

ORDINANCE NO. 5238

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF DENISON, TEXAS, ADOPTING 2022 STANDARD CONSTRUCTION DETAILS; PROVIDING FOR A PENALTY; PROVIDING FOR SAVINGS, REPEALING, AND SEVERABILITY CLAUSES; PROVIDING THAT THE MEETING AT WHICH THIS ORDINANCE WAS PASSED WAS AN OPEN MEETING IN COMPLIANCE WITH THE TEXAS OPEN MEETINGS ACT; AND PROVIDING FOR PUBLICATION AND AN EFFECTIVE DATE.

WHEREAS, the City of Denison, Texas (the “**City**”) is a Home Rule Municipality acting under its Charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Texas Local Government Code; and

WHEREAS, the City Council of the City (the “**City Council**”) has previously adopted standard construction details for public works projects; and

WHEREAS, the City is authorized by Chapter 212 of the Texas Local Government Code to, after a public hearing on the matter, adopt rules governing subdivisions of land within the municipality’s jurisdiction to promote the health, safety, morals, or general welfare of the municipality, and the safe, orderly, and healthful development of the municipality; and

WHEREAS, after holding a public hearing on October 3, 2022, the City Council finds it desirable and in the best interest of the health, safety, and general welfare of the citizens to update the City’s standard construction details.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF DENISON, TEXAS:

Section 1: Incorporation of Premises. The above and foregoing premises are true and correct and are incorporated herein and made a part hereof for all purposes.

Section 2: Standard Construction Details Adopted. The City Council does hereby update the City’s standard construction details by adopting the 2022 Standard Construction Details attached hereto as **Exhibit A.**

Section 3. Penalty. Any person, firm, corporation, or entity violating this Ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined pursuant to Section 1-12 of the City’s Code of Ordinances. Each occurrence in violation of this Ordinance shall constitute a separate and distinct offense. Each day a violation of this Ordinance occurs constitutes a separate offense. The penal provisions imposed under this Ordinance shall not preclude the City from filing suit to enjoin the violation. The City retains all legal rights and remedies available to it pursuant to local, state, and federal law.

Section 4. Savings/Repealing Clause. All provisions of any ordinance in conflict with this Ordinance are hereby repealed to the extent they are in conflict; but such repeal shall not abate

any pending prosecution for violation of the repealed ordinance, nor shall the repeal prevent a prosecution from being commenced for any violation if occurring prior to the repeal of the ordinance. Any remaining portions of said ordinances shall remain in full force and effect.

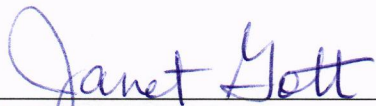
Section 5. Severability. Should any section, subsection, sentence, clause, or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. The City hereby declares that it would have passed this Ordinance, and each section, subsection, sentence, clause, or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences clauses and phrases be declared unconstitutional or invalid.

Section 6. Open Meeting. It is hereby officially found and determined that the meeting at which this Ordinance was passed was open to the public as required by law, and that public notice of the time, place, and purpose of said meeting was given, all as required by Section 551.042, Texas Government Code.

Section 7. Effective Date. This Ordinance shall become effective upon its passage and publication as may be required by law.


DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF DENISON, TEXAS, on this the 3rd day of October 2022.

APPROVED:



JANET GOTT, Mayor

ATTEST:



Christine Wallentine, City Clerk

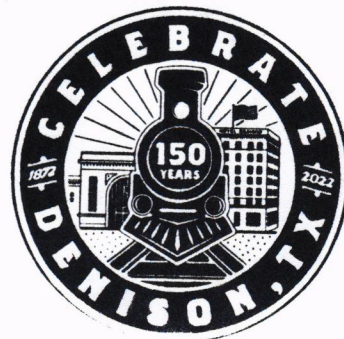


Exhibit A
2022 Standard Construction Details

(see next page)

CITY OF DENISON, TEXAS

STANDARD CONSTRUCTION DETAILS



SEPTEMBER, 2022

SECTION	DESCRIPTION	SHEET NO.	SECTION	DESCRIPTION	SHEET NO.
GENERAL NOTES	GENERAL CONSTRUCTION NOTES	00	SECTION	DESCRIPTION	SHEET NO.
STREET	PAVING / SECTIONS	01	WATER	METER VAULT	16
STREET	PAVING / SECTIONS / DETAILS	02	WATER	METER VAULT	16A
STREET	PAVING / JOINTS	03	WATER	WATER	17
STREET	PAVING / DETAILS	04	SANITARY SEWER	SANITARY SEWER/AERIAL CROSSING	18
STREET	PAVING / ALLEY / DRIVEWAYS	05	SANITARY SEWER	SANITARY SEWER / MANHOLES	19
STREET	PAVING / RADIUS	06	SANITARY SEWER	SANITARY SEWER/SERVICES	20
STREET	PAVING / DETAILS / EROSION	07	EMBEDMENT	TYPICAL EMBEDMENTS	21
STREET	PAVING / SIDEWALKS	08	WALL	THIN BRICK SCREENING WALL	22
STORM SEWER	STORM SEWER / INLET	09	WALL	BRICK SCREENING / RETAINING	23
STORM SEWER	STORM SEWER / INLET	10	FENCE	FENCING	24
STORM SEWER	STORM SEWER / INLET	11	FENCE	FENCING	25
STORM SEWER	STORM SEWER / INLET / DETAILS	12	FENCE	WROUGHT IRON FENCING	26
STORM SEWER	CHANNELS / CONCRETE	13	MISCELLANEOUS	DUMPSTER DETAILS	27
STORM SEWER	CHANNELS / GABIONS	14	MISCELLANEOUS	DUMPSTER DETAILS	28
WATER	WATER	15	MISCELLANEOUS	MISCELLANEOUS	29
WATER	WATER		MISCELLANEOUS	JUNCTION BOX	30

GENERAL NOTES

- ALL MATERIALS MUST BE DOMESTICALLY SOURCED AND PRODUCED UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR.
- PAVING NOTES**
- CONCRETE FOR ALL STREETS SHALL BE IN ACCORDANCE WITH NCTCOG CLASS 'A' CONCRETE (3,600 P.S.I. COMPRESSIVE STRENGTH @ 28 DAYS), CONCRETE FOR ALL ALLEYS STRENGTH @ 28 DAYS)
- REINFORCING STEEL SHALL BE DEFORMED BARS W/ 3 ON 18 INCH CENTER OR NO. 4 REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, 616 AND 617.
- ALL REINFORCING STEEL SHALL BE TIED (100%), REINFORCING STEEL SHALL BE SET ON PLASTIC CHAIRS. BARS MUST BE MINIMUM 30 DIAMETERS.
- EXPANSION JOINTS SHALL BE SPACED EVERY 200 FEET AND AT ALL INTERSECTIONS.
- ALLEYS SHALL HAVE A MINIMUM OF TWO EXPANSION JOINTS.
- SAWED TRANSVERSE DUMMY JOINTS SHALL BE SPACED EVERY 20 FEET ON PAVING 8 INCHES OR THICKER AND EVERY 15 FEET FOR PAVING THICKNESS LESS THAN 8 INCHES. SAWING SHALL OCCUR WITHIN 1 TO 12 HOURS AFTER THE POUR INCLUDING SEALING. TRANSVERSE JOINT SECTIONS SHALL BE REMOVED AND LONGITUDINAL BUILT JOINTS CONSTRUCTED.
- SUBGRADE UNDER PAVEMENT SHALL BE A MINIMUM OF 4 INCHES OF EITHER UNPREPARED LINE OR CEMENT TREATED SUBGRADE WITH OPTIMAL CONTENT AND COMPACTION. REQUIREMENTS AS RECOMMENDED BY THE GEOTECHNICAL DESIGN, AS WELL AS APPROVED BY THE PUBLIC WORKS DIRECTOR. CONTENT AND COMPACTION TESTS SHALL BE TAKEN ALONG THE EXCAVATION AT ALL CHANGES IN SOIL AND A MINIMUM OF 300 FEET DISTANCES. ALL TESTS SHALL BE COMPLETED BY AN INDEPENDENT LABORATORY APPROVED BY THE CITY AND PAID FOR BY THE CONTRACTOR.
- LINE TREATED SUBGRADE SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D 998. MOISTURE CONTENT SHALL BE DETERMINED BY ASTM D 2922. ALL TESTS SHALL BE COMPLETED BY AN INDEPENDENT LABORATORY APPROVED BY THE CITY. ALL RESULTS SHALL BE PROVIDED TO THE CITY.
- LINE TRIMMINGS ARE NOT ACCEPTABLE FOR ANY USE.
- ALL FILL SHALL BE COMPACTED BY MECHANICAL METHODS. MAXIMUM LOOSE LIFT FOR ALL TYPES OF FILL SHALL BE 12 INCHES. ALL FILL SHALL BE APPROVED BY THE CITY. INDEPENDENT LABORATORY APPROVED BY THE CITY. DENSITY REQUIREMENT SHALL BE AS SHOWN ON THE PLANS FOR THE TYPE OF MATERIAL CALLED FOR IN THE PLANS.
- ALL DISTURBED AREAS OF ROADWAY WORK SHALL HAVE GRASS ESTABLISHED IMMEDIATELY. GRASS SHALL MEET THE REQUIREMENTS OF ITEM 3.8, 3.9, 3.10 & 3.11 OF NCTCOG.
- ALL AREAS TO BE EXCAVATED OR FILL ED SHALL HAVE REVISION CONTROL PLACED PRIOR TO COMMENCING EARTHWORK. EROSION CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE PROJECT IN ACCORDANCE WITH NCTCOG ITEM 3.12.
- ALL SIDEWALKS SHALL INCLUDE BARRIER FREE RAMPAS AT INTERSECTIONS STREETS, ALLEYS, DRIVEWAYS, ETC. BARRIER FREE RAMPAS SHALL MEET CURRENT ADA REQUIREMENTS AND BE APPROVED BY THE TEXAS LICENSING BOARD.
- SIDEWALKS SHALL BE DOWNED INTO PAVEMENT WHERE IT ABUTS DRIVEWAYS. EXPANSION JOINT MATERIAL SHALL BE USED AT THESE LOCATIONS.
- NO VEHICLES SHALL BE PERMITTED ON CONCRETE PAVEMENT WITHOUT APPROVAL FROM THE CITY. THE CITY WILL MAKE DETERMINATION BASED ON CONCRETE BREAK REPORT.

LINED CHANNELS

- CONSTRUCTION JOINT SHOWN IN DETAILS FOR CONVENIENCE ONLY. MONOLITHIC CONSTRUCTION MAY BE USED.
- ALL VISIBLE SURFACES SHALL BE A TROWEL FINISH.
- ALL REINFORCING STEEL SHALL BE 3/4" DIAMETER AND SPACED 12" CENTER TO CENTER BOTH WAYS UNLESS OTHERWISE SPECIFIED.
- IF WOOD FORMS ARE USED WITH CONSTRUCTION JOINT, THEY SHALL BE TWO 2"x4" AND SHALL NOT BE REMOVED UNTIL CONCRETE ON TOP IS READY TO BE PLACED.
- ALL CONCRETE IN LINED CHANNEL SHALL BE NCTCOG CLASS 'A' (MINIMUM 3,000 P.S.I.) CONCRETE.
- FLAT BOTTOM TO BE CONSTRUCTED WHEN CHANNEL WIDTH IS LESS THAN 12 FOOT.
- 3/4" CHAMFER ON ALL CONCRETE CORNERS.

STORM SEWER

- THE FLOOR OF THE EXCAVATION FOR INLET BOX MUST PROVIDE A FIRM, LEVEL BED FOR THE BASE SECTION TO REST UPON.
- A MINIMUM OF 6 INCHES OF 1" DIAMETER (MAXIMUM) ROCK OR GRAVEL SHALL BE USED TO PREPARE THE BEDDING TO FINAL GRADE OR IN LIEU OF THIS, AT LEAST 12 INCHES OF 1/2" GRADE GROUND SHALL BE USED TO PREPARE THE BEDDING TO FINAL GRADE. GRADE GROUND SHALL BE ALLOWED TO SET BY KEEPING HOLE PUMPED DRY.
- AFTER PIPE HAS BEEN LAYED ON PROPER BEDDING, BACKFILLING TO COMMENCE WITH 8" MAXIMUM LOOSE LIFT'S MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR UNDER ROADWAY OR 12" MAXIMUM LOOSE LIFT BEHIND CURB. MAXIMUM SIZE ROCK IN BACKFILL SHALL NOT EXCEED 4 INCHES IN DIAMETER.
- PRECAST INLETS MUST BE APPROVED BY THE CITY.
- CONCRETE TO BE MINIMUM 4,200 P.S.I.
- LOCKING DEVICE IS REQUIRED ON ALL STORM SEWER LIDS.
- NO DUMPING/ WARNING PLACED TO BE INSTALLED ON ALL STANDARD AND RECESSED INLETS.
- CONCRETE CAST-IN-PLACE INLETS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,200 PSI @ 28 DAYS.
- STORM DRAIN TILE SHALL BE PLACED IN THE CENTER OF THE INLET. 2 INCHES FROM THE EDGE OF OPENING AS SHOWN IN THE DRAWING. USE R-200 CONSTRUCTION ADHESIVE FOR APPLICATION. TILES CAN BE ORDERED FROM: CENTERLINE SUPPLY, INC., 425 JESSE STREET, GRAND PRAIRIE, TEXAS 75061-1141, 1-800-321-1731, METRO: 214-647-8900, FAX: 214-644-1221.
- EXISTING STORM SEWER PIPE AND/OR LATERALS SHALL BE LOCATED PRIOR TO SETTING OF CONSTRUCTING INLET BOXES. IF ADJUSTMENT IN GRADE OF LATERAL IS REQUIRED A REVISED DESIGN BY THE ENGINEER OF RECORD SHALL BE SUBMITTED TO THE CITY FOR APPROVAL.
- REINFORCED CONCRETE PIPE CLASS III MINIMUM OR HIGH DENSITY POLYETHYLENE STORM SEWER PIPE IS APPROVED WITHIN THE CITY.

SANITARY SEWER

- ALL SEWER LINES CROSSING POTABLE WATERLINES SHALL BE AS SHOWN IN THE PLANS AND MEET THIRC REQUIREMENTS.
- ALL SANITARY SEWER MAINS SHALL BE A MINIMUM OF 8" INSIDE DIAMETER. ALL SERVICE LINES SHALL BE IN ACCORDANCE WITH ASTI D2034 WITH A MINIMUM SDR OF 28.
- PIPES LARGER THAN 12 INCHES THROUGH 48 INCHES SHALL BE IN ACCORDANCE WITH ASTI STANDARDS 6793, 7793 F&S AND G2550 DE 245424 G.
- MANHOLES SHALL BE CAST IN PLACE OR PRECAST. ALL MANHOLES SHALL BE WATER TIGHT. ALL RINGS AND COVERS SHALL INCLUDE AN INTERNAL CHIMNEY SEAL.
- ALL PIPE OPENINGS IN MANHOLES SHALL INCLUDE COUPLINGS WITH "O" RING RUBBER GASKETS.
- STUBBOURS OUT OF MANHOLES SHALL BE FITTED WITH A STOPPER AND CAP. STUBBOURS SHALL BE A MINIMUM OF 5 FEET FROM MANHOLE AND BE SUPPORTED BY A CONCRETE GRADE.
- ALL DROP MANHOLES SHALL BE OF THE EXTERNAL TYPE.
- MANHOLES SHALL BE VENTED IN ACCORDANCE WITH THIRC REQUIREMENTS.
- ALL SANITARY SEWER PIPE SHALL BE TESTED NCTCOG ITEM 6.7.21 AFTER INSTALLATION. ALL SANITARY SEWER PIPE SHALL BE TESTED NCTCOG ITEM 6.7.21 AFTER REQUIRED AND COLOR TV INSPECTION. COLOR TV INSPECTION SHALL BE COMPLETED IN PRESENCE OF CITY REPRESENTATIVE AND THE ORIGINAL VHS FORMATTED TAPE SHALL BE GIVEN TO THE CITY AT THE COMPLETION OF THE INSPECTION.
- MANHOLES SHALL BE VACUUM TESTED IN THE PRESENCE OF THE CITY REPRESENTATIVE.

