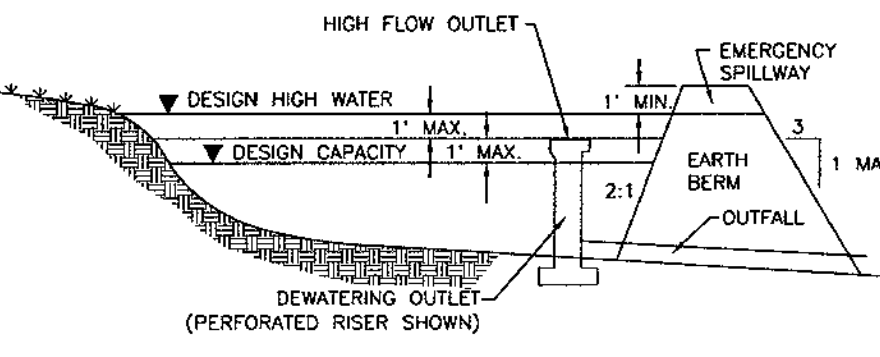
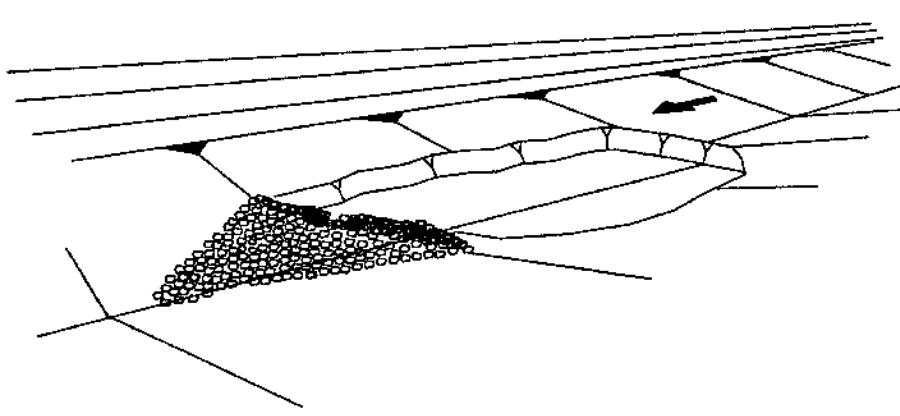


PLAN VIEW

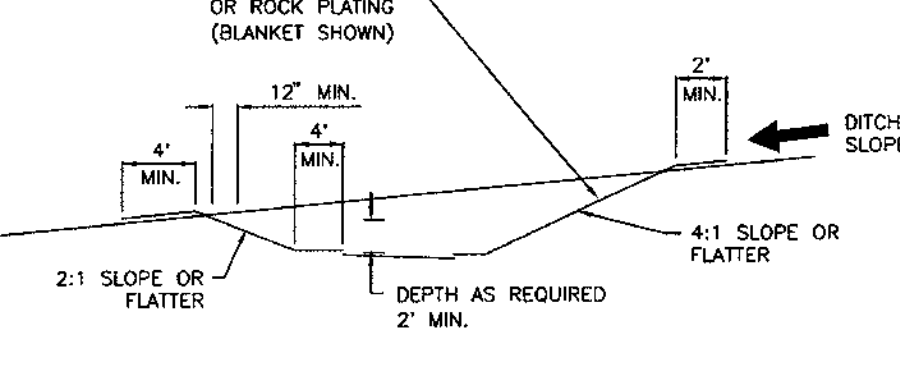


CROSS SECTION

SEDIMENT BASIN

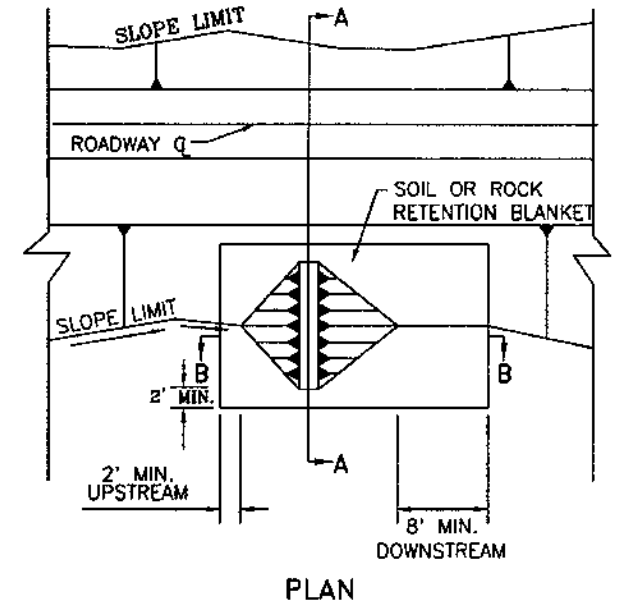


SEDIMENT BASIN, EXCAVATED



- NOTES: SEDIMENT TRAP
- TEMPORARY SEDIMENT TRAPS MAY BE CONSTRUCTED BY EXCAVATION ALONE OR BY EXCAVATION IN COMBINATION WITH AN EMBANKMENT.
  - TEMPORARY SEDIMENT TRAPS ARE OFTEN USED IN CONJUNCTION WITH A DIVERSION DIKE OR SWALE.
  - THE DRAINAGE AREA FOR THE SEDIMENT TRAP SHOULD NOT EXCEED 5 DISTURBED ACRES.
  - THE TRAP MUST BE ACCESSIBLE FOR EASE OF REGULAR MAINTENANCE, WHICH IS CRITICAL TO ITS PROPER FUNCTIONING.
  - SEDIMENT TRAPS ARE TEMPORARY MEASURES AND SHOULD NOT REMAIN IN PLACE LONGER THAN 18 TO 24 MONTHS.
  - THE EMBANKMENT MAY NOT EXCEED 5 FT. IN HEIGHT.
  - THE RECOMMENDED MINIMUM WIDTH AT THE TOP OF THE EMBANKMENT IS BETWEEN 2 FT. AND 5 FT.

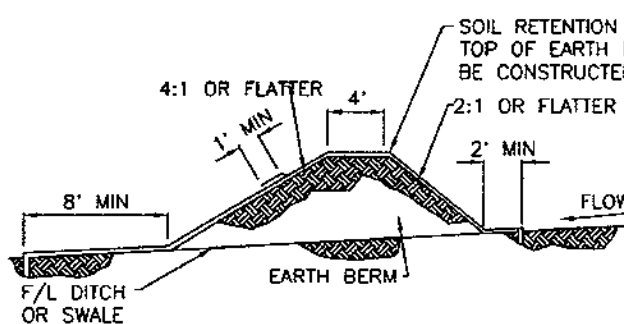
SEDIMENT TRAP



PLAN



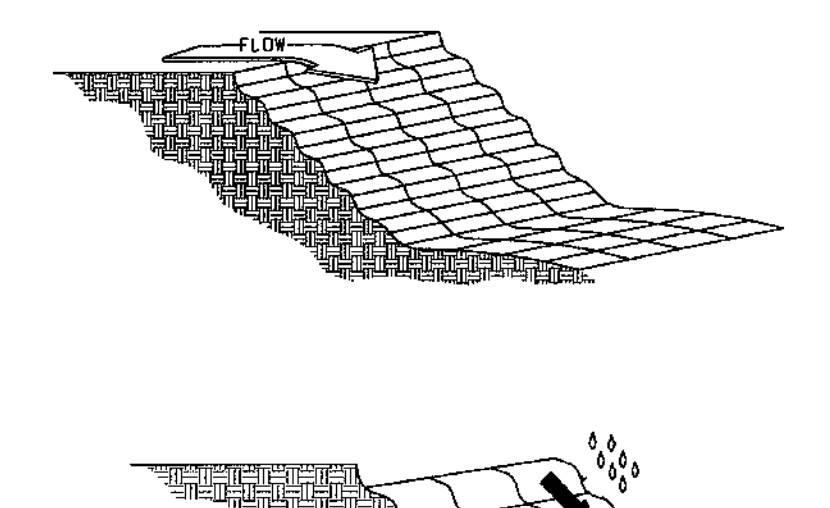
SECTION A-A



SECTION B-B

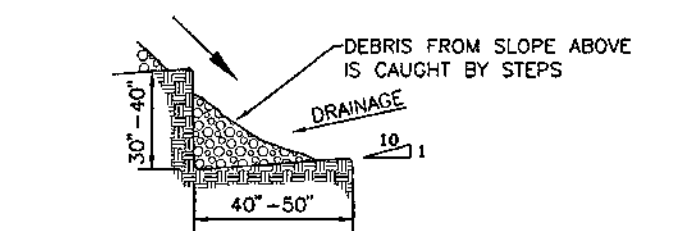
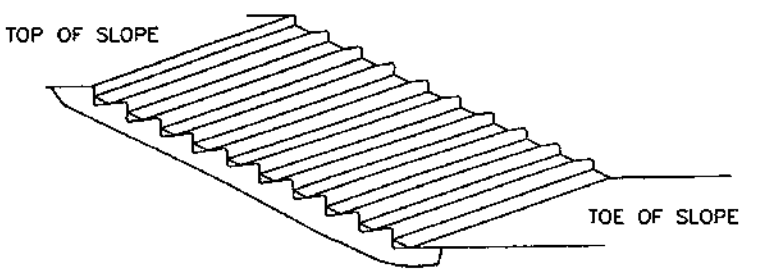
EARTH DIKE (BERM)

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
T.E.S.C.M. SEDIMENT BASIN, SEDIMENT TRAP & EARTH DIKE			
APPROVED	DESIGN ENGINEER		
DESIGNED BY	DRAWN BY	CHECKED BY	
603-01-5/7 SHEET 5 OF 7			



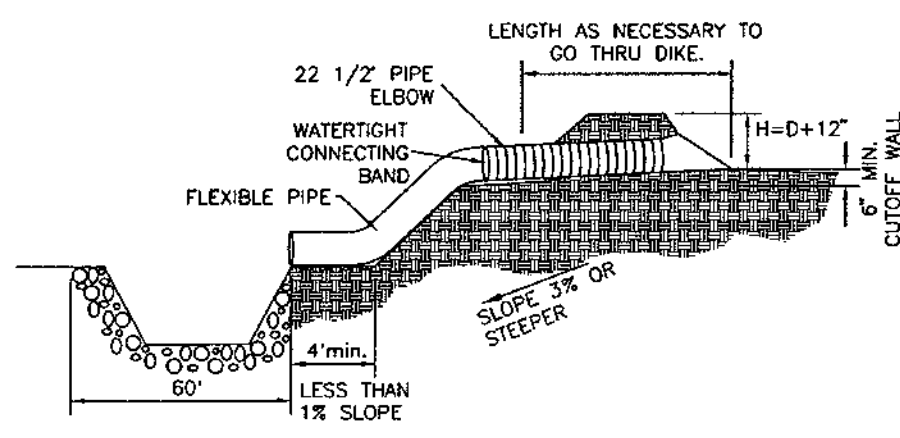
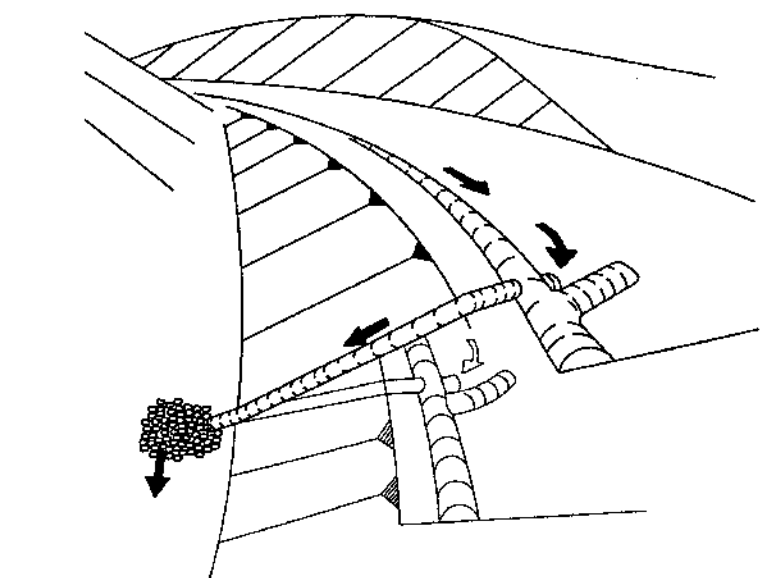
GROOVING IS CUTTING FURROWS ALONG THE CONTOUR OF A SLOPE. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND PROVIDE SOME RETENTION OF LIME, FERTILIZER AND SEED.

GROOVING SLOPES

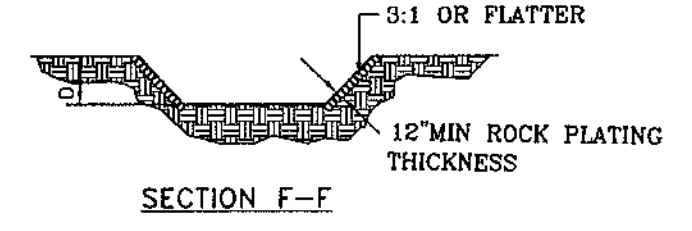


STAIR STEPPING CUT SLOPE

SURFACE ROUGHENING



RIPRAP APRON PLAN



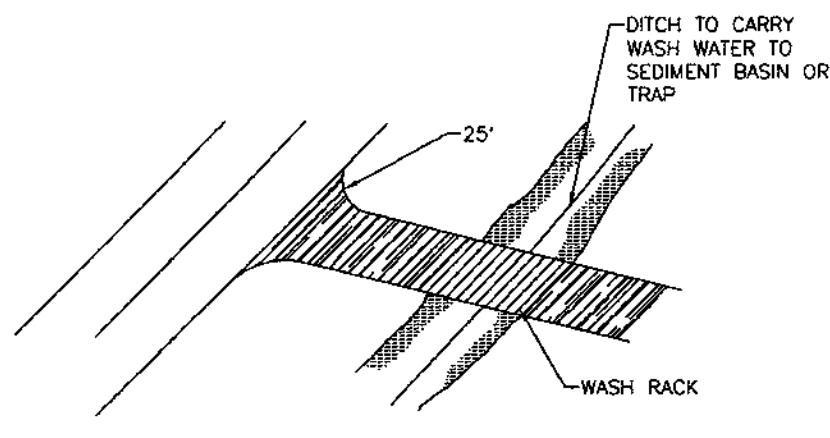
SECTION F-F

SLOPE DRAIN

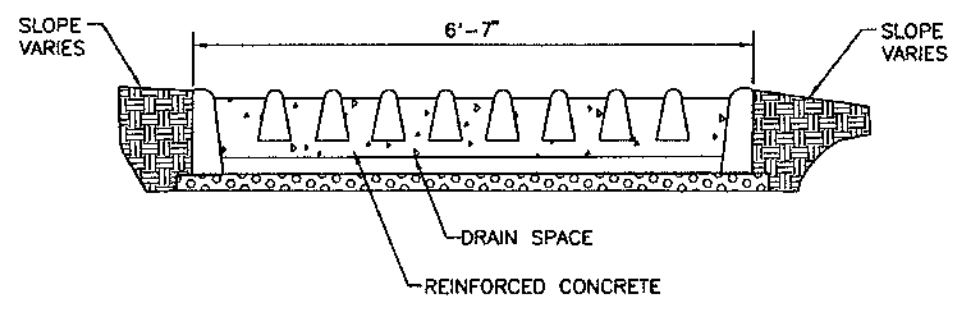
- NOTES: PIPE SLOPE DRAIN
- THE FLEXIBLE PIPE SHALL BE THE SAME DIAMETER AS THE INLET PIPE AND SHALL BE CONSTRUCTED OF A DURABLE MATERIAL WITH HOLD-DOWN CROWMETS SPACED AT 10 FT. ON CENTER.
  - THE FLEXIBLE PIPE SHALL BE SECURELY FASTENED TO THE CORRUGATED METAL OR HIGH DENSITY POLYETHYLENE PIPE WITH METAL STRAPPING OR WATERTIGHT CONNECTING COLLARS.
  - THE FLEXIBLE PIPE SHALL BE STAKED AT 10 FT. CENTERS ALONG THE SLOPE USING MINIMUM 4 INCH SQUARE WOOD POSTS OR STANDARD STEEL POSTS DRIVEN 2 FT. MINIMUM INTO THE GROUND.
  - RIGID PIPE SHALL BE ANCHORED AT BENDS. ANCHORAGE SHALL CONSIST OF A MINIMUM 4 INCH SQUARE WOOD POSTS OR STANDARD STEEL POSTS DRIVEN 2 FT. MINIMUM INTO GROUND, OR EARTHEN THRUST BLOCK.
  - PAYMENT OF BASIN ITEMS ARE INCIDENTAL TO THE COST OF FLEXIBLE STORM DRAIN PIPE.
  - FOR PIPE DIAMETER ON TEMPORARY SLOPE DRAIN SEE TABLE BELOW

Runoff Flow Rate (cfs)	Pipe Diameter Required (inches)
0 - 6.0	18
6.0 - 9.0	21
9.0 - 12.0	24
12.0 - 20.0	30

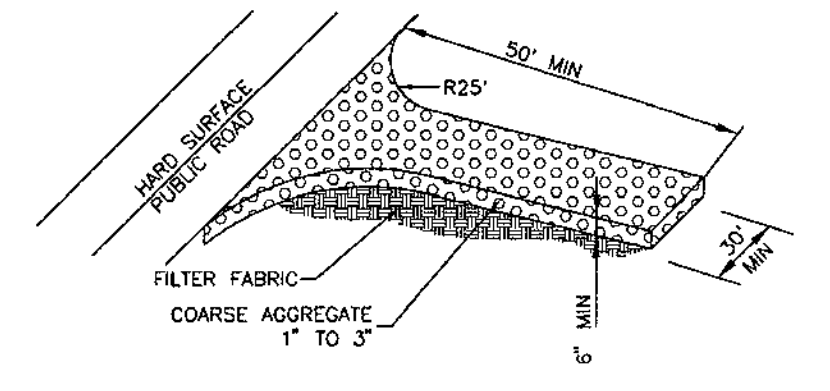
NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
TEMPORARY EROSION & SEDIMENT CONTROL MEASURES PIPE SLOPE DRAIN & SURFACE ROUGHENING			
APPROVED	DESIGN ENGINEER		
DESIGNED BY	DRAWN BY	CHECKED BY	
603-01-6/7 SHEET 6 OF 7			



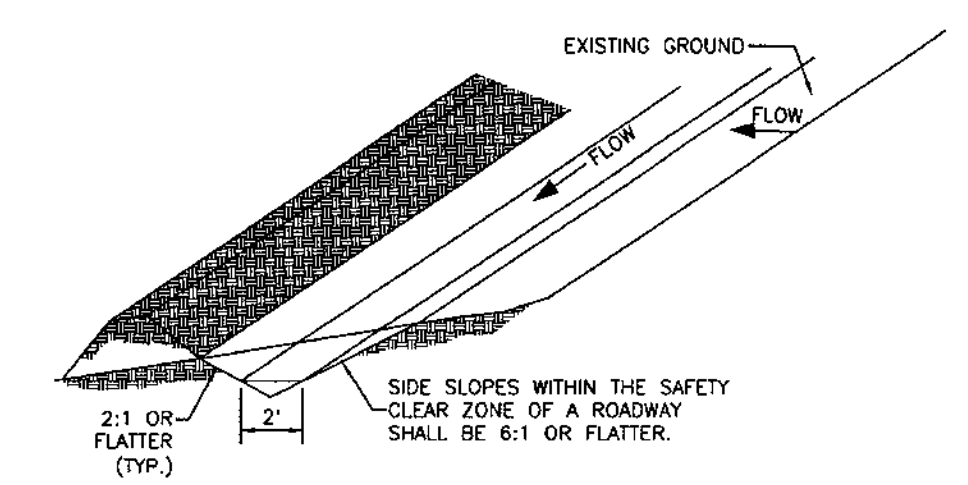
WASH RACK



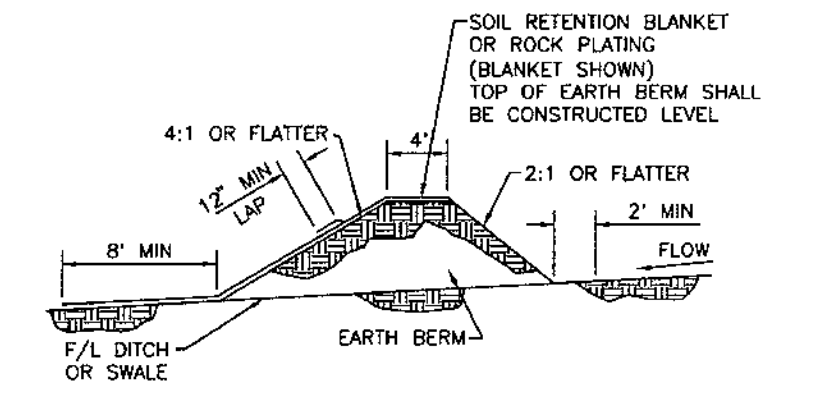
WASH RACK



OFFSITE TRACKING PREVENTION



TYPICAL SWALE CONFIGURATION

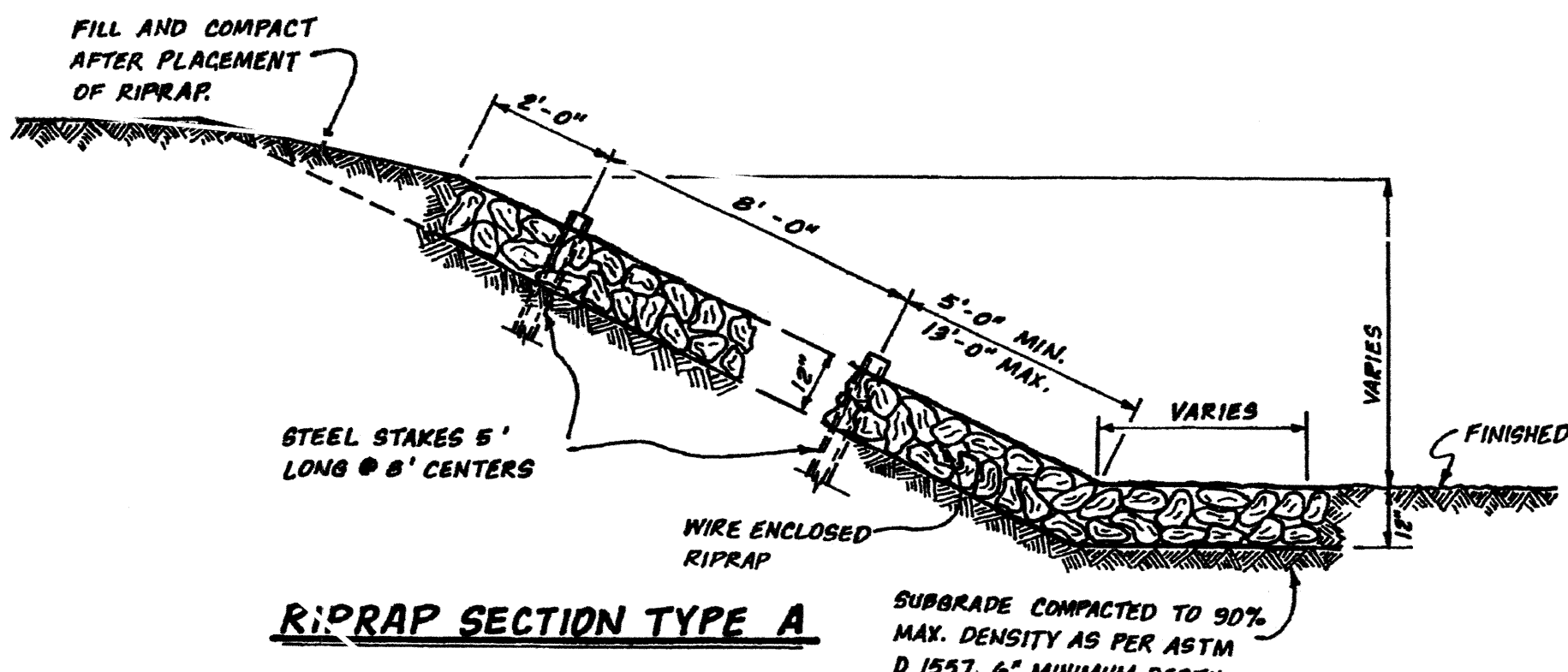


FILTER FABRIC DIVERSION DIKE

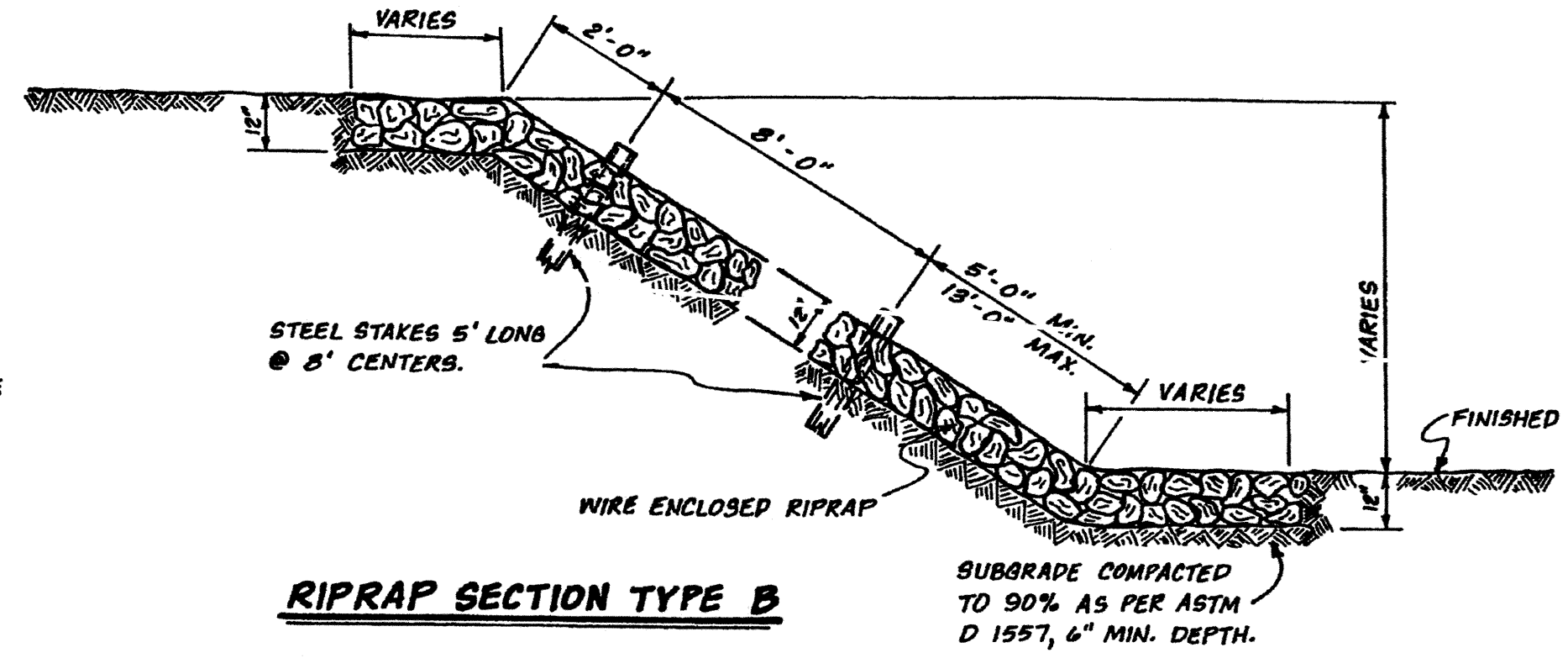
DIVERSION DIKE

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
T.E.S.C.M. OFFSITE TRACKING PREVENTION & DIVERSION DIKE			
APPROVED	DESIGN ENGINEER		
DESIGNED BY	DRAWN BY	CHECKED BY	
603-01-7/7 SHEET 7 OF 7			

