CITY OF LAVON

STANDARD CONSTRUCTION DETAILS

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ADOPTED: MAY 2018

ORD. NO.: 2018-05-01

REVISION: 2019-12-01

REVISION:

REVISION:

GENERAL NOTES

1. ALL CONSTRUCTION, TESTING, AND MATERIALS SHALL BE IN ACCORDANCE WITH THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENT "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", LATEST EDITION, UNLESS OTHERWISE INCLUDED HEREIN. IN THE EVENT OF CONFLICT, THESE "CITY OF LAVON STANDARD CONSTRUCTION DETAILS" SHALL GOVERN.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS ELEVATIONS AND DIMENSIONS OF ADJACENT AND/OR CONFLICTING UTILITIES, GAS LINES, TELEPHONE LINES & CABLE TELEVISION. THE CONTRACTOR SHALL PRESERVE AND PROTECT UTILITIES AT ALL TIMES DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES RESULTING FROM CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. ALL DIGGING WILL BE BY HAND, UNLESS UTILITY COMPANY REPRESENTATIVE PERMITS OTHER METHODS.
3. CONTACT PRIOR TO CONSTRUCTION: (800) DIG-TESS AND THE OWNERS UTILITY DEPARTMENT FOR LOCATIONS AND DEPTHS OF EXISTING UTILITIES.
4. ALL WORK SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO APPROVAL OF THE CITY.
5. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES FOR NEW CONSTRUCTION AND DEMOLITION AS INTERPRETED BY THE GOVERNING AUTHORITIES HAVING JURISDICTION IF THE STANDARDS AND CODES CONFLICT WITH ONE ANOTHER, THE MOST STRINGENT SHALL APPLY.
6. TESTING AND INSPECTION OF MATERIALS SHALL BE PERFORMED BY A COMMERCIAL TESTING LABORATORY APPROVED BY THE CITY. CONTRACTOR SHALL FURNISH MATERIALS OR SPECIMENS FOR TESTING, AND SHALL FURNISH SUITABLE EVIDENCE THAT THE MATERIALS PROPOSED TO BE INCORPORATED INTO THE WORK ARE IN ACCORDANCE WITH THE SPECIFICATIONS.
7. CONTRACTOR SHALL NOTIFY THE CITY AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS PRIOR TO BEGINNING ANY CONSTRUCTION.
9. CONTRACTOR MUST KEEP AVAILABLE ONSITE, AT ALL TIMES, APPROVED CONSTRUCTION PLANS AND COPIES OF ANY REQUIRED PERMITS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL SURVEY MARKERS INCLUDING IRON RODS, PROPERTY CORNERS, OR SURVEY MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION AND OUTSIDE ROW DURING CONSTRUCTION. ANY SURVEY MARKERS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
11. CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS AND DRIVEWAYS ADJACENT TO THE PROJECT FREE OF MUD AND DEBRIS AT ALL TIMES. CONTRACTOR SHALL CLEAN UP AND REMOVE ALL LOOSE MATERIAL RESULTING FROM CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES OR ADJACENT PROPERTIES DURING CONSTRUCTION. ANY REMOVAL OR DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED OR REPAIRED TO EQUAL OR BETTER CONDITION BY THE CONTRACTOR.
13. CONTRACTOR SHALL NOT STORE MATERIALS, EQUIPMENT OR OTHER CONSTRUCTION ITEMS ON ADJACENT PROPERTIES OR RIGHT-OF-WAY WITHOUT THE PRIOR WRITTEN CONSENT OF THE PROPERTY OWNER AND THE CITY.
14. TEMPORARY FENCING SHALL BE INSTALLED PRIOR TO THE REMOVAL OF EXISTING FENCING. TEMPORARY FENCING SHALL BE REMOVED AFTER PROPOSED FENCING IS APPROVED BY THE CITY. ALL TEMPORARY AND PROPOSED FENCING LOCATIONS SHALL BE SUBJECT TO FIELD REVISIONS AS DIRECTED BY THE CITY.
15. UNUSABLE EXCAVATED MATERIAL, OR CONSTRUCTION DEBRIS SHALL BE REMOVED AND DISPOSED OF OFFSITE AT AN APPROVED DISPOSAL FACILITY BY THE CONTRACTOR AT HIS EXPENSE.
16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A NEAT AND ACCURATE RECORD OF CONSTRUCTION FOR THE CITY'S RECORDS.
17. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE PROJECT SITE AT THE CONTRACTOR'S EXPENSE. DO NOT USE CITY'S OR OTHER CONTRACTOR'S DUMPSTER'S FOR TRASH.
18. CONTRACTOR SHALL APPLY FOR AND PAY FOR PERMITS REQUIRED FOR WORK.
19. CONTRACTOR TO MAINTAIN ROAD INTEGRITY DURING CONSTRUCTION TO ALLOW FOR PUBLIC ACCESS. UPON COMPLETION OF PROJECT, ROAD SHALL BE IN EQUAL TO OR BETTER CONDITION THAN EXISTING.
20. ALL COSTS FOR REPAIR OF DAMAGE TO THE CITY'S PIPELINES, EQUIPMENT AND/OR FACILITIES RESULTING FROM CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
21. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING EXCESS AND WASTE MATERIAL, INCLUDING METHODS OF HANDLING AND DISPOSAL.
22. CONTRACTOR SHALL LOCATE MATERIAL STORAGE AREAS AWAY FROM STORMWATER CONVEYANCE SYSTEMS. PROVIDE PROTECTED STORAGE AREAS FOR FUEL, CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER POTENTIALLY TOXIC MATERIALS.
23. THE CONTRACTOR SHALL ADVISE CITY IMMEDIATELY, VERBALLY AND IN WRITING, OF ANY FUEL OR TOXIC MATERIALS SPILLS WITHIN THE PROJECT/CONSTRUCTION AREA AND THE ACTIONS TO BE TAKEN TO REMEDY THE PROBLEM.
24. THE CONTRACTOR SHALL DISPOSE OF FUELS, HAZARDOUS MATERIALS, AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
25. NO OPEN BURNING IS ALLOWED.
26. THE CONTRACTOR SHALL PROVIDE EROSION CONTROL IN CONSTRUCTION AREA AS REQUIRED.
27. ALL TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA) AND THE STANDARDS THEREIN AND APPLICABLE STATE AND LOCAL REGULATIONS.
28. CONSTRUCTION MAY NOT BEGIN EARLIER THAN 7:00 A.M. ON WEEKDAYS NOR CONTINUE AFTER 8 P.M. WITHOUT PERMISSION FROM THE CITY OF LAVON. CONSTRUCTION ON SATURDAY MAY NOT BEGIN BEFORE 8:00 A.M., AND WORK ON SUNDAY IS PROHIBITED WITHOUT SPECIAL PERMISSION.
29. MATERIAL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY APPROVED AND PAID FOR BY CONTRACTOR.
30. TEMPORARY EROSION CONTROL SHALL BE USED TO MINIMIZE THE SPREAD OF SILT AND MUD FROM THE PROJECT ONTO ADJACENT ROADS, DRAINAGE WAYS AND OTHER PROPERTY. TEMPORARY EROSION CONTROLS MAY INCLUDE BERMS, DIKES, SWALES, STRIPS OF UNDISTURBED VEGETATION, CHECK DAMS AND OTHER METHODS AS APPROVED BY THE CITY. STRAW BALES ARE NOT PERMITTED.
31. FINISHED SLOPES SHALL NOT BE STEEPER THAN 4:1 UNLESS OTHERWISE NOTED.
32. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY HARMLESS FROM ANY AND ALL LIABILITY. REAL OR ALLEGED, IN CONNECTION WITH THE CONTRACTORS PERFORMANCE OF WORK ON THIS PROJECT.
33. ALL WORK SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS(DRAWINGS, SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SUBMITTAL, ETC.) AS APPROVED BY THE CITY. THE CONTRACTOR SHALL HAVE THE LATEST UPDATED VERSION OF THE ABOVE NAMED DOCUMENTS AT THE WORK SITE AT ALL TIMES.
34. CONTRACTOR SHALL SECURE EXCAVATION AT THE END OF EACH DAY.
35. CONTRACTOR SHALL SECURE MATERIALS ON HAND, EQUIPMENT, TOOLS AND ALL OTHER ITEMS ON THE PROJECT. THE CITY SHALL NOT BE RESPONSIBLE FOR DAMAGE OR THEFT OF THESE ITEMS.

WASTEWATER GENERAL NOTES

1. ALL SANITARY SEWER PIPE, 4" TO 15", SHALL BE PVC, ASTM D3034, SDR 26.
2. ALL SANITARY SEWER PIPE, 18" - 24", SHALL BE PVC, ASTM F679, SDR 26.
3. ALL SANITARY SEWER PIPE, GREATER THAN 24" SHALL BE DETERMINED ON A CASE BY CASE BASIS.
4. ALL MANHOLES, CAST-IN-PLACE OR PRECAST, SHALL BE WATERTIGHT. PIPE PENETRATIONS SHALL HAVE WATERTIGHT CONNECTION AS SHOWN ON THE STANDARD DRAWINGS. ALL NEW CONCRETE MANHOLES AND OTHER WASTEWATER STRUCTURES SHALL INCLUDE AN ADDITIVE TO PROTECT AGAINST MICROBIOLOGICAL INDUCED CORROSION IN HYDROGEN SULFIDE ENVIRONMENTS (CONmicSHIELD® OR EQUAL). FOR EXISTING MANHOLES AND WASTEWATER STRUCTURES, A 100% SOLIDS EPOXY POLYMER PROTECTIVE LINING SHALL BE APPLIED. LINING SHALL BE SPECIFICALLY MANUFACTURED AS A LINING FOR MANHOLES AND WASTEWATER STRUCTURES. LINING SHALL BE MIN 125 MIL DFT
5. USE OF POLYMER CONCRETE MANHOLES SHALL BE DETERMINED ON A CASE-BY-CASE BASIS.
6. ALL MANHOLES TO BE VACUUM TESTED IN ACCORDANCE WITH TCEQ REQUIREMENTS UPON COMPLETION AND BACKFILLING. ALL PIPELINES TO BE MANDREL AND LOW PRESSURE AIR TESTED IN ACCORDANCE WITH TCEQ REQUIREMENTS.
7. ALL PIPELINES SHALL BE COLOR TV INSPECTED PRIOR TO ACCEPTANCE. A COPY OF THE INSPECTION REPORT, INCLUDING ALL VIDEO, SHALL BE PROVIDED TO THE CITY PRIOR TO ACCEPTANCE. TV INSPECTION SHALL BE PERFORMED IN THE PRESENCE OF THE CITY INSPECTOR. ALL WASTEWATER SERVICE LINES SHALL BE TV INSPECTED AFTER INSTALLATION OF DRY UTILITIES. AN ADDITIONAL TV INSPECTION SHALL BE PERFORMED PRIOR TO THE END OF THE 2-YEAR MAINTENANCE PERIOD.
8. CRUSHED CONCRETE IS NOT ALLOWED FOR EMBEDMENT OR BACKFILL.
9. WORK MAY NOT BE BACKFILLED OR COVERED UNTIL THE CITY HAS INSPECTED IT.
10. NO FLYASH SHALL BE USED WITHIN ANY WASTEWATER STRUCTURE.
11. A 2-WAY OR DOUBLE CLEANOUT SHALL BE LOCATED AT THE PROPERTY LINE FOR ALL SERVICES.
12. ALL INSPECTIONS ARE TO BE WITNESSED BY CITY PERSONNEL.
13. BACKFILL SHALL BE 8" LIFTS. TESTING OF COMPACTION IN TRENCHES SHALL BE PERFORMED FOR EVERY 250 LINEAR FEET AND FOR STRUCTURES EVERY 1,000 CUBIC YARDS AT LOCATIONS SPECIFIED BY THE CITY INSPECTOR. ADDITIONAL TESTING MAY BE REQUIRED IF COMPACTION DOES NOT MEET MINIMUM REQUIREMENTS.
14. PRIOR TO ACCEPTANCE OF A WASTEWATER SYSTEM OR FACILITY, ALL PIPELINES AND STRUCTURES ARE TO BE CLEANED OF ALL DEBRIS, SILT, SEDIMENT, TRASH, ETC.
15. ALL MANHOLES WITHIN FLOODPLAIN SHALL BE SEALED AND TOP MANHOLE ELEVATION SHALL BE 24" ABOVE NATURAL GROUND. 60" FIBERGLASS MANHOLE MARKERS (2) SHALL BE PLACED ON EITHER SIDE OF MANHOLE.