WATER


- ALL WATER LINE CROSSINGS OF SANITARY SEWER LINES SHALL BE AS SHOWN IN THE PLANS AND MEET THIRC REQUIREMENTS.
- PIPES 12 INCHES IN DIAMETER AND SMALLER SHALL BE POLYVINYL CHLORIDE (P.V.C.) MEETING THE REQUIREMENTS OF AWMA C900 OR 18 OR DUCTILE IRON PIPE (D.I.P.) WRAPPED WITH A POLYETHYLENE LINER.
- FOR PIPES LARGER THAN 12 INCHES IN DIAMETER, THE PIPE SHALL BE REINFORCED C151 CLASS 50 OR POLYVINYL CHLORIDE PIPE UP TO 18 INCHES MEETING THE REQUIREMENTS OF AWMA C906 - 255 P.S.I. RATED PIPE.
- ALL VALVES ON PIPES 12 INCHES AND SMALLER SHALL BE RESILIENT SEALED WEDGE VALVES (AWMA C509).
- ALL VALVES ON PIPES LARGER THAN 12 INCHES BUT SMALLER THAN 30 INCHES SHALL BE BUTTERFLY VALVES (AWMA C504) OR WEDGE VALVES (AWMA C509).
- ALL VALVES ON PIPES 30 INCHES AND LARGER SHALL BE BUTTERFLY VALVES (AWMA C504).
- EMBEDMENT SHALL BE AS SHOWN IN THE PLANS, BACKFILL WITHIN THE LIMITS OF EXISTING AND PROPOSED PAVEMENT SHALL BE COMPACTED TO 95% STANDARD TO MINIMUM OF 95% STANDARD PROCTOR. ALL CONSTRUCTION SHALL BE BY MECHANICAL METHODS.
- WATER LINES SHALL BE PRESSURE TESTED TO 300 P.S.I.
- ALL HORIZONTAL AND VERTICAL BENDS SHALL BE BLOCKED USING 3,000 PSI COMMERCIAL CONCRETE. NO HAND MIXING OF SAND CONCRETE SHALL BE PERFORMED ON SITE.
- ALL SADDLES SHALL BE WUELETRHYMAK BR28 4"-6" SADDLES. FORD METER 2028 DOUBLE STRAP BRASS SADDLE, OR APPROVED EQUIVALENT.

SCREENING WALLS

- CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. @28 DAYS.
- REINFORCEMENT - ASTM A-36.
- MASONRY - COMPRESSIVE STRENGTH SHALL BE PRESCRIBED IN ITEM 2.3.6 SPECIAL PROVISIONS.
- WIND LOAD FOR DESIGN - 20 P.S.F.
- PIER BEARING STRESSERS - SEE BRICK SCREENING WALL NOTES.
- MORTAR - TYPE "S".
- PROVIDE CONTROL JOINTS AT 50 FEET.
- PROVIDE EXPANSION JOINTS AT 200 FEET CENTER MAXIMUM.
- PROVIDE PIER WITH MINIMUM 9 FOOT W/ 24 INCH DIAMETER BELT IN CLAY OR OTHER MATERIAL EXCEPT BLUE SHALE. 6 FOOT MINIMUM WITH 3 FOOT MINIMUM INTO BLUE SHALE.
- ALL EXPOSED CONCRETE SHALL BE CLASS 2 RUBBED FINISHED SURFACE.
- SIDEWALKS ADJACENT TO WALLS MUST BE 5 FOOT MINIMUM WIDTH FROM ALL PORTIONS OF THE WALL (INCLUDING PLASTERS, COLUMNS, ETC).
- MAXIMUM PLASTER SPACING 40 FEET.
- WALLS SHALL NOT BE PLACED IN THE VISIBILITY EASEMENT OR STREET RIGHT OF WAY.
- THE WALL SHALL BE A MINIMUM OF EIGHT FEET IN HEIGHT AS MEASURED FROM THE NEAREST ALLEY EDGE OR SIDEWALK GRADE, WHICHEVER IS THE HIGHER. THE COLOR OF THE WALL SHALL BE LIMITED TO EARTH-TONE COLORS, EXCLUDING GRAY, GREEN AND WHITE. THE COLOR OF THE WALL SHALL BE DIFORM ON EACH SIDE OF A LINELESS OTHERWISE APPROVED BY THE CITY'S PUBLIC WORKS ENGINEER. THE FINISH OF THE WALL SHALL BE CONSISTENT ON ALL SURFACES.
- IF WROUGHT IRON REINFORCING IS TO BE UTILIZED ON REQUIRED SCREENING, ALL WROUGHT IRON MUST BE SOLID STOCK. NO TUBULAR STEEL WILL BE ALLOWED.
- A 3"x4"x10 GALVANIZED ANGLE IRON PLATE SHALL BE INSTALLED BELOW THE BOTTOM ROW OF BRICKS & ANCHORED INTO THE COLUMNS FOR MASONRY SCREENING WALLS.

SPECIAL DETAILS OR MODIFICATIONS TO THESE STANDARD DETAILS TO BE UTILIZED ON ANY GIVEN PROJECT SHALL BE SUBMITTED TO THE CITY FOR APPROVAL FOR USE.

	
PLAN SCALE: 1:2 PLAN STYLE: monochrome PLOTTED BY: Brandon Young On 9/26/2022	SHEET NO. 0
CITY OF DENISON, TEXAS STANDARD CONSTRUCTION DETAILS GENERAL NOTES	
September, 2022	



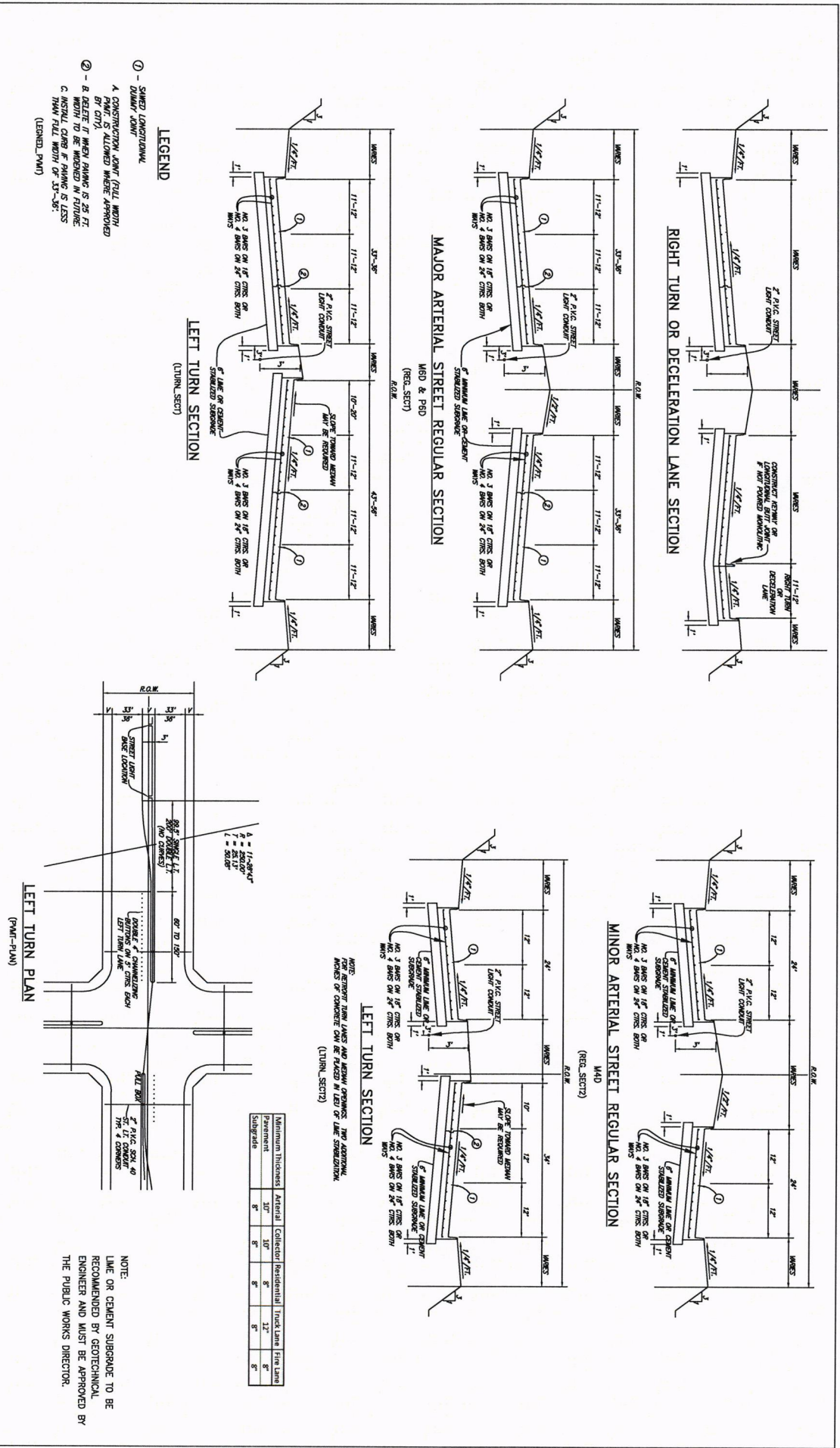
CITY OF DENISON, TEXAS


STANDARD CONSTRUCTION DETAILS
PAVING / SECTIONS / MAJOR & MINOR ARTERIAL STREETS

September, 2022

SHEET NO.

1





CITY OF DENISON, TEXAS

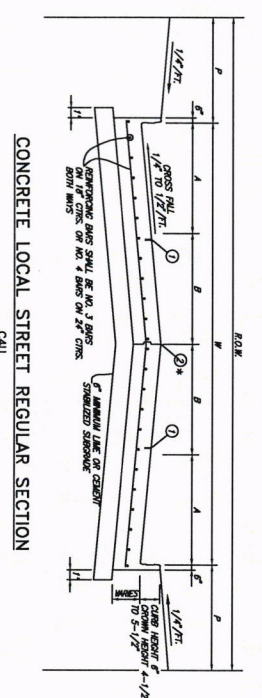
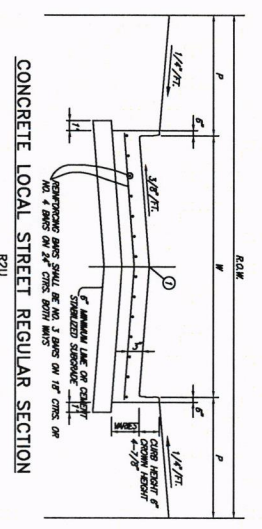
STANDARD CONSTRUCTION DETAILS

PAVING / SECTIONS / LOCAL STREETS

September, 2022

SHEET NO.

2



Minimum Thickness	Arterial	Collector	Residential	Truck Lane	Freeway
Pavement	10"	10"	8"	12"	8"
Subgrade	8"	8"	8"	8"	8"

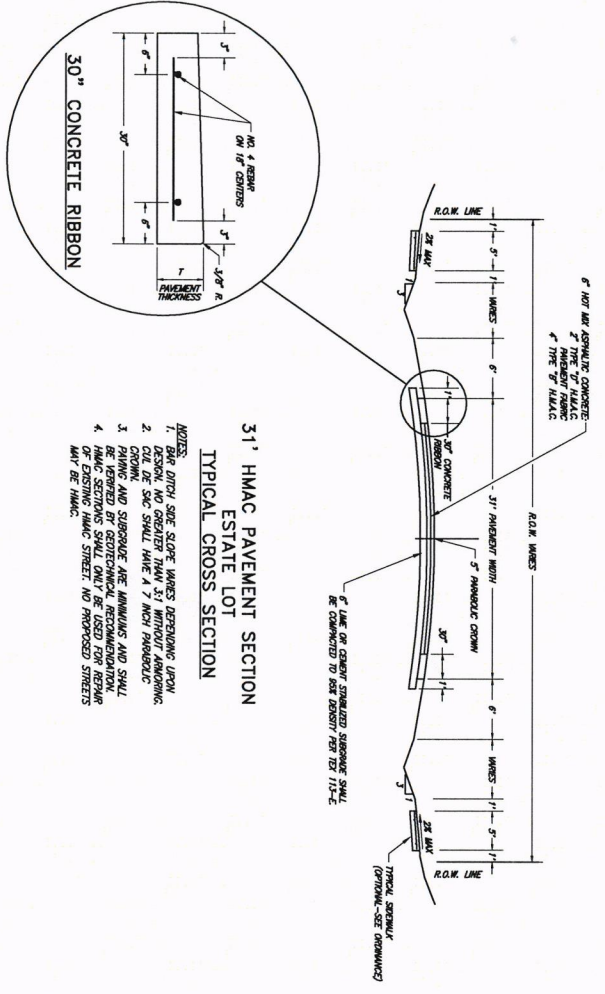
- (P&A, SECT)
- LEGEND**
- ① - SAWED LONGITUDINAL
 - ② - DYNAMIC JOINT
- CONSTRUCTION JOINT (FULL WIDTH PAVE. IS ALLOWED WHERE APPROVED BY CMT).
- (LEGEND, PLAN/2)

R2U, C2U, C4U, M4U & M5U PAVING SECTIONS SHALL HAVE A MINIMUM FINISH THICKNESS OF 8 INCHES UNLESS OTHERWISE RECOMMENDED BY GEOTECHNICAL ENGINEER.

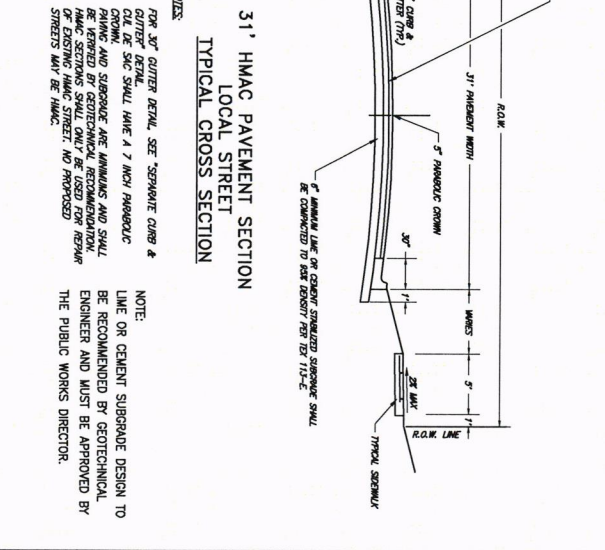
TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC SECTIONS

SEMI-PARABOLIC POINTS MUST MEET CROWN GRADIENTS AT CURVES, AT MID-POINTS & AT PARABOLIC POINTS ONLY TO BE CONSIDERED WITH S&P FROM FINISHES (P&A-MINBLE)


ROUNDWAY WIDTH (W)	TOTAL CROWN HEIGHT	3/4 POINT	MID-POINT	1/4 POINT
20'	4"	2-1/4"	1"	1/4"
30'	6"	3-3/8"	1-1/2"	3/8"
44'	6"	3-3/8"	1-1/2"	3/8"



- 31' HMAC PAVEMENT SECTION TYPICAL CROSS SECTION**
- NOTES:**
1. DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 2. ALL DE. SEC. SHALL HAVE A 7 INCH PARABOLIC CROWN.
 3. PAVING AND SUBGRADE ARE MINIMUMS AND SHALL BE RECOMMENDED BY GEOTECHNICAL ENGINEER AND MUST BE APPROVED BY THE PUBLIC WORKS DIRECTOR.
 4. HMAC SECTIONS SHALL ONLY BE USED FOR REPAIR OF EXISTING HMAC STREETS. NO PROPOSED STREETS MAY BE HMAC.

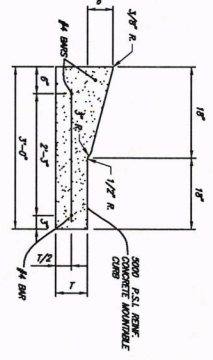


- 31' HMAC PAVEMENT SECTION LOCAL STREET TYPICAL CROSS SECTION**
- NOTES:**
1. FOR 30' CUTTER DETAIL, SEE "SEPARATE CURB & GUTTER".
 2. ALL DE. SEC. SHALL HAVE A 7 INCH PARABOLIC CROWN.
 3. PAVING AND SUBGRADE ARE MINIMUMS AND SHALL BE RECOMMENDED BY GEOTECHNICAL ENGINEER AND MUST BE APPROVED BY THE PUBLIC WORKS DIRECTOR.
 4. HMAC SECTIONS SHALL ONLY BE USED FOR REPAIR OF EXISTING HMAC STREETS. NO PROPOSED STREETS MAY BE HMAC.