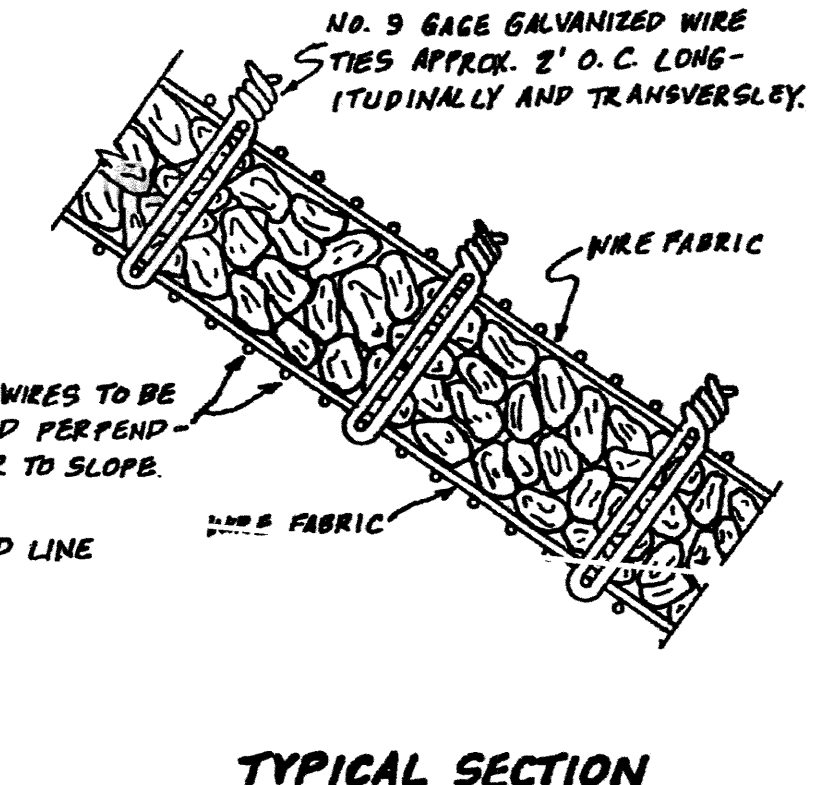




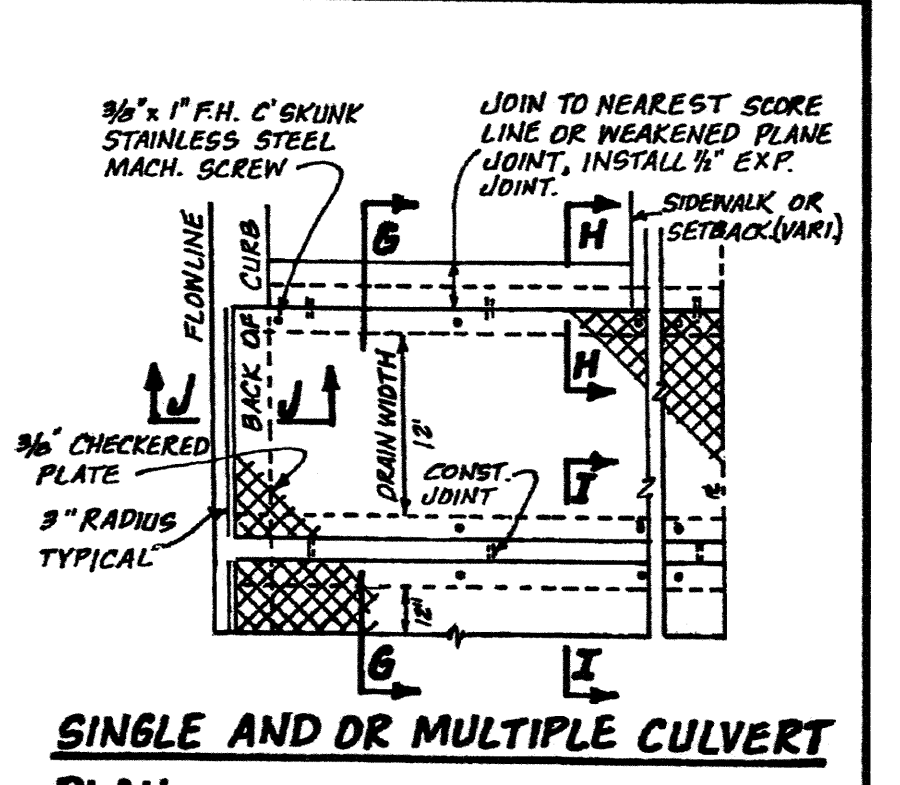
**RIPRAP SECTION TYPE A**



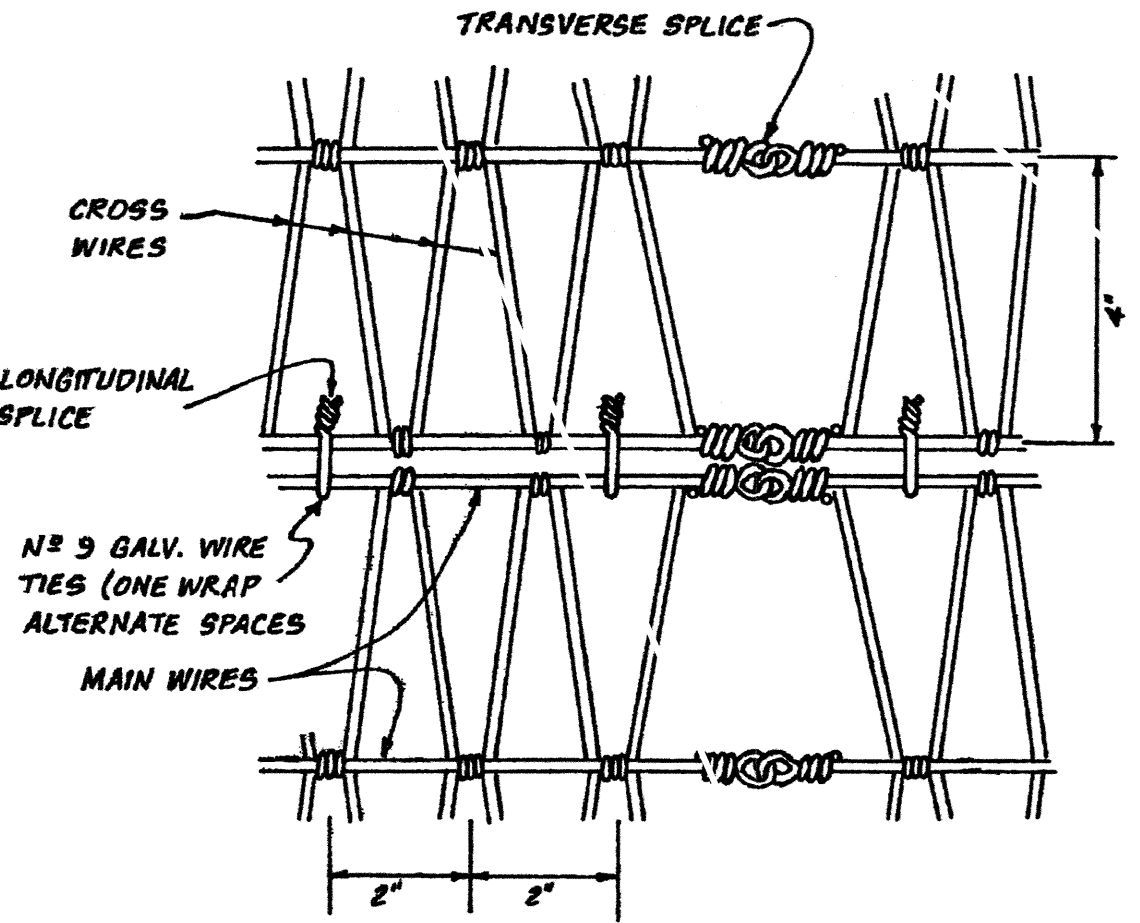
**RIPRAP SECTION TYPE B**



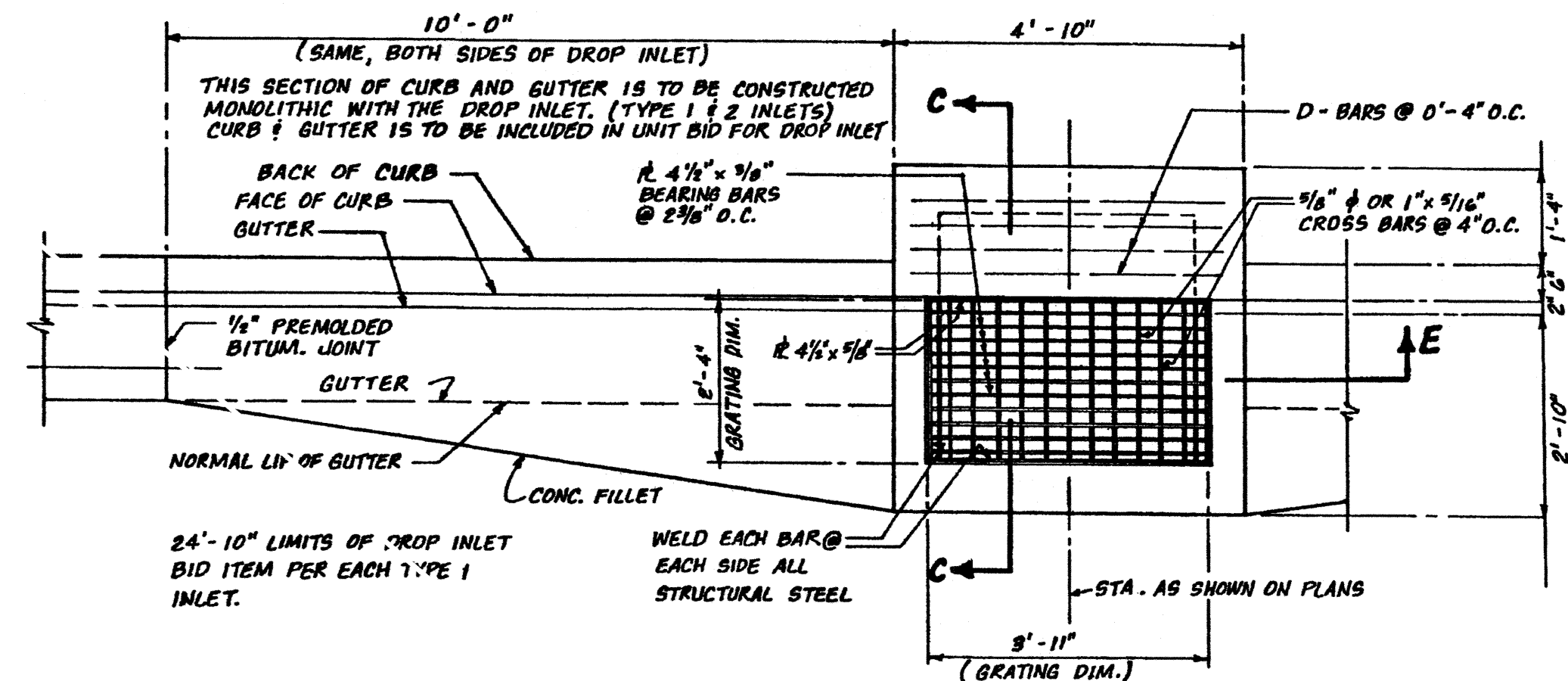
**TYPICAL SECTION**



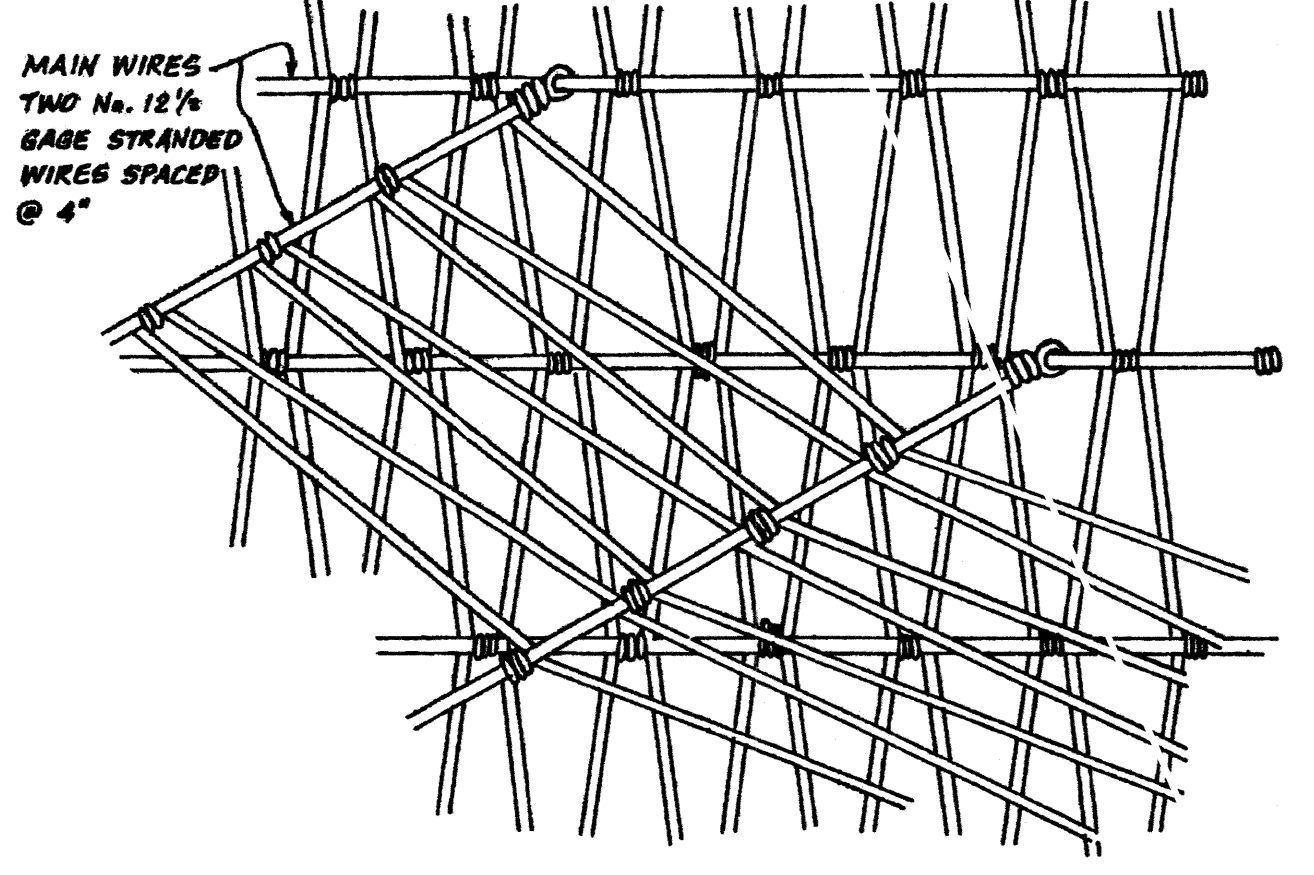
**SINGLE AND OR MULTIPLE CULVERT PLAN**



**DETAIL OF WIRE FABRIC AND NORMAL SPLICE**

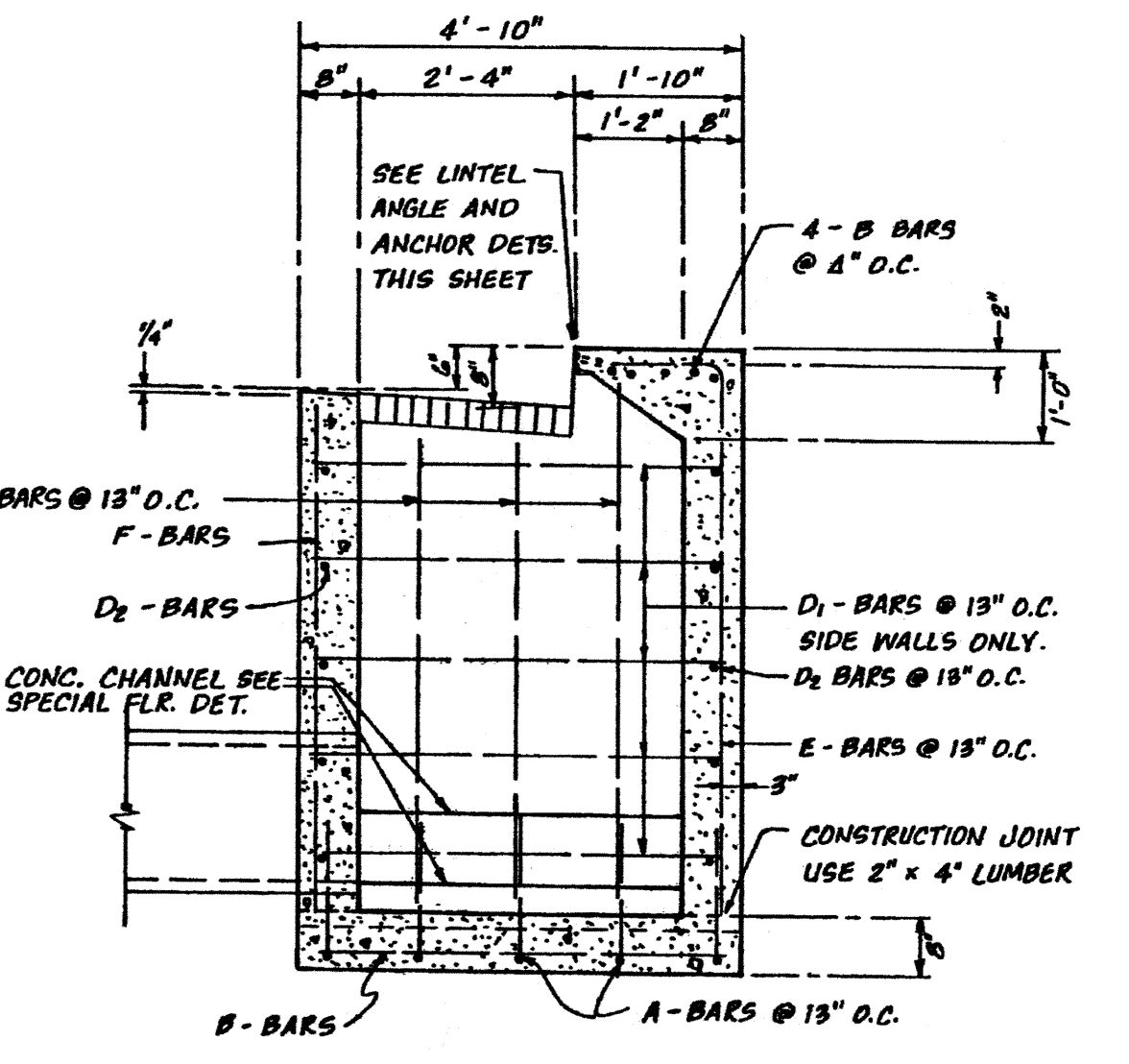


**TYPE-1 INLET PLAN**

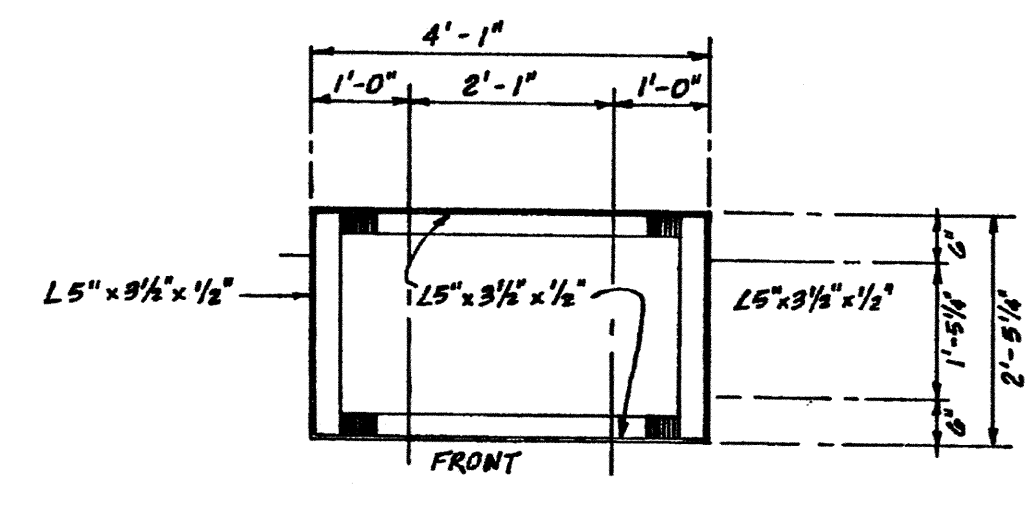


**DETAIL OF SPLICE @ SKEWED INTERSECTION**

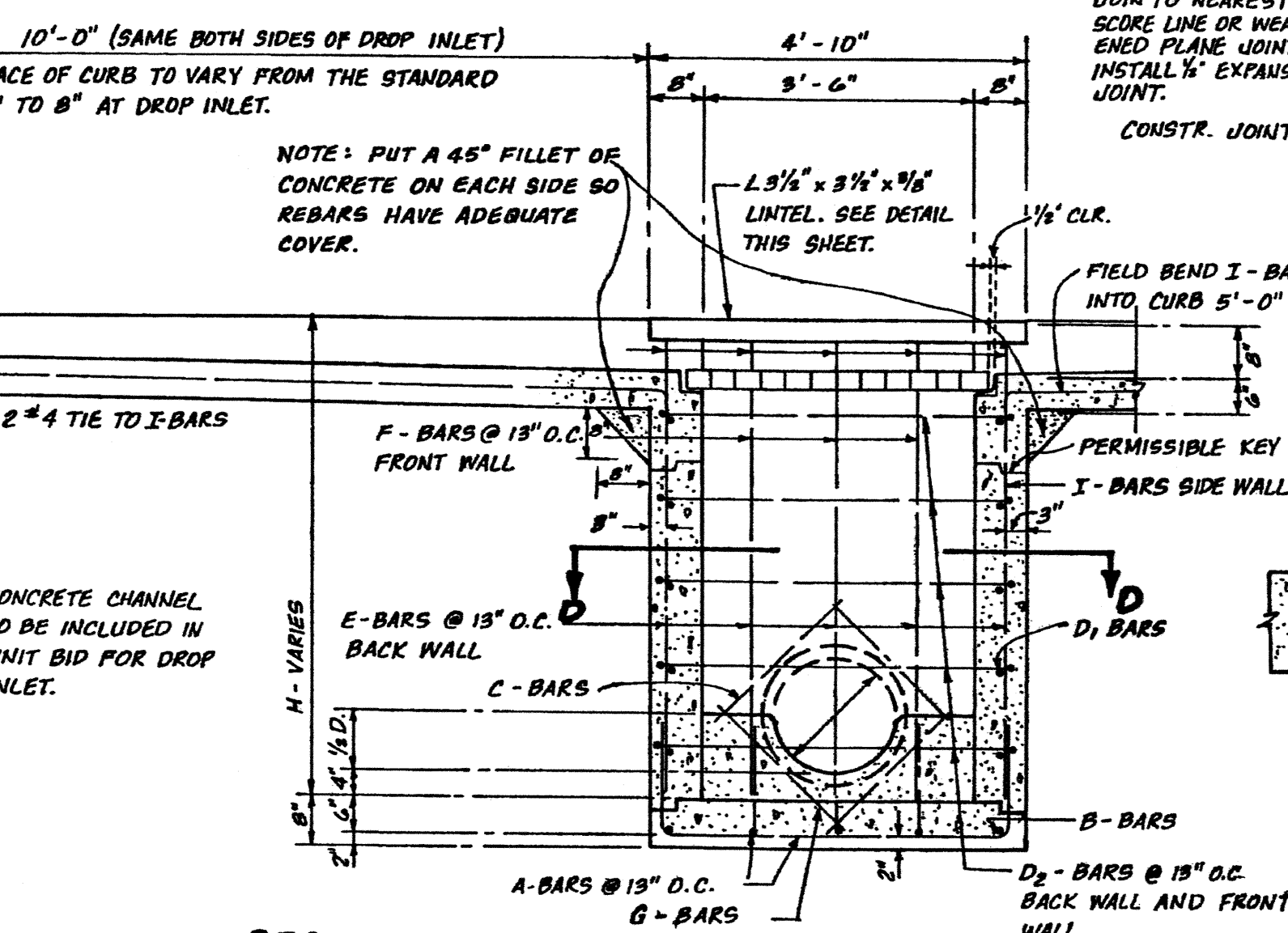
- RIPRAP - GENERAL NOTES:**
- WIRE FABRIC IS TO BE GALVANIZED "V" MESH OF THE FOLLOWING CONSTRUCTION: MAIN WIRES; TWO NO. 12 1/2 GAGE STRANDED WIRES SPACED AT 4". CROSS WIRES; SINGLE NO. 12 1/2 GAGE WIRES SPACED AT 2" WITH NOT LESS THAN TWO TURNS AROUND THE MAIN WIRES. APPROXIMATE WEIGHT; 48 POUNDS PER 100 SQUARE FEET.
  - STEEL STAKES MAY BE RAILROAD RAILS WEIGHING NOT LESS THAN 30 LBS. PER YARD, 4" O.D. STANDARD STRENGTH GALVANIZED STEEL PIPE OR 4 x 4 x 1/8 STEEL ANGLES. STEEL STAKES SHALL PROJECT 6" ABOVE TOP OF RIPRAP. STEEL STAKES ARE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE WORK AND NO DIRECT MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
  - IF LENGTH OF SLOPE IS 15 FEET OR LESS ONLY ONE ROW OF STEEL STAKES, 2 FEET FROM THE TOP EDGE OF THE RIPRAP, WILL BE REQUIRED UNLESS OTHERWISE NOTED ON PLANS.
  - AS AN ALTERNATE, WIRE FABRIC MAY BE GALVANIZED STEEL WIRE MEETING THE REQUIREMENTS FOR CLASS 3, FINISH 3, MEDIUM TENSILE STRENGTH COATED WIRE AS SET FORTH IN FEDERAL SPECIFICATION 00-W-461. THE WIRES SHALL BE CONTINUOUS, HAVE A DIAMETER OF NOT LESS THAN 0.118 INCH AND SHALL BE TRIPLE TWISTED TO FORM A UNIFORM HEXAGONAL MESH PATTERN WITH A MAXIMUM OPENING SIZE OF 3" x 4 1/4".
  - DETAIL FROM N.M.S.H.D. DETAIL, SERIAL BRR-001-05.



**SECTION C-C**

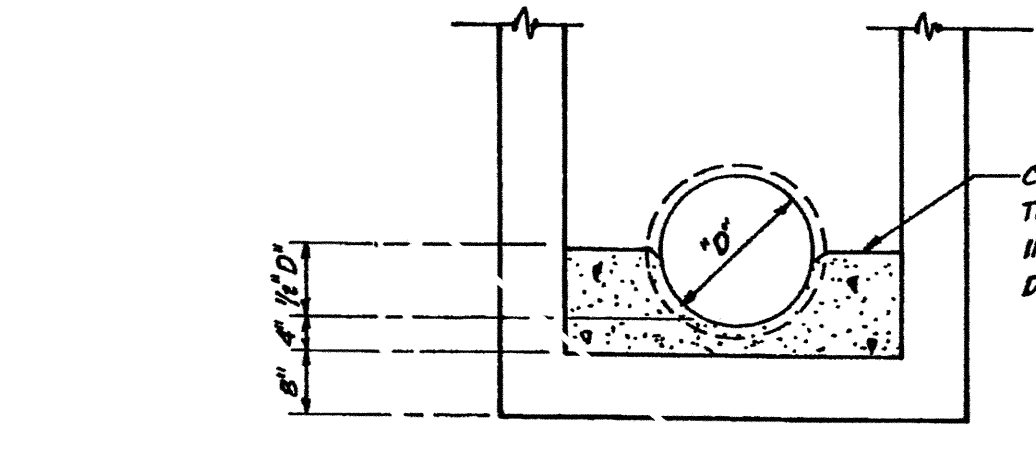


**GRATING FRAME DETAIL**

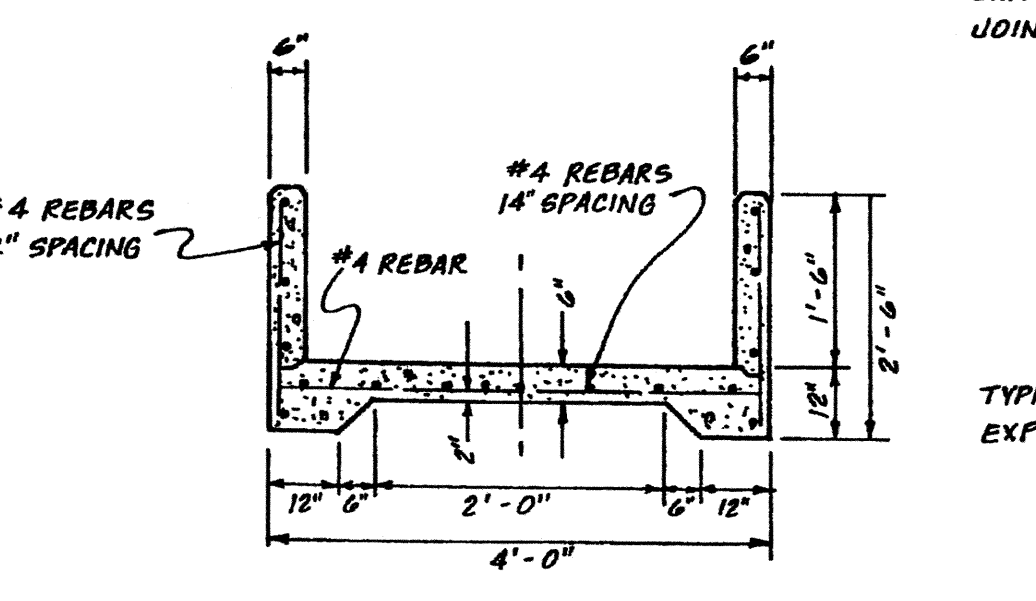


**SECTION E-E**

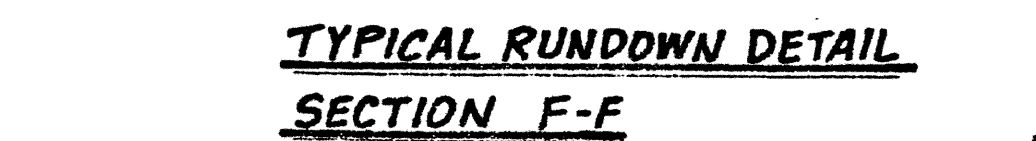
RE-BAR SCHEDULE			
BAR TYPE	SIZE & SHAPE	BAR No.	BAR TYPE & QUANTITY
A	1 1/2" x 1 1/2"	#4	TYPE-1 - 8 REQUIRED TYPE-2 - 12 REQUIRED
B	2" x 2"	#4	TYPE-1 - 4 REQUIRED TYPE-2 - 6 REQUIRED
C	2" x 2"	#4	TYPE-1 - 2 REQUIRED PER OUTLET TYPE-2 - 2 REQUIRED PER OUTLET
D <sub>1</sub>	2" x 2"	#4	TYPE-1 - 2 REQUIRED PER FT. HT. TYPE-2 - 2 REQUIRED PER FT. HT.
D <sub>2</sub>	2" x 2"	#4	TYPE-1 - 2 REQUIRED PER 15" HT. TYPE-2 - 2 REQUIRED PER 15" HT.
E	2" x 2"	#4	TYPE-1 - 8 REQUIRED TYPE-2 - 8 REQUIRED
F	2" x 2"	#4	TYPE-1 - 2 REQUIRED PER OUTLET TYPE-2 - 2 REQUIRED PER OUTLET
G	2" x 2"	#4	TYPE-1 - 2 REQUIRED PER OUTLET TYPE-2 - 2 REQUIRED PER OUTLET
H	2" x 2"	#4	TYPE-1 - 2 REQUIRED PER FIELD BEND TYPE-2 - 2 REQUIRED PER FIELD BEND



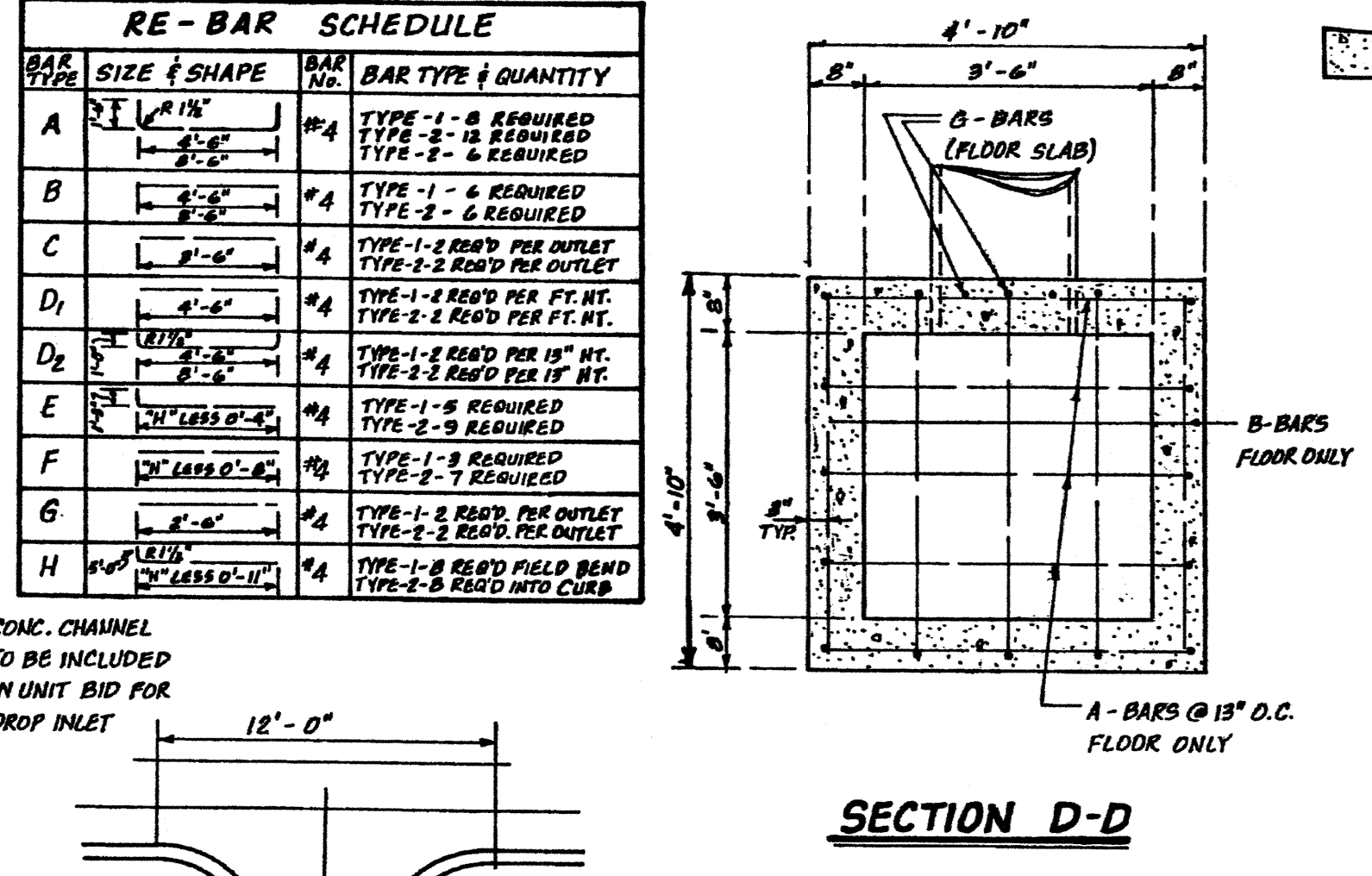
**SPECIAL FLOOR DETAIL**



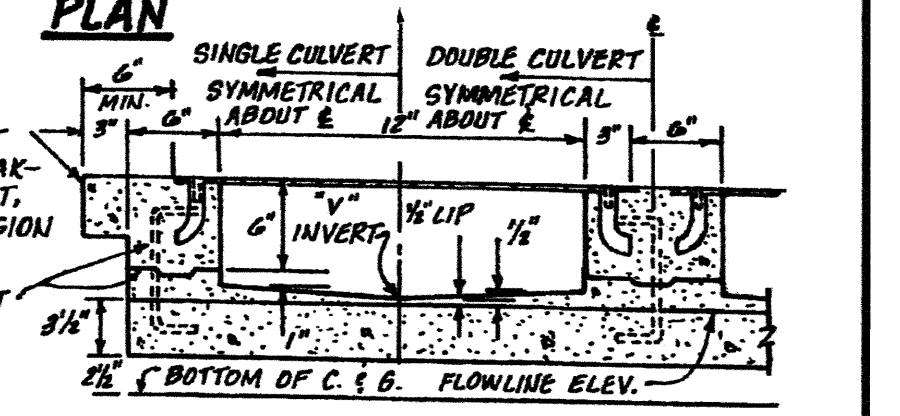
**TYPICAL RUNDOWN DETAIL**



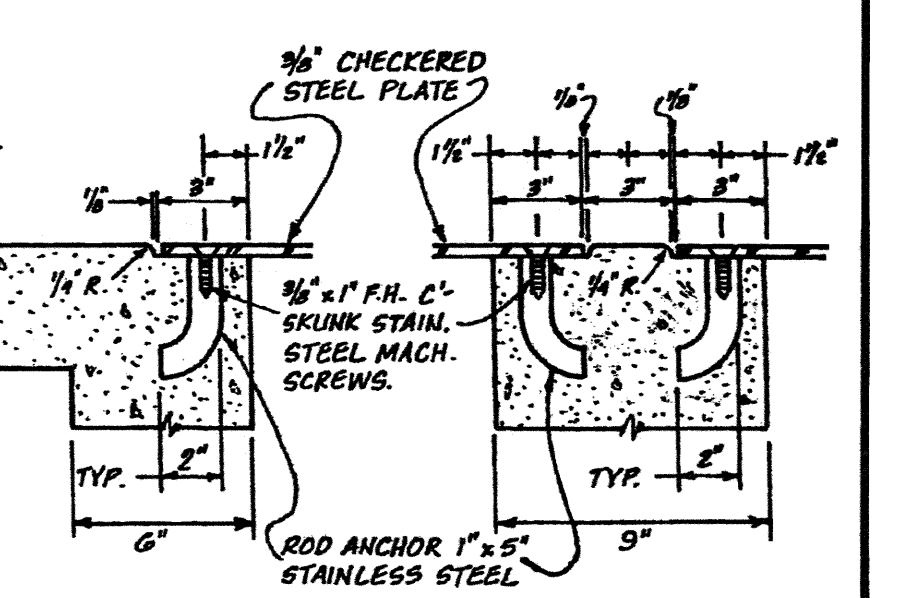
**SECTION F-F**



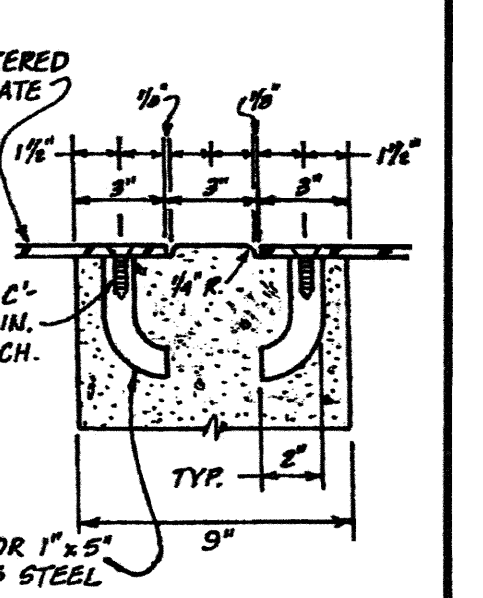
**SECTION D-D**



**SECTION G-G**



**SECTION H-H**



**SECTION I-I**



**SECTION J-J**

**DOWEL DETAIL**

**SIDEWALK CULVERT DETAIL**

- GENERAL NOTES:**
- PLACING OF DRAIN THRU EXIST. SIDEWALK, C. & G. REQUIRE THAT ENTIRE SIDEWALK, C. & G. STONES BE REMOVED & REPLACED AS DETAILED HEREIN.
  - BOTTOM SLAB OF CULVERT SHALL BE POURED MONOLITHICALLY WITH NEW GUTTER.
  - ALL EXPOSED CONC. SURFACE SHALL MATCH BRACE COLOR, FINISH AND SCORING OF ADJACENT CURB AND SIDEWALK.
  - SIDEWALK REPLACED DURING CONSTRUCTION TO BE POURED MONOLITHICALLY WITH CULVERT WALLS.
  - FOR ALL CONCRETE, THE MINIMUM DESIGN COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 4000 POUNDS PER SQUARE INCH, 1-BAG MIX AND THAT THE MINIMUM COARSE AGGREGATE SIZE ALLOWED WILL BE 1 INCH. PERCENTAGE OF AIR-ENTRAINMENT IN THE CONCRETE AT THE PROJECT SITE SHALL BE IN THE RANGE OF 4 TO 7 PERCENT.
  - THE CITY WILL NOT ASSUME RESPONSIBILITY FOR MAINTENANCE OF ANY SIDEWALK CULVERT INSTALLED BY OR FOR PRIVATE PROPERTY OWNERS.

REVISION		
SYMBOL	DATE	BY:

**CITY OF SANTA FE**

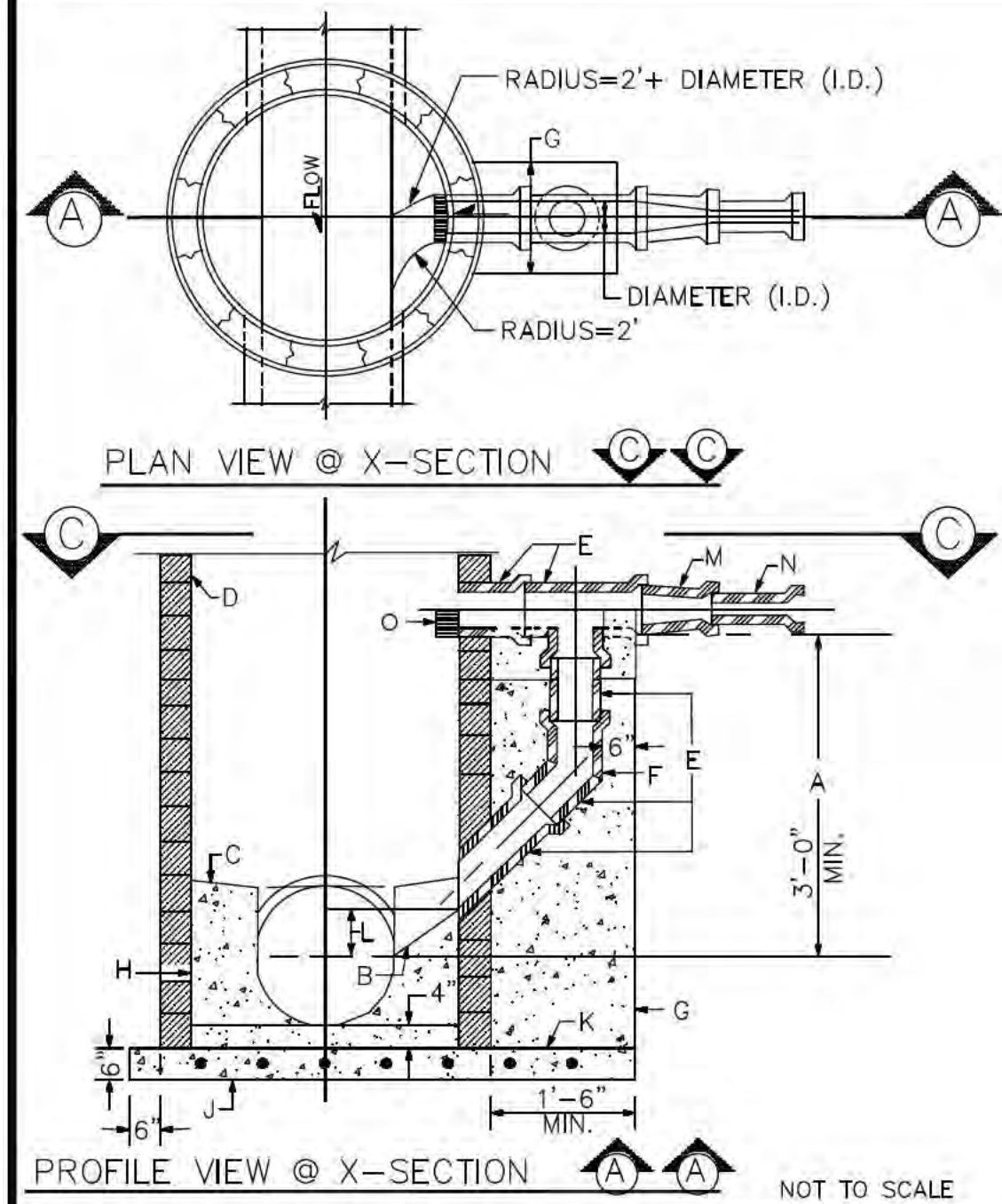
**DRAINAGE DETAILS**

DRAWN BY: CHARLIE GONZ. CHECKED BY: DATE: SHT



**LEGEND**

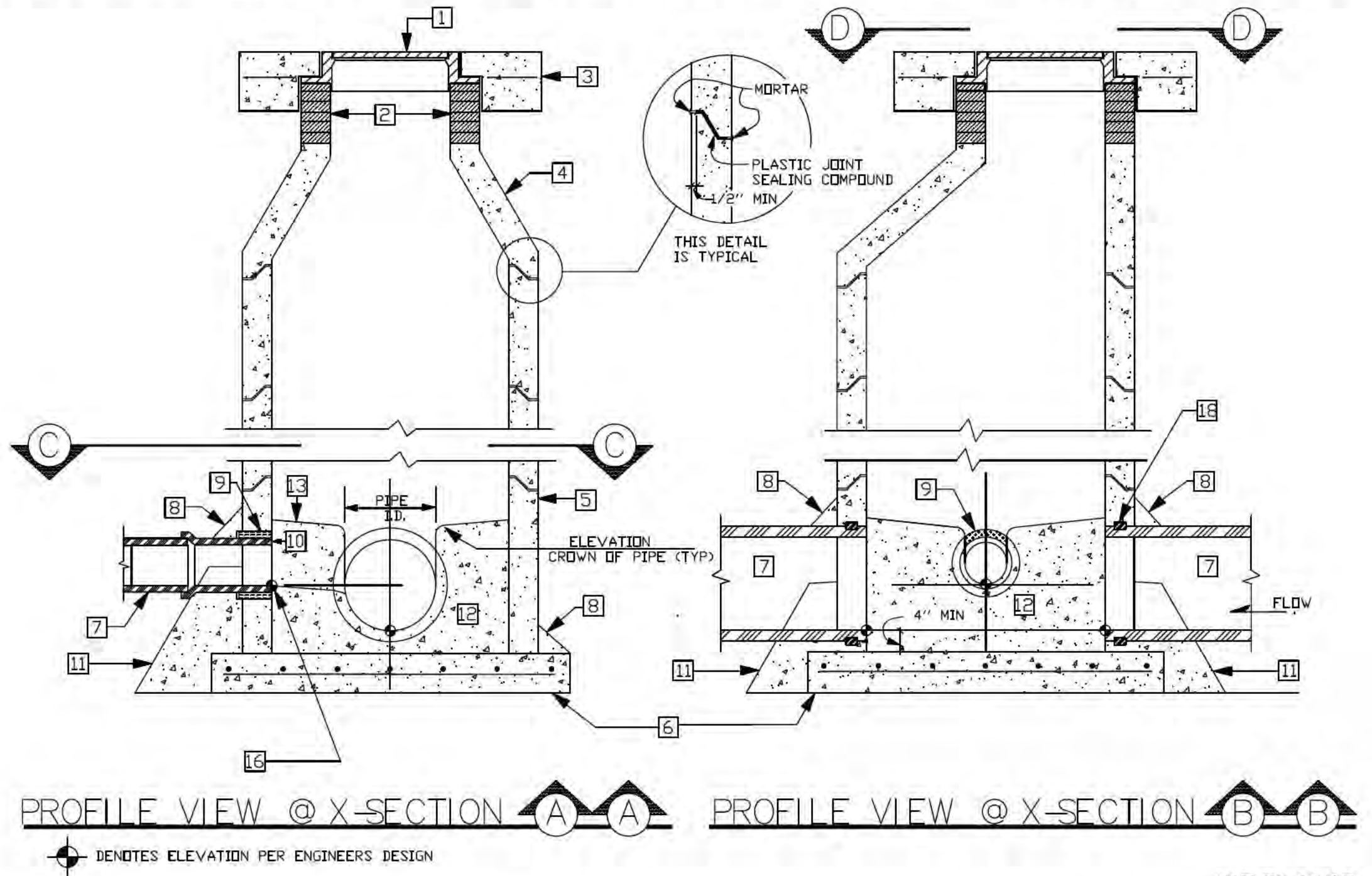
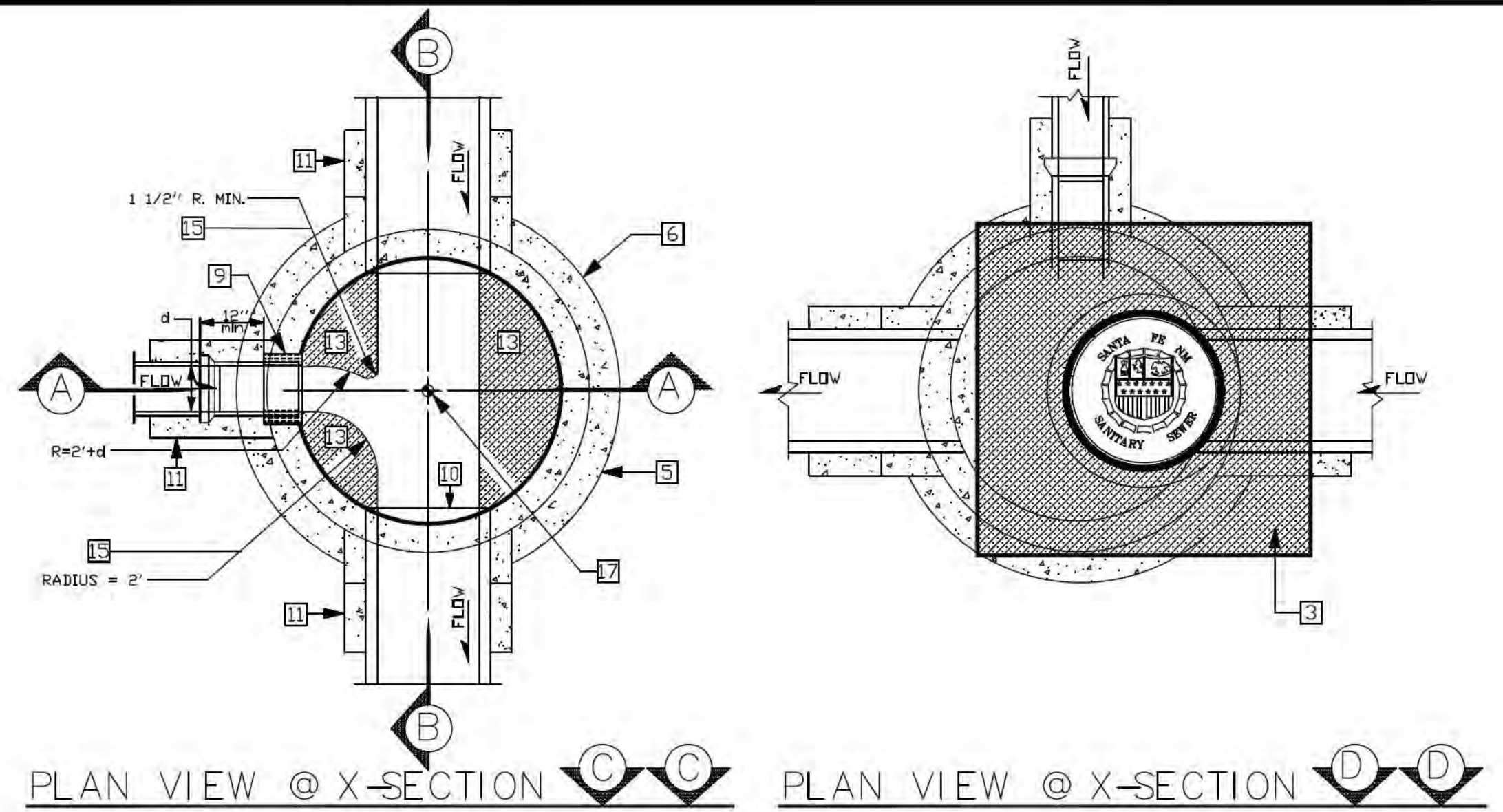
ITEM	DESCRIPTION
1	MANHOLE FRAME & COVER, refer to manhole frame and cover detail Dwg. No. SAS-4
2	CONCRETE ADJUSTMENT RINGS OR CONCRETE BRICK, refer to concrete adjustment detail Dwg. No. SAS-5
3	CONCRETE COLLAR, refer to concrete collar detail Dwg. No. SAS-6
4	PRECAST REINFORCED CONCRETE RISER, CONE OR FLAT TOP, with 5"(in) wall thickness, refer to general note CM-2
5	PRECAST REINFORCED CONCRETE BASE RISER, with suitable sized openings, refer to general note CM-2A
6	CONCRETE BASE, refer to concrete base detail Dwg. No. SAS-7
7	SEWER PIPE, refer to general note CM-1
8	6"(in) GROUT FILLET, on upper half of pipe and around base
9	ADAPTER, MANHOLE, refer to manhole adapter detail Dwg. No. SAS-8
10	PIPE PENETRATION INTO MANHOLE, refer to manhole adapter detail Dwg. No. SAS-8
11	PIPE SUPPORT, CONCRETE, shall extend out-side of manhole a maximum of 18"(in) to bell of first joint and shall cradle pipe half pipe
12	CONCRETE FILL, 3000 p.s.i., refer to general note CR-6
13	SHELF, to be 9"(in) minimum width with 1"(in) per 1'-0" slope, from crown of pipe
14	CUT UPPER HALF OF PIPE, after manhole has been completed and inspected by engineer
15	HAND FORMED CHANNELS, shall be on a uniform radius and shall not hold water
16	INVERT ELEVATIONS OF LATERAL LINES, shall be the same as the springline elevation of the sewer main, where possible
17	CHANGE SLOPE OF PIPE, at center of manhole
18	APPROVED WATER STOP, to be with type of pipe



**CONSTRUCTION NOTES**

- 3' (FT) MINIMUM DISTANCE OF VERTICAL DROP. LESS THAN 3'(FT) DISALLOWED DROP MANHOLE.
- FORM PIPE INVERT IN SHELF. INVERT TO SPRINGLINE.
- SHELF SLOPE, 1"(IN) PER FT.
- MANHOLE TYPE FOR UPPER PORTION IS SPECIFIED IN MANHOLE TYPE "E" DETAIL DWG NO. SAS-2.
- USE D.I. OR P.V.C. (SDR 35) PIPE THROUGHOUT DROP. ALL PIPING IN DROP STRUCTURE FROM THE TEE IS INCREASED ONE PIPE SIZE FROM THE SERVICE LINE. (SERVICE=8" DROP=10")
- USE BELL AND SPIGOT 45' LONG RADIUS BEND.
- CONCRETE SUPPORT WIDTH EQUALS PIPE O.D. PLUS 6"(IN) MINIMUM EACH SIDE.
- CONCRETE FILL.
- CAST IN PLACE REINFORCED CONCRETE BASE REQUIRED. CONCRETE BASE TO BE POURD IN PLACE USING NO.4 BARS AT 6"(IN) O.C. EACH WAY FOR MANHOLE DEPTH OF 16'(FT) OR GREATER. NO.4 BARS AT 12"(IN) O.C. EACH WAY FOR MANHOLE DEPTH LESS THAN 16'(FT) IN DEPTH.
- FOR NEW DROP ON EXISTING MANHOLE CONSTRUCT 3X3 REINFORCED CONCRETE BASE BEFORE CONSTRUCTING DROP SUPPORT.
- MINIMUM 2"(IN) ABOVE SPRINGLINE OR AS SHOWN ON PLAN.
- REDUCER.
- SERVICE LINE.
- EXTEND PIPE 3"(IN) MINIMUM 6"(IN) MAXIMUM INTO MANHOLE TOP. 1/2 PIPE REMOVED.

DROP MANHOLE DETAIL DWG. #: SAS-1



MANHOLE TYPE "E" DETAIL/DWG # SAS-2 (See Dwg. # SAS-14 for Type "C" Flat Top)

**GENERAL NOTES**

**CONSTRUCTION REQUIREMENTS**

- CR-1 MATERIALS AND WORK: CURRENT NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (referred to as NM APWA) WITH MODIFICATIONS NOTED BY THE CITY OF SANTA FE.
- CR-2 APPROVED PLANS: USE PLANS BEARING THE OFFICIAL STAMP OF THE DESIGN ENGINEER AND BEARING THE APPROVAL SIGNATURE OF THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE. CONSTRUCTION PERFORMED WITHOUT APPROVED PLANS WILL BE REJECTED.
- CR-3 SEWER HOOK-UP PERMIT: OBTAIN PERMITS FOR THE PROJECT BEFORE COMMENCING ANY SEWER CONSTRUCTION. CONSTRUCTION PERFORMED WITHOUT OBTAINING PERMITS SHALL BE REJECTED.
- CR-4 SUBSTITUTIONS OR CHANGES: ALL SUBSTITUTIONS OR CHANGES MUST BE APPROVED BY THE CITY WATER QUALITY DIVISION OR CITY APPROVED REPRESENTATIVE PRIOR TO CONSTRUCTION. ALL SUBSTITUTIONS OR CHANGES MUST BE SUBMITTED BY THE DESIGN ENGINEER TO THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE. WHERE APPROPRIATE, SUBMITTALS MUST INCLUDE FABRICATION DRAWINGS, WORKING DRAWINGS AND MATERIAL SPECIFICATIONS OR TEST DATA TO JUSTIFY SUBSTITUTIONS OR CHANGES. DESIGN ENGINEER SHALL AUTHORIZE ANY DRAWINGS FOR SUBSTITUTIONS AND CHANGES AND SUBMIT THEM TO THE CITY WATER QUALITY DIVISION FOR APPROVAL. UNAUTHORIZED SUBMITTALS WILL BE REJECTED.
- CR-5 MANUFACTURER'S CERTIFICATES: WHEN CERTIFICATES OF COMPLIANCE AND TEST REPORTS ARE REQUIRED FOR MATERIALS, DOCUMENTS SHALL BE SUBMITTED TO THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE AT THE TIME OF MATERIALS DELIVERY TO THE JOBSITE.
- CR-6 CONTRACTOR REQUIREMENTS: CONTRACTOR PERFORMING WORK ON PUBLIC SEWER LINES SHALL BE A LICENSED UTILITY CONTRACTOR.

**INSTALLATION**

- I-1 LAYING PIPE: AS PER SECTION 900, NM APWA; PIPE SHALL BE PLACED AND BEDDED IN A FROST FREE TRENCH. GASKET SHALL BE FULLY SEATED AND NOT SLIPPED; PIPE SHALL BE LAID THROUGH MANHOLE LOCATIONS ON STRAIGHT AND UP TO 22 1/2 DEGREE DEFLECTIONS.
- I-2 MANHOLE CONSTRUCTION:
- BASE:
    - CAST IN PLACE: ON UNDISTURBED FROST FREE SUBGRADE
    - PRECAST UNIT: ON PEA GRAVEL WITH COMPLETE EVEN BEARING
  - PRECAST BARREL:
    - JOINTS: FILL COMPLETELY WITH NON-SHRINK GROUT AND TROWEL
    - MANHOLE ADAPTOR: INSTALL OVER PVC PIPE AND FILL IN PENETRATION WITH NON-SHRINK GROUT.
    - CAST IN PLACE BASES: SHALL ACHIEVE A MINIMUM OF 2500 PSI COMPRESSIVE STRENGTH BEFORE SETTING PRECAST BARREL SECTIONS.
- I-3 EXCAVATION AND BACKFILL: AS PER SECTION 700, NM APWA; SATURATION BY FLOODING OR JETTING METHODS IS NOT PERMITTED WITHOUT A SOILS ENGINEERING REPORT RECOMMENDING THESE METHODS. MECHANICAL OR VIBRATORY COMPACTORS SHALL NOT BE USED ON THE BEDDING AND 12"(IN.) OF INITIAL BACKFILL. COMPACTION SHALL BE DETERMINED PER AASHTO T-180.

**CONSTRUCTION MATERIALS**

- CM-1 SEWER PIPE: (CERTIFICATES REQUIRED)
- VITRIFIED CLAY: REFER TO SECTION 125, NM APWA FOR EXTRA STRENGTH VCP.
  - PLASTIC (PVC): REFER TO SECTION 121, NM APWA, AS MODIFIED BY THE CITY.
    - 4" THRU 15" (INCH) DIAMETER, ASTM D-3034 OR ASTM F-789 PIPE, MINIMUM PS-48 STRENGTH, SDR-35 OR EQUAL.
    - LARGER THAN 15" (IN.) DIAMETER: ASTM F 679 VOL. 08.04.
  - HDPE PIPE PER ASTM D-1248 CLASS III WHEN APPROVED BY WATER QUALITY DIVISION ENGINEER.
  - PVC RESTRAINED JOINTS: SERIES 1350 OR SERIES 1380 FOR COUPLINGS PRODUCED BY UNI-FLANGE CORPORATION, LOCKING COUPLINGS WITH NYLON SPRING WEDGES AS "FELLOWLINE" AND PRODUCED BY CERTAINTED CORPORATION, OR APPROVED EQUAL.
  - MANHOLE ADAPTERS: ASBESTOS CEMENT (AC) MANHOLE ADAPTERS, OR AC/PVC ADAPTER COUPLINGS.
  - BUILDING SERVICE STUBS: CAST IRON DWV, PVC SCH. 40 DWV.
  - SERVICE CONNECTIONS:
    - VCP PIPE: FACTORY TEE FITTINGS; SECTION 125 NM APWA.
    - PVC PIPE: CAST IRON BODIES TAPPING SADDLE WITH STAINLESS STEEL TENSION STRAP AND FITTINGS; FOWLER "QUICKWAY" GENCO, HERSEY "PHONER" OR APPROVED EQUAL.
  - SOIL CLASSIFICATION: THE UNIFIED SOIL CLASSIFICATION SYSTEM PER ASTM D 2487 TABLE 7.01.5, NM APWA.

**FIELD QUALITY CONTROL**

- FOC-1 TESTING AND INSPECTION: SUPERVISION: CONDUCTED BY DESIGN ENGINEER. CERTIFICATION: DESIGN ENGINEER SHALL CERTIFY THAT THE PROJECT HAS BEEN COMPLETED IN ACCORDANCE TO PLANS & SPECIFICATIONS AND SHALL SUBMIT A CERTIFICATION OF COMPLIANCE STATEMENT WITH STAMP AND SIGNATURE.
- FOC-2 LINE AND GRADE: ALLOWABLE TOLERANCE BETWEEN STRUCTURES FROM DESIGN:
  - LINE: 0.20 FOOT
  - GRADE: 0.02 FOOT. PIPE SHALL NOT HOLD BACK ANY WATER.
- FOC-3 LEAKAGE TEST: AIR TEST REQUIRED; REFER TO SECTION 901.7 NM APWA.
- FOC-4 TELEVISION INSPECTION: CONTRACTOR SHALL PROVIDE A CERTIFIED CCTV SEWERLINE INSPECTION AND RECORD TAPES AT HIS OWN EXPENSE.
- FOC-5 ALL CONNECTIONS TO EXISTING MANHOLES INCLUDES REHABILITATING THE TIE IN MANHOLE TO MEET THESE STANDARD CONSTRUCTION DETAILS.