DRAINAGE GENERAL NOTES

1. ALL STORM SEWER SHALL BE MINIMUM CLASS III RCP.
2. HDPE STROM SEWER MAY BE ALLOWED ON A CASE BY CASE BASIS. HDPE STORM SEWER SHALL MEET ASTM F2306 REQUIREMENTS WITH WATERTIGHT JOINTS WITH SMOOTH WALL INTERIOR.
3. STORM SEWER PIPES SHALL BE A MINIMUM 18" DIAMETER.
4. DRIVEWAY CULVERTS SHALL BE MINIMUM 18" DIAMETER CLASS III RCP PIPE. DRIVEWAY CULVERTS STREETS SHALL HAVE SAFETY END TREATMENTS (SET) HEADWALLS PER THE STANDARD CONSTRUCTION DETAILS.
5. ALL CAST-IN-PLACE CONCRETE SHALL BE MINIMUM 4000 PSI (28 DAY), 6.5 SACK, UNLESS OTHERWISE SPECIFIED.
6. CRUSHED CONCRETE IS NOT ALLOWED FOR EMBEDMENT OR BACKFILL FOR HDPE PIPE. CRUSHED CONCRETE IS ACCEPTABLE FOR RCP.
7. PILOT CHANNEL FOR COUNTRY LANES SHALL BE 3600 PSI CONCRETE, 6" THICK W/#3 BARS @ 18" O.C.E.W.
8. A "NO DUMPING - DRAINS TO CREEK" MARKER SHALL BE INSTALLED ON ALL INLETS. THE MARKER SHALL BE A MINIMUM 4" DIAMETER, ALUMINUM MARKER.
9. NO FLYASH SHALL BE USED WITHIN ANY DRAINAGE STRUCTURE.
10. ALL OPEN DITCHES SHALL HAVE A MAXIMUM 3:1 SIDE SLOPE.
13. BACKFILL SHALL BE 8" LIFTS. TESTING OF COMPACTION IN TRENCHES SHALL BE PERFORMED FOR EVERY 250 LINEAR FEET AND FOR STRUCTURES EVERY 1,000 CUBIC YARDS AT LOCATIONS SPECIFIED BY THE CITY INSPECTOR. ADDITIONAL TESTING MAY BE REQUIRED IF COMPACTION DOES NOT MEET MINIMUM REQUIREMENTS.
14. PRIOR TO ACCEPTANCE OF A DRAINAGE SYSTEM, ALL PIPELINES , STRUCTURES AND DITCHES ARE TO BE CLEANED OF ALL DEBRIS, SILT, SEDIMENT, TRASH, ETC.

PAVING GENERAL NOTES

1. ALL PAVEMENT (STREETS, PARKING, FIRE LANE) SHALL BE MINIMUM 3600 PSI (28 DAY), 6 SACK CONCRETE FOR MACHINE POUR AND 6.5 SACK FOR HAND POUR ALL ALLEY PAVING TO BE MINIMUM 4000 PSI (28 DAY), 6.5 SACK CONCRETE.
2. ALL SIDEWALKS SHALL BE A MINIMUM 3000 PSI (28 DAY) CONCRETE. SIDEWALK'S SHALL BE A MINIMUM 4" THICK W/#3 BARS @ 24" O.C.E.W.
3. ALL REINFORCING STEEL SHALL BE TIED AND PLACED UPON PLASTIC CHAIRS. BAR LAPS SHALL BE A MINIMUM 30 DIAMETERS. STEEL PLACEMENT SHALL OCCUR AFTER ACCEPTANCE OF THE SUBGRADE PREPARATION.
4. FLY ASH MAY BE USED FOR CONCRETE PAVEMENT INSTALLED BY MACHINE POUR. FLY ASH SHALL NOT EXCEED 20% BY WEIGHT PER CUBIC YARD OF CONCRETE.
5. ALL FILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND MECHANICALLY COMPACTED. DENSITY TESTS SHALL BE PERFORMED ON EACH LIFT EVERY 1000 LINEAR FEET OR AS DIRECTED BY THE CITY INSPECTOR. COPIES OF DENSITY TESTS SHALL BE PROVIDED TO THE CITY.
6. ALL EXISTING PAVEMENT SHALL BE SAWCUT PRIOR TO CONNECTION TO NEW PAVEMENT (STREET, DRIVEWAYS, ETC.).
7. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS PRIOR AUTHORIZATION FOR CLOSURE, DETOUR, ETC. IS RECEIVED FROM THE CITY.
8. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SIDEWALKS MEET OR EXCEED THE CURRENT AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) AND THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE CONTRACTOR SHALL REMOVE AND REPLACE ANY CONSTRUCTED OR INSTALLED ITEMS NOT MEETING THE CURRENT ADAAG AND TAS REQUIREMENTS.
9. A GEOTECHNICAL INVESTIGATION IS REQUIRED FOR ALL PAVEMENT AREAS. THE GEOTECHNICAL INVESTIGATION SHOULD INCLUDE, BUT NOT BE LIMITED TO, LIME SERIES, SUBGRADE COMPACTION/MOISTURE REQUIREMENTS AND PAVEMENT SECTION RECOMMENDATION. LIME STABILIZATION, DENSITY AND MOISTURE LEVELS TO BE BASED UPON RESULTS OF GEOTECHNICAL INVESTIGATION. CITY STANDARDS SHOULD BE CONSIDERED A MINIMUM REQUIREMENT.
10. LIME STABILIZATION SHALL BE MINIMUM 6%. IN LIEU OF LIME STABILIZATION, ADDITIONAL CONCRETE THICKNESS IS ALLOWED IF RECOMMENDED IN THE GEOTECHNICAL INVESTIGATION. ANY ADDITIONAL THICKNESS SHALL BE ADDED TO THE MINIMUM PAVEMENT THICKNESS HEREIN OR THE PAVEMENT SECTION IN THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER. ANY ADDITIONAL THICKNESS SHALL BE NO LESS THAN 1".
11. PAVEMENT SUBGRADE SHALL BE TESTED EVERY 300 LINEAR FEET OR 250 SQUARE YARDS OF PAVEMENT AREA AT LOCATIONS SPECIFIED BY THE CITY INSPECTOR. MORE FREQUENT TESTING MAY BE REQUIRED IF TESTING SHOWS SUBGRADE DOES NOT MEET SPECIFICATIONS. TESTING SHALL INCLUDE MOISTURE, THICKNESS, FIELD DENSITY AND GRADATION .
12. ALL TESTING SHALL BE WITNESSED BY CITY PERSONNEL.

EROSION CONTROL GENERAL NOTES

1. ALL EROSION CONTROL MEASURES TO REMAIN IN PLACE AND BE MAINTAINED UNTIL A MINIMUM OF 75% GRASS COVERAGE IS ACHIEVED.
2. EROSION CONTROL SHALL BE INSTALLED TO PREVENT SOIL/SILT FROM WASHING ONTO AND ACCUMULATING ON PAVED AREAS.
3. SWPPP IS THE RESPONSIBILITY OF THE CONTRACTOR. THIS INCLUDES ALL REPORTING AND MAINTENANCE OF THE EROSION CONTROL MEASURES.
4. MAINTENANCE SHALL INCLUDE:
   - 4.1. ROUTINE MAINTENANCE:
     - 4.1.1. VEGETATION MANAGEMENT
     - 4.1.2. DEBRIS REMOVAL
     - 4.1.3. MECHANICAL EQUIPMENT CHECK
   - 4.2. NON-ROUTINE MAINTENANCE:
     - 4.2.1. BANK STABILIZATION
     - 4.2.2. SEDIMENT REMOVAL
     - 4.2.3. STRUCTURAL REPAIR AND REPLACEMENT
   - 4.3. TESTING AND DISPOSAL OF SEDIMENTS; AND
   - 4.4. ALL SPECIFICATIONS AND MAINTENANCE REQUIREMENTS OF PROPRIETARY DEVICES.

CITY OF LAVON
COLLIN COUNTY, TEXAS

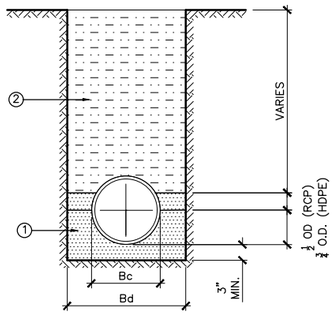
CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

GENERAL NOTES

SCALE: NO SCALE

ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:
0 1"
ORIGINAL SCALE

SHEET
DS-G1



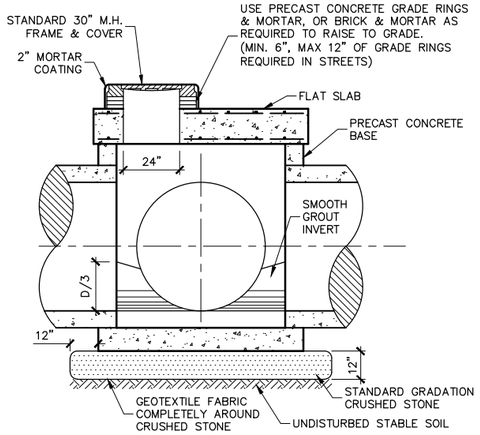
① STANDARD GRADATION CRUSHED STONE – BOTTOM LAYER IS TO BE PLACED TO GRADE TO PROVIDE UNIFORM SUPPORT OF PIPE BARREL. EXCAVATE BELL HOLES.

② SELECT MATERIAL FREE OF ROCKS, CLUMPS OR DEBRIS LARGER THAN 6" IN GREATEST DIMENSION. COMPACT TO 90% STANDARD PROCTOR DENSITY. UNDER STRUCTURES, ROADWAYS AND PAVEMENT, COMPACT TO 95% STANDARD PROCTOR DENSITY.* SAND IS NOT ACCEPTABLE.
*UNDER STREETS & ALLEYS MATERIAL NO.② SHALL BE CRUSHED CONCRETE AT STANDARD GRADATION.

TRENCH WIDTH FOR R.C.P. WALL 'B'

NOMINAL PIPE DIAMETER (INCHES)	EXTERNAL DIAMETER (Bc) (INCHES)	TRENCH WIDTH (Bd) (INCHES)	TRENCH WIDTH (Bd) (FEET)
18	23.0	39	3.25
21	26.5	42	3.5
24	30.0	48	4.00
27	33.5	51	4.25
30	37.0	54	4.50
33	40.5	57	4.75
36	44.0	63	5.25
39	47.5	66	5.50
42	51.0	69	5.75
45	54.5	72	6.00
48	58.0	78	6.50
51	61.5	81	6.75
54	65.0	84	7.00
60	72.0	93	7.75
66	79.0	99	8.25
72	86.0	108	9.00

① R.C.P. STORM SEWER EMBEDMENT
NO SCALE



NOTES:

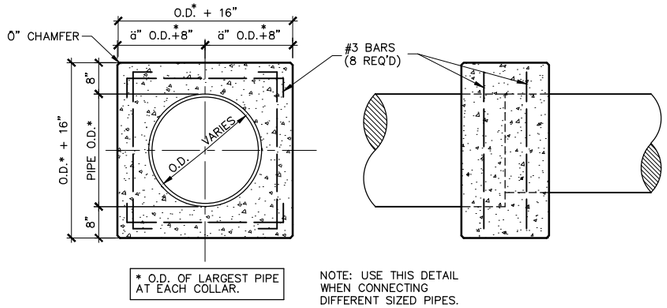
ALL PRECAST SECTIONS SHALL MEET OR EXCEED ASTM C-478. POURED-IN-PLACE TO BE 4000 PSI, 6.5 SACK CONCRETE.

MANHOLE NOMINAL SIZE SHALL BE 1.5 TIMES THE LARGEST PIPE DIAMETER FOR STRAIGHT THROUGH MANHOLES AND SHALL BE 2.0 TIMES THE LARGEST PIPE DIAMETER FOR TEE OR ANGLE MANHOLES. MINIMUM DIAMETER SHALL BE 48".

MANHOLE FRAME AND COVERS SHALL BE CAST IRON BASS & HAYS PATTERN NO. 400-24 OR EQUAL. DO NOT USE SANITARY SEWER MANHOLE COVERS.

GROUT INVERTS OF THE MANHOLE TO DRAIN. GROUT SHALL EXTEND UP ON THE WALL OF THE MANHOLE AT LEAST 1/3 THE DIAMETER OF THE STORM SEWER PIPE.

② STANDARD STORM SEWER MANHOLE
NO SCALE

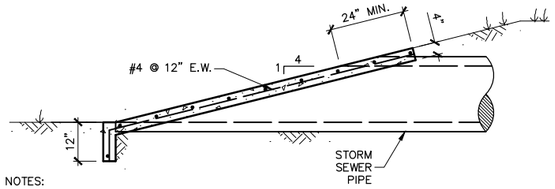


* O.D. OF LARGEST PIPE AT EACH COLLAR.

NOTE: USE THIS DETAIL WHEN CONNECTING DIFFERENT SIZED PIPES.

CONCRETE SHALL BE MIN. 4000 PSI, 6.5 SACK

③ CONCRETE COLLAR DETAIL
NO SCALE

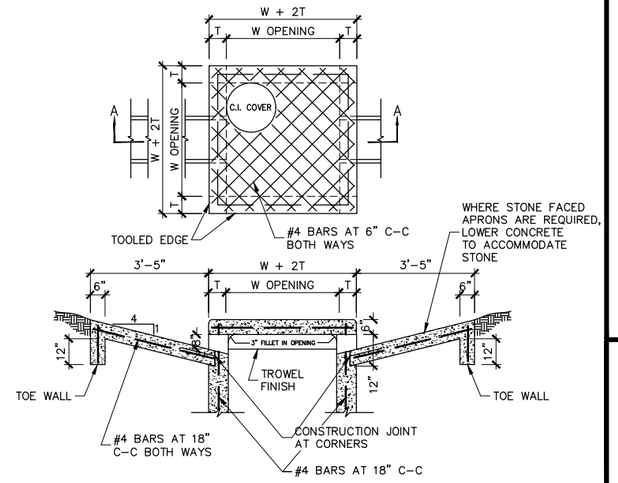


NOTES:

1. WIDTH OF HEADWALL IS EQUAL TO PIPE O.D. + 24".
2. SAWCUT 4:1 BEVEL ON PIPE.
3. PIPE RUNNER REQUIREMENTS SHALL CONFORM TO TXDOT STANDARD DRAWING SETP-CD

④ HEADWALL DETAIL
NO SCALE

NOTE:
WHEN ROCK RIPRAP IS USED FOR EROSION CONTROL, RIPRAP SHALL BE GROUTED WITH CLASS B CONCRETE. ROCKS SHALL PROJECT ⅓ TO ⅔ THEIR DIAMETER ABOVE THE GROUT SURFACE.