		CITY OF DENISON, TEXAS STANDARD CONSTRUCTION DETAILS PAVING / DETAILS		October, 2021	SHEET NO. 2A
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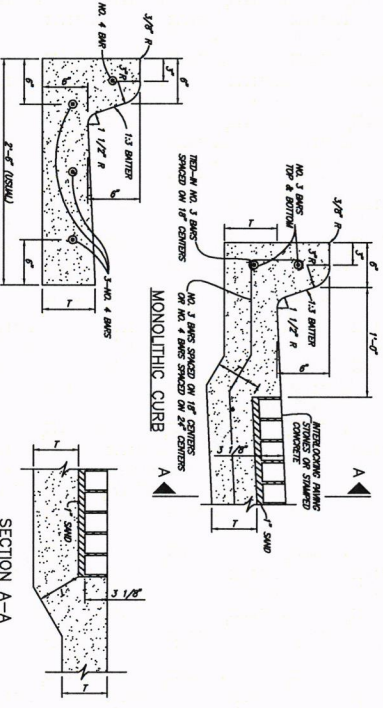
CURB AND CURB AND GUTTER
(CURB-CUT)

MOUNTABLE CURB SECTION

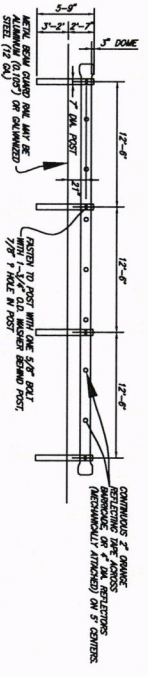


SEPARATE CURB AND GUTTER

SECTION A-A
FINISH STRIPES SHALL BE PER METHOD IN FIGURE 2.1.1 AND 2.1.1.1

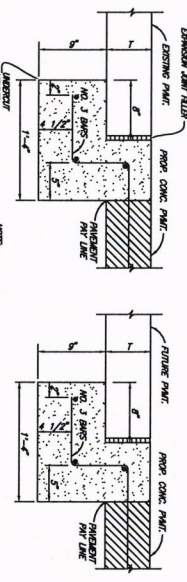


TYPICAL PERMANENT BARRICADE DETAIL
(FERN-BARRICADE)

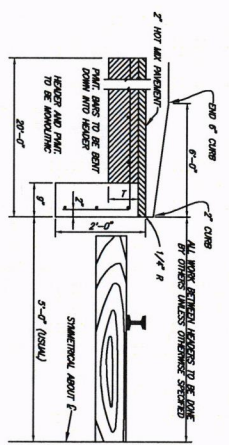


STREET HEADER
(HEADER)

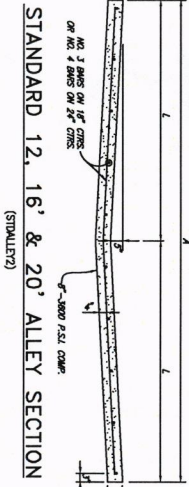
NOTE: FINISH STRIPES TO BE SENT DOWN AND INTO HEADER, FINISHMENT AND HEADER SHALL BE SEPARATE.



RAIL HEADER
(RR-HEADER)

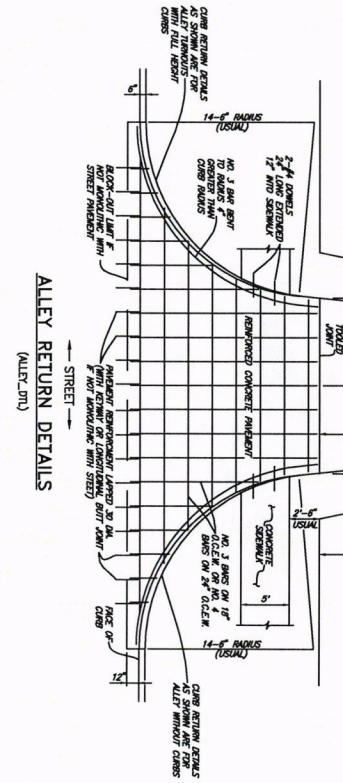


ALLEY WIDTH (A)	HALF WIDTH (B)
12'	6'
16'	8'
20'	10'



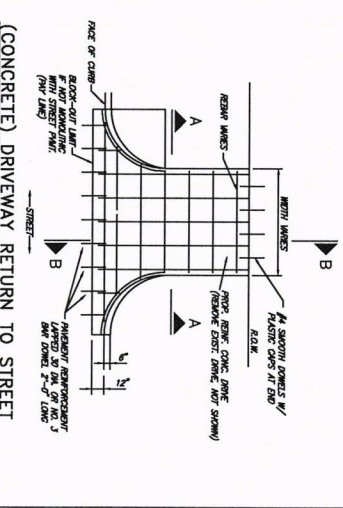
STANDARD 12, 16' & 20' ALLEY SECTION (STIPULED)

ALLEY WIDTH	A	B	C	D
12'	2'-6"	1'-7"	1'-6"	1'-6"
16'	2'-6"	2'-11"	1'-6"	1'-6"
20'	2'-6"	2'-5"	2'-0"	2'-0"

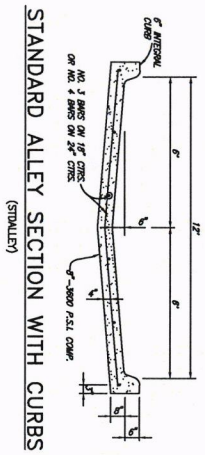


ALLEY RETURN DETAILS (ALLEY, DTY)

	RESIDENTIAL	COMMERCIAL/INDUSTRIAL
MIN. WIDTH	12' B-B	30' B-B
RADIUS	5'	30'
MIN. THICKNESS	5"	5"
REBAR	#3 BARS @ 18" O.C.	#3 BARS @ 18" O.C.

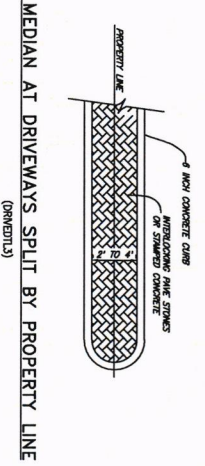
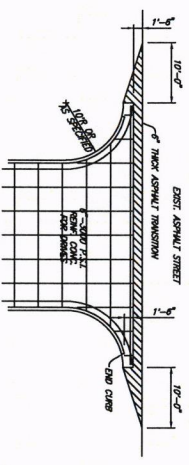


(CONCRETE) DRIVEWAY RETURN TO STREET

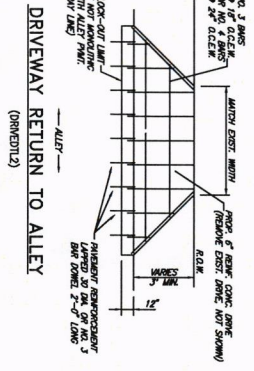


STANDARD ALLEY SECTION WITH CURBS (STIPULED)

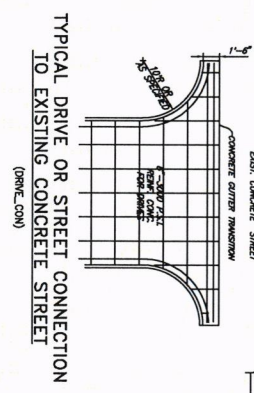
TYPICAL DRIVE OR STREET CONNECTION TO EXISTING ASPHALT STREET (DRIVE, CON)



MEDIAN AT DRIVEWAYS SPLIT BY PROPERTY LINE (DRIVE, DTY)

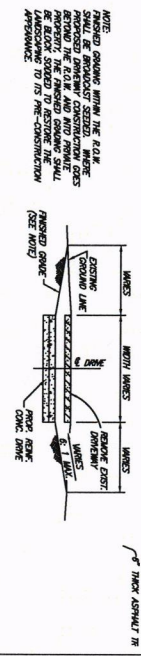


DRIVEWAY RETURN TO ALLEY (DRIVE, DTY)

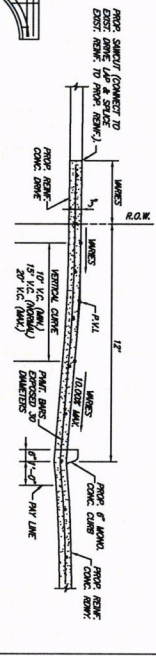


TYPICAL DRIVE OR STREET CONNECTION TO EXISTING CONCRETE STREET (DRIVE, CON)

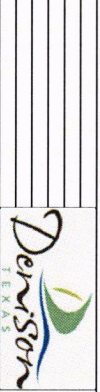
SECTION A-A



SECTION B-B



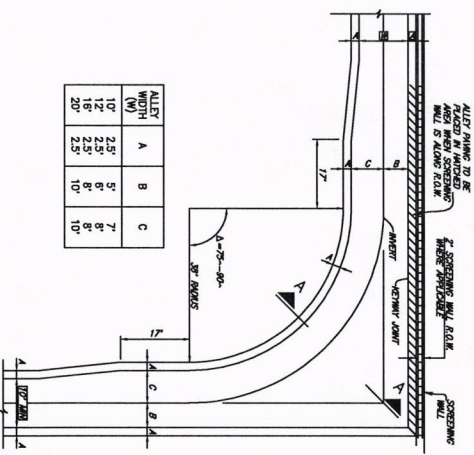
DRIVEWAY RETURN SECTIONS (DRIVE, DTY)



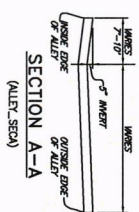
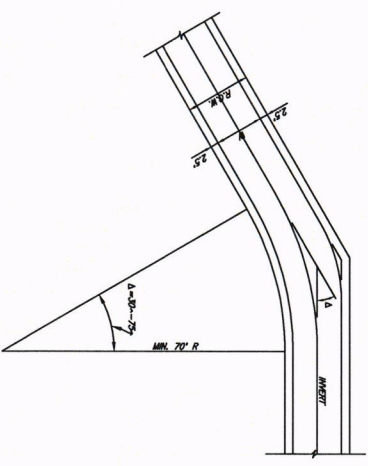
CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
PAVING / ALLEY / DRIVEWAYS

ALLEY WIDTH (W)	A	B	C
10'	2.5'	5'	7'
12'	2.5'	6'	8'
14'	2.5'	7'	9'
16'	2.5'	8'	10'
20'	2.5'	10'	10'

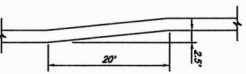
ALLEY TURN FOR $\Delta = 75^\circ - 90^\circ$
(ALLEY_TURNS)



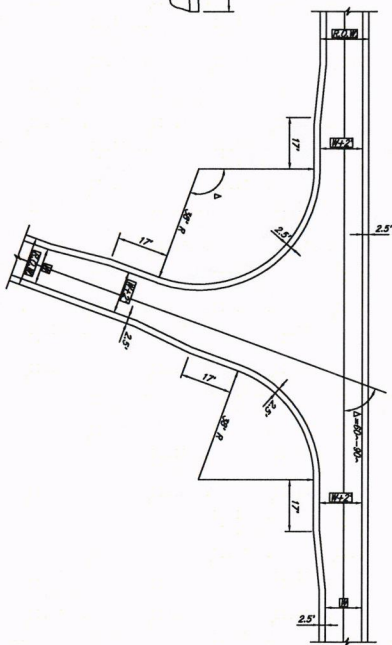
ALLEY TURN FOR $\Delta = 30^\circ - 75^\circ$
(ALLEY_TURN)



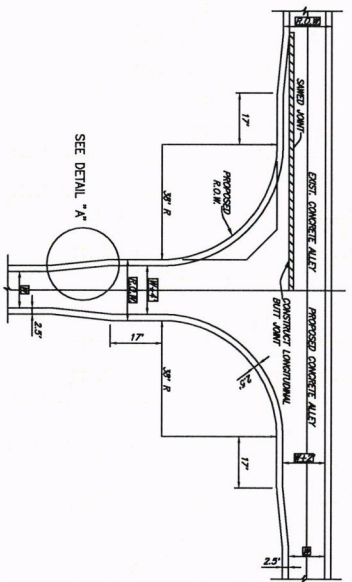
DETAIL "A" (ALLEY_DETAIL)



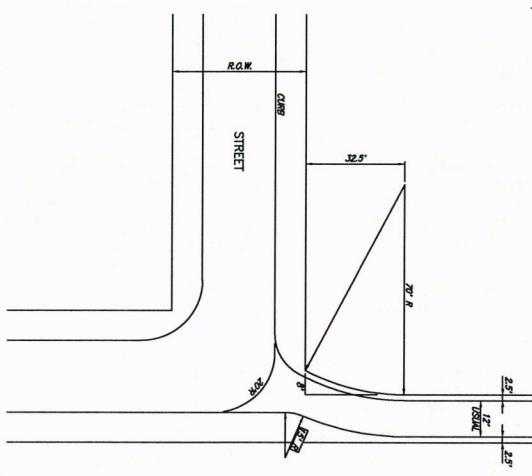
ALLEY TURN FOR $\Delta > 90^\circ$
(ALLEY_TURNS)



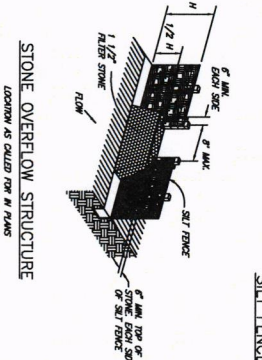
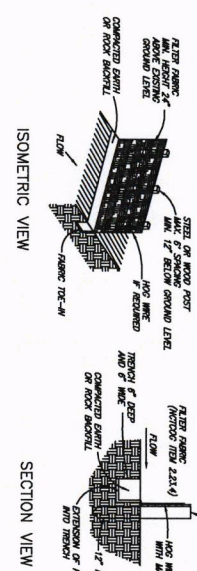
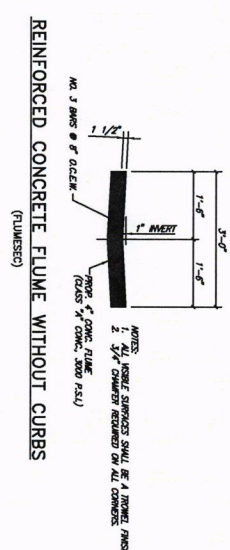
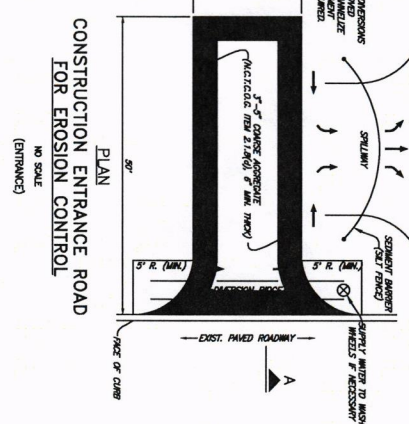
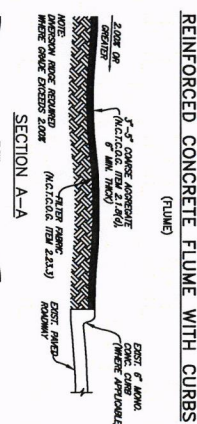
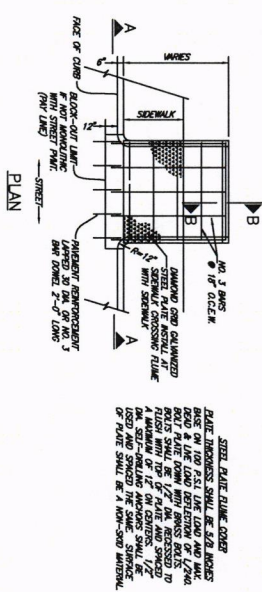
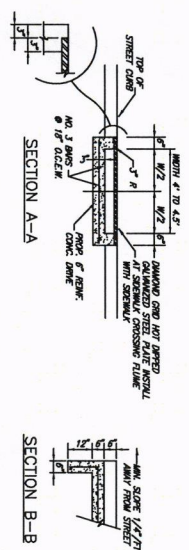
ALLEY INTERSECTING ALLEY
(ALLEY_ALLEY)



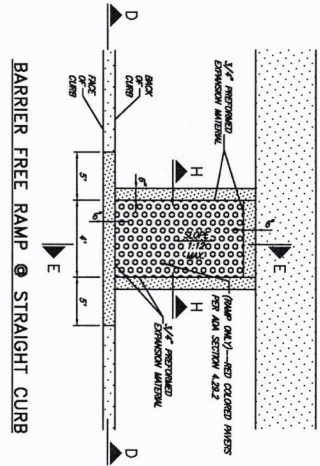
ALLEY / STREET INTERSECTION
(ALLEY_ST)



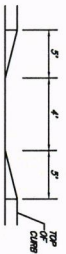
REVISION: 10/1/21 - MWH/ghd/med
 L:\job\20210821 Denison Design Structures Update\Production Drawings\Denison-06.dwg
 PLOT SCALE: 1:2
 PLOT STYLE: monochrome.ctb
 PLOTTED BY: Brandon Young ON 9/29/2022



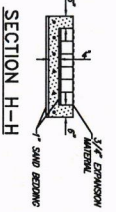
- EROSION CONTROL**
(SILT-011)
- NOTES:**
- 1) THE CONSTRUCTOR SHALL INSPECT SILT FENCE INSTALLATION TO ENSURE THAT THE SILT FENCE IS INSTALLED ACCORDING TO THE SPECIFICATIONS AND MAINTAIN THE ACCORDANCE WITH SECTION 212.02.
 - 2) THE CONSTRUCTOR SHALL REMOVE SEDIMENT FROM THE SILT FENCE AND MAINTAIN THE SILT FENCE UP TO ONE-HALF THE HEIGHT OF THE FENCE AND BACK TO THE ORIGINAL GRADE.
 - 3) THE CONSTRUCTOR SHALL INSPECT THE BASE OF THE FENCE TO ENSURE THAT NO GAPS HAVE DEVELOPED AND REPAIR AS NECESSARY.
 - 4) THE CONSTRUCTOR SHALL INSPECT FENCE POSTS TO ENSURE THAT THEY ARE SPACED AT 10' ON CENTER AND ADD POSTS AS NECESSARY.
 - 5) IF FALTER FENCE IS DAMAGED, DAMAGED OR NOT IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND DETAILS (MAINTENANCE OF THE SILT FENCE SHALL BE AT THE CONTRACTOR'S OWN CHARGE).