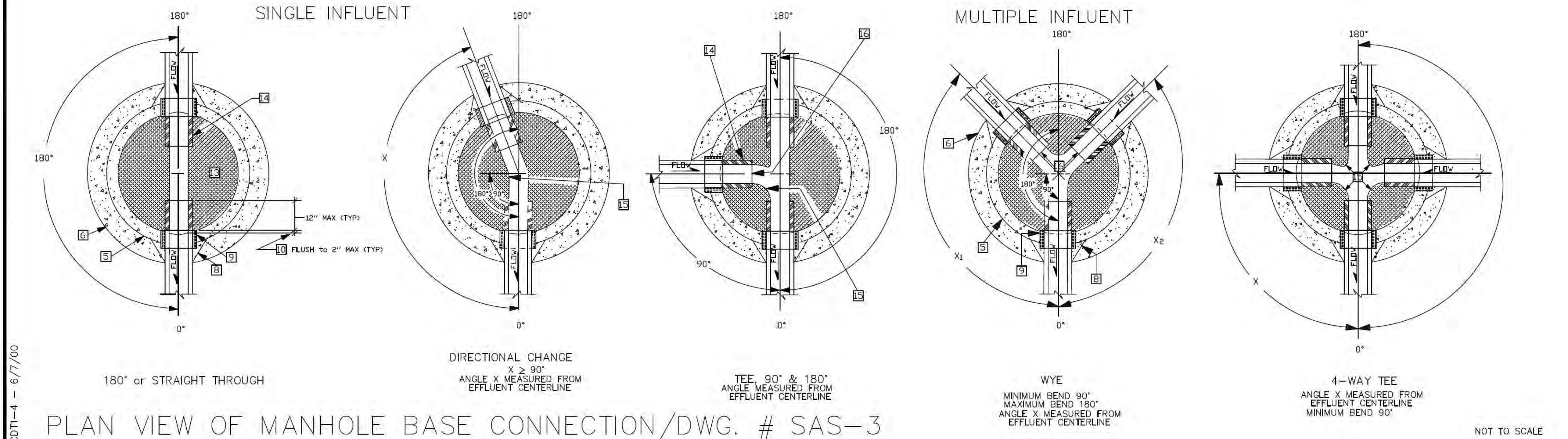
**CM-2 MANHOLES:**

- CONCRETE MANHOLES: PRECAST REINFORCED CONCRETE RISERS, REDUCING CONES, AND ADJUSTMENT RINGS PER ASTM C 478 VOL. 04.05. BASES MAY BE FIELD PLACED CONCRETE OR PRECAST CONCRETE PER ASTM C 478 VOL. 04.05 (CERTIFICATES REQUIRED). CRACKED OR VISIBLY DEFECTIVE UNITS WILL BE REJECTED.
- PIPE PENETRATIONS: PRECAST UNITS SHALL HAVE SUITABLE SIZED OPENINGS CAST INTO BARREL AT PROPER ANGLES FOR PIPE AND MANHOLE ADAPTERS.
- MANHOLE STEPS: REFER TO SECTION 920.4.7 NM APWA POLYPROPYLENE ENCASED GRADE 60 STEEL BY M.A. INC. OR APPROVED EQUAL; 14"(IN.) WIDE, 16"(IN.) MAXIMUM SPACING.
- FRAMES AND COVERS:
  - CASTING: SHALL CONFORM TO SECTION 160, 161 & 162, NM APWA CLASS 30B. (CERTIFICATES AND SHOP DRAWINGS REQUIRED)
  - MINIMUM COVER WEIGHT: 165 POUNDS
  - MINIMUM COMBINED WEIGHT: 365 POUNDS
  - 4'-5"
  - BEARING SURFACES: SHALL BE MATCHED FOR A FIRM NON ROCKING SEAT BETWEEN FRAME AND COVER. MINIMUM SEATING WIDTH: 7/8"(IN.)
  - COATING: NONE
  - COVER LETTERINGS: SANTA FE, N.M. SANITARY SEWER
  - CASTINGS: CAST MANUFACTURER AND MODEL NUMBER ON FRAME AND COVER.
  - CASTINGS TOLERANCE: +/- 1/16"(IN.) PER FOOT OF OVERALL DIMENSION. OUT OF ROUND CASTINGS AND LOOSE FITTING UNITS WILL BE REJECTED IN THE FIELD.

**CM-3 CONCRETE ENCASEMENT:**

- REQUIREMENTS:
  - WHEN THE PIPE COVER IS 36" (IN.) OR LESS.
  - WHEN VITRIFIED CLAY CROSSES AN ARROYO.
  - WHEN A WATER LINE PASSES BELOW OR LESS THAN 18" (IN.) ABOVE THE EXISTING SEWER LINE.
  - WHEN A PARALLEL WATER LINE IS LESS THAN 10'(FT.) HORIZONTALLY AND LESS THAN 2'(FT.) ABOVE THE SEWER LINE.
  - THE SEWER LINE SHALL BE ENCASED IN CONCRETE 6"(IN.) THICK AS DETAILED, AND EXTEND AT LEAST 10'(FT.) ON EACH SIDE OF THE WATER LINE.

NOTE: REVISIONS TO THIS SHEET SHALL BE MADE UNDER THE AUTHORITY OF THE CITY OF SANTA FE ONLY.



PLAN VIEW OF MANHOLE BASE CONNECTION/DWG. # SAS-3



CITY OF SANTA FE  
WATER QUALITY DIVISION

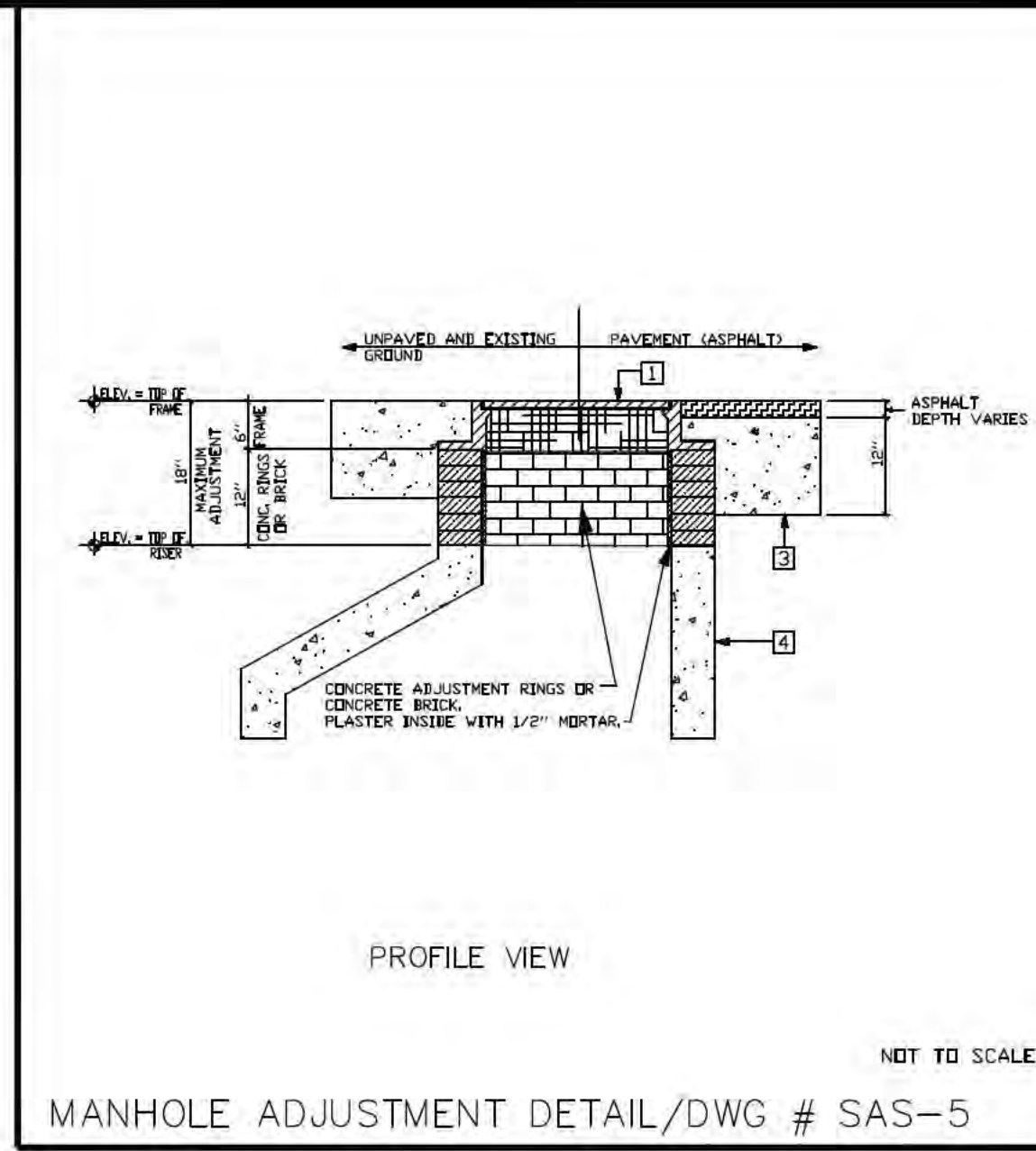
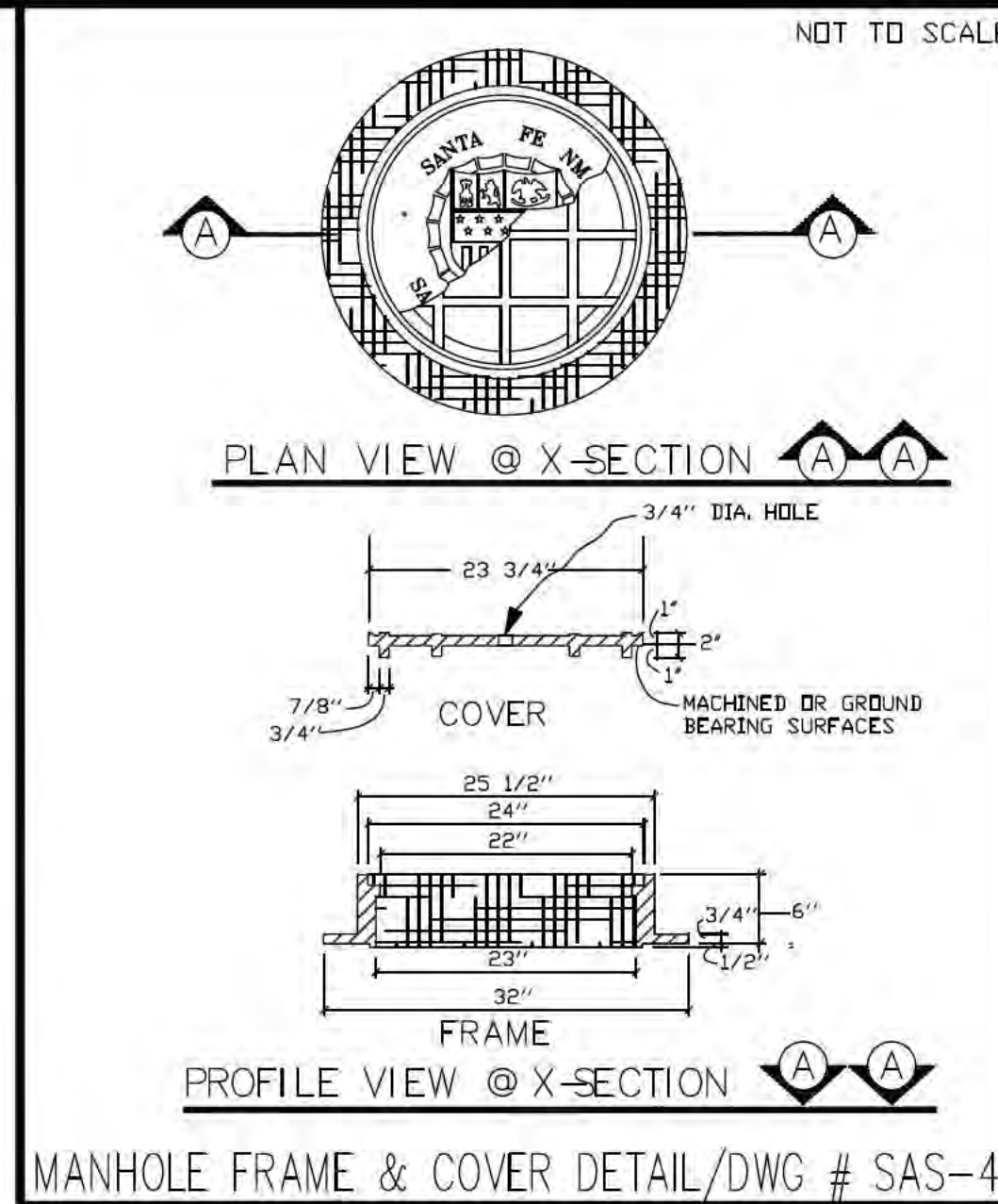
TITLE: SANITARY SEWER  
STANDARD CONSTRUCTION DETAILS

DATE	REVISIONS	FILE #
DATE: JULY 1992		FILE # E:\AUTO\DWG\SCOTT-4
DRAWN BY: G. CHAVEZ	8-3-92	
CADD REVISION BY: G. CHAVEZ	12-14-92	
APPROVED BY: E. BROWN	11-16-94	



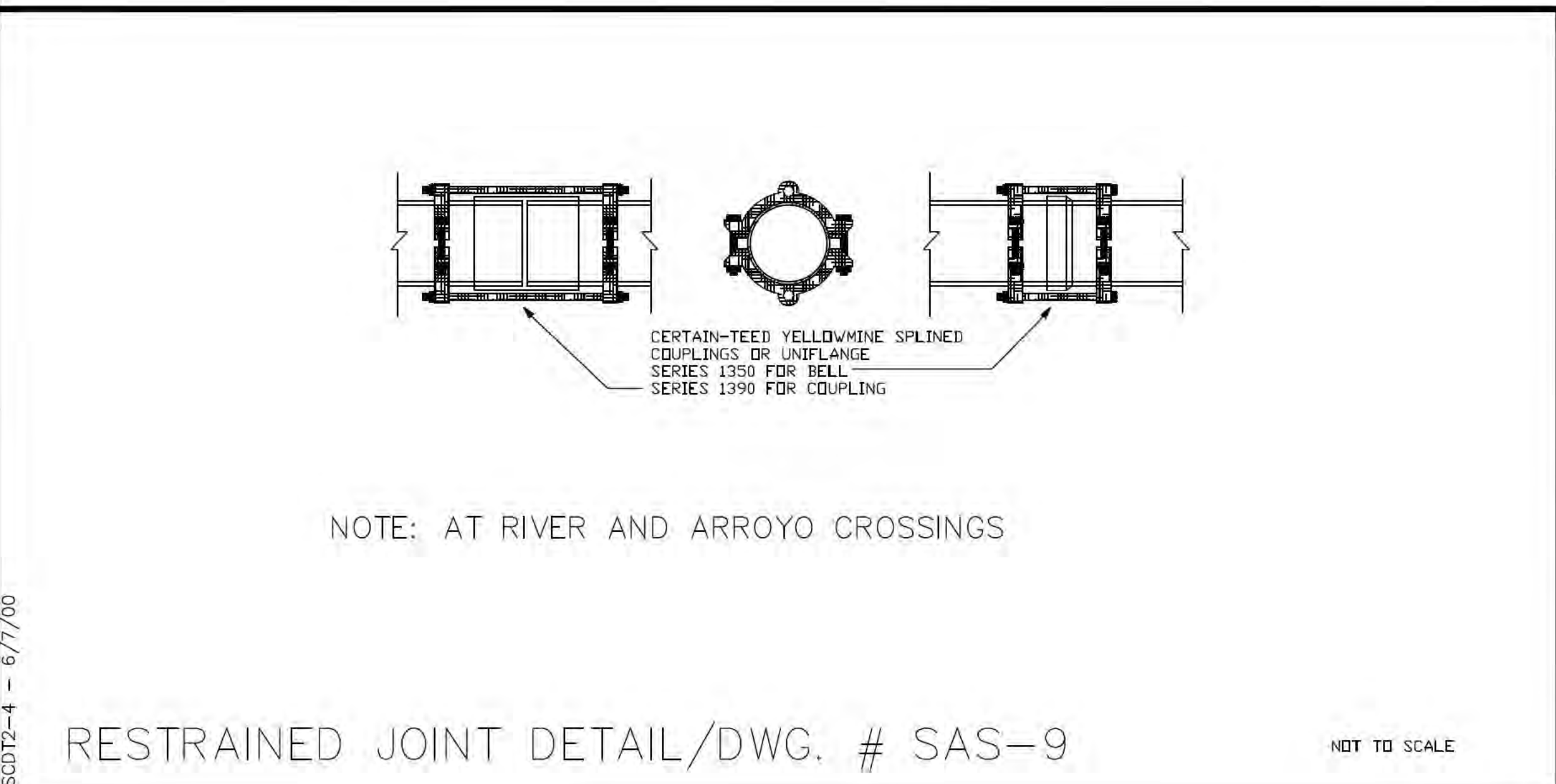
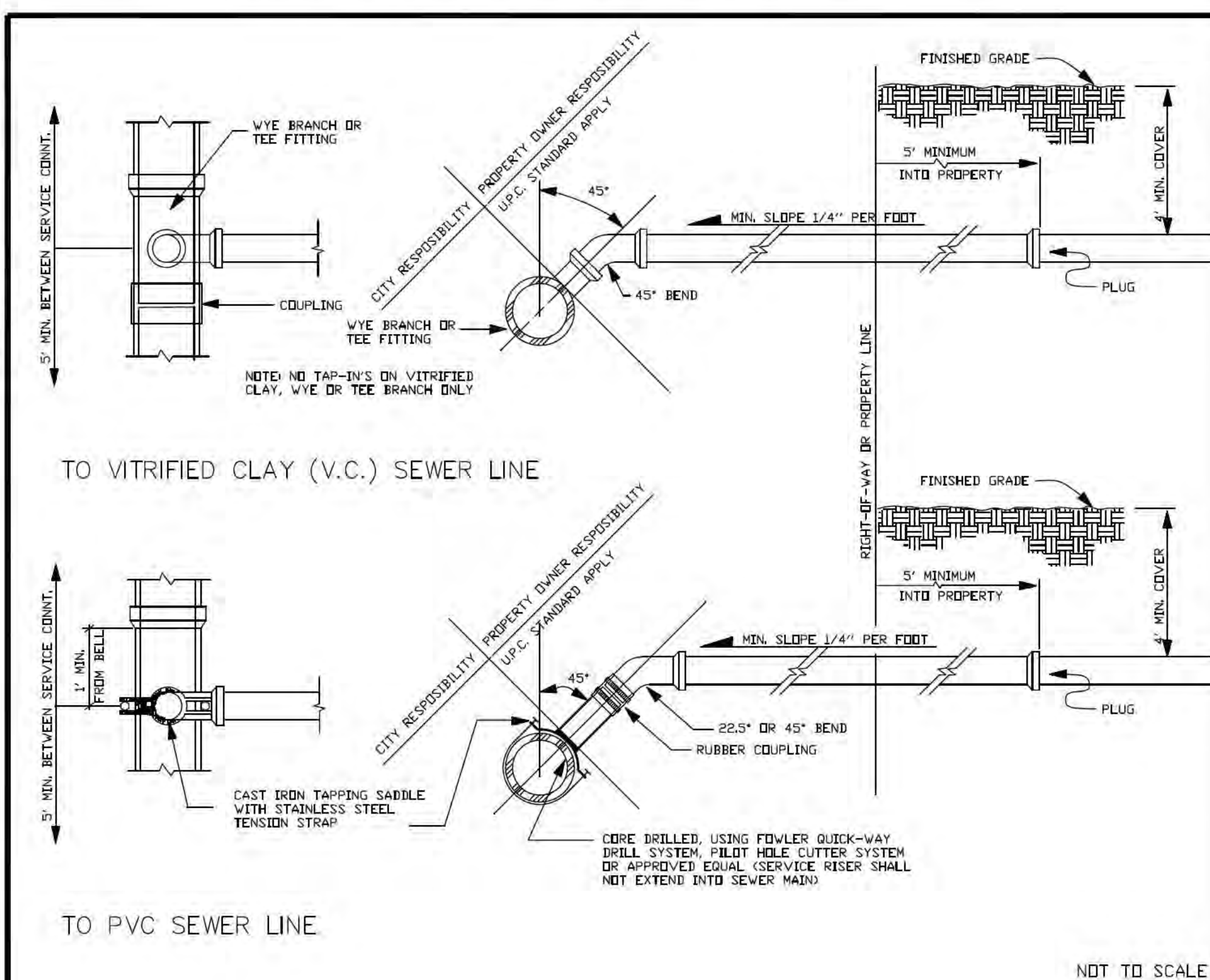
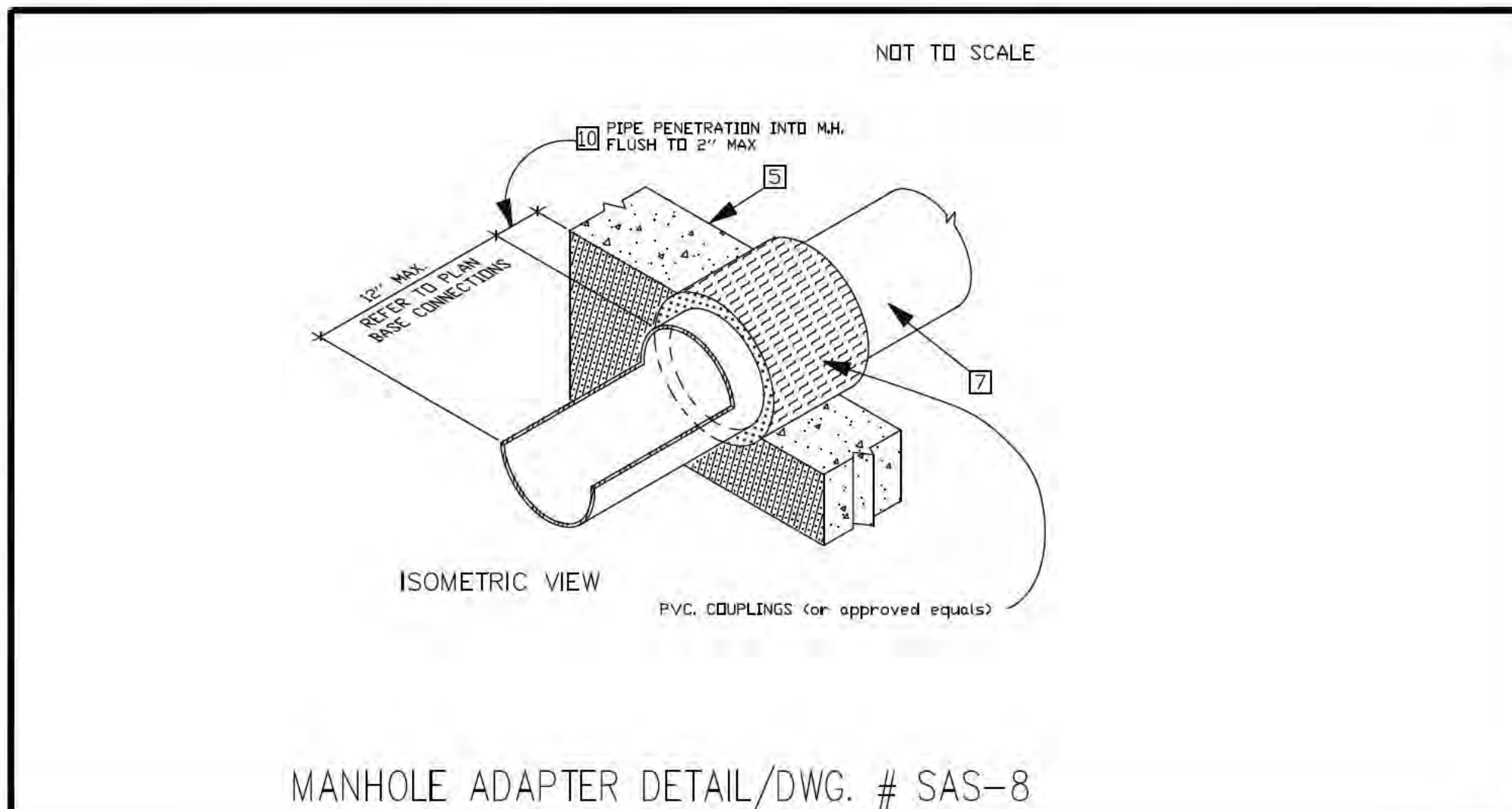
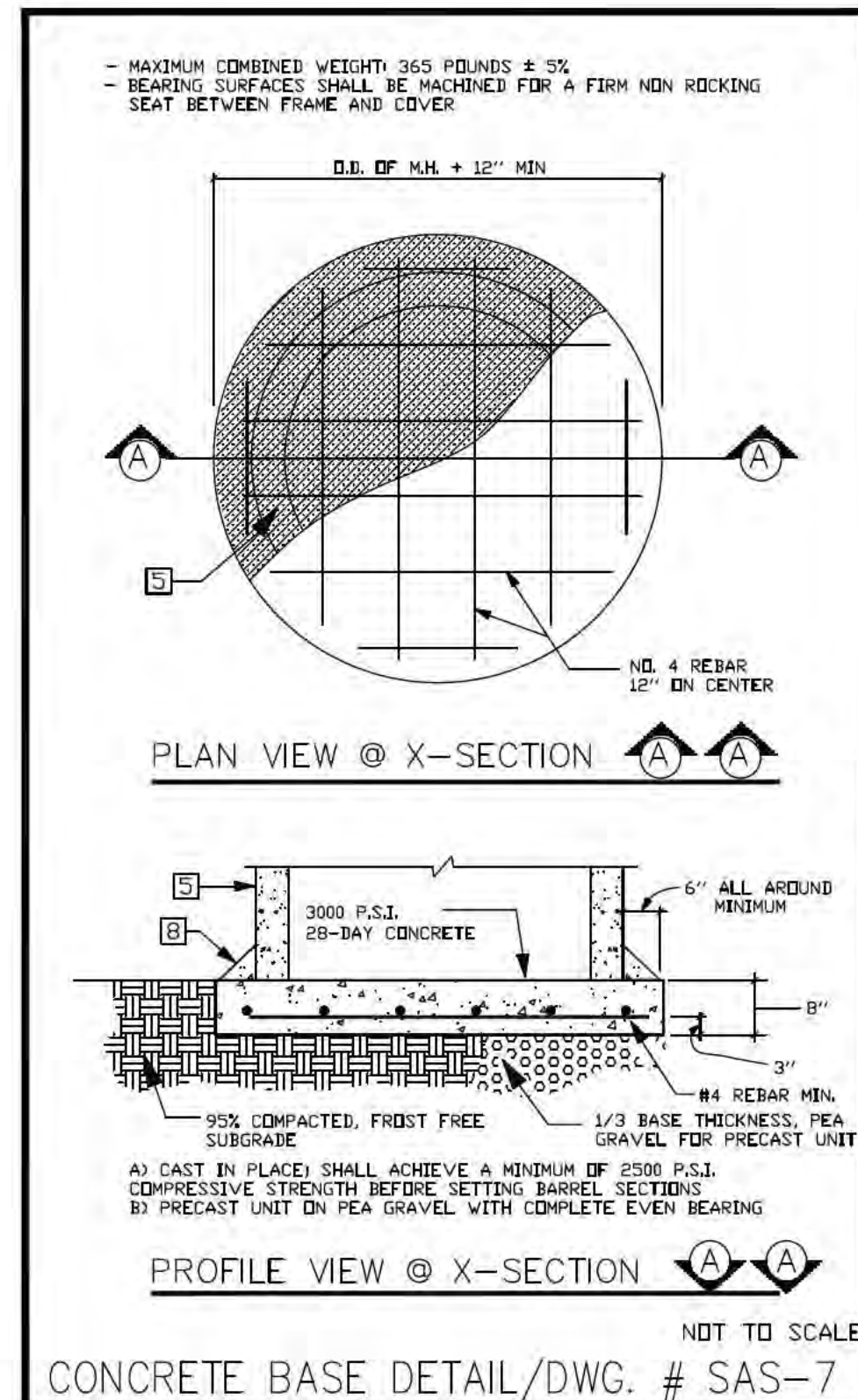
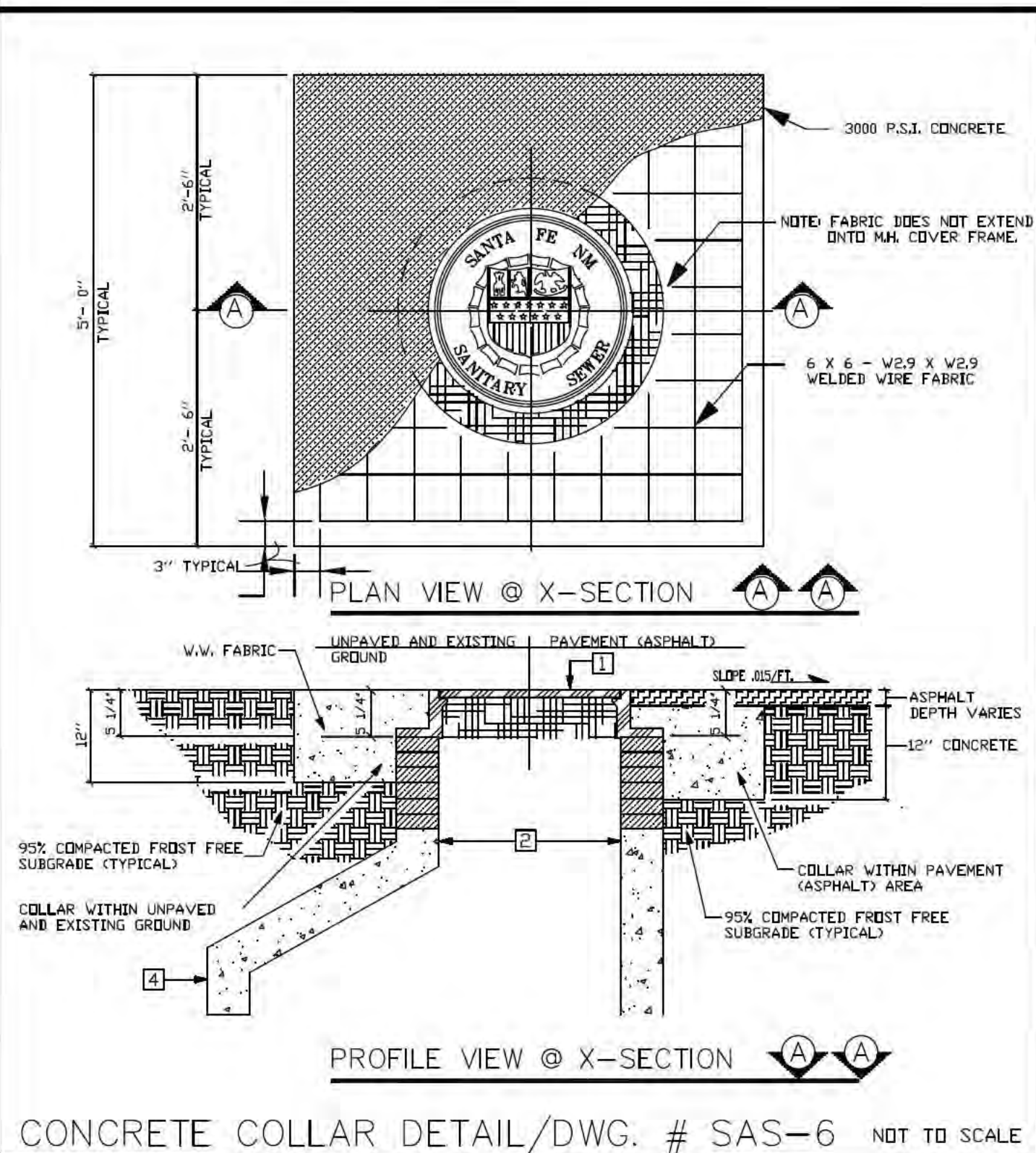
# LEGEND

ITEM	DESCRIPTION
1	MANHOLE FRAME & COVER, refer to manhole frame and cover detail Dwg. No. SAS-4
2	CONCRETE ADJUSTMENT RINGS OR CONCRETE BRICK, refer to concrete adjustment detail Dwg. No. SAS-5
3	CONCRETE COLLAR, refer to concrete collar detail Dwg. No. SAS-6
4	PRECAST REINFORCED CONCRETE RISER, CONE or FLAT TOP, with 5"(in) wall thickness, refer to general note CM-2
5	PRECAST REINFORCED CONCRETE BASE RISER, with suitable sized openings, refer to general note CM-2A
6	CONCRETE BASE, refer to concrete base detail Dwg. No. SAS-7
7	SEWER PIPE, refer to general note CM-1
8	6"(in) GROUT FILLET, on upper half of pipe and around base
9	ADAPTER, MANHOLE, refer to manhole adapter detail Dwg. No. SAS-8
10	PIPE PENETRATION INTO MANHOLE, refer to manhole adapter detail Dwg. No. SAS-8
11	PIPE SUPPORT, CONCRETE, shall extend out-side of manhole a maximum of 18"(in) to bell of first joint and shall cradle pipe half pipe
12	CONCRETE FILL, 3000 p.s.i., refer to general note CR-6
13	SHELF, to be 9"(in) minimum width with 1"(in) per 1'-0" slope, from crown of pipe
14	CUT UPPER HALF OF PIPE, after manhole has been completed and inspected by engineer
15	HAND FORMED CHANNELS, shall be on a uniform radius and shall not hold water
16	INVERT ELEVATIONS OF LATERAL LINES, shall be the same as the springline elevation of the sewer main, where possible
17	CHANGE SLOPE OF PIPE, at center of manhole
18	APPROVED WATER STOP, to be with type of pipe



# GENERAL NOTES

CONSTRUCTION REQUIREMENTS	INSTALLATION
<p>CR-1 MATERIALS AND WORK: CURRENT NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (referred to as NM APWA) WITH MODIFICATIONS NOTED BY THE CITY OF SANTA FE.</p> <p>CR-2 APPROVED PLANS: USE PLANS BEARING THE OFFICIAL STAMP OF THE DESIGN ENGINEER AND BEARING THE APPROVAL SIGNATURE OF THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE. CONSTRUCTION PERFORMED WITHOUT APPROVED PLANS WILL BE REJECTED.</p> <p>CR-3 SEWER HOOK-UP PERMIT: OBTAIN PERMITS FOR THE PROJECT BEFORE COMMENCING ANY SEWER CONSTRUCTION. CONSTRUCTION PERFORMED WITHOUT OBTAINING PERMITS SHALL BE REJECTED.</p> <p>A. CONSTRUCTION PLANS SHALL INDICATE THE CLASS OF BEDDING TO BE USED. CHANGE OF BEDDING MAY REQUIRE A CHANGE IN PIPE CLASSIFICATION OR WALL THICKNESS.</p> <p>CR-4 SUBSTITUTIONS OR CHANGES: ALL SUBSTITUTIONS OR CHANGES MUST BE APPROVED BY THE CITY WATER QUALITY DIVISION OR CITY APPROVED REPRESENTATIVE PRIOR TO CONSTRUCTION. ALL SUBSTITUTIONS OR CHANGES MUST BE SUBMITTED BY THE DESIGN ENGINEER TO THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE. WHERE APPROPRIATE, SUBMITTAL MUST INCLUDE FABRICATION DRAWINGS, WORKING DRAWINGS AND MATERIAL SPECIFICATIONS OR TEST DATA TO JUSTIFY SUBSTITUTIONS OR CHANGES. DESIGN ENGINEER SHALL AUTHORIZE ANY DRAWINGS FOR SUBSTITUTIONS AND CHANGES AND SUBMIT THEM TO THE CITY WATER QUALITY DIVISION FOR APPROVAL. UNAUTHORIZED SUBMITTALS WILL BE REJECTED.</p> <p>CR-5 MANUFACTURER'S CERTIFICATES: WHEN CERTIFICATES OF COMPLIANCE AND TEST REPORTS ARE REQUIRED FOR MATERIALS, DOCUMENTS SHALL BE SUBMITTED TO THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE AT THE TIME OF MATERIALS DELIVERY TO THE JOBSITE.</p> <p>CR-6 CONTRACTOR REQUIREMENTS: CONTRACTOR PERFORMING WORK ON PUBLIC SEWER LINES SHALL BE A LICENSED UTILITY CONTRACTOR.</p>	<p>I-1 LAYING PIPE: AS PER SECTION 900, NM APWA; PIPE SHALL BE PLACED AND BEDDED IN A FROST FREE TRENCH; GASKET SHALL BE FULLY SEATED AND NOT SURFED; PIPE SHALL BE LAID THROUGH MANHOLE LOCATIONS ON STRAIGHT AND UP TO 22 1/2 DEGREE DEFLECTIONS.</p> <p>A. IF PIPE TRENCH INSTALLATION CONFIGURATION EXCEEDS THE LIMITS OF NM APWA STANDARDS, SECTION 700, OR AS DEFINED ON THE CONSTRUCTION PLANS, THE DESIGN ENGINEER WILL SPECIFY THE NEW PIPE CLASSIFICATION OR WALL THICKNESS.</p> <p>B. TYPE I TRENCH CONFIGURATION IS NORMALLY USED WHEN TRENCH DEPTHS ARE 8'(FT) OR LESS. TYPE II TRENCH CONFIGURATION IS NORMALLY USED WHEN TRENCH DEPTHS ARE 9'(FT) AND OVER, DEPENDING ON SOIL CONDITIONS. REFER TO NM APWA STANDARDS SECTION 700.</p> <p>I-2 MANHOLE CONSTRUCTION:</p> <p>A. BASE:</p> <ol style="list-style-type: none"> <li>CAST IN PLACE: ON UNDISTURBED FROST FREE SUBGRADE</li> <li>PRECAST UNIT: ON PEA GRAVEL WITH COMPLETE EVEN BEARING</li> </ol> <p>B. PRECAST BARREL:</p> <ol style="list-style-type: none"> <li>JOINTS: FILL COMPLETELY WITH NON-SHRINK GROUT AND TROWEL</li> <li>MANHOLE ADAPTER: INSTALL OVER PVC PIPE AND FILL IN PENETRATION WITH NON-SHRINK GROUT.</li> <li>CAST IN PLACE BASES: SHALL ACHIEVE A MINIMUM OF 2500 PSI COMPRESSIVE STRENGTH BEFORE SETTING PRECAST BARREL SECTIONS.</li> </ol> <p>I-3 EXCAVATION AND BACKFILL: AS PER SECTION 700, NM APWA; SATURATION BY FLOODING OR JETTING METHODS IS NOT PERMITTED WITHOUT A SOILS ENGINEERING REPORT RECOMMENDING THESE METHODS. MECHANICAL OR VIBRATORY COMPACTORS SHALL NOT BE USED ON THE BEDDING AND 12"(IN.) OF INITIAL BACKFILL. COMPACTION SHALL BE DETERMINED PER AASHTO T-180.</p>



CONSTRUCTION MATERIALS	FIELD QUALITY CONTROL
<p>CM-1 SEWER PIPE: (CERTIFICATES REQUIRED)</p> <p>A. VITRIFIED CLAY: REFER TO SECTION 125, NM APWA FOR EXTRA STRENGTH VCP.</p> <p>B. PLASTIC (PVC): REFER TO SECTION 121, NM APWA, AS MODIFIED BY THE CITY.</p> <ol style="list-style-type: none"> <li>4" THRU 15" (Inch) DIAMETER, ASTM D-3034 OR SD-35 OR EQUAL</li> <li>LARGER THAN 15" (IN.) DIAMETER: ASTM F 679 VOL. 08.04.</li> </ol> <p>C. HDPE PIPE PER ASTM D-1248 CLASS III WHEN APPROVED BY WATER QUALITY DIVISION ENGINEER.</p> <p>D. PVC RESTRAINED JOINTS: SERIES 1350 OR SERIES 1390 FOR COUPLINGS PRODUCED BY UNI-PLANCE CORPORATION, LOCKING COUPLINGS WITH NYLON SPLINE, MARKETED AS "YELLOWWINE" AND PRODUCED BY CERTAINTED CORPORATION, OR APPROVED EQUAL.</p> <p>E. MANHOLE ADAPTERS: ASBESTOS CEMENT (AC) MANHOLE ADAPTERS, OR AC/PVC ADAPTER COUPLINGS.</p> <p>F. BUILDING SERVICE STUBS: CAST IRON DWV, PVC SCH. 40 DWV.</p> <p>G. SERVICE CONNECTIONS:</p> <ol style="list-style-type: none"> <li>VCP PIPE: FACTORY TEE FITTINGS;</li> <li>PVC PIPE: CAST IRON BODIES TAPPING SADDLE WITH STAINLESS STEEL TENSION STRAP AND FITTINGS; FOWLER "QUICKWAY" GENCO, HERSEY "PIONEER", OR APPROVED EQUAL.</li> </ol> <p>H. SOIL CLASSIFICATION: THE UNIFIED SOIL CLASSIFICATION SYSTEM PER ASTM D 2487 TABLE 701.3.5 NM APWA.</p> <p>CM-2 MANHOLES:</p> <p>A. CONCRETE MANHOLES: PRECAST REINFORCED CONCRETE RISERS, REDUCING CONES, AND ADJUSTMENT RINGS PER ASTM C 478 VOL. 04.05. BASES MAY BE FIELD PLACED CONCRETE OR PRECAST CONCRETE PER ASTM C 478 VOL. 04.05 (CERTIFICATES REQUIRED). CRACKED OR VISIBLY DEFECTIVE UNITS WILL BE REJECTED.</p> <p>B. PIPE PENETRATIONS: PRECAST UNITS SHALL HAVE SUITABLE SIZED OPENINGS CAST INTO BARREL AT PROPER ANGLES FOR PIPE AND MANHOLE ADAPTERS.</p> <p>C. MANHOLE STEPS: REFER TO SECTION 920.4.7 NM APWA POLYPROPYLENE ENCASED GRADE 60 STEEL BY M.A. INC. OR APPROVED EQUAL; 14"(IN.) WIDE, 16"(IN.) MAXIMUM SPACING.</p> <p>D. FRAMES AND COVERS:</p> <ol style="list-style-type: none"> <li>CASTINGS SHALL CONFORM TO SECTION 160, 161 &amp; 162, NM APWA CLASS 30B. (CERTIFICATES AND SHOP DRAWINGS REQUIRED)</li> <li>MINIMUM COVER WEIGHT: 165 POUNDS</li> <li>MINIMUM COMBINED WEIGHT: 365 POUNDS +/- 5%</li> <li>BEARING SURFACES: SHALL BE MATCHED FOR A FIRM NON ROCKING SEAT BETWEEN FRAME AND COVER. MINIMUM SEATING WIDTH: 7/8"(IN.)</li> <li>COATING: NONE</li> <li>COVER LETTERINGS: SANTA FE, N.M. SANITARY SEWER</li> <li>CASTINGS: CAST MANUFACTURER AND MODEL NUMBER ON FRAME AND COVER.</li> <li>CASTINGS TOLERANCE: +/- 1/16"(IN.) PER FOOT OF OVERALL DIMENSION. OUT OF ROUND CASTINGS AND LOOSE FITTING UNITS WILL BE REJECTED IN THE FIELD.</li> </ol> <p>CM-3 CONCRETE ENCASUREMENT:</p> <p>A. REQUIREMENTS:</p> <ol style="list-style-type: none"> <li>WHEN THE PIPE COVER IS 36" (IN.) OR LESS.</li> <li>WHEN VITRIFIED CLAY CROSSES AN ARROYO.</li> <li>WHEN A WATER LINE PASSES BELOW OR LESS THAN 18" (IN.) ABOVE THE EXISTING SEWER LINE.</li> <li>WHEN A PARALLEL WATER LINE IS LESS THAN 10'(FT.) HORIZONTALLY AND LESS THAN 2'(FT.) ABOVE THE SEWER LINE.</li> <li>THE SEWER LINE SHALL BE ENCASED IN CONCRETE 6"(IN.) THICK AS DETAILLED, AND EXTEND AT LEAST 9'(FT.) ON EACH SIDE OF THE WATER LINE.</li> </ol>	<p>FOC-1 TESTING AND INSPECTION:</p> <p>A. SUPERVISION: CONDUCTED BY DESIGN ENGINEER.</p> <p>B. CERTIFICATION: DESIGN ENGINEER SHALL CERTIFY THAT THE PROJECT HAS BEEN COMPLETED IN ACCORDANCE TO PLANS &amp; SPECIFICATIONS AND SHALL SUBMIT A CERTIFICATION OF COMPLIANCE STATEMENT WITH STAMP AND SIGNATURE.</p> <p>C. EQUIPMENT AND ASSISTANCE: PROVIDED BY CONTRACTOR.</p> <p>FOC-2 LINE AND GRADE: ALLOWABLE TOLERANCE BETWEEN STRUCTURES FROM DESIGN:</p> <p>A. LINE: 0.20 FOOT</p> <p>B. GRADE: 0.02 FOOT; PIPE SHALL NOT HOLD BACK ANY WATER.</p> <p>FOC-3 LEAKAGE TEST: AIR TEST REQUIRED; REFER TO SECTION 901.7 NM APWA.</p> <p>FOC-4 TELEVISION INSPECTION: CONTRACTOR SHALL PROVIDE A CERTIFIED CCTV SEWERLINE INSPECTION AND RECORD TAPES AT HIS OWN EXPENSE.</p> <p>FOC-5 ALL CONNECTIONS TO EXISTING MANHOLES INCLUDES REHABILITATING THE TIE IN MANHOLE TO MEET THESE STANDARD CONSTRUCTION DETAILS.</p>



CITY OF SANTA FE  
WATER QUALITY DIVISION

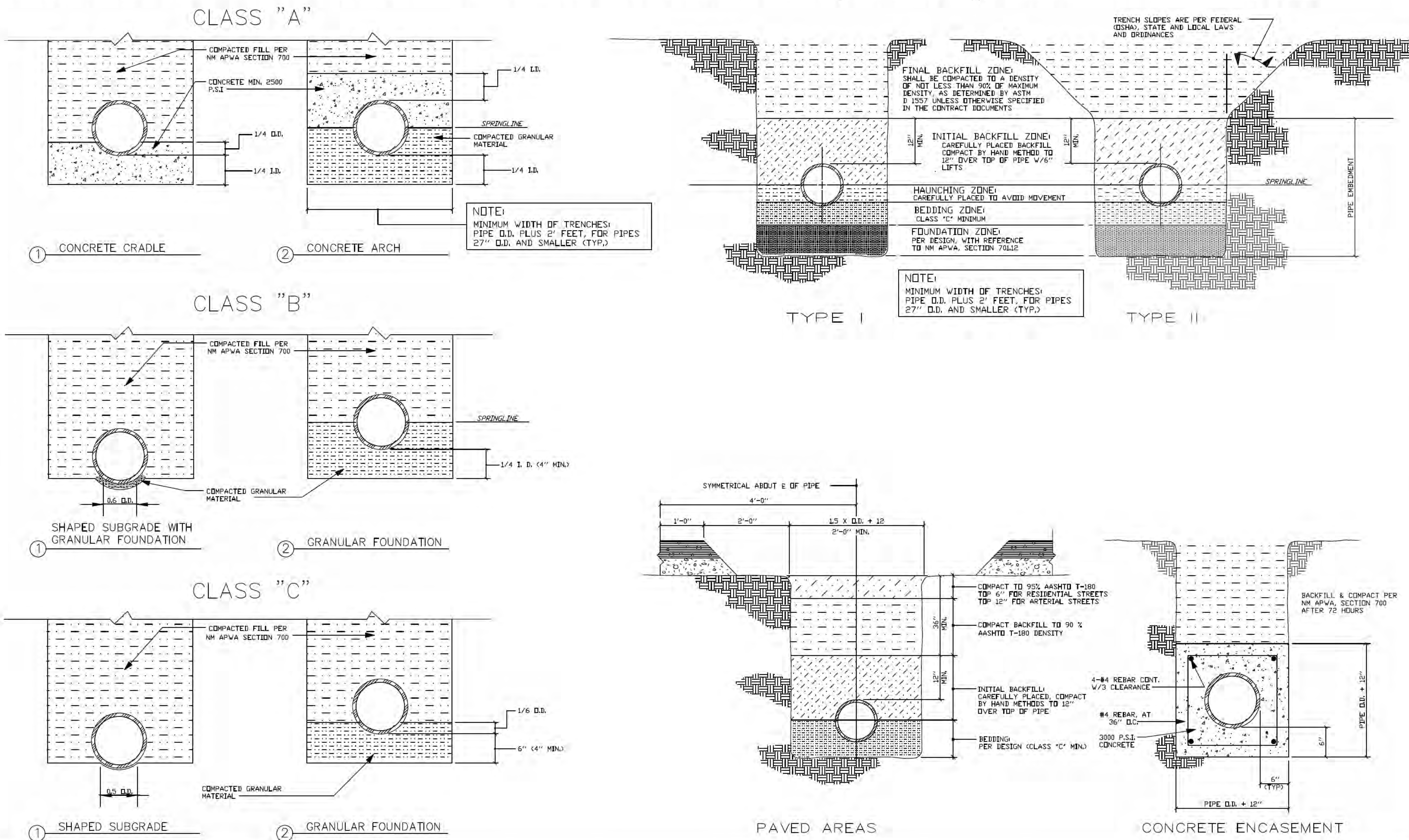
TITLE: SANITARY SEWER  
STANDARD CONSTRUCTION DETAILS

DATE	REVISIONS	FILE #
DATE: JULY 1992		FILE # E:\AUTO\DWG\SCD2-4
DRAWN BY: G. CHAVEZ	A 8-1-92	
CADD REVISION BY: G. CHAVEZ	A 12-10-92	
APPROVED BY: E. BROWN	A 11-16-94	



