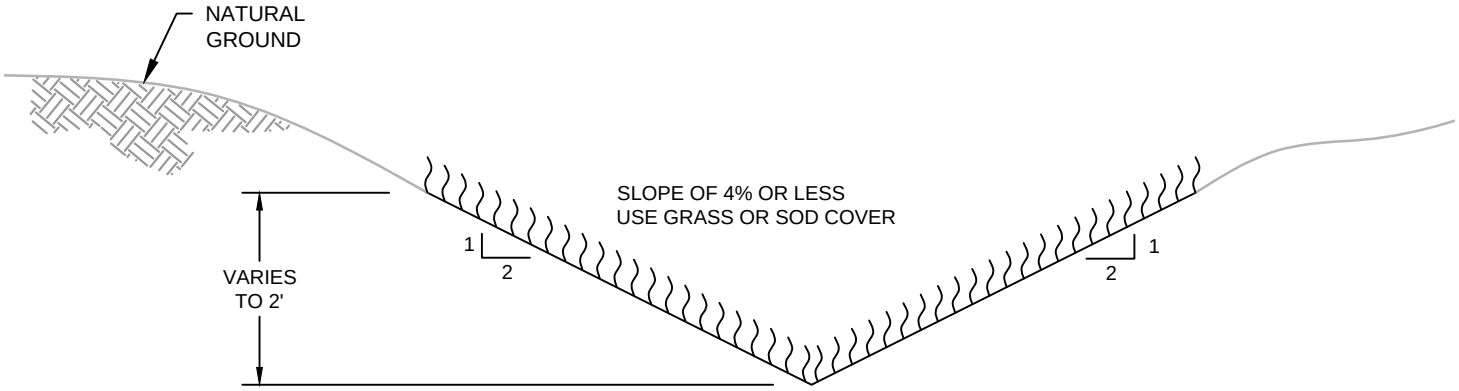
Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL VEGETATION BARRIER & SWALE	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-4

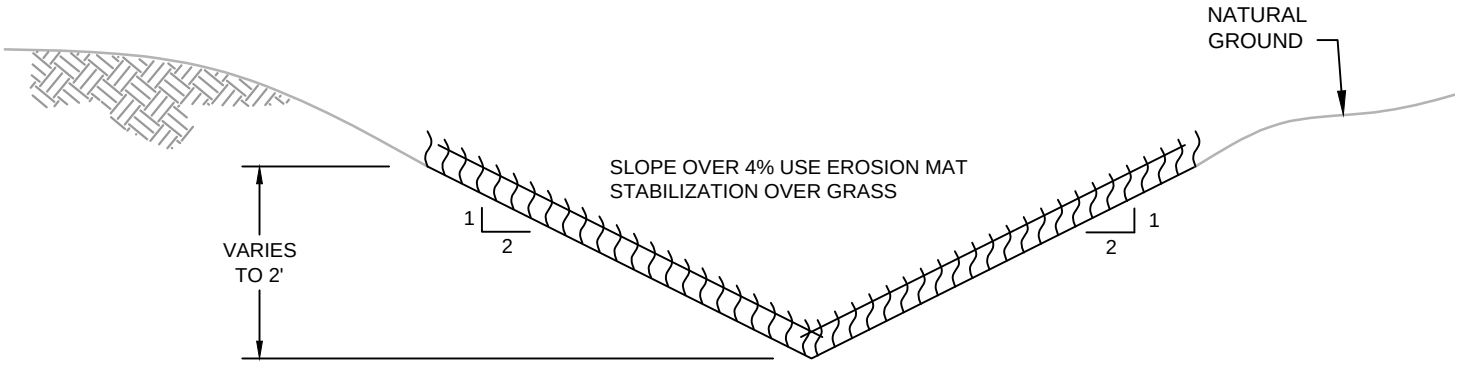


NOTES:

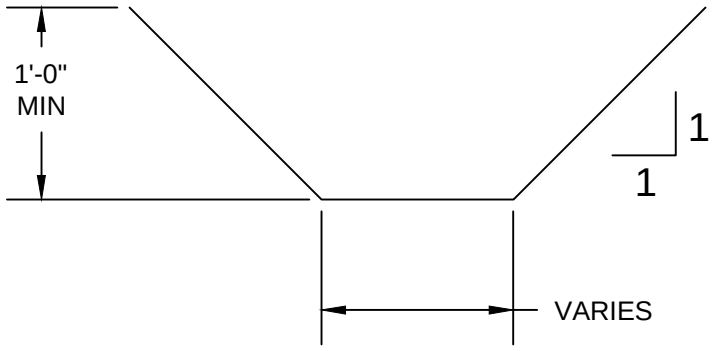
1. FIELD TEST TO DETERMINE INFILTRATION RATE ± 1 GAL/SF/MIN
2. DO NOT USE ABOVE RETAINING WALLS, BASEMENTS OR OTHER GROUND WATER SENSITIVE LOCATIONS

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL INFILTRATION TRENCH	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-5



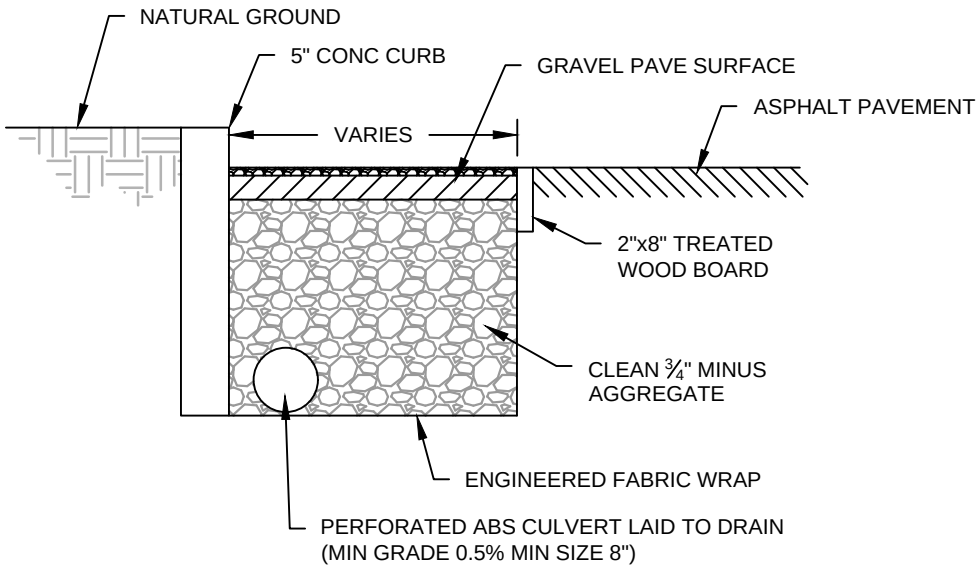


Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL DRAINAGE SWALE-GRASS OR TURF	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-6



NOTES:
1. VELOCITY LESS THAN 2 FPS - GRASS OR TURF
2. VELOCITY 2-5 FPS - TURF AND EROSION MAT
3. VELOCITY OVER 5 FPS - RIP-RAP MIN SIZE 3" SMALLEST DIMENSION

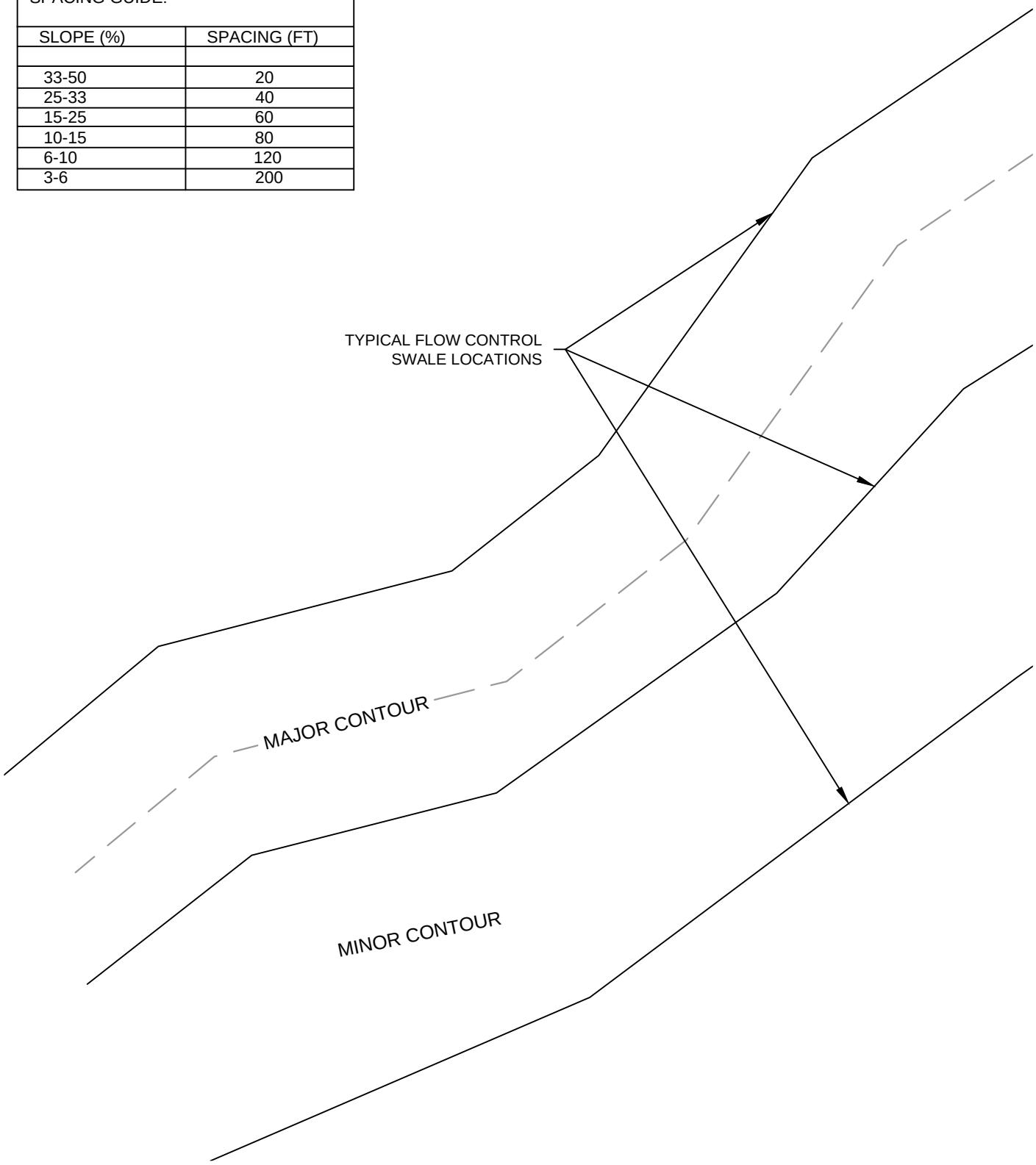
Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL OPEN DRAINAGE CHANNEL	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-7



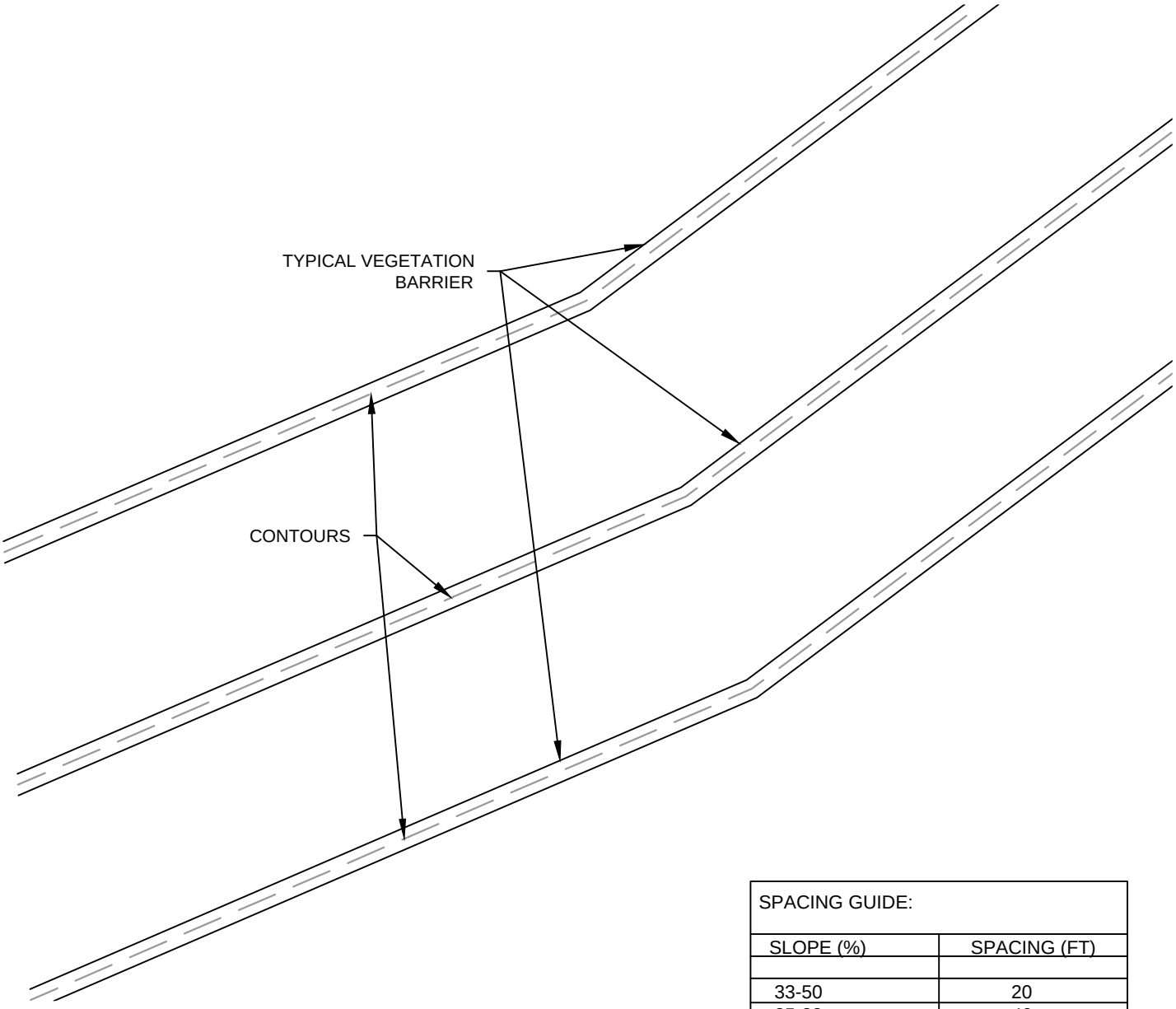
NOTES:
1. WIDTH VARIES DEPENDENT UPON DRAINAGE AREA (PER MANUFACTURES RECOMMENDATION - 0.25 GPM/SF TARGET VALUE)
2. DIAMETER OF DRAIN DEPENDS ON FLOW
3. DEPTH DEPENDS ON SIZE OF DRAIN - MIN 16"

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL FILTER STRIP	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-8

SPACING GUIDE:	
SLOPE (%)	SPACING (FT)
33-50	20
25-33	40
15-25	60
10-15	80
6-10	120
3-6	200

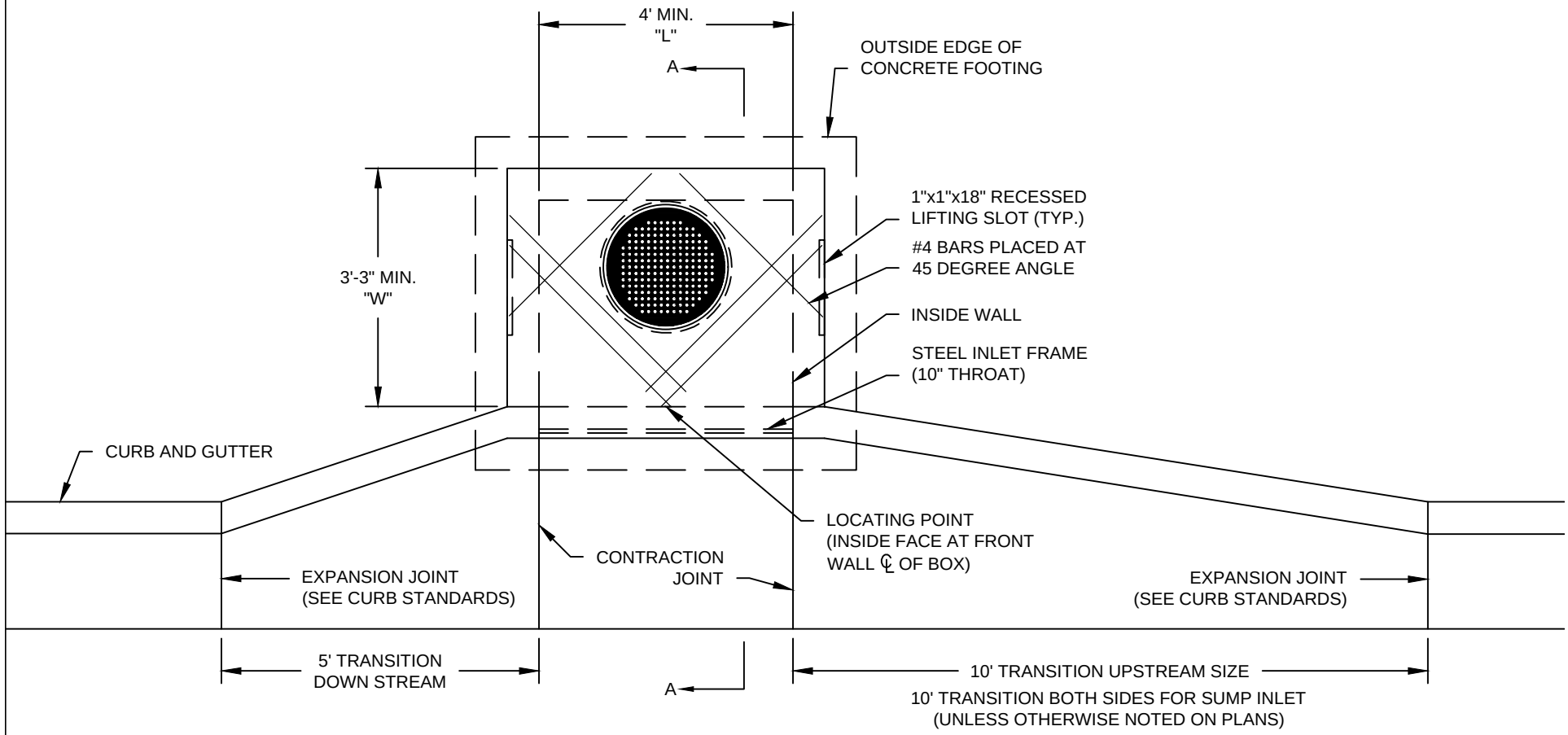


Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL SWALE LOCATION	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-9



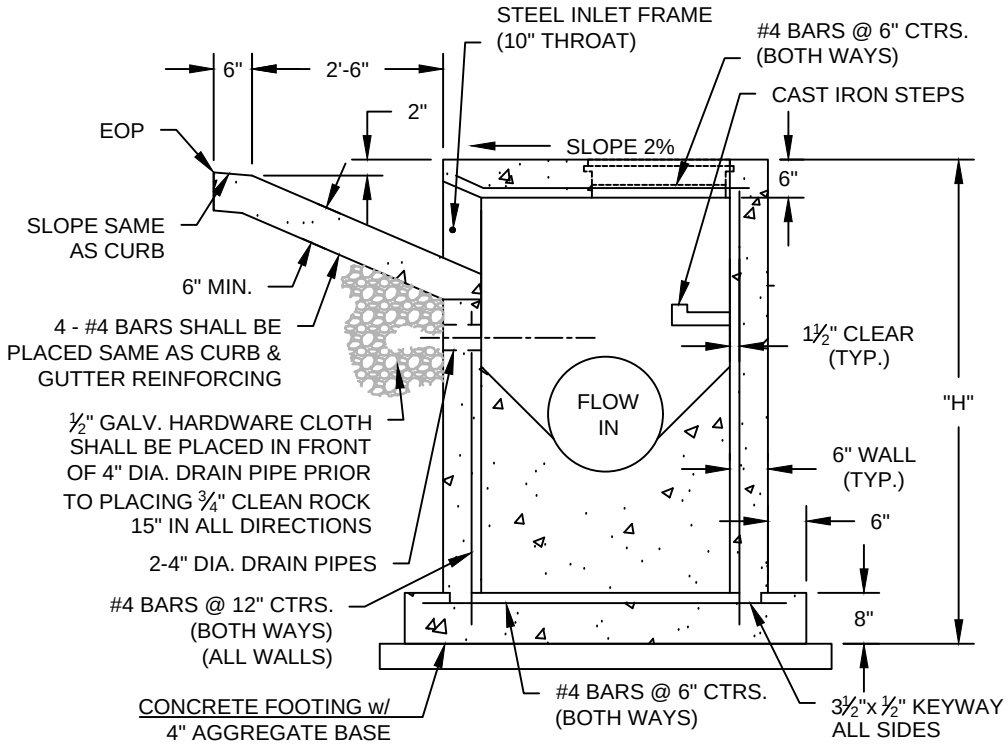
SPACING GUIDE:	
SLOPE (%)	SPACING (FT)
33-50	20
25-33	40
15-25	60
10-15	80
6-10	120
3-6	200

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL VEGETATION BARRIER LOCATION	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-10

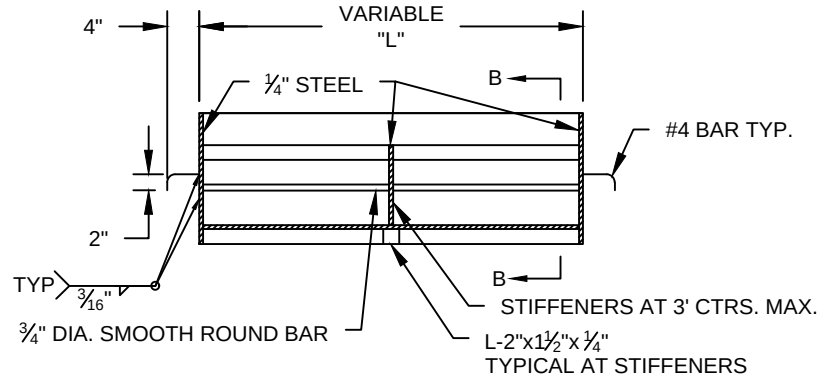


PLAN VIEW

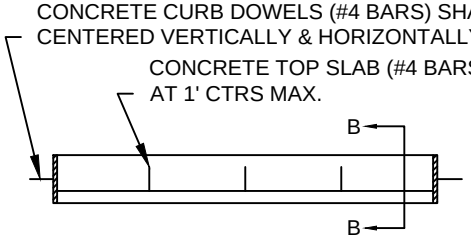
Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL CURB INLET	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-11



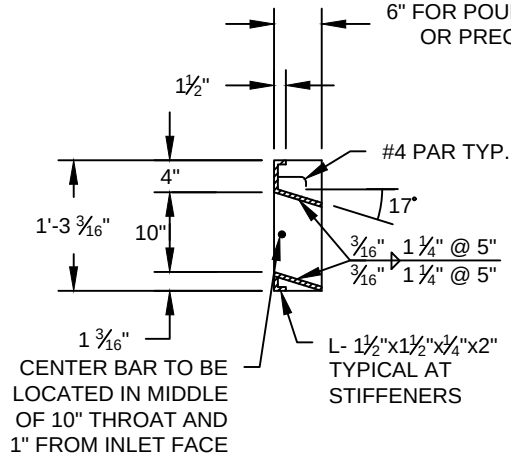
SECTIN A-A



FRONT VIEW



TOP VIEW

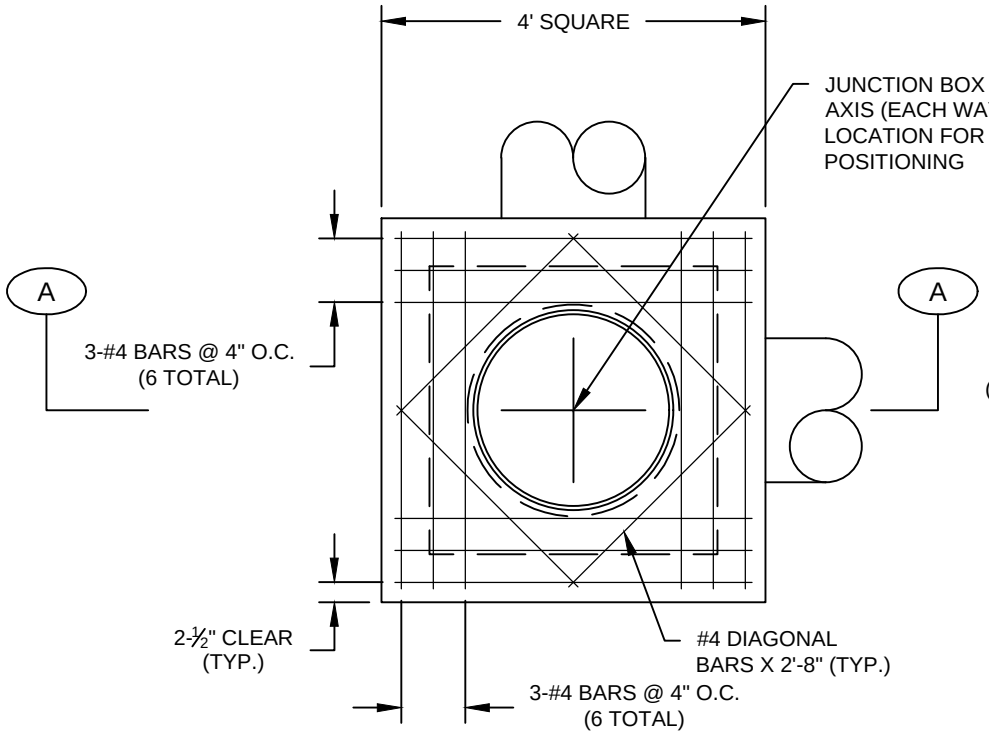


SECTION B-B

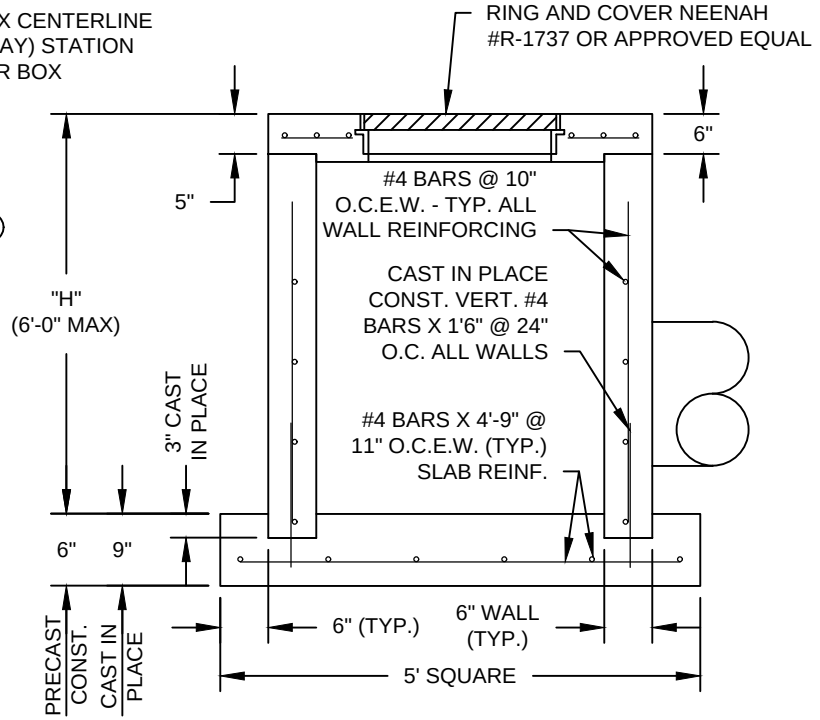
NOTES

1. ALL WELDS SHALL BE PREFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS & PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. THE ENTIRE FRAME SHALL BE GALVANIZED.