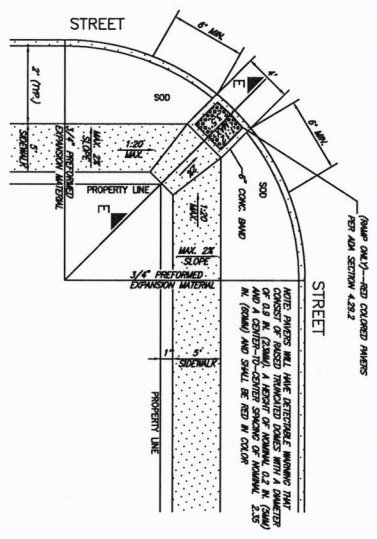
BARRIER FREE RAMP @ STRAIGHT CURB



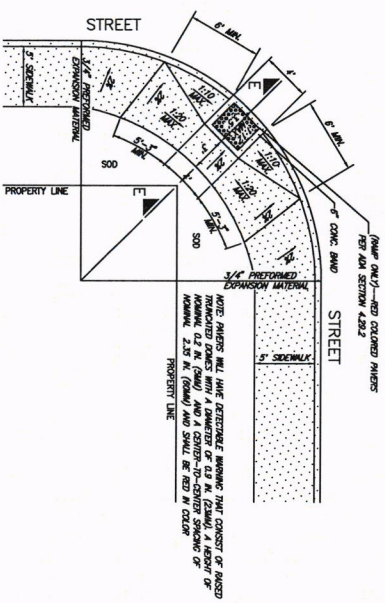
SECTION D-D



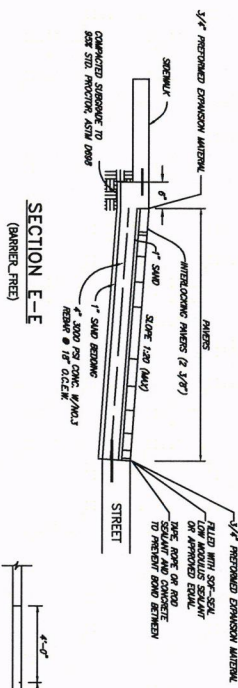
SECTION H-H



RAMP FOR 5 FEET SIDEWALK AWAY FROM CURB

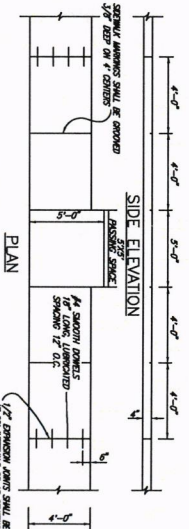


RAMP FOR 5 FEET SIDEWALK NEXT TO CURB



SECTION E-E (BARRIER FREE)

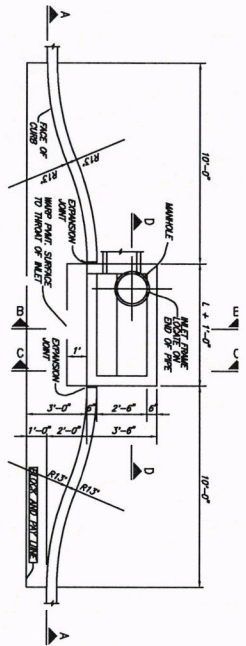
REINFORCING STEEL: REBAR OR EQUIVALENT SHALL BE USED. REBAR SHALL BE PLACED WITH 1/2" CLEARANCE FROM ALL CONCRETE SURFACES. REBAR SHALL BE PLACED WITH 1/2" CLEARANCE FROM ALL CONCRETE SURFACES. REBAR SHALL BE PLACED WITH 1/2" CLEARANCE FROM ALL CONCRETE SURFACES. REBAR SHALL BE PLACED WITH 1/2" CLEARANCE FROM ALL CONCRETE SURFACES.



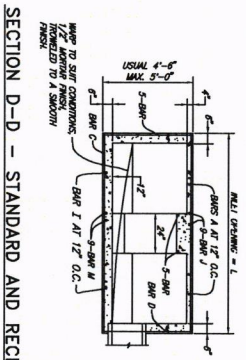
REINFORCED CONCRETE SIDEWALK (SIDEWALK)



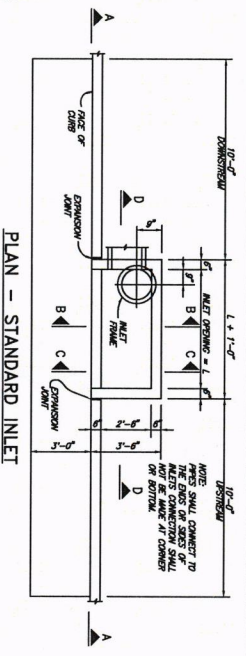
CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
PAVING / SIDEWALKS



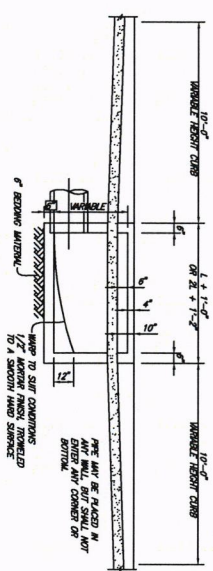
PLAN - RECESSED INLET
(REC-NIT)



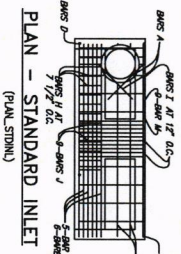
PLAN - STANDARD INLET
(STINDLT)



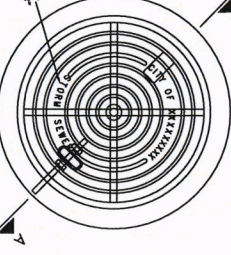
PLAN - STANDARD INLET
(STINDLT)



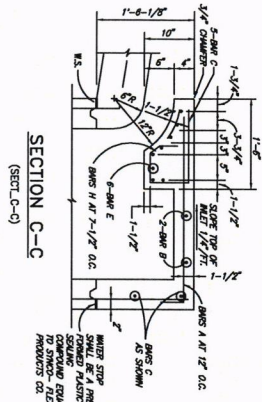
SECTION A-A-RECESSED AND STANDARD INLETS
(PLAN-10)



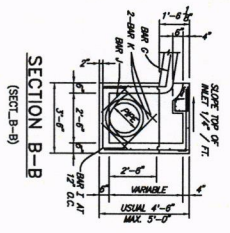
PLAN - STANDARD INLET
(PLAN-STINDL)



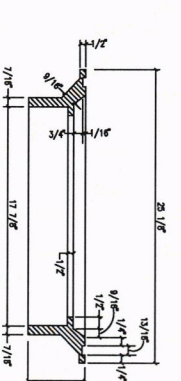
PLAN OF COVER
NOTE: MANHOLE COVER TO MATCH
LOCALING DENISE



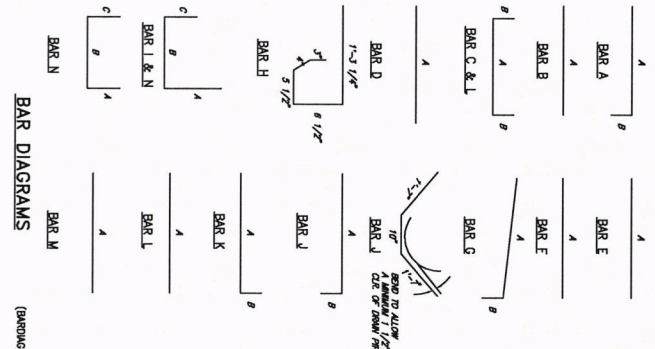
SECTION C-C
(SECT-C-C)



SECTION B-B
(SECT-B-B)



SECTION OF FRAME AND COVER SECTION A-A
INLET FRAME AND COVER
BARS & INTS OVER EQ. FRAME 4'x4' OR EQUAL
(MH-COV4)



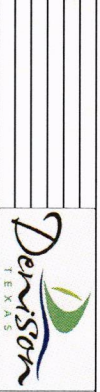
BAR DIAGRAMS
(BARING)

REINFORCING STEEL SCHEDULE

DIAMETERS SHOWN ARE FOR MAXIMUM SIZE INLETS

INLET LENGTH (FT)	BAR DIA. (IN)	REBAR	BAR DIA. (IN)	REBAR
10	A	3	12	3-2"
	B	2	10-10"	0-3"
	C	2	8-8"	0-3"
	D	2	6-6"	0-3"
	E	2	4-4"	0-3"
	F	2	3-3"	0-3"
	G	2	2-2"	0-3"
	H	2	1-1"	0-3"
	I	2	1-1"	0-3"
	J	2	1-1"	0-3"
	K	2	1-1"	0-3"
	L	2	1-1"	0-3"
	M	2	1-1"	0-3"
	N	2	1-1"	0-3"

1/2" SEE DRAWING FOR DIMENSIONS

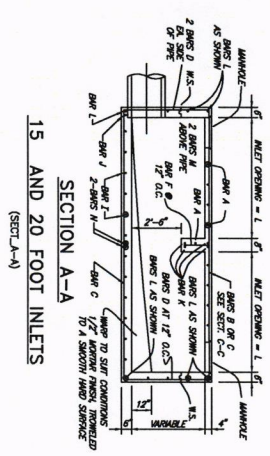


CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
STORM SEWER / INLET

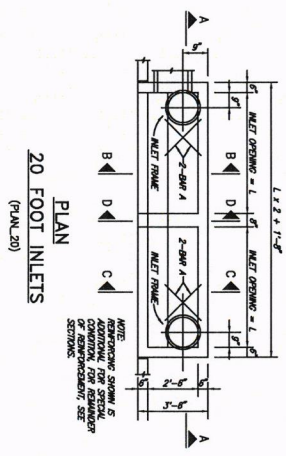


CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
STORM SEWER / INLET

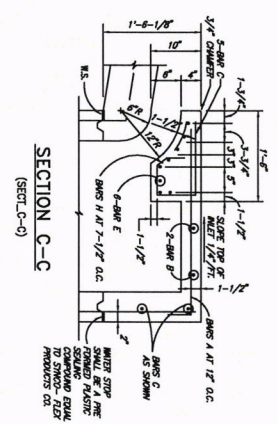
October, 2021
SHEET NO.
10



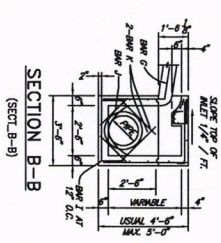
15 AND 20 FOOT INLETS
(SECT. A-A)



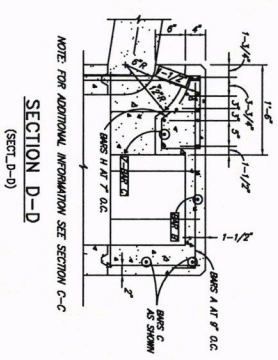
PLAN
20 FOOT INLETS
(PLAN 20)



SECTION C-C
(SECT. C-C)



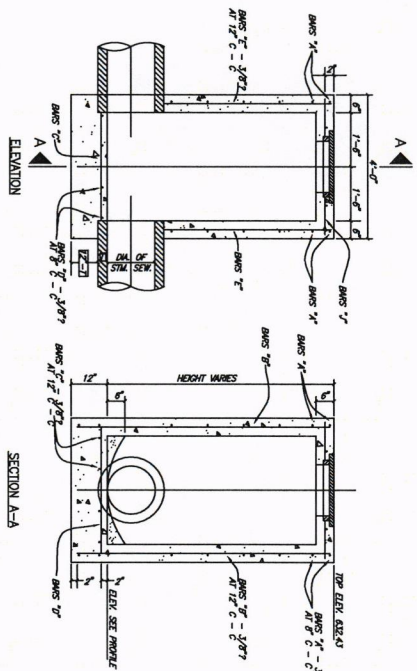
SECTION B-B
(SECT. B-B)



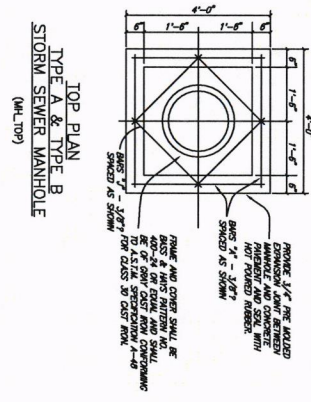
SECTION D-D
(SECT. D-D)