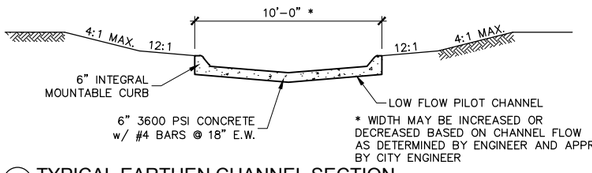


NOTE: TOE WALLS TO BE 12" IN DEPTH AND 6" IN WIDTH WITH REINFORCING BARS.

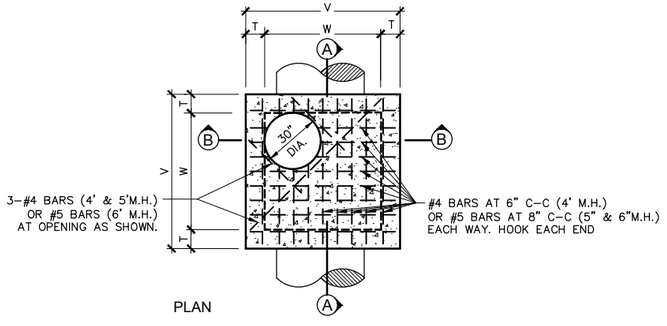
INLET SIZE	T	W
2' SQUARE	7"	2'-0"
3' SQUARE	7"	3'-0"
4' SQUARE	7"	4'-0"

1. MATERIAL AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR STANDARD CONCRETE MANHOLES.
2. LAYERS OF REINFORCED STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACES SHALL HAVE A COVER OF 2", UNLESS OTHERWISE NOTED.
3. DECK MAY BE REINFORCED SAME AS STANDARD SQUARE STORM DRAIN MANHOLE.
4. CAST IRON FRAME AND COVER – BASS AND HAYES PATTERN NO. 184L, OR APPROVED EQUAL.

⑤ "Y" INLET DETAIL
NO SCALE

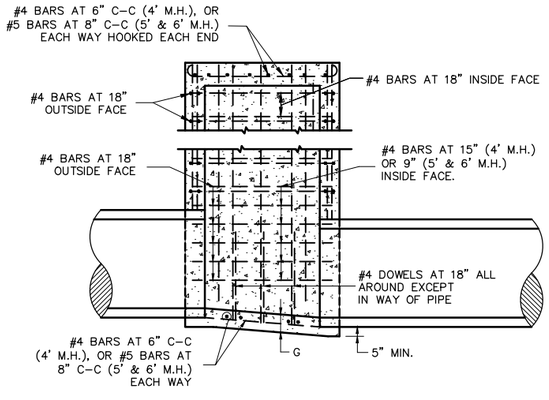


⑥ TYPICAL EARTHEN CHANNEL SECTION
NO SCALE

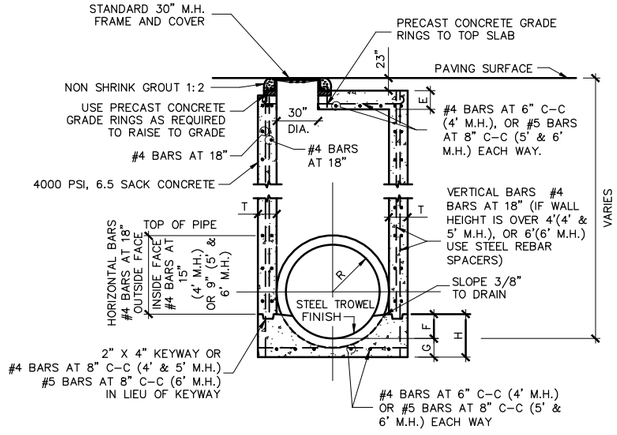


M.H. SIZE(W)	V	T	E	F	G	H
4'	5'-4"	8"	6"	9"	6"	1'-3"
5'	6'-4"	8"	6"	12"	8"	1'-8"
6'	7'-6"	9"	9"	16"	10"	2'-2"

TABLE OF DIMENSIONS



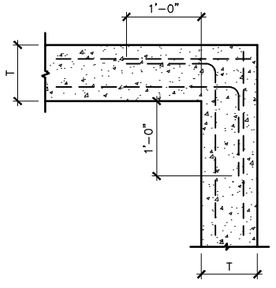
SECTION A-A



SECTION B-B

NOTES:

1. SLOPE INVERT OF MANHOLE AS INDICATED ON PLAN-PROFILE SHEET.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACE SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. CONCRETE SHALL BE MINIMUM 4000 PSI, 6.5 SACK.



⑦ STORMWATER MANHOLE 4', 5', OR 6' SQUARE
NO SCALE

⑧ CORNER DETAIL, PLAN VIEW
NO SCALE

CITY OF LAVON
COLLIN COUNTY, TEXAS

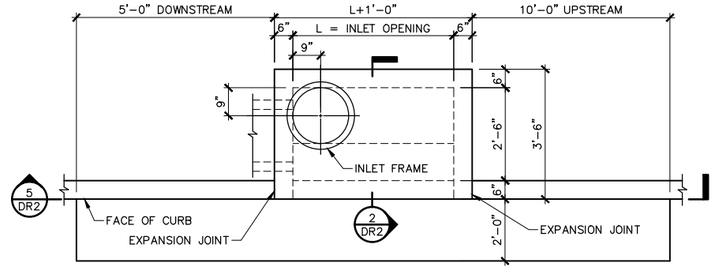
CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

STORM SEWER DETAILS

SCALE: NO SCALE

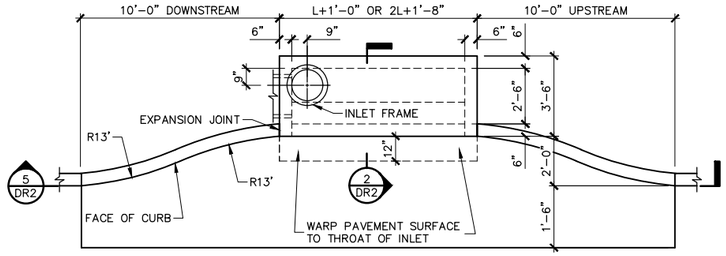
ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:
0 1"
ORIGINAL SCALE

SHEET
DS-DR1

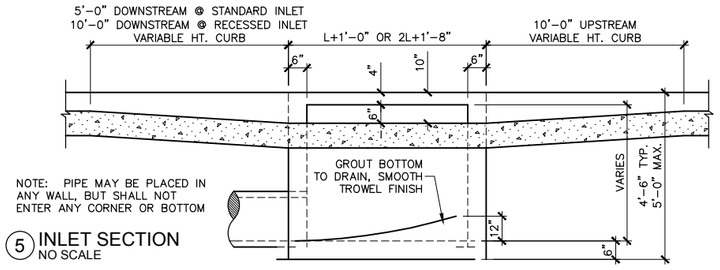


1 PLAN - STANDARD INLET
NO SCALE

NOTE: PIPES SHALL CONNECT TO THE ENDS OR SIDES OF INLETS. CONNECTION SHALL NOT BE MADE AT CORNER OR BOTTOM.

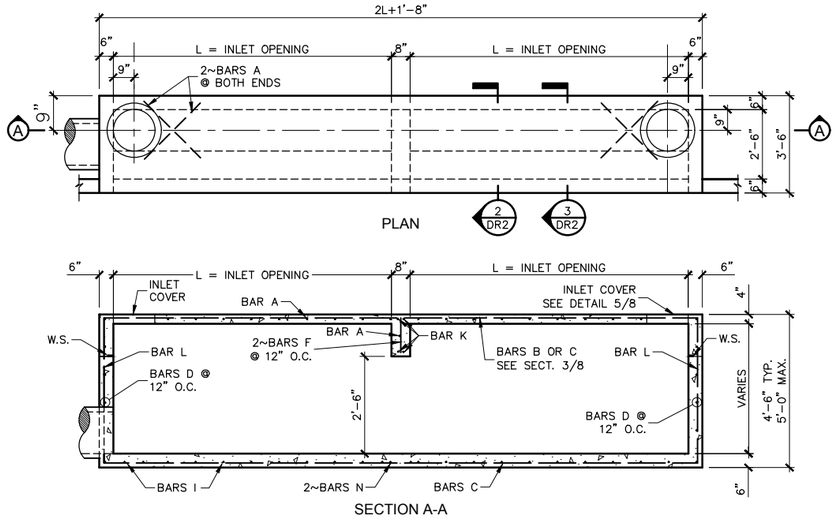


3 PLAN - RECESSED INLET
NO SCALE



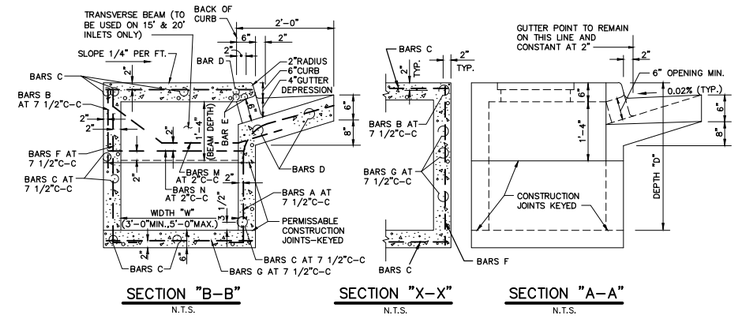
NOTE: PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER OR BOTTOM

5 INLET SECTION
NO SCALE



6 DOUBLE INLET DETAILS
NO SCALE

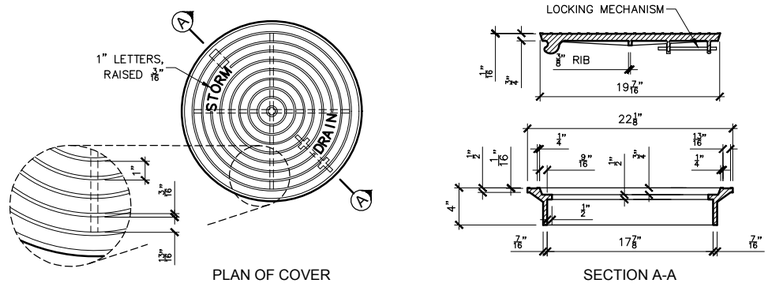
NOTE: DETAIL SHOWN IS FOR INLETS LARGER THAN 10' IN WIDTH. FOR INLETS 10' IN WIDTH AND LESS, DELETE CENTER ROOF BEAM AND ONE INLET COVER.



GENERAL NOTES:

1. CURB INLETS SHALL CONFORM TO NCTCOG DETAIL 6020B, LATEST EDITION. REFERENCE IS MADE TO NCTCOG STANDARD DRAWINGS 6020A, 6020C AND 6020D.
2. ALL CONCRETE SHALL BE CLASS "A" CONCRETE.
3. REINFORCING BARS SHALL BE STANDARD GRADE STEEL, DEFORMED REINFORCING BARS OF A DIAMETER AND LENGTH AS SHOWN.
4. CHAMFER ALL EXPOSED CORNERS 3/4" EXCEPT WHERE OTHERWISE NOTED.
5. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
6. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM SEWER PIPE

2 INLET SECTION
NO SCALE



4 INLET FRAME AND COVER
NO SCALE

REINFORCING STEEL SCHEDULE

STANDARD & RECESSED INLETS

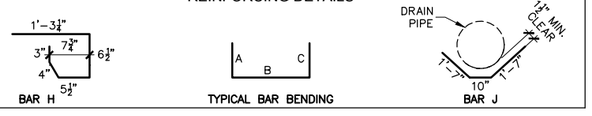
INLET LENGTH L	BAR TYPE	BAR DIA. (1/8")	NO. REQD.	BAR DIMENSIONS A	B	C
6 FT.	A	3	9	3'-2"	1'-6"	---
	B	4	4	6'-8"	---	---
	C	4	5	6'-8"	0'-6"	0'-6"
	D	4	5	4'-8"	---	---
	F	4	1	3'-2"	---	---
	G	3	5	2'-0"	1'-3"	---
	H	3	3	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
8 FT.	A	3	12	3'-2"	1'-6"	---
	B	4	4	8'-8"	---	---
	C	4	5	8'-8"	0'-6"	0'-6"
	D	4	5	4'-8"	---	---
	F	4	1	3'-2"	---	---
	G	3	5	2'-0"	1'-3"	---
	H	3	4	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
10 FT.	A	3	10	3'-2"	1'-6"	---
	B	4	5	10'-8"	---	---
	C	4	6	10'-8"	0'-6"	0'-6"
	D	4	4	4'-8"	---	---
	E	5	6	10'-8"	---	---
	G	3	5	2'-0"	1'-3"	---
	H	3	15	*	*	*
	I	4	8	4'-8"	3'-2"	3'-2"
	L	4	5	4'-3"	---	---

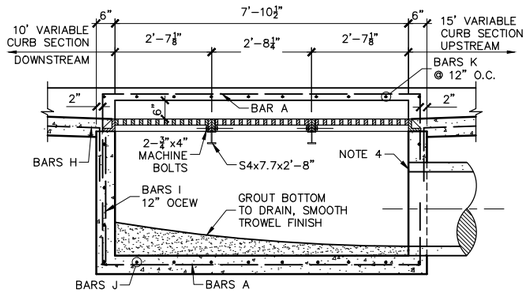
* SEE DIAGRAM FOR DIMENSIONS
NOTE: DIMENSIONS ARE FOR MAXIMUM SIZE INLETS.