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL CURB INLET DETAILS	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-12

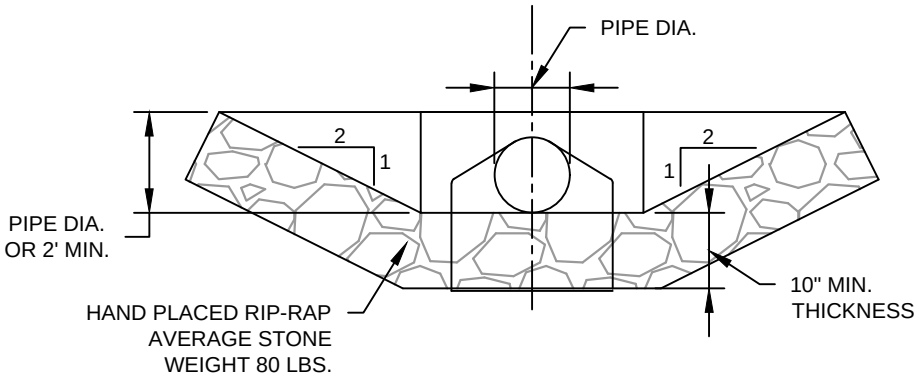


TOP - PLAN

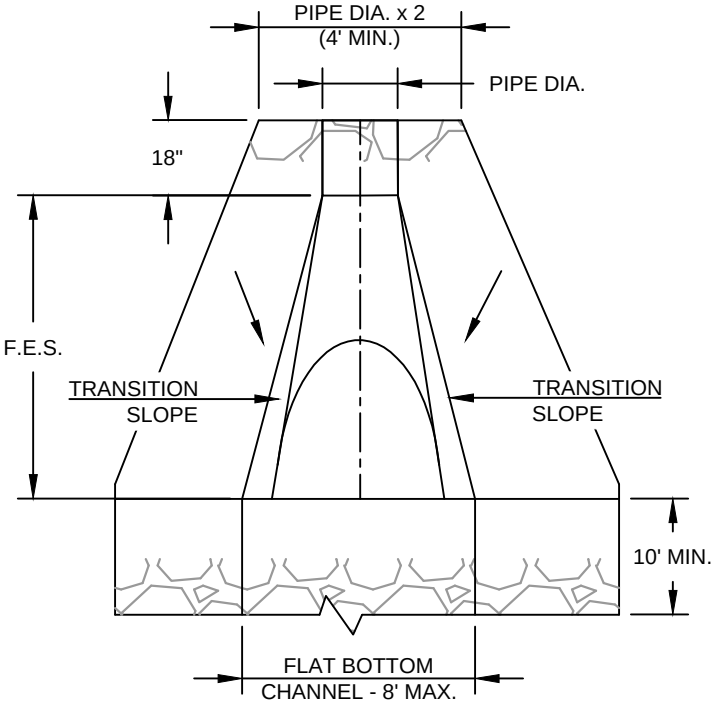


SECTION A-A

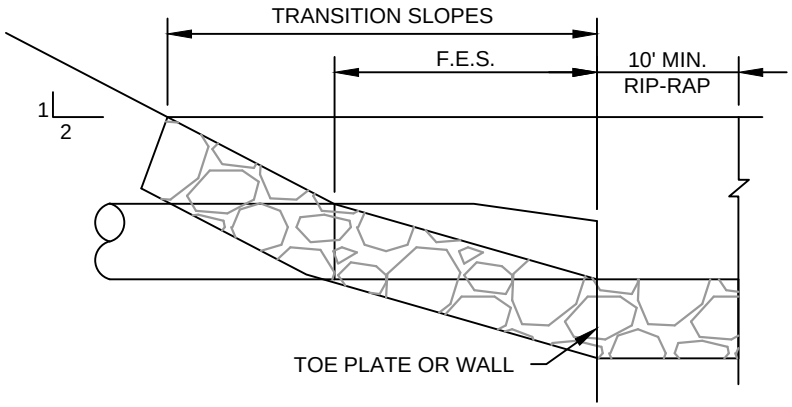
Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL JUNCTION BOX	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-13



END

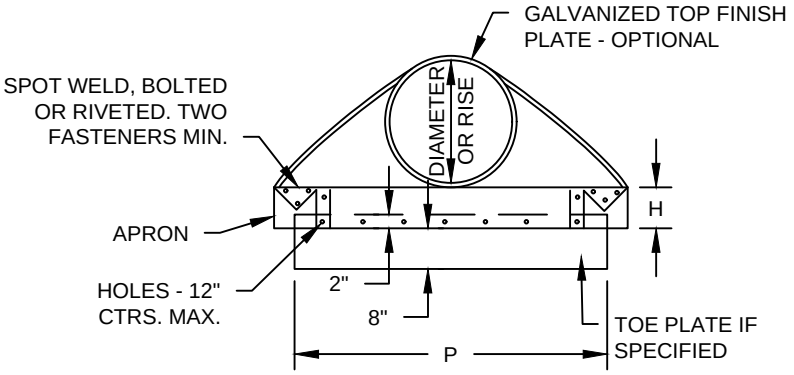


PLAN

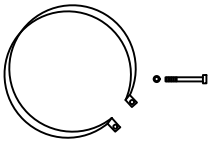


SECTION

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL FLARED END SECTION w/ RIP RAP	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-14

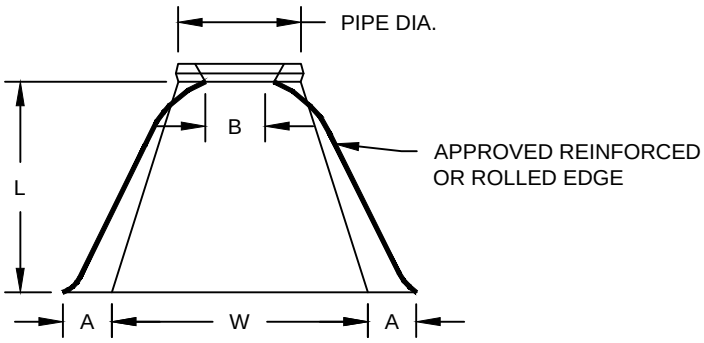


ELEVATION



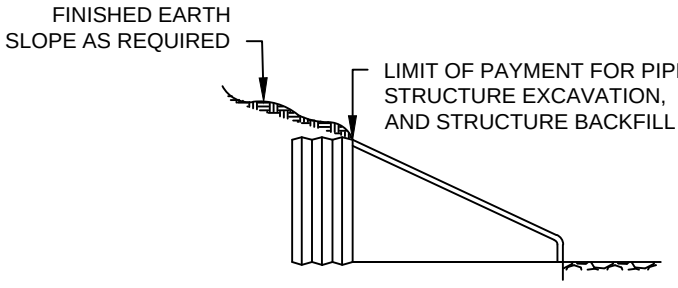
1 INCH WIDE 0.109" THICK CONNECTOR STRAP OF COMMERCIAL QUALITY STEEL. GALVANIZED WITH SAME WEIGHT COATING AS PIPE, AND 6" x ½" GALVANIZED BAND BOLT AND NUT. USE AS ALTERNATE ON CONNECTION.

CONNECTOR STRAP

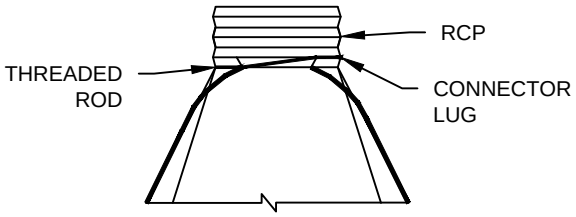


PLAN

END SECTION FOR ROUND PIPE								
PIPE DIA. (IN)	GALV. SHEET THICK (IN)	DIMENSIONS (IN)					APPROXIMATE SLOPE (V:H) (1:SLOPE)	TOE PLATE IF SPECIFIED P (IN)
		A 1" TOL.	B MAX.	H 1" TOL.	L 1-½" TOL.	W 2" TOL.		
18	0.064	8	10	6	31	36	2 - ½	46
21	0.064	9	12	6	36	42	2 - ½	52
24	0.064	10	13	6	41	48	2 - ½	58



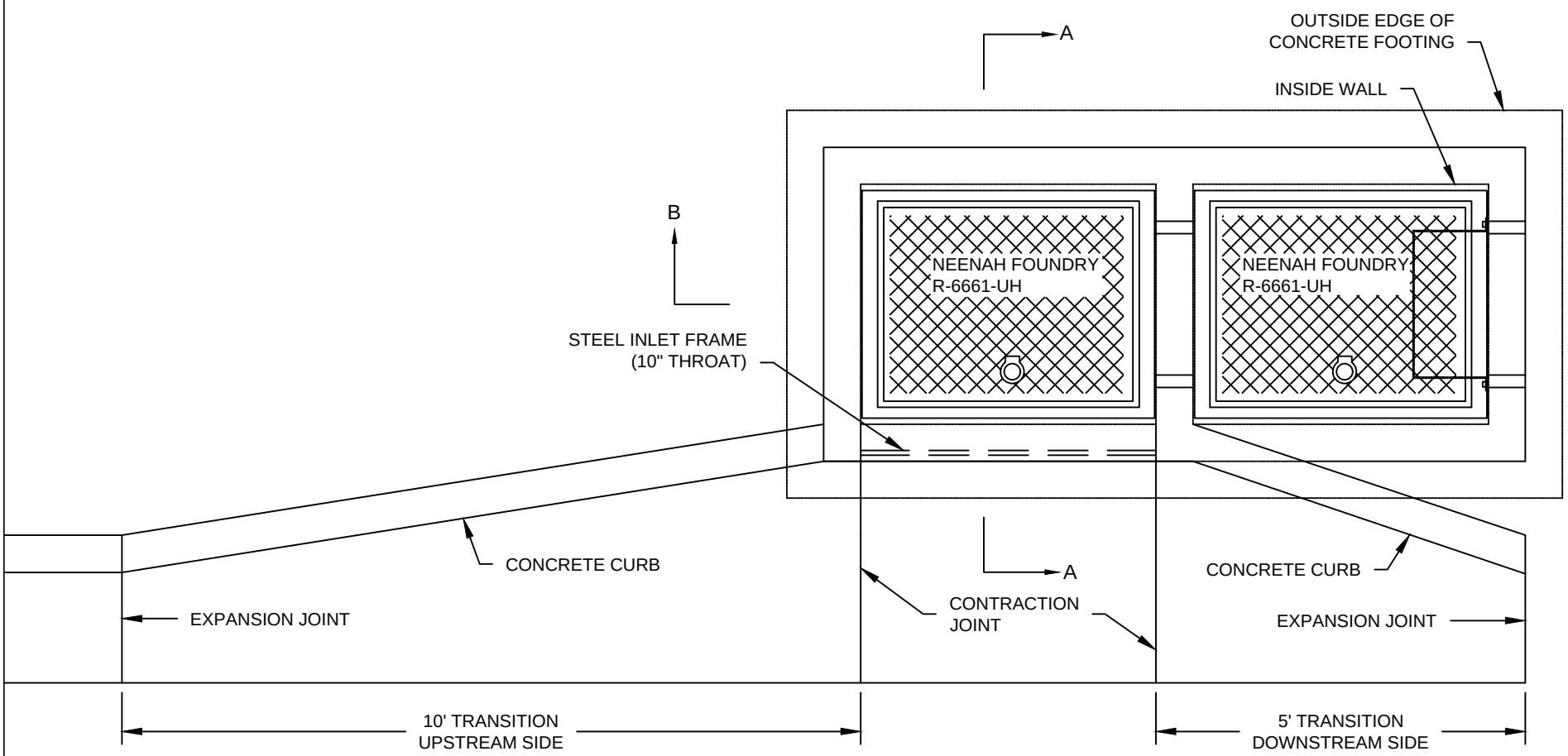
TYPICAL CROSS-SECTION



FOR 12" THRU 24" ROUND PIPE ONLY

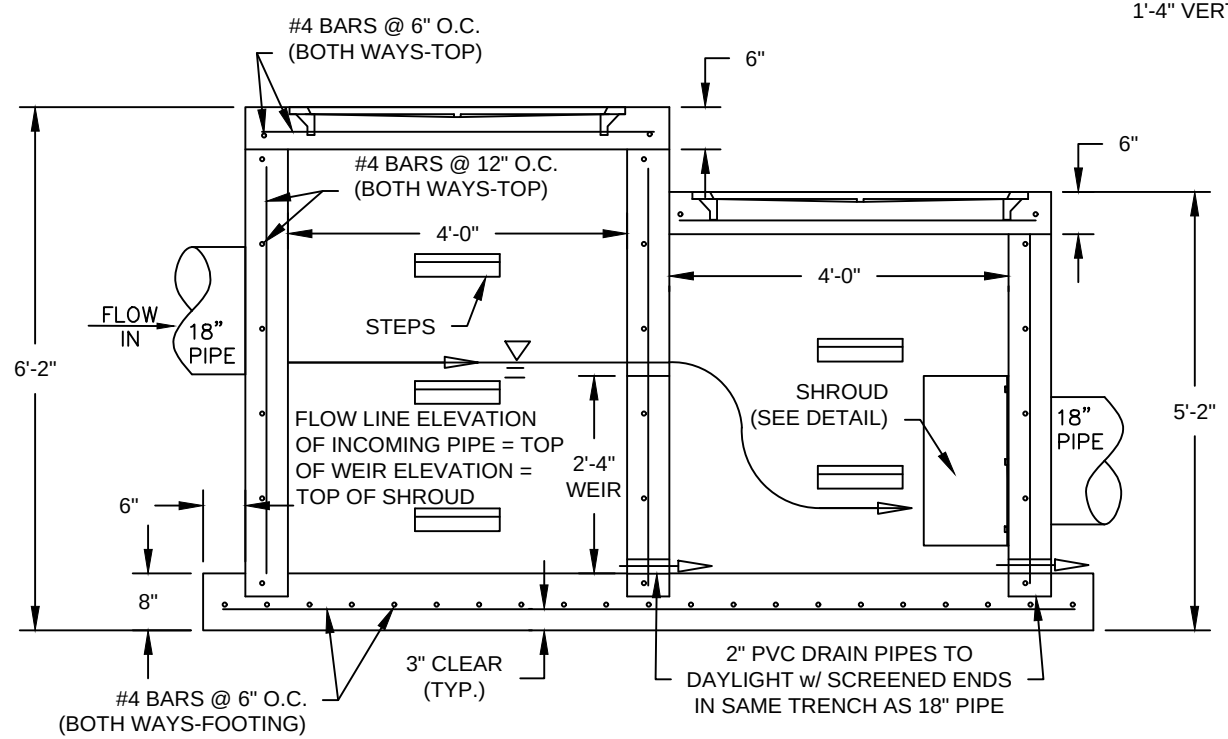
CONNECTION

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL FLARED END SECTION	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-15

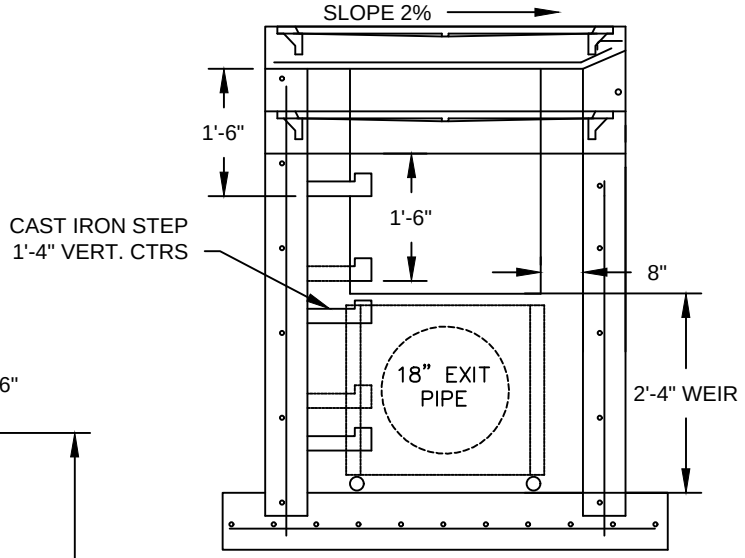


Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL DISSIPATION BOX	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-16

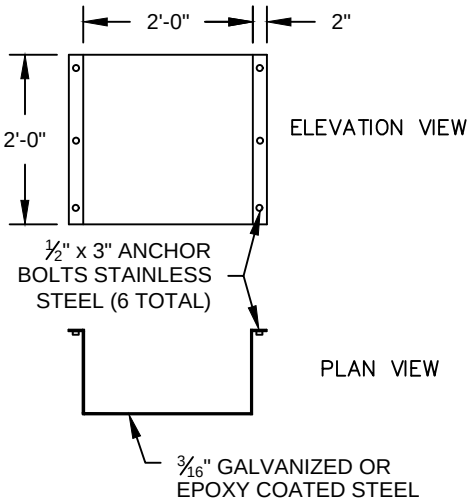
NOTE:
1. BEVEL ALL EXPOSED EDGES WITH ¾" CHAMFER OR ½" TOOLED EDGE.



SECTION B–B



SECTION A–A



SHROUD DETAIL

Date Revised: March, 2014	CITY OF OSAGE BEACH TYPICAL DETAIL DISSIPATION BOX	Design Guideline: SECTION 4
By: SH		STORM DRAINAGE
Checked By: JB		Drawing No: IV-17

OVERVIEW

This chapter establishes design guidelines for the construction of roads, streets, and parking areas within the jurisdictional boundaries of the City of Osage Beach. It also establishes the guidelines for reconstruction, improvement, and maintenance of existing streets within the city. Design standards are based upon the AASHTO Policy on the Geometric Design of Highways and Streets and the Supplement for Design of Very Low Volume Local Roads, ≤ 400 Average Daily Traffic (ADT).

CLASSIFICATION OF ROADS AND STREETS

A. Arterial Streets subdivided into three classifications:

1. Arterials over 50,000 Average Daily Traffic Count (ADT): Major through routes for high volume, moderate speed traffic, with limited access similar to the pending Rte. 54 Expressway.
2. Arterials with between 10,000 and 50,000 ADT: Major through route for high volume, restricted speed traffic, with restricted access, similar to the existing Rte 54.
3. Arterials with between 5,000 and 10,000 ADT: Major connecting through routes similar to Rte. 42, KK and D Roads.

The design criterion shall be as indicated in Table I - Design Criterion.

B. Collector Streets. Collector are those that streets that intersect with arterial streets and/or local streets and serve primarily local traffic from neighborhoods to through routes. Dependant upon traffic count and local conditions the access will be restricted. Collector Streets are subdivided into two classifications:

1. Collector Street with over 3,000 ADT: Major lake roads such as Nichols Road, Passover Road, and Bluff Road.
2. Collector Street with 1,000 to 3,000 ADT: Lake Roads such as Case, Jefferies, Malibu, and Lazy Days.

The design criterion shall be as indicated in Table I - Design Criterion

C. Local Streets. Local streets are relatively low traffic neighborhood streets that provide access to residences or business locations and connect to collector streets. Local Streets are subdivided into four classifications:

1. Local Street with over 1500 ADT: Relatively busy neighborhood streets that serve several residences and/or condo units and connect to collectors and lesser local streets such as Dogwood Lane, Airport Road, Sunset Drive, lesser traveled portions of Nichols Road and Dude Ranch Road, etc.

2. Local Street with between 400 and 1500 ADT: Neighborhood streets serving more than ten residences or condo units, and connecting to lesser local streets. May be dead end streets similar to: Wilson Drive, Broadwater Drive, Wyrick Road, etc.

3. Local Street with less than 400 ADT: Low use, usually dead end, streets serving less that ten residences similar to Cedar Village Lane, Sleepy Hollow Lane, End of Hawthorne Drive, etc.

The design criterion shall be as indicated in Table I - Design Criterion

DEAD END STREETS

A. Cul-de-sacs shall be constructed on all dead-end streets and shall meet the following criterion:

1. The minimum diameter shall be 50 feet (edge of pavement to edge of pavement).
2. The minimum easement or right of way shall be 60 feet diameter, or back of cut or fill slope as determined by the City Engineer.
3. In cases where terrain and other constraints prohibit the construction of a cul-de-sac a “turn-around tee” may be constructed with the approval of the City Engineer. The use of a cul-de-sac is preferred.

RESIDENTIAL PARKING AND COMMERCIAL PARKING AREAS

A. Residential Parking

1. Each residential property owner shall provide sufficient off street parking for his or her individual needs. Parking on the city street will not be permitted.

B. Public Parking Areas

1. All public and commercial facilities (except those in areas zoned as industrial) shall provide adequate parking to serve the public and employees as specified in the City of Osage Beach City Code Section 405.630 thru 405.670 ~~405.480~~, Off-Street Parking and Loading Requirements. In addition all commercial and public parking shall meet the following requirements:

   a. All commercial, industrial, and/or public parking areas shall be asphalt or concrete paved.
   b. The minimum structural section for asphalt paved parking areas shall be three inches of asphalt pavement on a minimum of eight inches of Type V ~~I-B~~ Base.

~~c.~~ The minimum structural section for concrete paved parking areas shall be six inches of reinforced concrete pavement on six inches of Type V ~~I B~~ Base. ~~Reinforcement shall be # 2 bars at 12" on centers both ways or equivalent.~~

d. ADA handicapped parking shall be in accordance with:

1) City of Osage Beach Code Section 405.665 ~~405.530~~.
2) Handicapped access ramps shall be provided as necessary.

e. The parking area shall be drained to suitably designed storm drainage systems. Refer to the Storm Drainage Guidelines.

f. Minimum cross-slopes for drainage shall be 0.5% for one axis and 1.0% for the transverse axis.

g. The minimum radius for edge of pavement at entrance and exit shall be 20 feet.

h. The minimum width of entranceway for one-way entrances shall be 12 feet, and for two-way entrances shall be 24 feet.

i. The maximum allowable entry width for commercial parking areas shall be 40 ft, edge of pavement to edge of pavement.

EXISTING CITY STREETS – RECONSTRUCTION AND UPGRADING

A. Many of the existing city streets do not conform to the above standards. In many cases there is inadequate right-of-way and manmade or natural obstructions that preclude significant improvement of the street. In order to accommodate these problems the following shall apply to all existing city streets.

1. Arterial, Collector, and Local Streets with an ADT of over 1000 will be upgraded to the new construction standards to the maximum extent practicable. Substandard streets shall be upgraded in order of priority as set by the City Engineer, and approved by the Board of Aldermen.

2. Streets with an ADT of less than 1000 will be maintained to a driveable condition approximating their condition at the time of acceptance by the city until such time as increased traffic loading or safety consideration warrant upgrading them to new construction standards, providing the City has available funding. In many cases it will not be practicable to do so. In these cases the street will be upgraded by minor grading, overlay asphalt pavements, mitigation of safety issues, and construction of drainage facilities where required. Such upgrades and improvement will be prioritized. The priority shall be set by the City Engineer and approved by the Board of Aldermen.

EXISTING CITY STREETS – MAINTNENACE

A. It is the intent of this guideline that existing city streets shall be maintained in a safe, drivable condition to the maximum extent practicable with consideration given to current available funding and staffing limitations.

B. In general, the roadways will be maintained to the standard at which they were accepted into the city inventory. In cases where citizen complaints, staff investigations, or the Capital Infrastructure Advisory Committee deems appropriate the Board of Aldermen shall be requested to make improvements to the roadway. This request shall be in the form of a formal request from at least 50% of the persons or businesses located along the street in question. The request will be reviewed by the Capital Infrastructure Advisory Committee, the City Engineer, and Superintendent of Public Works and recommended to the Board of Aldermen. In general, improvements will be made only in accordance with the appropriate priority list and when funding is available.

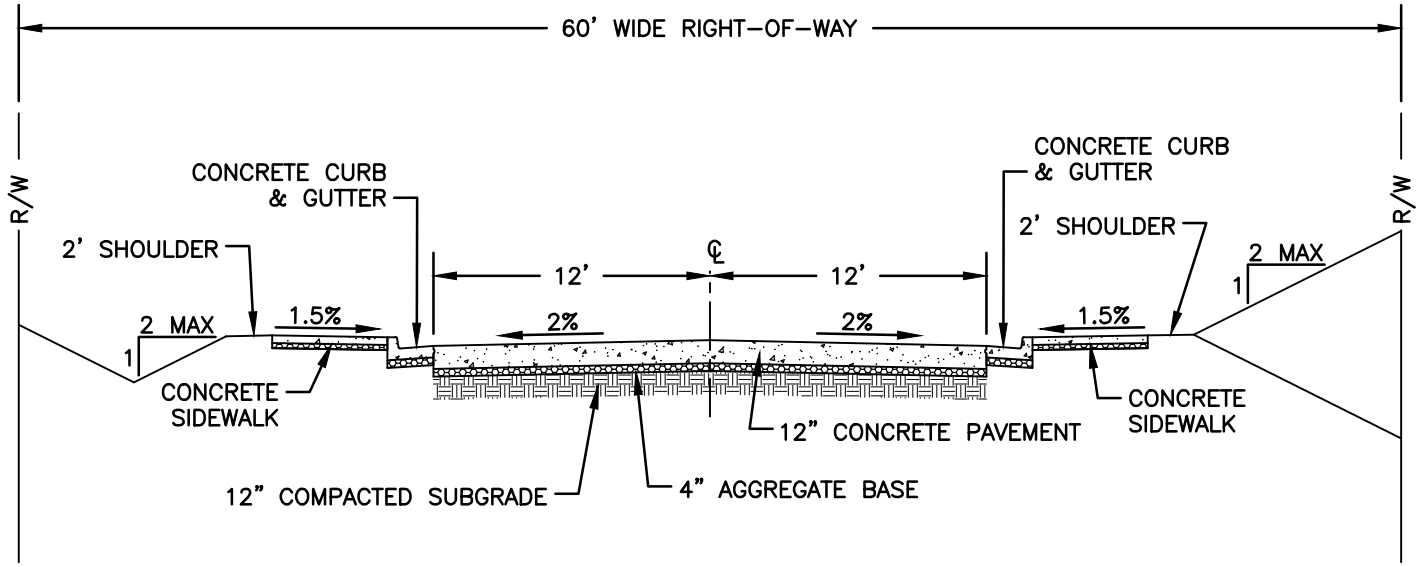
C. Snow and Ice Removal

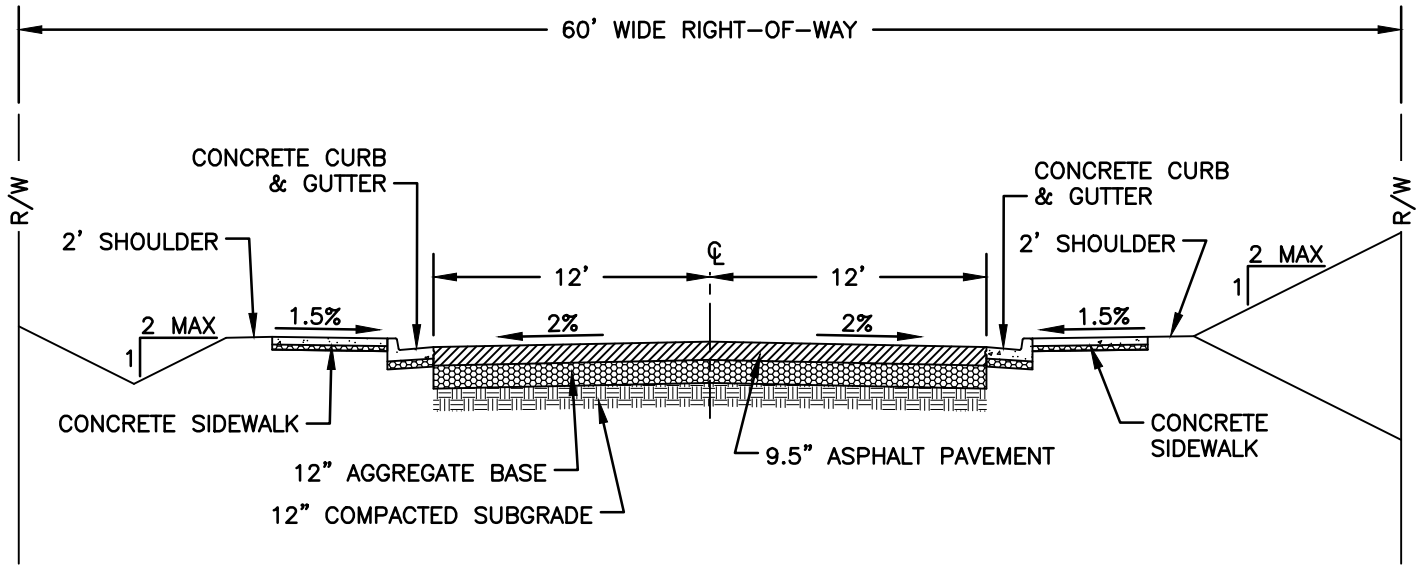
1. There are a few existing streets that are inaccessible to city snow plowing equipment. In cases where the street can not be safely plowed by existing city equipment or other safety concerns are prohibitive the street will be placed upon a no-plow list at the time the street is accepted into the city inventory. Streets to be placed on the no-plow list shall be recommended by the Department of Public Works, and be approved by the Board of Aldermen. They will remain on the no-plow list until they are upgraded to new construction standards.