DOUBLE INLETS
DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLETS

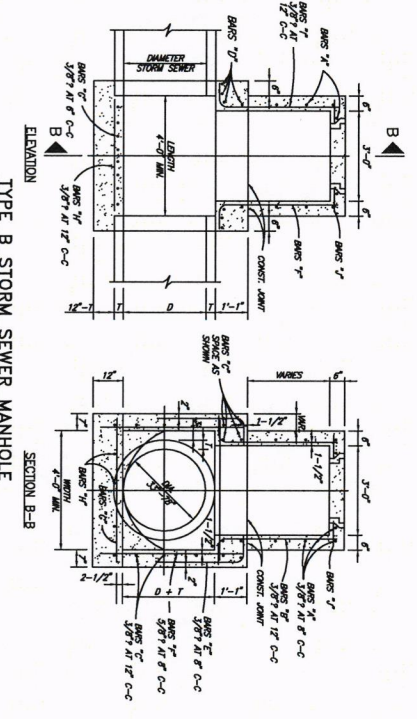
INLET SIZE (FT)	BAR NO.	BAR SIZE	BAR DIMENSIONS
2.0 FT	A	3	3'-0"
2.0 FT	B	3	3'-0"
2.0 FT	C	4	18"
2.0 FT	D	4	18"
2.0 FT	E	5	6
2.0 FT	F	5	6
2.0 FT	G	5	6
2.0 FT	H	5	6
2.0 FT	I	5	6
2.0 FT	J	5	6
2.0 FT	K	5	6
2.0 FT	L	5	6
2.0 FT	M	5	6
2.0 FT	N	5	6
2.0 FT	O	5	6
2.0 FT	P	5	6
2.0 FT	Q	5	6
2.0 FT	R	5	6
2.0 FT	S	5	6
2.0 FT	T	5	6
2.0 FT	U	5	6
2.0 FT	V	5	6
2.0 FT	W	5	6
2.0 FT	X	5	6
2.0 FT	Y	5	6
2.0 FT	Z	5	6
2.0 FT	AA	5	6
2.0 FT	AB	5	6
2.0 FT	AC	5	6
2.0 FT	AD	5	6
2.0 FT	AE	5	6
2.0 FT	AF	5	6
2.0 FT	AG	5	6
2.0 FT	AH	5	6
2.0 FT	AI	5	6
2.0 FT	AJ	5	6
2.0 FT	AK	5	6
2.0 FT	AL	5	6
2.0 FT	AM	5	6
2.0 FT	AN	5	6
2.0 FT	AO	5	6
2.0 FT	AP	5	6
2.0 FT	AQ	5	6
2.0 FT	AR	5	6
2.0 FT	AS	5	6
2.0 FT	AT	5	6
2.0 FT	AU	5	6
2.0 FT	AV	5	6
2.0 FT	AW	5	6
2.0 FT	AX	5	6
2.0 FT	AY	5	6
2.0 FT	AZ	5	6
2.0 FT	BA	5	6
2.0 FT	BB	5	6
2.0 FT	BC	5	6
2.0 FT	BD	5	6
2.0 FT	BE	5	6
2.0 FT	BF	5	6
2.0 FT	BG	5	6
2.0 FT	BH	5	6
2.0 FT	BI	5	6
2.0 FT	BJ	5	6
2.0 FT	BK	5	6
2.0 FT	BL	5	6
2.0 FT	BM	5	6
2.0 FT	BN	5	6
2.0 FT	BO	5	6
2.0 FT	BP	5	6
2.0 FT	BQ	5	6
2.0 FT	BR	5	6
2.0 FT	BS	5	6
2.0 FT	BT	5	6
2.0 FT	BU	5	6
2.0 FT	BV	5	6
2.0 FT	BW	5	6
2.0 FT	BX	5	6
2.0 FT	BY	5	6
2.0 FT	BZ	5	6
2.0 FT	CA	5	6
2.0 FT	CB	5	6
2.0 FT	CC	5	6
2.0 FT	CD	5	6
2.0 FT	CE	5	6
2.0 FT	CF	5	6
2.0 FT	CG	5	6
2.0 FT	CH	5	6
2.0 FT	CI	5	6
2.0 FT	CJ	5	6
2.0 FT	CK	5	6
2.0 FT	CL	5	6
2.0 FT	CM	5	6
2.0 FT	CN	5	6
2.0 FT	CO	5	6
2.0 FT	CP	5	6
2.0 FT	CQ	5	6
2.0 FT	CR	5	6
2.0 FT	CS	5	6
2.0 FT	CT	5	6
2.0 FT	CU	5	6
2.0 FT	CV	5	6
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2.0 FT	DE	5	6
2.0 FT	DF	5	6
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2.0 FT	DI	5	6
2.0 FT	DJ	5	6
2.0 FT	DK	5	6
2.0 FT	DL	5	6
2.0 FT	DM	5	6
2.0 FT	DN	5	6
2.0 FT	DO	5	6
2.0 FT	DP	5	6
2.0 FT	DQ	5	6
2.0 FT	DR	5	6
2.0 FT	DS	5	6
2.0 FT	DT	5	6
2.0 FT	DU	5	6
2.0 FT	DV	5	6
2.0 FT	DW	5	6
2.0 FT	DX	5	6
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2.0 FT	EB	5	6
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2.0 FT	EL	5	6
2.0 FT	EM	5	6
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2.0 FT	HP	5	6
2.0 FT	HQ	5	6
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2.0 FT	HS	5	6
2.0 FT	HT	5	6
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2.0 FT	HV	5	6
2.0 FT	HW	5	6
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2.0 FT	HZ	5	6
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2.0 FT	IE	5	6
2.0 FT	IF	5	6
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2.0 FT	IH	5	6
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2.0 FT	IJ	5	6
2.0 FT	IK	5	6
2.0 FT	IL	5	6
2.0 FT	IM	5	6
2.0 FT	IN	5	6
2.0 FT	IO	5	6
2.0 FT	IP	5	6
2.0 FT	IQ	5	6
2.0 FT	IR	5	6
2.0 FT	IS	5	6
2.0 FT	IT	5	6
2.0 FT	IU	5	6
2.0 FT	IV	5	6
2.0 FT	IW	5	6
2.0 FT	IX	5	6
2.0 FT	IY	5	6
2.0 FT	IZ	5	6
2.0 FT	JA	5	6
2.0 FT	JB	5	6
2.0 FT	JC	5	6
2.0 FT	JD	5	6
2.0 FT	JE	5	6
2.0 FT	JF	5	6
2.0 FT	JG	5	6
2.0 FT	JH	5	6
2.0 FT	JI	5	6
2.0 FT	JJ	5	6
2.0 FT	JK	5	6
2.0 FT	JL	5	6
2.0 FT	JM	5	6
2.0 FT	JN	5	6
2.0 FT	JO	5	6
2.0 FT	JP	5	6
2.0 FT	JQ	5	6
2.0 FT	JR	5	6
2.0 FT	JS	5	6
2.0 FT	JT	5	6
2.0 FT	JU	5	6
2.0 FT	JV	5	6
2.0 FT	JW	5	6
2.0 FT	JX	5	6
2.0 FT	JY	5	6
2.0 FT	JZ	5	6
2.0 FT	KA	5	6
2.0 FT	KB	5	6
2.0 FT	KC	5	



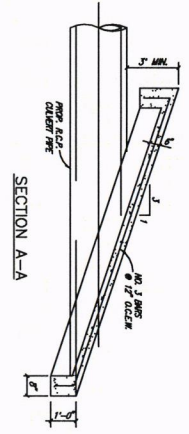
STORM SEWER TYPE A MANHOLE
MAX. PIPE SIZE 30"
(TYPICAL)



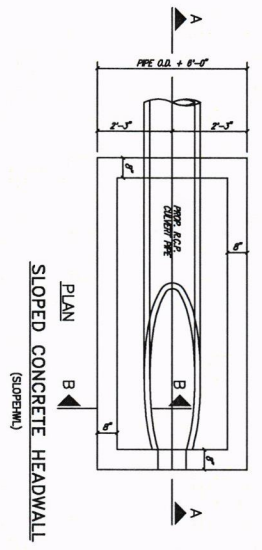
TOP PLAN
TYPE A & TYPE B
STORM SEWER MANHOLE
(MAX. TOP)



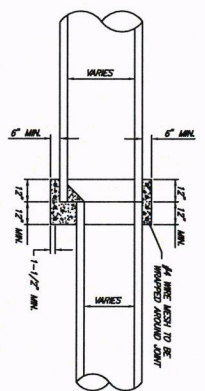
TYPE B STORM SEWER MANHOLE
MAX. PIPE SIZE 78"
(TYPICAL)



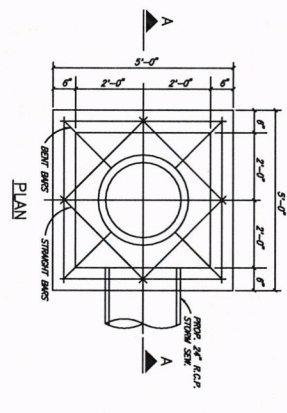
SECTION A-A



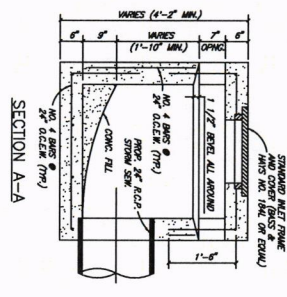
PLAN
SECTION B-B
SLOPED CONCRETE HEADWALL
(SLOPEMAN)



DETAIL OF CONCRETE COLLAR
FOR R.C.P. OR R.C.A.P. CONNECTIONS
INSIDE JOINT SHALL BE CONCRETE MORTAR
(CONCOCK)



PLAN
SECTION A-A
STANDARD DROP INLET
(DROPPLET)

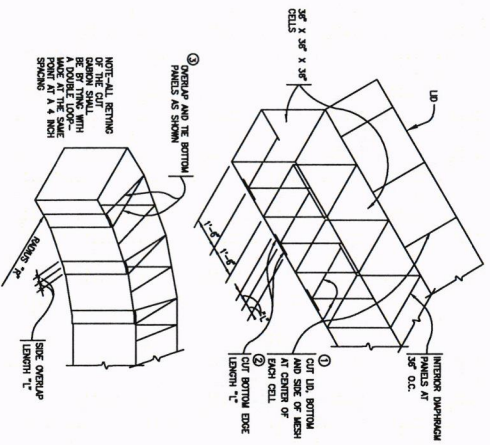


SECTION A-A

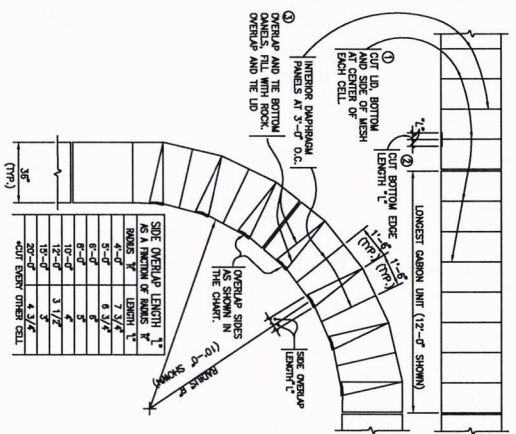


CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
STORM SEWER / INLET / DETAILS

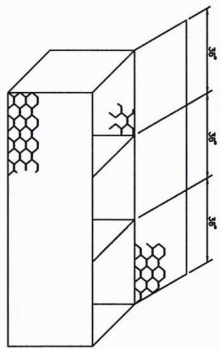
September, 2021
SHEET NO.
11



GABION RADIUS PROCEDURE
(RADIIUS)

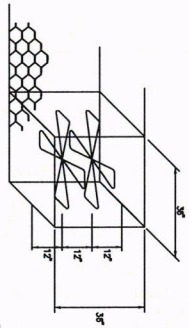


GABION RADIUS PROCEDURE

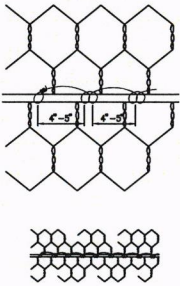


GABION CONTAINER

NOTE: GABION UNIT BE CUT BUT SHALL BE FITTED FROM TOP AND ALL TIES SHALL BE IN COMPLIANCE WITH DETAILS.

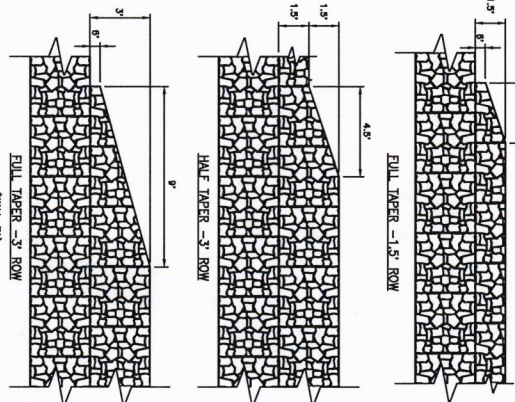


INNER TIE WIRE
M.I.S.

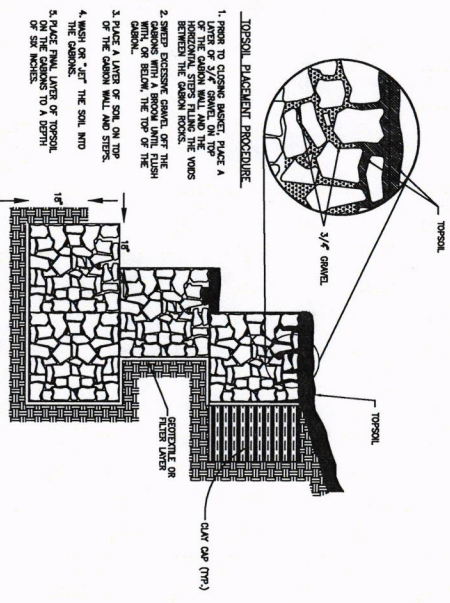


GABION TILE

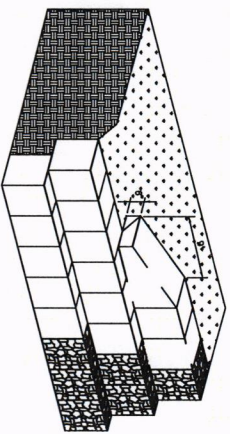
NOTE: ALL TYPING OF GABIONS SHALL BE AS SHOWN.



TAPERED WALL HEIGHT TRANSITION
(WALL-1)



VEGETATED GABION WALL TOPSOIL PLACEMENT
(VEG-WALL)

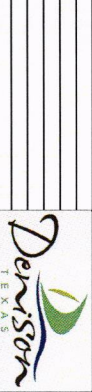


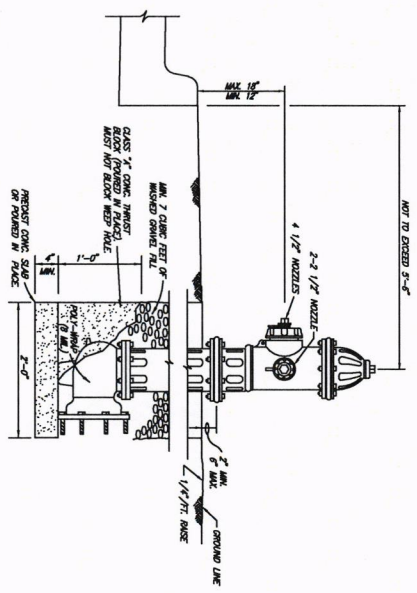
STANDARD TAPER FOR WALL HEIGHTS TRANSITIONS
(TAPER-1)

CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
CHANNELS) GABIONS

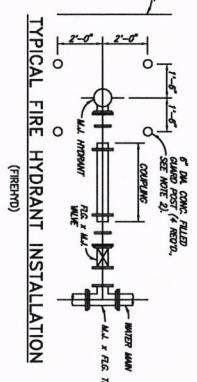
September, 2021

SHEET NO. 13

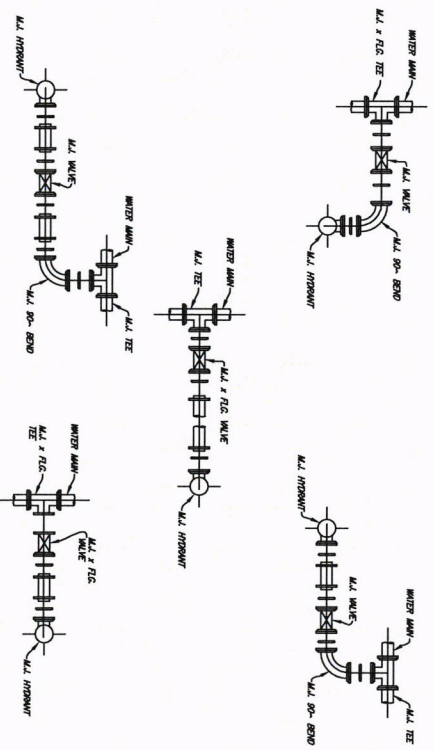




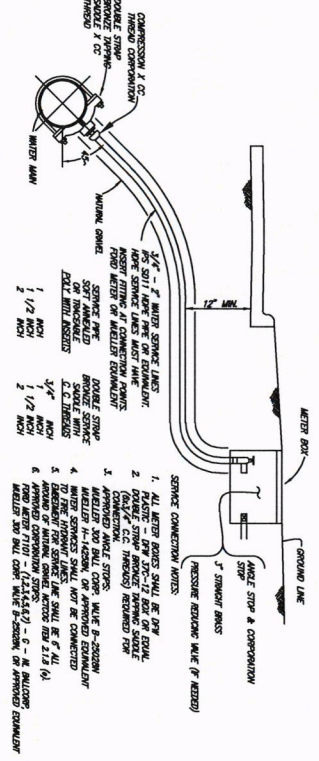
- FIRE HYDRANT NOTES**
- IN GENERAL, ALL FIRE HYDRANTS SHALL COMPLY TO AWWA STANDARDS SPECIFICATIONS FOR FIRE HYDRANTS FOR RUST-RESISTANT METAL WATER SERVICE FOR METERS AND SHALL HAVE A 5-1/2" MINIMUM WALE CROWN AND ALL HYDRANTS SHALL BE EQUIPPED WITH A PRESSURE GAUGE. ALL HYDRANTS SHALL BE APPROVED BY THE CITY.
 - GROUND ROSS SHALL BE 3/4" OR 1" FOR STEEL PIPE ENCASED IN 1" MIN. CONCRETE (SEE NOTE 2). FOR BRASS (1/2" LONG) THIN FOOT AND WALE. FOOT AND WALE SHALL BE 1/2" MIN. THICK AND HAVE RESISTIVE PAINT.
 - THE FIRE HYDRANTS SHALL BE APPROVED BY THE CITY. ALL HYDRANTS SHALL BE APPROVED BY THE CITY. ALL HYDRANTS SHALL BE APPROVED BY THE CITY.
 - ALL HYDRANTS SHOULD BE ORDERED THROUGH THE CITY OF DENISON. DENISON SERIES 0-2000 APPROVED ALUMINA COATED OR ENAMEL COATED SHALL BE ORDERED TO MATCH THE FLOW RATE.
 - CLASS M - LIGHT BLUE (MINIMUM DIAMETER OF 1000 - 1400 GPM)
 - CLASS F - GREEN (MINIMUM DIAMETER OF 800 - 1000 GPM)
 - CLASS B - ORANGE (MINIMUM DIAMETER OF 500 - 800 GPM)
 - CLASS C - RED (MINIMUM DIAMETER OF LESS THAN 500 GPM)