# TRENCH BEDDING AND INSTALLATION DETAILS/DWG. # SAS-11

NOT TO SCALE

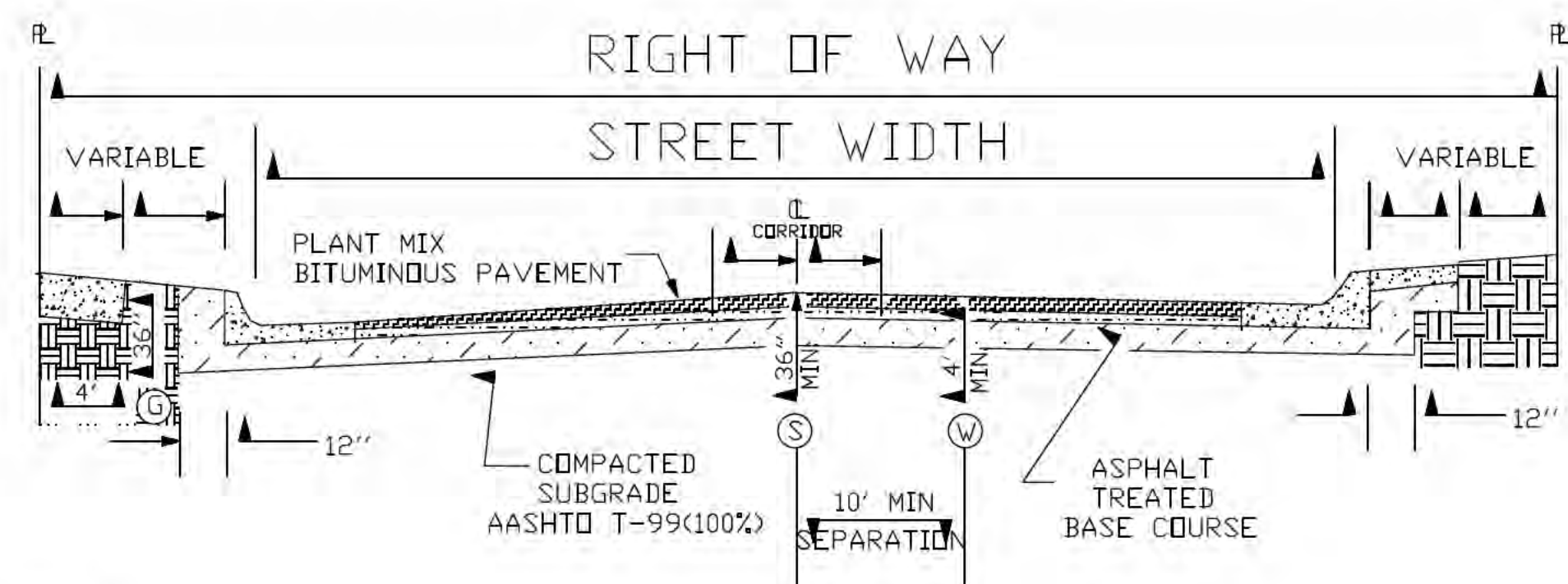


# GENERAL NOTES

- CONSTRUCTION REQUIREMENTS
- CR-1 MATERIALS AND WORK: CURRENT NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (referred to as NM APWA) WITH MODIFICATIONS NOTED BY THE CITY OF SANTA FE.
- CR-2 APPROVED PLANS: USE PLANS BEARING THE OFFICIAL STAMP OF THE DESIGN ENGINEER AND BEARING THE APPROVAL SIGNATURE OF THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE. CONSTRUCTION PERFORMED WITHOUT APPROVED PLANS WILL BE REJECTED.
- CR-3 SEWER HOOK-UP PERMIT: OBTAIN PERMITS FOR THE PROJECT BEFORE COMMENCING ANY SEWER CONSTRUCTION. CONSTRUCTION PERFORMED WITHOUT OBTAINING PERMITS SHALL BE REJECTED. CONSTRUCTION PLANS SHALL INDICATE THE CLASS OF BEDDING TO BE USED. CHANGE OF BEDDING MAY REQUIRE A CHANGE IN PIPE CLASSIFICATION OR WALL THICKNESS.
- CR-4 SUBSTITUTIONS OR CHANGES: ALL SUBSTITUTIONS OR CHANGES MUST BE APPROVED BY THE CITY WATER QUALITY DIVISION OR CITY APPROVED REPRESENTATIVE PRIOR TO CONSTRUCTION. ALL SUBSTITUTIONS OR CHANGES MUST BE SUBMITTED BY THE DESIGN ENGINEER TO THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE. WHERE APPROPRIATE, SUBMITTALS MUST INCLUDE FABRICATION DRAWINGS, WORKING DRAWINGS AND MATERIAL SPECIFICATIONS OR TEST DATA TO JUSTIFY SUBSTITUTIONS OR CHANGES. DESIGN ENGINEER SHALL AUTHORIZE ANY DRAWINGS FOR SUBSTITUTIONS AND CHANGES AND SUBMIT THEM TO THE CITY WATER QUALITY DIVISION FOR APPROVAL. UNAUTHORIZED SUBMITTALS WILL BE REJECTED.
- CR-5 MANUFACTURER'S CERTIFICATES: WHEN CERTIFICATES OF COMPLIANCE AND TEST REPORTS ARE REQUIRED FOR MATERIALS, DOCUMENTS SHALL BE SUBMITTED TO THE CITY WATER QUALITY DIVISION OR APPROVED REPRESENTATIVE AT THE TIME OF MATERIALS DELIVERY TO THE JOBSITE.
- CR-6 CONTRACTOR REQUIREMENTS: CONTRACTOR PERFORMING WORK ON PUBLIC SEWER LINES SHALL BE A LICENSED UTILITY CONTRACTOR.
- INSTALLATION
- I-1 LAYING PIPE: AS PER SECTION 909, NM APWA; PIPE SHALL BE PLACED AND BEDDED IN A FROST FREE TRENCH; GASKET SHALL BE FULLY SEATED AND NOT SLIPPED; PIPE SHALL BE LAID THROUGH MANHOLE LOCATIONS ON STRAIGHT AND UP TO 22 1/2 DEGREE DEFLECTIONS.
  - A. IF PIPE TRENCH INSTALLATION CONFIGURATION EXCEEDS THE LIMITS OF NM APWA STANDARDS, SECTION 700, OR AS DEFINED ON THE CONSTRUCTION PLANS, THE DESIGN ENGINEER WILL SPECIFY THE NEW PIPE CLASSIFICATION OR WALL THICKNESS.
  - B. TYPE I TRENCH CONFIGURATION IS NORMALLY USED WHEN TRENCH DEPTHS ARE 8'(FO) OR LESS. TYPE II TRENCH CONFIGURATION IS NORMALLY USED WHEN TRENCH DEPTHS ARE 9'(FT.) AND OVER, DEPENDING ON SOIL CONDITIONS. REFER TO NM APWA STANDARDS SECTION 700.
- I-2 MANHOLE CONSTRUCTION:
  - A. BASE:
    1. CAST IN PLACE; ON UNDISTURBED FROST FREE SUBGRADE
    2. PRECAST UNIT; ON PEA GRAVEL WITH COMPLETE EVEN BEARING
  - B. PRECAST BARREL:
    1. JOINTS: FILL COMPLETELY WITH NON-SHRINK GROUT AND TROWEL
    2. MANHOLE ADAPTOR: INSTALL OVER PVC PIPE AND FILL IN PENETRATION WITH NON-SHRINK GROUT.
    3. CAST IN PLACE BASES SHALL ACHIEVE A MINIMUM OF 2500 PSI COMPRESSIVE STRENGTH BEFORE SETTING PRECAST BARREL SECTIONS.
- I-3 EXCAVATION AND BACKFILL: AS PER SECTION 700, NM APWA; SATURATION BY FLOODING OR JETTING METHODS IS NOT PERMITTED WITHOUT A SOILS ENGINEERING REPORT RECOMMENDING THESE METHODS. MECHANICAL OR VIBRATORY COMPACTORS SHALL NOT BE USED ON THE BEDDING AND 12"(N.) OF INITIAL BACKFILL. COMPACTION SHALL BE DETERMINED PER AASHTO T-180.

- CONSTRUCTION MATERIALS
  - CM-1 SEWER PIPE: (CERTIFICATES REQUIRED)
    - A. VITRIFIED CLAY: REFER TO SECTION 125, NM APWA FOR EXTRA STRENGTH VCP
    - B. PLASTIC (PVC): REFER TO SECTION 121, NM APWA, AS MODIFIED BY THE CITY.
      1. 4" thru 15" (inch) DIAMETER, ASTM D-3034 OR ASTM F-799 PIPE, MINIMUM PS=46 STRENGTH, SDR=35 OR EQUAL
      2. LARGER THAN 15" (IN.) DIAMETER: ASTM F 679 VOL. 08.04.
    - C. HDPE PIPE PER ASTM D-1248 CLASS III WHEN APPROVED BY WATER QUALITY DIVISION ENGINEER.
    - D. PVC RESTRAINED JOINTS: SERIES 1550 OR SERIES 1590 FOR COUPLINGS PRODUCED BY UNI-FLANGE CORPORATION, LOCKING COUPLINGS WITH NYLON SPRING, MARKETED AS "YELLOWING" AND PRODUCED BY CERTAINTED CORPORATION, OR APPROVED EQUAL.
    - E. MANHOLE ADAPTERS: ASBESTOS CEMENT (AC) MANHOLE ADAPTERS, OR AC/PVC ADAPTER COUPLINGS
    - F. BUILDING SERVICE STUBS: CAST IRON DWV, PVC SCH. 40 DWV
    - G. SERVICE CONNECTIONS:
      1. VCP PIPE: FACTORY TEE FITTINGS; SECTION 125 NM APWA.
      2. PVC PIPE: CAST IRON BODIES TAPPING SADDLE WITH STAINLESS STEEL TENSION STRAP AND FITTINGS; FOWLER "QUICKWAY" GENUCO, HERSHEY "PIONEER", OR APPROVED EQUAL.
    - H. SOIL CLASSIFICATION: THE UNIFIED SOIL CLASSIFICATION SYSTEM PER ASTM D 2487 TABLE 701.3.5 NM APWA.
  - CM-2 MANHOLES:
    - A. CONCRETE MANHOLES: PRECAST REINFORCED CONCRETE RISERS, REDUCING CONES, AND ADJUSTMENT RINGS PER ASTM C 478 VOL. 04.05. BASES MAY BE FIELD PLACED CONCRETE OR PRECAST CONCRETE PER ASTM C 478 VOL. 04.05 (CERTIFICATES REQUIRED). CRACKED OR VISIBLY DEFECTIVE UNITS WILL BE REJECTED.
    - B. PIPE PENETRATIONS: PRECAST UNITS SHALL HAVE SUITABLE SIZED OPENINGS CAST INTO BARREL AT PROPER ANGLES FOR PIPE AND MANHOLE ADAPTERS.
    - C. MANHOLE STEPS: REFER TO SECTION 920.4.7 NM APWA POLYPROPYLENE ENCASED GRADE 60 STEEL BY M.A. INC. OR APPROVED EQUAL; 14"(N.) WIDE, 16"(N.) MAXIMUM SPACING.
    - D. FRAMES AND COVERS:
      1. CASTING: SHALL CONFORM TO SECTION 160, 161 & 162, NM APWA CLASS 308. (CERTIFICATES AND SHOP DRAWINGS REQUIRED)
      2. MINIMUM COVER WEIGHT: 165 POUNDS
      3. MINIMUM COMBINED WEIGHT: 365 POUNDS +/- 5%
      4. BEARING SURFACES: SHALL BE MATCHED FOR A FIRM NON-ROCKING SEAT BETWEEN FRAME AND COVER. MINIMUM SEATING WIDTH: 7/8"(N.)
      5. COATING: NONE
      6. COVER LETTERINGS: SANTA FE, N.M. SANITARY SEWER
      7. CASTINGS: CAST MANUFACTURER AND MODEL NUMBER ON FRAME AND COVER.
      8. CASTINGS TOLERANCE: +/- 1/16"(N.) PER FOOT OF OVERALL DIMENSION. OUT OF ROUND CASTINGS AND LOOSE FITTING UNITS WILL BE REJECTED IN THE FIELD.
  - CM-3 CONCRETE ENCASEMENT:
    - A. REQUIREMENTS:
      1. WHEN THE PIPE COVER IS 36" (IN.) OR LESS.
      2. WHEN VITRIFIED CLAY CROSSES IN ARROYO.
      3. WHEN A WATER LINE PASSES BELOW OR LESS THAN 18" (IN.) ABOVE THE EXISTING SEWER LINE.
      4. WHEN A PARALLEL WATER LINE IS LESS THAN 10'(FT.) HORIZONTALLY AND LESS THAN 2'(FT.) ABOVE THE SEWER LINE.
      5. THE SEWER LINE SHALL BE ENCASED IN CONCRETE 6"(N.) THICK AS DETAILED, AND EXTEND AT LEAST 10'(FT.) ON EACH SIDE OF THE WATER LINE.
  - FOC-1 TESTING AND INSPECTION:
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    - C. EQUIPMENT AND ASSISTANCE: PROVIDED BY CONTRACTOR.
  - FOC-2 LINE AND GRADE: ALLOWABLE TOLERANCE BETWEEN STRUCTURES FROM DESIGN:
    - A. LINE: 0.20 FOOT
    - B. GRADE: 0.02 FOOT; PIPE SHALL NOT HOLD BACK ANY WATER.
  - FOC-3 LEAKAGE TEST: AIR TEST REQUIRED; REFER TO SECTION 901.7 NM APWA.
  - FOC-4 TELEVISION INSPECTION: CONTRACTOR SHALL PROVIDE A CERTIFIED CCTV SEWERLINE INSPECTION AND RECORD TAPES AT HIS OWN EXPENSE.
  - FOC-5 ALL CONNECTIONS TO EXISTING MANHOLES INCLUDES REHABILITATING THE TIE IN MANHOLE TO MEET THESE STANDARD CONSTRUCTION DETAILS.
- NOTE: REVISIONS TO THIS SHEET SHALL BE MADE UNDER THE AUTHORITY OF THE CITY OF SANTA FE ONLY.

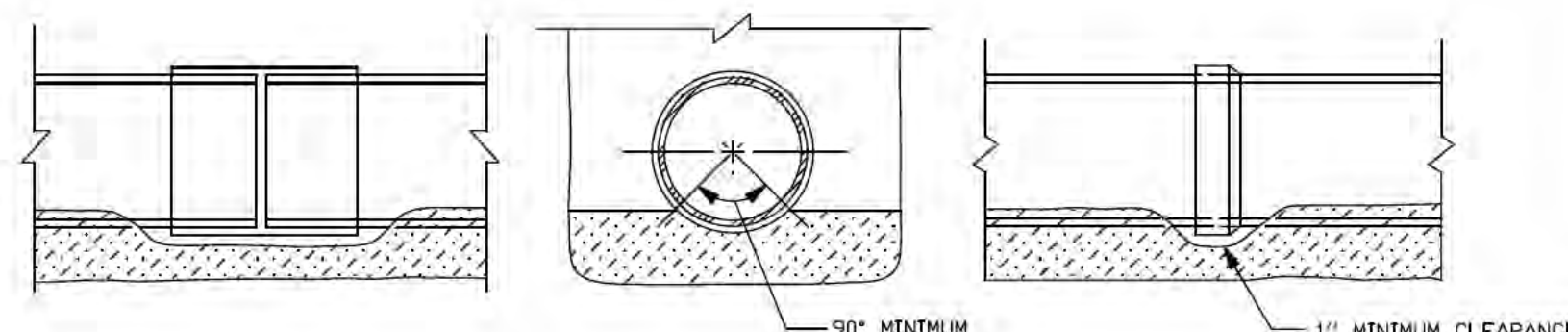
# TYPICAL UTILITIES SEPARATION DETAIL/DWG. # SAS-12



- LEGEND
- ⊙ SEWER
  - ⊙ GAS
  - ⊙ WATER
  - Ⓡ PROPERTY LINE
  - Ⓢ CENTER LINE

NOT TO SCALE

# BELL OR COUPLING INSTALLATION DETAIL/DWG. # SAS-13



NOT TO SCALE



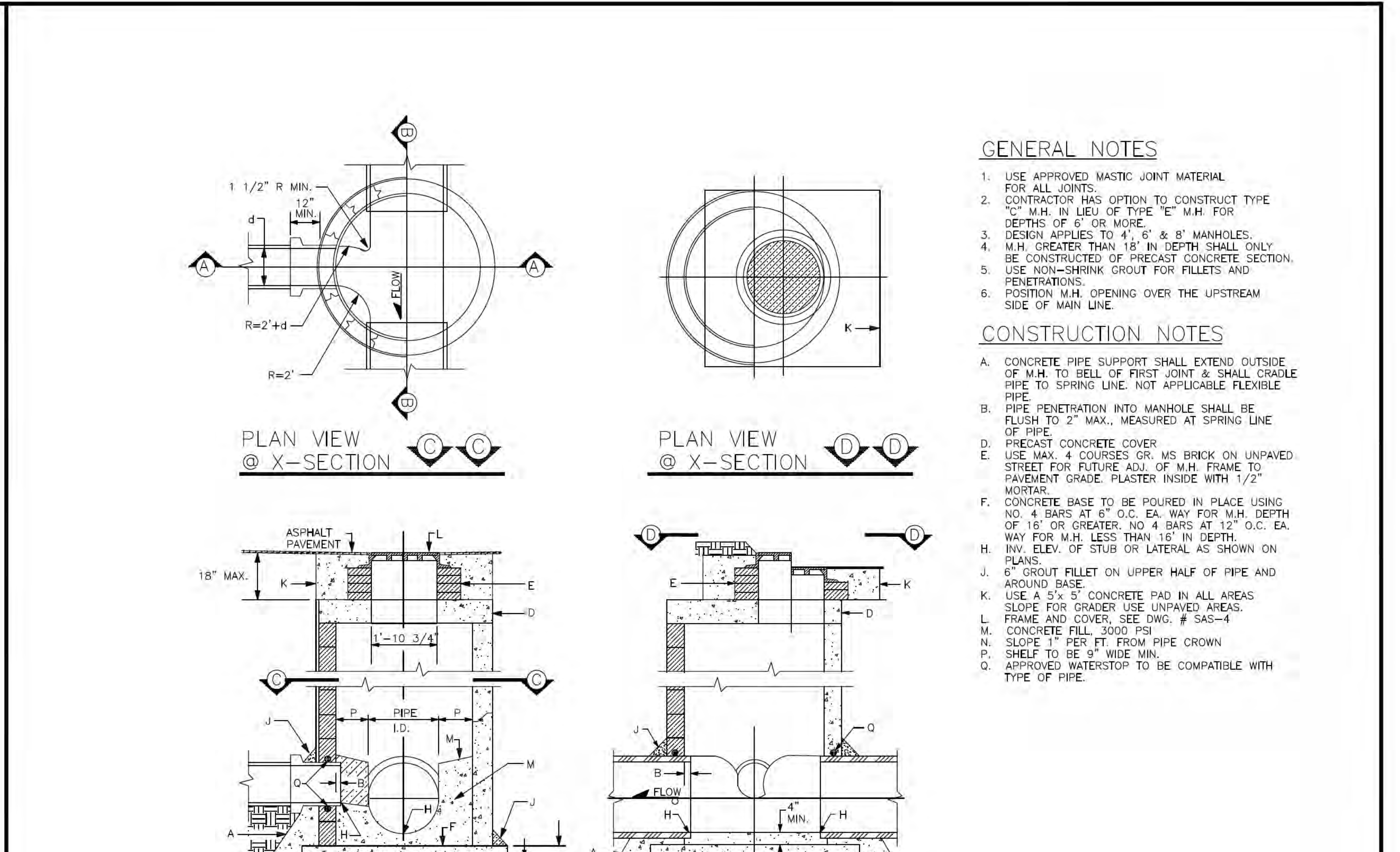
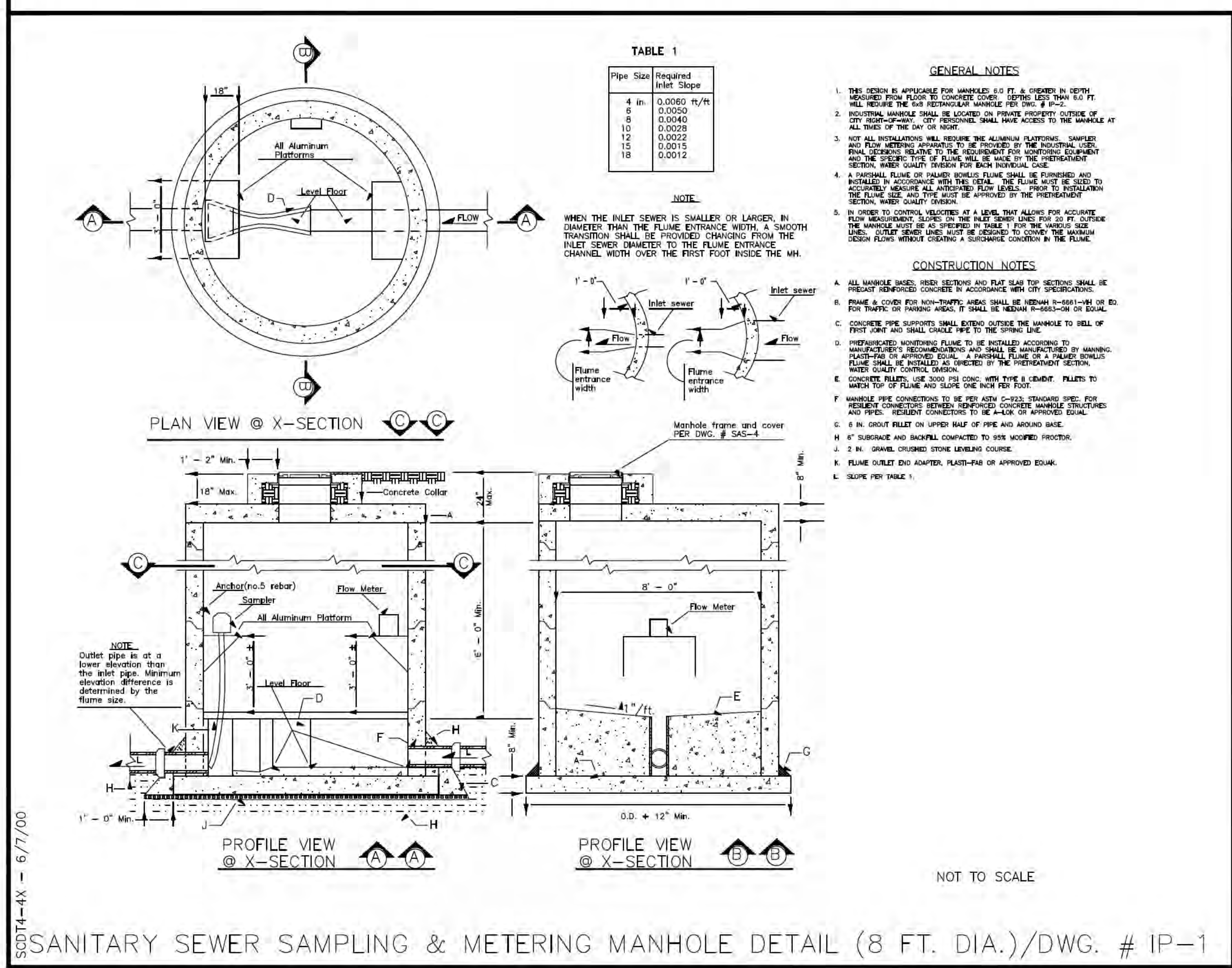
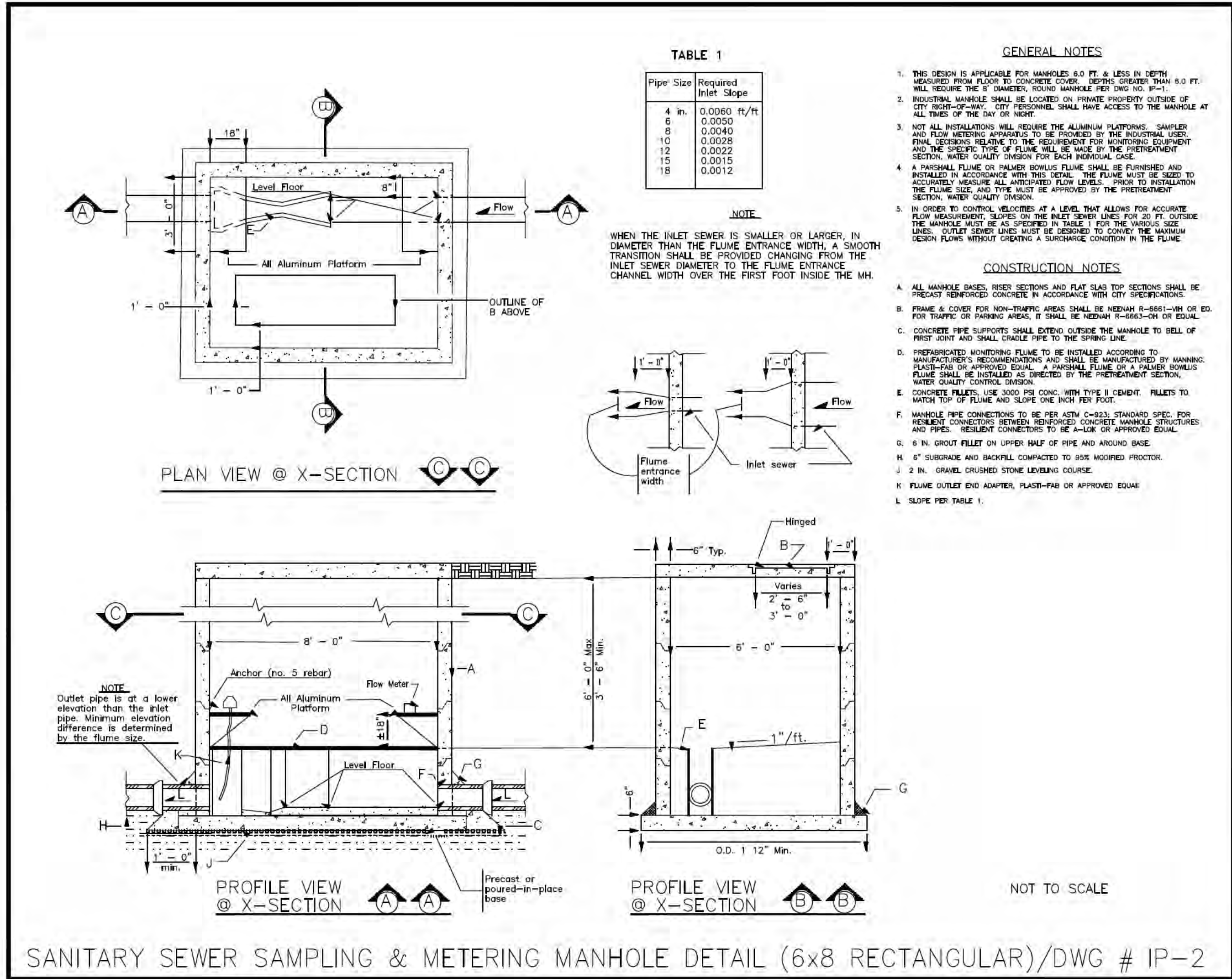
CITY OF SANTA FE  
WATER QUALITY DIVISION

TITLE: SANITARY SEWER  
STANDARD CONSTRUCTION DETAILS

DATE: JULY 1992	REVISIONS	FILE # E:\AUTO\DWG\SCDT3-4
DRAWN BY: G. CHAVEZ	A 8-4-92	
CADD REVISION BY: G. CHAVEZ	A 12-14-92	
APPROVED BY: E. BROWN	A 11-16-94	

SHEET





SC074-4X - 6/7/00

	<b>CITY OF SANTA FE WATER QUALITY DIVISION</b>	
	<b>TITLE: SANITARY SEWER STANDARD CONSTRUCTION DETAILS</b>	
	DATE: JULY 1992	REVISIONS
	DRAWN BY: G. CHAVEZ	A 8-4-92
CADD/REVISION BY: G. CHAVEZ		
APPROVED BY: E. BROWN		
		FILE # E:\AUTO\DWG\SC074-4 SHEET



TABLE 1-R

HELICAL CORRUGATED STEEL PIPE-2 2/3" X 1/2" CORRUGATION
Table with columns for Diameter of Pipe (Inches), Max. Depth of Cover Above Top of Pipe (Feet) (15, 16-20, 21-25, 26-30, 31-35, 36-40), Specified Wall Thickness (Inch), and Min. CVR (Inches).

TABLE 2-R

HELICAL CORRUGATED STEEL PIPE - 3" X 1" CORRUGATION
Table with columns for Diameter of Pipe (Inches), Max. Depth of Cover Above Top of Pipe (Feet) (15, 16-20, 21-25, 26-30, 31-35, 36-40), Specified Wall Thickness (Inch), and Min. CVR (Inches).

TABLE 3-R

HELICAL CORRUGATED STEEL PIPE - 5" X 1" CORRUGATION
Table with columns for Diameter of Pipe (Inches), Max. Depth of Cover Above Top of Pipe (Feet) (15, 16-20, 21-25, 26-30, 31-35, 36-40), Specified Wall Thickness (Inch), and Min. CVR (Inches).

TABLE 4-R

STEEL SPIRAL RIB PIPE - 3/4" X 3/4" X 7 1/2"
Table with columns for Diameter of Pipe (Inches), Max. Depth of Cover Above Top of Pipe (Feet) (3/4" X 3/4" X 7 1/2" Corrugation), Specified Wall Thickness (Inch), and Min. CVR (Inches).

TABLE 5-R

STEEL SPIRAL RIB PIPE - 3/4" X 1" X 11 1/2"
Table with columns for Diameter of Pipe (Inches), Max. Depth of Cover Above Top of Pipe (Feet) (3/4" X 1" X 11 1/2" Corrugation), Specified Wall Thickness (Inch), and Min. CVR (Inches).

NOTES: 1. FOR TABLES 4-R AND 5-R, COVER LIMITS INDICATED WITH \* ARE FOR TRENCH INSTALLATION ONLY. FOR EMBANKMENT CONDITIONS, USE NEXT HEAVIER GAGE IF AVAILABLE. 2. SEE "INSTALLATION AND BACKFILL OF SPIRAL RIB PIPE" SECTION OF "HANDBOOK OF STEEL DRAINAGE & HIGHWAY CONSTRUCTION PRODUCTS" BY AISI OF 1994 EDITION FOR MORE DETAILS ON INSTALLATION.

GENERAL NOTES:

- 1. WHERE ABRASIVE OR CORROSIVE CONDITIONS EXIST, A HEAVIER WALL THICKNESS OR A PROTECTIVE COATING MAY BE REQUIRED. SEE SECTION 570 OF SPECIFICATIONS FOR CORROSION RESISTANCE NUMBER. 2. THE CONTRACTOR MAY FURNISH A HEAVIER WALL THICKNESS THAN THE MINIMUM SHOWN IN THE TABLES AT NO ADDITIONAL COST TO THE DEPARTMENT. 3. ALL PIPES SHALL BE PROTECTED BY A COVER OF AT LEAST 4 FEET BEFORE PERMITTING HEAVY CONSTRUCTION EQUIPMENT TO PASS OVER THEM DURING CONSTRUCTION. 4. MINIMUM COVERS SHOWN IN THE TABLES SHALL BE MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE THE FLEXIBLE PAVEMENT OR TO THE TOP OF THE RIGID PAVEMENT. FOR MINIMUM COVERS, A MINIMUM 6" CUSHION OF BACKFILL MATERIAL SHALL BE PROVIDED BETWEEN THE BOTTOM OF THE RIGID PAVEMENT AND THE TOP OF THE PIPE. 5. ALL STEEL CORRUGATED METAL AND STRUCTURAL PLATE SHALL CONFORM TO AASHTO SPECIFICATION M-36 AND M-167. 6. ALL PIPES ARE TO BE CAMBERED TO ACCOMMODATE SOIL SETTLEMENT AND CONSOLIDATION. THE AMOUNT OF CAMBER WILL DEPEND ON SOIL CHARACTERISTICS, COVER, LENGTH OF CULVERT, SLOPE, AND OTHER FACTORS AND SHALL BE APPROVED BY THE PROJECT MANAGER. 7. COVER HEIGHTS OVER 40 FEET SHALL BE USED ONLY AFTER A THOROUGH INVESTIGATION OF THE FOUNDATION MATERIALS. 8. ALL PIPES ARE TO BE CAMBERED TO ACCOMMODATE SOIL SETTLEMENT AND CONSOLIDATION. THE AMOUNT OF CAMBER WILL DEPEND ON SOIL CHARACTERISTICS, COVER, LENGTH OF CULVERT, SLOPE, AND OTHER FACTORS AND SHALL BE APPROVED BY THE PROJECT MANAGER. 9. SEE 206-07-1/1 - CORRUGATED METAL CULVERT AND PIPE ARCHES BEDDING AND BACKFILL DETAILS FOR INSTALLATION. 10. SEE SECTION 570 PIPE CULVERT SPECIFICATIONS AND SECTION 571 STRUCTURAL PLATE STRUCTURES SPECIFICATIONS.

Table with columns for Gauge and Thickness (Inches). Values range from Gauge 1 (0.280) to Gauge 18 (0.052).

NOTE: GAUGES SHOWN ARE "US STANDARD GAUGE" FOR UNCOATED STEEL SHEETS AND PLATES. THICKNESS SHOWN IN INCHES INCLUDE GALVANIZED COATING.

R = ROUND PIPE

DESIGN DATA:

SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12, 2007 EDITION, WITH 2008 INTERIM REVISIONS. DEAD LOAD: 120 POUNDS PER CUBIC FOOT EARTH. LIVE LOAD: HL-93. SAFETY FACTORS: APPROXIMATELY, 3.0 FOR LONGITUDINAL SEAM STRENGTH 2.0, FOR PIPE WALL BUCKLING. BACKFILL: SOIL STIFFNESS COEFFICIENT (k) = 0.22.

☉ DENOTES THAT THE FURNISHED TABLE IS STILL BASED ON DESIGN SPECIFICATION OF LFD, NOT LRFD YET.