ROADS, STREETS AND PARKING CONSTRUCTION DETAIL DRAWINGS

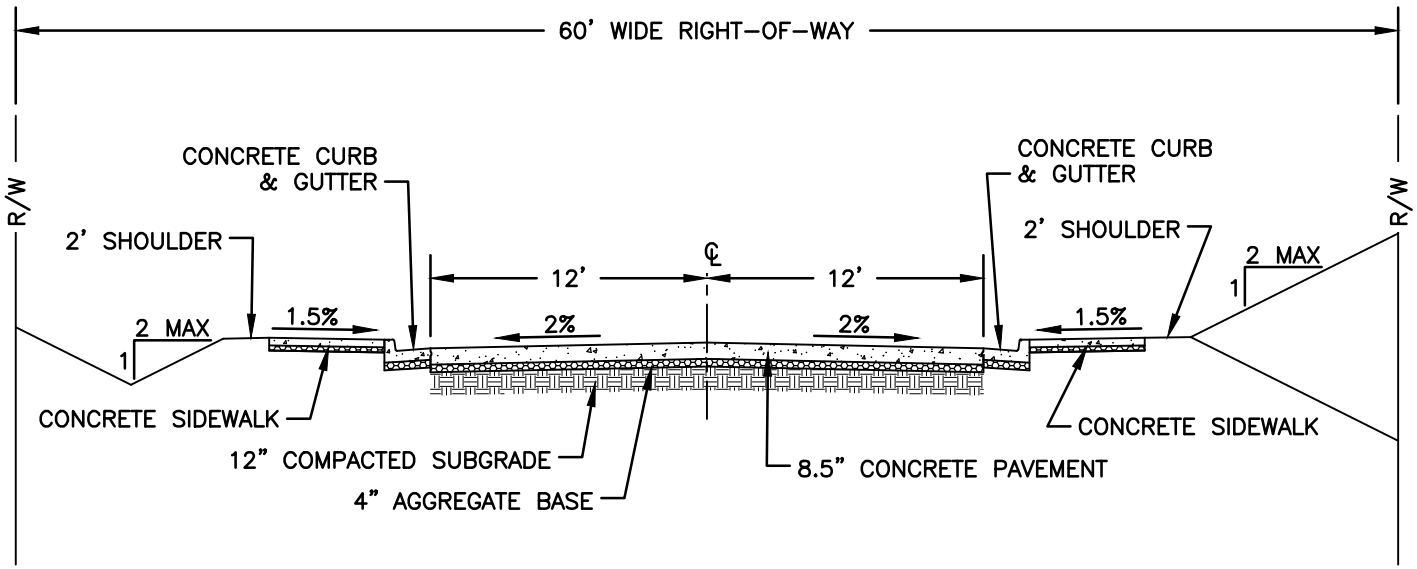
Construction details and sketches are attached.

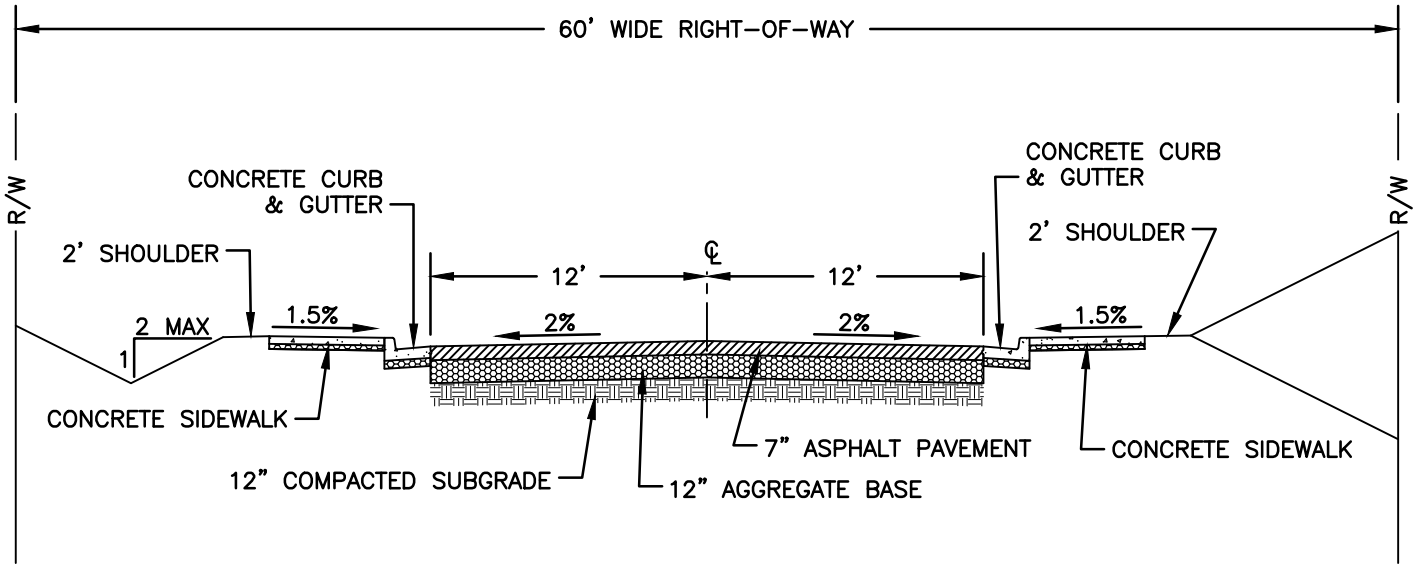
END



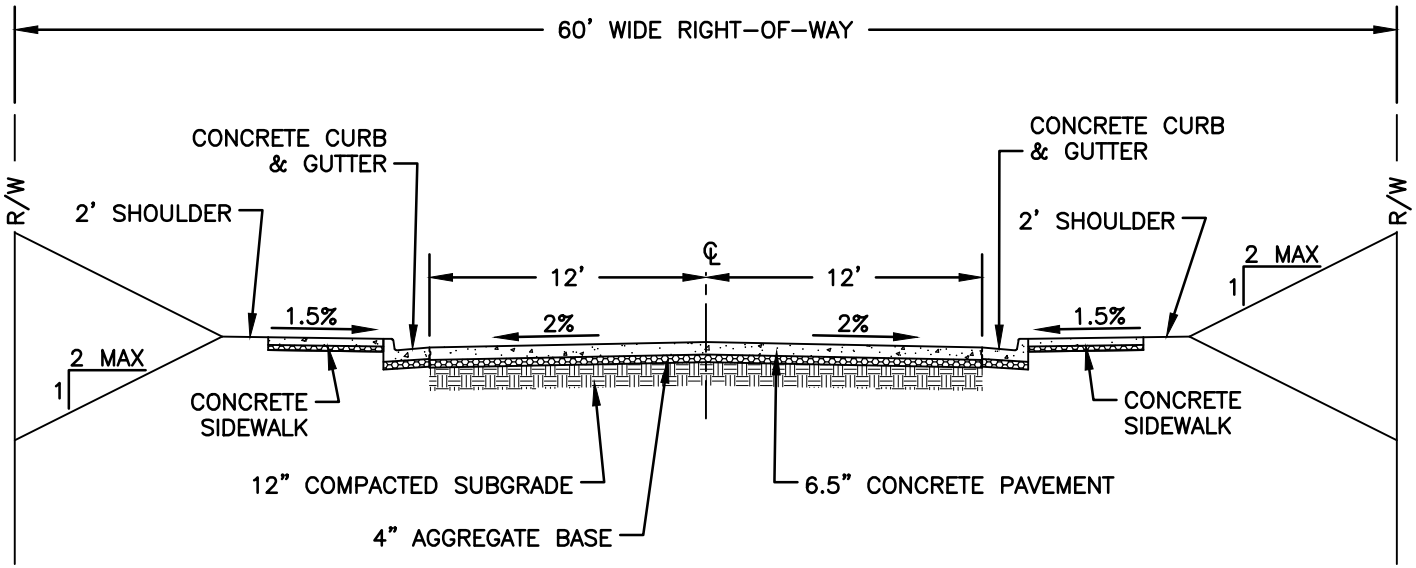


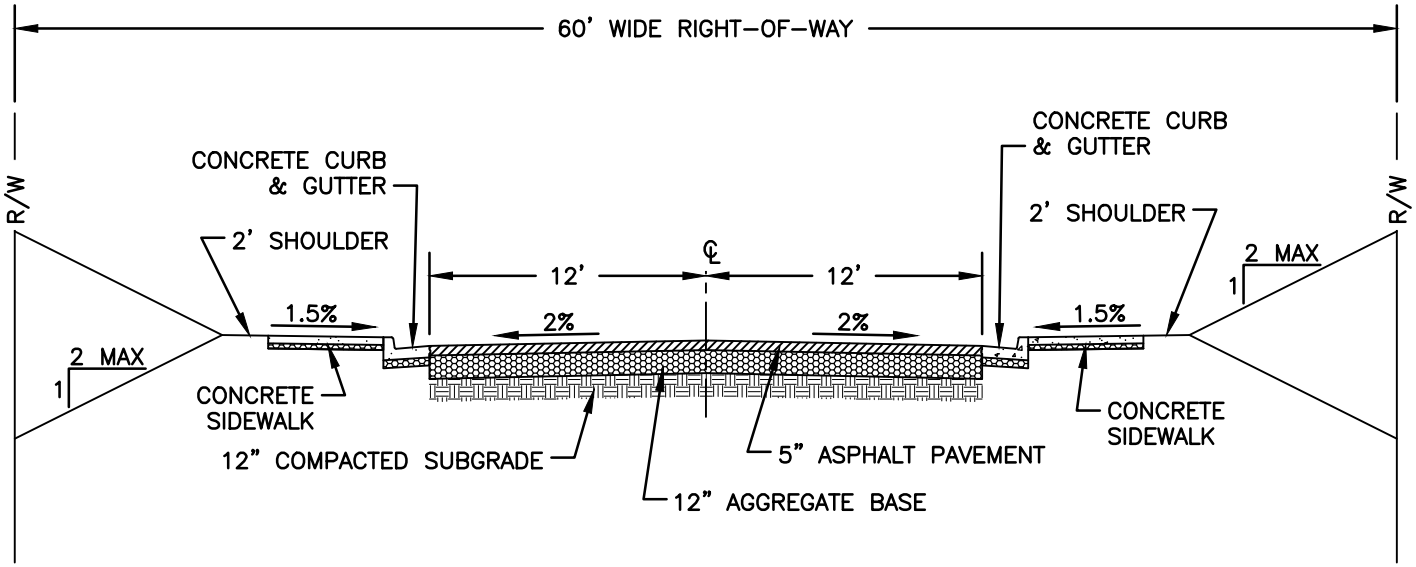
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL ARTERIAL STREET 10,000 TO 50,000 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No: V-1



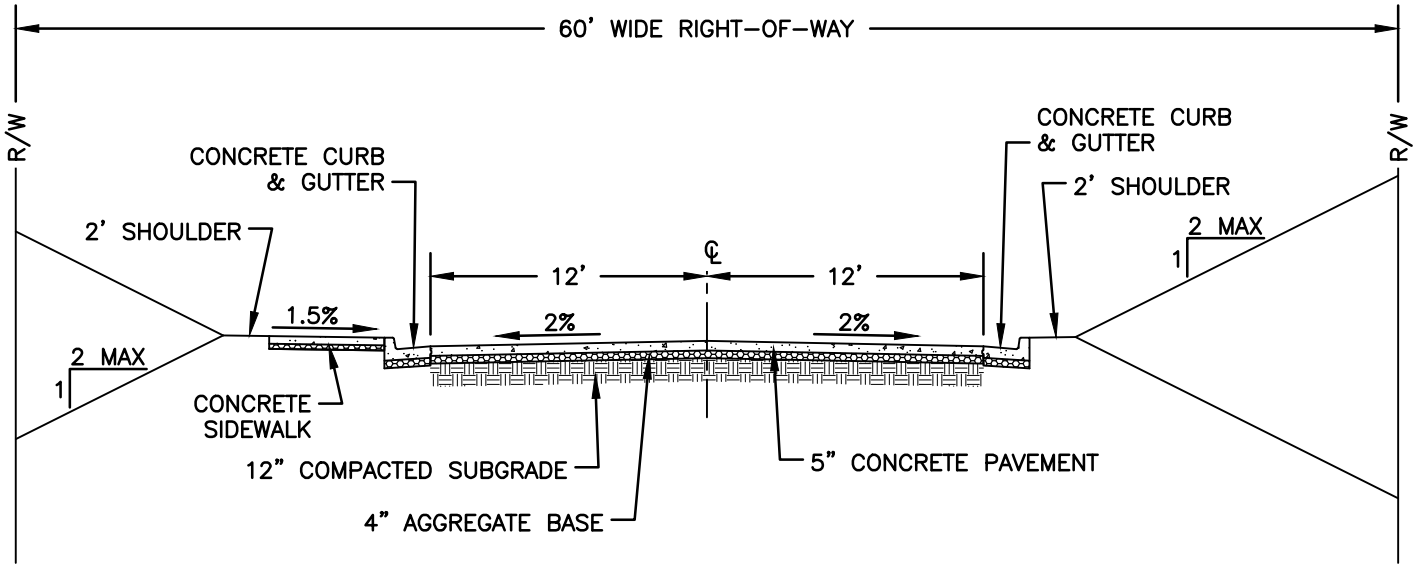


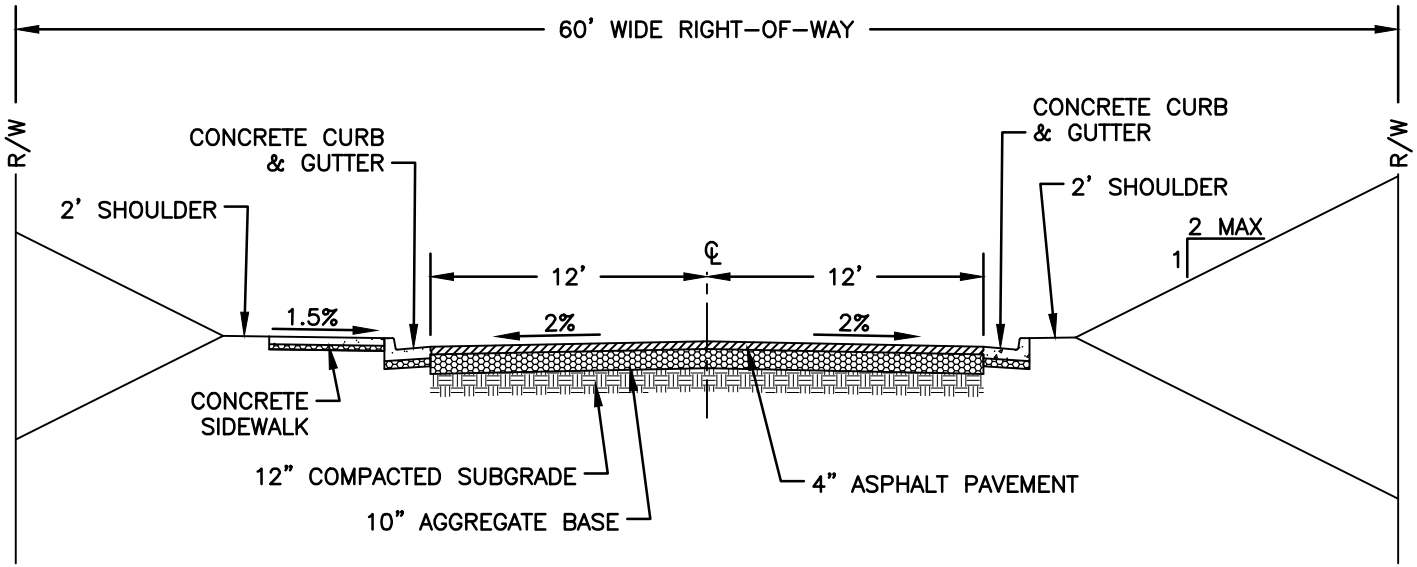
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL ARTERIAL STREET 5,000 TO 10,000 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No: V-2



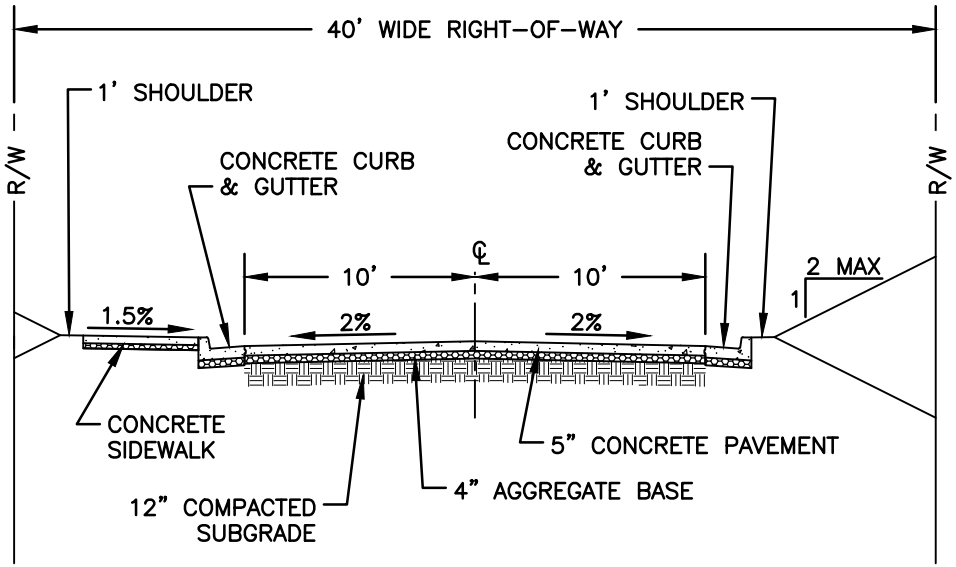


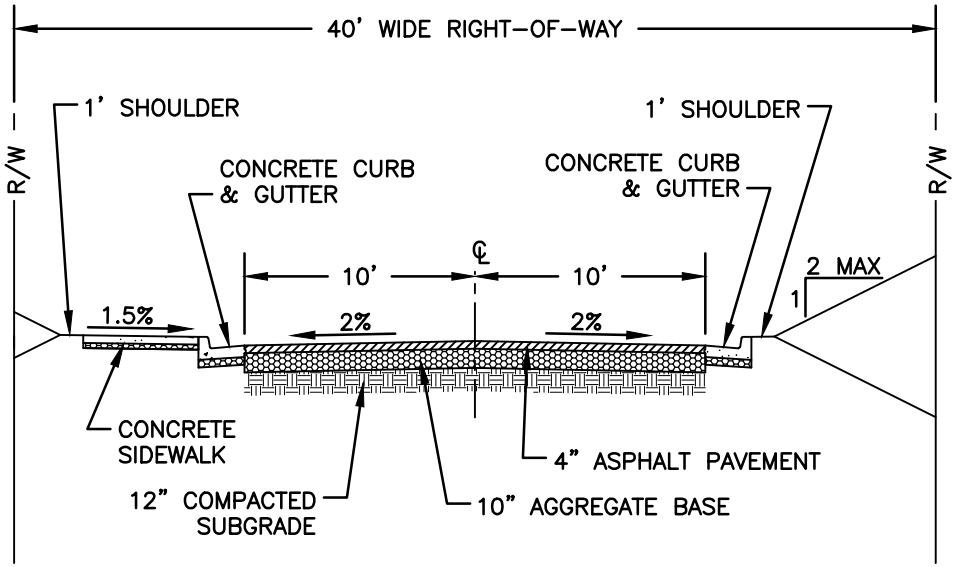
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL COLLECTOR STREET	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No: V-3



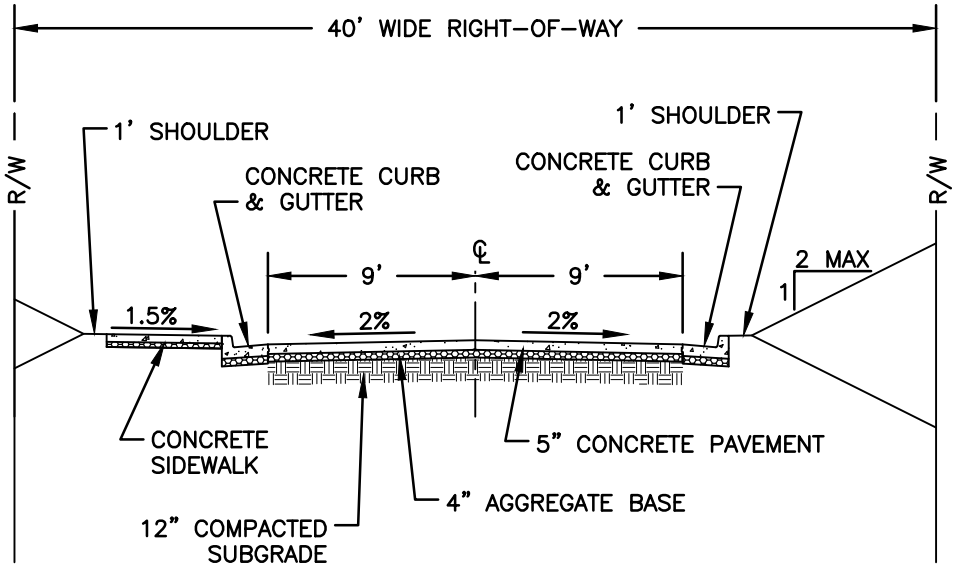


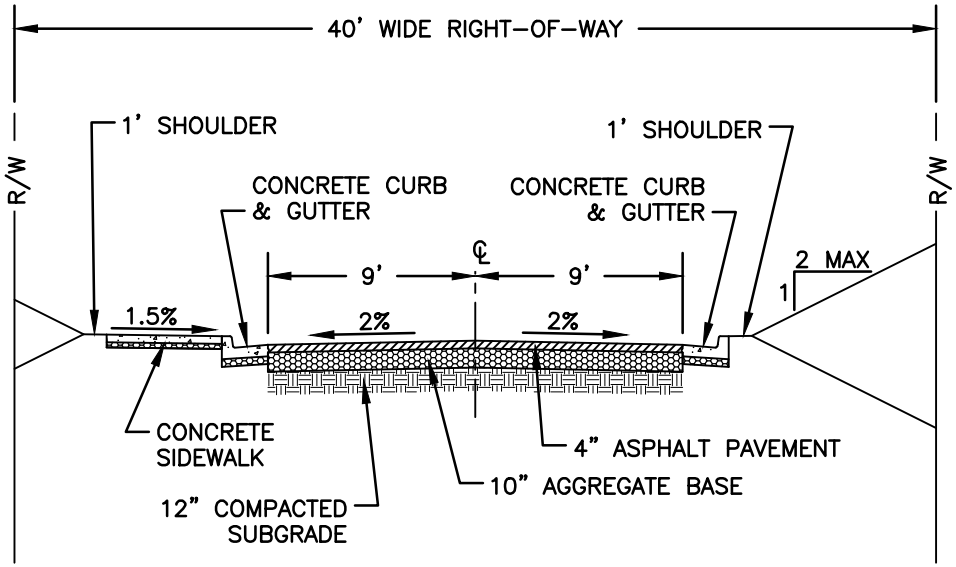
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL LOCAL STREET OVER 1,500 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No: V-4



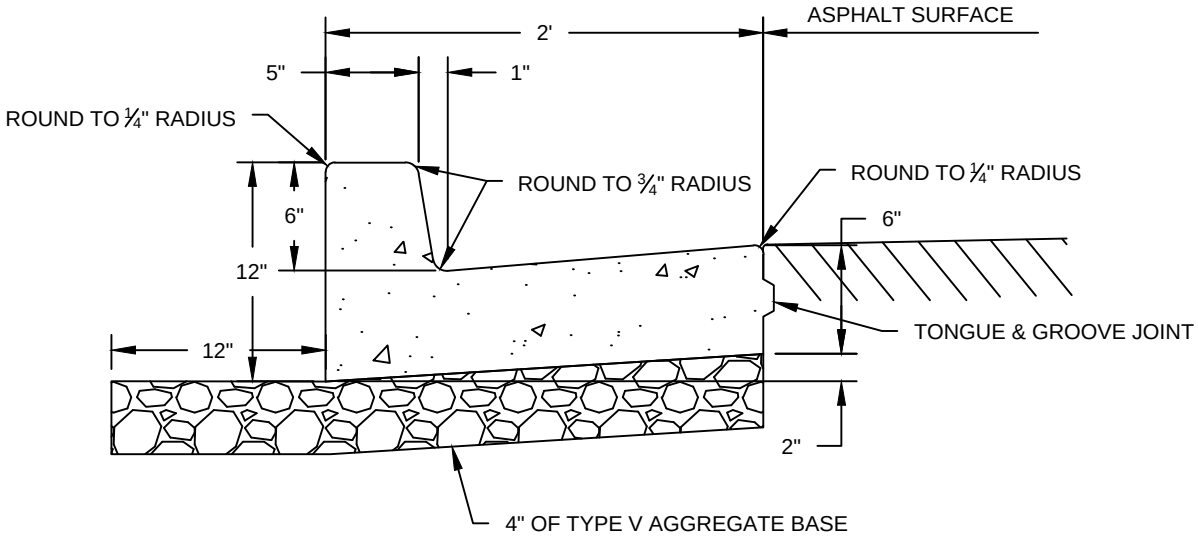


Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL LOCAL STREET 400 TO 1,500 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No: V-5

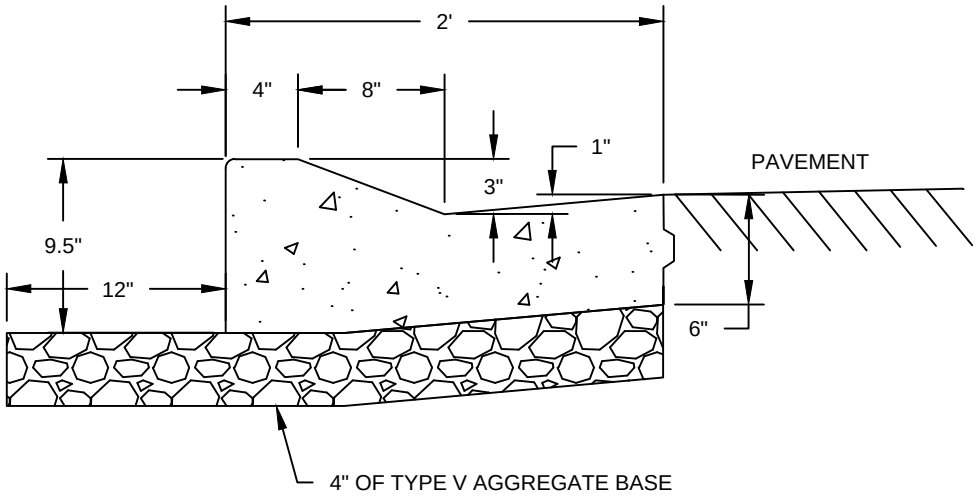




Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL LOCAL STREET LESS THAN 400	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No: V-6



BARRIER CURB

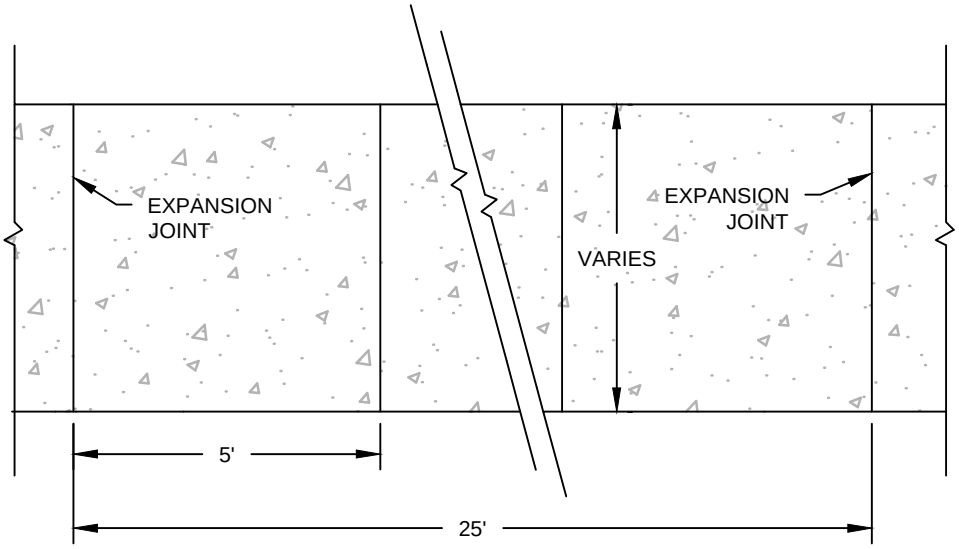


ROLL-BACK CURB

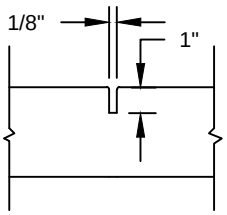
CURB & GUTTER NOTES

1. ¾" EXPANSION JOINTS TO BE PLACED AT RADIUS POINT JUNCTURES AND AT 250' INTERVALS.
2. 1-½" DEEP CONTROL JOINTS SHALL BE INSTALLED AT APPROXIMATELY 15' INTERVALS. JOINTS SHALL PASS THROUGH THE ENTIRE CURB SECTION.
3. A MINIMUM OF 4" AGGREGATE BASE SHALL BE PLACED BENEATH ALL CURB AND GUTTER SECTIONS.