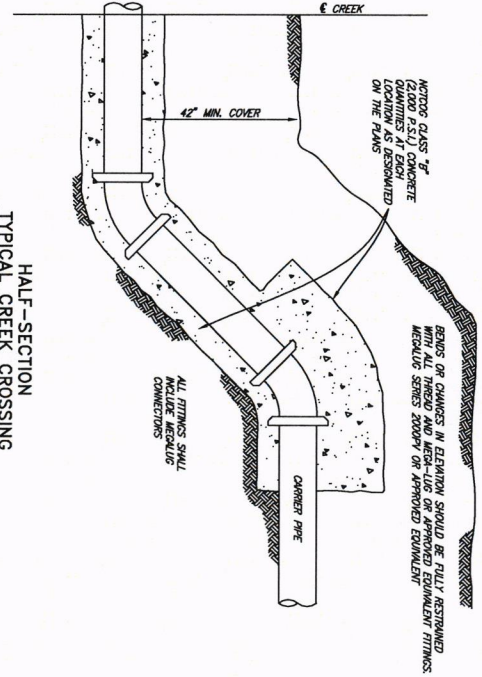
- TYPICAL FIRE HYDRANT INSTALLATION (FIREHEAD)**
- OPEN LEFT
 - NEED OPERATING MIT
 - FIRE HYDRANT SHOULD BE ONE OF THE FOLLOWING BRANDS/ MODELS:
 - CLASS M/ENLUM
 - METAL SHIRT CONNECTION
 - 5-1/2" APPROVED RUBBER HYDRANT



TYPICAL FIRE HYDRANT INSTALLATION PLANS (FH-PLANS)



TYPICAL SERVICE CONNECTION WITH METER BOX (METERS)

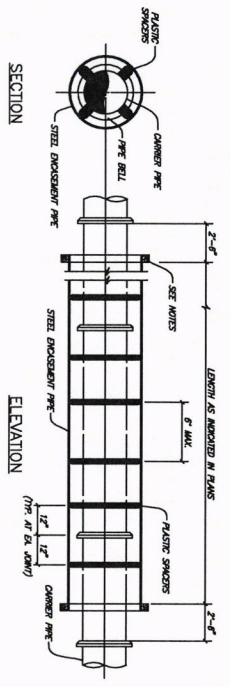
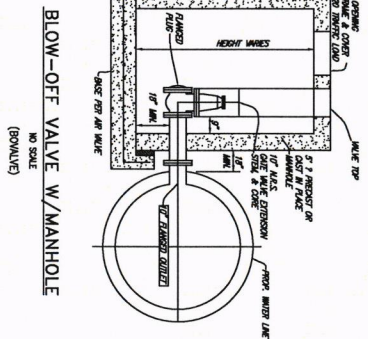
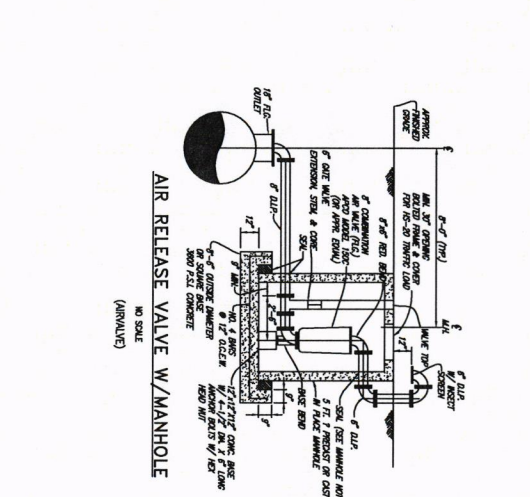
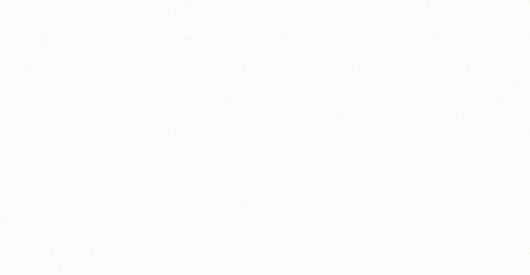
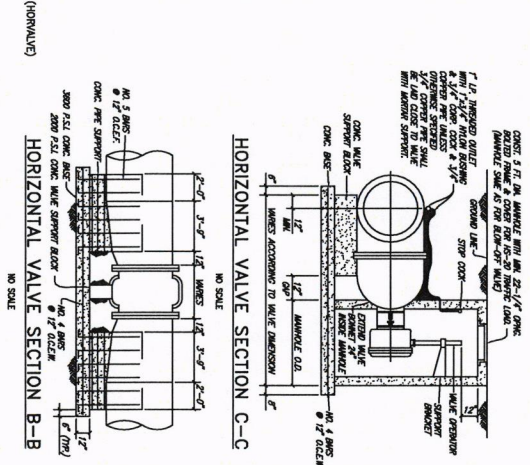
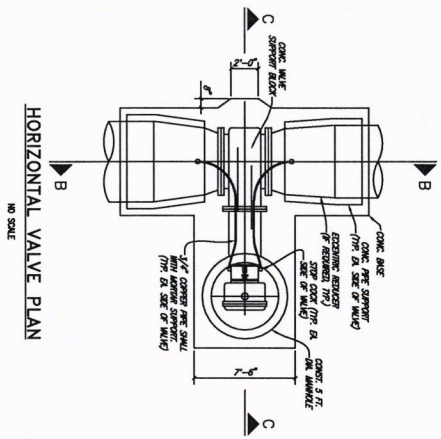


HALF-SECTION TYPICAL CREEK CROSSING (CREEK-X)



CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
WATER

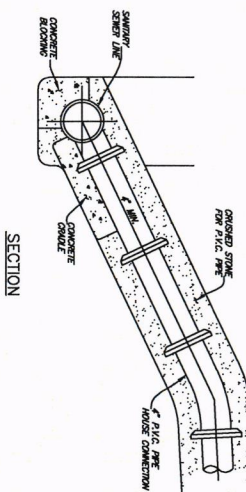
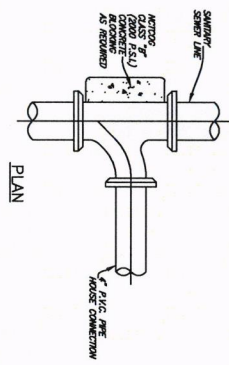
August, 2022
SHEET NO.
14



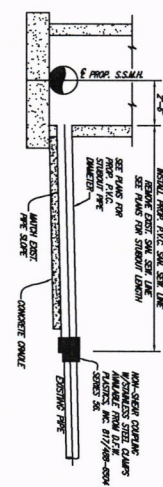
ENCASED ROAD BORE
NO SCALE

- 1) APPROVED BY THE OWNER
- 2) CONTRACTOR SHALL PROVIDE SUFFICIENT CLEARANCE BETWEEN PIPE BELL AND ENCASING PIPE
- 3) ENCASING PIPE SHALL BE SOLID WITH U.S. GRADE FOR ROADWAY CROSSINGS. PILES SHALL BE CONSTRUCTED WITH A 10% TOLERANCE

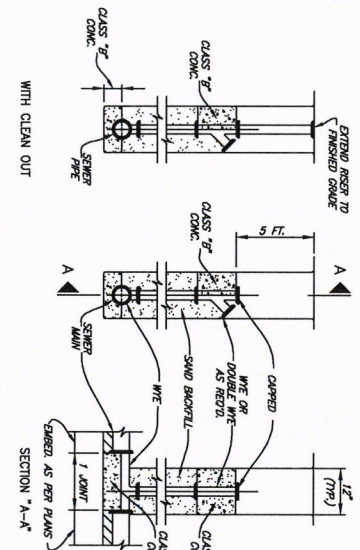
CHANGE ORDER NO. X FIELD CHANGE ADDENDUM		CITY OF DENISON, TEXAS STANDARD CONSTRUCTION DETAILS WATER	August, 2022	SHEET NO. 17
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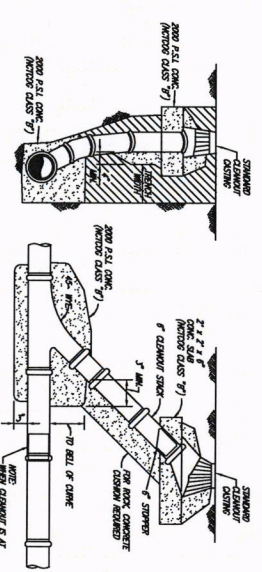
TYPICAL SEWER HOUSE SERVICE CONNECTION
 SANITARY SEWER CLEANOUT BOOTS SHALL BE BASS & HAYS # 339 OR APPROVED EQUAL (HOUSE SERVICE)



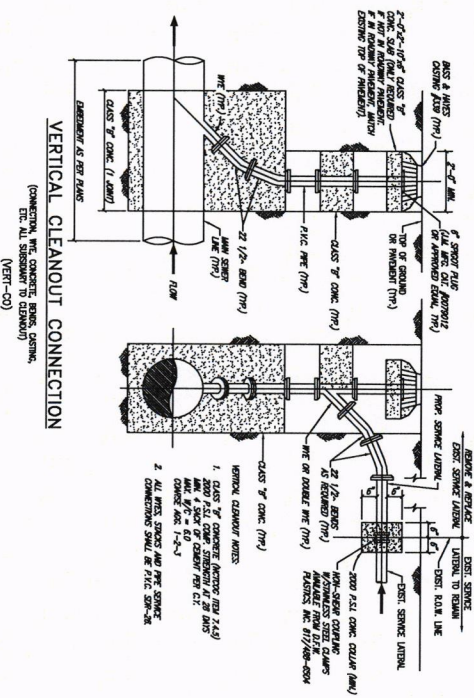
TYPICAL STUBOUT CONNECTION
 NO SCALE
 NOTES:
 1. ALL SEWER SERVICE CONNECTIONS SHALL BE BASS & HAYS # 339 OR APPROVED EQUAL (HOUSE SERVICE)
 2. ALL SEWER SERVICE CONNECTIONS SHALL BE P.V.C. 6\"/>



DEEP CUT CLEANOUT (REPER-CO)
 NO SCALE



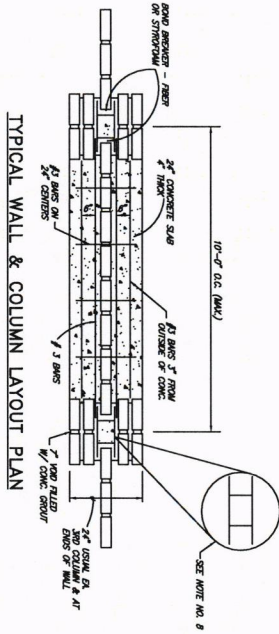
STANDARD CLEANOUT (CLEANOUT)
 NO SCALE



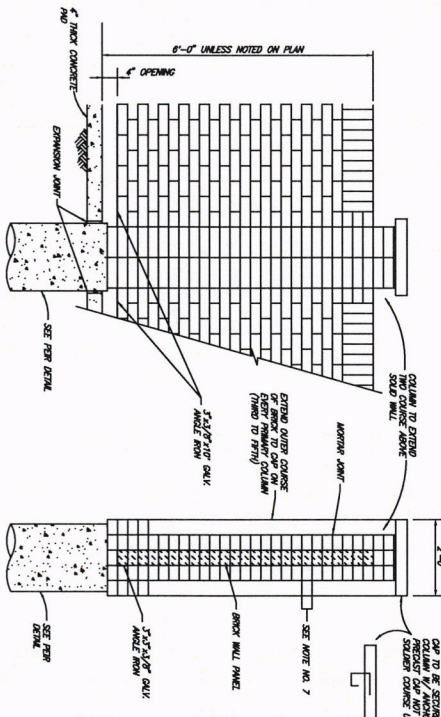
VERTICAL CLEANOUT CONNECTION
 (CONNECTION WITH CONCRETE BOSS, CURB, ETC. ALL SUBJECT TO CLEANOUT)
 (VERT-CO)
 NO SCALE



CITY OF DENISON, TEXAS
 STANDARD CONSTRUCTION DETAILS
 SANITARY SEWERSERVICES

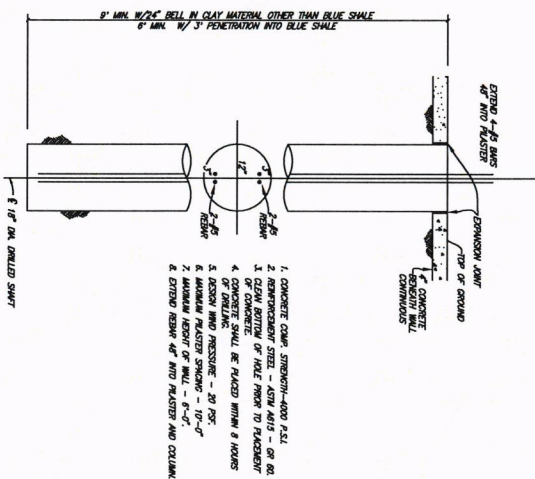


TYPICAL WALL & COLUMN LAYOUT PLAN



THIN WALL BRICK SCREENING WALL ELEVATION (REFERENCE)

- NOTES:**
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 P.S.I. AT 28 DAYS.
 2. REINFORCING STEEL SHALL BE NEW BULLET STEEL AS SPECIFIED TO THE REQUIREMENTS OF ASTM A618-18.
 3. CONCRETE FOR FINISHED WORK SHALL BE PLACED WITHIN 3 HOURS OF FINISHING TEST HOURS OF THE SPECIAL PROVISIONS.
 4. BRICK MASONRY SHALL BE AS SPECIFIED IN ITEM 2.2.10 OF THE SPECIAL PROVISIONS.
 5. MORTAR SHALL BE TYPE "S".
 6. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE FOR ENHANCED BRICK MASONRY—BRICK INSTITUTE OF AMERICA.
 7. USE #4 BARS 1-1/2" WIDE GALVANIZED LADDER WIRE AS REINFORCEMENT IN WALL PANELS. MINIMUM 2" CLEARANCE FROM THE ADJACENT ALID EDGE OR THE WALL SHALL BE MAINTAINED THROUGHOUT THE ENTIRE COURSE OF COLUMN BRICK.
 8. THE WALL SHALL BE A MINIMUM OF SIX FEET IN HEIGHT AS MEASURED FROM THE ADJACENT ALID EDGE OR THE WALL SHALL BE EXTENDED TO THE TOP OF THE COLUMN.
 9. 5-1/2" DIA. GALVANIZED WIRE BARS SHALL BE INSTALLED BELOW THE BOTTOM ROW OF BARS & BE ANCHORED INTO THE COLUMN.



PIER DETAIL (WALFPIER)

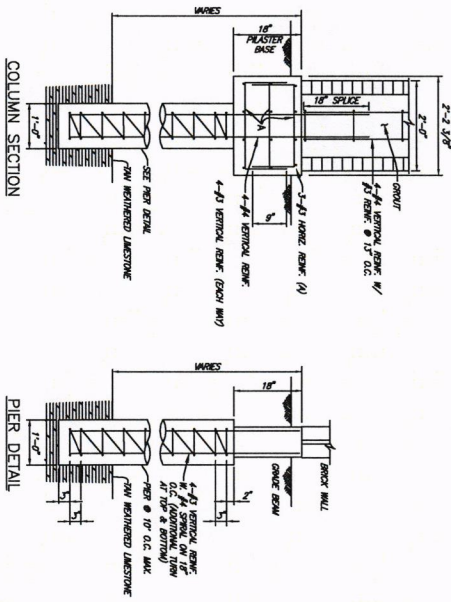
- NOTES:**
1. CONCRETE COMP. STRENGTH—4000 P.S.I.
 2. REINFORCING STEEL—ASTM A618 - OR EQ.
 3. CLEAN BOTTOM OF HOLE PRIOR TO PLACEMENT OF CONCRETE.
 4. #4 BARS SHALL BE PLACED WITHIN 3 HOURS OF FINISHING.
 5. MORTAR MASONRY SPECIFIC—20 P.S.F.
 6. EXTEND REBAR 4" INTO FINISHED AND COLUMN.