DOUBLE INLETS

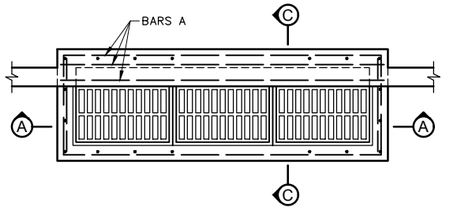
INLET LENGTH L	BAR TYPE	BAR DIA. (1/8")	NO. REQD.	BAR DIMENSIONS A	B	C
8 FT.	A	3	19	3'-2"	1'-6"	---
	B	4	4	17'-4"	---	---
	C	4	5	17'-4"	0'-6"	0'-6"
	D	4	9	4'-8"	---	---
	E	5	6	17'-4"	---	---
	F	4	5	1'-2"	---	---
	G	3	12	2'-0"	1'-3"	---
	H	3	26	*	*	*
	I	4	16	4'-8"	3'-2"	3'-2"
	J	5	1	*	*	*
	K	5	6	3'-2"	0'-6"	---
	L	4	11	3'-2"	0'-6"	---
	M	4	2	3'-0"	---	---
	N	4	2	4'-8"	3'-2"	4'-8"
10 FT.	A	3	23	3'-2"	1'-6"	---
	B	4	5	21'-4"	---	---
	C	4	6	21'-4"	0'-6"	0'-6"
	D	4	9	4'-8"	---	---
	E	5	6	21'-4"	---	---
	F	4	5	1'-2"	---	---
	G	3	15	2'-0"	1'-3"	---
	H	3	32	*	*	*
	I	4	20	4'-8"	3'-2"	3'-2"
	J	5	1	*	*	*
	K	5	6	3'-2"	0'-6"	---
	L	4	11	3'-2"	0'-6"	---
	M	4	2	3'-0"	---	---
	N	4	2	4'-8"	3'-2"	4'-8"

REINFORCING DETAILS

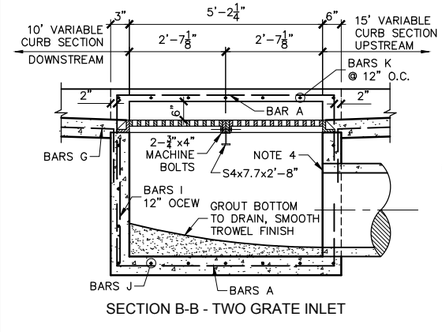




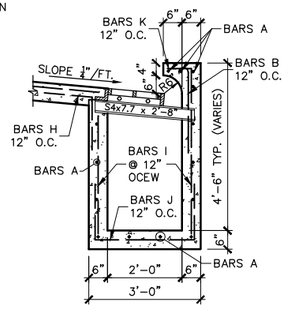
SECTION A-A - THREE GRATE INLET



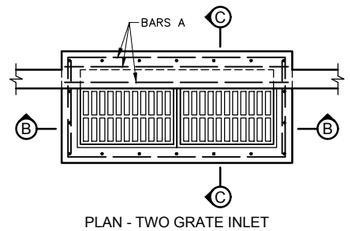
PLAN - THREE GRATE INLET



SECTION B-B - TWO GRATE INLET



SECTION C-C

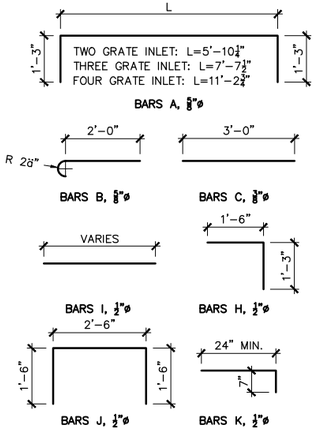


PLAN - TWO GRATE INLET

NOTES:

1. COMBINATION GRATE INLETS MAY BE USED ONLY IN ALLEYS.
2. ALL LAPS AND EXTENSIONS OF REINFORCING BARS SHALL BE 36 BAR DIAMETERS UNLESS OTHERWISE NOTED.
3. TACK WELD GRATES IN PLACE.
4. PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER BOTTOM, OR ANY CORNER.
5. GRATE AND FRAME SHALL BE PATTERN NO. 814 AS MANUFACTURED BY BASS & HAYES FOUNDRY, INC. OR APPROVED EQUAL.
6. FOUR GRATE INLET SHALL BE CONSTRUCTED BY ADDING AN ADDITIOINAL CENTER SECTION TO THE THREE GRATE INLET.

8 COMBINATION GRATE INLETS
1/2"=1'-0"



CITY OF LAVON
COLLIN COUNTY, TEXAS

CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

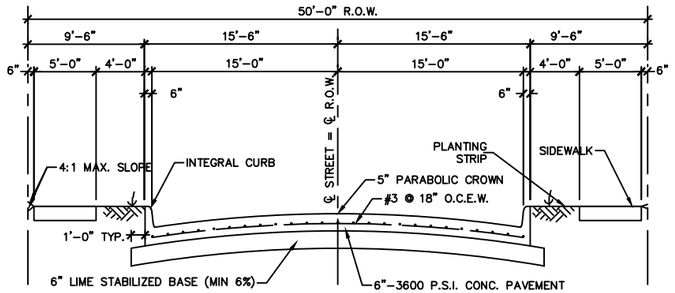
STORM SEWER DETAILS

SCALE: NO SCALE

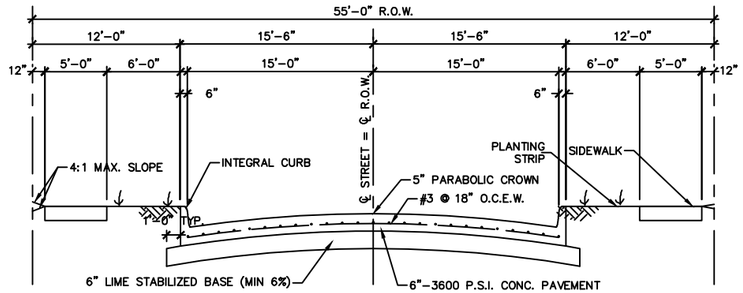
ADOPTED:	MAY 2018
ORD. NO.:	2018-05-01
REVISION:	2019-12-01
REVISION:	
REVISION:	

0 1"
ORIGINAL SCALE

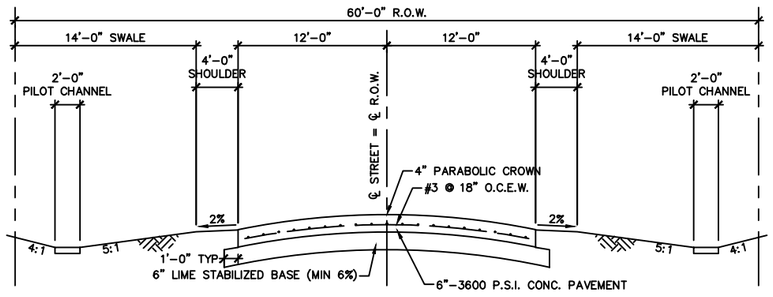
SHEET
DS-DR2



1 TYPICAL SECTION - LOCAL 31' STREET (50' ROW)
NO SCALE

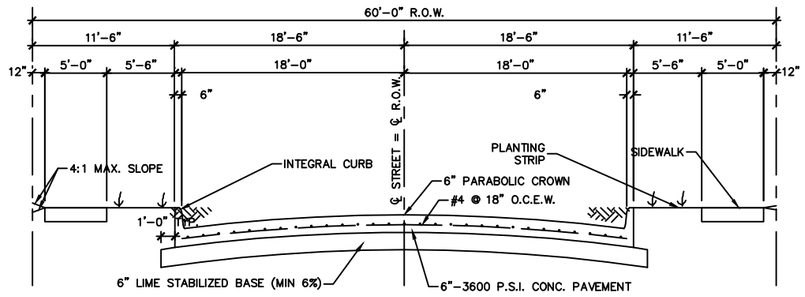


2 TYPICAL SECTION - LOCAL 31' STREET (55' ROW)
NO SCALE

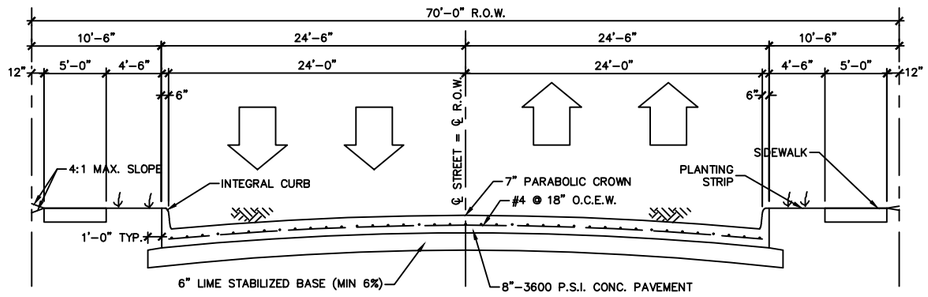


3 TYPICAL SECTION - COUNTRY LANE
NO SCALE

NOTE: WHERE THIS SECTION IS USED AS A COLLECTOR STREET, PAVEMENT THICKNESS SHALL BE 8" AND REINFORCING STEEL SHALL BE #4 @ 18" O.C.E.W.



4 TYPICAL SECTION - MINOR COLLECTOR (C2U)
NO SCALE



5 TYPICAL SECTION - MAJOR COLLECTOR (C4U)
NO SCALE

NOTES:

1. LIME STABILIZED BASE SHALL BE APPLICABLE TO ALL SUBGRADES WITH A PI OF 15 OR HIGHER. LIME STABILIZED SUBGRADE SHALL HAVE A MINIMUM LIME CONTENT OF 6% (27 LBS/SY). SUBGRADE DESIGN SHALL BE DETERMINED BY A LICENSED GEOTECHNICAL ENGINEER.

2. FLY ASH MAY BE USED FOR CONCRETE PAVEMENT. FLY ASH CANNOT EXCEED 20% BY WEIGHT PER CUBIC YARD OF CONCRETE.

3. CEMENT CONTENT FOR STREETS SHALL BE A MINIMUM OF 6 SACK FOR MACHINE POURED AND 6.5 SACK FOR HAND POURED.

4. PARKING LOT DESIGN:
   4.1. PARKING AREAS AND DRIVE AISLES – MIN. 5" THICK W/ #3@24" O.C.E.W.
   4.2. FIRE LANES – MIN. 7" THICK W/ #4 @ 18" O.C.E.W.
   4.3. DUMPSTER PAD AND AREA 10' IN FRONT – MIN. 8" THICK W #4@18" O.C.E.W.

5. STREET INTERSECTIONS MAY REQUIRE ADDITIONAL RIGHT-OF-WAY TO ALLOW FOR RIGHT TURN LANES AND/OR MULTIPLE LEFT TURN LANES.

6. MOUNTABLE CURBS SHALL BE REVIEWED ON A CASE-BY-CASE BASIS. MOUNTABLE CURBS WILL ONLY BE CONSIDERED ON LOCAL RESIDENTIAL STREETS.

7. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED TO ACCOMMODATE TRAILS.