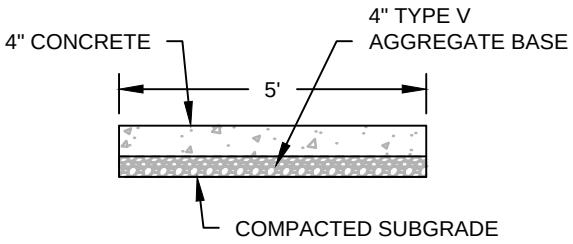
Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL CURB AND GUTTER	Design Guideline: SECTION 5
By: JMY		ROADWAY, STREETS, AND PARKING
Checked By: SLB		Drawing No.: V - 7



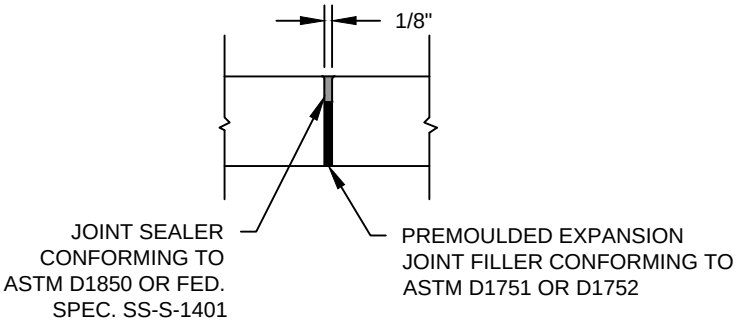
PLAN VIEW



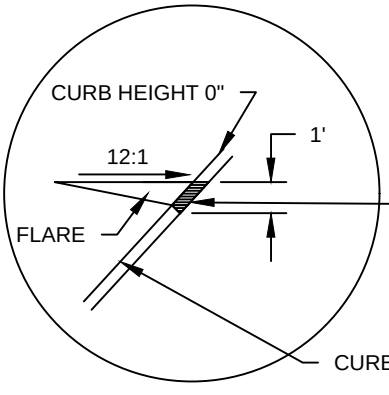
CONTROL JOINT



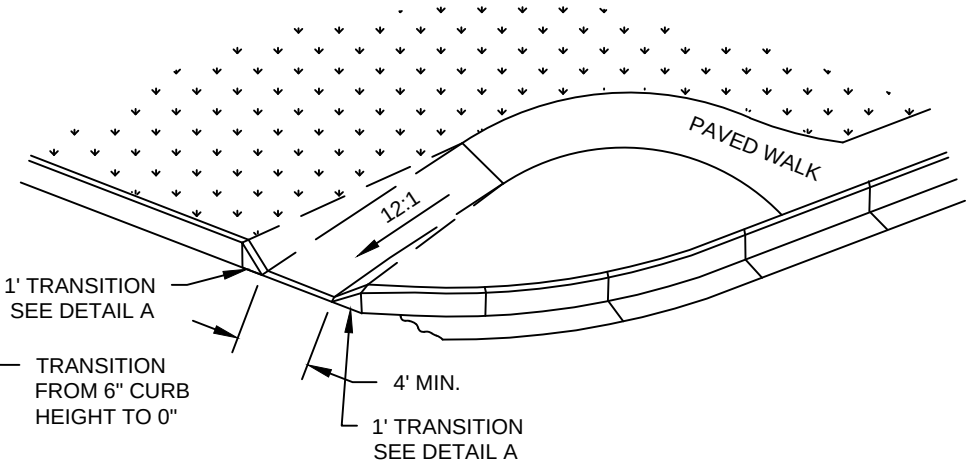
CONCRETE WALK SECTION



EXPANSION JOINT

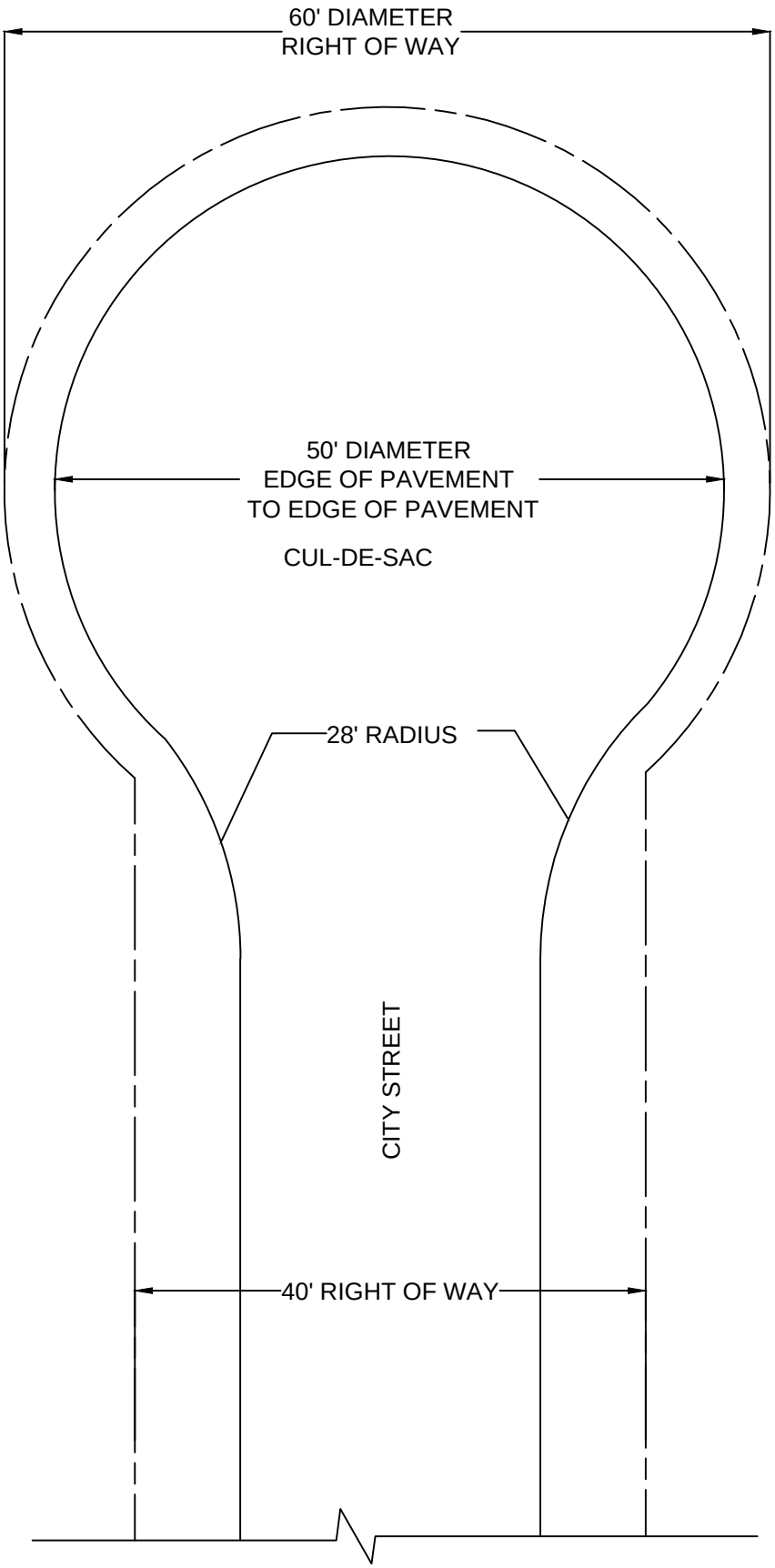


DETAIL A



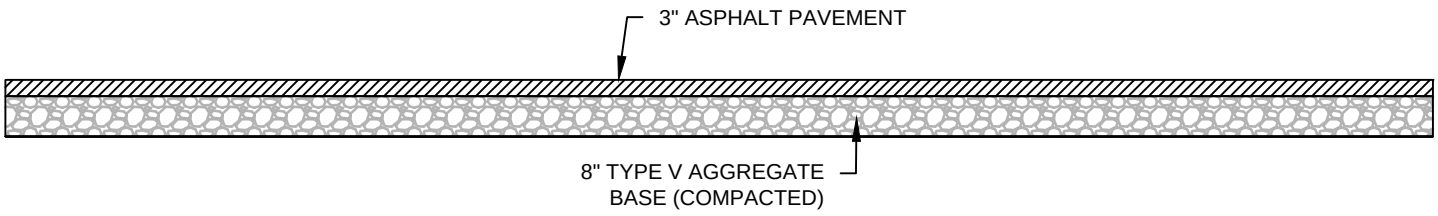
VIEW OF CURB OPENING AT STREET, SIDEROAD,
ALLEY OR COMMERCIAL APPROACHES

Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL SIDEWALK	Design Guideline: SECTION 5
By: JMY		ROADWAY, STREETS, AND PARKING
Checked By: SLB		Drawing No.: V - 8

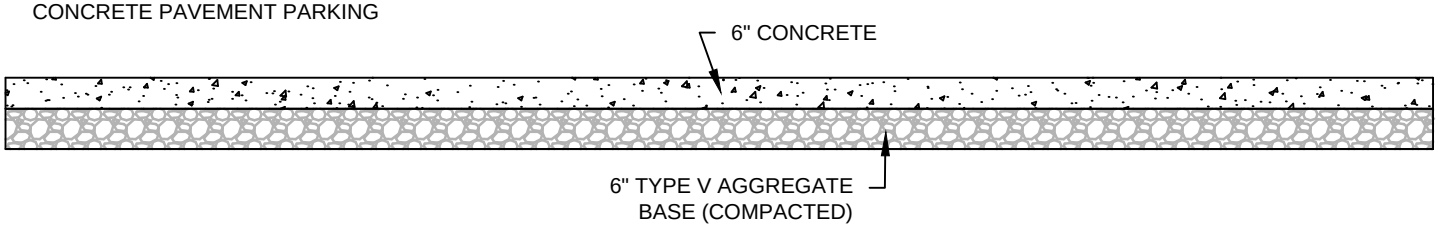


Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL CUL-DE-SAC	Design Guideline: SECTION 5
By: JMY		ROADWAY, STREETS, AND PARKING
Checked By: SLB		Drawing No.: V - 9

ASPHALT PAVEMENT PARKING

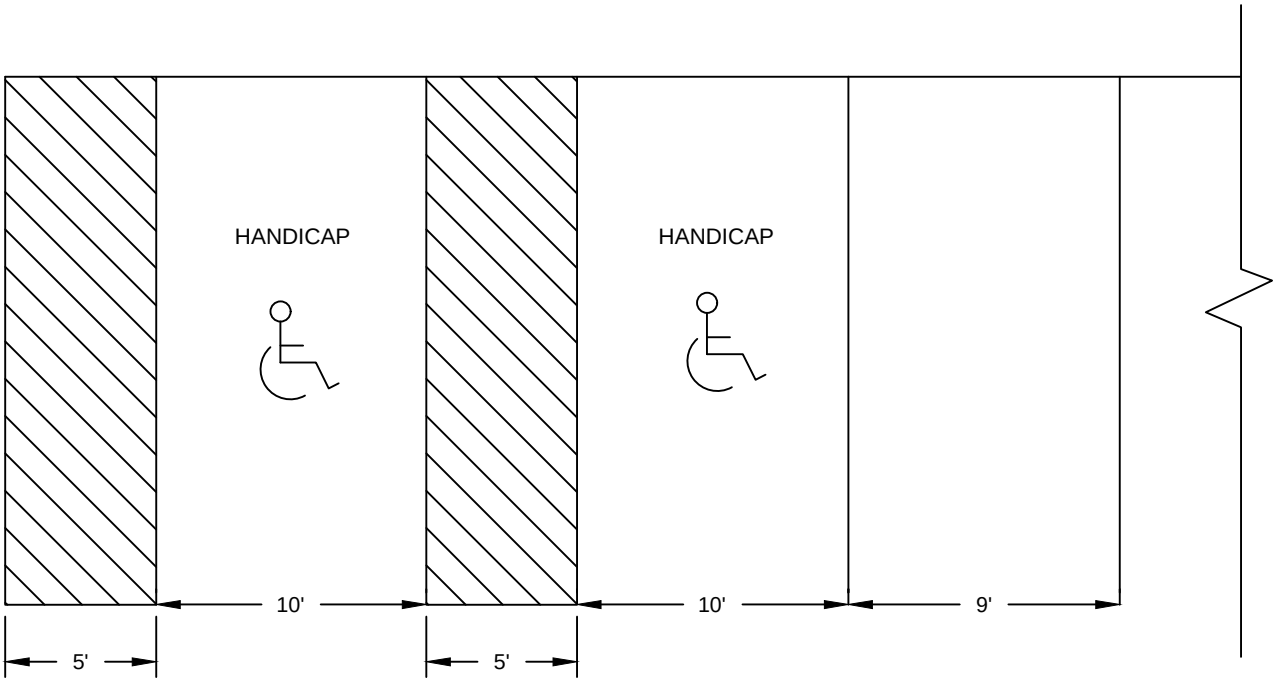


CONCRETE PAVEMENT PARKING



MINIMUM CROSS-SLOPES FOR DRAINAGE IS 0.5% ONE AXIS AND 1.0% TRANSVERSE AXIS.

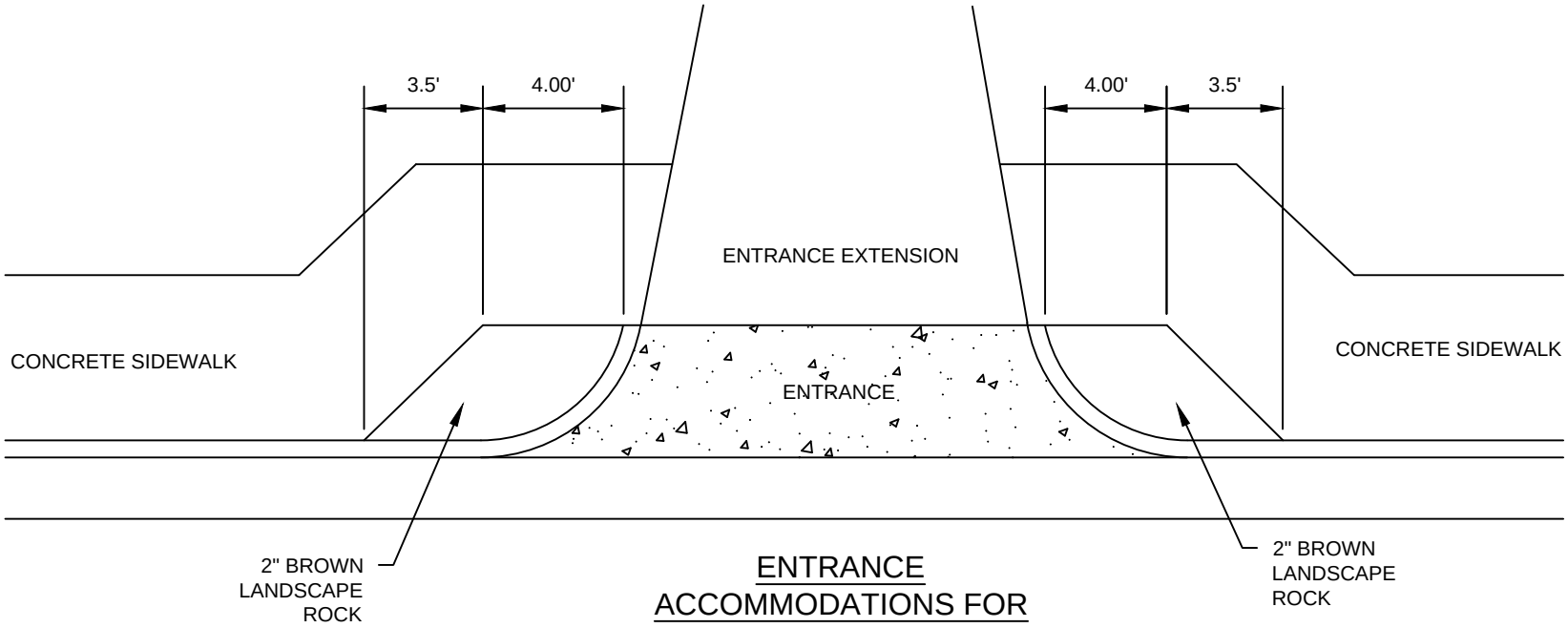
TYPICAL STRUCTURAL SECTION PAVED PARKING
NOT TO SCALE



NOTE:
ALL PARKING LINES ARE 4"x 17-½'
HANDICAP EMBLEMS ARE AT LEAST 34" WIDE BY 39" HEIGHT
ALL PAINT AND PAINT APPLICATIONS SHALL CONFORM TO MoDOT SPECIFICATIONS

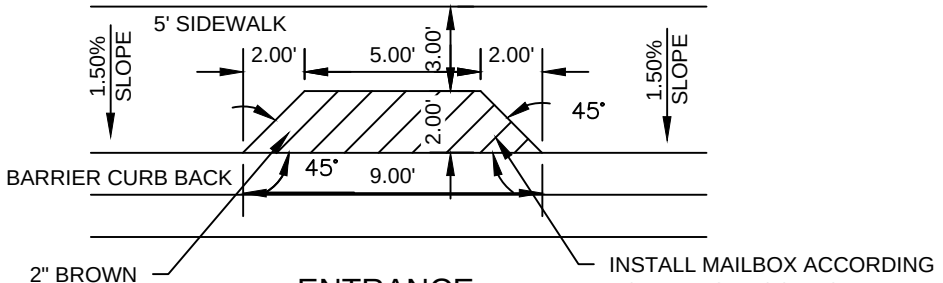
TYPICAL MARKED PARKING AREA WITH HANDICAP PARKING
NOT TO SCALE

Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL PARKING AREA	Design Guideline: SECTION 5
By: JMY		ROADWAY, STREETS, AND PARKING
Checked By: SLB		Drawing No.: V - 10



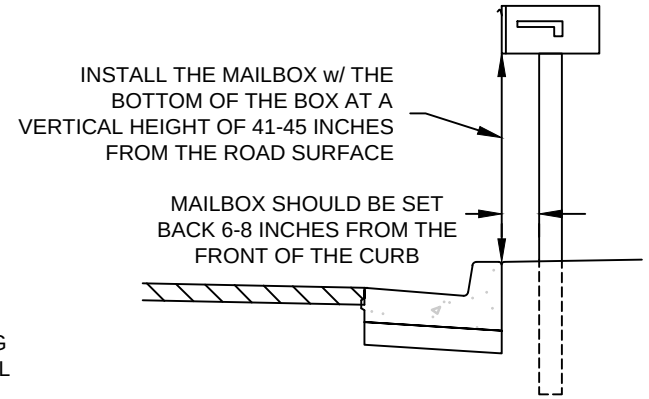
ENTRANCE ACCOMMODATIONS FOR A MAILBOX ALONG SIDEWALK

NOT TO SCALE



ENTRANCE ACCOMMODATIONS FOR A MAILBOX ALONG SIDEWALK

NOT TO SCALE



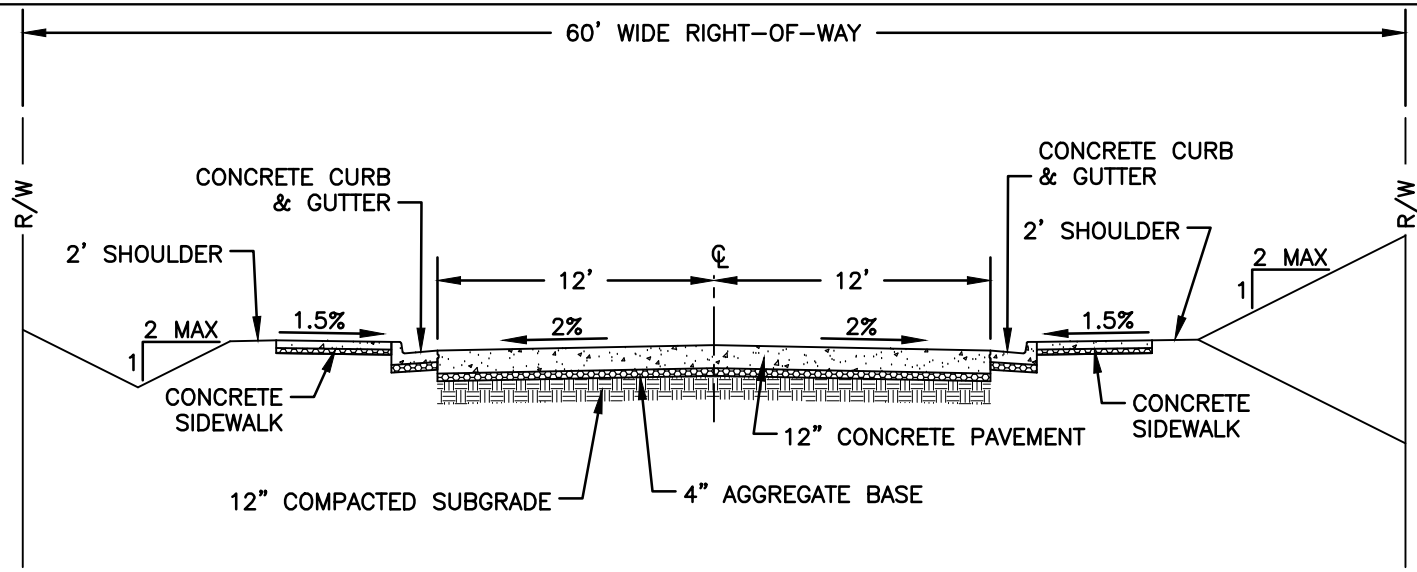
MAILBOX LOCATION

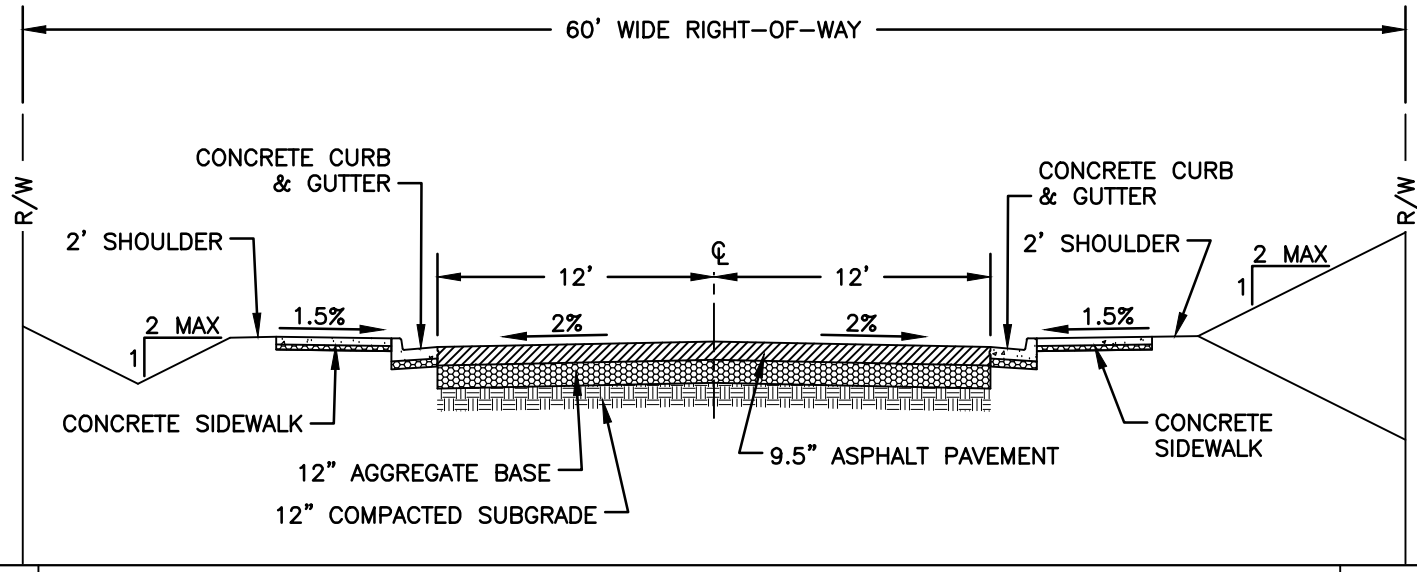
NOT TO SCALE

Date Revised: JUNE 2017	CITY OF OSAGE BEACH TYPICAL DETAIL MAILBOX ACCOMMODATIONS	Design Guideline: SECTION 5
By: MLM		ROADS, STREETS AND PARKING AREAS
Checked By: NE		Drawing No: V-11