TABLE 6-R

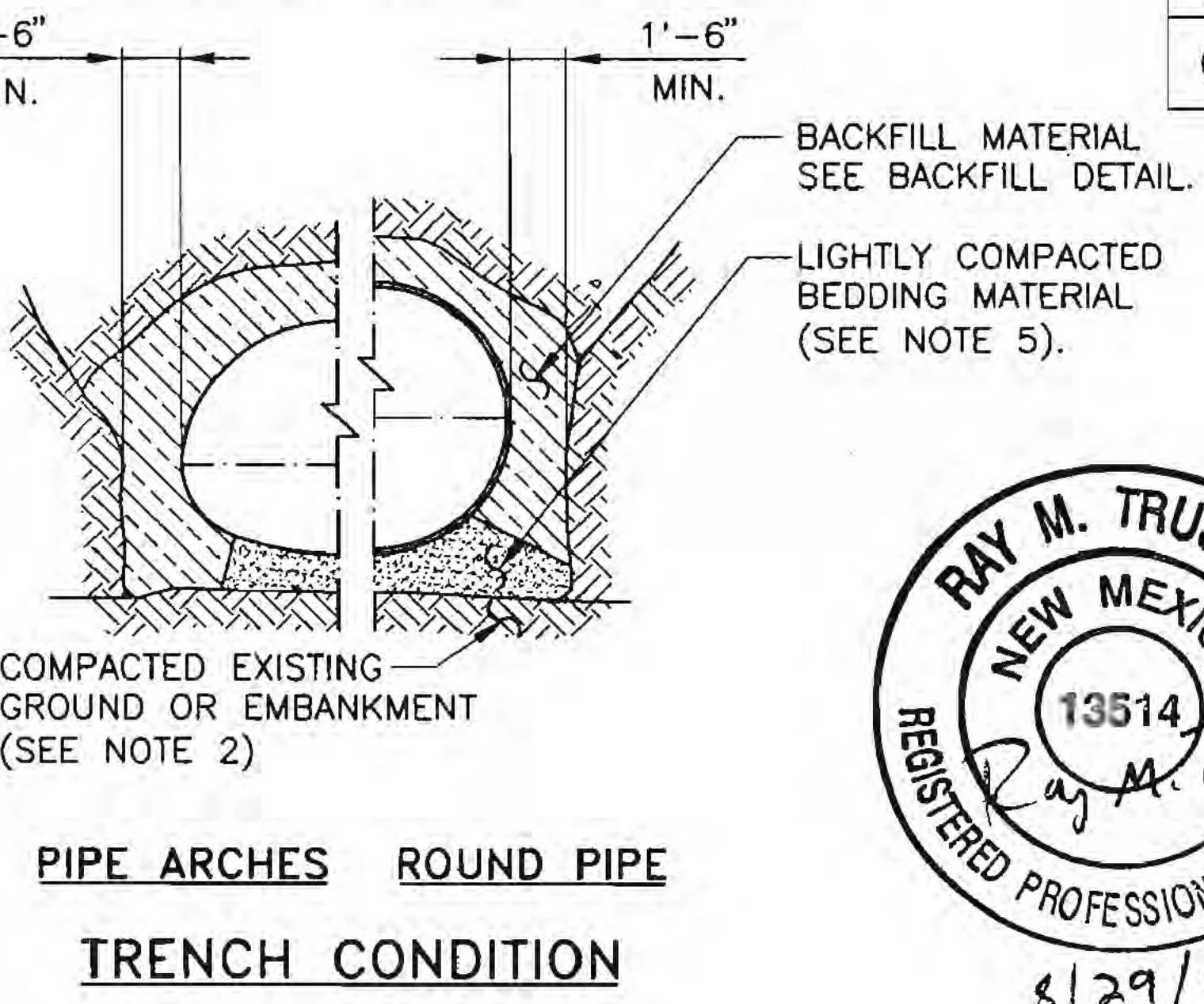
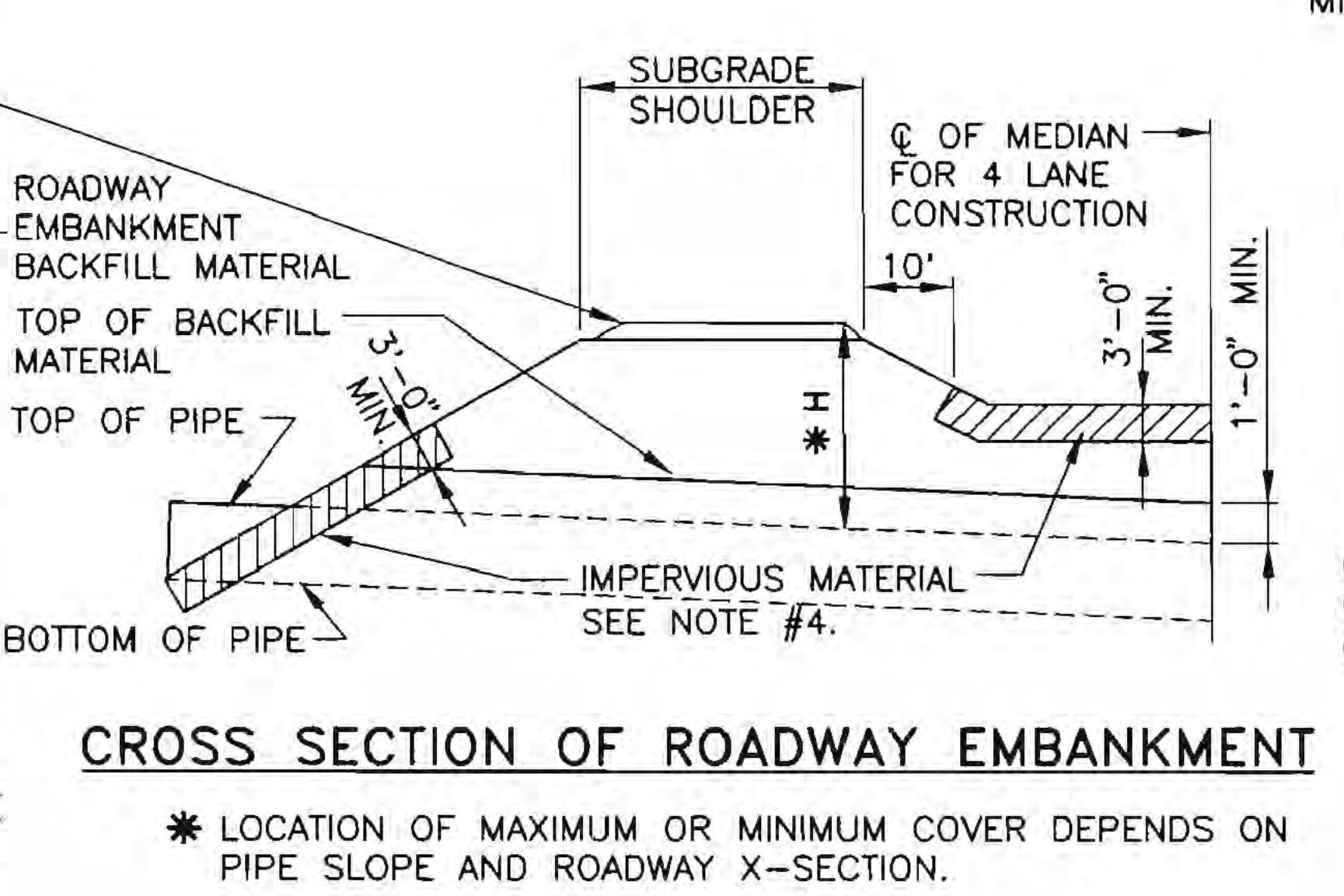
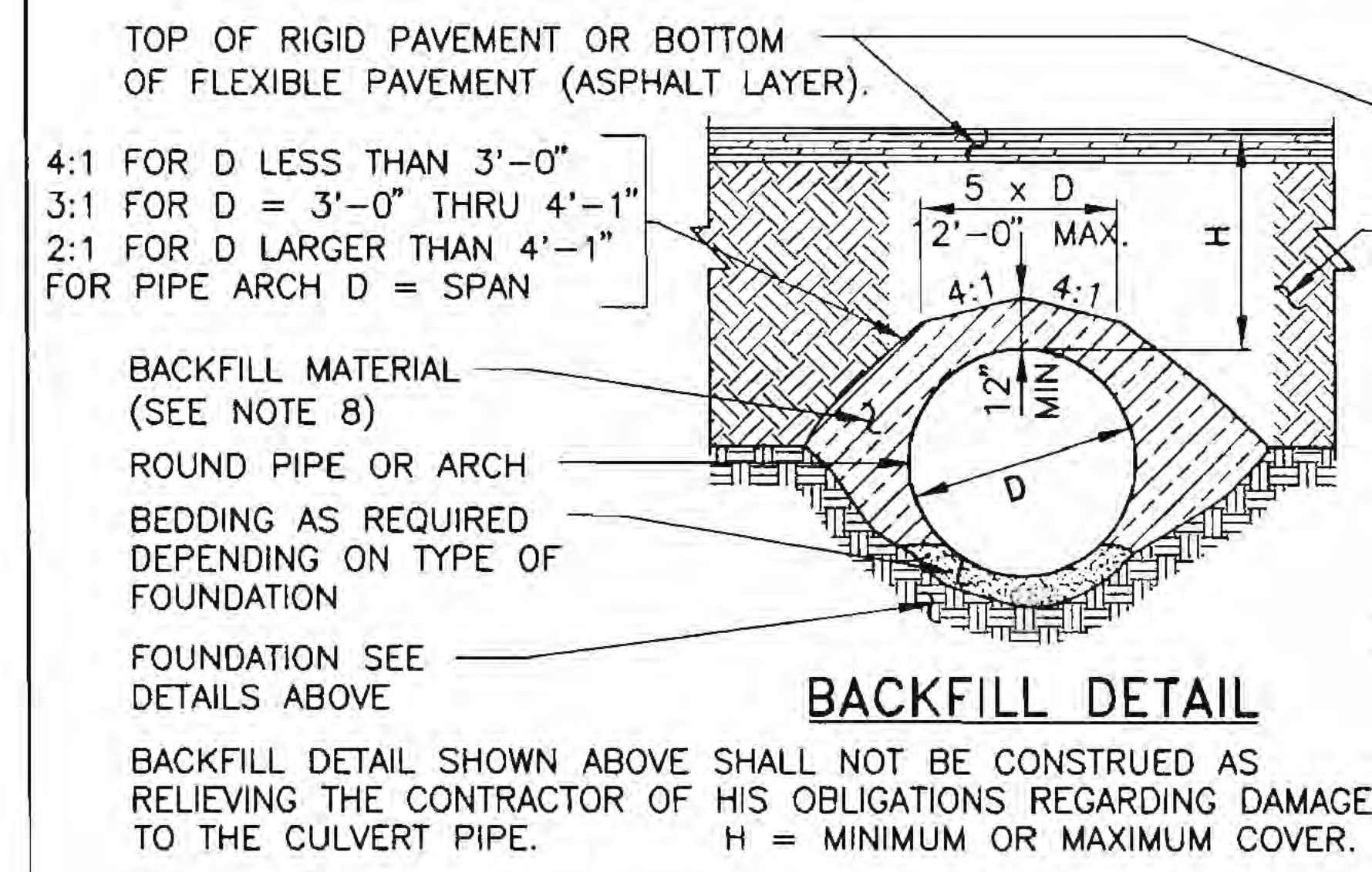
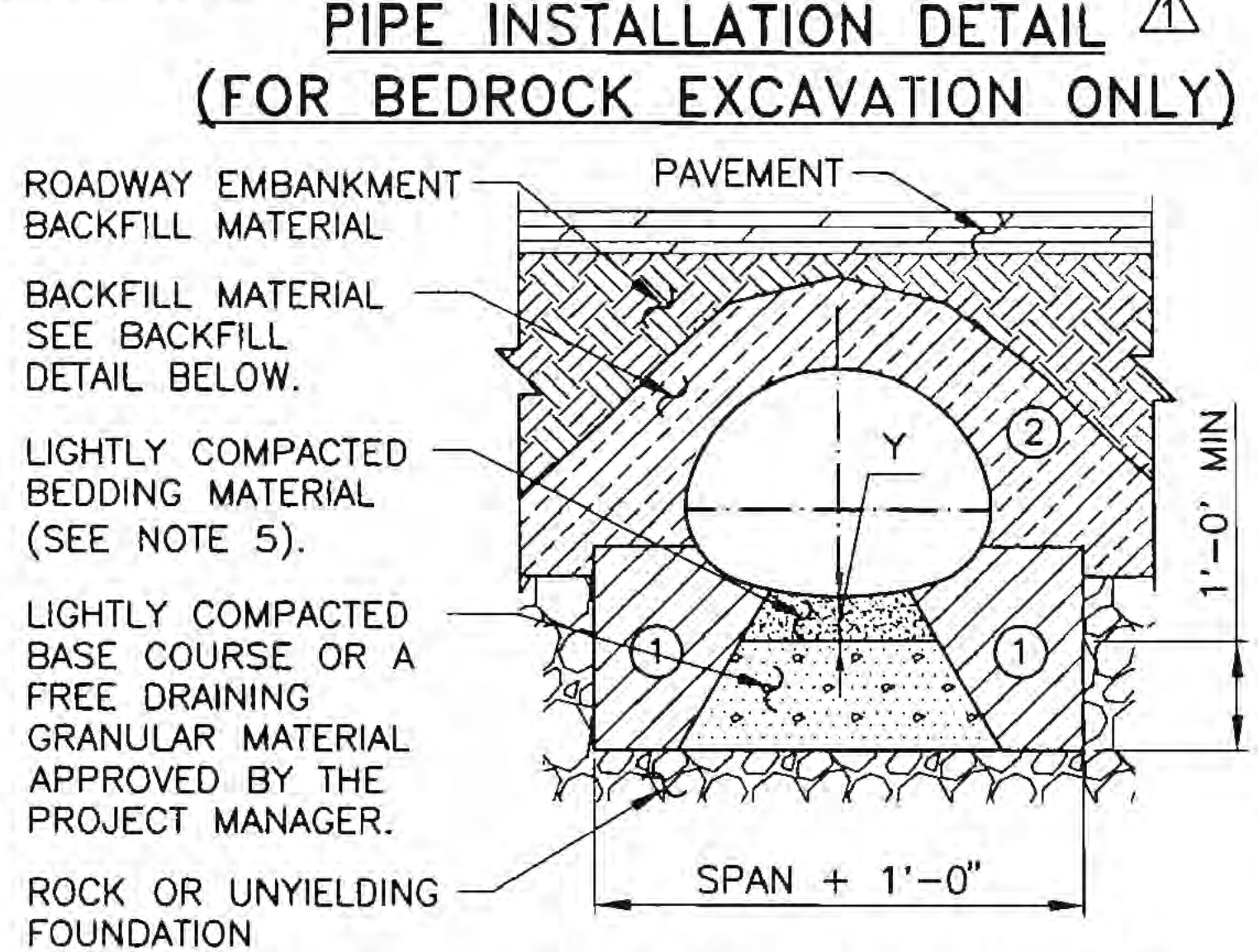
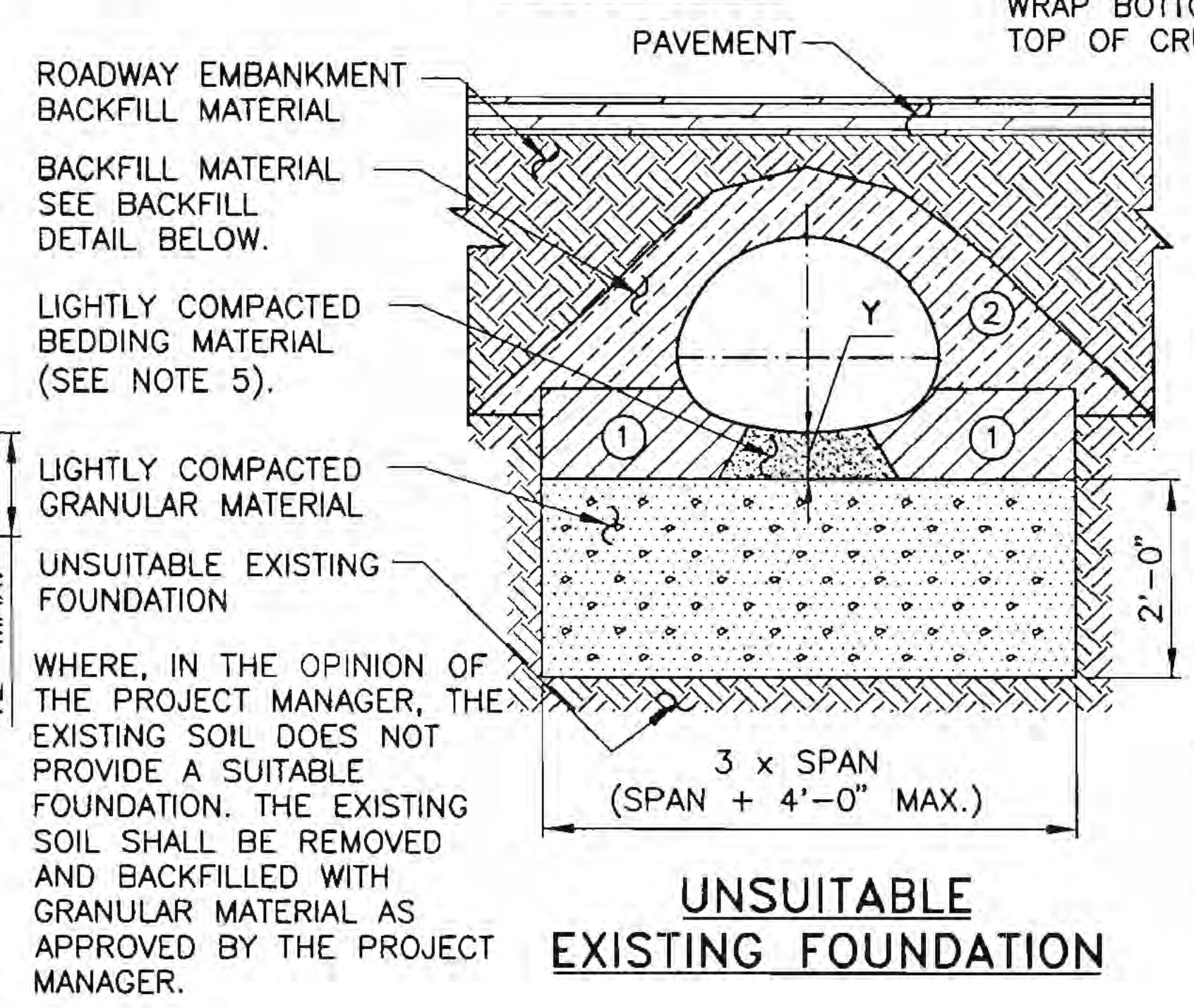
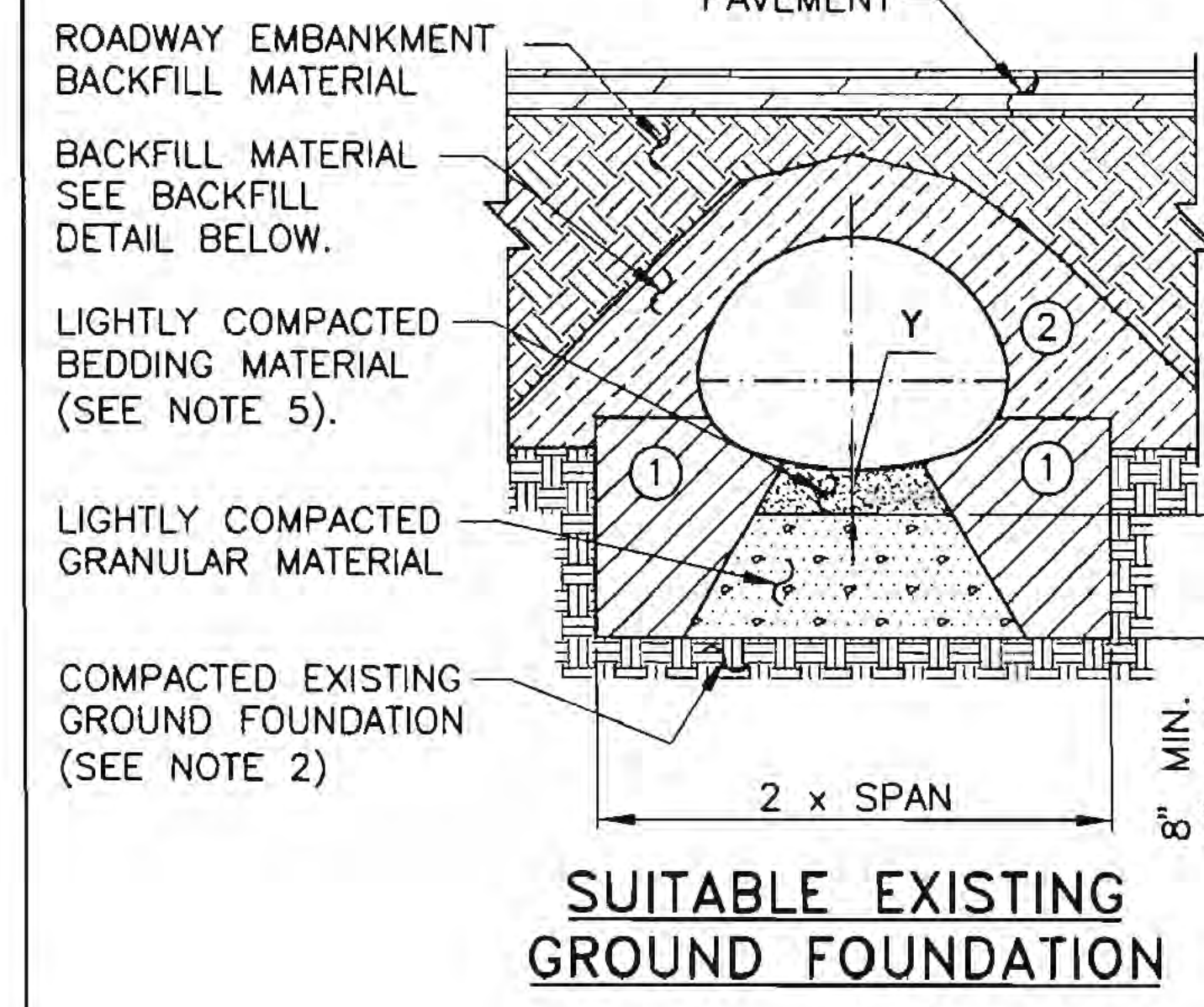
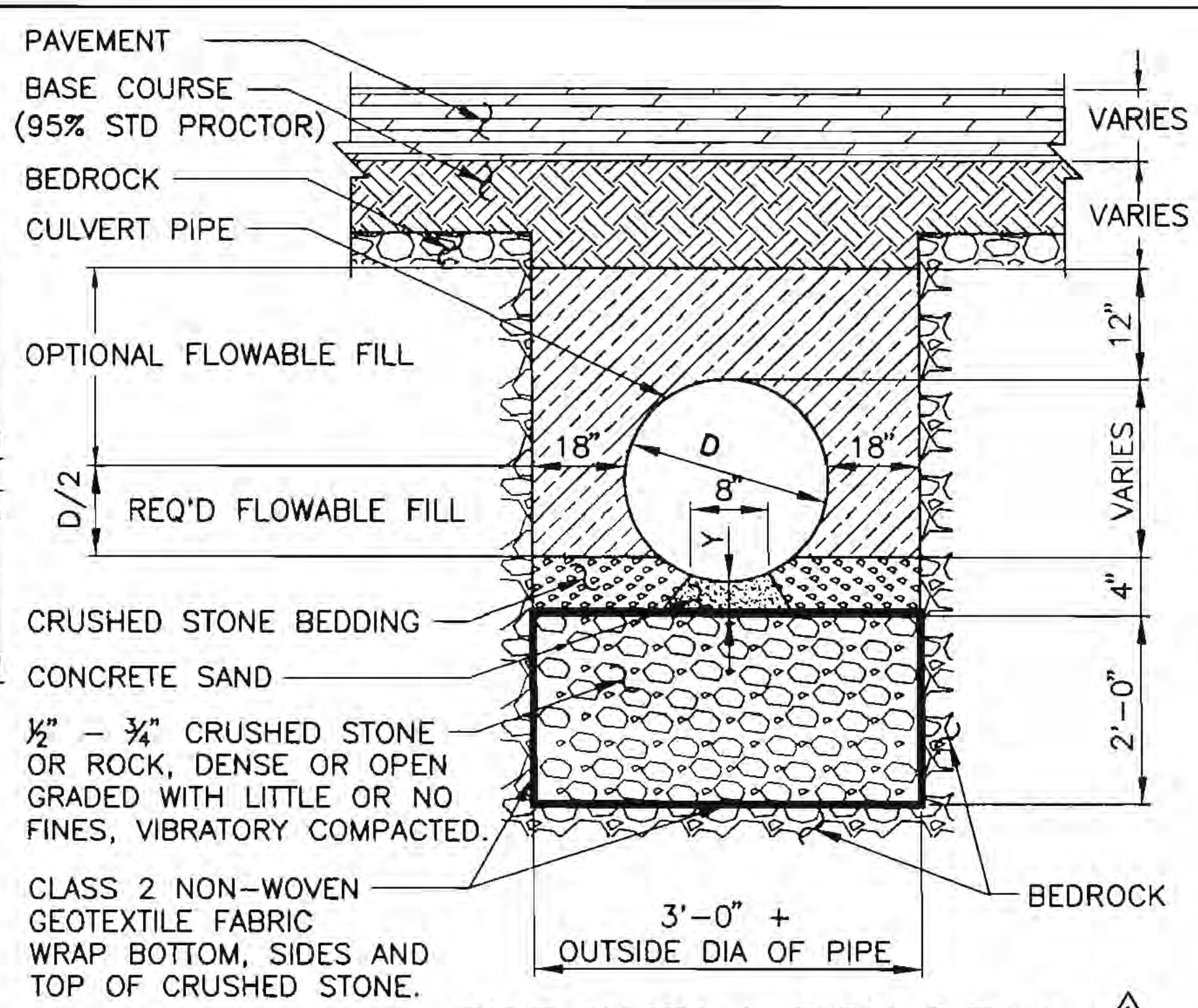
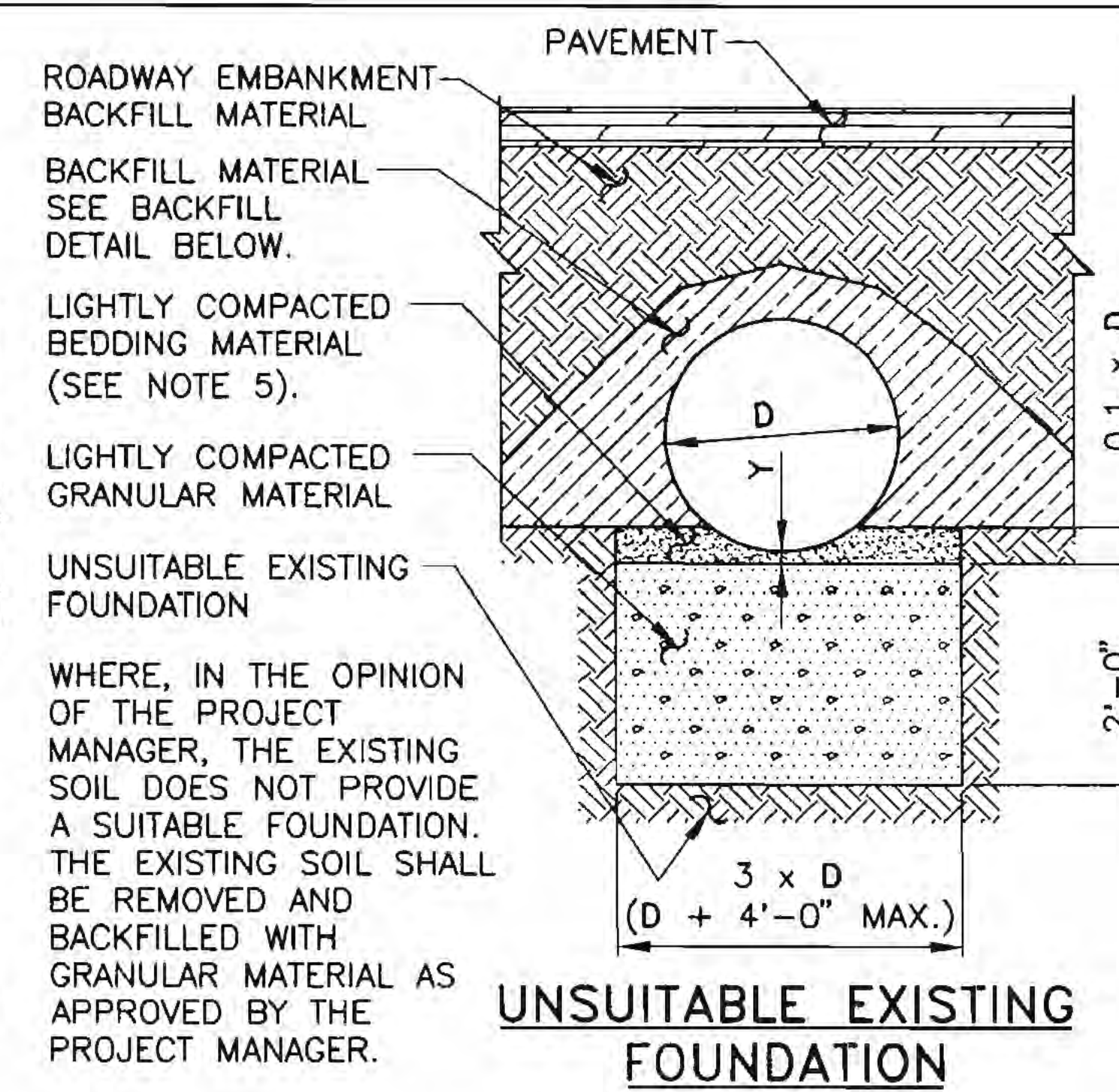
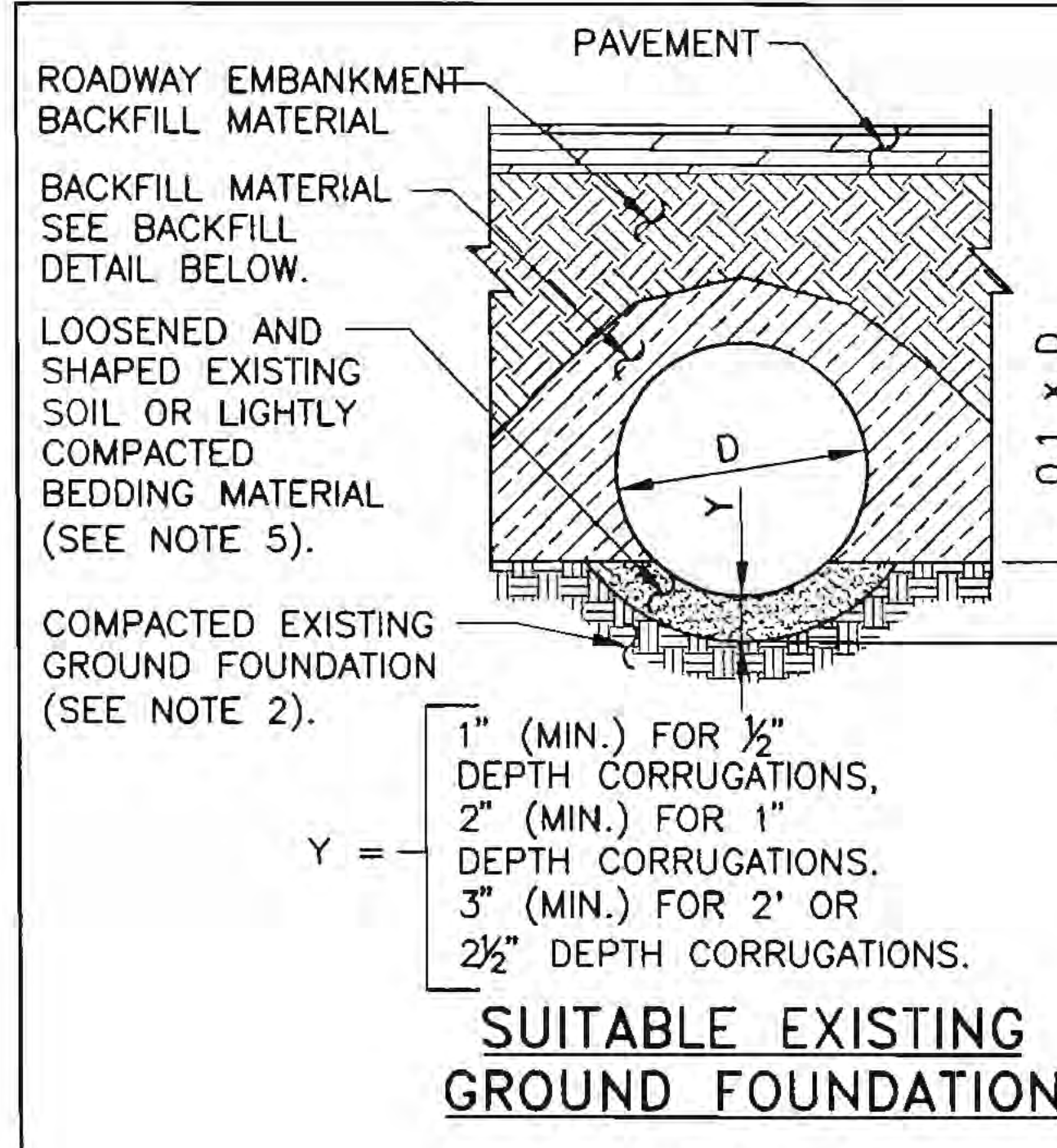
STRUCTURAL PLATE PIPE - 6" X 2" CORRUGATION
Table with columns for Diameter of Pipe (Feet), Max. Depth of Cover Above Top of Pipe (Feet) (15, 16-20, 21-25, 26-30, 31-35, 36-40), Specified Wall Thickness (Inch), and Min. CVR (Inches).

NOTES: 1. BACKFILL AROUND PIPE MUST BE COMPACTED TO SPECIFIED AASHTO T-99 DENSITY OF 100%. 2. USE REASONABLE CARE IN HANDLING AND INSTALLATION.



Table with columns for Date, By, and Description. Includes title block for 'NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING' and 'MAXIMUM AND MINIMUM COVER STEEL-ROUND PIPES HELICAL CORRUGATED METAL AND STRUCTURAL PLATES'. Designated by SKL, drawn by SKL, checked by YML/TM. Drawing number 206-03-1/1.





**GENERAL NOTES:**

1. RIVETED OR WELDED METAL PIPE AND ARCHES SHALL BE PLACED WITH THE INSIDE CIRCUMFERENTIAL LAPS POINTING DOWNSTREAM AND WITH LONGITUDINAL LAPS AT THE SIDE ON QUARTER POINTS, NOT TOP OR BOTTOM. STRUCTURAL PLATE AND PIPE ARCH CULVERTS SHALL BE ERECTED AS SHOWN ON THE ERECTION DIAGRAMS FURNISHED BY THE SUPPLIER.
2. THE EXISTING GROUND FOUNDATION MATERIAL UNDER PIPES SHALL BE BROKEN UP AND COMPACTED TO A MINIMUM DEPTH OF 6". COMPACTION SHALL BE 95% OF MAXIMUM DENSITY BY AASHTO SPECIFICATION T-99.
3. WHERE AN UNSUITABLE MATERIAL (PEAT, MUCK, ETC.) IS ENCOUNTERED AT OR BELOW THE INVERT ELEVATION, THE NECESSARY SUBSURFACE EXPLORATION AND ANALYSIS SHALL BE MADE AND CORRECTIVE TREATMENT SHALL BE AS DIRECTED BY THE PROJECT MANAGER.
4. IMPERVIOUS MATERIAL SHALL BE PLACED LONGITUDINALLY ALONG THE PIPE TO THE ELEVATIONS AND LIMITS SHOWN ON THE "CROSS SECTION OF ROADWAY EMBANKMENT," AND TRANSVERSELY AROUND THE PIPE TO THE DENSITY AND SLOPES SHOWN FOR BACKFILL MATERIAL ON THE "BACKFILL DETAIL." UNLESS OTHERWISE DESIGNATED ON THE PLANS OR DIRECTED BY THE PROJECT MANAGER IMPERVIOUS MATERIAL SHALL CONFORM TO AASHTO SPECIFICATION A-6 OR A-7 SOILS.
5. BEDDING MATERIAL SHALL BE ROUGHLY SHAPED TO FIT BOTTOM OF PIPES AND THEN LIGHTLY COMPACTED. MATERIAL SHALL CONFORM TO SECTION 206 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. FOR PIPE ARCH, THE WIDTH OF THE BEDDING SHALL NOT EXCEED THE WIDTH OF THE BOTTOM ARC.
6. WHERE MULTIPLE LINES OF PIPE OR PIPE ARCHES GREATER THAN 4'-0" IN DIAMETER OR SPAN ARE USED, THEY SHALL BE SPACED SO THAT ADJACENT SIDES OF THE PIPE SHALL BE AT LEAST ONE-HALF DIAMETER OR 3'-0" APART, WHICHEVER IS LESS, TO PERMIT ADEQUATE COMPACTION OF BACKFILL MATERIAL. FOR DIAMETERS 4'-0" AND LESS, THE MINIMUM SPACING SHALL BE NOT LESS THAN 2'-0". SEE 570-02-1/2 OR 570-02-2/2 FOR FLARED END SECTIONS.
7. A CONTINUOUS CONCRETE CRADLE SHALL BE USED ONLY WHEN CALLED FOR ON THE PLANS.
8. BACKFILL MATERIAL SHALL CONFORM TO SECTION 206 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. SPECIAL CARE SHALL BE TAKEN WHEN COMPACTING BACKFILL AT THE HUNCHES AND SIDES OF PIPES.
9. REFER TO 206-03-1/1 THRU 206-06-1/1 FOR TABLE OF MINIMUM AND MAXIMUM COVER AND CORRESPONDING GAUGE.

KEY	SYMBOL	DESCRIPTION
①		100% COMPACTION
②		90% COMPACTION



REVISIONS (OR CHANGE NOTICES)			
NO.	DATE	REV. BY	DESCRIPTION
2/14/07	YML		REVISIONS TO BEDROCK DETAIL

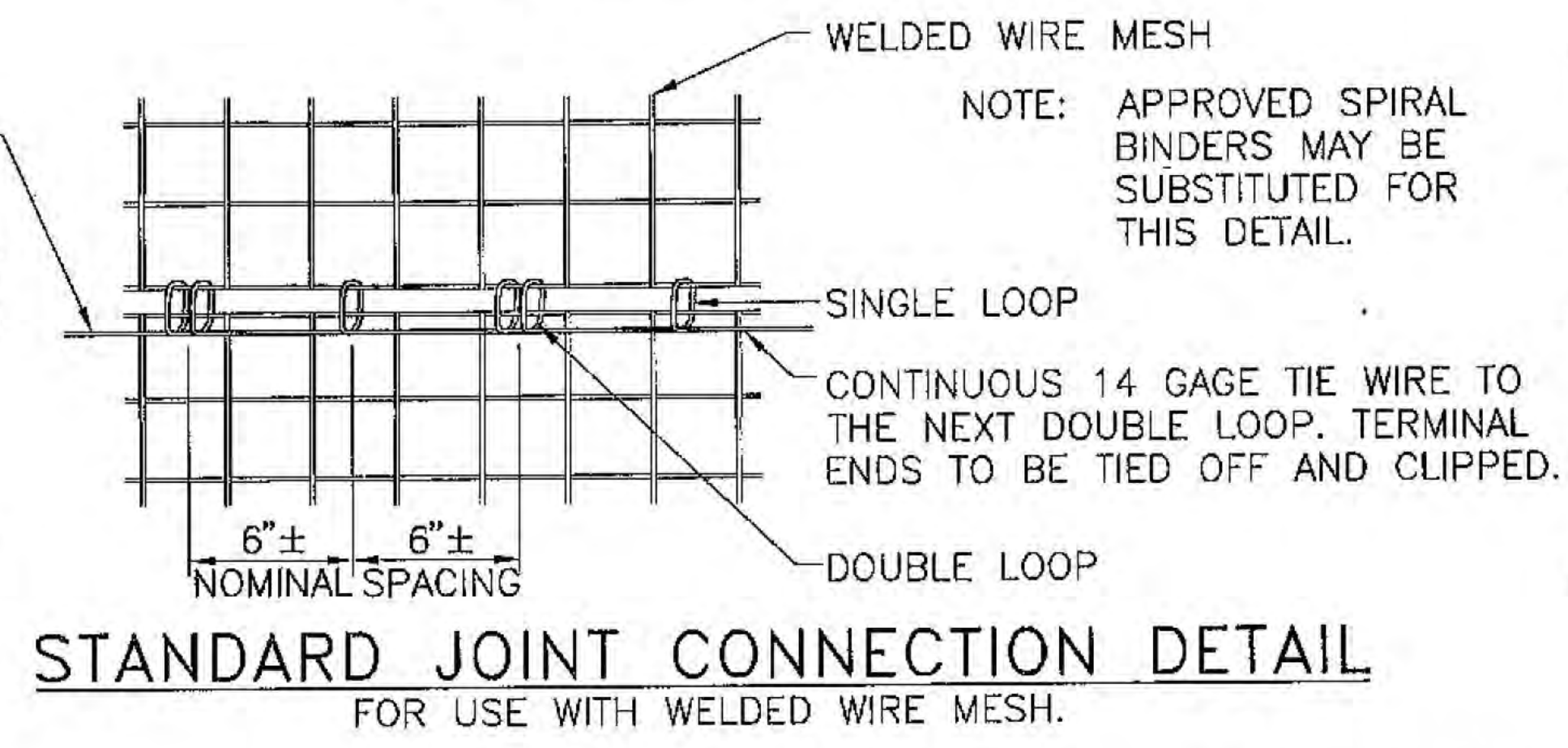
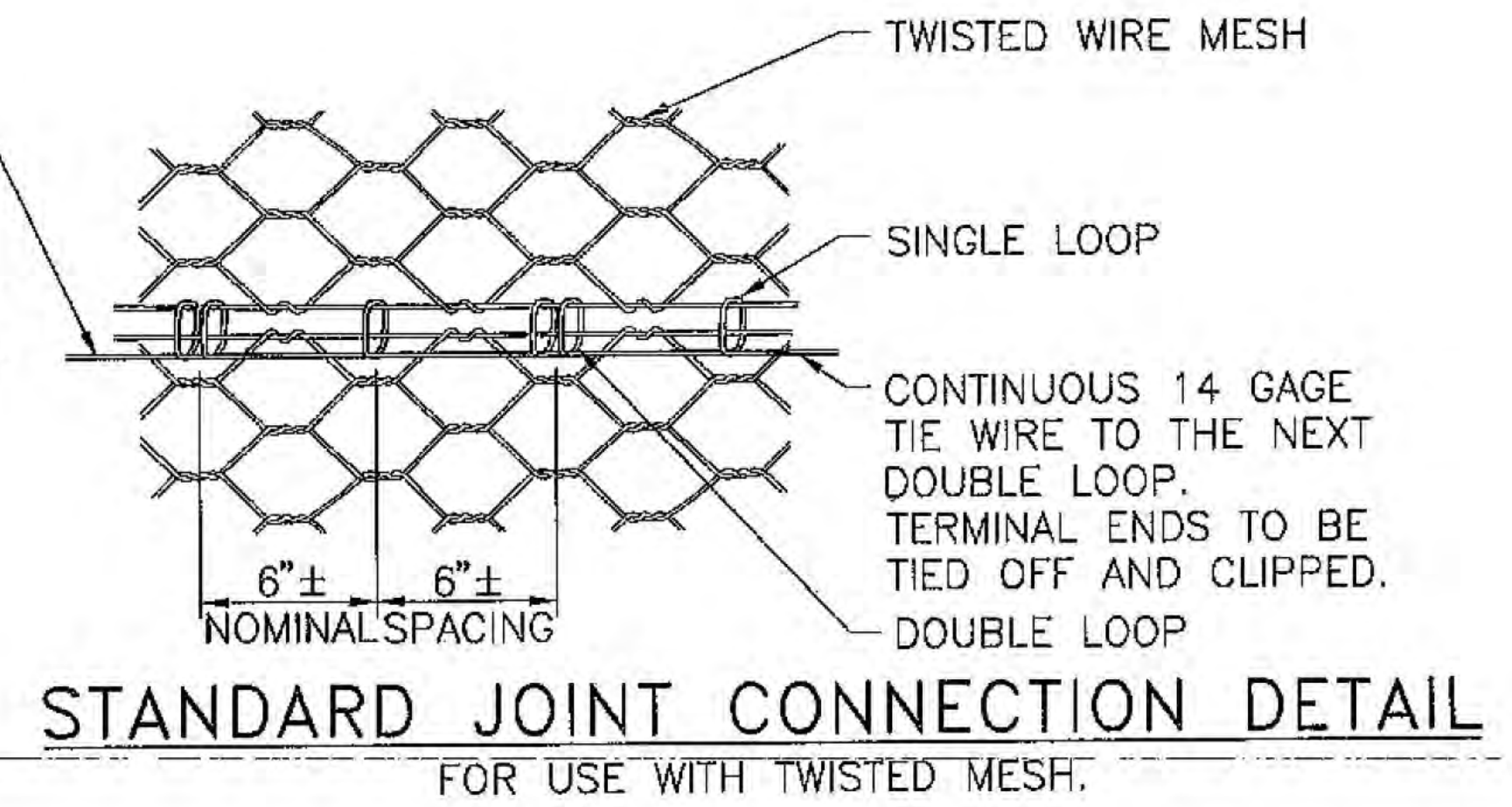
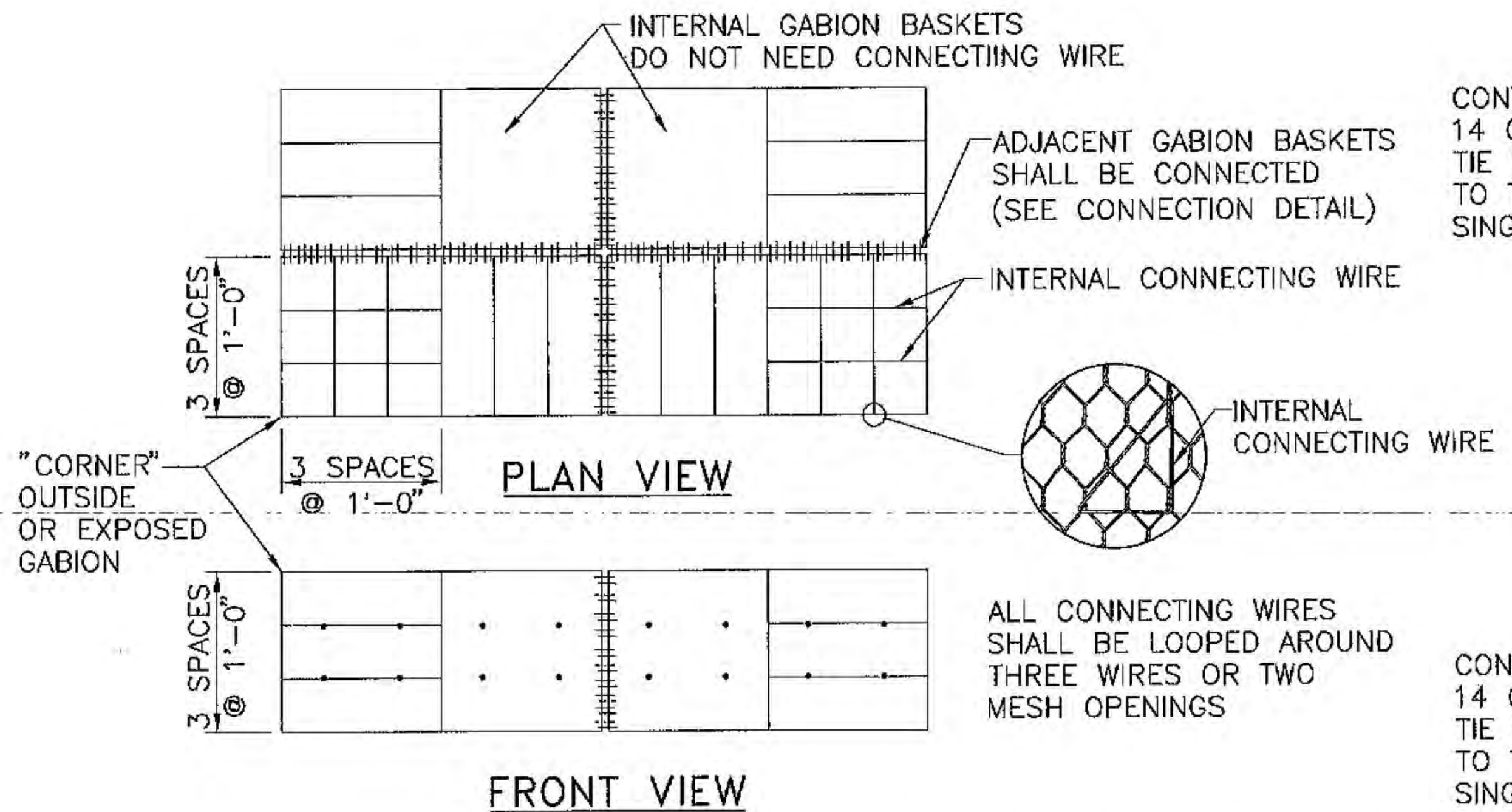
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

CORRUGATED METAL CULVERT AND PIPE ARCHES BEDDING AND BACKFILL DETAILS

DESIGNED BY \_\_\_\_\_ DRAWN BY SKL CHECKED BY TM/YML

206-07-1/1 1 OF 1





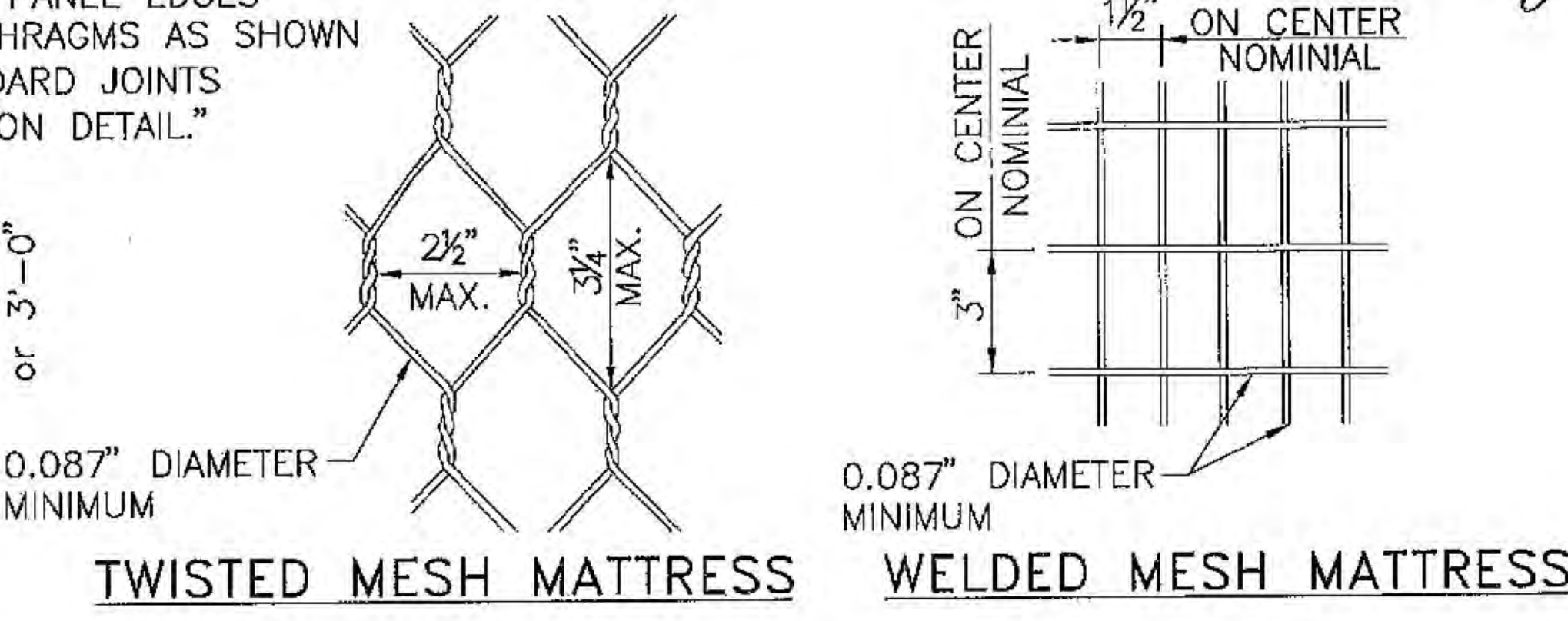
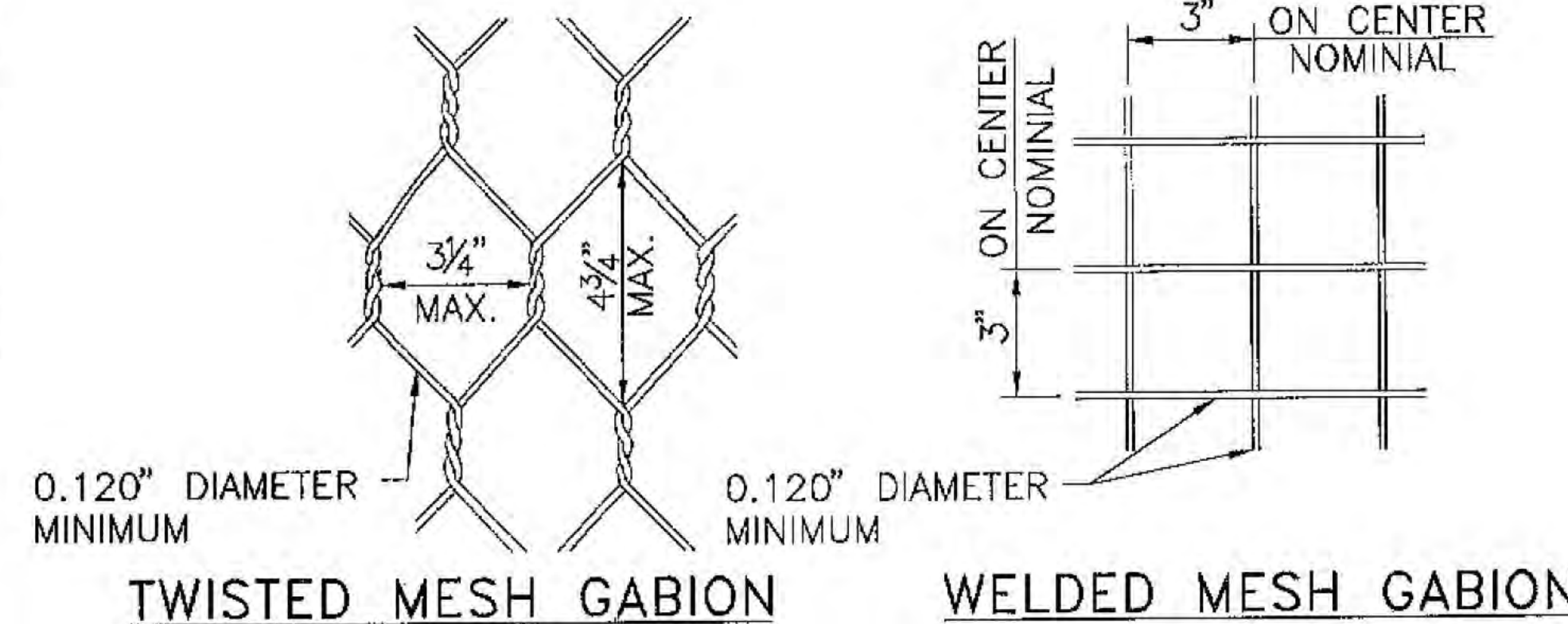
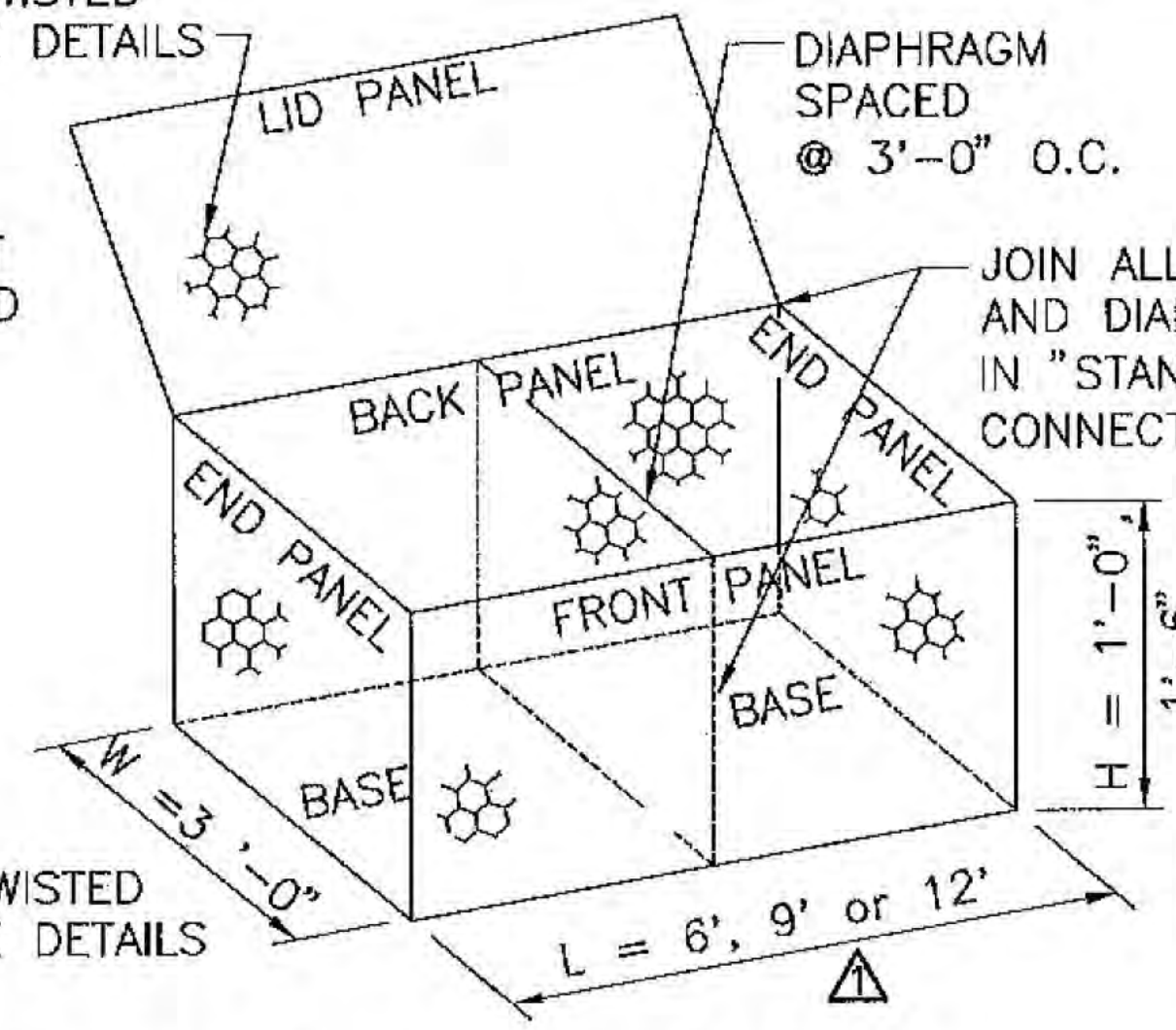
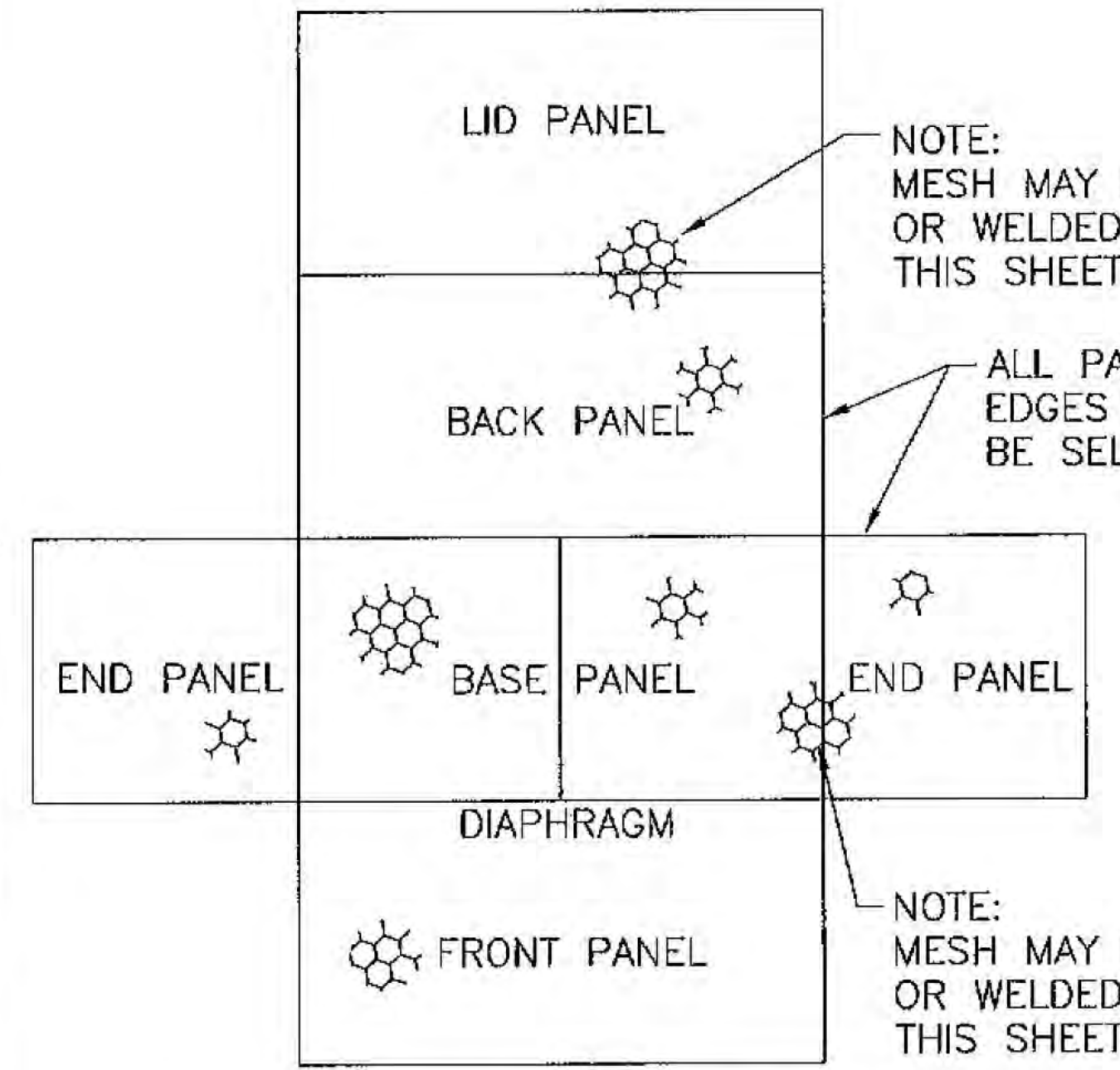
**GENERAL NOTES**