REVISED TITLES TO REFLECT MASTER THOROUGHFARE PLAN 11-07-2023

CITY OF LAVON
COLLIN COUNTY, TEXAS

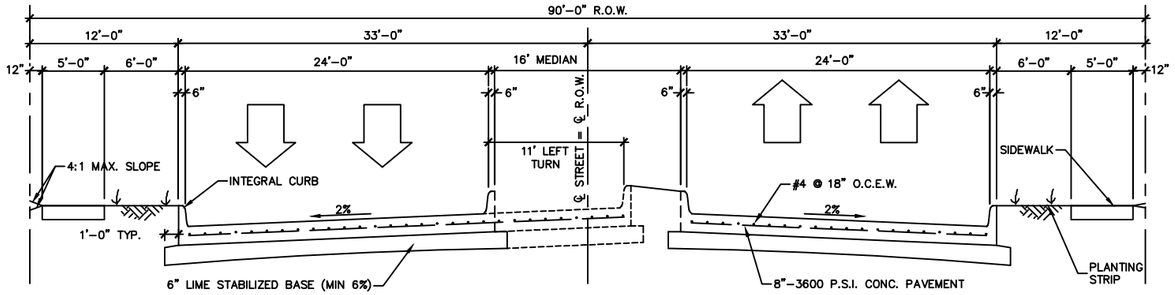
CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

TYPICAL STREET SECTIONS

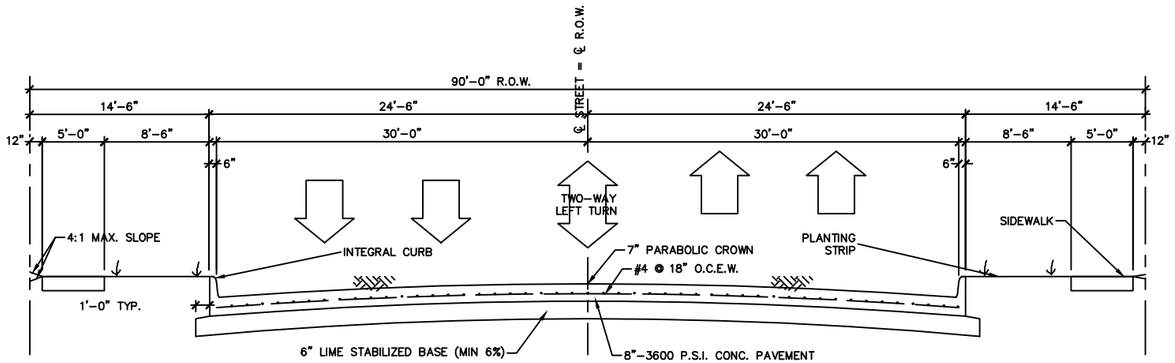
SCALE: NO SCALE

ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:
0 1"
ORIGINAL SCALE

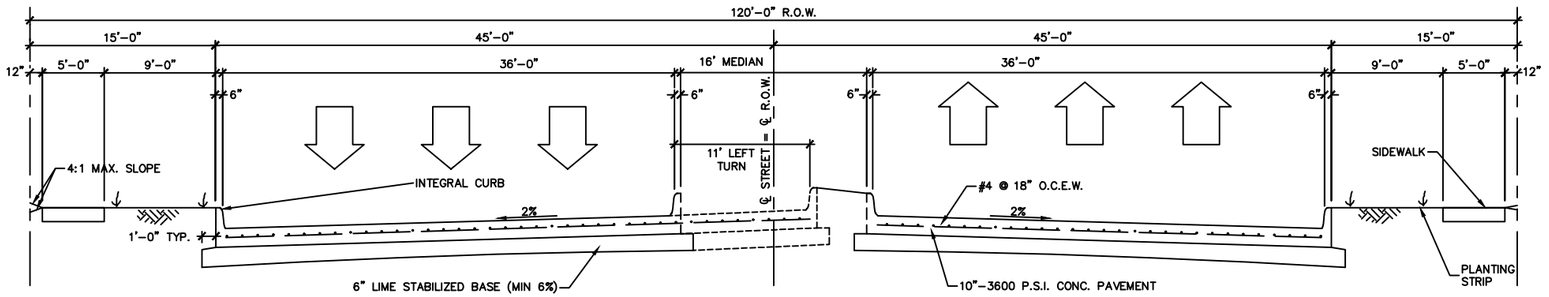
SHEET
DS-PV1



6 TYPICAL SECTION - MINOR ARTERIAL (M4D)
NO SCALE



7 TYPICAL SECTION - MINOR ARTERIAL/MAJOR COLLECTOR (P5U)
NO SCALE



8 TYPICAL SECTION - PRINCIPAL ARTERIAL (P6D)
NO SCALE

NOTES:

1. LIME STABILIZED BASE SHALL BE APPLICABLE TO ALL SUBGRADES WITH A PI OF 15 OR HIGHER. LIME STABILIZED SUBGRADE SHALL HAVE A MINIMUM LIME CONTENT OF 6% (27 LBS/SY). SUBGRADE DESIGN SHALL BE DETERMINED BY A LICENSED GEOTECHNICAL ENGINEER.

2. FLY ASH MAY BE USED FOR CONCRETE PAVEMENT. FLY ASH CANNOT EXCEED 20% BY WEIGHT PER CUBIC YARD OF CONCRETE.

3. CEMENT CONTENT FOR STREETS SHALL BE A MINIMUM OF 6 SACK FOR MACHINE POURED AND 6.5 SACK FOR HAND POURED.

4. PARKING LOT DESIGN:
   4.1. PARKING AREAS AND DRIVE AISLES – MIN. 5" THICK W/ #3@24" O.C.E.W.
   4.2. FIRE LANES – MIN. 7" THICK W/ #4 @ 18" O.C.E.W.
   4.3. DUMPSTER PAD AND AREA 10' IN FRONT – MIN. 8" THICK W #4@18" O.C.E.W.

5. STREET INTERSECTIONS MAY REQUIRE ADDITIONAL RIGHT-OF-WAY TO ALLOW FOR RIGHT TURN LANES AND/OR MULTIPLE LEFT TURN LANES.

6. MOUNTABLE CURBS SHALL BE REVIEWED ON A CASE-BY-CASE BASIS. MOUNTABLE CURBS WILL ONLY BE CONSIDERED ON LOCAL RESIDENTIAL STREETS.

7. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED TO ACCOMMODATE TRAILS.

REVISED TITLES TO REFLECT MASTER THOROUGHFARE PLAN 11-07-2023

CITY OF LAVON
COLLIN COUNTY, TEXAS

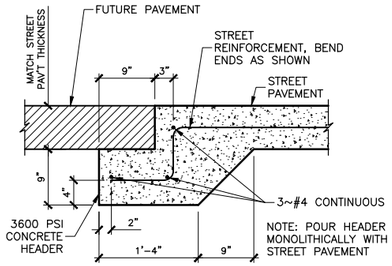
CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

TYPICAL STREET SECTIONS

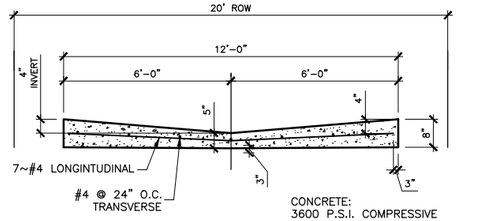
SCALE: NO SCALE

ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:
0 1"
ORIGINAL SCALE

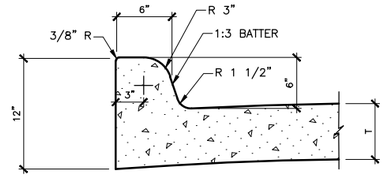
SHEET
DS-PV2



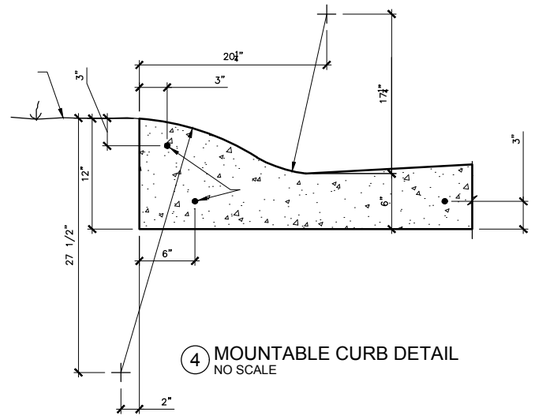
1 TYPICAL STREET HEADER
NO SCALE



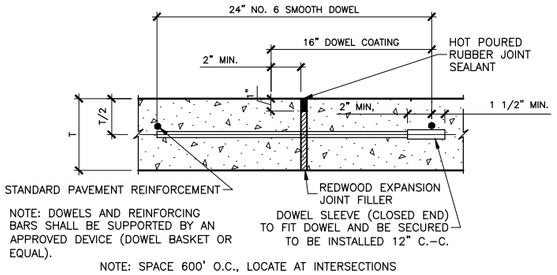
2 TYPICAL 12' ALLEY SECTION
NO SCALE



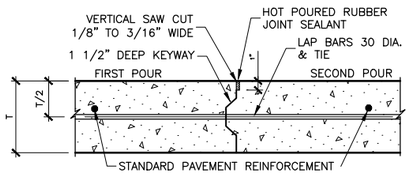
3 INTEGRAL CURB DETAIL
NO SCALE



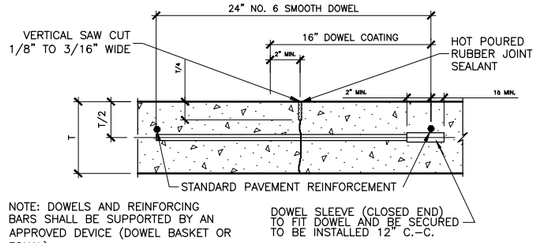
4 MOUNTABLE CURB DETAIL
NO SCALE



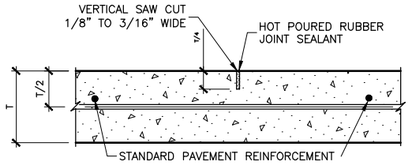
5 TRANSVERSE EXPANSION JOINT
NO SCALE



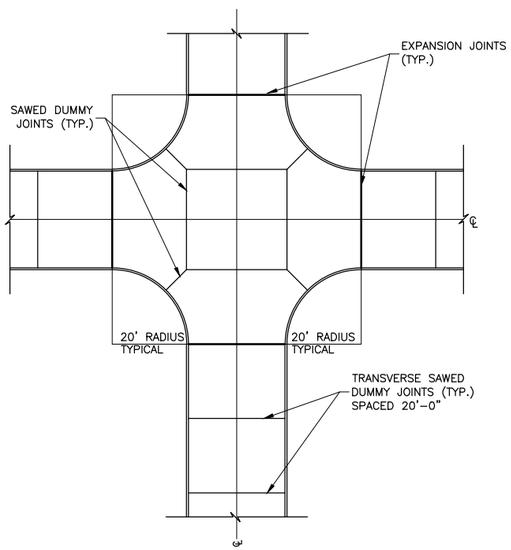
6 CONSTRUCTION JOINT
NO SCALE



7 CONTRACTION JOINT
NO SCALE



8 SAWED DUMMY JOINT
NO SCALE



9 TYPICAL INTERSECTION JOINTING
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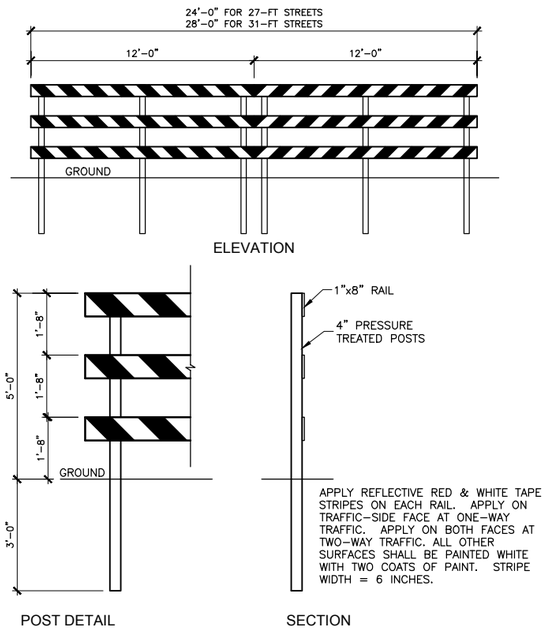
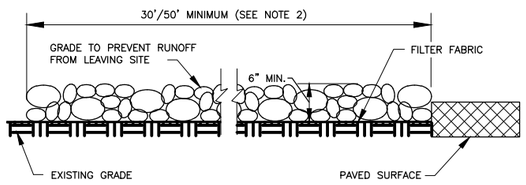
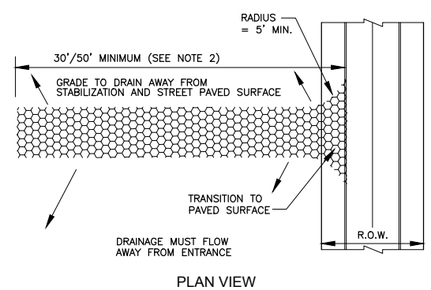


10 TEMPORARY BARRICADE DETAIL
NO SCALE





11 CONSTRUCTION ENTRANCE
NTS

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES

1. STONE SHALL BE 3 TO 6 INCH DIAMETER CRUSHED ROCK. CRUSHED CONCRETE IS NOT ACCEPTABLE.
2. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 30 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET FROM EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET.
3. THE THICKNESS SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

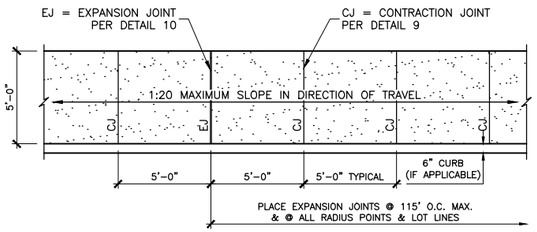
CITY OF LAVON
COLLIN COUNTY, TEXAS

CITY OF LAVON
STANDARD CONSTRUCTION DETAILS
PAVING DETAILS

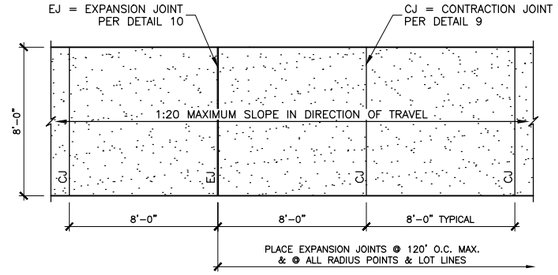
SCALE: NO SCALE

ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:
0 1"
ORIGINAL SCALE

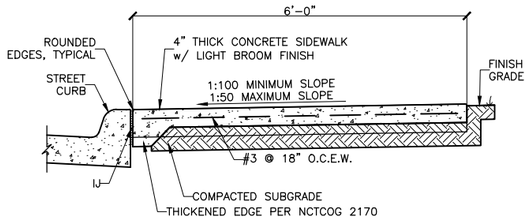
SHEET
DS-PV3



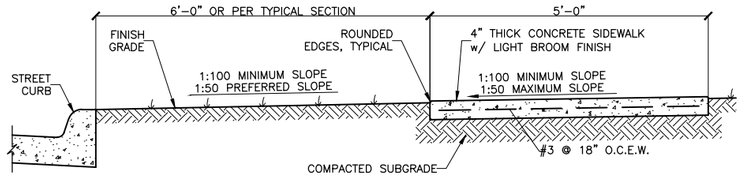
1 TYPICAL SIDEWALK PLAN
1/4"=1'-0"