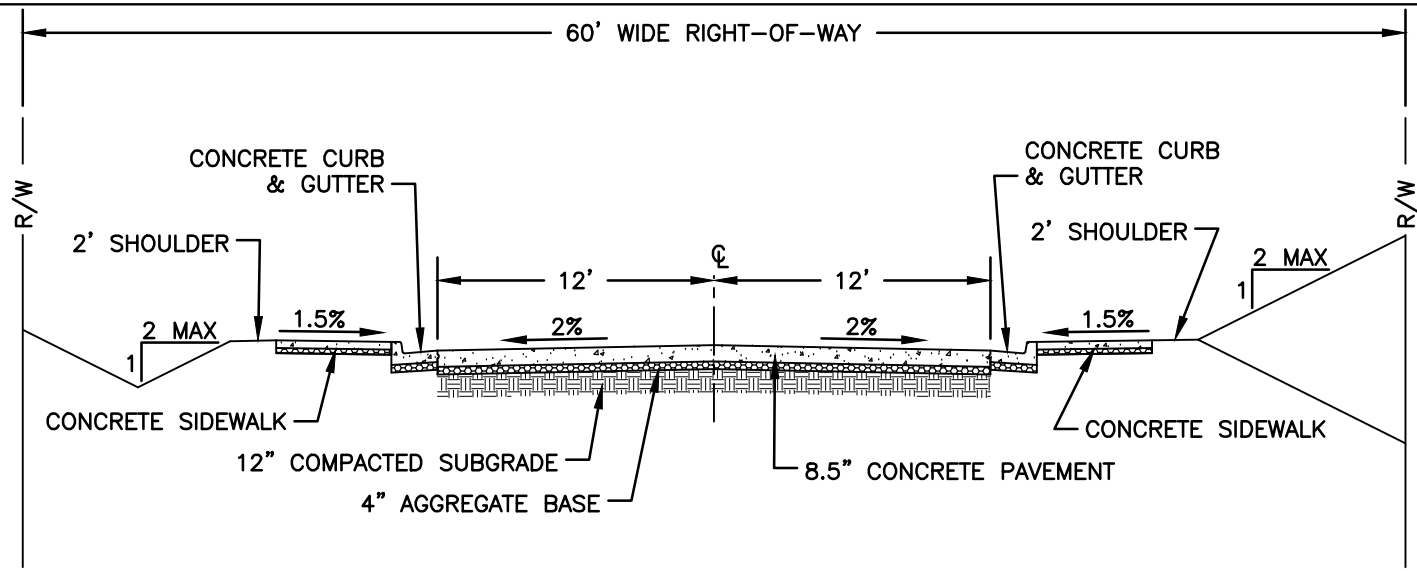
TABLE I - STREET AND ROADWAY DESIGN CRITERION

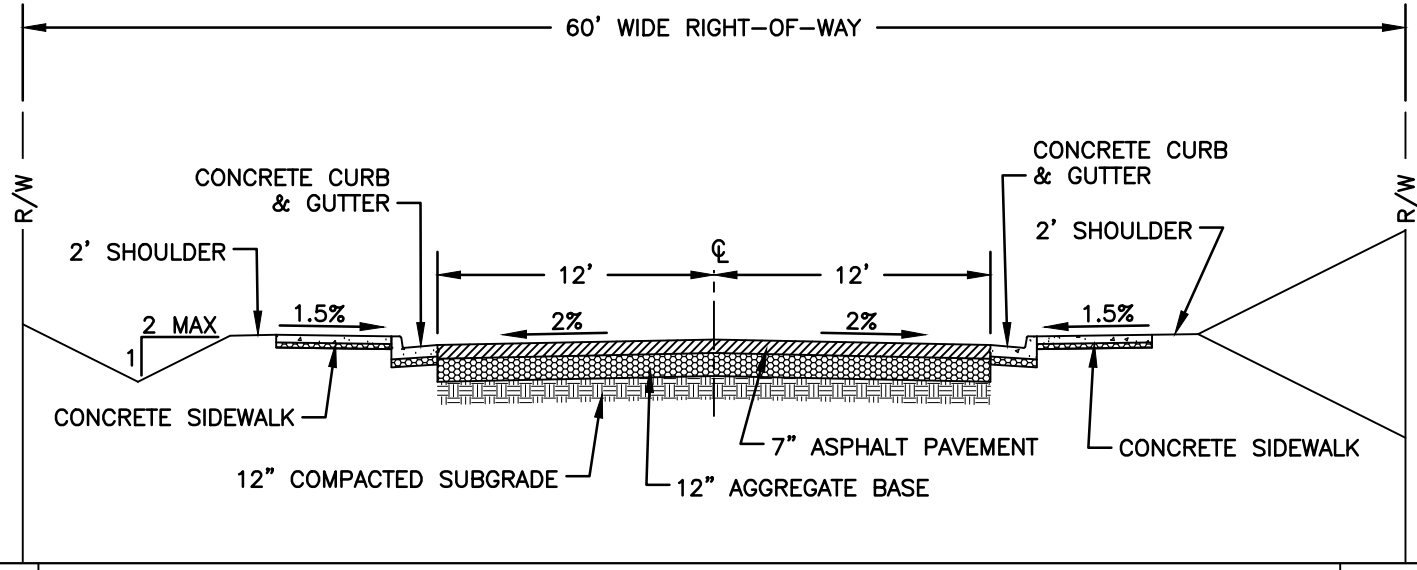
DESIGN CRITERION	ARTERIAL			COLLECTOR		LOCAL STREET			ONE WAY
	Over 50,000 ADT	10,000 to 50,000 ADT	5,000 to 10,000 ADT	Over 3,000 ADT	1,500 to 3,000 ADT	Over 1,500 ADT	400 to 1,500 ADT	Less Than 400 ADT	Less Than 400 ADT
Design Speed (mph)	MoDOT	45	35	25	25	25	15	10	10
No. of Lanes	MoDOT	3 to 5	2	2	2	2	2	2	1
Width of Lane (ft)	MoDOT	12	12	12	12	12	10	9	14
Mimimum Curve Radius (ft)	MoDOT	730	420	205	165	165	100	45*	45*
						* Minimum width of pavement is 23 ft. curb to curb			
Maximum Super Elevation	MoDOT	4%	4%	4%	0	0	0	0	0
Minimum Curve Widening, (ft) Vehicle Type WB-50	MoDOT	2	4.5	7	8	8	8	5**	5**
						** Two-way streets only - see above			
Minimum Intersection Inside Curb Radius	MoDOT	70	50	50	30	30	30	30	30
Maximum Grade	MoDOT	8%	12%	12%	12%	15%	15%***	15%***	15%***
						***Steeper grades with approval of City Engineer			
Max. K Value	MoDOT	61	29	29	19	12	12	3	3
Minimum Sight Distance	MoDOT	360	250	155	155	155	100	80	80
Sructural Cross Section									
Asphaltic Concrete									
Pavement	MoDOT	9.5"	7"	5"	5"	4"	4"	4"	4"
Aggregate Base	MoDOT	12"	12"	12"	12"	10"	10"	10"	10"
Portland-Cement Concrete									
Pavement	MoDOT	12"	8.5"	6.5"	6.5"	5"	5"	5"	5"
Aggregate Base	MoDOT	4"	4"	4"	4"	4"	4"	4"	4"
Curb & Gutter	MoDOT	Option	Required	Required	Required	Required	Required	Required	Required
Sidewalk	MoDOT	Both Sides	Both Sides	Both Sides	Both Sides	One Side	One Side	One Side****	One Side****
					**** Dead end streets serving less than 10 homes - delete walk				



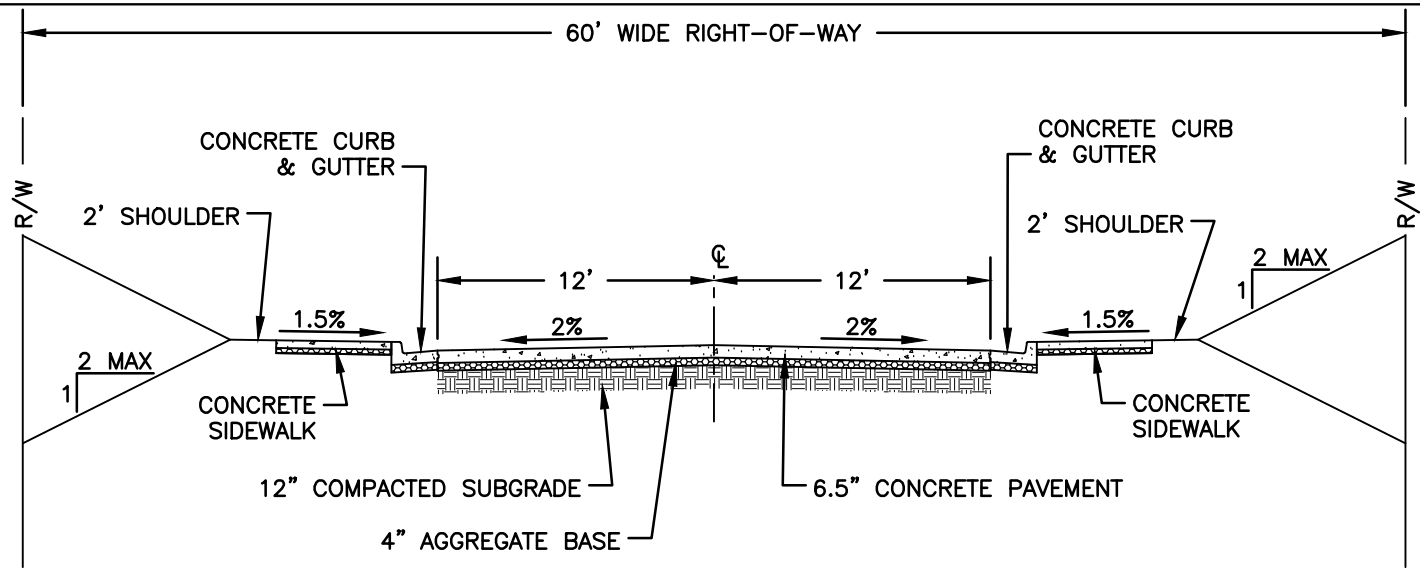


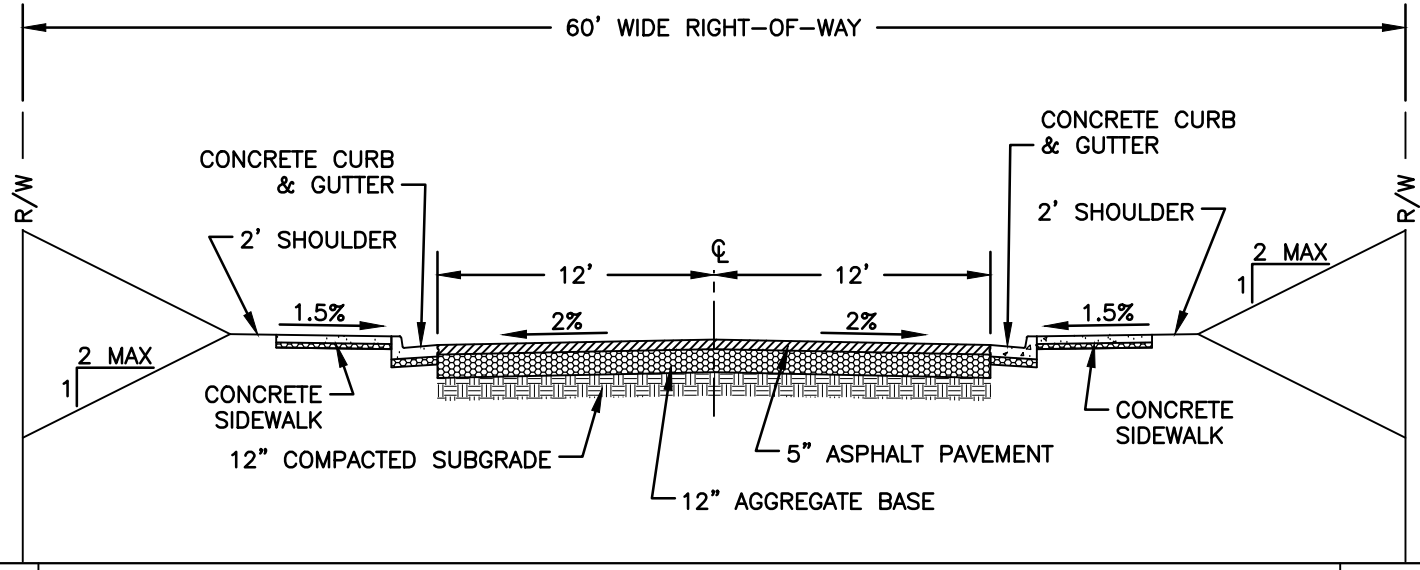
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL ARTERIAL STREET 10,000 TO 50,000 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No.: V-1



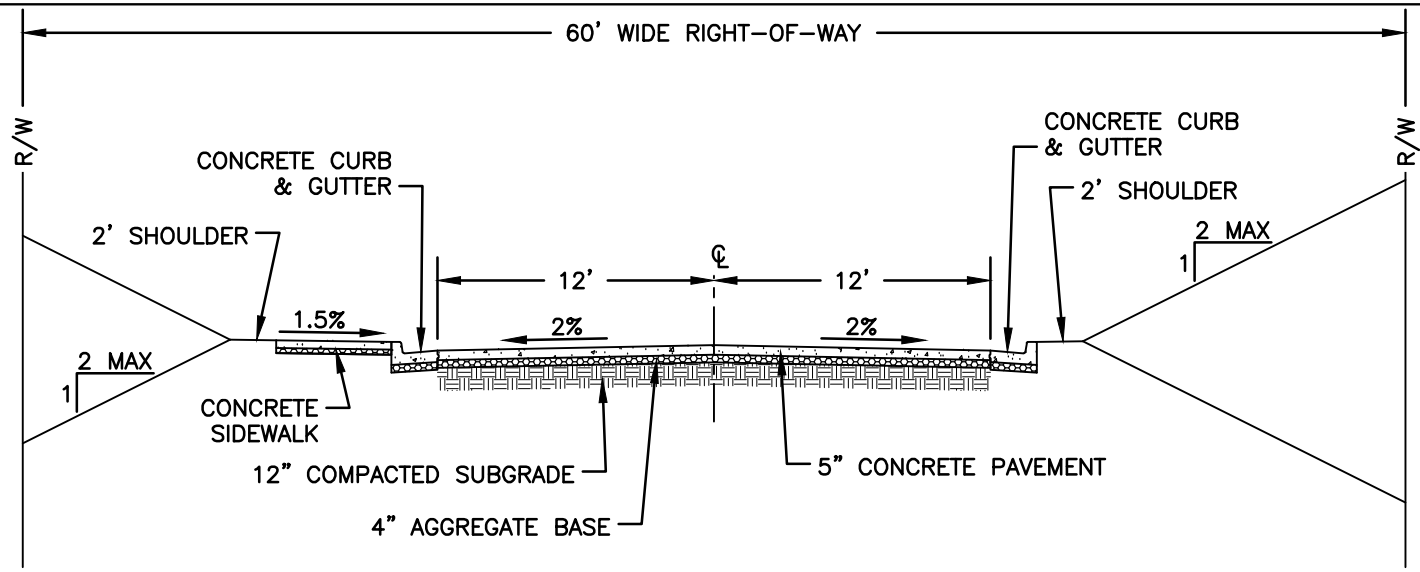


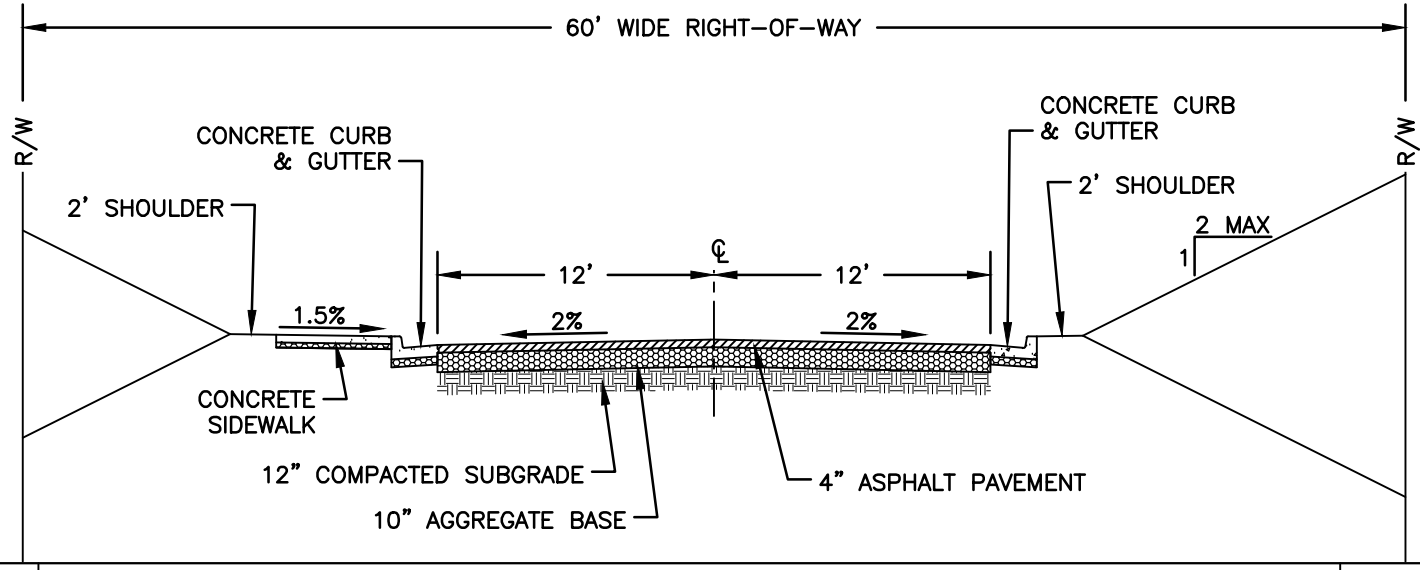
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL ARTERIAL STREET 5,000 TO 10,000 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No.: V-2



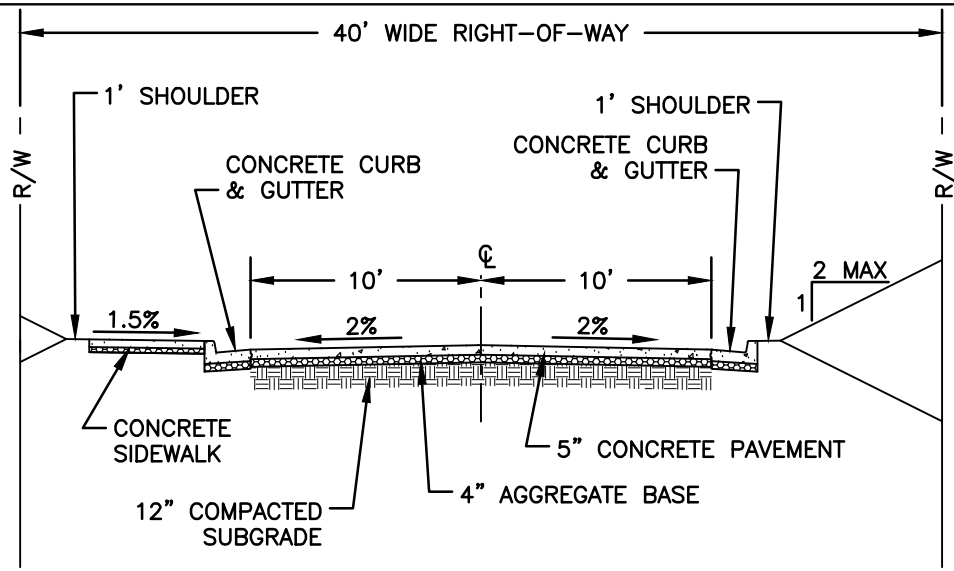


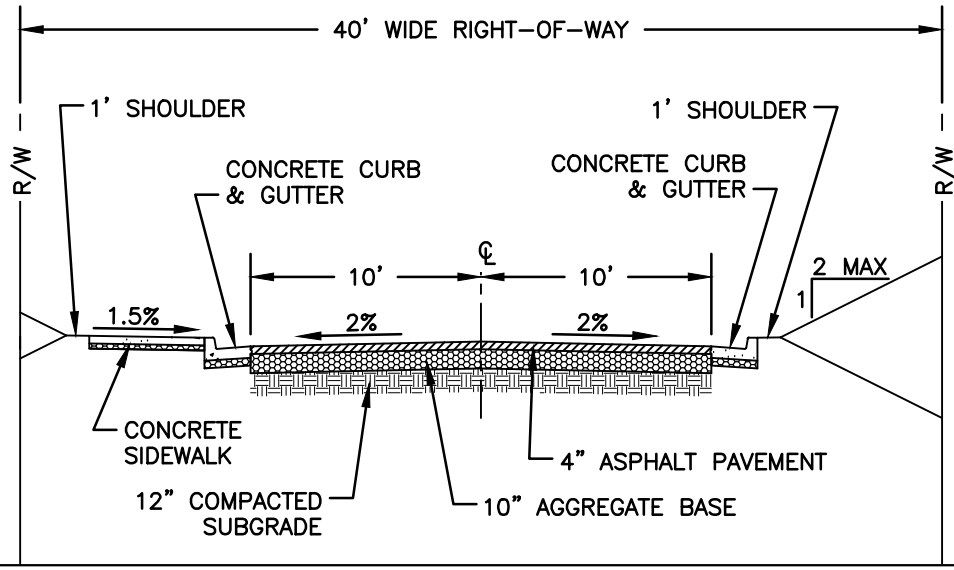
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL COLLECTOR STREET	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No.: V-3



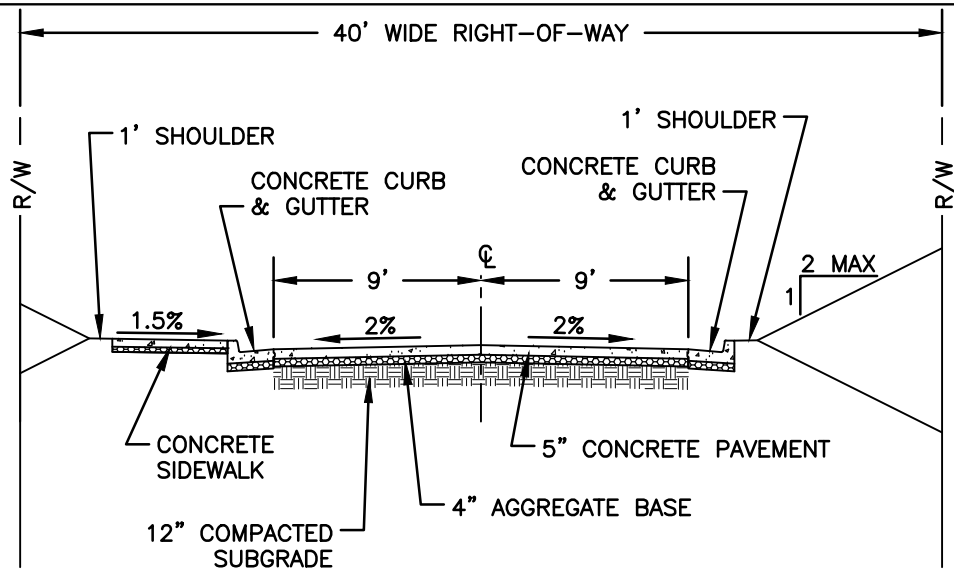


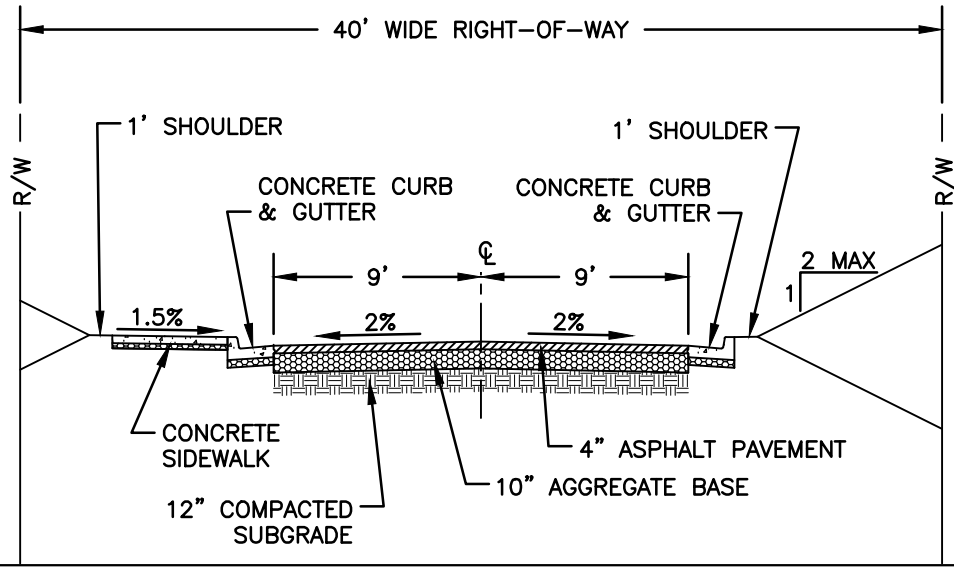
Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL LOCAL STREET OVER 1,500 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No.: V-4





Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL LOCAL STREET 400 TO 1,500 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No.: V-5





Date Revised: APRIL 2021	CITY OF OSAGE BEACH TYPICAL DETAIL LOCAL STREET LESS THAN 400 ADT	Design Guideline: SECTION 5
By: EAH		ROADS, STREETS AND PARKING AREAS
Checked By: ---		Drawing No.: V-6

(Revised October 2023)

OVERVIEW

This guideline pertains to all encroachments into the City of Osage Beach street right-of-ways, street easements and utility easements including: intersections with new roadways to be dedicated to the city, private roadways or parking areas, driveways, trenches for underground utilities such as water or sewer lines and any other underground utility, aerial utility lines, and roadway appurtenances.

PERMITS

A. A City of Osage Beach Road Cut and Utility Trench Permit is required prior to any encroachments into or over city right-of-ways or easements.

B. A City of Osage Beach Excavation Permit is required for any excavation of more than 50 cubic yards and/or cut or fill which change existing elevations by more than two feet.

GENERAL

A. Timely notice of work is required:

1. The applicant shall notify the city Building Official not less than twenty-four (24) hours in advance of any work in the city right-of-way or easements.
2. Additional notice shall be given to the City Building Official by telephone (573-302-2030) four (4) hours prior to actual excavation so that a City Inspector can be dispatched to carry out the required inspection.
3. As a general rule inspections will not be made on weekends or official city holidays. In the case of an emergency good judgment shall rule.

B. Timely completion of the work is required:

1. Disruption of public access or use shall be minimized to the maximum extent practicable.
2. Work within the city right-of-way or easement shall be done on a continuous basis, i.e.: once work is started it shall be continuous during normal work hours on a continual basis until completed.
3. Leaving open trenches or other excavations for more than forty-eight (48) hours is prohibited.

C. Traffic control, signs, and barricades:

1. All open trenches or excavations within street right-of-ways or easements shall be provided with appropriate warning signs and barricades.

2. If street traffic is interfered with appropriate flagman shall be provided.
3. All traffic control activities and devices shall conform to the U. S. Department of Transportation Manual of Uniform Control Devices.
4. If the excavated trench is to remain open or surface repairs to the street not completed prior to darkness appropriate warning lights shall be provided.
5. The applicant shall maintain all traffic control devices for the duration of the work.
6. At least one traffic lane shall be maintained in usable condition at all times.
7. All trenches within the traveled way shall be closed during nighttime hours.
8. No work will be permitted within the city right-of-way or easements over weekends or holiday periods.