- INTERNAL CONNECTING WIRES ARE TO BE INSTALLED ACROSS WIDTH OF INTERIOR GABIONS AND ACROSS WIDTH AND LENGTH OF END GABIONS.
- INTERNAL CONNECTING WIRE, CONTINUOUS TIE WIRE AND GABION MESH SHALL BE GALVANIZED.
- INTERNAL CONNECTING WIRES ARE REQUIRED ON ALL GABIONS 3'-0" HIGH AND ON ALL GABIONS 1'-6" HIGH WHEN USED TO BUILD VERTICAL STRUCTURES.
- PERFORMED STIFFENERS (11 GAGE OR 9 GAGE) ARE AN ACCEPTABLE ALTERNATIVE TO INTERNAL CONNECTING WIRES. INSTALL THEM AS RECOMMENDED BY THE MANUFACTURER OR AS DIRECTED BY THE PROJECT MANAGER AT ONE THIRD POINTS.
- PLACE ROCK IN THE END GABION CELL FIRST, AND CONTINUE BY FILLING INTERIOR GABION CELLS.
- FOR GABION DIMENSIONS, REFER TO THE TABLE "STANDARD GABION SIZES."
- A JOINT CONNECTION MUST BE MADE WHERE ANY PANEL EDGE MEETS ANOTHER PANEL. THIS INCLUDES ADJACENT GABION BASKETS, INDIVIDUAL PANELS WITHIN A BASKET, DIAPHRAGM EDGES ETC. ALL JOINT CONNECTIONS SHALL BE MADE USING 14 GAGE CONTINUOUS TIE WIRE.
- ALTERNATE JOINT CONNECTION PROCEDURES MAY BE USED PROVIDED THAT THE COMPLETED JOINT WILL DEVELOP A TENSILE STRENGTH OF NOT LESS THAN 1400 POUNDS PER FOOT. IF ALTERNATE JOINT CONNECTION PROCEDURES ARE USED, THE CONTRACTOR SHALL SUBMIT TO THE PROJECT MANAGER CERTIFIED TEST REPORTS DEMONSTRATING THE ALTERNATE JOINT CONNECTIONS WILL MEET THE MINIMUM TENSILE STRENGTH REQUIREMENTS.

**DETAILS OF 9 GAGE INTERNAL CONNECTING WIRES**

STANDARD REVETMENT MATTRESS SIZES				
LENGTH	WIDTH	HEIGHT	NUMBER OF CELLS	VOLUME CUBIC YARDS
FEET				
9'-0"	6'-0"	0'-6"	3	1.00
12'-0"	6'-0"	0'-6"	4	1.33
9'-0"	6'-0"	0'-9"	3	1.50
12'-0"	6'-0"	0'-9"	4	2.00

STANDARD GABION SIZES				
LENGTH	WIDTH	HEIGHT	NUMBER OF CELLS	VOLUME CUBIC YARDS
FEET				
6'-0"	3'-0"	3'-0"	2	2.00
9'-0"	3'-0"	3'-0"	3	3.00
12'-0"	3'-0"	3'-0"	4	4.00
6'-0"	3'-0"	1'-6"	2	1.00
9'-0"	3'-0"	1'-6"	3	1.50
12'-0"	3'-0"	1'-6"	4	2.00
6'-0"	3'-0"	1'-0"	2	0.66
9'-0"	3'-0"	1'-0"	3	1.00
12'-0"	3'-0"	1'-0"	4	1.33



TYPICAL FLAT LAYOUT OF GABION BASKET

TYPICAL ASSEMBLED GABION BASKET

TYPICAL ACCEPTABLE MESH STYLES

SERIAL 602-05-2/2 SHEET 2 OF 2 MUST ACCOMPANY THIS SHEET.

DATE	BY	DESCRIPTION
1/16/09	YML	CORRECTED L = 6', 9' OR 12'
REVISIONS (OR CHANGE NOTICES)		

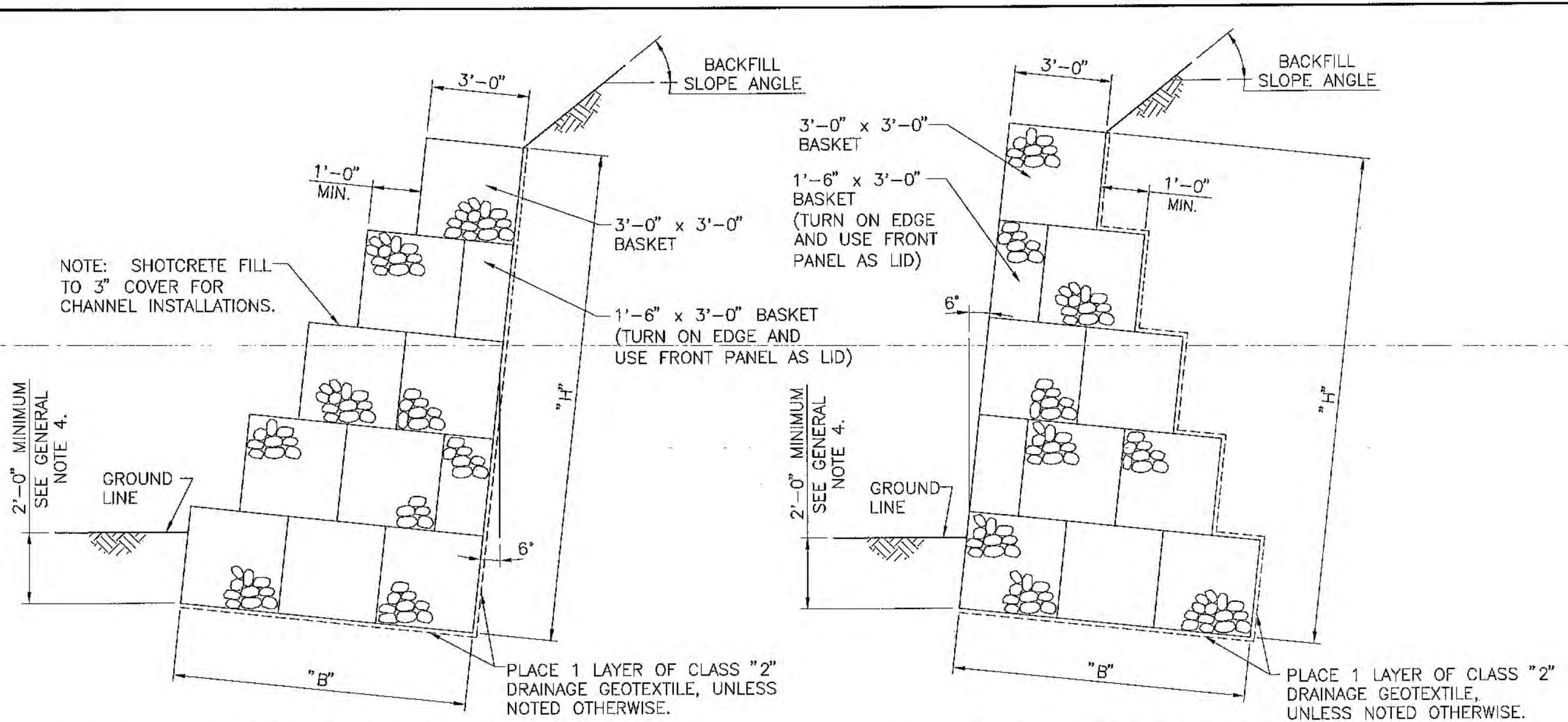
**NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING**

**GABION BASKET DETAILS**

DESIGNED BY: TM DRAWN BY: SKL CHECKED BY: YML/TM

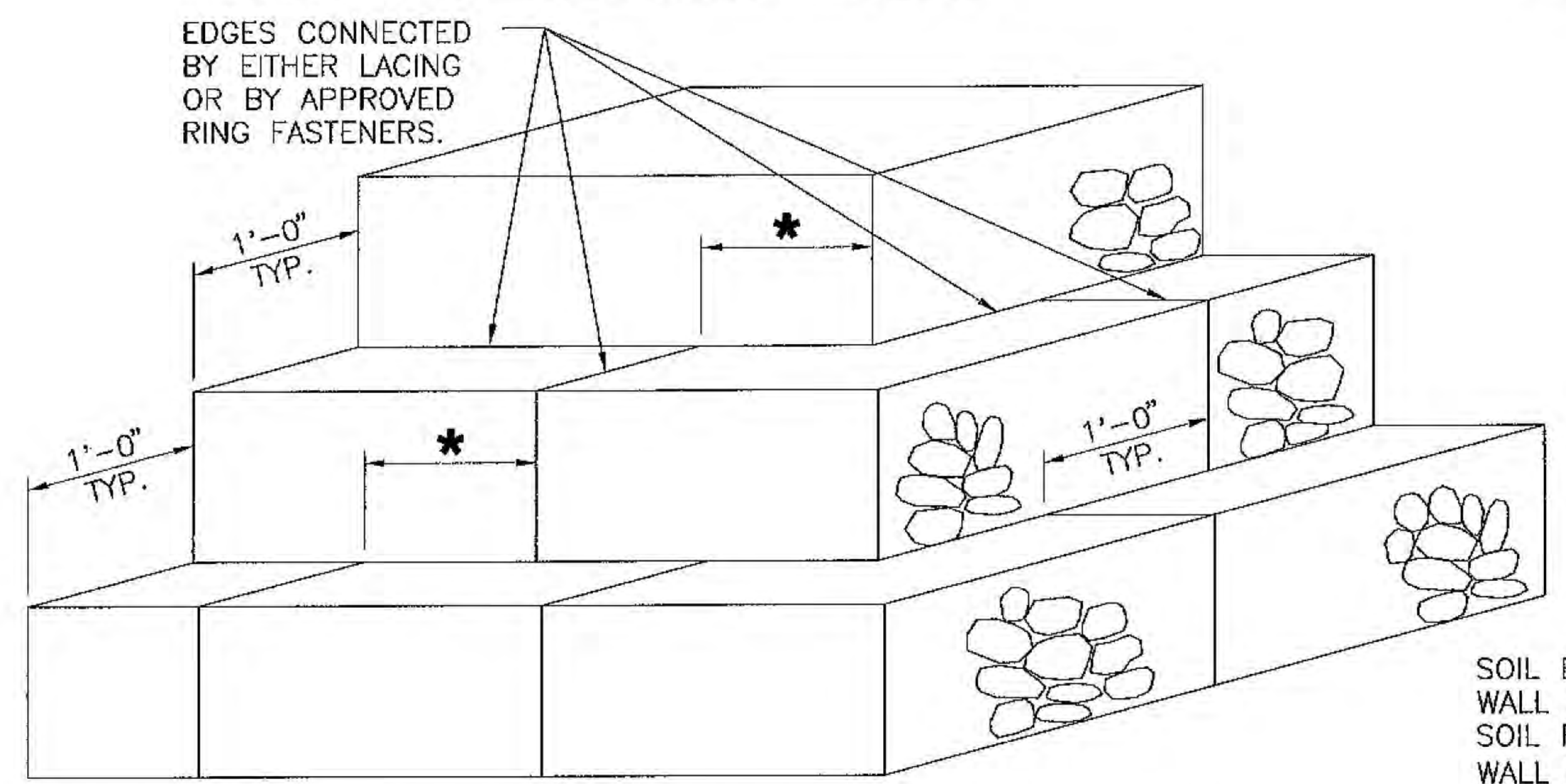
**602-05-1/2** 1 of 2





**TYPICAL CROSS SECTION FOR TYPE "A" STANDARD RETAINING WALL**

**TYPICAL CROSS SECTION FOR TYPE "B" STANDARD RETAINING WALL**



**TYPICAL VIEW OF GABION RETAINING WALL**

\* NOTE: STAGGER JOINTS AT 3'-0" WHEN PRACTICAL.

**BACKFILL TABLE**

BACKFILL SLOPE ANGLE	FRICTION ANGLE OF BACKFILL
0°	33°
9.5°	33°
18.4°	33°
26.6°	33°
33.7°	34°

**DESIGN DATA**

- SOIL BEARING PRESSURE \_\_\_\_\_ 3000 PSF
- WALL FRICTION ANGLE \_\_\_\_\_ 0 DEGREES
- SOIL FRICTION ANGLE \_\_\_\_\_ SEE BACKFILL TABLE ABOVE
- WALL BATTER \_\_\_\_\_ NEGATIVE 6 DEGREES
- BACKFILL SLOPE ANGLE \_\_\_\_\_ SEE BACKFILL TABLE ABOVE
- SOIL DENSITY \_\_\_\_\_ 120 LBS./ CU. FT.
- GABION FILL DENSITY \_\_\_\_\_ 80% OF SOIL DENSITY
- SAFETY FACTOR AGAINST OVERTURNING \_\_\_\_\_ 2.0
- SAFETY FACTOR AGAINST SLIDING \_\_\_\_\_ 1.5
- SURCHARGE PRESSURE (LEVEL BACKFILL) \_\_\_\_\_ 2 FT. x 120 LBS./CU. FT. x 1.25 = 300 LBS./SQ. FT.

TYPE "A" GABION RETAINING WALL			
WALL HEIGHT "H"	BASE "B"	NO. OF COURSES	QTY. CU. YD. PER LIN. FT.
6'-0"	4'-6"	2	0.833
9'-0"	6'-0"	3	1.50
12'-0"	7'-6"	4	2.33
15'-0"	9'-0"	5	3.33

TYPE "B" GABION RETAINING WALL			
WALL HEIGHT "H"	BASE "B"	NO. OF COURSES	QTY. CU. YD. PER LIN. FT.
6'-0"	4'-6"	2	0.833
9'-0"	6'-0"	3	1.50
12'-0"	7'-6"	4	2.33
15'-0"	9'-0"	5	3.33

**GENERAL NOTES**

- WORKMANSHIP AND MATERIALS SHALL CONFORM TO SECTION 602 OF THE NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION (NMDOT) STANDARD SPECIFICATIONS.
- QUANTITIES FOR GABION BASKETS SHALL BE SHOWN ON THE PLANS.
- RETAINING WALL FOUNDATION SHALL BE INSTALLED A MINIMUM OF 2 FEET BELOW THE GROUND LINE. WHEN GABION WALLS ARE TO BE INSTALLED IN STREAMBED, MEASURES TO PROTECT THE WALL AGAINST UNDERMINING SHALL BE SHOWN ON THE PROJECT SPECIFIC DRAWINGS.
- ALL FOUNDATION SOILS SHALL BE ANALYZED TO ENSURE ADEQUATE BEARING PRESSURE. SOILS THAT DO NOT MEET THE DESIGN BEARING PRESSURE SHALL BE STABILIZED ACCORDING TO THE RECOMMENDATIONS OF THE NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION'S FOUNDATION ENGINEER PRIOR TO THE START OF CONSTRUCTION.
- INTERNAL FRICTION ANGLE REQUIREMENT OF THE BACKFILL MATERIAL SHALL BE VERIFIED BY PROCEDURES OUTLINED IN SECTION 506- MECHANICALLY STABILIZED EARTH RETAINING STRUCTURES, OF THE NMDOT STANDARD SPECIFICATIONS EXCEPT THAT THE FRICTION ANGLE SHALL NOT BE LESS THAN THAT SHOWN IN THE TABLE ON THIS SHEET.



DATE	BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)		
<b>NEW MEXICO</b>		
<b>DEPARTMENT OF TRANSPORTATION</b>		
<b>STANDARD DRAWING</b>		
<b>GABION</b>		
<b>RETAINING WALL</b>		
<b>DETAILS</b>		
DESIGNED BY: TM DRAWN BY: SKL CHECKED BY: YML/TM		
<b>602-05-2/2</b>		
		2 of 2



**GENERAL NOTES:**

1. NMDOT IS RECOGNIZED AS A TITLE II PUBLIC ENTITY UNDER THE AMERICANS WITH DISABILITIES ACT (ADA), OF 1990 (PUBLIC LAW 101-336). A TITLE II ENTITY IS DEFINED AS ANY STATE OR LOCAL GOVERNMENT ENTITY AND PROHIBITS DISCRIMINATION ON THE BASIS OF DISABILITY. THE ADA EXTENDS THE PRINCIPLES OF SECTION 504 OF THE REHABILITATION ACT, OF 1973, AS AMENDED, TO PROTECT PERSONS WITH DISABILITIES IN ALL PUBLIC FACILITIES AND PROGRAMS IRRESPECTIVE OF THE FUNDING SOURCE.
2. THESE DRAWINGS PROVIDE GUIDANCE FOR COMPLIANCE WITH THE PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY (PROWAG), JULY 26, 2011, OR LATEST EDITION. THESE GUIDELINES SHALL APPLY TO ALL NEW AND ALTERED PEDESTRIAN ACCESS ROUTES (PAR).
3. REFER TO CONSTRUCTION PLANS FOR THE DETAILED LAYOUTS AND DETAILS.
4. PEDESTRIAN ACCESS ROUTES (PAR) SHALL BE FIRM, STABLE, AND SLIP RESISTANT. PROVIDE SLIP RESISTANT TEXTURE ON SIDEWALKS AND CURB RAMPS BY BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP AND /OR PERPENDICULAR TO PEDESTRIAN TRAVEL. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING SIDE FLARES. DO NOT SCORE OR MAKE GROOVES IN SLOPED SURFACE. LINES SHOWN ON STANDARD DETAILS ARE FOR ILLUSTRATIONS ONLY.
5. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5 INCHES MAXIMUM. VERTICAL DISCONTINUITIES BETWEEN 0.25 INCHES AND 0.5 INCHES SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 50 PERCENT. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE VERTICAL SURFACE DISCONTINUITY.
6. HORIZONTAL OPENINGS IN GRATINGS AND JOINTS SHALL NOT PERMIT PASSAGE OF A SPHERE MORE THAN 0.5 INCHES IN DIAMETER. ELONGATED OPENINGS IN GRATES SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
7. PROVIDE EXPANSION JOINT MATERIAL 0.5 INCHES THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
8. SEAL ALL JOINTS WITH AN APPROVED SEALING MATERIAL.
9. INSTALL JOINTS WHERE CURB RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT. ALL JOINTS AND TRANSITIONS SHALL BE FLUSH.
10. VERTICAL WALLS OR HEADER CURBS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY CURB RAMP FLARES OR GRADING. GRADE NON-WALK AREAS AT 3:1 OR FLATTER.
11. CONSTRUCTION TOP / BOTTOM OF CURB TO BE FLUSH WITH ADJACENT SURFACES (CURB RAMPS, SIDEWALKS, AND FLARES). VERTICAL LIPS NOT PERMITTED AT THE BOTTOM OF CURB RAMP WHERE THE RAMP MEETS STREET LEVEL.

**SIDEWALKS**

12. SIDEWALK, AND CURB AND GUTTER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SERIAL 609-01-1/1.
13. SIDEWALK CROSS SLOPE IS RECOMMENDED TO BE CONSTRUCTED FOR CROSS SLOPE OF 1.5% TYPICAL, BUT SHALL NOT EXCEED 2.0% CROSS SLOPE ON THE PEDESTRIAN ACCESS ROUTE (PAR).
14. SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 5.0 FT, EXCLUSIVE OF THE WIDTH OF THE CURB RETURN.  
EXCEPTION: WHERE SIDEWALK WIDTH NEEDS TO BE REDUCED TO NO LESS 4.0 FT, PASSING SPACES SHALL BE PROVIDED AT INTERVALS OF 200 FT MAXIMUM. PASSING SPACES SHALL BE 5.0 FT MINIMUM BY 5.0 FT MINIMUM.
15. ANY SIGNS POSTS, UTILITY POLES, FIRE HYDRANTS, TRAFFIC SIGNALS, STREET FURNITURE, AND OTHER OBJECTS SHALL NOT REDUCE THE CLEAR WIDTH TO LESS THAN 4.0 FT.
16. THE CLEAR WIDTH OF PEDESTRIAN ACCESS ROUTES (PAR) WITHIN MEDIANS AND PEDESTRIAN REFUGE ISLANDS SHALL BE 5.0 FT MINIMUM.

**CURB RAMPS**

17. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE FEASIBLE. THE MAXIMUM SLOPE ALLOWABLE IS INDICATED IN NOTE 18 OF THE CURB RAMP STANDARD DETAILS. SLOPES THAT EXCEED THOSE INDICATED IN THE CURB RAMP STANDARD DETAILS, OR CONSTRUCTION PLANS, WILL NOT BE ACCEPTED AND WILL BE REMOVED AND RECONSTRUCTED.
18. RUNNING SLOPE OF THE CURB RAMP SHALL BE 8.3% MAX (RECOMMENDED 7.0%) BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FT TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE EXTENDED AS FLAT AS MAXIMUM EXTENT PRACTICABLE.
19. CONSTRUCT THE CLEAR WIDTH OF CURB RAMP RUNS (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITIONS, AND TURNING SPACES AS TYPICAL. 5.0 FT X 5.0 FT AND MINIMUM 4.0 FT X 4.0 FT CLEAR SPACE BEYOND THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE.
20. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
21. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.3%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP RUNS, TURNING SPACE OR BLENDED TRANSITION IS NOT TO EXCEED 5.0%.
22. CONSTRUCT CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL TURNING SPACES BEHIND CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE.
23. GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE CURB RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
24. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF CURB RAMP IS NOT SOLELY DEPENDENT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6.0 FT FOR AN 8.3% SLOPE).

**CROSSWALKS**

25. PROVIDE A SEPARATE CURB RAMP FOR EACH MARKED OR UNMARKED CROSSWALK. CURB RAMP LOCATIONS SHALL BE PLACED WITHIN THE WIDTH OF THE MARKED OR UNMARKED CROSSWALK AS SHOWN IN THE CONSTRUCTION PLANS.

**DETECTABLE WARNING**

26. DETECTABLE WARNING SURFACES (DWS) CONSISTING OF TRUNCATED DOMES SHALL BE UTILIZED WHERE CURB RAMPS, BLENDED TRANSITIONS, OR TURNING SPACE PROVIDE A FLUSH PEDESTRIAN CONNECTION TO THE STREET OR WHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CROSSES A STREET, ALLEY, TRAFFIC ISLAND, MEDIAN, OR RAILROAD. DETECTABLE WARNING SURFACES (DWS) WILL NOT BE INSTALLED AT RESIDENTIAL DRIVEWAYS. DETECTABLE WARNING SURFACE MUST BE PROVIDED AT THE JUNCTION BETWEEN THE PAR AND COMMERCIAL DRIVEWAYS THAT ARE STOP OR YIELD CONTROLLED OR ARE CONTROLLED BY A SIGNAL.
27. DETAILS OF DETECTABLE WARNING SURFACE ARE SHOWN IN CONTRACT PLANS AND SHEET 608-001-8/12 OF THE STANDARD DRAWINGS.

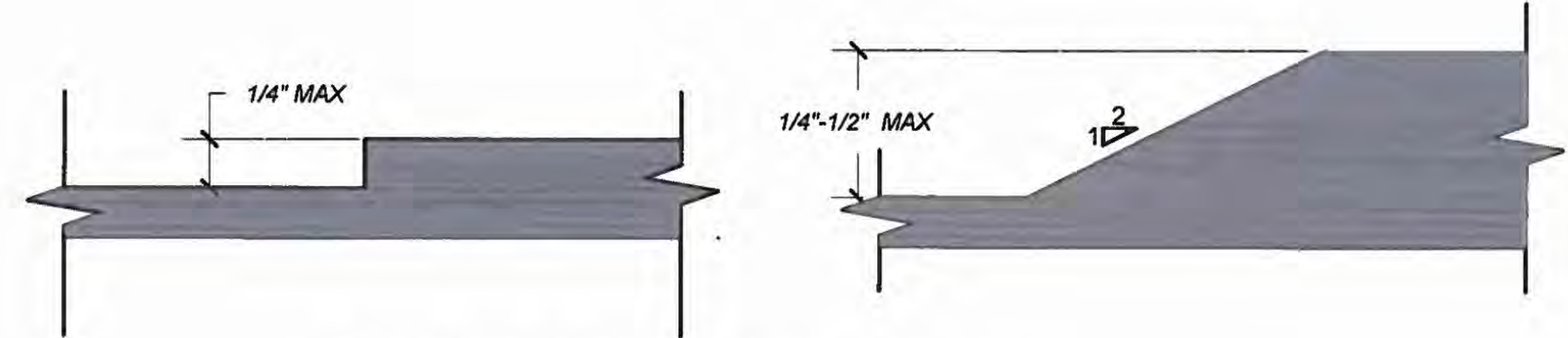
**ACCESSIBLE PEDESTRIAN SIGNALS (APS) AND PEDESTRIAN PUSHBUTTONS**

28. FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT PRACTICABLE. INSTALL PEDESTRIAN STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS. REFER TO THE MUTCD FOR FURTHER GUIDANCE.
29. PEDESTRIAN SIGNAL PUSH BUTTONS SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND LOCATED WITHIN A HORIZONTAL REACH OF 0" TO 10" AND SHALL BE WITHIN 36" TO 46" ABOVE THE SIDEWALK SURFACE.
30. PEDESTRIAN SIGNAL SHALL HAVE 4FTx4FT MIN TURNING SPACE TO PROVIDE ACCESS TO PUSH BUTTONS.

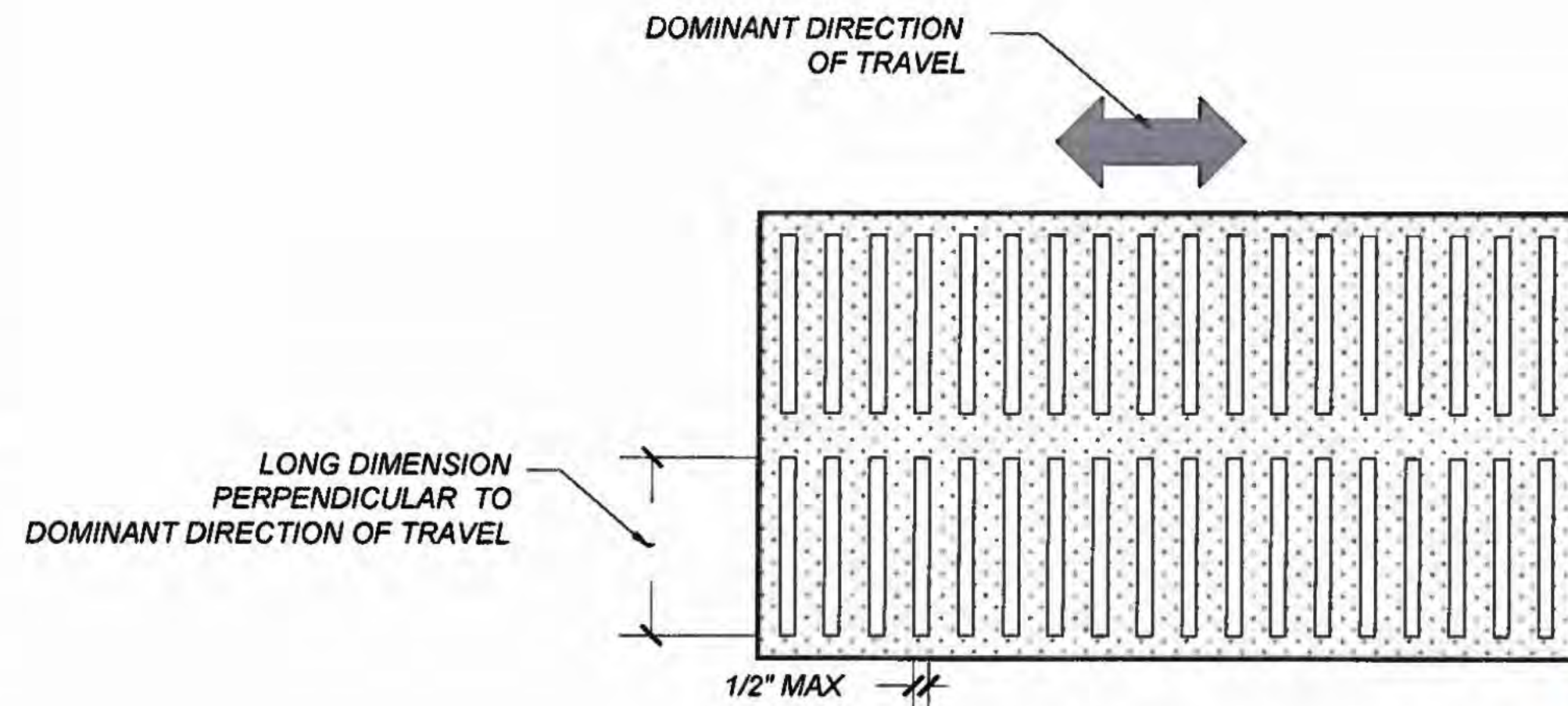
**ALTERATIONS TO EXISTING FACILITIES - GENERAL NOTES:**

ADDITIONS OR ALTERATIONS TO ANY FACILITY SHALL CONFORM TO THE REQUIREMENTS OF THE NEW CONSTRUCTION STANDARDS WITHIN THE NMDOT PEDESTRIAN ACCESS STANDARDS AND PROWAG 2011 OR LATEST EDITION. ANY DESIGN / CONSTRUCTION DEVIATION THAT IS DEEMED AN VARIANCE OR TECHNICALLY INFEASIBLE BY THE DEFINITION BELOW SHALL REQUIRE SUBMITTAL AND APPROVAL OF ADA DESIGN VARIANCE PROCEDURES.

31. EXCEPTION: IN ALTERATION WORK, IF COMPLIANCE IS TECHNICALLY INFEASIBLE, THE ALTERATION SHALL PROVIDE ACCESSIBILITY TO THE MAXIMUM EXTENT PRACTICABLE. ANY ELEMENTS OR FEATURES OF THE BUILDING OR FACILITY THAT IS BEING ALTERED AND CAN BE MADE ACCESSIBLE SHALL BE MADE ACCESSIBLE WITHIN THE SCOPE OF THE ALTERATION.
32. TECHNICAL INFEASIBILITY: MEANS, WITH RESPECT TO AN ALTERATION OF A BUILDING OR A FACILITY, THAT IT HAS LITTLE LIKELIHOOD OF BEING ACCOMPLISHED BECAUSE EXISTING STRUCTURAL CONDITIONS WOULD REQUIRE REMOVING OR ALTERING A LOAD-BEARING MEMBER WHICH IS AN ESSENTIAL PART OF THE STRUCTURAL FRAME; OR BECAUSE OTHER EXISTING PHYSICAL OR SITE CONSTRAINTS PROHIBIT.
33. IN ALTERATIONS WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT COMPLIANCE TO PROVIDE A CURB RAMP FOR EACH PEDESTRIAN CROSSING A SINGLE DIAGONAL CURB RAMP SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS.



**VERTICAL SURFACE DISCONTINUITIES**  
SCALE: NONE REFER TO NOTE 5

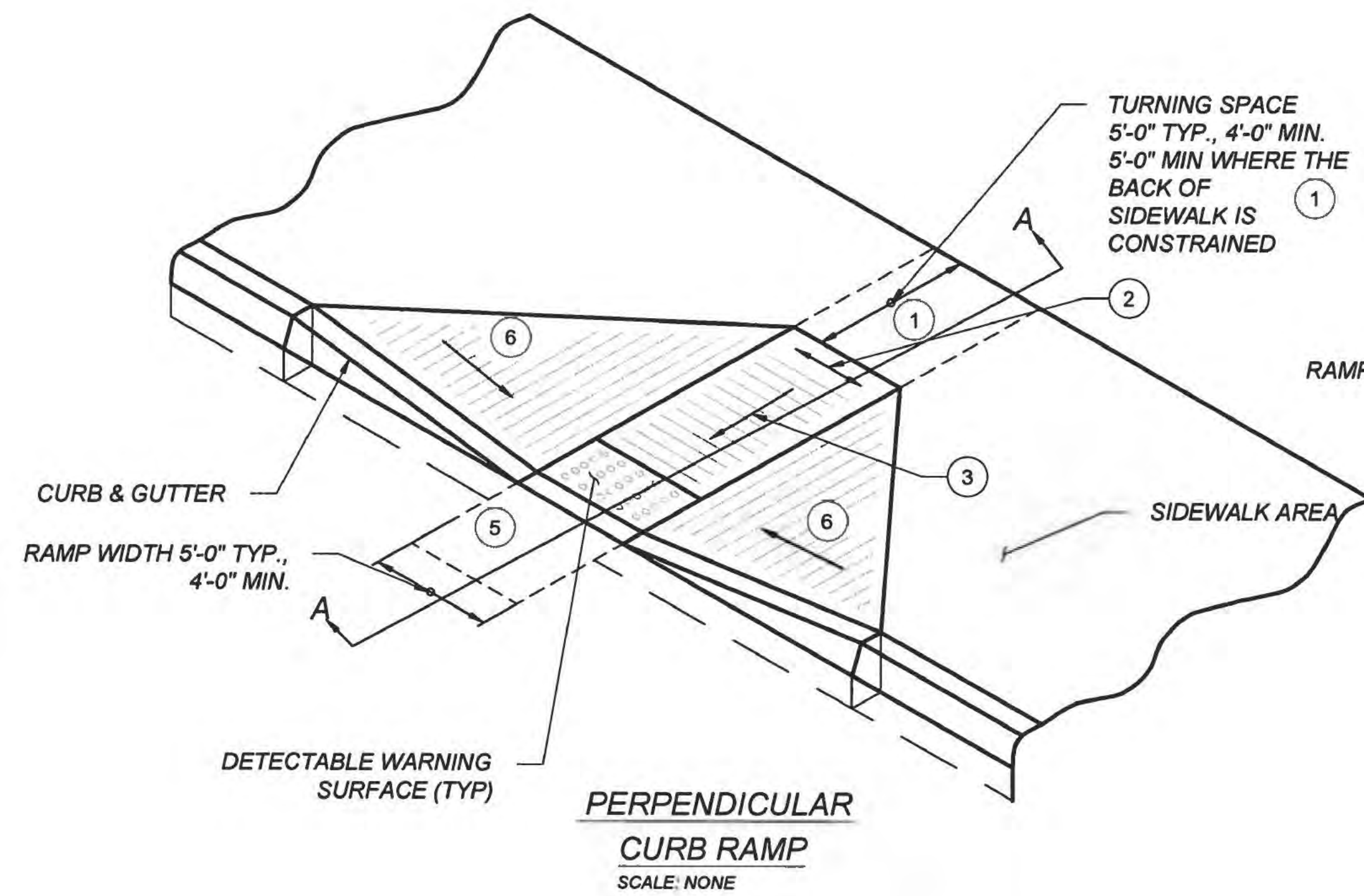


**HORIZONTAL OPENINGS**  
SCALE: NONE REFER TO NOTE 6

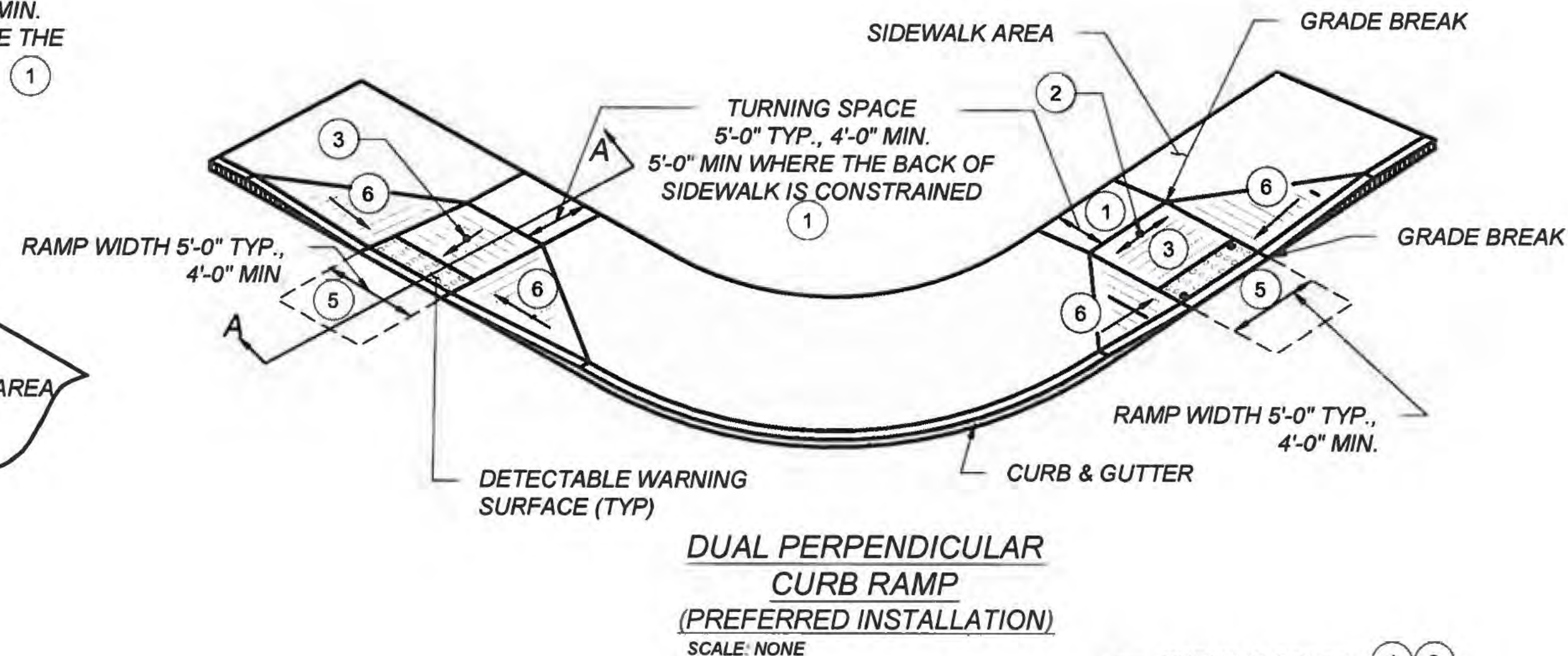


NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
PEDESTRIAN ACCESS ROUTE GENERAL NOTES			
APPROVED	[Signature]		DATE
	DESIGN ENGINEER		1-13-15
608-001-1		608-1 of 12	