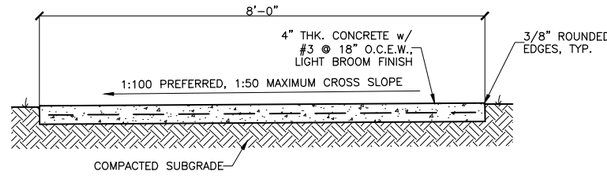
2 TYPICAL BIKE PATH PLAN
1/4"=1'-0"



3 SIDEWALK SECTION - COMMERCIAL ZONE
3/4"=1'-0"

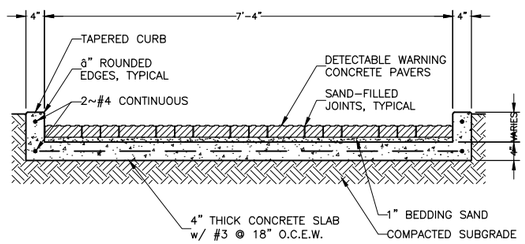


4 SIDEWALK SECTION - RESIDENTIAL ZONE
3/4"=1'-0"

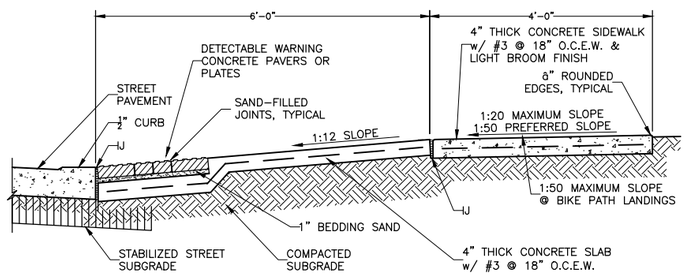


NOTE: BIKE PATHS SHALL NOT OBSTRUCT FLOW OF RUNOFF WATER ACROSS SITE (NO PONDING). CROSS SLOPE SHALL BE TOWARD DOWNHILL SIDE OF SITE. PATHS MAY BE CROWNED AT THE CENTERLINE TO SHED WATER IN BOTH DIRECTIONS IF NECESSARY FOR POSITIVE DRAINAGE.

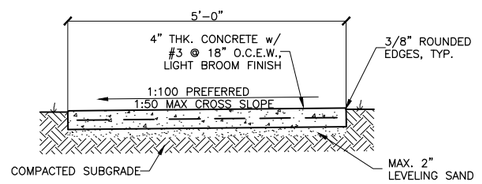
5 BIKE PATH SECTION
3/4"=1'-0"



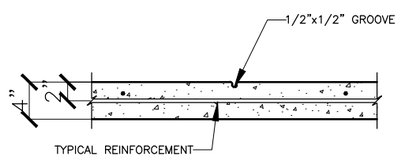
6 RAMP SECTION
3/4"=1'-0"



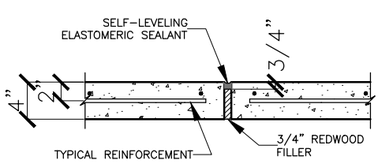
7 RAMP SECTION
3/4"=1'-0"



8 TYPICAL SIDEWALK SECTION
3/4"=1'-0"

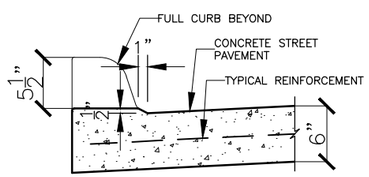


9 SIDEWALK CONTRACTION JOINT (CJ)
1 1/2"=1'-0"



NOTE: SEALANT COLOR TO MATCH CONCRETE COLOR.

10 SIDEWALK EXPANSION JOINT (EJ)
1 1/2"=1'-0"



11 CURB AT DRIVEWAY SECTION
1 1/2"=1'-0"

CITY OF LAVON
COLLIN COUNTY, TEXAS

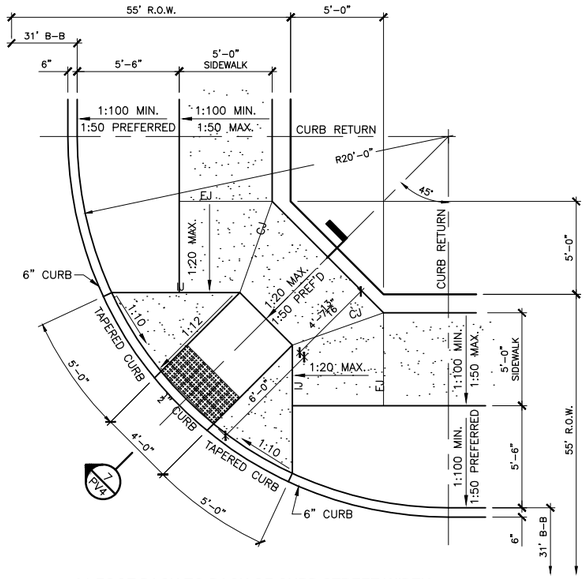
CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

ACCESSIBLE SIDEWALK DETAILS

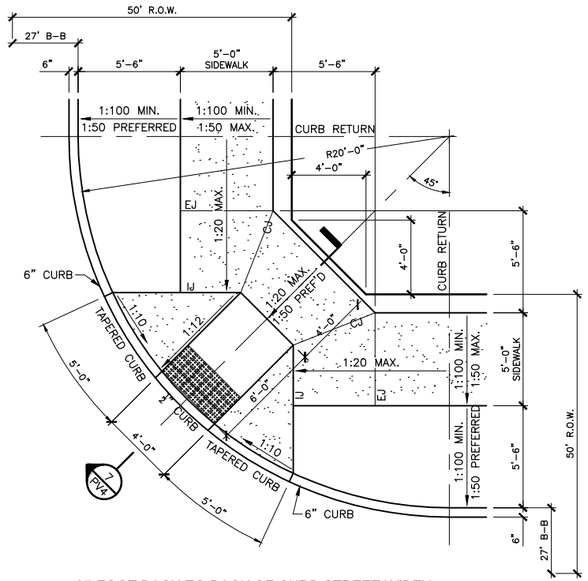
SCALE: AS NOTED

ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:
0 1"
ORIGINAL SCALE

SHEET
DS-PV4

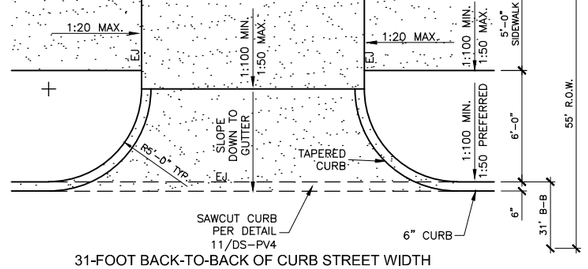


31-FOOT BACK-TO-BACK OF CURB STREET WIDTH

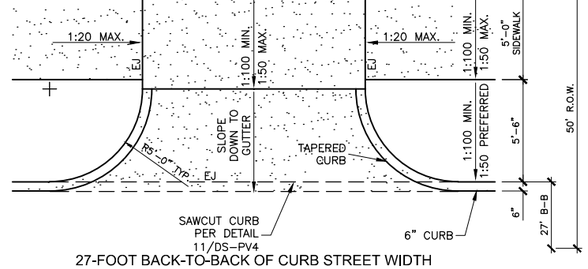


27-FOOT BACK-TO-BACK OF CURB STREET WIDTH

1 ACCESSIBLE SIDEWALK @ STREET CORNER
1/4"=1'-0"

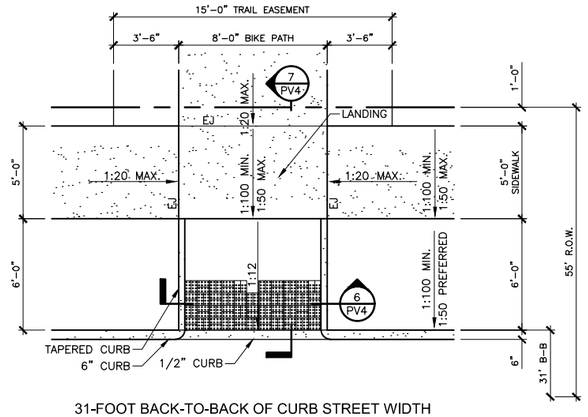


31-FOOT BACK-TO-BACK OF CURB STREET WIDTH

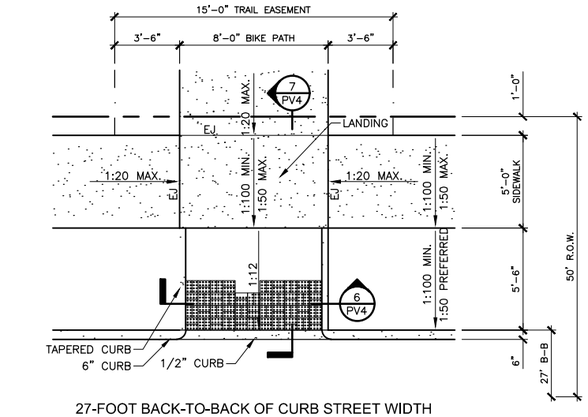


27-FOOT BACK-TO-BACK OF CURB STREET WIDTH

2 TYPICAL RESIDENTIAL DRIVEWAY APPROACH w/ ACCESSIBLE SIDEWALK CROSSING
1/4"=1'-0"



31-FOOT BACK-TO-BACK OF CURB STREET WIDTH



27-FOOT BACK-TO-BACK OF CURB STREET WIDTH

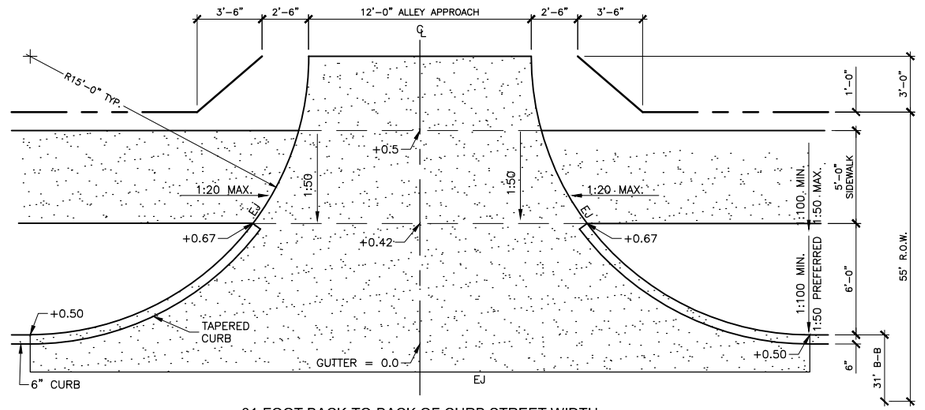
3 ACCESSIBLE SIDEWALK @ BIKE PATH CROSSING
1/4"=1'-0"

NOTES

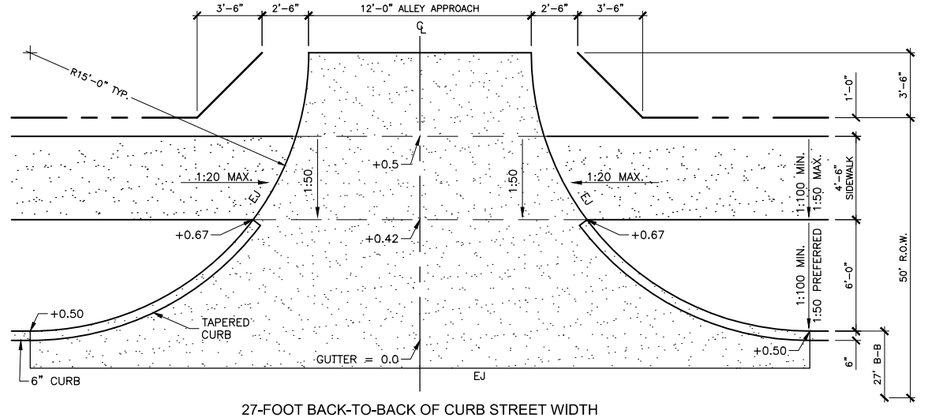
1. CONCRETE PAVERS SHALL BE INTEGRALLY COLORED, DETECTABLE WARNING PAVERS BY PAVESTONE COMPANY OR EQUAL. NOMINAL PAVER SIZE SHALL BE 7⅞"x3⅞"x2⅜" THICK. PAVERS SHALL BE CAST WITH INTEGRAL TRUNCATED DOME SURFACE TEXTURE MEETING REQUIREMENTS OF THE TEXAS ACCESSIBILITY STANDARDS FOR DETECTABLE WARNINGS.
2. INSTALL PAVERS IN A PARQUET PATTERN AS INDICATED ON THIS SHEET.
3. PAVER COLOR SHALL BE RED OR AS DETERMINED BY THE CITY OF LAVON. A COLOR SAMPLE SHALL BE PROVIDED FOR CITY APPROVAL.
4. DRIVEWAY APPROACHES SHALL BE 4" MINIMUM THICKNESS, 3,600 PSI CONCRETE WITH #3 REINFORCING BARS AT 18" CENTER-TO-CENTER EACH WAY.
5. ALLEY APPROACHES SHALL BE 5" MINIMUM THICKNESS, 3,600 PSI CONCRETE WITH #3 REINFORCING BARS AT 18" CENTER-TO-CENTER EACH WAY.
6. PLACE EXPANSION JOINTS BETWEEN DRIVEWAY AND ALLEY APPROACHES AND ADJACENT STREET PAVEMENT.
7. LIGHT BROOM FINISH ALL EXPOSED CONCRETE SURFACES.
8. EXPOSED AGGREGATE IS NOT AN ACCEPTABLE FINISH FOR EXPOSED CONCRETE.
9.
10. DETECTABLE WARNING SURFACE CAN BE CAST IN PLACE PANELS WITH TRUNCATED DOMES IN COMPLIANCE WITH TAS REQUIREMENTS. PLATES SHALL BE COLORFAST AND UV STABILIZED. PLATES SHALL BE GLASS REINFORCED COMPOSITE MATERIAL WITH MIN COMPRESSIVE STRENGTH OF 28,000 PSI (ASTM D695), FLEXURAL STRENGTH OF 29,000 PSI (ASTM D790), SLIP RESISTANCE OF 1.18 DRY AND 1.05 WET (ASTM C1028).