INTERSECTIONS, PARKING AREAS, AND DRIVEWAYS

A. Prior to construction for all proposed intersections with new streets, parking areas and driveways the applicant shall:

1. Obtain an encroachment permit.
2. Submit a drawing showing horizontal and vertical alignment of the intersecting facility and all storm drainage facilities.

B. Intersecting streets and parking areas shall conform to the City of Osage Beach Design Standards for width, alignment, and grade.

1. Intersecting streets and parking areas shall have curb and gutters.
2. Streets, parking areas and driveways shall intersect perpendicular to the city street to the maximum extent practicable.

C. Minimum width for driveway entrances to commercial properties shall be twelve (12) feet for a one-way entrance and twenty-four (24) feet for two-way entrances. Minimum radius for flares shall be fifteen (15) feet.

D. Driveways for private residences shall be a minimum of ten (10) feet of driving surface exclusive of flares. Minimum radius for flares shall be ten (10) feet.

E. All entrances into city streets shall be designed and constructed to accommodate storm drainage run-off.

1. Appropriate catch drains shall be provided to accommodate run-off from or into driveways.
2. Where roadway ditches exist on the city street appropriate culverts, swales, or slotted drains shall be provided.

UTILITY TRENCHES

A. Utility trenches traversing under a city roadway.

1. Saw cut all pavement surfaces.
2. All utility lines, except storm sewer, across city right-of-ways shall be incased in Schedule 40 or SDR 21 PVC sleeve.
3. The sleeve shall be not less two inches in inside diameter larger than the maximum outside diameter of the widest dimension of the utility duct or pipe to be run through the sleeve.
4. The minimum depth of cover of the sleeve shall be:

    a. In accordance with Section 2 - Water Systems for waterlines
    b. In accordance with Section 3 - Sewerage Design for sanitary sewer
    c. In accordance with Section 4 - Storm Drainage for storm sewer
    d. 36 inches below finished pavement grade for all others or as described in this Section.

~~5.~~ The maximum depth of cover shall be in accordance with the appropriate section for the utility. ~~The maximum depth of cover for all water and sewer lines shall be eight (8) feet unless specifically authorized in writing by the City Engineer.~~

    a. In accordance with Section 2 - Water Systems for waterlines
    b. In accordance with Section 3 - Sewerage Design for sanitary sewer

6. Select Backfill shall be installed:

    a. From six inches below the utility to eighteen inches below the finished pavement grade for water, pressure sewer and primary power lines.
    b. From four inches below the utility to 9 inches below the finished pavement grade for storm sewer and secondary power lines.

    Select backfill shall be 95% of maximum density ~~nominal ½ inch minus~~ crushed rock conforming to MoDOT Type V aggregate, Section 1007. ~~1004, Grade D, Chat, pea- gravel or Osage River Sand. Any material used shall have a PI of six or less.~~ Trench backfill material shall not contain any material with a nominal particle size greater than six (6) inches.

7. Concrete Backfill:

    a. Shall be installed from three inches below finished pavement grade to the top of the Select Backfill.
    b. The top six inches of the concrete backfill shall be extended not less than twelve inches on each side of the utility trench.
    c. Shall conform to MDOT Section 501, Concrete.

1) Concrete shall be Class A-1
2) Course aggregate shall be Gradation B
3) Fine aggregate shall be Class A
4) Cement shall be either Type I or III.
5) An accelerator may be used in conformance with MoDOT Section 1054.5.

8. Asphalt Pavement

a. Shall be installed from the surface to three (3) inches below finished grade.
b. Asphalt pavement shall conform to MoDOT Section 403; Type 1B
c. Asphalt cement shall be AC-30
d. Concrete backfill as specified above maybe utilized in lieu of asphalt pavement with prior permission of the City Engineer.
e. Finish Tolerance the surface of the finished roadcut shall not exceed ¼ inch below a ten (10) foot straight edge as measured below the straight edge.

B. Utility trenches paralleling under a city roadway or parking area.

1. Saw cut all pavement surfaces.
2. The minimum depth of cover shall be:

a. In accordance with Section 2 - Water Systems for waterlines
b. In accordance with Section 3 - Sewerage Design for sanitary sewer
c. In accordance with Section 4 - Storm Drainage for storm sewer
d. 24 inches below finished pavement grade for all others or as described in this Section.

3. Select Backfill shall be installed:

a. From six inches below the utility to three (3) inches below the finished pavement grade.
b. Select backfill shall be 95% of maximum density ~~nominal ½ inch minus~~ crushed rock conforming to MoDOT Type V aggregate, Section 1007. ~~1004, Grade D, Chat, pea- gravel or Osage River Sand. Any material used shall have a PI of six or less.~~ Trench backfill material shall not contain any material with a nominal particle size greater than six (6) inches.
c. Select backfill shall be placed in maximum 8-inch lifts and mechanically compacted to a compaction of 95% SPT.

4. Asphalt Pavement

a. Shall be installed from the surface to three (3) inches below finished grade.

b. Asphalt pavement shall conform to MoDOT Section 403; Type 1B
c. Asphalt cement shall be AC-30
d. Concrete backfill as specified above maybe utilized in lieu of asphalt pavement with prior permission of the City Engineer.
e. Finish Tolerance the surface of the finished roadcut shall not exceed ¼ inch below a ten (10) foot straight edge as measured below the straight edge.

C. Utility trenches out of traffic area

1. The minimum depth of cover shall be:

a. In accordance with Section 2 - Water Systems for waterlines
b. In accordance with Section 3 - Sewerage Design for sanitary sewer
c. In accordance with Section 4 - Storm Drainage for storm sewer
d. 24 inches below finished pavement grade for all others or as described in this Section.

3. Select Backfill shall be installed:

a. In accordance with Section 2 - Water Systems for waterlines
b. In accordance with Section 3 - Sewerage Design for sanitary sewer
c. In accordance with Section 4 - Storm Drainage for storm sewer
d. 6 inches below the utility line to 12 inches above the utility line for all others.

4. Backfill shall be granular material or select soil excavated from the trench, free of rocks over ~~½~~ 6 inch in least dimension, foreign material or frozen earth.

a. Backfill shall be compacted to 95% of optimum density at optimum moisture content.
b. The surface shall be graded to smooth flowing lines blending into surrounding slopes.

5. Restore disturbed surface area to pre-construction condition (seed & mulch, decorative rock, etc.).

~~D. Utility trenches more than 150 feet in length shall have an impervious clay or bentonite plug constructed at each terminus or intersection with other trenches to prevent water from following the trench line and creating drainage problems.~~

E. Underground Primary Power Trenches. All electrical power of 480 volts AC or more is considered “primary power”.

1. See Ameren Missouri Specifications for requirements.
2. Where underground primary power crosses city utilities, the primary power shall be a minimum of one-foot below.

3. Where primary power line parallels a city utility line it shall be separated by a minimum of four feet.

F. Underground Secondary Power Trenches, all electrical power less than 480 volts.

1. See Ameren Missouri Specifications for requirements. Where secondary power will be owned by the City, the following shall apply:

    a. Secondary power trenches shall be a minimum of twenty-four (24) inches of cover in depth.
    b. An approved warning tape shall be installed twelve inches above the duct.
    c. Underground secondary power ducts can be co-located with water or sewer lines if they are placed not less than one foot to the side and at or below the elevation of the water or sewer line.
    d. Where secondary power crosses water or sewer lines, the power shall be in conduit and shall be a minimum of one-foot below water or sewer lines.

ROAD BORES

In all location where the utility is to be installed under a paved area that has been constructed within the previous five (5) years, as determined by the city engineer, a road bore shall be constructed. The minimum depth of the bore shall be thirty-six (36) inches. All bores shall be sleeved as specified above.

AERIAL UTILITIES

A. Minimum vertical clearance for aerial utilities shall be a minimum of eighteen feet (18 ft. 0 in.) at the lowest point of crossing above the finished pavement grade of any city street.

B. Utility poles shall not be located less than three (3) feet from the edge of pavement on city streets or parking areas.

ROADWAY APPURTENANCES

A. Traffic control signs shall be installed in accordance with US Department of Transportation and Federal Highway Administrations Uniform Manual of Traffic Control Devices.

B. Other signs.

1. A City of Osage Beach Sign Permit is required for all signs within city right-of-ways or easements except traffic control signs.

C. No sign shall be installed within three (3) feet of the edge of pavement.

D. Mailbox.

1. Mailboxes and/or newspaper boxes shall not be located within twelve (12) inches of the edge of pavement on city streets.
2. If the street has concrete curb and gutter the face of the mailbox shall not protrude into the roadway past the back of the curb.
3. Mail and newspaper boxes shall be removed within thirty days of cessation of delivery service. If the box is unused and not removed the city will remove it at the owner's expense.

E. Guard Rail or Crash Barrier

1. Shall only be installed at locations where a severe traffic safety hazard exists and only with the approval of the City Engineer.
2. Installation shall conform to MoDOT Specifications.

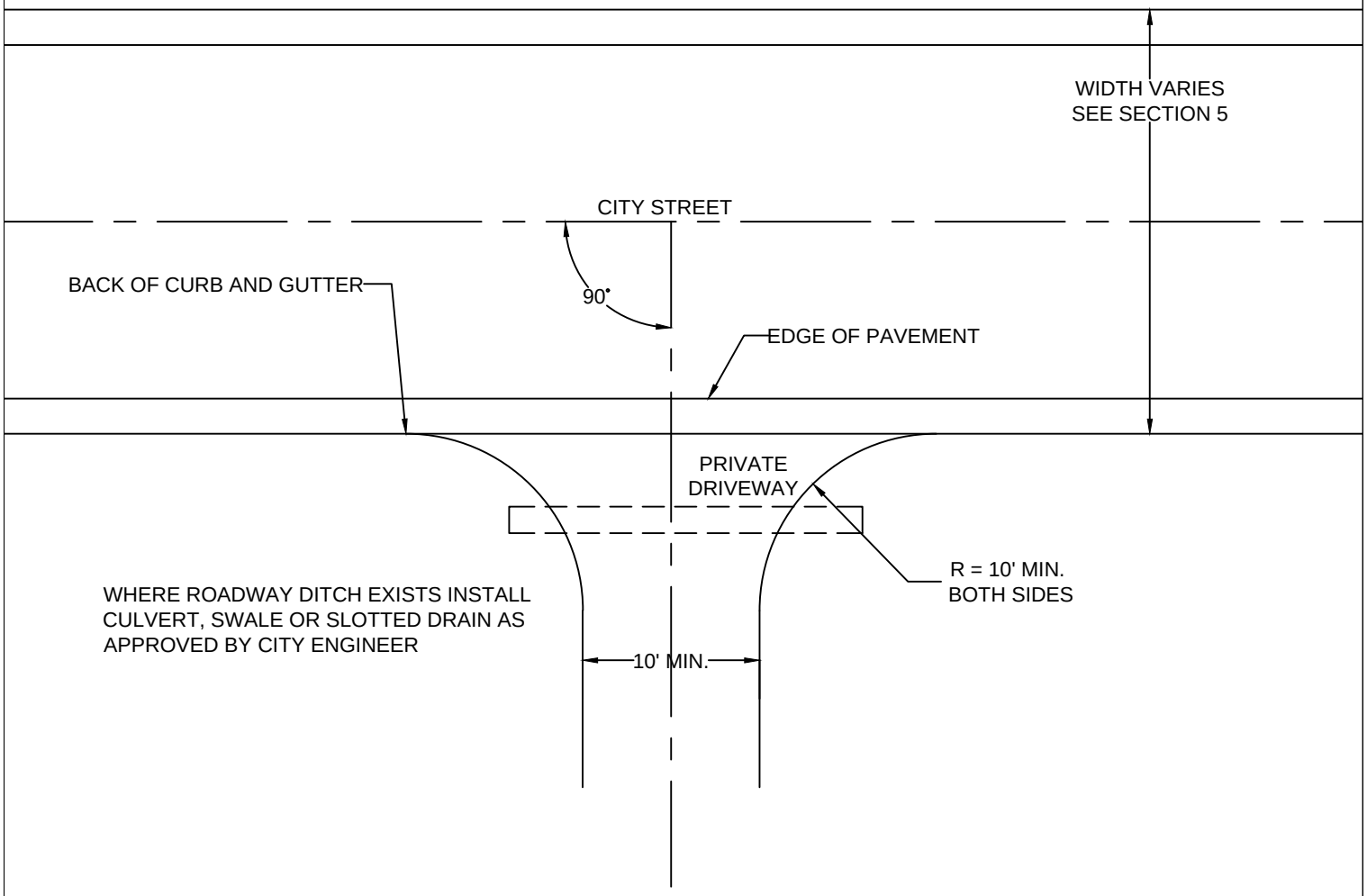
INSPECTIONS

During the progress of the work each utility line shall be inspected by the Engineering Department prior to trench backfill.

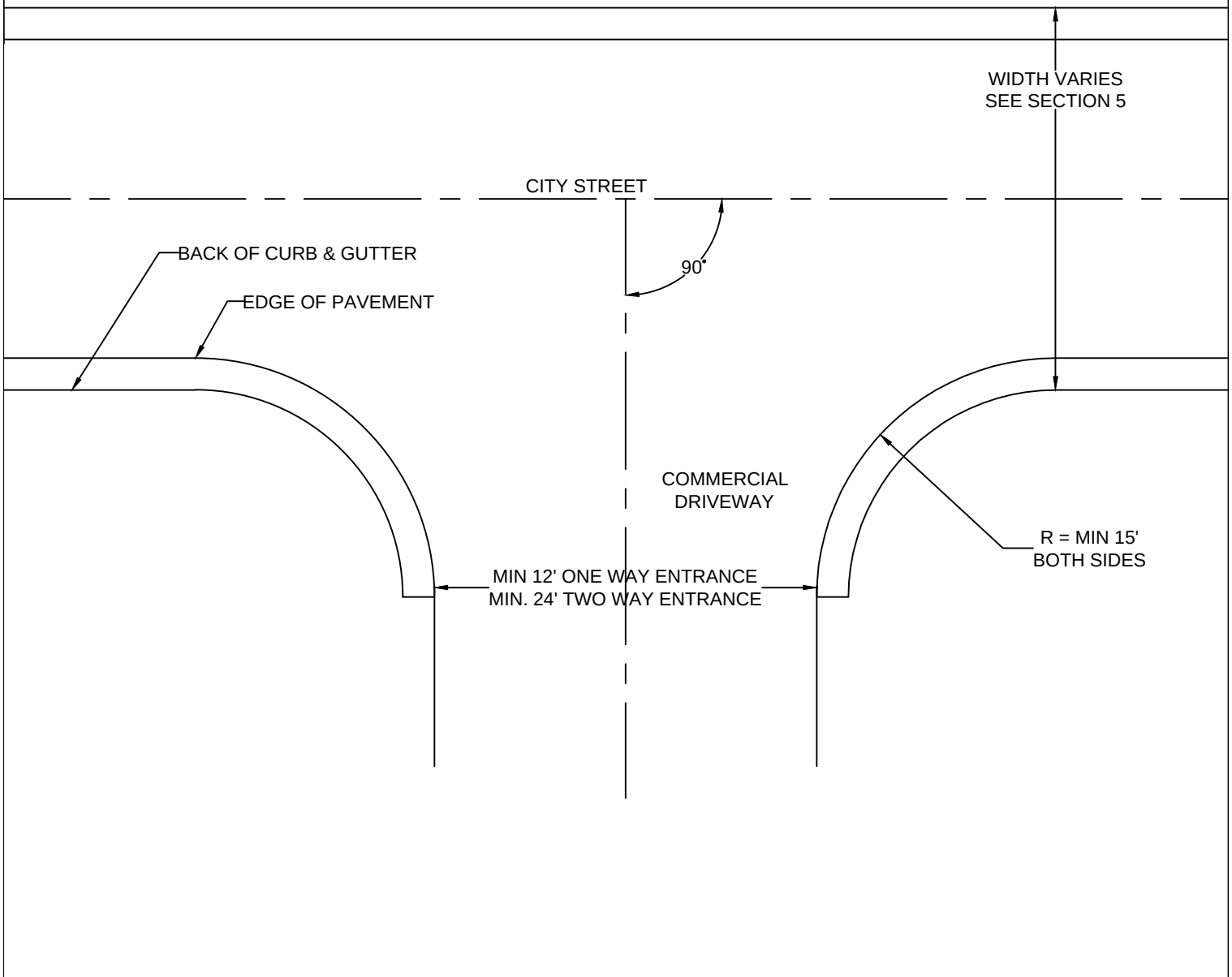
ROADCUT AND UTIITY TRENCH CONSTRUCTION DETAIL DRAWINGS

Construction details and sketches are attached.

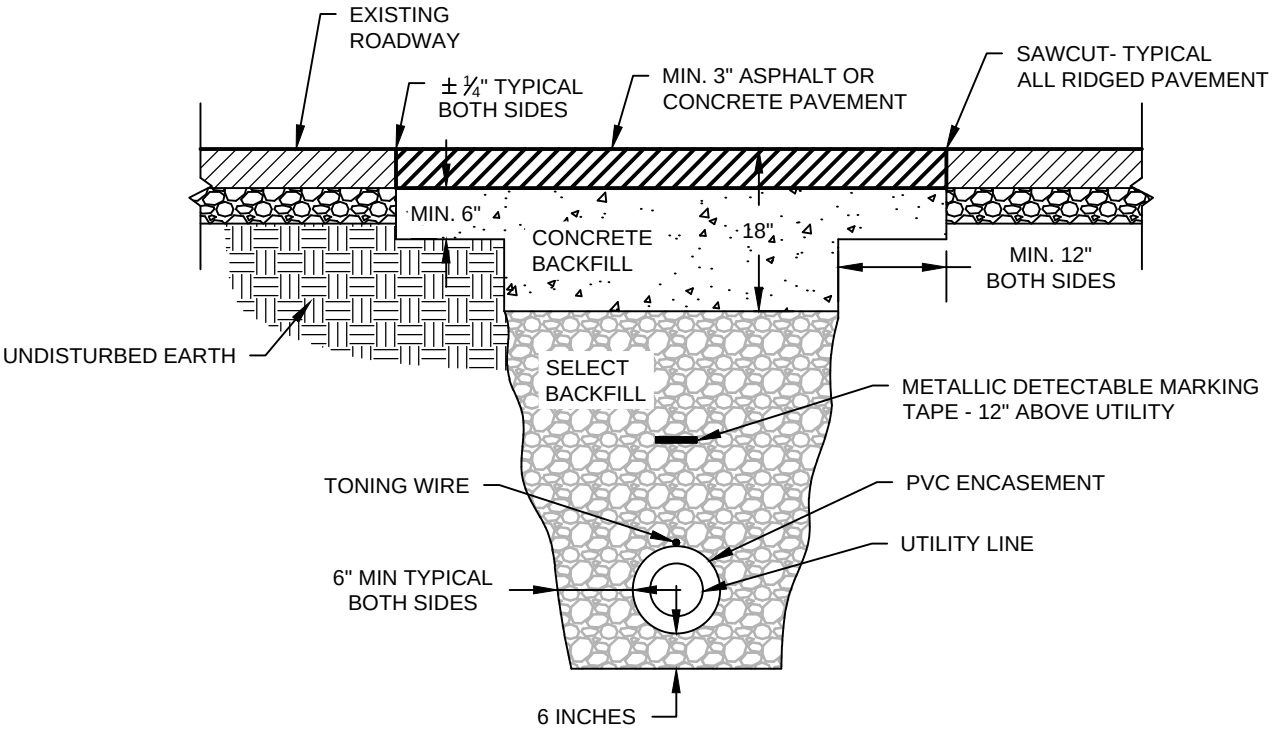
END



Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL PRIVATE RESIDENCE ENTRANCE INTERSECTING CITY STREET	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No.: VI-1

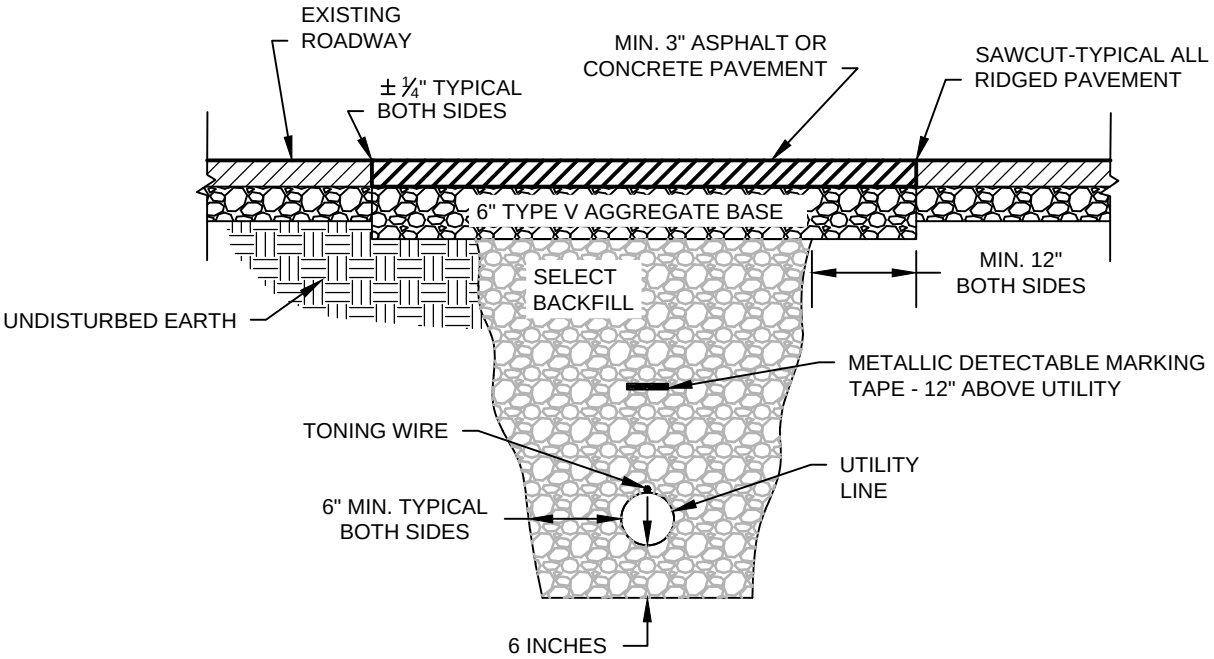


Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL COMMERCIAL ENTRANCE INTERSECTING CITY STREET	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No.: VI-2



NOTE: SAWCUT SHALL BE CONTINUOUS WITH SMOOTH, TAPERED TRANSITIONS IN WIDTH IN ORDER TO MAINTAIN A CONSISTENT PAVEMENT RESTORATION WIDTH.

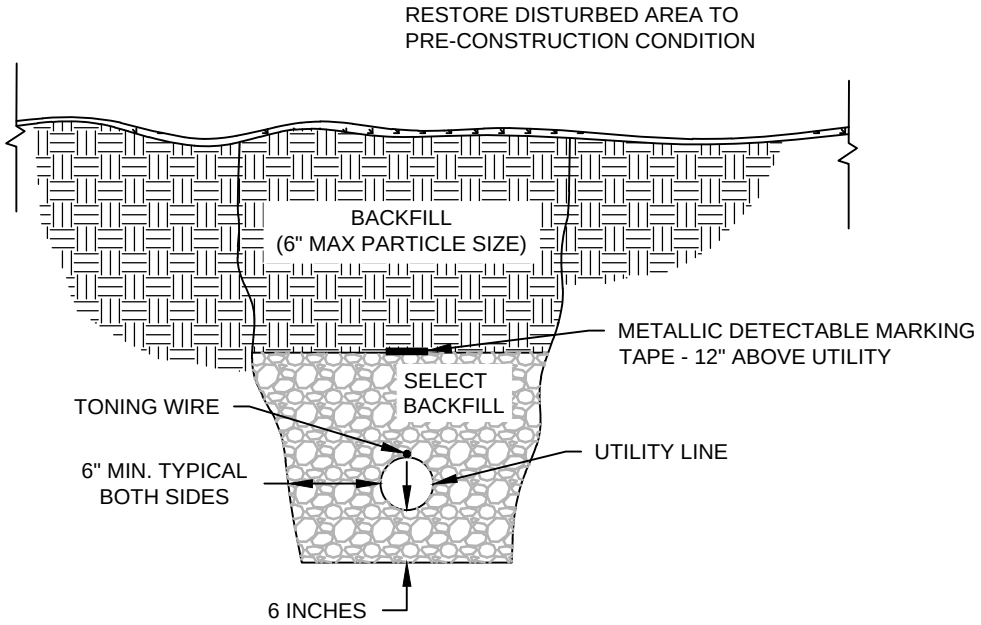
Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL UTILITY TRENCH TRAVERSING A CITY ROADWAY	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No.: VI-3



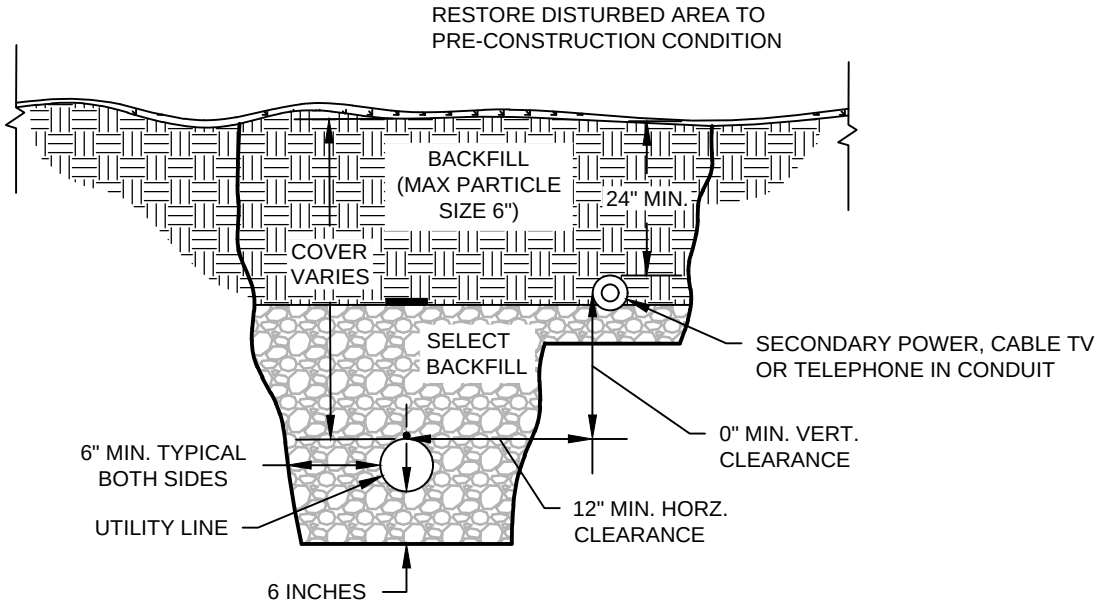
NOTE: SAWCUT SHALL BE CONTINUOUS WITH SMOOTH, TAPERED TRANSITIONS IN WIDTH IN ORDER TO MAINTAIN A CONSISTENT PAVEMENT RESTORATION WIDTH.

Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL UTILITY TRENCH PARALLELING CITY ROADWAY	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No.: VI-4

NOTE: THE MINIMUM DEPTH OF COVER VARIES PER UTILITY. REFER TO INDIVIDUAL SECTION FOR COVER REQUIREMENTS.