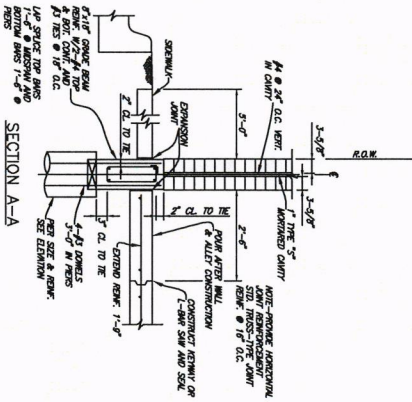
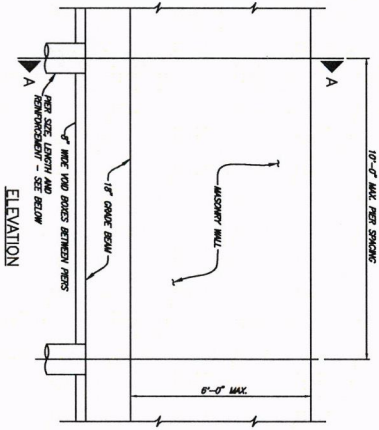
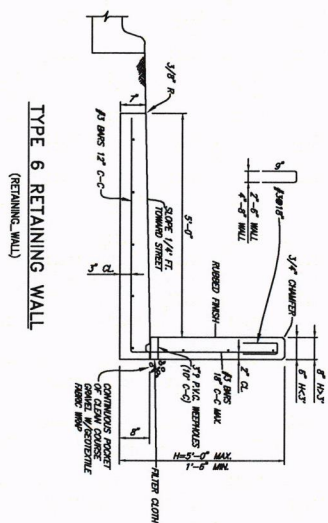
DENISON
TEXAS

REVISION: 9/17/22 - Brandon Young
L:\Job\20210826.01 Denison Daily Structure Update\Production Drawing\Denison-22.dwg
PIER SCALE: 1/2" = 1'-0"
PIER STYLE: monolith.tbl PLOTTED BY: Brandon Young ON 9/28/2022

CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
THIN BRICK SCREENING WALL
September, 2021
SHEET NO.
22



- GENERAL NOTES:**
1. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS
 2. REINFORCEMENT - ASTM A 63
 3. MASONRY - COMPRESSIVE STRENGTH SHALL BE AS PRESCRIBED IN ITEM 2.1.6 SPECIFICATION
 4. WIND LOAD - 20 P.S.F.
 5. PER BEARING STRESSES - SEE BRICK SCREENING WALL NOTES
 6. MORTAR - THE "S"
 7. PROVIDE CONTROL JOINTS AT 20 FT.
 8. PROVIDE EXPANSION JOINTS AT 200 FT. CENTER MAXIMUM
 9. PROVIDE 1/2" MIN. AIR GAP OR OTHER ADEQUATE EXCEPT BULK
 10. ALL EXPOSED CONCRETE SHALL BE FINISHED FRESH SURFACE
 11. SIDEWALKS ADJACENT TO WALLS MUST BE 3'-0" MIN. WIDTH FROM ALL PORTIONS OF THE WALL INCLUDING PARAPETS, COLUMNS, ETC.
 12. MAX. FALGON STAKING 40 FT.
 13. WALLS SHALL NOT BE PLACED IN THE VICINITY OF SEWER OR STREET E.G.W.
 14. THE WALL SHALL BE 1 MINIMUM OF 30 FEET IN HEIGHT AS MEASURED FROM THE HIGHEST ADJACENT EDGE OF SIDEWALK CONC. WHICHEVER IS THE HIGHER. THE COLOR OF THE CONCRETE OF THE WALL SHALL BE MATCHED ON EACH SIDE OF A THROUGHPUT FOR THE ENTIRE LENGTH BETWEEN INTERSECTING PARALLEL WALLS OVERLAPPING APPROX BY 10 FEET. THE FINISH OF THE WALL SHALL BE CONSIDERED ON ALL SURFACES.
 15. F. WORKSHOP FROM EXPOSURE TO BE UTILIZED ON REPAIRS SCREENING. ALL WORKSHOP FROM MUST BE SOLD STOCK AND THERMAL STEEL WILL BE ALLOWED.



- UNLITTED PIER'S:** 12" DIA. REINFC. W/ 4# VERT. & 4# REINFC. @ 18" O.C. MINIMUM LENGTH OF PIER IS 6'-0". 4# REINFC. BOTTOM MAY BE EITHER OF THE TWO ALTERNATES.
1. 1/2" DIA. SHIRT EMBEDDED MINIMUM 3'-0" INTO BLUE SHALE
 2. 1/2" DIA. SHIRT W/ STRESS BARS AT 6" O.C. RESULTING BEARING STRESS IN 2.0 KIPS PER SQUARE FOOT.
- * SEE GENERAL NO. 9

BRICK SCREENING WALL

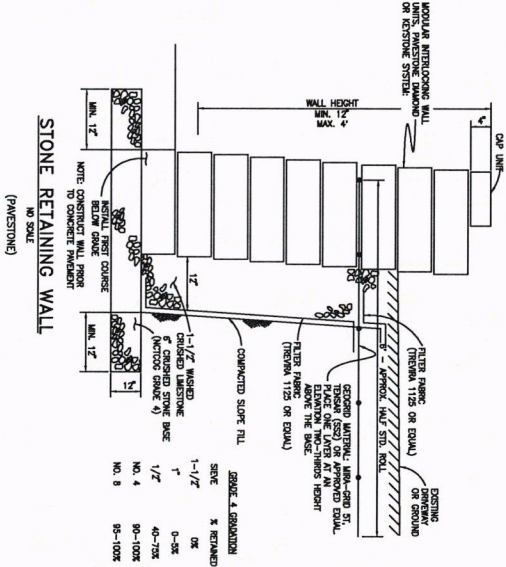


CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
BRICK SCREENING WALL / RETAINING WALL

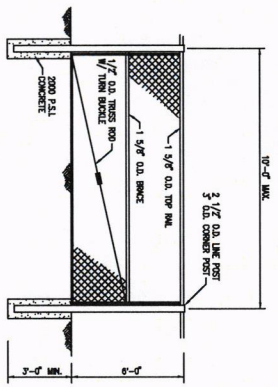
September, 2021

SHEET NO. 23

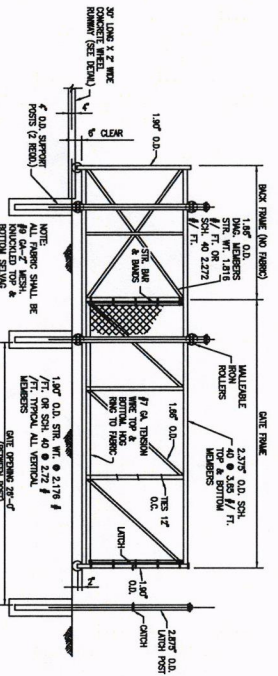
STONE RETAINING WALL (PAVESTONE)
NO SCALE



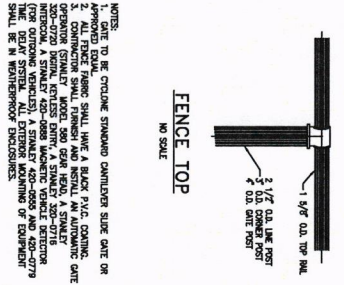
SIZE	GRADE & SLOPE	REMARKS
1-1/2"	OK	
1"	0-3%	
1/2"	40-75%	
NO. 4	90-100%	
NO. 8	95-100%	



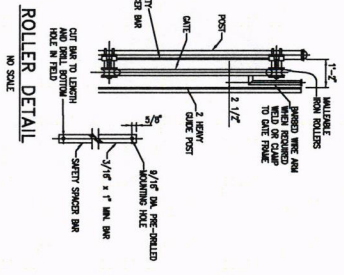
FENCE DETAIL
NO SCALE



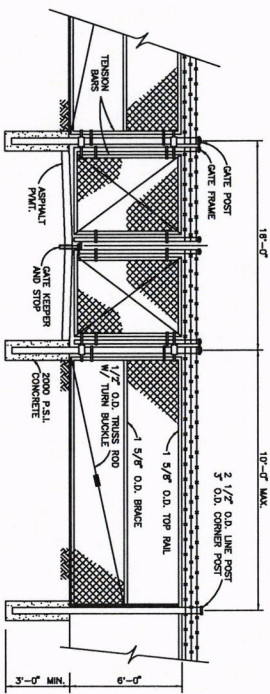
SLIDE GATE DETAIL
NO SCALE



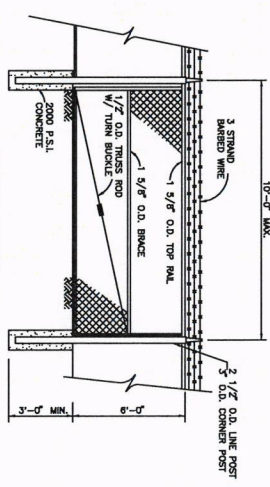
FENCE TOP
NO SCALE



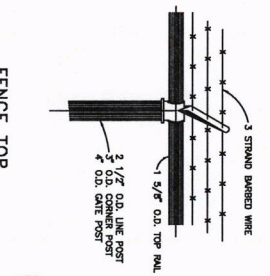
ROLLER DETAIL
NO SCALE



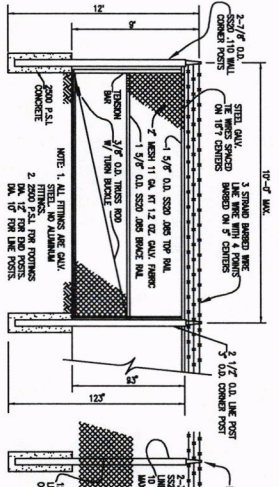
GATE DETAIL
N.T.S.



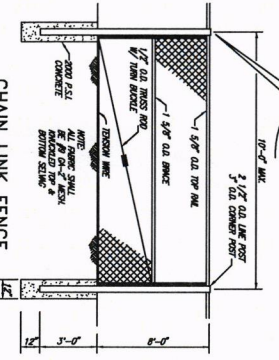
FENCE DETAIL
N.T.S.



FENCE TOP
N.T.S.

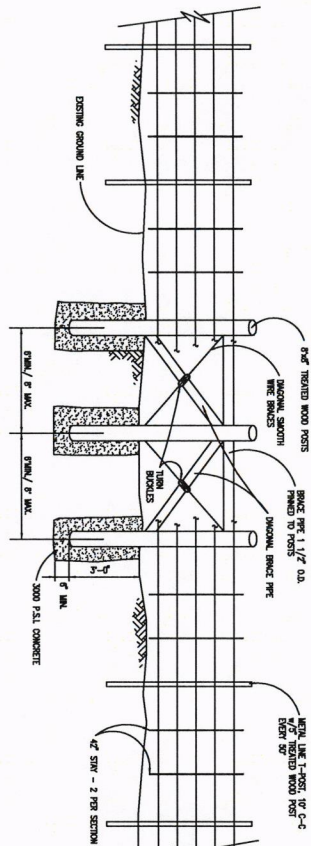


8 FOOT CHAIN LINK FENCE DETAIL
N.T.S.

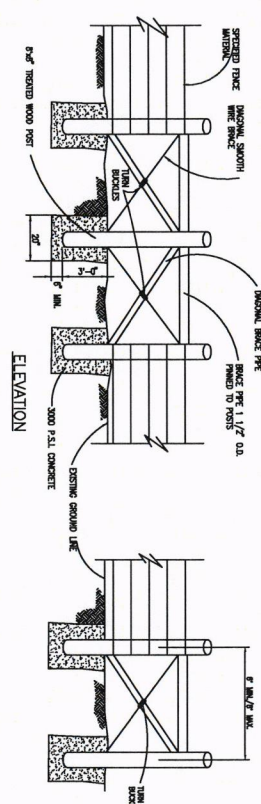


CHAIN LINK FENCE
NO SCALE (CLENCE)

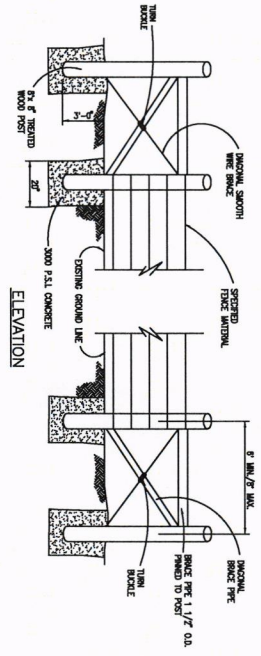
NOTES:
1. APPROVED EQUAL WEIGHT SHALL BE USED FOR ALL ROLLERS.
2. CONNECTION SHALL BE MADE WITH 1/2" O.D. TENSION RODS.
3. OPERATOR SHALL WEAR GEAR HEAD, A STAINLESS STEEL ROLLER SHALL BE USED TO SUPPORT THE FENCE.
4. THE OPERATOR SHALL WEAR GEAR HEAD, A STAINLESS STEEL ROLLER SHALL BE USED TO SUPPORT THE FENCE.
5. THE OPERATOR SHALL WEAR GEAR HEAD, A STAINLESS STEEL ROLLER SHALL BE USED TO SUPPORT THE FENCE.
6. THE OPERATOR SHALL WEAR GEAR HEAD, A STAINLESS STEEL ROLLER SHALL BE USED TO SUPPORT THE FENCE.
7. THE OPERATOR SHALL WEAR GEAR HEAD, A STAINLESS STEEL ROLLER SHALL BE USED TO SUPPORT THE FENCE.
8. THE OPERATOR SHALL WEAR GEAR HEAD, A STAINLESS STEEL ROLLER SHALL BE USED TO SUPPORT THE FENCE.



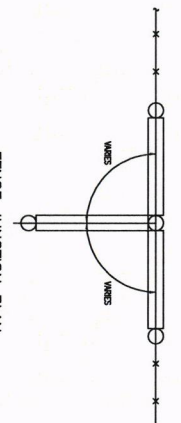
TYPE "B" FARM FENCE WITH PULL POST UNIT
N.T.S.



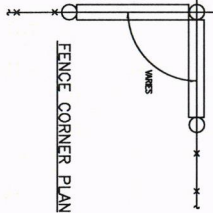
FENCE JUNCTION DETAIL
N.T.S.



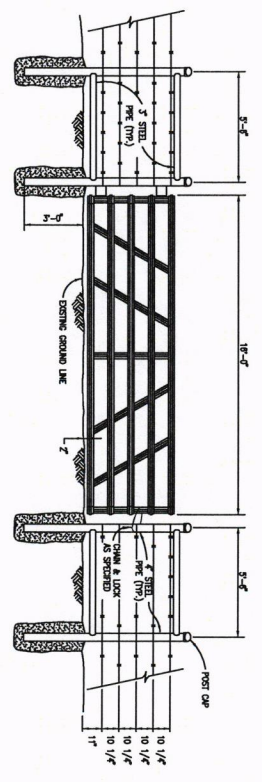
FENCE CORNER DETAIL
N.T.S.



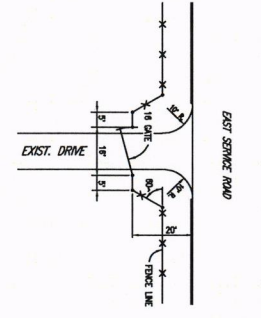
FENCE JUNCTION PLAN



FENCE CORNER PLAN



16' STEEL GATE DETAIL
N.T.S.

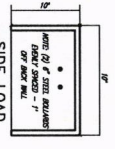


20' SET BACK FENCE DETAIL
N.T.S.