LEGEND

1:20	SLOPE DIRECTION & RATIO
	CONCRETE PAVERS
	CAST-IN-PLACE CONCRETE
IJ	ISOLATION JOINT
EJ	EXPANSION JOINT
CJ	CONTRACTION JOINT
	RIGHT-OF-WAY LINE



31-FOOT BACK-TO-BACK OF CURB STREET WIDTH



27-FOOT BACK-TO-BACK OF CURB STREET WIDTH

4 TYPICAL ALLEY APPROACH w/ ACCESSIBLE SIDEWALK CROSSING
1/4"=1'-0"

CITY OF LAVON
COLLIN COUNTY, TEXAS

CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

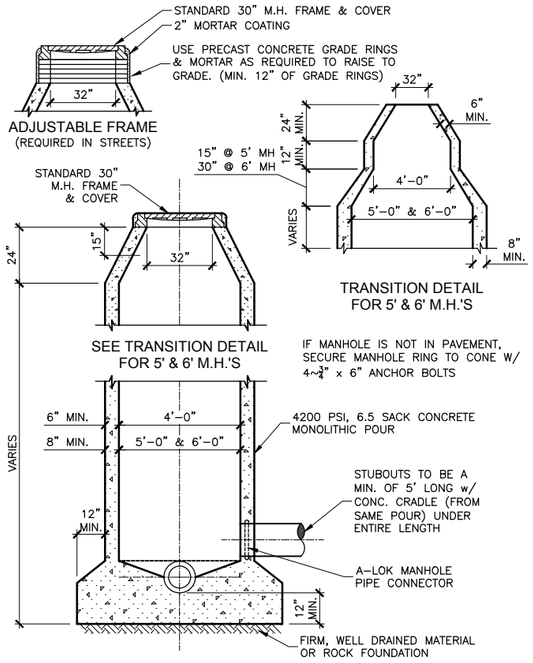
SIDEWALK, DRIVEWAY, & ALLEY DETAILS

SCALE: AS NOTED

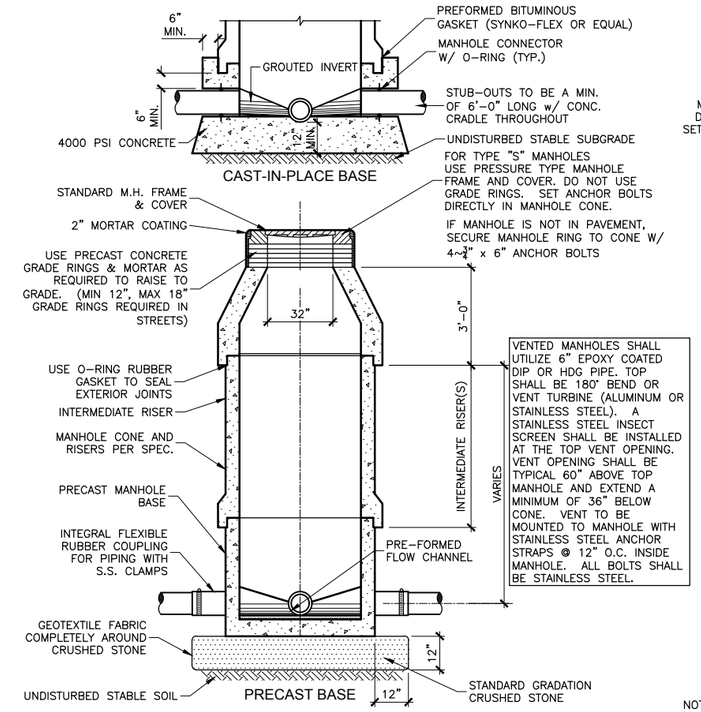
ADOPTED:	MAY 2018
ORD. NO.:	2018-05-01
REVISION:	2019-12-01
REVISION:	
REVISION:	

0 1"
ORIGINAL SCALE

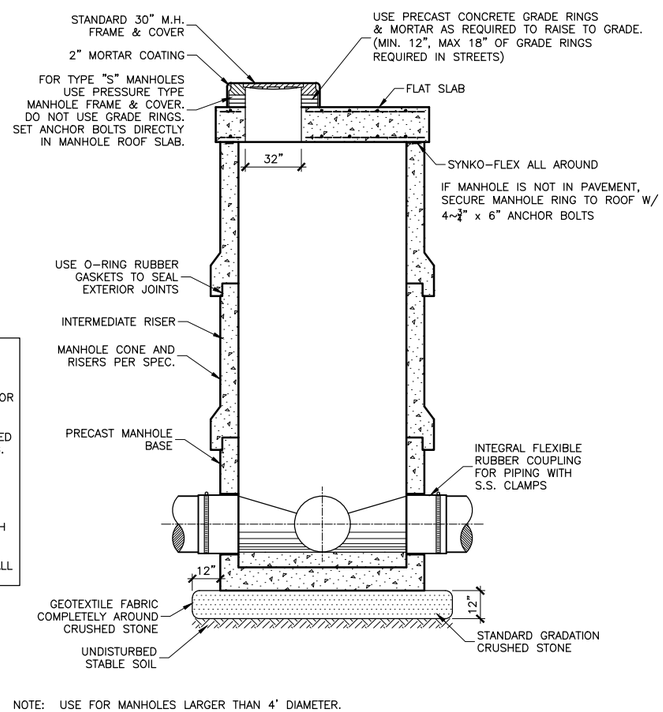
SHEET
DS-PV5



1 STANDARD CAST-IN-PLACE MANHOLE
NO SCALE

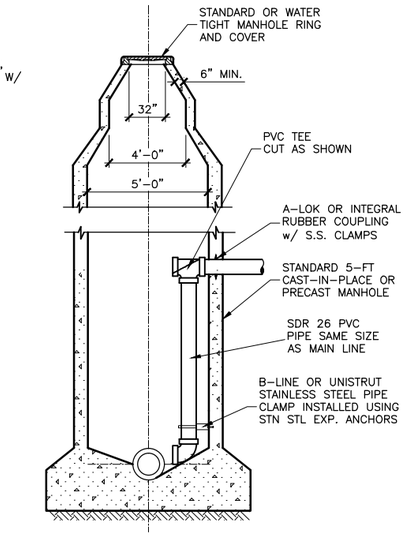


2 STANDARD PRECAST MANHOLE
NO SCALE

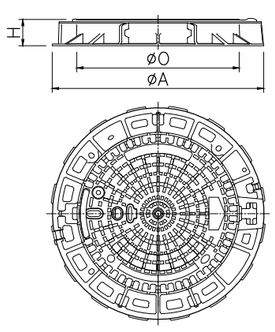


NOTE: USE FOR MANHOLES LARGER THAN 4' DIAMETER.

3 STANDARD PRECAST FLAT TOP MANHOLE
NO SCALE



4 STANDARD 5' DROP MANHOLE CONNECTION
NO SCALE



MANHOLE COVER AND FRAME SHALL BE BY PAMREX OR APPROVED EQUAL. COVER AND FRAME SHALL BE MANUFACTURED FROM DUCTILE IRON.

COVERS SHALL BE HINGED AND INCORPORATE A 90 DEGREE BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE. COVERS SHALL BE ONE MAN OPERABLE USING STANDARD TOOLS AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 80,000 LBS.

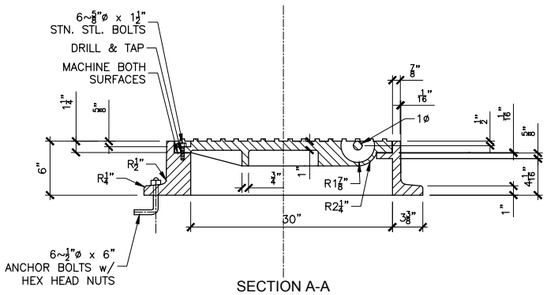
FRAMES SHALL BE CIRCULAR, INCORPORATE A SEATING RING AND A FITTED PLUG IN THE HINGE HOUSING, AND BE AVAILABLE IN A 32 INCH CLEAR OPENING. THE FRAME DEPTH SHALL NOT EXCEED 5 INCHES, AND THE FLANGE SHALL INCORPORATE BEDDING SLOTS, BOLT HOLES, AND LIFTING EYES. TWO (2) KEYS AND SPARE PLUGS (25% OF TOTAL INSTALLED, 2 MINIMUM) TO BE PROVIDED TO THE CITY.

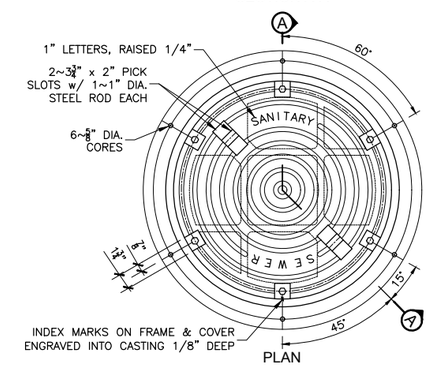
ALL COMPONENTS SHALL BE BLACK COATED.

FRAME WEIGHT: 107 LBS.
COVER WEIGHT: 162 LBS.
TOTAL WEIGHT: 269 LBS.

DIMENSIONS (INCHES)			WEIGHT (lbs)		REFERENCE
A	O	H	COVER AND FRAME	COVER ONLY	
42	32	5	269	163	RE 80 R8 FD

5 STANDARD MANHOLE FRAME & COVER
NO SCALE





NOTE: SEAL BETWEEN FRAME AND COVER WITH ¼"ø NEOPRENE O-RING GASKET. LOCATE O-RING GASKET PER MANUFACTURER RECOMMENDATION, SUBJECT TO ENGINEER APPROVAL.

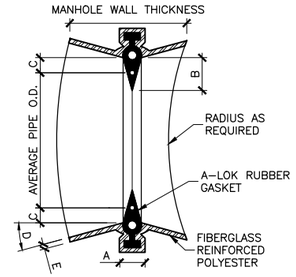
6 WATER TIGHT MANHOLE FRAME & COVER
NO SCALE

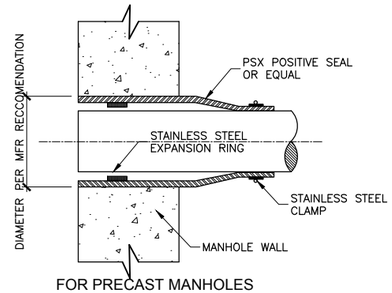
DIMENSIONS FOR MANHOLE PIPE CONNECTOR
A.S.T.M. D-923

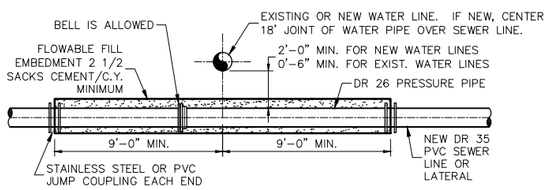
PIPE SIZE	A	B	C	D	E
4"-6"	1 1/2"	7/8"	3/8"	10°	0.10±
8"-24"	2 1/8"	1 3/8"	5/8"	10°	0.10±
24"-60"	2 3/8"	1 3/4"	3/4"	10°	0.25±

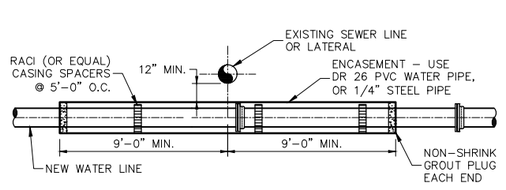
NOTE: PIPE CONNECTORS REQUIRED AT ALL CAST-IN-PLACE MANHOLES.