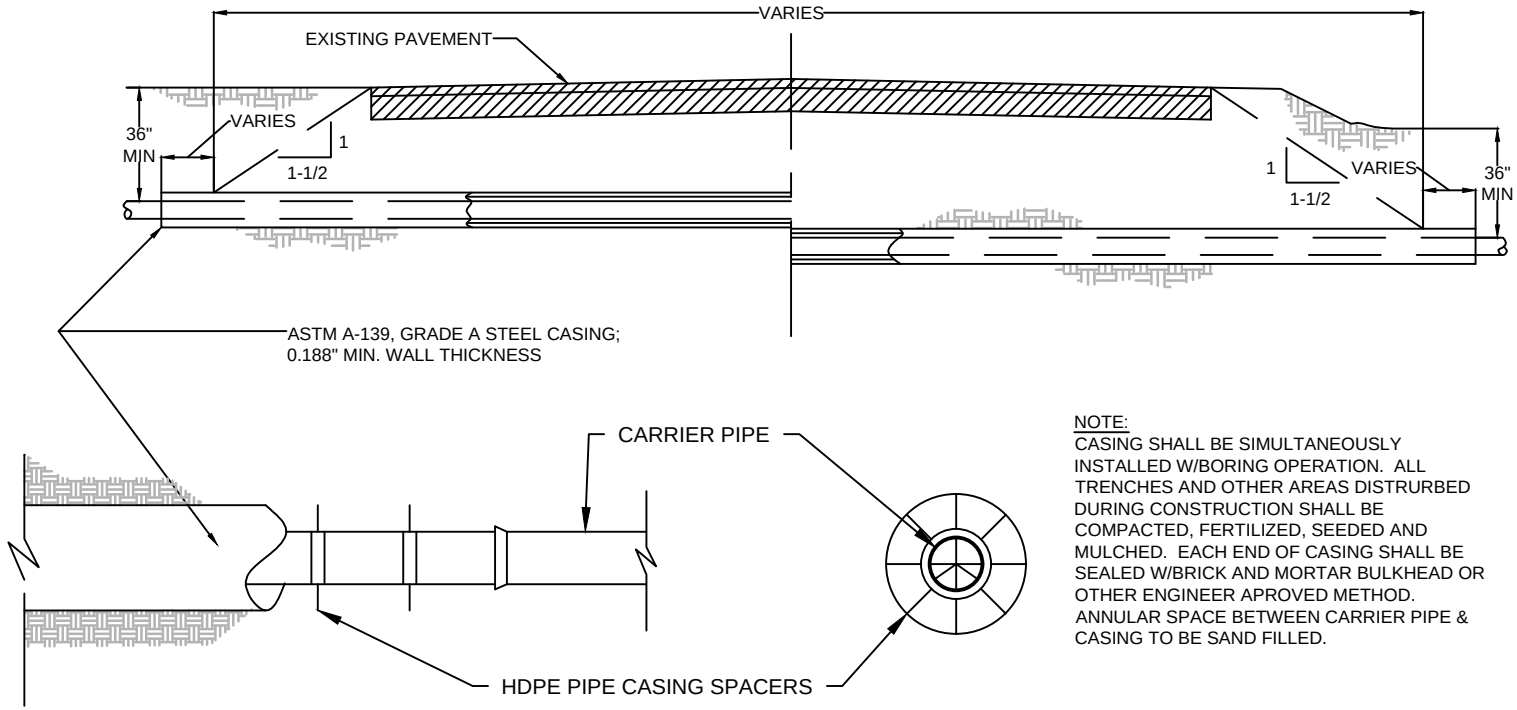


Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL UTILITY TRENCH OUT OF TRAFFIC AREA	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No.: VI-5



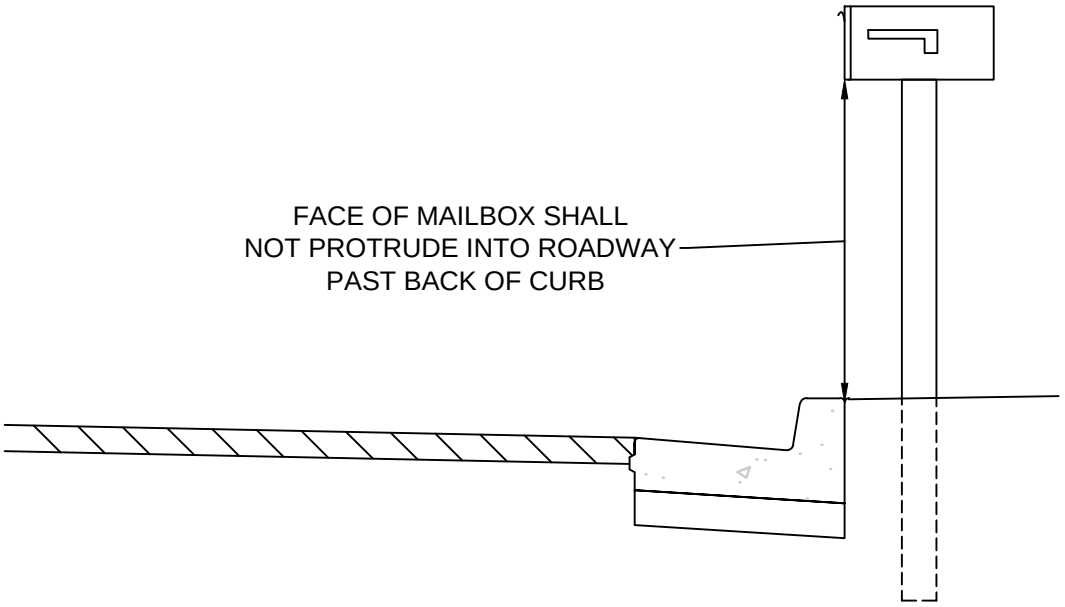
NOTES:
1. WARNING TAPE TO BE PLACED 12" ABOVE BOTH UTILITIES.
2. TONING WIRE TO BE PLACED TAPED TO THE TOP OF THE WATER/SEWER UTILITY.
3. DETAIL IS FOR OUT OF TRAFFIC AREAS. IF UTILITIES ARE LOCATED WITHIN THE CITY STREET BACKFILL SHALL BE AS DETAILED IN TRAVERSING OR PARALLELING CITY ROADWAY WHICH EVER MAY APPLY.

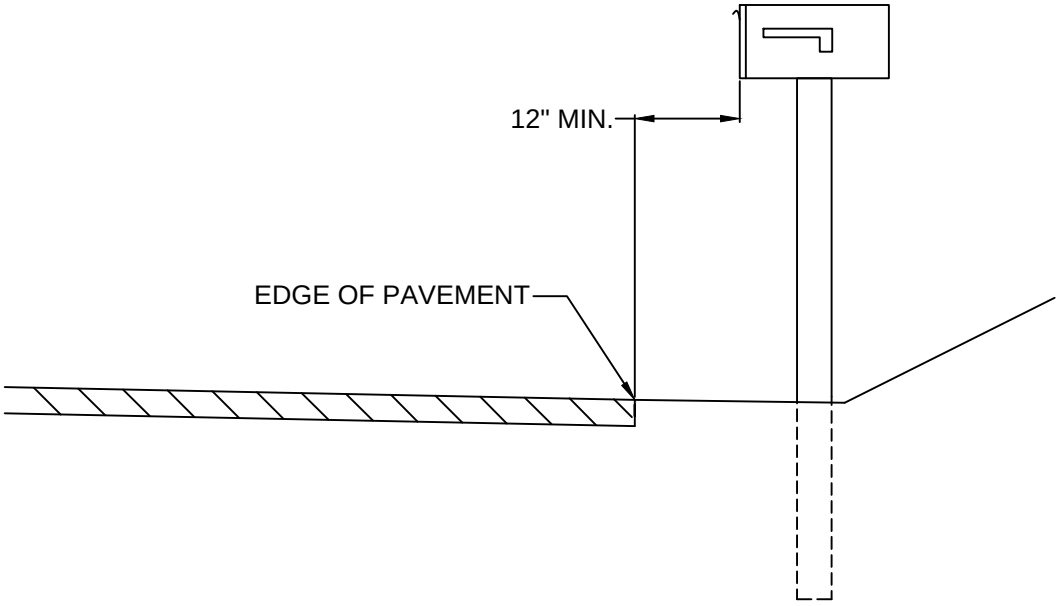
Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL WATER & SEWER IN SAME TRENCH AS SECONDARY POWER	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No.: VI-6



NOTE:
CASING SHALL BE SIMULTANEOUSLY INSTALLED W/BORING OPERATION. ALL TRENCHES AND OTHER AREAS DISTRURBED DURING CONSTRUCTION SHALL BE COMPACTED, FERTILIZED, SEEDED AND MULCHED. EACH END OF CASING SHALL BE SEALED W/BRICK AND MORTAR BULKHEAD OR OTHER ENGINEER APROVED METHOD. ANNULAR SPACE BETWEEN CARRIER PIPE & CASING TO BE SAND FILLED.

Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL HIGHWAY CROSSING BORE/ENCASEMENT	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No: VI-7





Date Revised: APRIL 2014	CITY OF OSAGE BEACH TYPICAL DETAIL MAILBOX LOCATION	Design Guideline: SECTION 6
By: JMY		ROAD CUTS, UTILITY TRENCHES, AND EXCAVATION
Checked By: SLB		Drawing No.: VI-8

City of Osage Beach

Design Guideline Revision - Items Removed

Section 2 - Water

- Page 2 - System Water Data removed as it is included in the water master plan and not necessary for design information
- Page 4 - Section C. 3. Removed as the minimum allowable mains size was changed to 6-inch diameter per DNR requirements
- Page 8 - Section A. 2. Removed as the minimum allowable mains size was changed to 6-inch diameter per DNR requirements
- Page 8 - Section C. 2. Removed to prevent development from using pipes not intended for water service construction
- Page 9 - Section D. 2. a. 2) Removed as SDR 21 fittings are industry standard for fittings and pipe listed above
- Page 9 - Section D. 2. b. Removed to all proper connection to pipes being made and decided by designer
- Page 10 - Section E. 4. Removed to not allow check valves installed on the City's system
- Page 11 - Section D. 2. d. Removed due to the City no longer installing and maintain the pressure reducing valve, all pressure reducing valves are to be on the customer's side of the meter
- Page 11 - Section D. 3. e. Removed due to the City no longer installing and maintain the pressure reducing valve, all pressure reducing valves are to be on the customer's side of the meter
- Page 11 - Section D. 3. f. Removed as the back flow will be on the customer's side of the meter allowing them to choose the back flow assembly installed
- Page 14 - Section D. 1. a. Removed the pressure reducing valve being installed in the City's meter pit as it should be installed on the customer's side of the meter
- Page 14 - Section D. 2. a. Removed the pressure reducing valve being installed in the City's meter pit as it should be installed on the customer's side of the meter
- Detail II-6 - Removed the pressure reducing valve from the detail in the meter pit
- Detail II-9 - Removed as concrete thrust block is preferred by City Staff, restrained joint pipe is allowable, but not permitted in leu of concrete thrust blocks

Section 3 - Sewer

- Page 1 - Overview Second Paragraph. Removed last line as this was updated per the City's new standard for providing station packages to developers
- Page 1 - Referenced City Ordinances. Chapter 410.130 removed as the heading has changed
- Page 2 - Average Daily Flow. Table removed and DNR is referenced
- Page 2 - Equivalent Population. Table removed and DNR is referenced
- Page 3 - Gravity Sewers Section 1. c. Removed to allow private sewer laterals to be any length and prevent the City from owning small sections of gravity sewer main prior the other gravity main or pump station

- Page 3 - Gravity Sewer Section 1. d. Removed allowance of ductile iron fittings as PVC fittings are industry standard for lateral pipe size and type
- Page 3 - Gravity Sewer Section 2. b. i. Removed ductile iron pipe having issues with sewer pipe failure
- Page 3 - Gravity Sewer Section 2. b. ii. Removed ductile iron pipe for gravity sewers being removed
- Page 3 - Gravity Sewer Section 2. b. v. Removed due to schedule 40 pipe not typically being used for the application
- Page 4 - Gravity Sewer Section 2. d. Removed to allow private sewer laterals to be any length and prevent the City from owning small sections of gravity sewer main prior the other gravity main or pump station
- Page 6 - Gravity Sewer Section 12. g. x. Table information for pipe size 4-removed and 6-inch removed as these pipe sizes will not be accepted into City inventory
- Page 6 - Pressure Sewer Section 2. b. Removed ductile iron due to issues with pipe degradation
- Page 7 - Pressure Sewers Section 9. Removed as check valves should not be installed on the system unless in a grinder station or valve vault, check valves are referenced in those sections
- Page 8 - Design of Grinder Pumps and Sewage Lift Stations. Removed as the City plans to provide grinder station packages and an alternate pump will not be an option
- Page 10 - Additional Limitations or Specifications for Grinder Pumps Section 3. Removed per DNR all commercials development should have duplex station with two pumps
- Page 10 - Additional Limitations or Specifications for Grinder Pumps Section 7. Removed so all stations have stainless steel discharge piping and uniformity across the City
- Page 10 - Additional Limitations or Specifications for Grinder Pumps Section 8. Removed per City Staff request only check valves will be installed in the grinder station and an isolation valve at the connection point to the City's system
- Page 11 - Grinder Station Electrical Panel Section 1. Removed Electric Control Company to allow for different ABS panel suppliers to provide panels if ECC is not capable
- Page 12 - Required Inspections, Testing, and Start Up Procedures Section 6. Removed to allow for the building occupancy permit to be issued, however a non-conforming station would not be accepted into City inventory
- Page 13 - Requirements for Authorized Private Sewage Disposal Systems Section 1. Removed due to Department of Health Regulations changing and sections no longer relevant or other sections are relevant

<u>Section 5 - Roads, Streets and parking areas</u>

- Page 3 - Residential Parking and commercial Parking Areas Section B. 1. c. Removed requirement for reinforcement bars in concrete as bars called out are non-standard and allow developer to decide parking lot paving section

Section 6 - Road Cut, Utility Trench and Excavation Permit

- Page 3 - Utility Trenchs Section A. 5. Removed max depth cover and referred to the section which utility the cover relates
- Page 5 - Utility Trenches Section D. Removed as use of 1-inch minus base rock prevents water from following the trench pipe
- Detail VI-6 - Removed as use of 1-inch minus base rock prevents water from following the trench pipe
- Detail VI-8 - Removed per DNR concrete encasement is not an acceptable protection for pipe

City of Osage Beach
Agenda Item Summary

Date of Meeting:	July 18, 2024
Originator:	Mike Welty, Assistant City Administrator
Presenter:	Mike Welty, Assistant City Administrator

Agenda Item:
Bill 24-47 - An ordinance of the City of Osage Beach, Missouri, amending section 705.250 Meter Installation and Maintenance, section 705.310 Water Fee, and section 710.190 Connection Costs and Liabilities of the Osage Beach City Ordinances to match changes made to the Osage Beach Design Guidelines. *Second Reading*

Requested Action:
Second Reading of Bill #24-47

Ordinance Referenced for Action:
Board of Aldermen approval required per Section 110.230. Ordinances, Resolutions, Etc. – Generally and Section 110.240 Adoption of Ordinances.

Deadline for Action:
None

Budgeted Item:
Not Applicable

Budget Line Information (if applicable):
Not Applicable

Department Comments and Recommendation:
This ordinance changes clean up the language, allowing the City to sell meter setters to contractors and add the same types of language on the sewer side for residential grinder stations.

City Attorney Comments:
Per City Code 110.230, Bill 24-47 is in correct form.

City Administrator Comments:
The first reading was read and approved on July 2, 2024. I concur with the department's recommendation.

BILL NO. 24-47 ORDINANCE NO. 24.47

AN ORDINANCE OF THE CITY OF OSAGE BEACH, MISSOURI, AMENDING 705.250 METER INTALLATION AND MAITENANCE, SECTION 705.130 WATER FEE AND SECTION 710.190 CONNECTION COSTS AND LIABILITIES OF THE OSAGE BEACH CITY ORDINANCES TO MATCH THE CHANGES MADE TO THE OSAGE BEACH DESIGN GUIDELINES

Whereas, the City has adopted guidelines to aid developers and builders in complying with the requirements of the Osage Beach Code of Ordinances for the construction of industrial, commercial and multi unit residential structures.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF OSAGE BEACH, MISSOURI, AS FOLLOWS:

Section 1. That the Code of Ordinances of the City of Osage Beach, in Chapter 705, specifically Section 705.250 Meter Installation and Maintenance are hereby enacted with amendments as set forth below with new material set out in **RED** and deleted material struck as follows:

Section 705.250 Meter Installation and Maintenance.

A. The City shall determine the location of the meter to be installed. The location of the meter must be in a location that is acceptable, convenient, and as close as possible to the customer's property line.

B. The City will provide and install the water meter.

C. The costs and expenses to provide an acceptable tap on the City's water main shall be borne by the applicant. A meter fee shall be paid by the applicant for each water connection and includes the cost of ~~materials,~~ the meter ~~and meter setting,~~ and labor provided by the City. The applicant shall perform all work, including excavation, backfill, restoration, and installation of the building service line.

D. Unless otherwise determined by the City, each premises shall be supplied through a separate meter or, if necessary and at the option of the Building Official, through a separate battery of meters. Where a battery of meters is installed, the registration of such meters shall be combined for billing purposes and shall be subject to a minimum charge equal to the sum of the minimum charged for the meters comprising the battery setting. Where, however, a premises is supplied through more than one (1) service, unless otherwise provided for in contracts entered into therefor, the registration of the meter installed on each such service shall be billed separately, subject to the minimum charge for each meter.

E. The customer shall promptly notify the City of any defect in or damage to the meter or its connection.

Section 2. That the Code of Ordinances of the City of Osage Beach, in Chapter 705, specifically Section 705.310 Water Fees are hereby enacted with amendments as set forth below with new material set out in **RED** and deleted material struck as follows:

Section 705.310 **Water Fees.**

A. Meter fees shall be paid by the applicant for each water connection.

B. The fee includes cost of the meter ~~materials and~~ labor provided by the City ~~which includes the meter and meter setting~~. The applicant shall perform all work, including excavation, backfill, restoration, and installation of the building service line.

C. Meter fees are based on the actual cost of the meter.

Section 3. That the Code of Ordinances of the City of Osage Beach, in Chapter 710, specifically Section 710.190 Connection Costs and Liabilities are hereby enacted with amendments as set forth below with new material set out in **RED** and deleted material struck as follows:

Section 710.190 **Connection Costs and Liabilities.**

A. The costs and expense incidental to the building sewer installation and connection to the City's wastewater facilities shall be borne by the owner. The owner shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

Section 4. This Ordinance shall be in full force and effect from and after its passage by the Board of Aldermen and approval by the Mayor.

READ FIRST TIME: July 2, 2024 READ SECOND TIME:

I hereby certify that the above Ordinance No. 24.47 was duly passed on by the Board of Aldermen of the City of Osage Beach. The votes thereon were as follows:

Ayes: Nays:

Abstentions: Absent:

This Ordinance is hereby transmitted to the Mayor for his signature.

_____ _____

Date Tara Berreth, City Clerk

Approved as to form:

_____

Cole Bradbury, City Attorney

I hereby approve Ordinance No. 24.47.

_____
Michael Harmison, Mayor

_____
Date

ATTEST:

_____
Tara Berreth, City Clerk

City of Osage Beach
Agenda Item Summary

Date of Meeting:	July 18, 2024
Originator:	Jeana Woods, City Administrator
Presenter:	Jeana Woods, City Administrator

Agenda Item:
Bill 24.48 - An ordinance of the City of Osage Beach, Missouri amending Ordinance No. 23.90 Adopting the 2024 Annual Budget, Transfer of Funds for Necessary Expenditures, for Various Accounts. *First and Second Reading*

Requested Action:
First & Second Reading of Bill #24.48

Ordinance Referenced for Action:
Board of Aldermen approval is required for certain budget amendments per Municipal Code Chapter 135; Section 135.020 Budget and Financial Control.

Deadline for Action:
Yes - I am requesting both First and Second Readings as I would like these amendments to be included in the upcoming July Financial Statements.

Budgeted Item:
Not Applicable

Budget Line Information (if applicable):
Not Applicable

Department Comments and Recommendation:
Not Applicable

City Attorney Comments:
Per City Code 110.230, Bill 24-48 is in correct form.

City Administrator Comments:
First and Second Readings are being requested as I would like these amendments to be included in the upcoming July Financial Statements for FY2025 budget prep purposes.

Amendment Explanations:

1. Transportation, Water, and Sewer Maintenance Support line items (xx-00-733610) need amendment due to a carryover from FY2023. A bill was received that was initially budgeted to be paid last year.
2. Transportation Equipment Repair requires an amendment as the original budget is not sufficient for repairs past and upcoming in the Transportation Department.
3. Both Airports are in the process of a Master Plan (ALP Update) and a portion of the project was expected to be completed and spent in FY2023. This is a carryover from FY2023. Grant revenue is tied to the project, therefore, the grant line items are also being amended.
4. The Grand Glaize Fund is also being amended to account for the roof repairs approved by the Board on July 2 (Bill 24-42).

Estimated ending cash balances in each of the appropriate funds are sufficient for all requested amendments listed.

BILL NO. 24-48 ORDINANCE NO. 24.48

AN ORDINANCE OF THE CITY OF OSAGE BEACH, MISSOURI, AMENDING ORDINANCE NO. 23.90 ADOPTING THE 2024 ANNUAL OPERATING BUDGET, TRANSFER OF FUNDS FOR NECESSARY EXPENDITURES IN VARIOUS ACCOUNTS

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF OSAGE BEACH, AS FOLLOWS, TO WIT:

Section 1. That the 2024 Annual Operating Budget adopted as Ordinance No. 23.90 is hereby amended by appropriating additional funds or reducing appropriations as follows:

		Original Item	Amended Item
20-00-733610	Maintenance & Support	$1,000	$23,328
20-00-743400	Equipment Repair	$26,250	$46,250
30-00-733610	Maintenance & Support	$20,000	$33,328
35-00-733610	Maintenance & Support	$22,584	$35,912
45-00-440200	Grant Revenue	$4,146,750	$4,361,400
45-00-774128	Airport Capital	$242,500	$481,000
47-00-440200	Grant Revenue	$218,250	$432,900
47-00-774128	Airport Capital	$287,500	$535,162

Section 2. In all other respects the 2024 Annual Operating Budget adopted in Ordinance No. 23.90 remains in full force and effect.

Section 3. That this Ordinance shall be in full force and effect upon date of passage and approval by the Mayor.

READ FIRST TIME: READ SECOND TIME:

I hereby certify that the above Ordinance No. 24.48 was duly passed on _____, by the Board of Aldermen of the City of Osage Beach. The votes thereon were as follows:

Ayes: Nays: Abstain: Absent:

This Ordinance is hereby transmitted to the Mayor for his signature.

_____ _____
Date Tara Berreth, City Clerk

Approved as to form:

_____
Cole Bradbury, City Attorney

I hereby approve Ordinance No. 24.48.

_____
Michael Harmison, Mayor

_____
Date

ATTEST:

_____
Tara Berreth, City Clerk

City of Osage Beach
Agenda Item Summary

Date of Meeting:	July 18, 2024
Originator:	Mike Welty, Assistant City Administrator
Presenter:	Mike Welty, Assistant City Administrator

Agenda Item:
Bill 24-49 - An ordinance of the City of Osage Beach, Missouri, authorizing the Mayor to sign a contract with Construction Concepts Corporation for the Park Bathroom project for an amount not to exceed $156,897.00. *First Reading*

Requested Action:
First Reading of Bill #24-49

Ordinance Referenced for Action:
Board of Aldermen approval required for purchases over $25,001 per Municipal Code Chapter 135; Article II: Purchasing, Procurement, Transfers, and Sales.

Deadline for Action:
None

Budgeted Item:
Yes

Budget Line Information (if applicable):

Budget Line Item/Title:	10-10-773278 Park Improvements
FY202X Budgeted Amount:	$472,600
FY202X Expenditures to Date (07/08/24):	($ 55,620)
FY202X Available:	$416,680
FY202X Requested Amount:	$156,897

Department Comments and Recommendation:
This project was advertised in late May and bids were opened on June 28th. The City received two bids and the low bid is from Construction Concepts Corp. in the amount of $156,897.

This project would add a bathroom (Toilet/Urinal/Shower/Sink) to the existing park maintenance building at the back of City Park. The park staff do not currently have a bathroom in their maintenance building. I have checked this contractors' references and found no problems. They have done some work for the City previously, although it has

been several years.

2024 Project Budget:
Construction: $104,500
Engineering: $2,500 (Spent to date $355.00)
Total: $107,000

This is the third time we have bid this project out over the last 18 months and the low bidder here has provided the lowest bid by far. Previous bids were well over 200K. That said we are still over budget by $52,397.00. If the board approves this project, we would have to use some of the money budgeted for the pickleball courts (within the same expense account) to offset the overage. In 2024, we budgeted $168,000 for pickleball courts and wall stabilization, but those bids came in way too high, so the board did not approve the project. We are reevaluating the best spot for pickleball, but won't rebid that out until the 2025 budget year. We do still want to move forward with the wall stabilization later this year, but that portion of the project is valued at about a third of the $168,000 total budget.

I recommend approval.

City Attorney Comments:
Per City Code 110.230, Bill 24-49 is in correct form.

City Administrator Comments:
The project itself is over budget, but if approved, this line item will not be over budget, resulting in no negative effect on the net unrestricted general fund balance available. I concur with the department's recommendation.

BILL NO. 24-49 ORDINANCE NO. 24.49

AN ORDINANCE OF THE CITY OF OSAGE BEACH, MISSOURI, AUTHORIZING THE MAYOR TO EXECUTE A CONTRACT WITH CONSTRUCTION CONCEPTS CORPORTAION FOR THE PARK BATHROOM PROJECT FOR AN AMOUNT NOT TO EXCEED $156,897.0.

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF OSAGE BEACH, MISSOURI, AS FOLLOWS:

Section 1. The Board of Aldermen hereby authorizes the Mayor to execute on behalf of the City a Construction Contract with Construction Concepts Corporation under substantially the same or similar terms and conditions as set forth in "Exhibit A".

Section 2. Total expenditures or liability authorized under this Ordinance shall not exceed One Hundred Fifty-Six Thousand Eight Hundred Ninety-Seven Dollars. ($156,897.00)

Section 3. The City Administrator is hereby authorized to take such further actions as are necessary to carry out the intent of this Ordinance and Contract.

Section 4. This Ordinance shall be in full force and effect from date of passage and approval by the Mayor.

READ FIRST TIME: READ SECOND TIME:

I hereby certify that the above Ordinance No. 24.49 was duly passed on , by the Board of Aldermen of the City of Osage Beach. The votes thereon were as follows:

Ayes: Nays: Abstain: Absent:

This Ordinance is hereby transmitted to the Mayor for his signature.

_____ _____
Date Tara Berreth, City Clerk

Approved as to form:

_____
Cole Bradbury, City Attorney

I hereby approve Ordinance No. 24.49.

_____
Michael Harmison, Mayor

_____
Date

ATTEST:

_____
Tara Berreth, City Clerk

CITY OF OSAGE BEACH
_____ AGREEMENT

THIS _____ AGREEMENT (the "Agreement") states the terms and conditions that govern the contractual relationship between the City of Osage Beach, Missouri ("**City**") and [Contractor Legal Name] ("Contractor"), on the following terms.

I. TERMS

1. **Definitions.** The following terms shall have these defined meanings:

    a. "**RFP**" shall mean the City's Request for Proposals: _____ dated _____.

    b. "**Work**" shall mean all of the work described in the "SCOPE OF SERVICES" in the RFP.

    c. "**Schedule**" shall mean the "SCHEDULE" set out in the RFP.