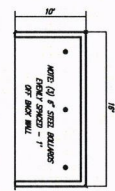
- GENERAL NOTES:**
- BARRED WIRE SHALL BE THE STANDARD TREATED NO. 11-1/2 AND GAUGE GALVANIZED STEEL WIRE WITH TWO POINT BENDS OF NO. 14 AND GAUGE STEEL WIRE AND A 121 CLASS 1.
 - WOUND WIRE FENCE FABRICATORS WIRE SHALL BE OF A GOOD COMMERCIAL QUALITY OF STEEL MEETING THE REQUIREMENTS OF GALV-COATED/GALVANIZED STEEL WIRE SHALL BE A MINIMUM NO. 10 AND GAUGE AND THE INTERMEDIATE WIRE AND WIRE GAUGE SHALL BE NO. 12-1/2 AND GAUGE.
 - WIRE POSTS, STAKE GAUGES, BRACES AND FITTINGS MAY BE EITHER FORMED OR MANUFACTURED FROM ALL METALS THAT CORRODE AND WEAR NOT EXCEEDED RECOMMENDATIONS OF METAL POSTS AND RAILS FOR INDUSTRIAL GRADE LINE FENCE. SHALL BE INSTALLED ON THE TOP SURFACE OF WIRE POSTS TO PREVENT CORROSION. FITTINGS SHALL BE IN ACCORDANCE WITH FENCE FITTINGS, ASTM SPECIFICATION F155.
 - WOOD POSTS SHALL BE SOUND AND STRAIGHT AND FREE OF EXCESSIVE KNOTS. MAY BE THE SPECIES OF FIR AND SHALL HAVE A DENSITY OF 40 LB PER CUBIC FOOT. THICKNESS OF NOT LESS THAN SIX POUNDS PER CUBIC FOOT (128 LB PER CUBIC FOOT).
 - ALL POST LINES FOR FARM FENCE SHALL BE LOCATED AT 200 FEET CENTER TO CENTER OF FENCE LINE. ALL POSTS SHALL BE LOCATED AT 200 FEET CENTER TO CENTER EXISTING FENCE. A FULL POST HOLE COVER MUST BE INSTALLED AT EACH CORNER.
 - GATE WAREHOUSES SHALL FINISH HANDBOLTS AND A SLIDING LOCK FOR EACH GATE.
 - CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS.
 - LINE BRACE ASSEMBLY SHALL BE PLACED ON PARS OF ALL CORNERS.
 - METAL 1-POSTER-(1/2" DIA.) TO BE GREEN WITH REFLECTIVE TOPS.
 - FENCE REPLACEMENT SHALL BE "IN HAND".

SOLID WASTE VEHICLE OPERATION SCHEMATIC TYPICAL ROUTE CONDITIONS AND TRUCK MANEUVERING SPACE CLEARANCES REQUIREMENTS

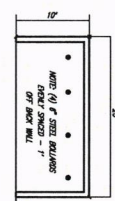
- GENERAL NOTES:**
1. ALL CURBS ARE TO BE PLACED ON THE OUTSIDE OF ENCLOSURE WALLS. THE CURBS SHALL NOT INTERFERE WITH THE ROUTE OF THE SOLID WASTE COLLECTION VEHICLE.
 2. ALL SOLID WASTE COLLECTION ROUTES SHALL MEET ENGINEERING DESIGN CRITERIA (MINIMUM TURNING RADIUS, MINIMUM TURNING SPEED, MINIMUM TURNING ACCELERATION, MINIMUM TURNING DECELERATION, MINIMUM TURNING DISTANCE TO DUMPSTER ENCLOSURES AND LEFT EIGHT CORNER) WITHOUT GROUND LEVEL OR AHEAD OBSTRUCTIONS AS REQUIRED.
 3. FOR THE SAFETY OF OTHERS, ROUTE LAYOUT AND OPERATING CLEARANCES SHALL BE SUCH THAT SOLID WASTE COLLECTION VEHICLES WILL NOT NEED TO BACK UP MORE THAN 50 FEET TO EXIT THE SITE AFTER SERVING A ROUTE.
 4. NO LANDING OR BUILDING PROJECTIONS ARE TO EXCEED THE SOLID WASTE COLLECTION VEHICLES OPERATING AREA AND/OR SPACE. MINIMUM OVERHEAD CLEARANCE OF 14 FEET IS REQUIRED IN SPACES AND 20 FEET OVER AND AROUND THE DUMPSTER ENCLOSURE. AREA FROM STEEL SHEET PILING SHALL BE 50 FEET.
 5. ALL DUMPSTER ENCLOSURES SHALL BE CONSTRUCTED WITH STEEL SHEET PILING, MINIMUM 1/2" THICK PRODUCTION, ETC.) TO PREVENT DAMAGE FROM THE COLLECTION VEHICLE.
 6. IDEALLY, THE MOST DESIRED SITE PLANNING SHALL BE WHENEVER IS POSSIBLE TO SELECT A ROUTE FOR THE COLLECTION VEHICLE TO TRAVEL THE SITE WITHOUT DUMPSTERING. MULTIPLE ROUTES SHOULD BE PROVIDED TO ALLOW THE COLLECTION VEHICLE TO TRAVEL THE SITE WITHOUT DUMPSTERING. MULTIPLE ROUTES SHOULD BE PROVIDED TO ALLOW THE COLLECTION VEHICLE TO TRAVEL THE SITE WITHOUT DUMPSTERING. MULTIPLE ROUTES SHOULD BE PROVIDED TO ALLOW THE COLLECTION VEHICLE TO TRAVEL THE SITE WITHOUT DUMPSTERING.
 7. ALL DUMPSTER ENCLOSURES MUST BE ORIENTED TO FACE 90 FEET LINE OF OPEN SPACE. THE ONLY EXCEPTION IS FOR DUMPSTER ENCLOSURES PLACED ALONG A STRAIGHT COLLECTION VEHICLE ROUTE WHERE THE ENCLOSURES NEED TO BE ANGLED WITH THE SPACE FROM A SERVICE ROAD FOR THE VEHICLE TO REVERSE ITS ROUTE. 10' DUMPSTER SPACING TO ALLOW THE TRUCK 50 FEET BACK FOR THE VEHICLE TO REVERSE ITS ROUTE.
 8. DUMPSTER ENCLOSURES SHALL BE LOCATED AWAY FROM ENTRANCES AND EXITS SO SOLID WASTE COLLECTION VEHICLES DO NOT BLOCK TRUCKS FROM ENTERING OR LEAVING THE SITE AS POSSIBLE.
 9. ALL DUMPSTER ENCLOSURES SHALL BE CONSTRUCTED WITH STEEL SHEET PILING, MINIMUM 1/2" THICK PRODUCTION, ETC.) TO PREVENT DAMAGE FROM THE COLLECTION VEHICLE.
 10. FOR GENERAL INFORMATION AND TYPICAL REQUIREMENTS ON DUMPSTER ENCLOSURE LAYOUT SEE ANNEXURE C-01 STANDARD CRITERIA SHEET.



10' DUMPSTER ENCLOSURE
NO SCALE

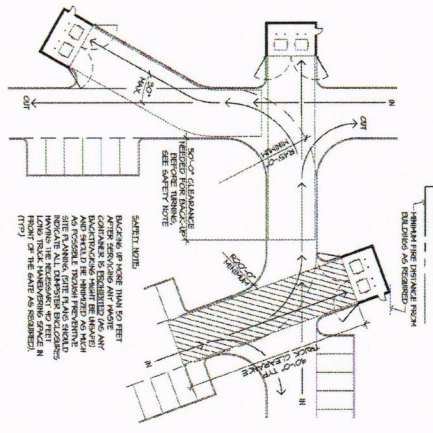


16' DUMPSTER ENCLOSURE
NO SCALE

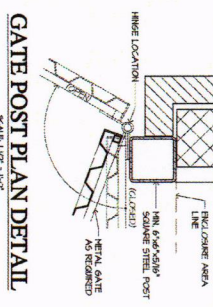


20' DUMPSTER ENCLOSURE
NO SCALE

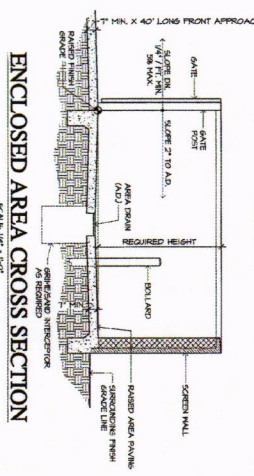
SOLID WASTE VEHICLE OPERATION SCHEMATIC TYPICAL ROUTE CONDITIONS AND TRUCK MANEUVERING SPACE CLEARANCES REQUIREMENTS



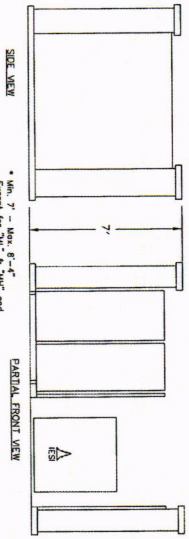
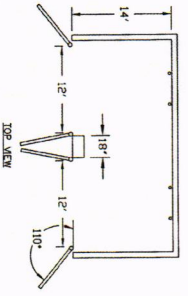
SCHEMATIC SITE PLAN
SCALE: 1" = 50'-0"



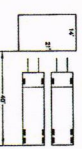
GATE POST PLAN DETAIL
SCALE: 1/2" = 1'-0"



ENCLOSED AREA CROSS SECTION
SCALE: 1/4" = 1'-0"



FRONT LOAD ONLY

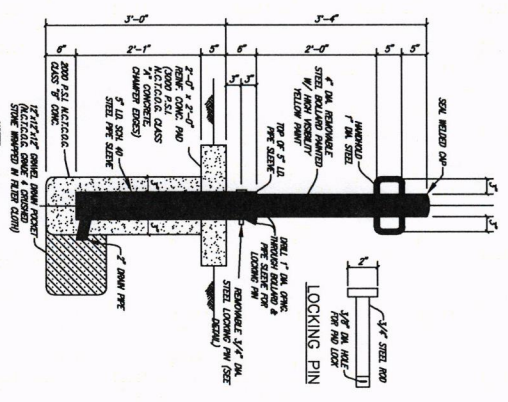


PARTIAL FRONT VIEW



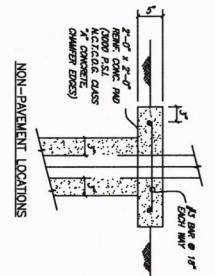
CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
DUMPSTER DETAILS

September, 2022
SHEET NO. 28



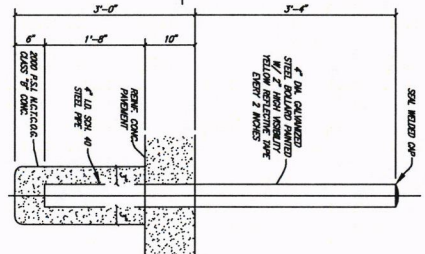
REMOVABLE PIPE BOLLARD
NO SCALE
(BOLLARD)

- NOTES:
1. BOLLARDS SHALL BE LOCATED IN THE FIELD OF THE CONC. AND SWIM IN THE DAMAGED AFTER FABRICATION.
2. ALL STEEL SHALL BE NOT DIPPED GALVANIZED.



PIPE BOLLARD
NO SCALE
(BOLLARDS)

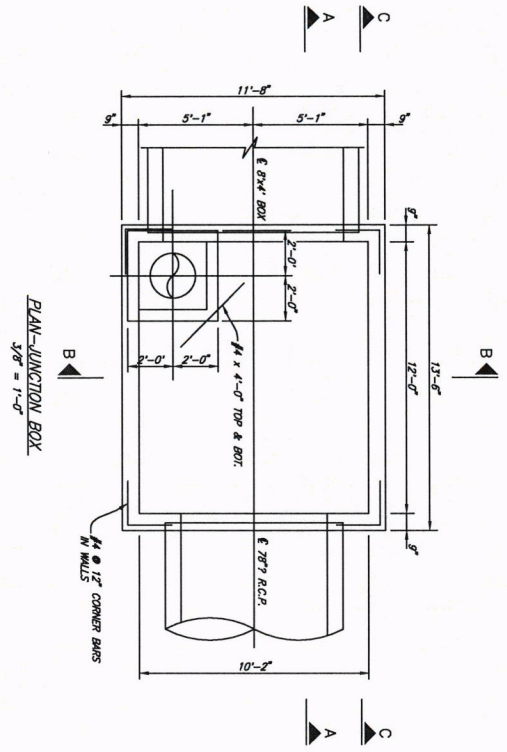
- NOTE:
ALL STEEL SHALL BE NOT DIPPED GALVANIZED AFTER FABRICATION.



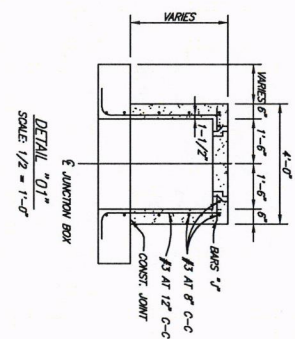
CATHODIC TEST STATION
NO SCALE
(CATHTEST)

- NOTE:
1. BOLLARDS SHALL BE LOCATED IN THE FIELD OF THE CONC. AND SWIM IN THE DAMAGED AFTER FABRICATION.
2. ALL STEEL SHALL BE NOT DIPPED GALVANIZED.

		CITY OF DENISON, TEXAS STANDARD CONSTRUCTION DETAILS MISCELLANEOUS	
REVISION: 01/26/22 - Brandon Young	L:\Job\1201106531 Denison Design Standards Update\Production\Drawings\Denison-25.dwg	PLOT SCALE: 1:2	PLOT STYLE: monochrome.ctb PLOTTED BY: Brandon Young ON: 9/29/2022
		September, 2022	SHEET NO. 29

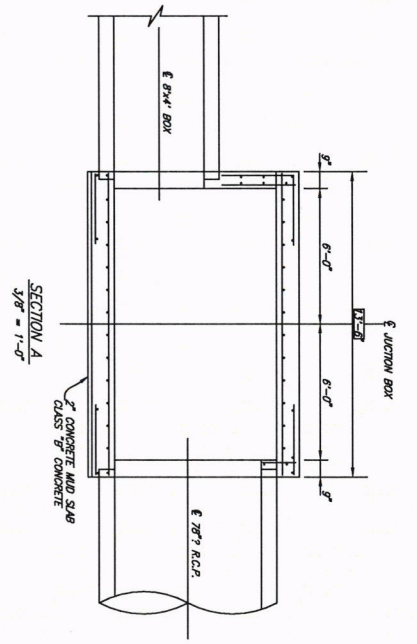


PLAN - JUNCTION BOX
3/8" = 1'-0"

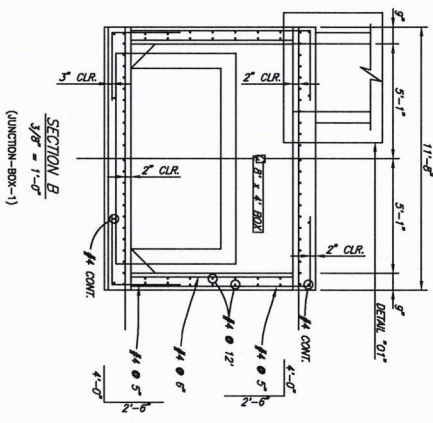


DETAIL "01"
SCALE 1/2" = 1'-0"

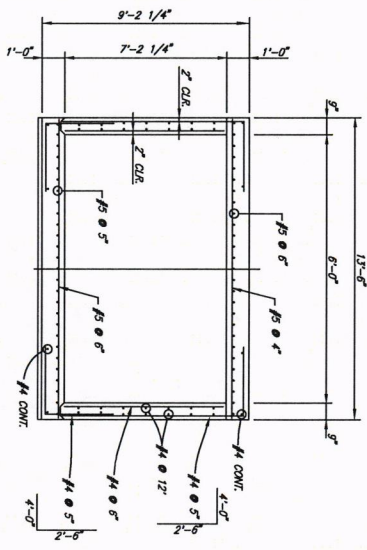
- NOTE:
1. CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF AISC'S STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
 2. CONCRETE SHALL BE CLASS "C" - 3600 P.S.I.
 3. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615, GRADE 60.
 4. FIELD CUT REINFORCING STEEL TO CLEAR PRECAST BOX AND R.C.P. BY 2".



SECTION A
3/8" = 1'-0"



SECTION B
3/8" = 1'-0"
(JUNCTION-BOX-1)



SECTION C
3/8" = 1'-0"



CITY OF DENISON, TEXAS
STANDARD CONSTRUCTION DETAILS
JUNCTION BOX

September, 2022

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