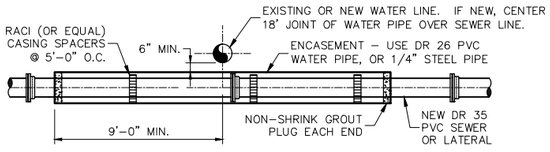
7 MANHOLE PIPE CONNECTORS
NO SCALE

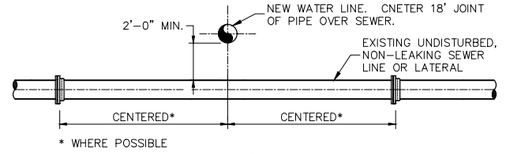












NOTE: AT CROSSINGS OF NEW WATER & SEWER LINES, THE WATER LINE MUST BE LOCATED ABOVE THE SEWER LINE. WHERE A NEW SEWER LINE CROSSES AN EXISTING WATER LINE, THE SEWER LINE SHALL BE LOCATED BELOW THE WATER LINE IF POSSIBLE.

8 PIPE CROSSING DETAILS
1/4"=1'-0"

CITY OF LAVON
COLLIN COUNTY, TEXAS

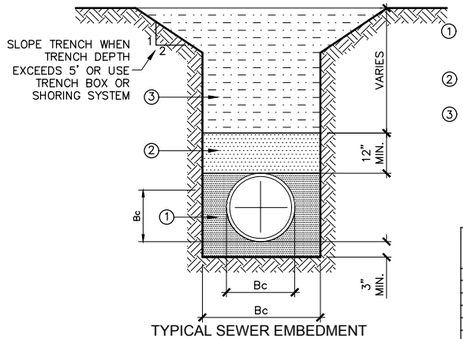
CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

SANITARY SEWER DETAILS

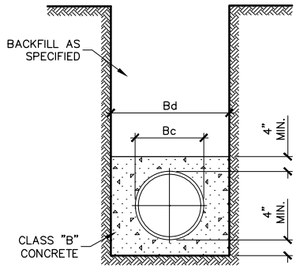
SCALE: NO SCALE

ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:
0 1"
ORIGINAL SCALE

SHEET
DS-SS1



TYPICAL SEWER EMBEDMENT



NOTE: THE 4" MIN. SHALL APPLY TO THICKNESS AROUND PIPE AND OVER TOPS OF BELLS.

CLASS "G" EMBEDMENT

(1) SEWER LINE EMBEDMENT DETAILS
NO SCALE

① STANDARD GRADATION CRUSHED STONE – TOP LAYER IS TO BE PLACED TO GRADE TO PROVIDE UNIFORM SUPPORT OF PIPE BARREL. EXCAVATE BELL HOLES.

② GRANULAR MATERIAL (SAND) COMPACTED TO 95% STANDARD PROCTOR DENSITY.

③ SELECT MATERIAL FREE OF ROCKS, CLUMPS OR DEBRIS LARGER THAN 6" IN GREATEST DIMENSION. COMPACT TO 90% STANDARD PROCTOR DENSITY. UNDER STRUCTURES, ROADWAYS AND PAVEMENT, COMPACT TO 95% STANDARD PROCTOR DENSITY.

MINIMUM TRENCH WIDTH FOR SDR 26 PVC SANITARY SEWER PIPE (INCHES)

DEPTH OF COVER (FT.)	PVC SEWER PIPE SIZE							
	6"	8"	10"	12"	15"	18"	21"	24"
2	24	24	27	30	33	36	39	42
3	24	24	27	30	33	36	39	42
4	24	24	27	30	33	36	39	42
5	24	24	27	30	33	36	39	42
6	24	24	27	30	33	36	39	42
7	24	24	27	30	33	36	39	42
8	24	24	27	30	33	36	39	42
9	24	24	27	30	33	36	39	42
10	24	24	27	30	33	36	39	42
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19	24	24	27	36	42	48	54	60
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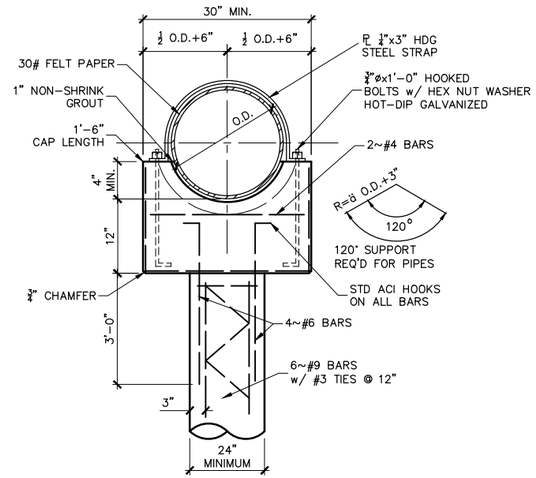
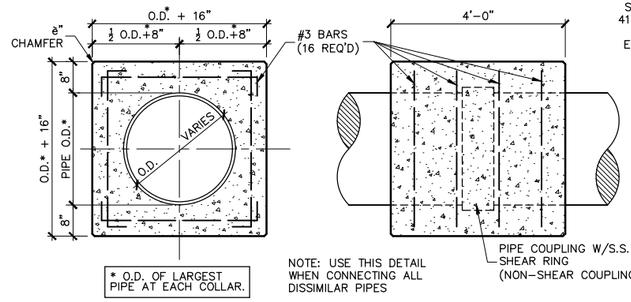
24	24	27	33	42	48	60	72	84
25	24	27	33	42	48	60	72	84
26	24	27	33	42	60	60	72	84
27	24	27	36	42	60	60	72	84
28	24	30	36	42	60	72	84	84
29	24	30	36	42	60	72	84	84
30	24	30	36	42	60	72	84	84

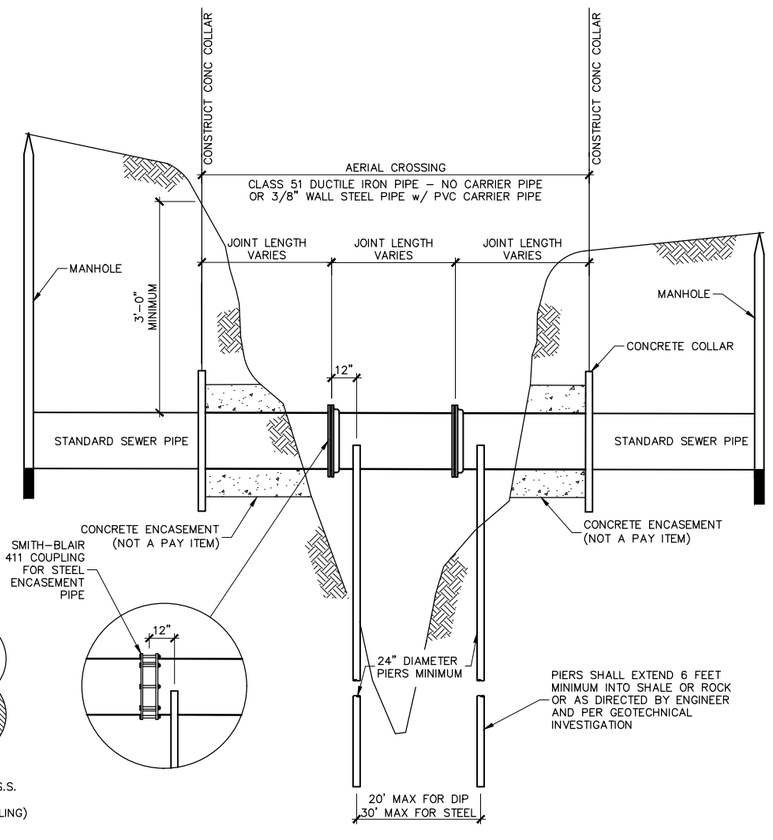
NOTES:
1. FOR DEPTHS OF COVER LESS THAN 2 FEET, CONCRETE ENCASEMENT IS REQUIRED.
2. FOR DEPTHS OF COVER GREATER THAN 30 FEET AND FOR PIPE SIZES LARGER THAN 24 INCHES, A SPECIFIC EMBEDMENT DESIGN IS REQUIRED.



(2) AERIAL CROSSING PIER CAP DETAIL
NO SCALE



(3) CONCRETE COLLAR DETAIL
NO SCALE



(4) AERIAL CROSSING DETAIL
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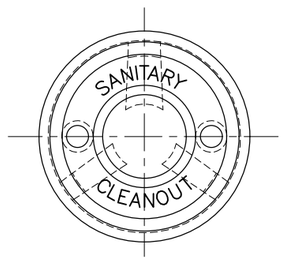
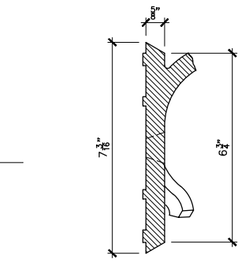
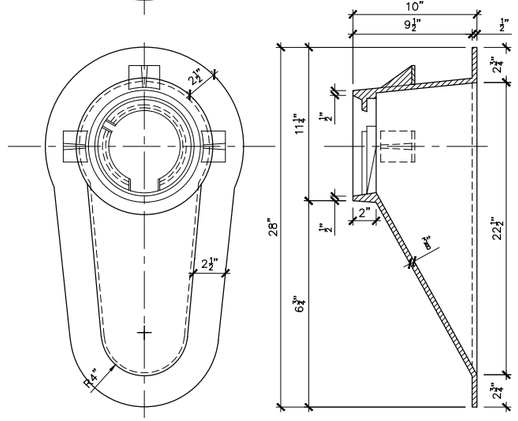
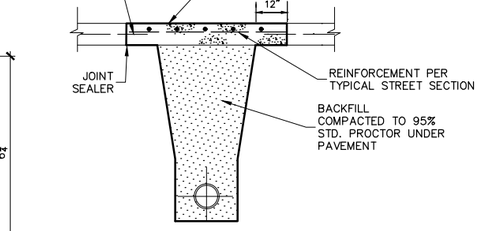


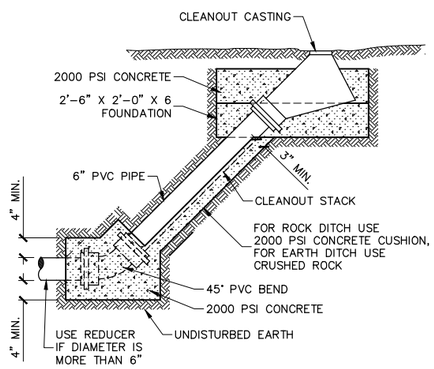




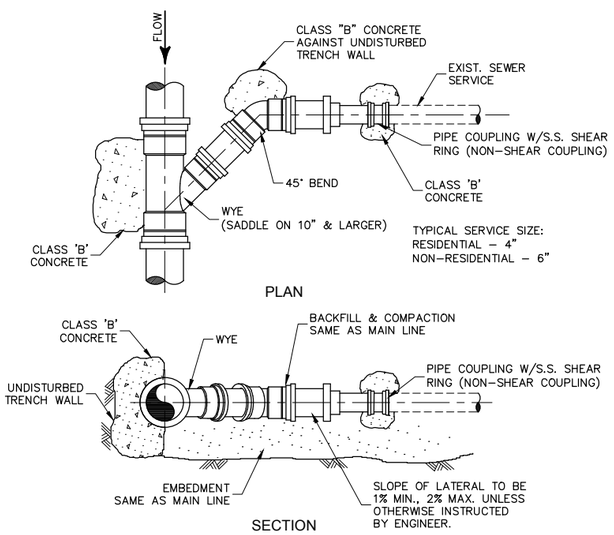
(5) CLEANOUT FRAME & COVER
NO SCALE



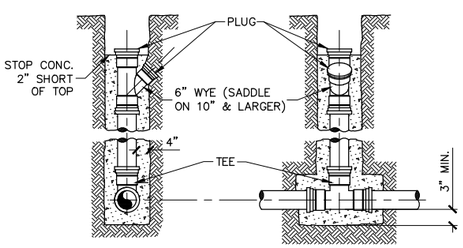
(1A) STREET REPAIR DETAILS
NO SCALE



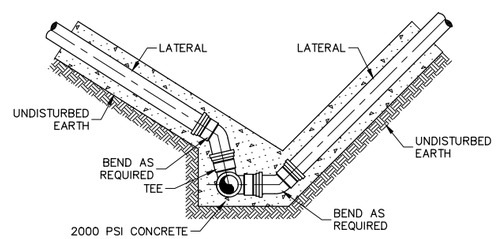
(6) SANITARY SEWER CLEANOUT
NO SCALE



(7) SANITARY SEWER SERVICE
NO SCALE



(8) P.V.C. DEEP CUT CONNECTION
NO SCALE



(9) P.V.C. LATERAL CONNECTION @ DITCH w/ SLOPED SIDES
NO SCALE

CITY OF LAVON
COLLIN COUNTY, TEXAS

CITY OF LAVON
STANDARD CONSTRUCTION DETAILS

SANITARY SEWER DETAILS

SCALE: NO SCALE

ADOPTED: MAY 2018
ORD. NO.: 2018-05-01
REVISION: 2019-12-01
REVISION:
REVISION:

0 1"
ORIGINAL SCALE

SHEET
DS-SS2