2. **Contractor's Obligations.**

    a. *Work.* Contractor hereby agrees to perform the Work upon the Schedule listed in the RFP.

    b. *Professionalism.* Contractor will exercise the care and skill ordinarily used by members of the subject profession practicing under similar circumstances (as defined by the appropriate licensing authority, professional standards, and/or relevant industry practices). Contractor understands that it will be perceived as a representative of the City and will ensure its personnel and any subcontractors will conduct themselves in a thoroughly professional and respectable manner while performing all Work for the City and while on-site. Contractor shall ensure its personnel and any subcontractors comply with all City policies while on-site. Contractor and its personnel and any subcontractors will comply with all reasonable instructions and requests by the City. City property and resources are to be used only in ways that are consistent with their lawful intended purpose.

c. *Time.* If a specific time of performance of the Work is provided, that time shall control. If a specific time of performance is not provided, Contractor's obligation to perform the Work will be for a period which may reasonably be required for the completion thereof. If City has requested changes in the scope or character of the Work and a specific time was not included in such changes, the time for performance shall be adjusted equitably.

d. *Insurance.* Contractor shall purchase and maintain insurance as set forth below:

i. Commercial General Liability insurance with a limit of $1,000,000 for each occurrence and $2,000,000 general aggregate;

ii. Workers Compensation and Employer's Liability insurance in accordance with statutory requirements, with a limit of $1,000,000 for each accident;

iii. Professional Liability insurance on a claims-made basis in the amount of $3,000,000 per claim and $3,000,000 annual aggregate; and

iv. If Contractor is using a company-owned vehicle to perform the Work, Automobile Liability insurance with a limit of $1,000,000 for each accident, combined single limit for bodily injury and property damage.

Upon request, Contractor shall cause City to be named as additional insured for any or all of such policies.

e. *Licenses, Permits, Taxes.* Contractor must have or obtain a City merchant's license. Contractor shall be responsible for applying for, obtaining, and maintaining all licenses, permits, and other approvals required for itself, including but not limited to the Work. Contractor shall be responsible for paying all sales, income, property, and other taxes required to carry on its business.

f. *Safety.* Contractor must have a formal safety-training program in place, which addresses issues associated with hazardous situations, proper lifting, operation of equipment, and use of personal protection equipment, and all OSHA Safety Requirements.

g. *Communication.* Contractor will provide timely replies to City's inquiries and requests for information. Contractor's point of contact for this Agreement is: _____.

3. **City's Obligations.**

a. *Payment.* City hereby agrees to pay Contractor for the Work as follows:

i. _____ payable in monthly installments on the first Friday of the month following the month in which services were rendered.

City will pay Contractor not more frequently than monthly unless otherwise agreed in writing.

b. *Criteria and Direction.* City will provide Contractor with all criteria and full information as to City's requirements for the Work, including objectives, design, capacity, performance, and budgetary requirements and limitations.

c. *Access.* Unless otherwise specified in the RFP, City will arrange for access to and make all provisions for Contractor to enter upon public and private property as required to perform the Work.

d. *Cooperation.* City will examine alternative solutions, reports, drawings, specifications, and other documents presented by Contractor and render timely decisions pertaining to the documents. City will participate in conferences, meetings, bid openings, and other similar aspects of the Project as requested by Contractor.

e. *Permitting and Approvals.* City will provide timely reviews, approvals, licenses, and permits from where it has jurisdiction over components or phases of the Work. Such approvals are contingent upon Contractor meeting the requirements therefor.

f. City will provide timely replies to Contractor's inquiries and requests for information. City's point of contact for this Agreement is: _____.

II. STANDARD CONDITIONS

The following conditions are standard in all City of Osage Beach contracts and are only to be modified with substantial justification, and then only as much as necessary to accommodate such justification.

4. **Appropriations.** The continuation of this Agreement is contingent upon annual appropriation of funds by the Osage Beach Board of Aldermen. In the event the Board of Aldermen shall not budget and appropriate, specifically with respect to this Agreement, on or before January 1, subsequent years of the contract moneys sufficient to make all payments under this Agreement, the City shall not be obligated to make those payments.

5. **Pre-Contract Expense.** The City shall not be obligated to pay or liable for any cost incurred by Contractor prior to execution of this Agreement. All costs to prepare and submit a response to this and any other RFQ, RFP, or IFB shall be borne by the proposer.

6. **Assignment or Transfer.** Neither this Agreement, nor any portion thereof, shall be transferred or assigned without formal written approval by the City.

7. **Discrimination Policy.** The City of Osage Beach advises the public that it does not discriminate on the basis of disability, race or color, national origin, religion, age, or sex in employment or the provision of municipal services. Contractor shall not discriminate on any prohibited basis and shall comply with all applicable employment laws.

8. **Laws, Ordinances, and Regulations.** Contractor shall conform to all Federal, State, and local regulations, ordinances, and laws applicable to Contractor, the City, or the subject matter of this Agreement. The City shall not be responsible for any fees, charges, money, or other obligations due as result of from any service provided under this Agreement. Contractor shall conform to all changes made to this Agreement as a result of any ordinance, law and/or directive issued by the Federal, State, or local authority having jurisdiction over this Agreement, Contractor, or the City.

9. **Certifications Regarding Debarment.** Contractor certifies that, except as noted below, it and any other person associated therewith in the capacity of owner, partner, director, officer, or manager (collectively "Contractor Principals"), are not presently nor have ever been under suspension, debarment, voluntary exclusion, or determination of ineligibility by any governmental unit or agency (whether federal, state, tribal, local, or other), nor is any such action pending. Contractor further certifies that it and its Contractor Principals have not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any manner involving fraud or official misconduct, nor has Contractor or any Contractor Principal been party to any public transaction (whether federal, state, tribal, local, or other) terminated for cause or default. Contractor further certifies that any and all exceptions to these representations were disclosed with its bid, and City relied on these certifications as a material inducement into entering this Agreement. Contractor must notify City within thirty days of being debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in any contract by any governmental entity during the operation of this Agreement.

10. **E-Verify.** If this Agreement is for an aggregate value in excess of $5,000.00, Contractor shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection to the contracted services. Contractor shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection to the Work. *See* R.S.Mo. § 285.530.

11. **Anti-Israel Discrimination.** Contractor certifies it is not currently engaged in and shall not, for the duration of this Agreement, engage in a boycott of goods or services from the State of Israel companies doing business in or with Israel or authorized by, licensed by, or

organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. *See* R.S.Mo. § 34.600.

12. **Indemnification by Contractor.** Contractor shall indemnify, save, and hold harmless the City, its employees, and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees incurred as a result of any act or omission by Contractor or its employees, agents, subcontractors, or assignees arising out of this Agreement.

13. **No Indemnification by City.** Nothing in this Agreement shall be construed to require the City to indemnify Contractor. Such indemnification is illegal under Missouri law. *See* Mo. A.G. Opinion 138-87 (1987).

14. **Sunshine Law.** All material submitted to the City will likely become public record and will be subject to the Missouri Sunshine Law, R.S.Mo. Chapter 610. Any material requested to be treated as proprietary or confidential must be clearly identified and easily separable from other materials. Contractor must include justification for the request. The City's obligation to comply with the Sunshine Law supersedes any request by Contractor that material be treated as proprietary or confidential.

15. **Ownership of Work Product.** All documents and other work product created by Contractor under this Agreement shall become the property of City once the invoice for the preparation of such document or work product has been paid.

16. **Termination.** The City reserves the right to terminate this Agreement without cause by giving 30 days' written notice to Contractor. City may terminate this Agreement upon written notice of any violation of this Agreement if such violation is not cured within 7 calendar days of such notice. City may immediately terminate this Agreement for any material violation or any violation which creates a risk to the health, safety, or welfare of any person or property.

17. **Notices.** All formal notices or other documents required by this Agreement shall be in writing and delivered personally or mailed by certified mail, postage prepaid, addressed to the parties at:

For City:	For Contractor:
City Clerk	
1000 City Parkway	
Osage Beach, MO 65065	

City may also serve written notice to Contractor by personal delivery to any of its owners, officers, or employees.

18. **Necessary Documents.** The parties agree to execute and deliver without additional consideration such instruments and documents and to take such further actions as they may reasonably request in order to fulfill the intent of and give effect to this Agreement and the transactions contemplated thereby.

19. **Entire Agreement.** This Agreement supersedes all agreements previously made between the parties relating to its subject matter. There are no other understandings or agreements between them. Without limiting the foregoing, this Agreement expressly supersedes any click-through, browse-wrap, or any other terms related to the subject matter of this Agreement on any website or that otherwise may be presented to or required to be accepted by the City or its employees and contractors while exercising rights under this Agreement.

20. **Non-Waiver.** No delay or failure by either party to exercise any right under this Agreement, and no partial or single exercise of that right, shall constitute a waiver of that or any other right unless otherwise expressly provided herein.

21. **Headings.** Headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

22. **Governing Law; Venue for Disputes.** This Agreement was made in the State of Missouri and shall be interpreted under and governed by the laws of the State of Missouri. Any action arising out of this Agreement or its subject matter, including both state and federal causes of action, shall be filed in the Circuit Court for Camden County, Missouri or the Associate Division thereof and the parties hereby consent and agree to the exclusive personal and subject-matter jurisdiction of that Court.

23. **WAIVER OF RIGHT TO JURY TRIAL.** THE PARTIES HEREBY KNOWINGLY, INTENTIONALLY, VOLUNTARILY AND IRREVOCABLY WAIVE ANY RIGHT TO A TRIAL BY JURY IN ANY ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER DOCUMENT OR TRANSACTION CONTEMPLATED HEREBY OR THEREBY, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY.

24. **No Third-Party Beneficiaries.** Nothing in this Agreement, express or implied, is intended to confer upon any other person any rights or remedies under or by reason of this Agreement.

25. **Severability.** If any provision in this Agreement shall be found to be void, the other provisions of this Agreement shall survive and remain enforceable.

26. **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the

same instrument. A facsimile or electronic (such as .PDF) copy of this Agreement or a signature thereto shall have the same force and effect as an original.

27. **Binding Effect.** This Agreement, subject to the above conditions of assignment, shall be binding upon and inure to the benefit of all parties and their respective legal representatives, successors, heirs, and assigns.

III. SPECIAL CONDITIONS

The following conditions are special to this Agreement. Any Special Condition which conflicts with or varies a Standard Condition shall be strictly construed in favor of the City.

28.

IV. ACCEPTANCE

THIS AGREEMENT CONTAINS A WAIVER OF THE PARTIES' RIGHTS TO TRIAL BY JURY. THE UNDERSIGNED HEREBY MUTUALLY RELINQUISH AND WAIVE THEIR RIGHT TO TRIAL BY JURY.

CITY:		**CONTRACTOR:**	
CITY OF OSAGE BEACH, MISSOURI		**[CONTRACTOR LEGAL NAME]**	
_____	_____	_____	_____
BY: Michael Harmison	Date	BY:	Date
ITS: Mayor		ITS:	

Attest:

_____ _____
BY: Tara Berreth Date
ITS: City Clerk

BID OPENING

City Park Bathroom

6/28/2024

10:00AM

The following bids were opened by Tara Berreth and witnessed by Abby Moulder.

Bidder Name	**Amount of Bid**
Construction Concept	$156,897.00
Thomas Construction	$205,866.00

City of Osage Beach
REQUEST FOR PROPOSAL

Title:	**Osage Beach City Park Maintenance Building Bathroom Addition**
Date Issued:	**May 30, 2024**
Due Date and Time:	**June 28, 2024 at 10:00 AM**
Return To:	**City of Osage Beach** **Office of the City Clerk** **1000 City Parkway** **Osage Beach, MO 65065**

This is an invitation to submit proposals to furnish the materials and/or services described herein. Please submit prices/fees net of all discounts. Proposals shall be submitted before the due date and time in a sealed envelope with the RFP title clearly marked on the front. In the event it should be necessary to revise the RFP, notice will be given in writing to all businesses/individuals who received the original RFP.

SEALED REQUEST FOR PROPOSALS MUST BE PHYSICALLY RECEIVED IN THE OFFICE OF THE CITY CLERK BY THE DUE DATE AND TIME.

SCOPE OF SERVICES:

The City of Osage Beach is seeking bids to provide and install all materials to construct a new restroom at the Parks Maintenance Building.

Schedule:

The City intends on issuing the Notice to Proceed in July 2024. Construction shall be completed by November 1, 2024.

Qualifications:

The intent of this RFP is to select a qualified business to provide the services above. Bidders shall include in their proposal a list of references, a description of their track record in performing services

specified in this RFP and any other information relevant to making a determination as to the ability to provide these materials and/or services.

Terms and Conditions:

The successful bidder will be required to execute a contract for the services listed in this RFP. The contract will be based upon to attached standard City contract form. Any bidder seeking variations from or additional terms to the attached contract should clearly indicate all requested changes in their bid.

Insurance Requirements:

The successful bidder shall obtain and maintain a current business license with the City. The successful bidder shall provide a certificate of insurance showing details of coverage for comprehensive general liability, comprehensive automobile liability, workers' compensation and employers' liability with the following amounts or greater.

Comprehensive General Liability (required):

Minimum limit $3,000,000 combined single limit for bodily injury and property damage per occurrence.

Comprehensive Automobile Liability (required):

If applicable, $1,000,000 combined single limit.

Workers' Compensation: If applicable, statutory requirements.

Employers' Liability: If applicable, $500,000 each employee, $500,000 each accident and $500,000 policy limit.

Builder's Risk Insurance (required):

The Contractor shall secure, "All Risk" type Builder's Risk Insurance for work to be performed. The amount of such insurance shall not be less than the contract price totaled in the bid. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft and smoke during the contract time, and until the work is accepted by the Owner. The policy shall name as the insured, as their interests may appear, the Owner, Contractor, and Subcontractor. This provision shall in no way release the Contractor or Contractor's surety from obligations under the contract documents to fully complete the project.

Proposal Submission:

Proposal packets to include:

- RFP Form (enclosed)
- Any additions to the RFP Form regarding specifications.

Proposals may be mailed, or hand delivered. All proposals must be received by the Office of the City Clerk, City of Osage Beach, 1000 City Parkway, Osage Beach, MO, 65065, prior to 10:00 AM, June 28,

2024. Proposals must be clearly marked **Osage Beach City Park Maintenance Building Bathroom Addition** on the outside of the proposal packet. Proposals are NOT accepted by fax or email.

For Additional Information or Clarification, Contact:

- Brian Gentges
  Project Architect – Cochran
  (636) 584-0540
  bgentges@cochraneng.com

- Tara Berreth
  City Clerk
  1000 City Parkway
  Osage Beach, MO 65065
  573-302-2000 Ext 1030

Award Details:

Bids will be evaluated by City Management. A candidate may be selected based on the ability and resources to provide the best products and/or services as described herein. If no decision can be reached, the Management Staff may ask for additional information. All bidders submitting a response to this RFP will be notified of the outcome.

The City of Osage Beach, Missouri reserves the right to reject any or all bids received in response to this RFP, or to cancel this RFP if it is in the best interest of the City to do so. Failure to furnish all information or to follow the bid format requested in this RFP may disqualify the bid submitted. Any exception to the details listed in this RFP must be identified in the bid documents.

All bids become the property of the City of Osage Beach, Missouri upon receipt. The City shall have the right to use all ideas or adaptations of the ideas contained in any bid received in response to this RFP. Disqualification of a bid does not eliminate this right.

All material submitted in response to this RFP will become public record. Any material requested to be treated as proprietary or confidential must be clearly identified and easily separable from the rest of the bid. Such request must include justification for the request and approval by the City. Neither cost nor pricing information nor a total bid will be considered proprietary.

Awarded Contractor shall provide:

- One year warranty that shall start the day the project is 100% complete.
- E-Verify Documentation
- A maximum of two pay applications are allowed: (1) 90% completion (2) at final completion.

Attachments:

- RFP Form
- Terms and Conditions
- MO Prevailing Wage Order No. 31
- Plans/Detail Sheets dated April 17, 2024

City of Osage Beach
RFP FORM

Proposal for **Osage Beach City Park Maintenance Building Bathroom Addition**

Tara Berreth
City Clerk
City of Osage Beach
1000 City Parkway
Osage Beach, MO 65065

SUBMITTED BY: _____
Company Name
DATE SUBMITTED: _____

Contractor Bid

$_____ Lump Sum Bid for **Osage Beach City Park Maintenance Building Bathroom Addition**

Description of proposer's recent experience/references – attach additional sheet(s) if necessary:

_____

_____

_____

_____

_____

_____

Pursuant to and in accordance with the above stated RFP, the undersigned hereby declares that they have examined the **Osage Beach City Park Maintenance Building Bathroom Addition** RFP documents. The undersigned proposes and agrees, if their proposal is accepted, to furnish the materials and services described in the RFP documents.

Company _____ By _____
(Authorized Representative)

Address _____ _____
(Print or type name and title)

_____

_____

Phone _____ Email _____

FAX _____ Date _____

TERMS AND CONDITIONS

I. Overview

Contractor shall provide all labor, materials, and equipment necessary to provide a complete and fully functioning product as described in this RFP.

II. Payment

City will pay Contractor the bid amount, net any change orders, within 14 days of the City Engineer and/or Building Official certifying completion of the Work described in this RFP.

III. Additional Standard Terms

The following clauses will be included in the final agreement between the parties. They are standard in all City of Osage Beach contracts and are only to be modified with substantial justification, and then only as much as necessary to accommodate such justification:

1. **Professionalism.** Contractor will exercise the care and skill ordinarily used by members of the subject profession practicing under similar circumstances (as defined by the appropriate licensing authority, professional standards, and/or relevant industry practices). Contractor understands that it will be perceived as a representative of the City and will ensure its personnel and any subcontractors will conduct themselves in a thoroughly professional and respectable manner while performing all Work for the City and while on-site. Contractor shall ensure its personnel and any subcontractors comply with all City policies while on-site. Contractor and its personnel and any subcontractors will comply with all reasonable instructions and requests by the City. City property and resources are to be used only in ways that are consistent with their lawful intended purpose.

2. **Licenses, Permits, Taxes.** Contractor must have or obtain a City merchant's license. Contractor shall be responsible for applying for, obtaining, and maintaining all licenses, permits, and other approvals required for itself, including but not limited to the Work. Contractor shall be responsible for paying all sales, income, property, and other taxes required to carry on its business.

3. **Appropriations.** The continuation of this Agreement is contingent upon annual appropriation of funds by the Osage Beach Board of Aldermen. In the event the Board of Aldermen shall not budget and appropriate, specifically with respect to this Agreement, on or before January 1, subsequent years of the contract moneys sufficient to make all payments under this Agreement, the City shall not be obligated to make those payments.

4. **Pre-Contract Expense.** The City shall not be obligated to pay or liable for any cost incurred by Contractor prior to execution of this Agreement. All costs to prepare and submit a response to this and any other RFQ, RFP, or IFB shall be borne by the proposer.

5. **Assignment or Transfer.** Neither this Agreement, nor any portion thereof, shall be transferred or assigned without formal written approval by the City.

6. **Discrimination Policy.** The City of Osage Beach advises the public that it does not discriminate on the basis of disability, race or color, national origin, religion, age, or sex in employment or

the provision of municipal services. Contractor shall not discriminate on any prohibited basis and shall comply with all applicable employment laws.

7. **Laws, Ordinances, and Regulations.** Contractor shall conform to all Federal, State, and local regulations, ordinances, and laws applicable to Contractor, the City, or the subject matter of this Agreement. The City shall not be responsible for any fees, charges, money, or other obligations due as result of from any service provided under this Agreement. Contractor shall conform to all changes made to this Agreement as a result of any ordinance, law and/or directive issued by the Federal, State, or local authority having jurisdiction over this Agreement, Contractor, or the City.

8. **Certifications Regarding Debarment.** Contractor certifies that, except as noted below, it and any other person associated therewith in the capacity of owner, partner, director, officer, or manager (collectively "Contractor Principals"), are not presently nor have ever been under suspension, debarment, voluntary exclusion, or determination of ineligibility by any governmental unit or agency (whether federal, state, tribal, local, or other), nor is any such action pending. Contractor further certifies that it and its Contractor Principals have not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any manner involving fraud or official misconduct, nor has Contractor or any Contractor Principal been party to any public transaction (whether federal, state, tribal, local, or other) terminated for cause or default. Contractor further certifies that any and all exceptions to these representations were disclosed with its bid, and City relied on these certifications as a material inducement into entering this Agreement. Contractor must notify City within thirty days of being debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in any contract by any governmental entity during the operation of this Agreement.

9. **Grants.** In the event the work provided for herein is being funded, in whole or in part, by a federal, state, local, or private grant, City's obligations herein shall be contingent upon such grant being available for the term of this Agreement. City shall not be obligated to make pay any monies funded by grant funds until such funds are received by and available to the City Treasurer. Except as otherwise provided by this Contract, if this Contract is not funded, then both parties are relieved of all of their obligations under this Contract.

10. **Prevailing Wage.** If the bid accepted by the City or the total project cost, whichever is greater, is in the amount of seventy-five thousand dollars or more, Contractor shall comply with the provisions of Missouri law pertaining to the payment of wages on public works projects. As used herein, all totals shall include: (1) the value of work performed on the project by every person paid by a contractor or subcontractor for that person's work on the project; and (2) all materials and supplies purchased for the project. *See* R.S.Mo. §§ 290.210-.340.

11. **E-Verify.** If this Agreement is for an aggregate value in excess of $5,000.00, Contractor shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection to the contracted services. Contractor shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection to the Work. *See* R.S.Mo. § 285.530.

12. **Anti-Israel Discrimination.** Contractor certifies it is not currently engaged in and shall not, for the duration of this Agreement, engage in a boycott of goods or services from the State of Israel companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. *See* R.S.Mo. § 34.600.

13. **Indemnification by Contractor.** Contractor shall indemnify, save, and hold harmless the City, its employees, and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees incurred as a result of any act or omission by Contractor or its employees, agents, subcontractors, or assignees arising out of this Agreement.

14. **No Indemnification by City.** Nothing in this Agreement shall be construed to require the City to indemnify Contractor. Such indemnification is illegal under Missouri law. *See* Mo. A.G. Opinion 138-87 (1987).

15. **Sunshine Law.** All material submitted to the City will likely become public record and will be subject to the Missouri Sunshine Law, R.S.Mo. Chapter 610. Any material requested to be treated as proprietary or confidential must be clearly identified and easily separable from other materials. Contractor must include justification for the request. The City's obligation to comply with the Sunshine Law supersedes any request by Contractor that material be treated as proprietary or confidential.

16. **Ownership of Work Product.** All documents and other work product created by Contractor under this Agreement shall become the property of City once the invoice for the preparation of such document or work product has been paid.

17. **Termination.** The City reserves the right to terminate this Agreement without cause by giving 30 days' written notice to Contractor. City may terminate this Agreement upon written notice of any violation of this Agreement if such violation is not cured within 7 calendar days of such notice. City may immediately terminate this Agreement for any material violation or any violation which creates a risk to the health, safety, or welfare of any person or property.

18. **Notices.** All formal notices or other documents required by this Agreement shall be in writing and delivered personally or mailed by certified mail, postage prepaid, addressed to the parties at:

    <u>For City:</u>
    City Clerk
    1000 City Parkway
    Osage Beach, MO 65065

    <u>For Contractor:</u>

    City may also serve written notice to Contractor by personal delivery to any of its owners, officers, or employees.

19. **Necessary Documents.** The parties agree to execute and deliver without additional consideration such instruments and documents and to take such further actions as they may reasonably request in order to fulfill the intent of and give effect to this Agreement and the transactions contemplated thereby.

20. **Entire Agreement.** This Agreement supersedes all agreements previously made between the parties relating to its subject matter. There are no other understandings or agreements between them. Without limiting the foregoing, this Agreement expressly supersedes any click-through, browse-wrap, or any other terms related to the subject matter of this Agreement on any website or that otherwise may be presented to or required to be accepted by the City or its employees and contractors while exercising rights under this Agreement.

21. **Non-Waiver.** No delay or failure by either party to exercise any right under this Agreement, and no partial or single exercise of that right, shall constitute a waiver of that or any other right unless otherwise expressly provided herein.

22. **Headings.** Headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

23. **Governing Law; Venue for Disputes.** This Agreement was made in the State of Missouri and shall be interpreted under and governed by the laws of the State of Missouri. Any action arising out of this Agreement or its subject matter shall be filed in the Circuit Court for Camden County, Missouri or the Associate Division thereof and the parties hereby consent and agree to the exclusive personal and subject-matter jurisdiction of that Court.

24. **WAIVER OF RIGHT TO JURY TRIAL.** THE PARTIES HEREBY KNOWINGLY, INTENTIONALLY, VOLUNTARILY AND IRREVOCABLY WAIVE ANY RIGHT TO A TRIAL BY JURY IN ANY ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER DOCUMENT OR TRANSACTION CONTEMPLATED HEREBY OR THEREBY, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY.

25. **No Third-Party Beneficiaries.** Nothing in this Agreement, express or implied, is intended to confer upon any other person any rights or remedies under or by reason of this Agreement.

26. **Severability.** If any provision in this Agreement shall be found to be void, the other provisions of this Agreement shall survive and remain enforceable.

27. **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. A facsimile or electronic (such as .PDF) copy of this Agreement or a signature thereto shall have the same force and effect as an original.

28. **Binding Effect.** This Agreement, subject to the above conditions of assignment, shall be binding upon and inure to the benefit of all parties and their respective legal representatives, successors, heirs, and assigns.

Missouri
Division of Labor Standards
WAGE AND HOUR SECTION

MICHAEL L. PARSON, Governor

Annual Wage Order No. 31

Section 015
CAMDEN COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by
Todd Smith, Director
Division of Labor Standards

Filed With Secretary of State: **March 8, 2024**

Last Date Objections May Be Filed: **April 8, 2024**

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	$25.63*
Boilermaker	$25.63*
Bricklayer-Stone Mason	$25.63*
Carpenter	$52.74
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	$25.63*
Plasterer	
Communication Technician	$25.63*
Electrician (Inside Wireman)	$58.50
Electrician Outside Lineman	$25.63*
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	$25.63*
Glazier	$25.63*
Ironworker	$71.02
Laborer	$52.04
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	$25.63*
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	$60.68
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	$25.63*
Plumber	$67.99
Pipe Fitter	
Roofer	$25.63*
Sheet Metal Worker	$56.62
Sprinkler Fitter	$66.90
Truck Driver	$25.63*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.
**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in RSMo Section 290.210.

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	$25.63*
Millwright	
Pile Driver	
Electrician (Outside Lineman)	$25.63*
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	$49.46
General Laborer	
Skilled Laborer	
Operating Engineer	$57.94
Group I	
Group II	
Group III	
Group IV	
Truck Driver	$25.63*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

OVERTIME
and
HOLIDAYS

OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, **"overtime work"** shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

HOLIDAYS

January first;
The last Monday in May;
July fourth;
The first Monday in September;
November eleventh;
The fourth Thursday in November; and
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

- Camden County Road Property Tax Questions *(City Treasurer, K Bell/City Attorney, Cole Bradbury)*
    - Pending county audit report update.

- Guideline Evaluation
    - Design Guideline Revisions - Street Lights, Erosion Control, Water, and Sewer *(Asst. City Administrator, M Welty)*
        - Streetlights – Pending completion in coordination with the SS4A grant.
    - Incentive Guideline Revisions *(City Administrator)*
        - TBD.

- Personnel *(HR Generalist)*
    - Employee 360 Feedback Process
        - TBD.

- Project Updates / Related Budgeted Items Update
    - Sidewalk Master Plan *(Asst. City Administrator, M Welty)*
        - Pending completion in coordination with the SS4A grant.
    - Swiss Village Treatment Plan *(Public Works Department)*
        - Evaluation study complete; update to the Mayor and Board forthcoming in September 2024.
    - Tan Tar A Master Plan re: Infrastructure *(Asst. City Administrator, M Welty)*
        - FY2024 Budget partial inclusion as required by other factors; Project planning dependent on final contract reconciliation, currently in progress.
    - Tan Tar A Estates Utilities Current Contract Explanation / Rate / Funding Review *(City Attorney, C Bradbury / City Administrator)*
        - Remains in process/reconciling contract details; completion TBD.

City Staff contact noted in parenthesis.
- Notes estimated delivery/status.