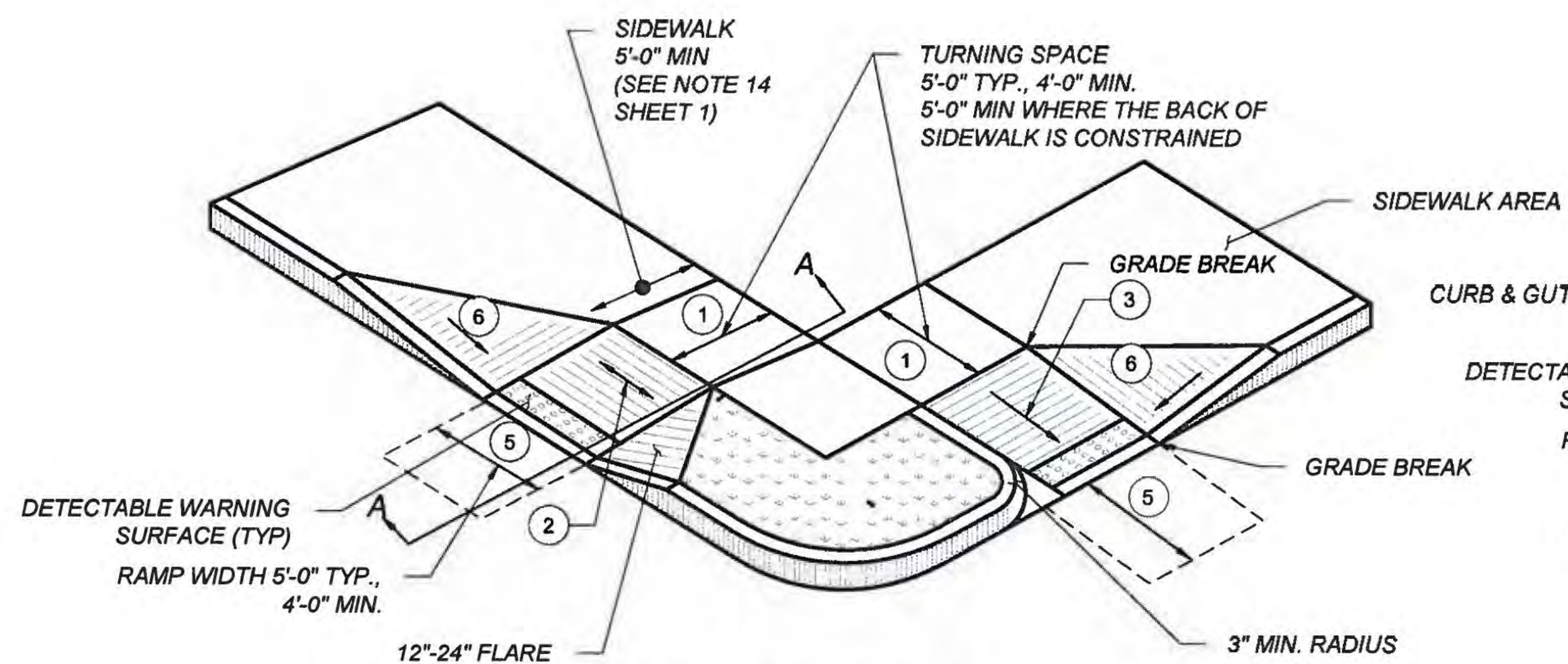




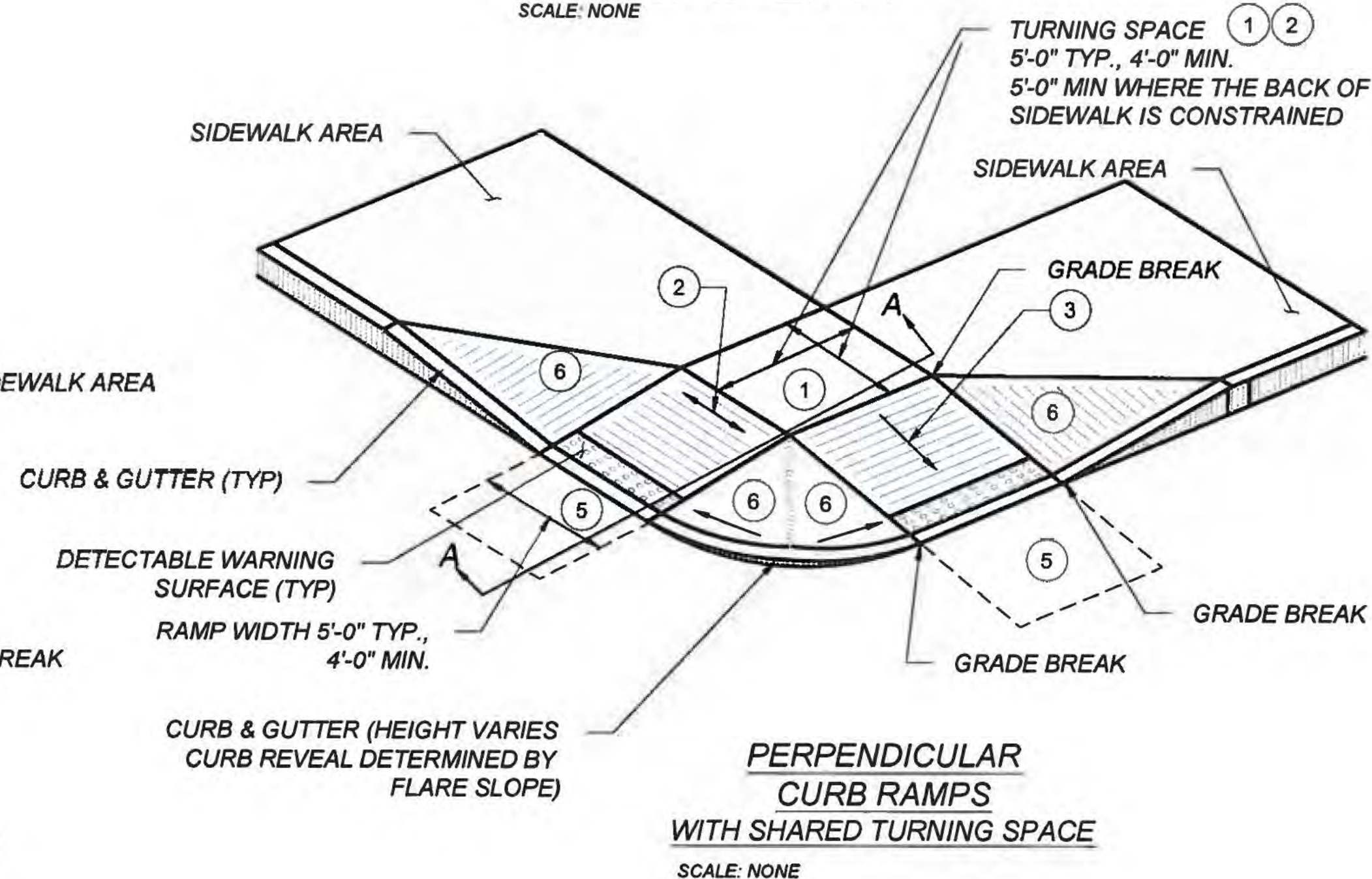
**PERPENDICULAR CURB RAMP**  
SCALE: NONE



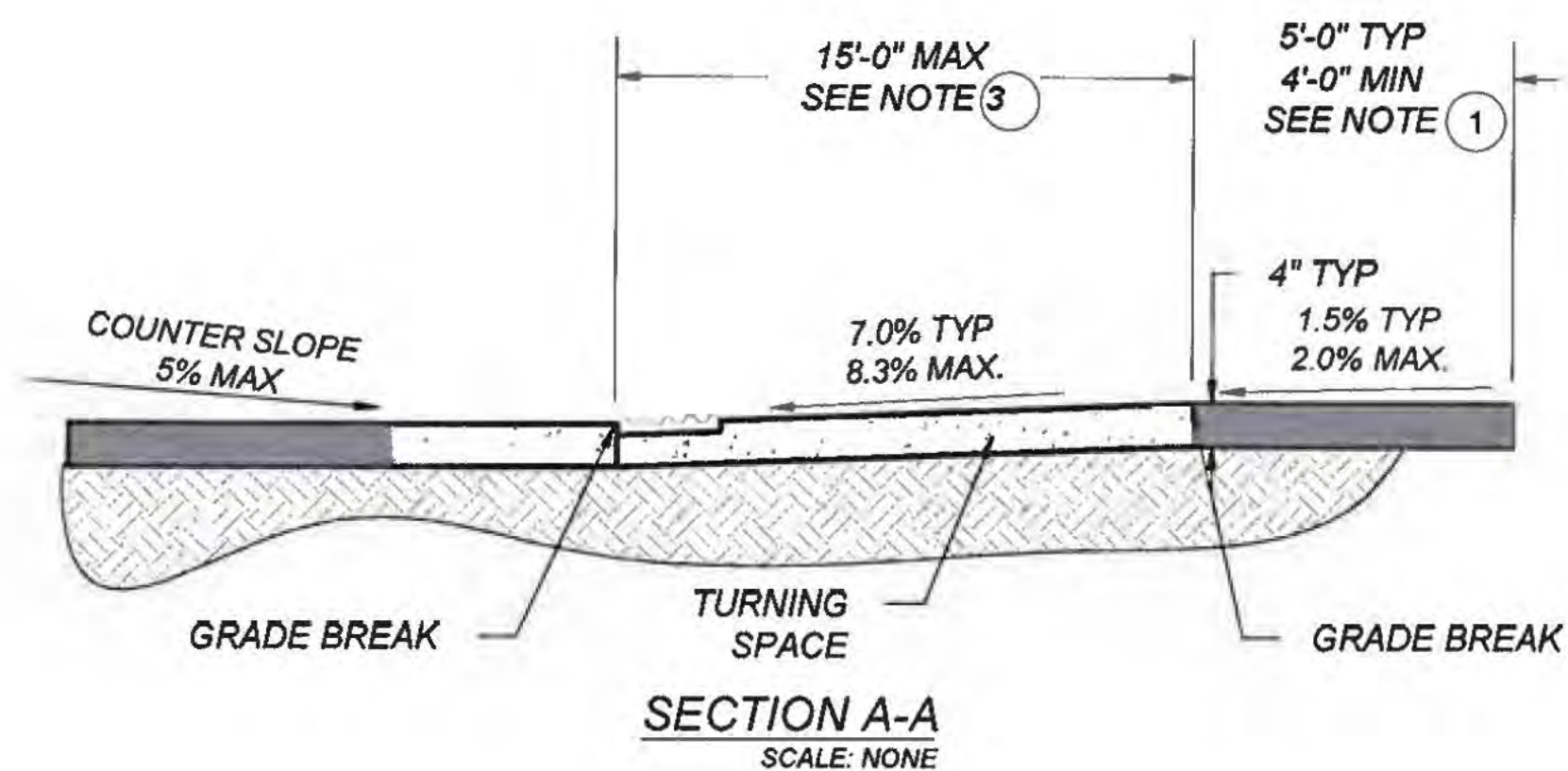
**DUAL PERPENDICULAR CURB RAMP (PREFERRED INSTALLATION)**  
SCALE: NONE



**DUAL PERPENDICULAR CURB RAMP (ALTERNATE INSTALLATION)**  
SCALE: NONE



**PERPENDICULAR CURB RAMPS WITH SHARED TURNING SPACE**  
SCALE: NONE



**SECTION A-A**  
SCALE: NONE

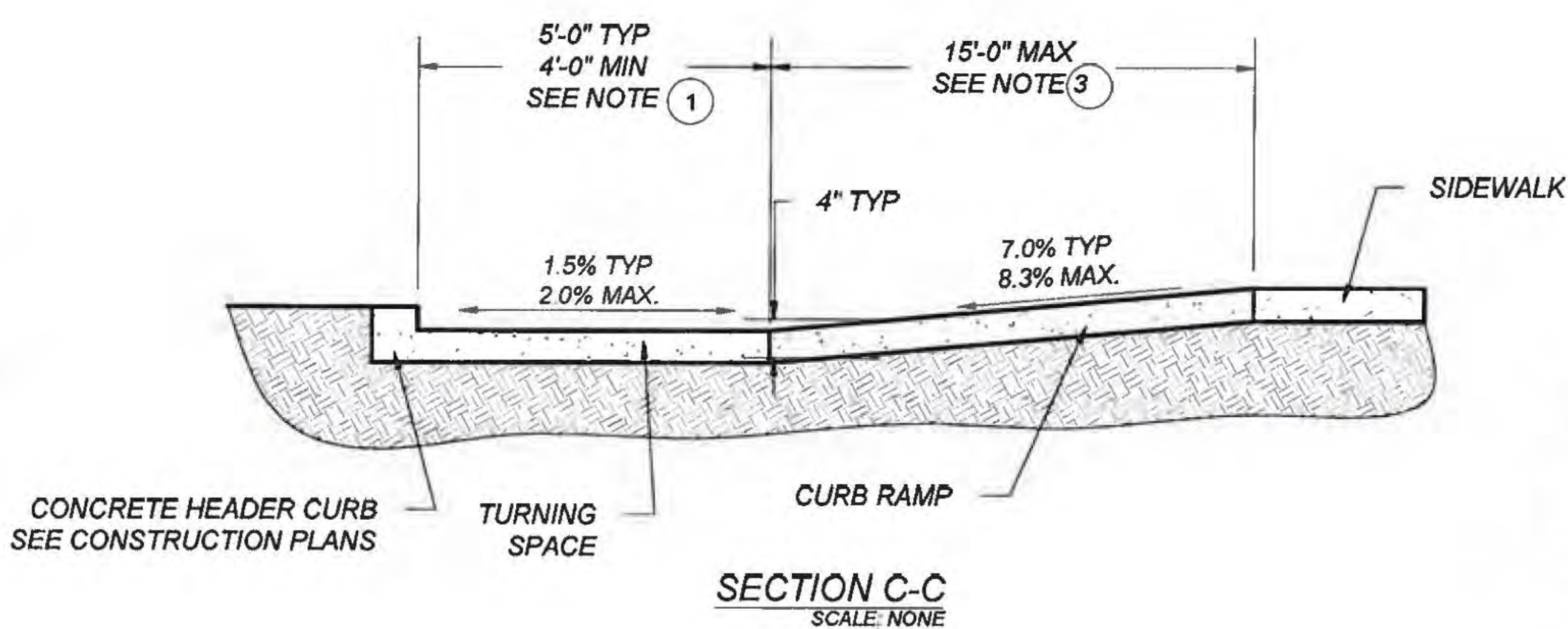
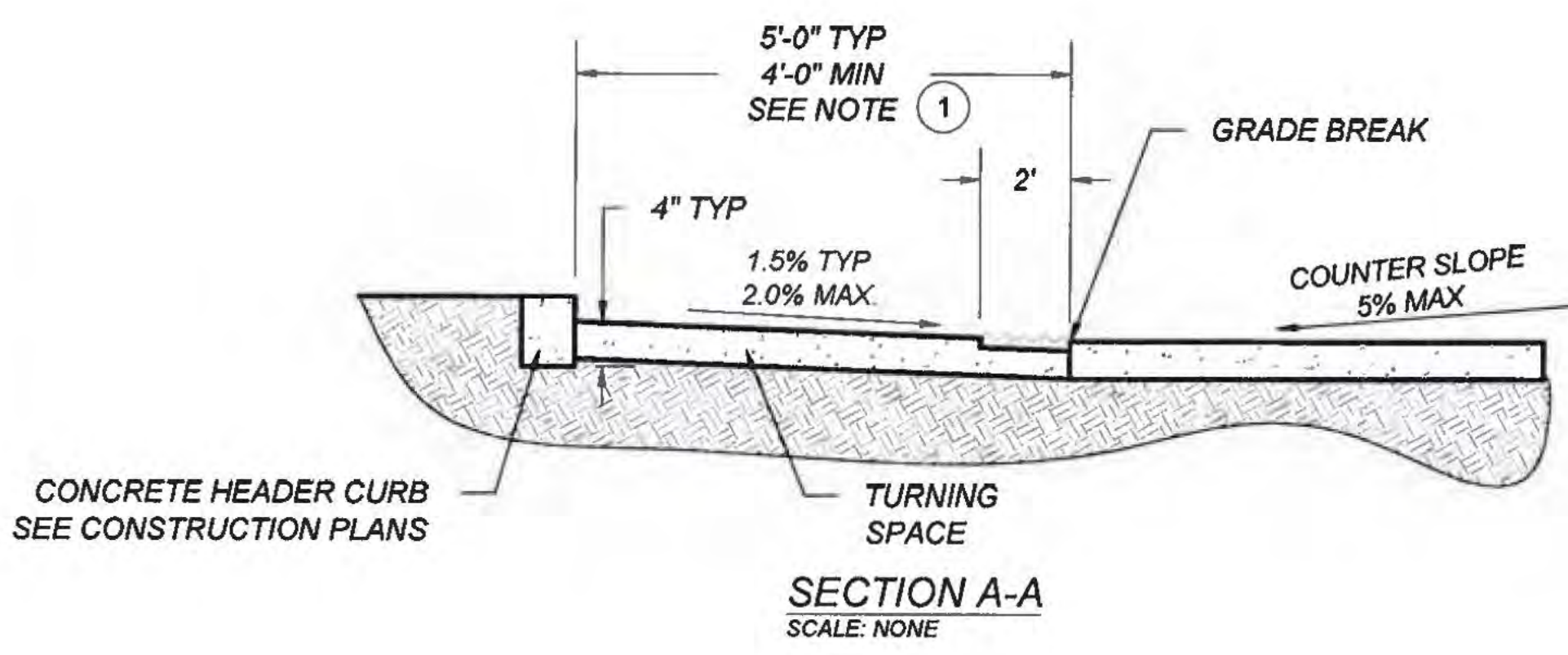
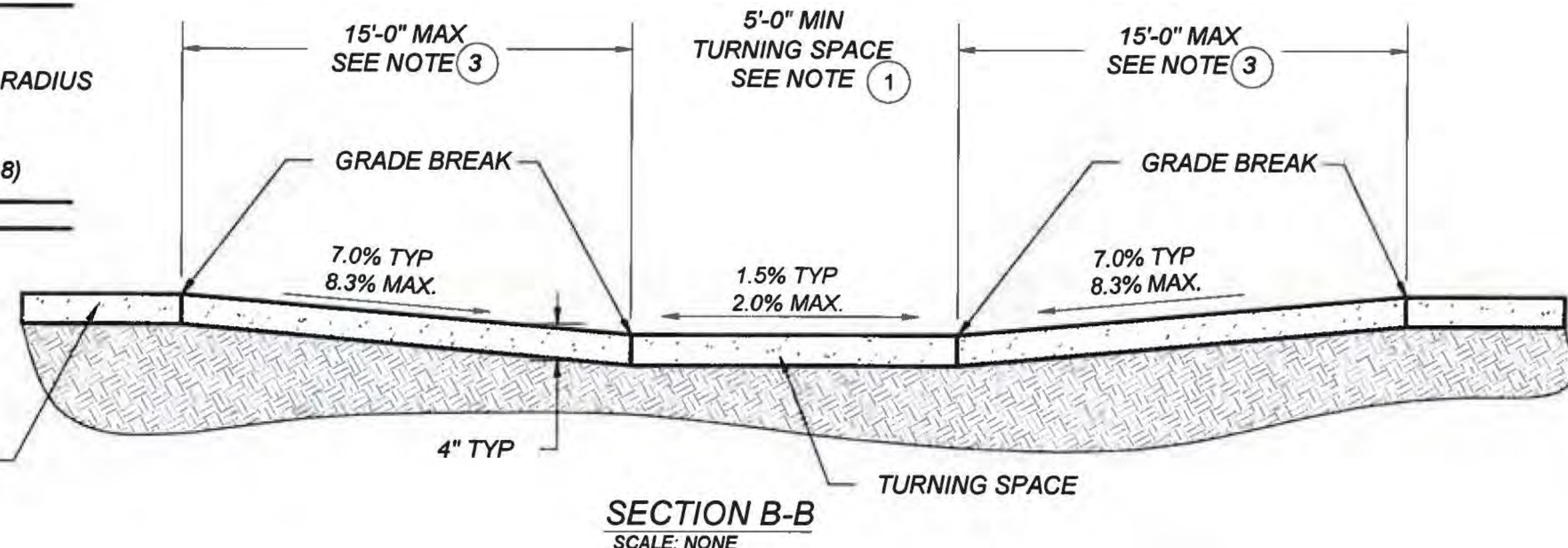
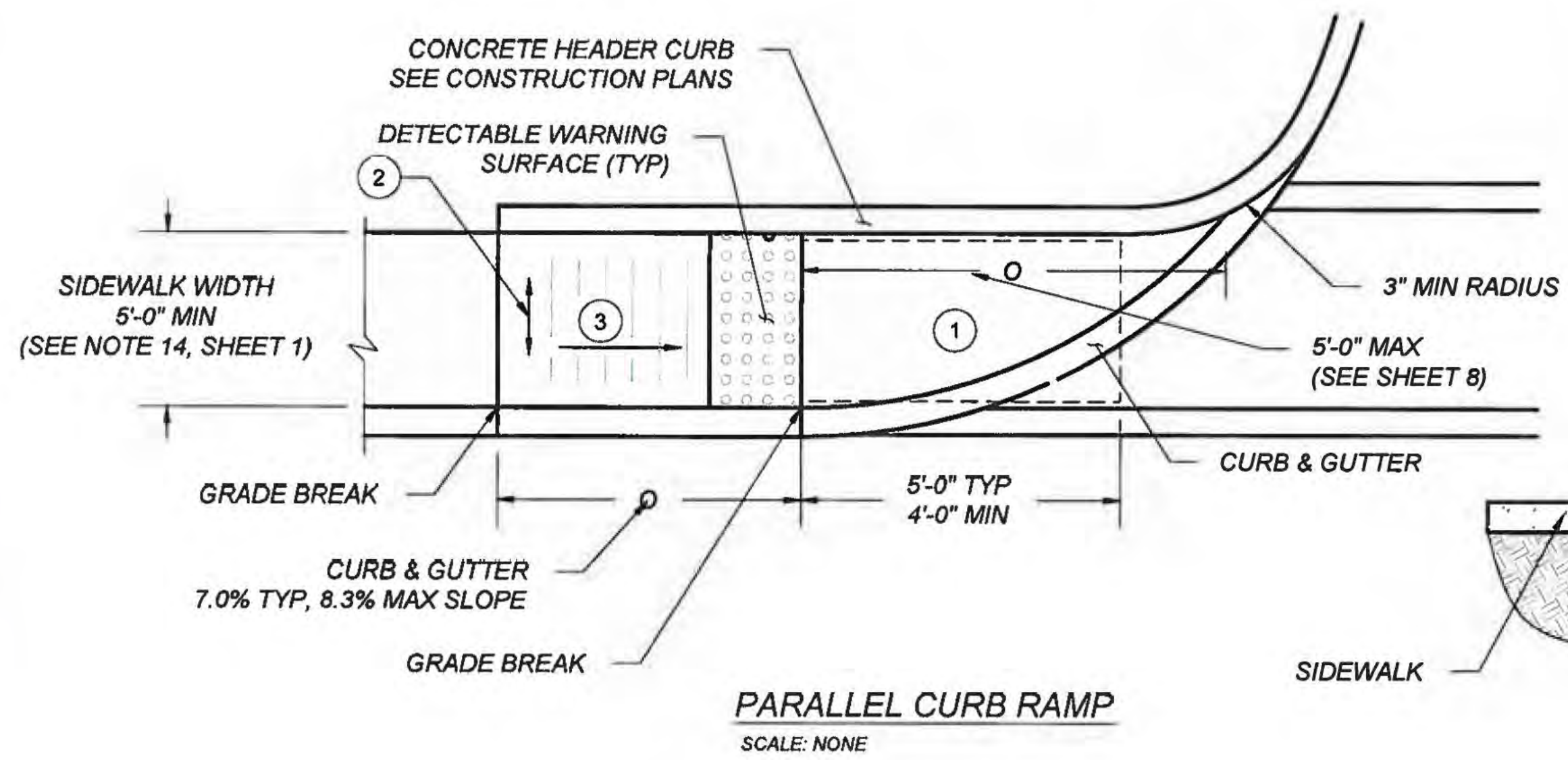
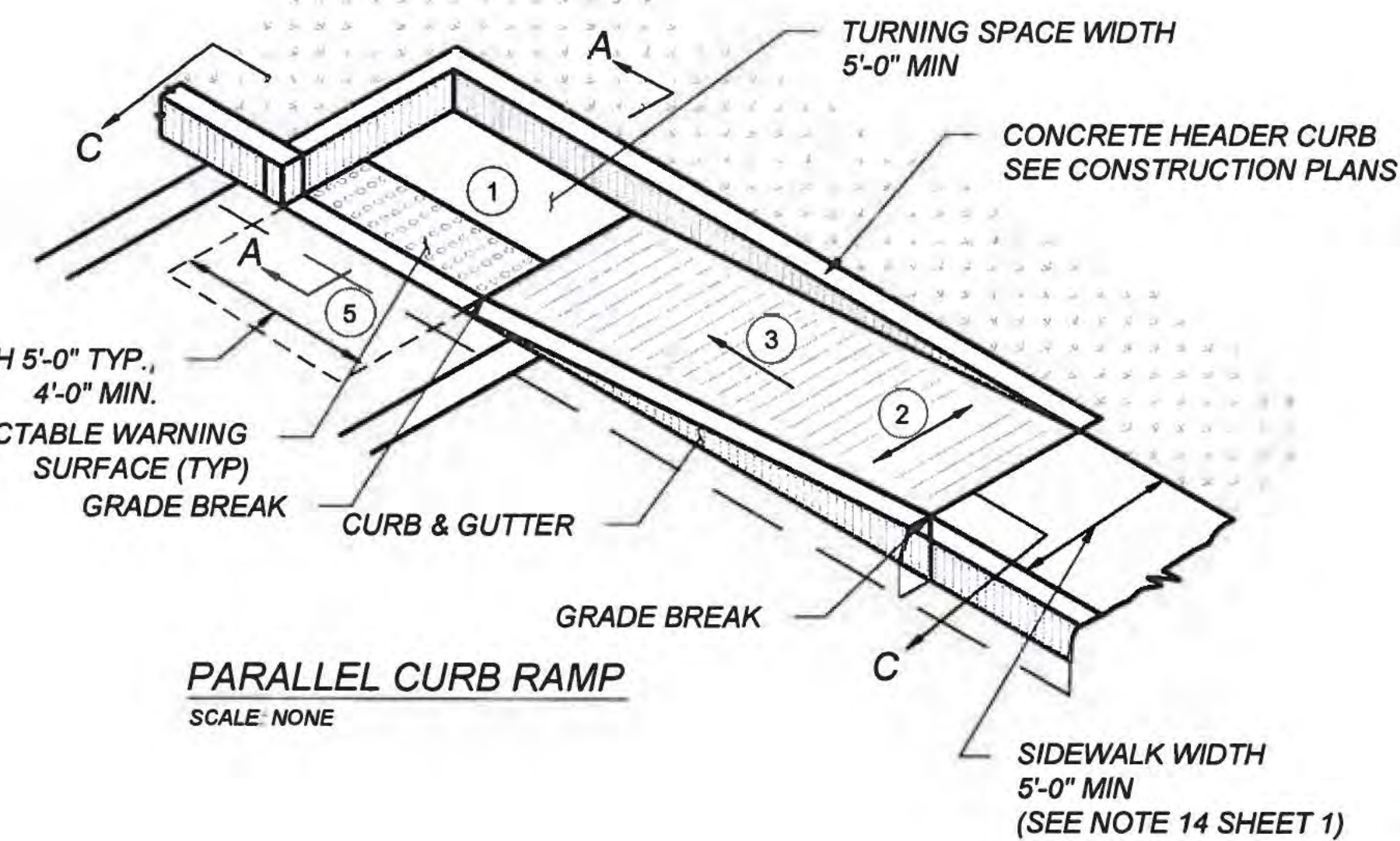
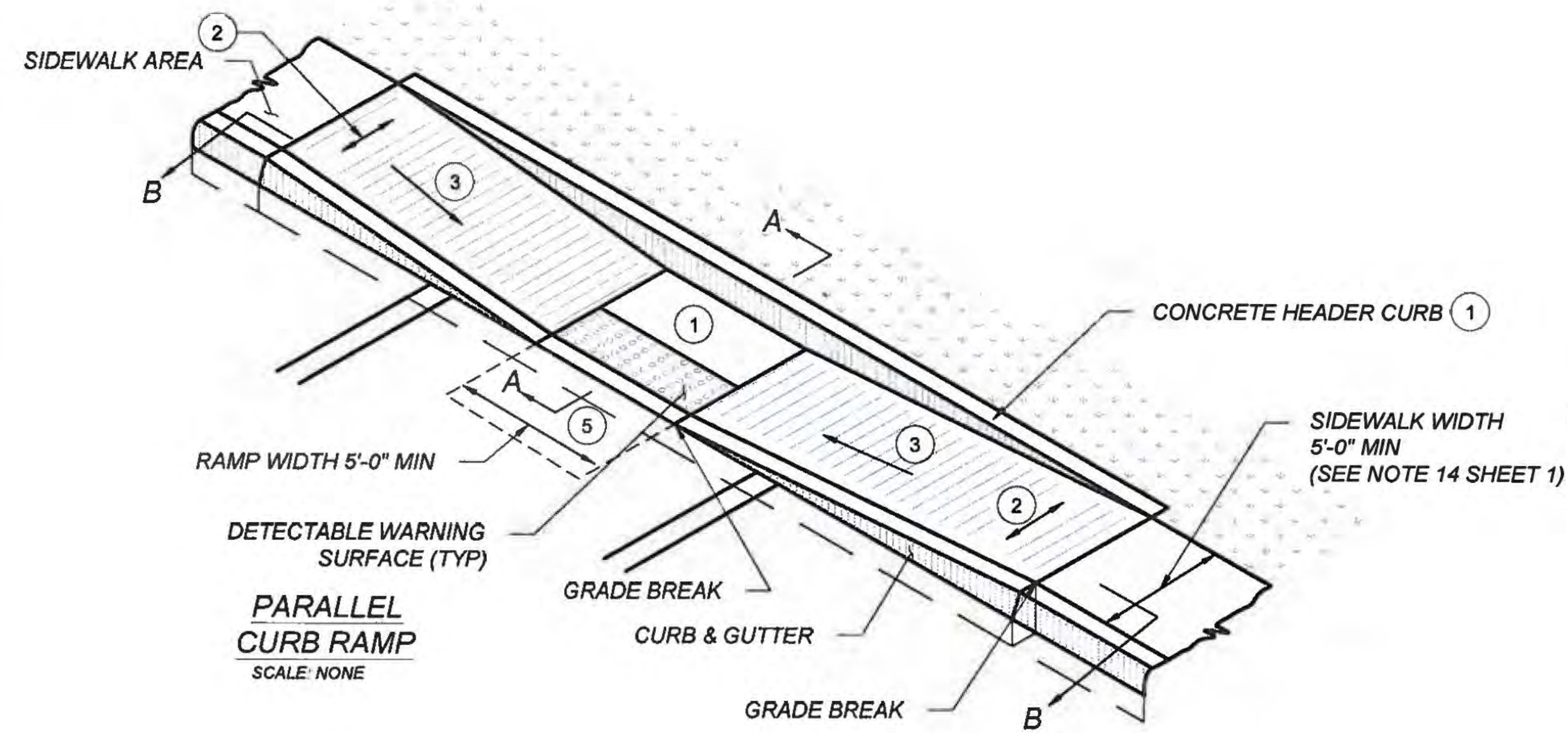
**KEYED NOTES**

- 1 TURNING SPACE SHALL HAVE MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.0% (RECOMMEND 1.5%). TURNING SPACE SHALL BE 4.0 FT BY 4.0 FT MIN (RECOMMEND 5.0 FT BY 5.0 FT) AT THE TOP OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, THE TURNING SPACE SHALL BE 4.0 FT MIN BY 5.0 FT MIN. THE 5.0 FT SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.
  - 2 CROSS SLOPE SHALL BE 2.0% MAX (RECOMMENDED 1.5%). EXCEPTION. THE CROSS SLOPE OF CURB RAMPS AT PEDESTRIAN STREET CROSSING WITHOUT YIELD OR STOP CONTROL, TRAFFIC SIGNALS DESIGNED FOR THE GREEN PHASE, AND AT MIDBLOCK PEDESTRIAN STREET CROSSING, THE CROSS SLOPE IS PERMITTED TO MATCH STREET OR HIGHWAY GRADE.
  - 3 RUNNING SLOPE OF THE CURB RAMP SHALL BE 8.3% MAX (RECOMMENDED 7.0%) BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FT TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE EXTENDED AS FLAT AS MAXIMUM EXTENT PRACTICABLE.
  - 4 GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
  - 5 COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, RUN OR TURNING SPACE SHALL BE 5% MAX.
  - 6 FLARED SIDES ARE TO HAVE A SLOPE OF 10% MAX (RECOMMEND 9%), MEASURED PARALLEL TO THE BACK OF THE CURB, UNLESS THE FLARED SIDES ARE PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, CHAINS, FENCING, OR RAILINGS.
- NOTES:**
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  - B DETAILS OF THE DETECTABLE WARNING SURFACE ARE SHOWN IN THE CONSTRUCTION PLANS AND SHEET 608-001-8/12 OF THE STANDARD DRAWINGS.
  - C IN ALTERATIONS WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT COMPLIANCE TO PROVIDE A CURB RAMP FOR EACH PEDESTRIAN CROSSING A SINGLE DIAGONAL CURB RAMP SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS.
  - D CONCRETE HEADER CURBS CONSTRUCTED AS PART OF THE CURB RAMP WILL BE CONSIDERED INCIDENTAL TO ITEM NUMBER 608004 AND NO SEPARATE PAYMENT WILL BE MADE.



NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
<b>PERPENDICULAR CURB RAMPS</b>			
APPROVED	<i>[Signature]</i>		DATE
	DESIGN ENGINEER		6-13-15
608-001-2		608- 2 of 12	





**KEYED NOTES**

- 1 TURNING SPACE SHALL HAVE MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.0% (RECOMMEND 1.5%). TURNING SPACE SHALL BE 4.0 FT BY 4.0 FT MIN (RECOMMEND 5.0 FT BY 5.0 FT) AT THE TOP OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, THE TURNING SPACE SHALL BE 4.0 FT MIN BY 5.0 FT MIN. THE 5.0 FT SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.
- 2 CROSS SLOPE SHALL BE 2.0% MAX (RECOMMENDED 1.5%). EXCEPTION: THE CROSS SLOPE OF CURB RAMPS AT PEDESTRIAN STREET CROSSING WITHOUT YIELD OR STOP CONTROL, TRAFFIC SIGNALS DESIGNED FOR THE GREEN PHASE, AND AT MIDBLOCK PEDESTRIAN STREET CROSSING, THE CROSS SLOPE IS PERMITTED TO MATCH STREET OR HIGHWAY GRADE.
- 3 RUNNING SLOPE OF THE CURB RAMP SHALL BE 8.3% MAX (RECOMMENDED 7.0%) BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FT TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE EXTENDED AS FLAT AS MAXIMUM EXTENT PRACTICABLE.
- 4 GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
- 5 COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, RUN OR TURNING SPACE SHALL BE 5% MAX.
- 6 FLARED SIDES ARE TO HAVE A SLOPE OF 10% MAX (RECOMMEND 9%), MEASURED PARALLEL TO THE BACK OF THE CURB, UNLESS THE FLARED SIDES ARE PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, CHAINS, FENCING, OR RAILINGS.

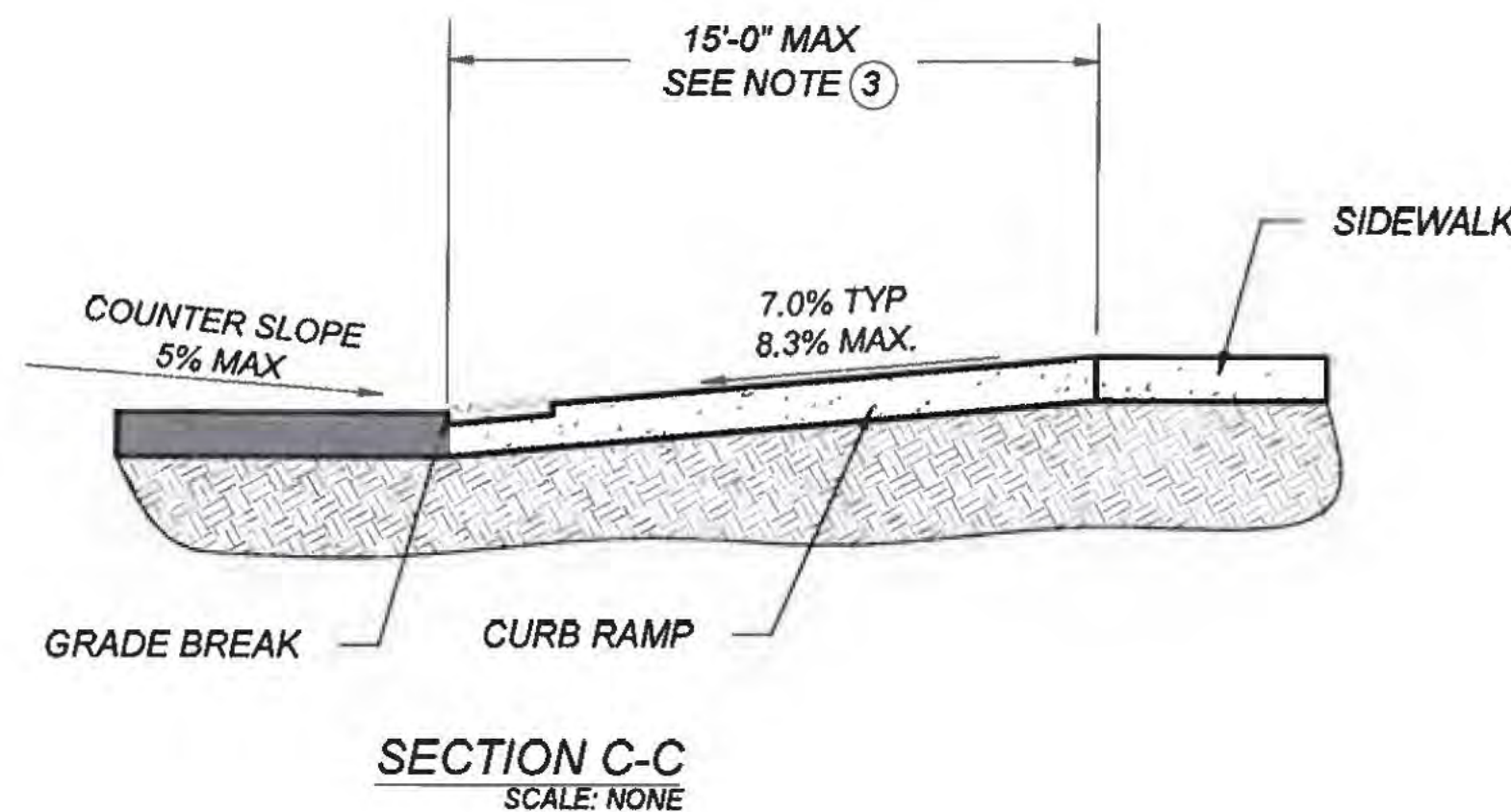
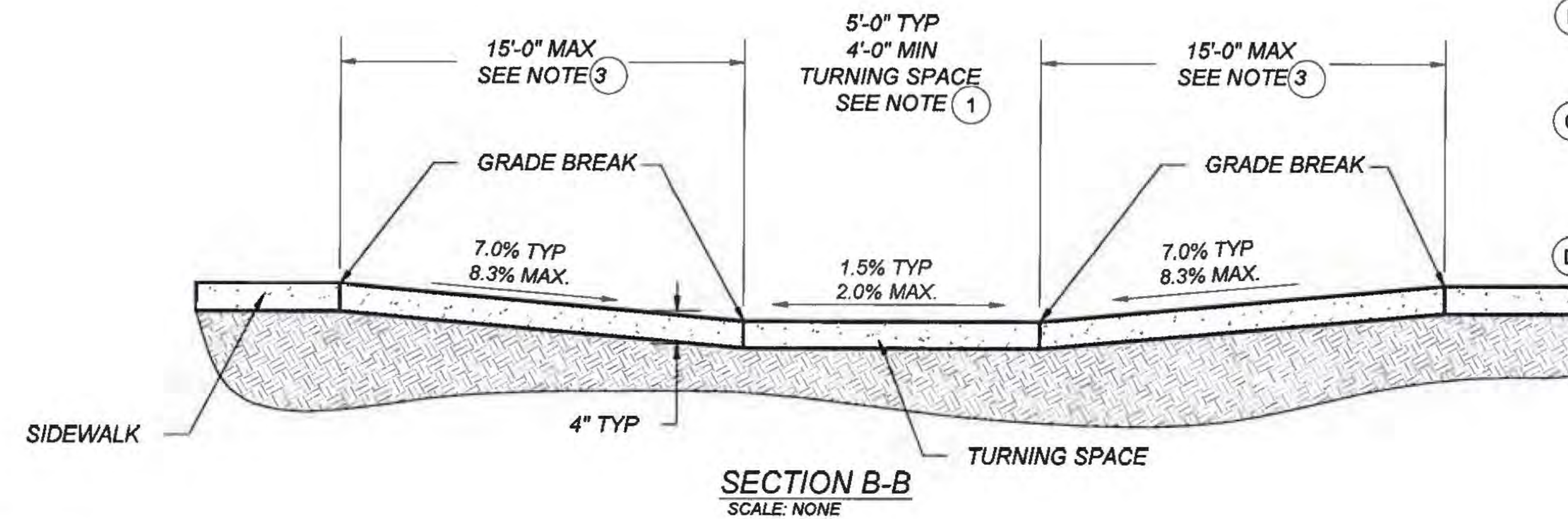
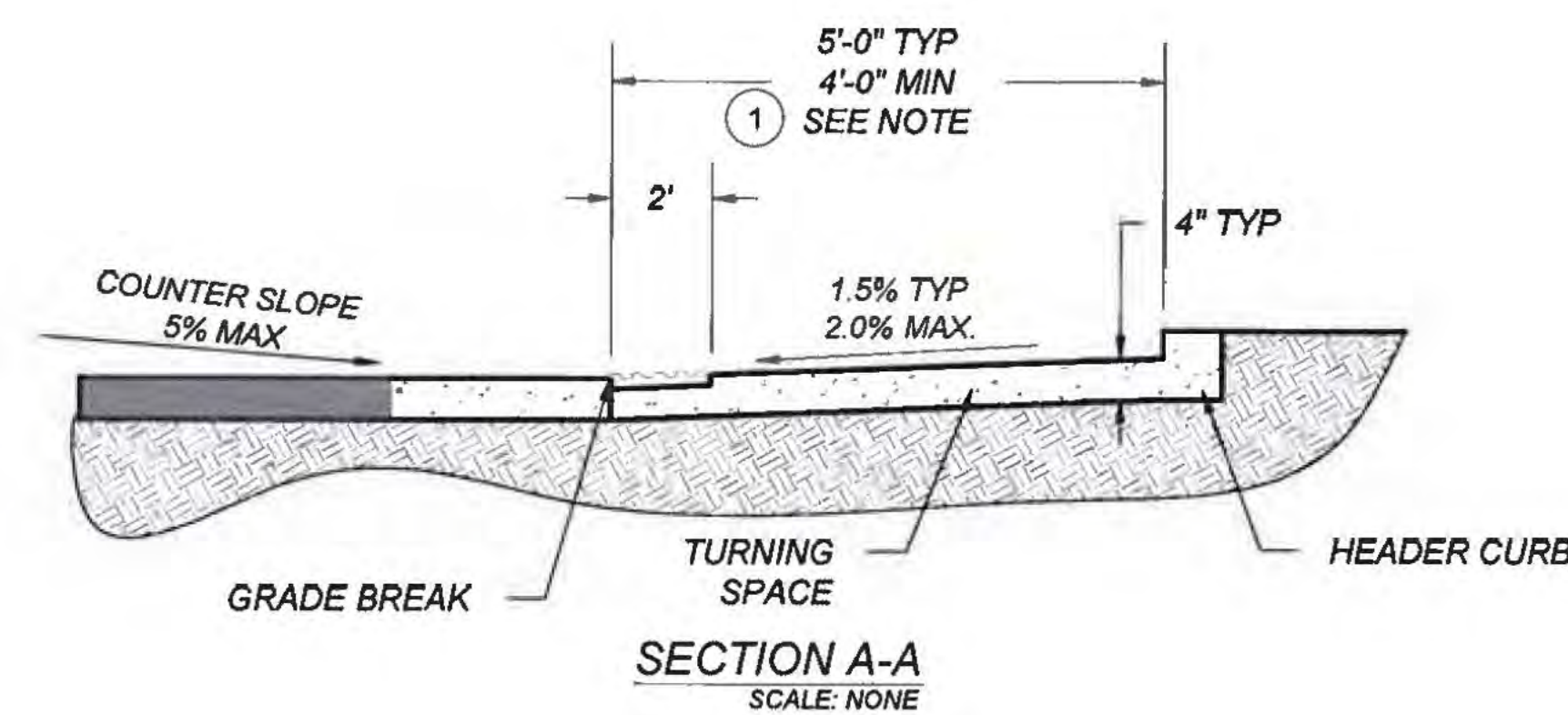
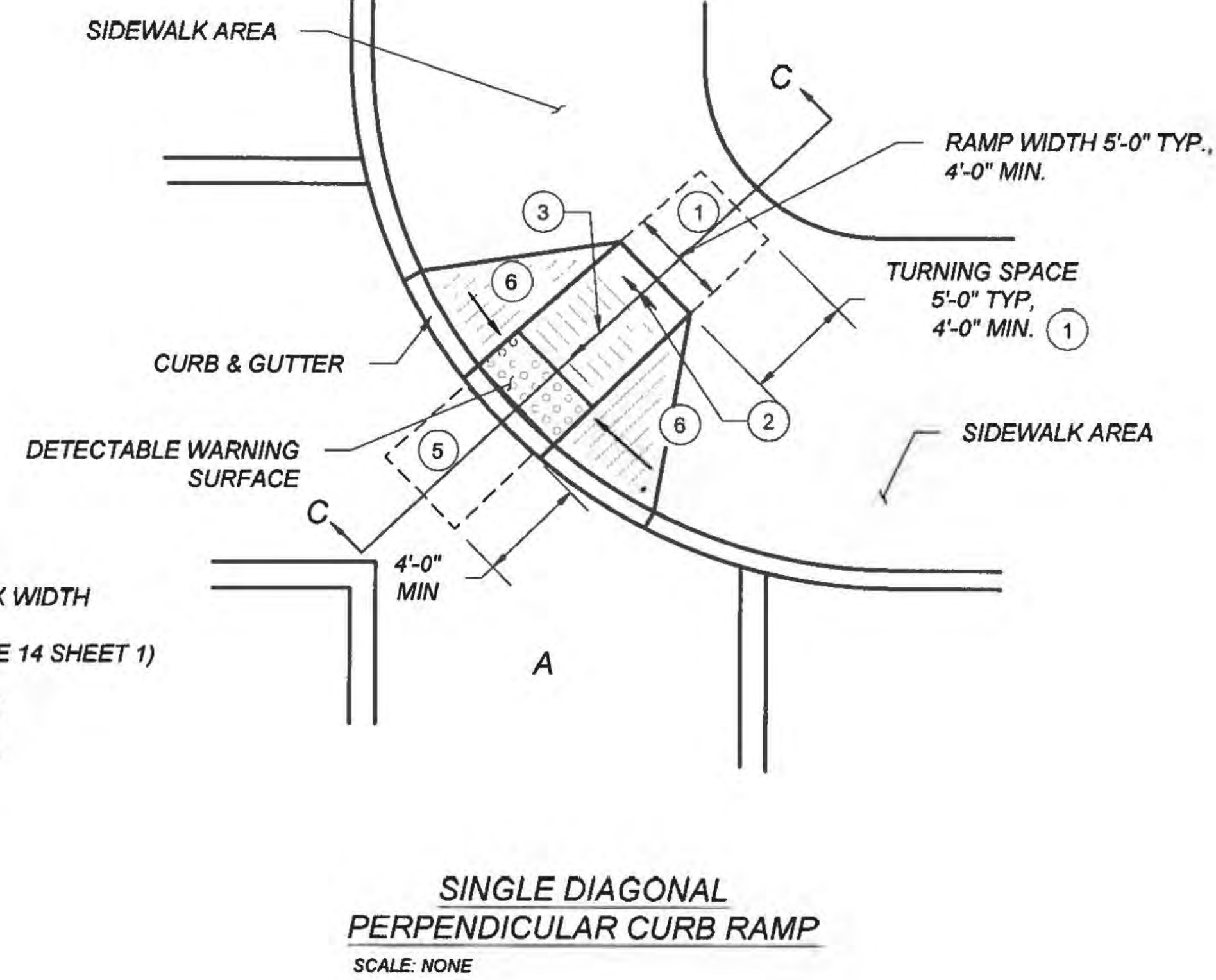
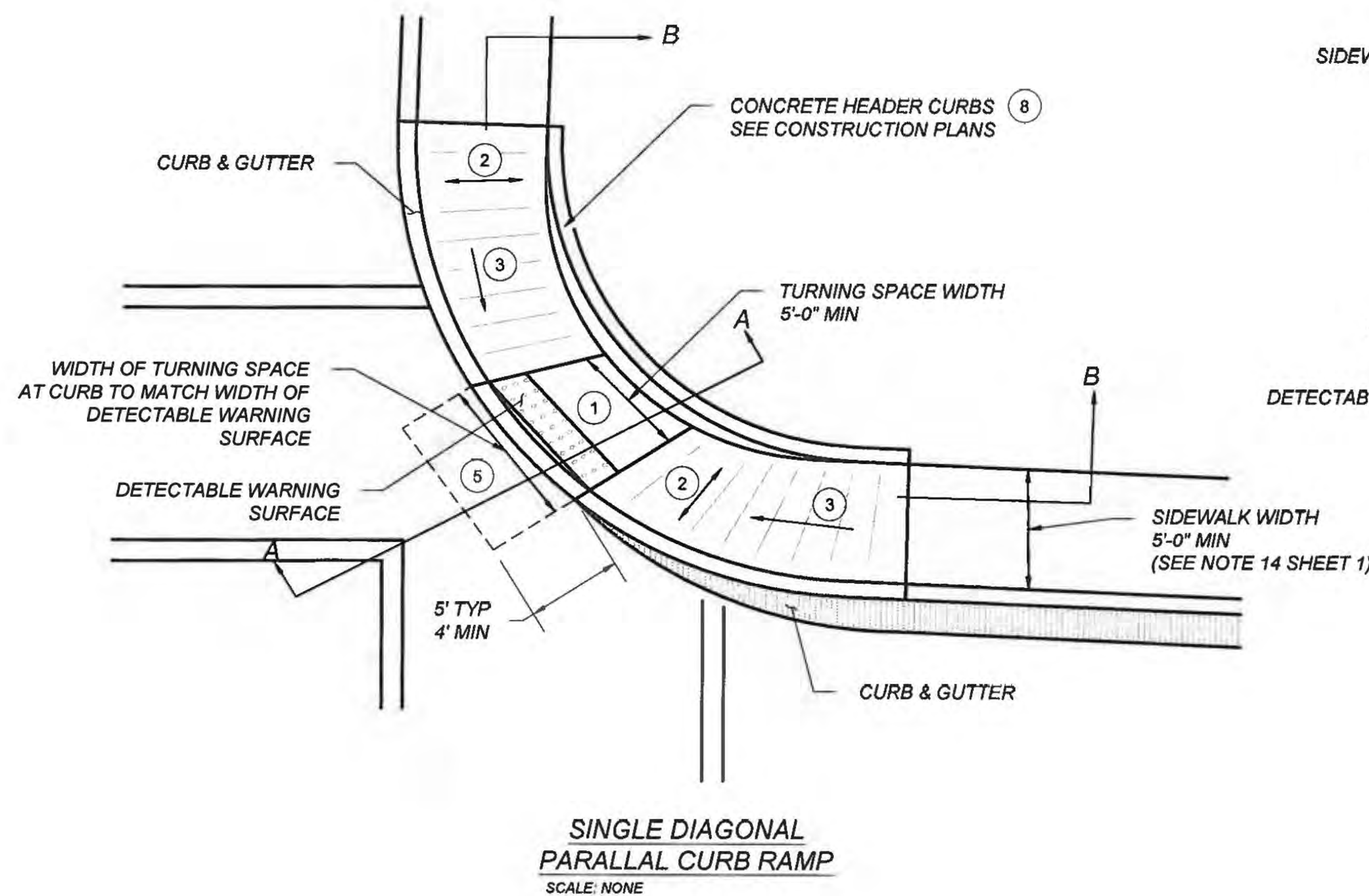
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- C IN ALTERATIONS WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT COMPLIANCE TO PROVIDE A CURB RAMP FOR EACH PEDESTRIAN CROSSING A SINGLE DIAGONAL CURB RAMP SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS.
- D CONCRETE HEADER CURBS CONSTRUCTED AS PART OF THE CURB RAMP WILL BE CONSIDERED INCIDENTAL TO ITEM NUMBER 608004 AND NO SEPARATE PAYMENT WILL BE MADE.



NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
<b>PARALLEL CURB RAMPS</b>			
APPROVED	DESIGN ENGINEER		1-13-15 DATE
608-001-3		608- 3 of 12	





**KEYED NOTES**

- ① TURNING SPACE SHALL HAVE MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.0% (RECOMMEND 1.5%). TURNING SPACE SHALL BE 4.0 FT BY 4.0 FT MIN (RECOMMEND 5.0 FT BY 5.0 FT) AT THE TOP OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, THE TURNING SPACE SHALL BE 4.0 FT MIN BY 5.0 FT MIN. THE 5.0 FT SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.
- ② CROSS SLOPE SHALL BE 2.0% MAX (RECOMMENDED 1.5%). EXCEPTION: THE CROSS SLOPE OF CURB RAMPS AT PEDESTRIAN STREET CROSSING WITHOUT YIELD OR STOP CONTROL, TRAFFIC SIGNALS DESIGNED FOR THE GREEN PHASE, AND AT MIDBLOCK PEDESTRIAN STREET CROSSING, THE CROSS SLOPE IS PERMITTED TO MATCH STREET OR HIGHWAY GRADE.
- ③ RUNNING SLOPE OF THE CURB RAMP SHALL BE 8.3% MAX (RECOMMENDED 7.0%) BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FT TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE EXTENDED AS FLAT AS MAXIMUM EXTENT PRACTICABLE.
- ④ GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
- ⑤ COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, RUN OR TURNING SPACE SHALL BE 5% MAX.
- ⑥ FLARED SIDES ARE TO HAVE A SLOPE OF 10% MAX (RECOMMEND 9%), MEASURED PARALLEL TO THE BACK OF THE CURB, UNLESS THE FLARED SIDES ARE PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, CHAINS, FENCING, OR RAILINGS.

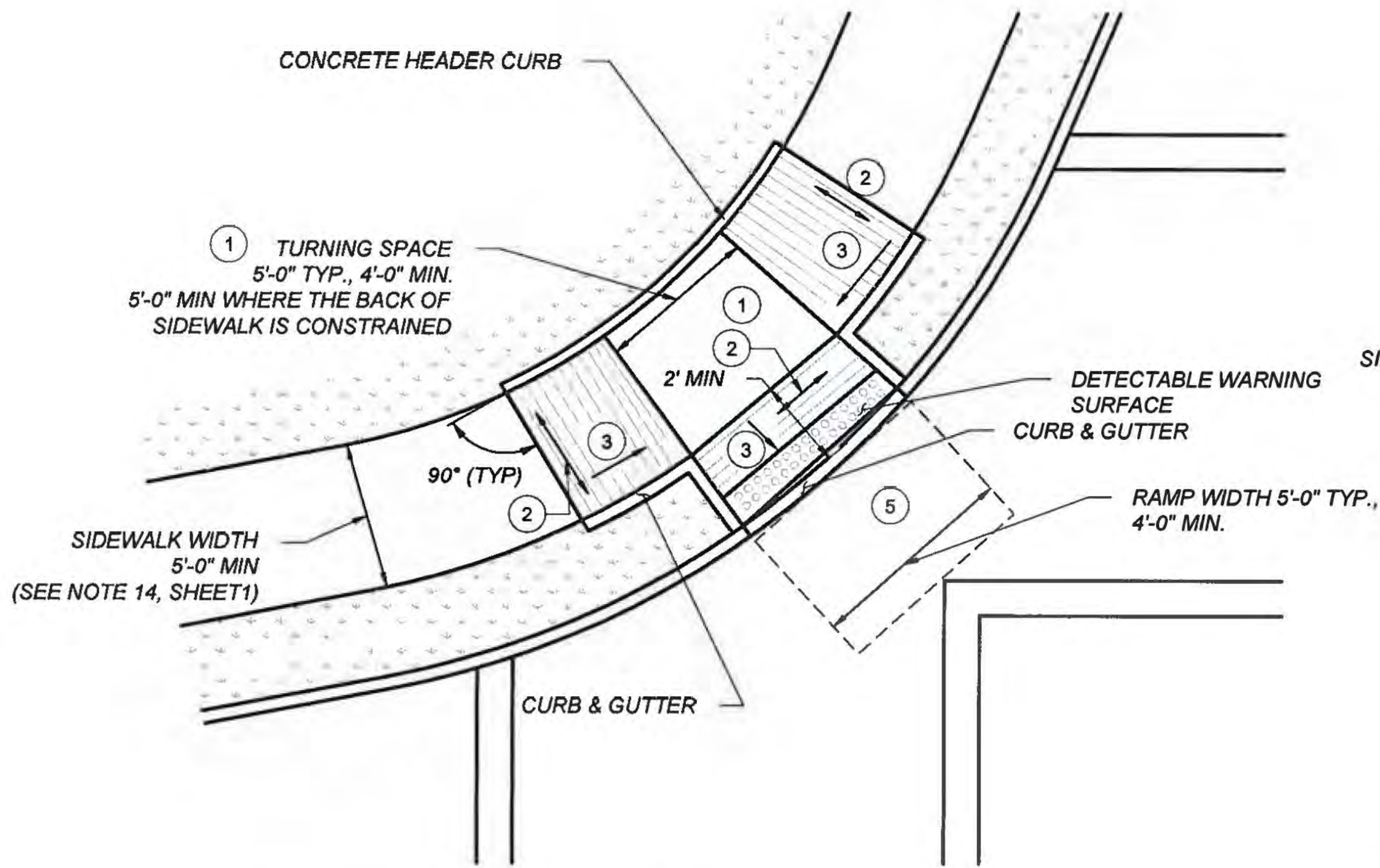
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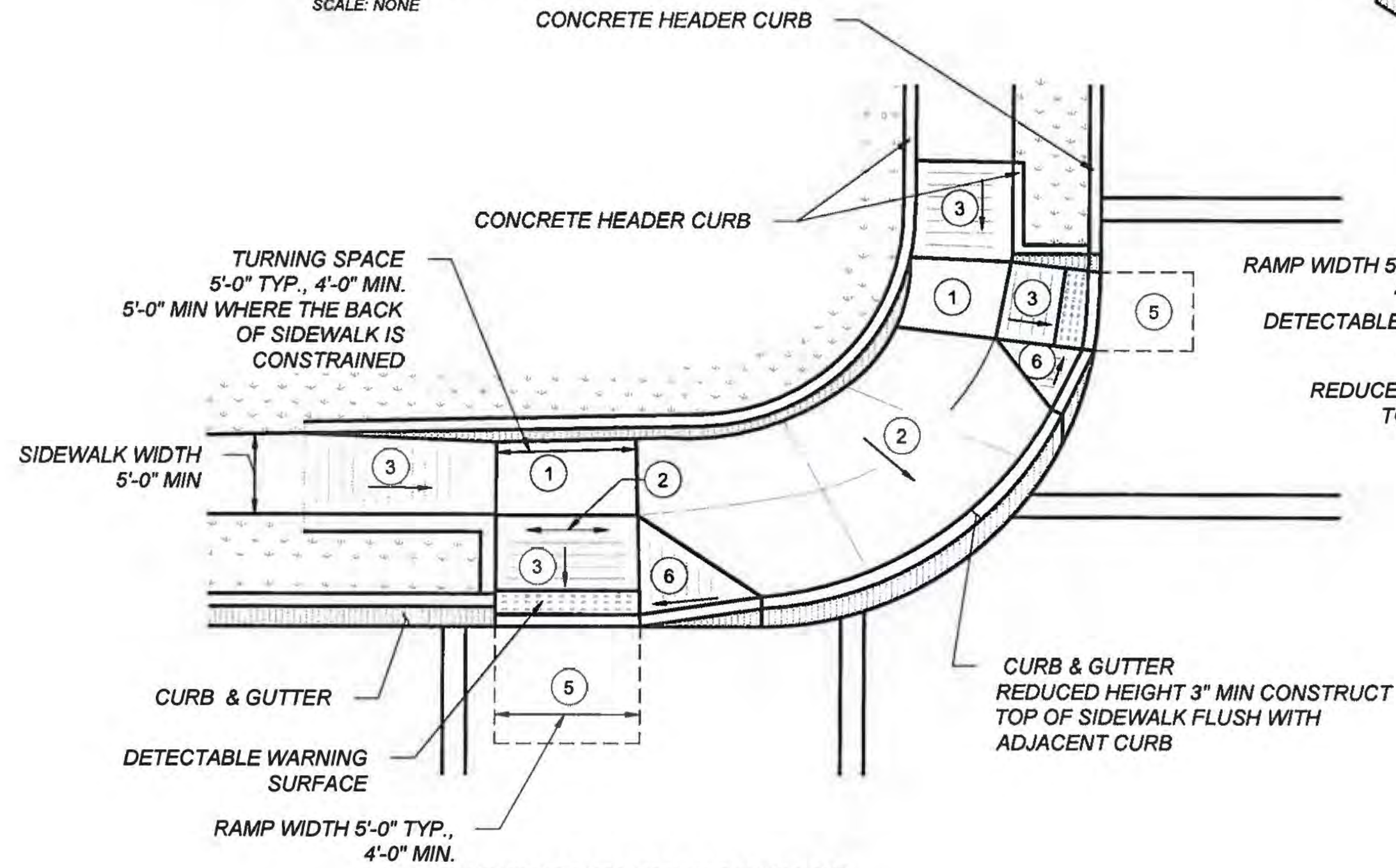
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REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
DIAGONAL CURB RAMPS			
APPROVED	<i>Michael J. Smelker</i>		1-17-15
	DESIGN ENGINEER		DATE
608-001-4			608-4 of 12





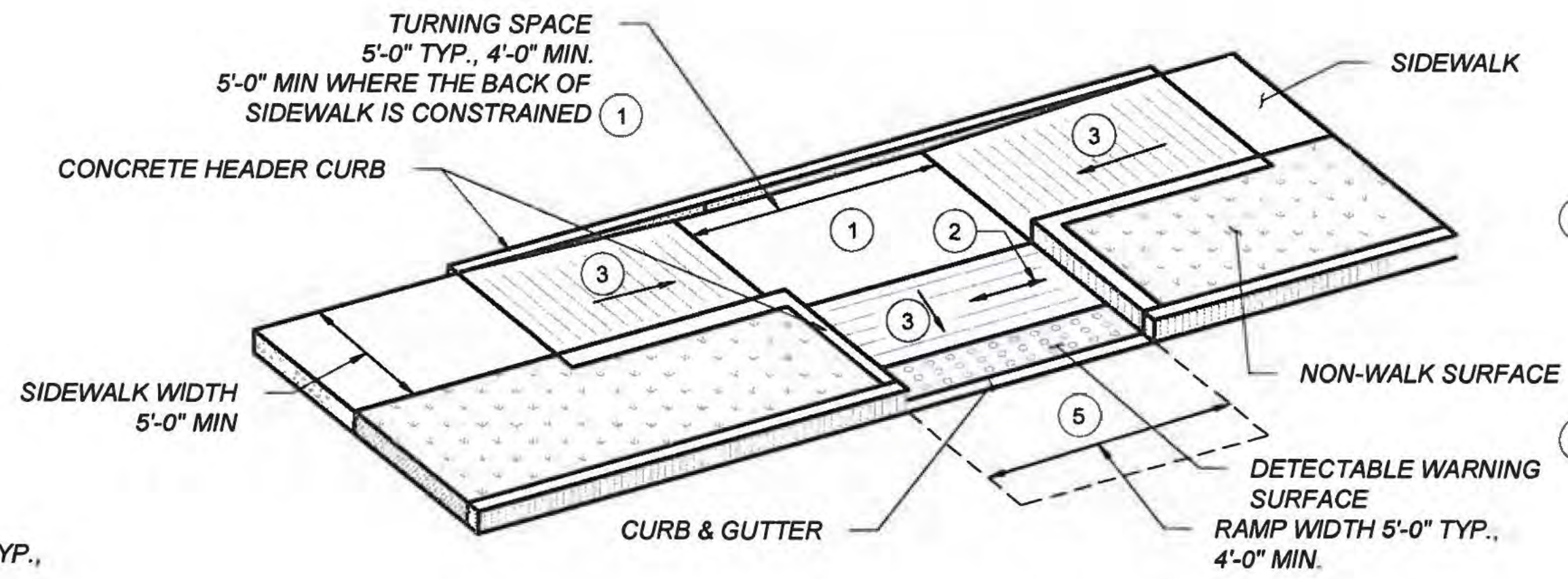
COMBINATION CURB RAMP (A)

DIAGONAL  
SCALE: NONE



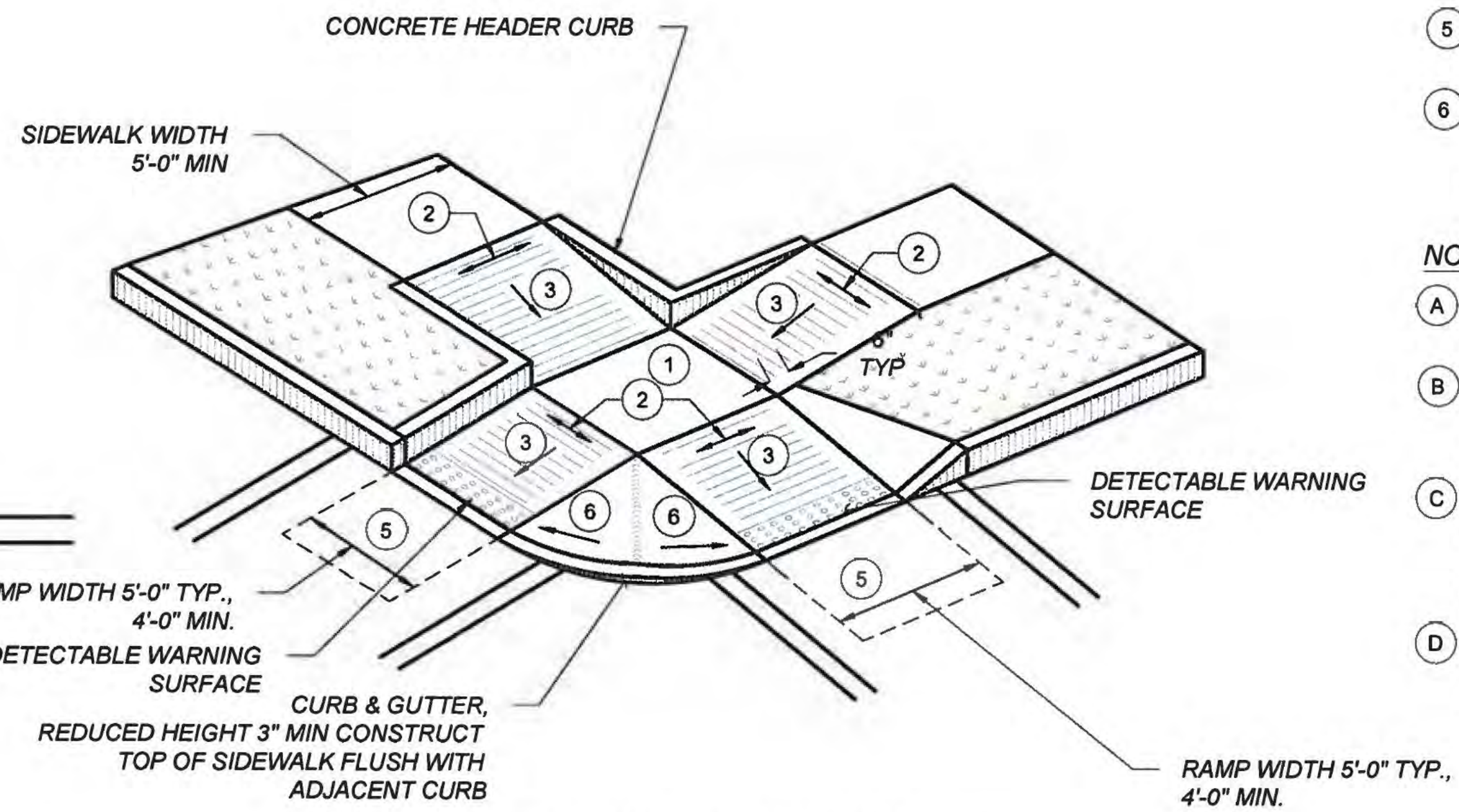
COMBINATION CURB RAMP (C)

SCALE: NONE



COMBINATION CURB RAMP (B)

SCALE: NONE



COMBINATION CURB RAMP (D)

WITH SHARED TURNING SPACE

SCALE: NONE

KEYED NOTES

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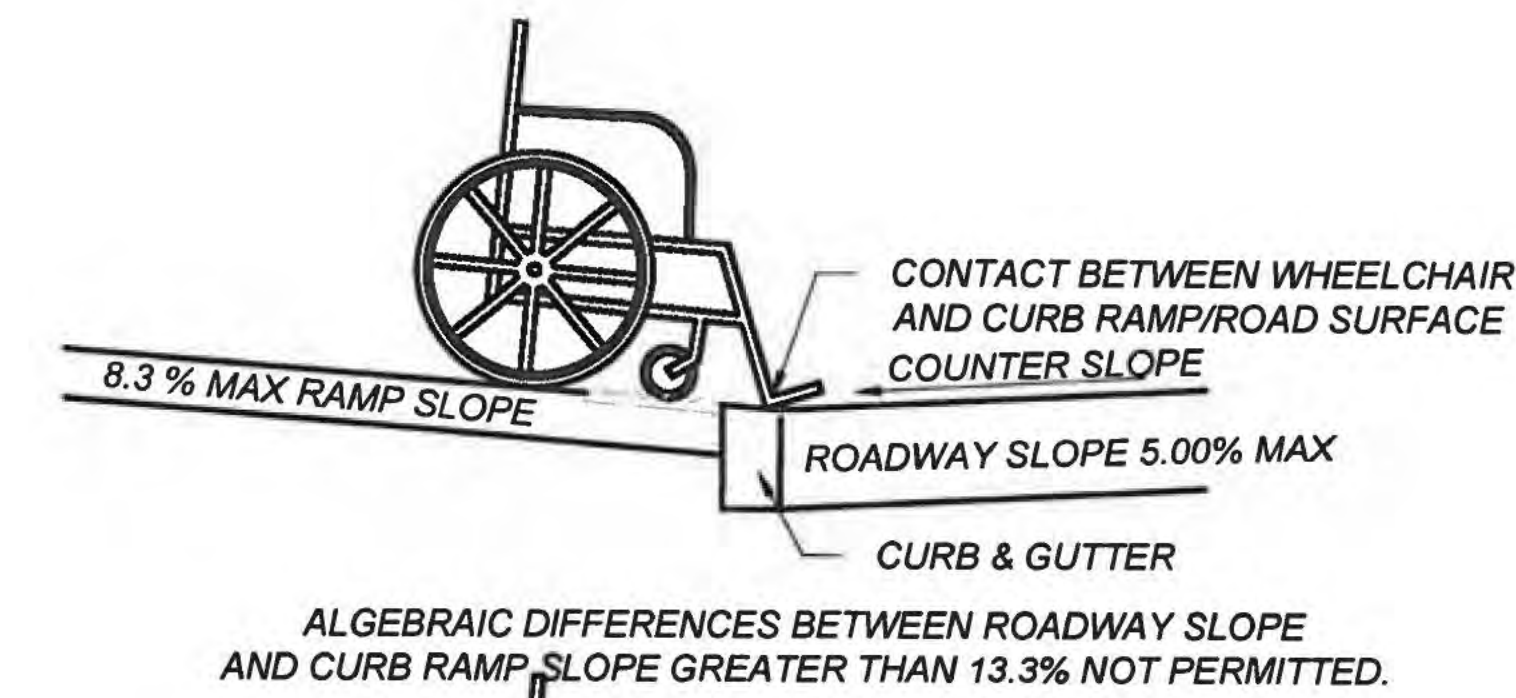
NOTES:

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- B DETAILS OF THE DETECTABLE WARNING SURFACE ARE SHOWN IN THE CONSTRUCTION PLANS AND SHEET 608-001-8/12 OF THE STANDARD DRAWINGS.
- C IN ALTERATIONS WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT COMPLIANCE TO PROVIDE A CURB RAMP FOR EACH PEDESTRIAN CROSSING A SINGLE DIAGONAL CURB RAMP SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS
- D CONCRETE HEADER CURBS CONSTRUCTED AS PART OF THE CURB RAMP WILL BE CONSIDERED INCIDENTAL TO ITEM NUMBER 608004 AND NO SEPARATE PAYMENT WILL BE MADE.

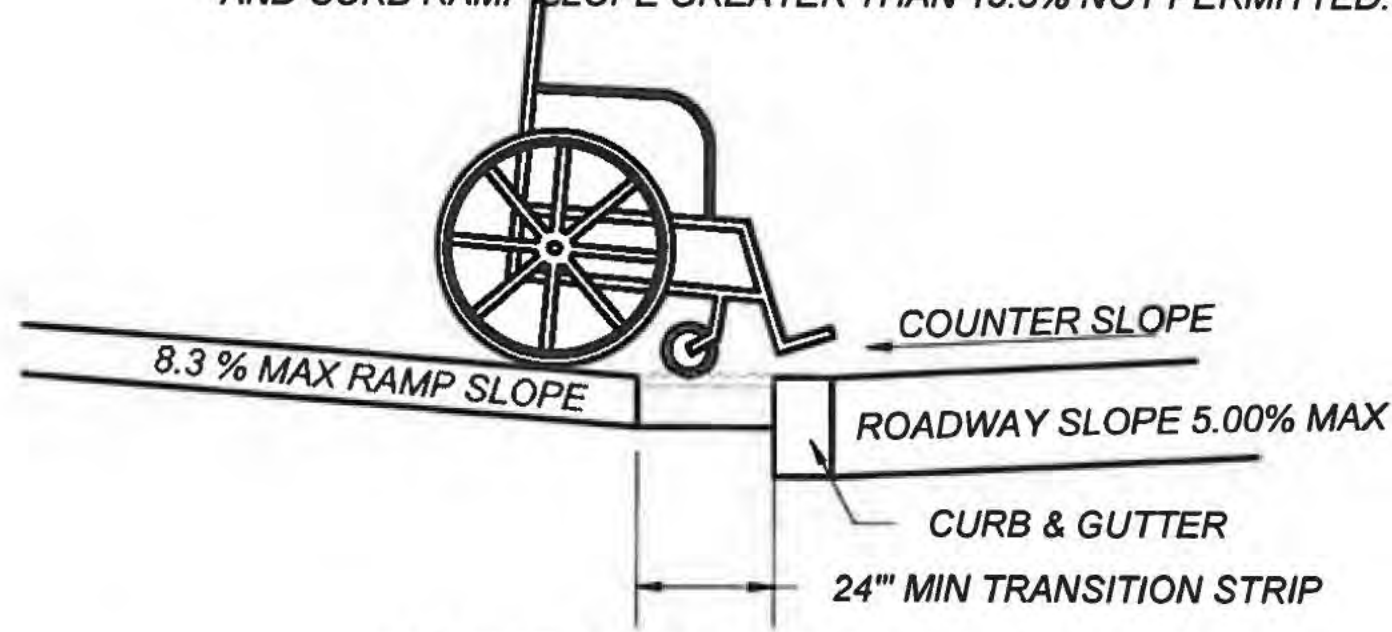


NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
COMBINATION CURB RAMPS			
APPROVED	[Signature]		1-13-15 DATE
			DESIGN ENGINEER
608-001-5			608- 5 of 12





ALGEBRAIC DIFFERENCES BETWEEN ROADWAY SLOPE AND CURB RAMP SLOPE GREATER THAN 13.3% NOT PERMITTED.



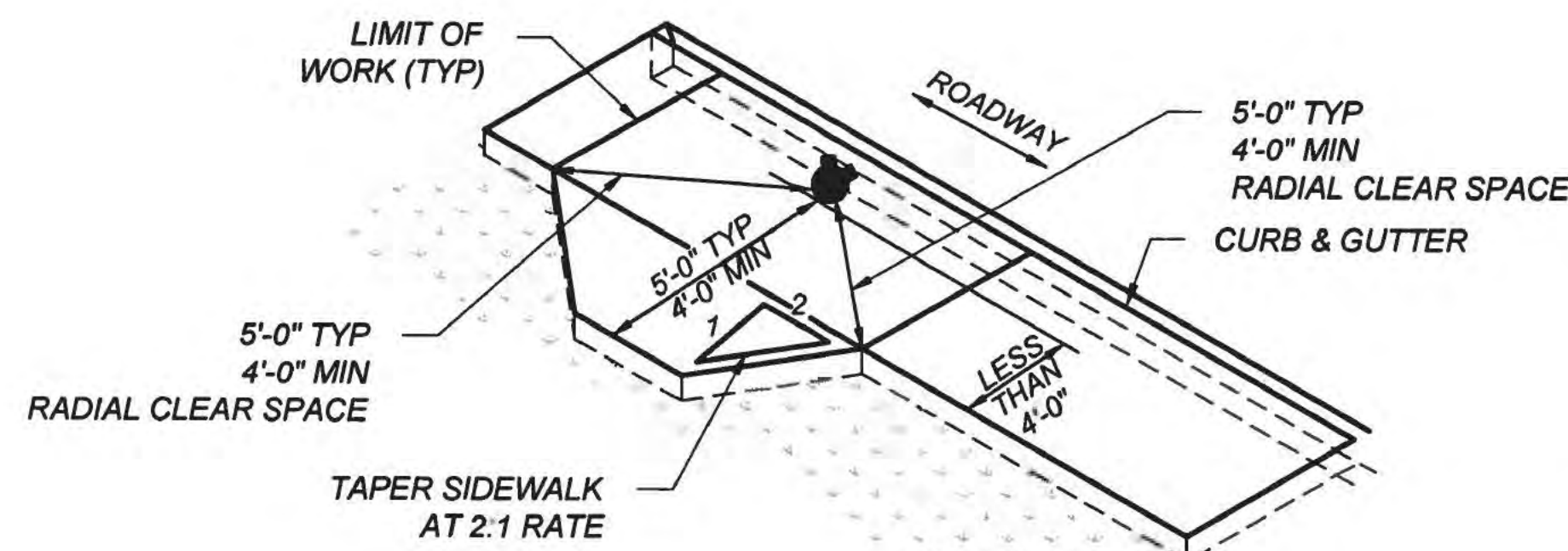
PROVIDE A 24" MIN TRANSITION STRIP IF ALGEBRAIC DIFFERENCES BETWEEN ROADWAY SLOPE AND CURB RAMP SLOPE ARE GREATER THAN 13.33%. TRANSITION STRIP SLOPE NOT TO EXCEED 5.00%

**CHANGE OF GRADE**  
**LIMITATIONS**  
SCALE: NONE

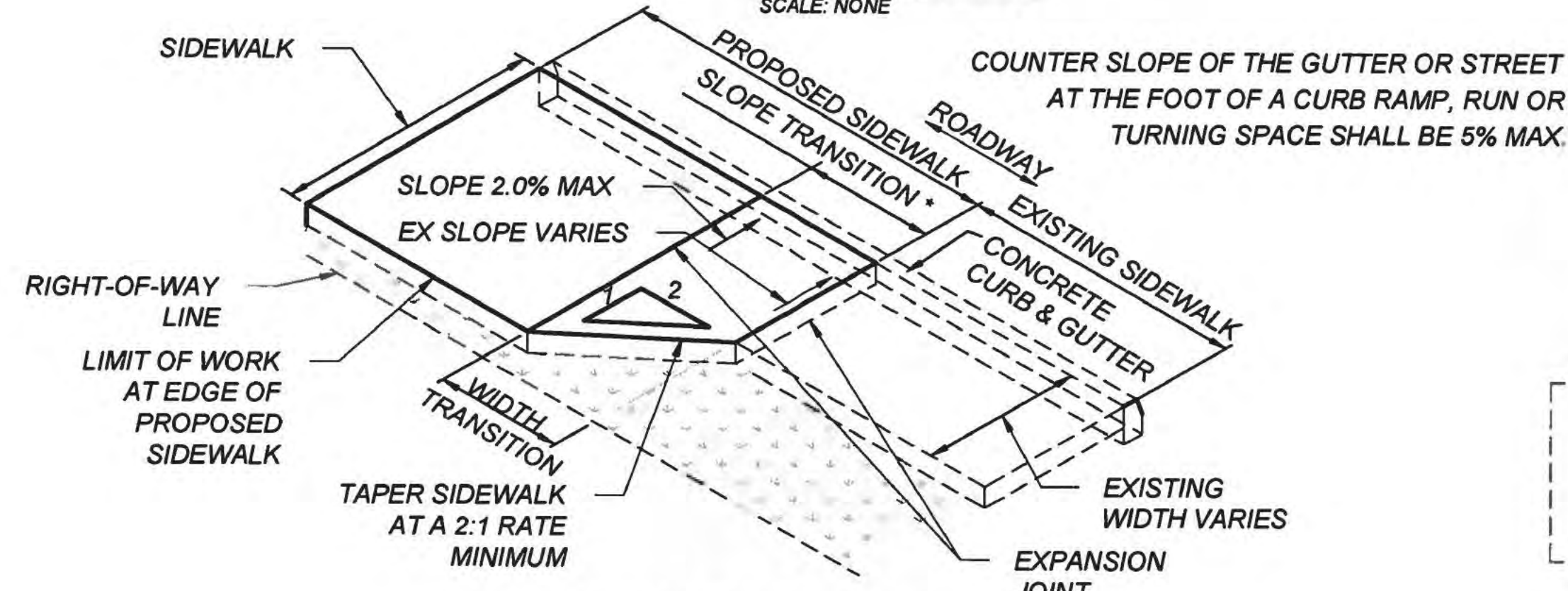


**RAMP CROSS SLOPE TRANSITION TO MATCH ROADWAY PROFILE SLOPE**  
\* SLOPES SHOWN ARE FOR ILLUSTRATION ONLY.

- NOTE:
- CROSS SLOPE OF CURB RAMP AT PEDESTRIAN STREET CROSSING WITHOUT YIELD ON STOP CONTROL, AND AT MID BLOCK PEDESTRIAN STREET CROSSING, THE CROSS SLOPE ARE PERMITTED TO EQUAL THE STREET OR HIGHWAY GRADE.
  - CROSS SLOPE IF CURB RAMP IS AT YIELD OR STOP CONTROL REQUIRES 2% MAX CROSS SLOPE AT CURB LINE



**SIDEWALK ADDITION DUE TO OBSTRUCTIONS**  
SCALE: NONE



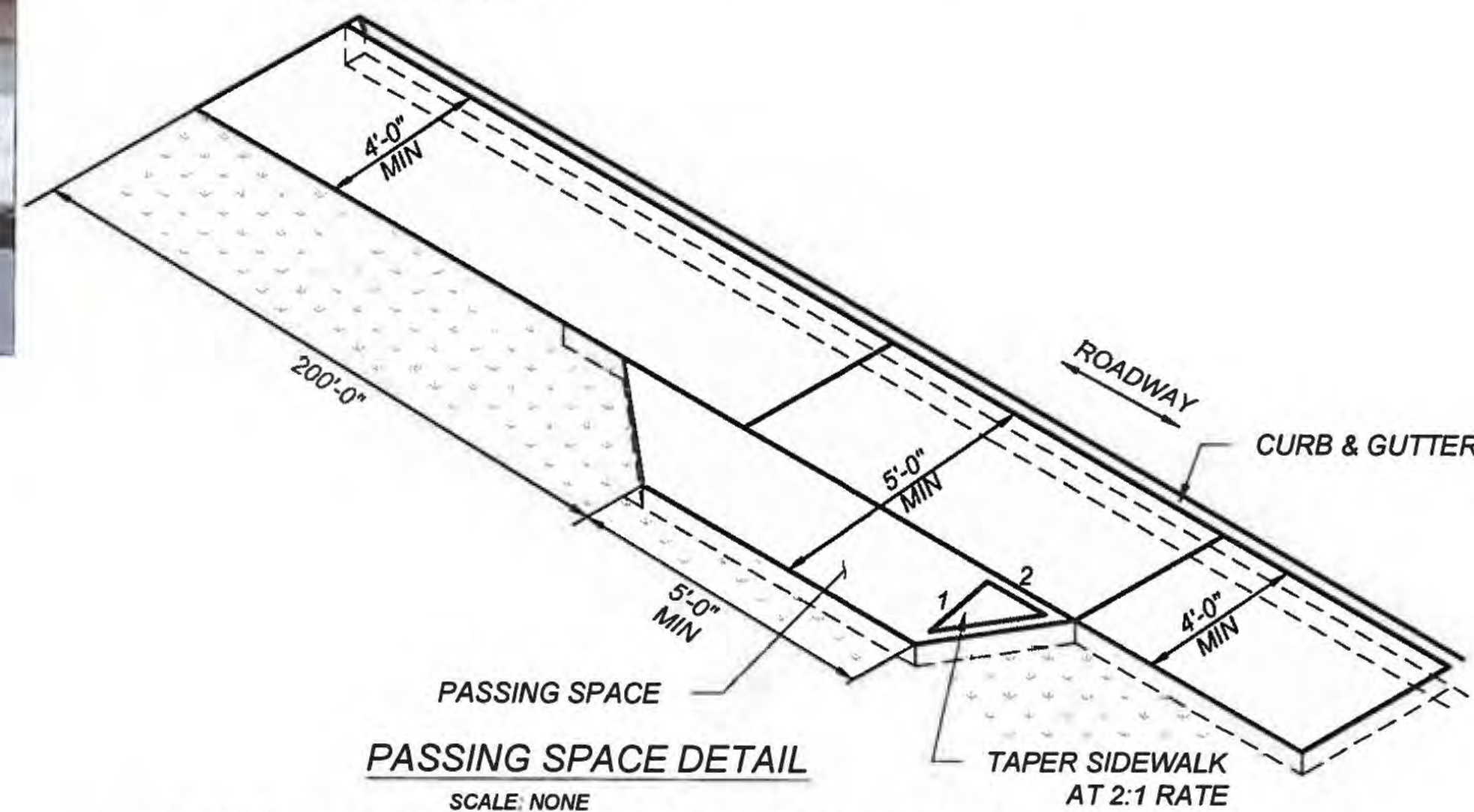
**TRANSITION TO EXISTING SIDEWALK DETAIL**  
SCALE: NONE

MINIMUM SLOPE TRANSITION LENGTH BASED ON THE DIFFERENCE OF PROPOSED SIDEWALK CROSS SLOPE AND EXISTING SIDEWALK CROSS SLOPE AT THE LOCATION OF TIE IN. THIS MINIMUM LENGTH TO BE DETERMINED BY THE FOLLOWING FORMULA:  $\Delta \% \text{ SLOPE} \times 0.5'$  OR MIN WIDTH OF 1 FT.

THE MINIMUM WIDTH TRANSITION SHALL BE CALCULATED USING THE FOLLOWING FORMULA:  $\text{CHANGE IN WIDTH} \times 2$ .

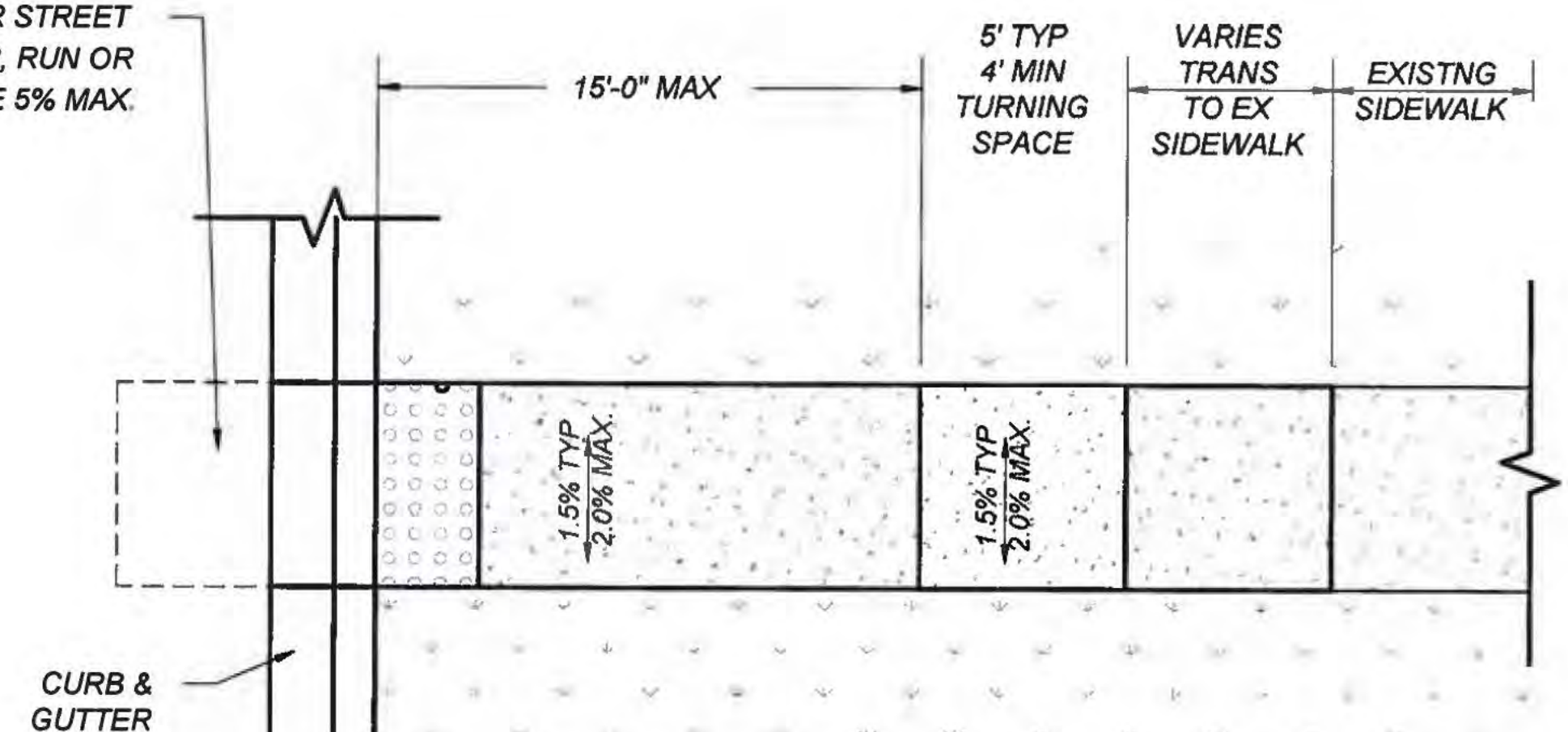
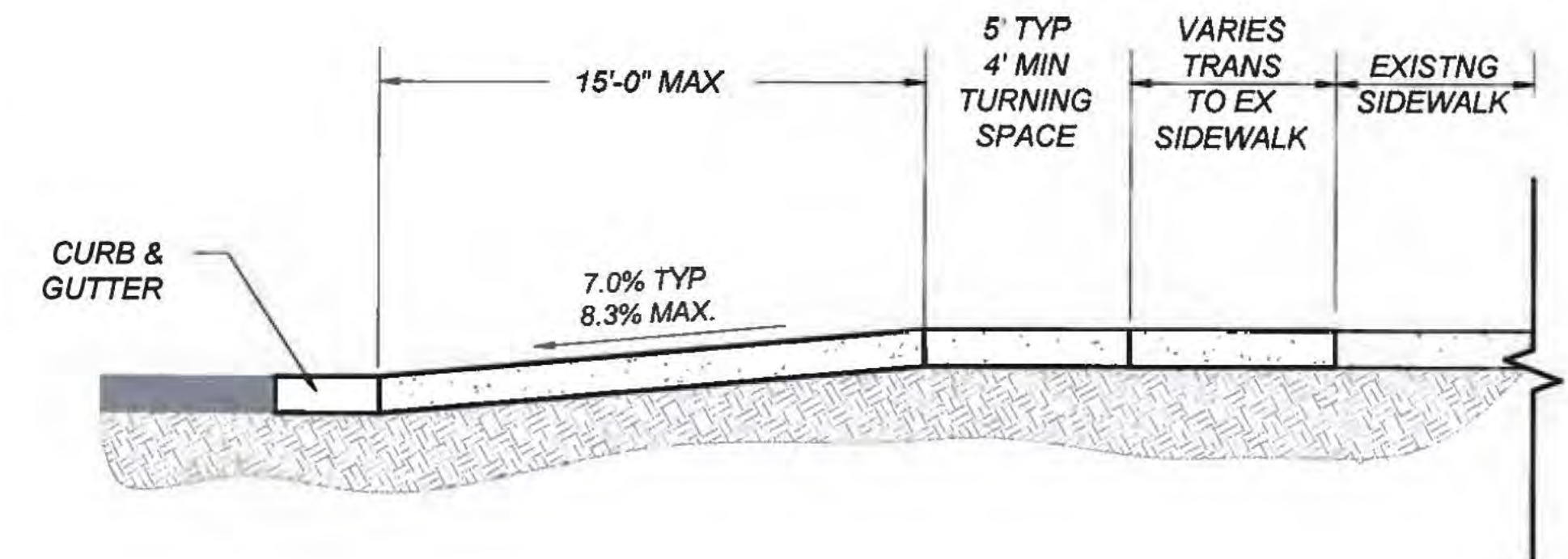
DEPEND ON WHICH IS LONGEST, EITHER THE SLOPE TRANSITION OR WIDTH TRANSITION WILL CONTROL THE LENGTH OF SIDEWALK TRANSITION.

TRANSITION AREAS SERVE AS TEMPORARY CONNECTIONS OF THE PEDESTRIAN ACCESS ROUTE. FUTURE IMPROVEMENTS TO THE REMAINING PORTION OF EXISTING SIDEWALK SHALL INCLUDE REMOVING THE TRANSITION AREA AND CONSTRUCTING A FULLY COMPLIANT SIDEWALK.



**PASSING SPACE DETAIL**  
SCALE: NONE

- WHERE THE CLEAR WIDTH OF PEDESTRIAN ACCESS ROUTES IS GREATER THAN 4ft AND LESS THAN 5ft, PASSING SPACES SHALL BE PROVIDED AT INTERVALS 200ft MAXIMUM.
- PASSING SPACES ARE PERMITTED TO OVERLAP PEDESTRIAN ACCESS ROUTES.

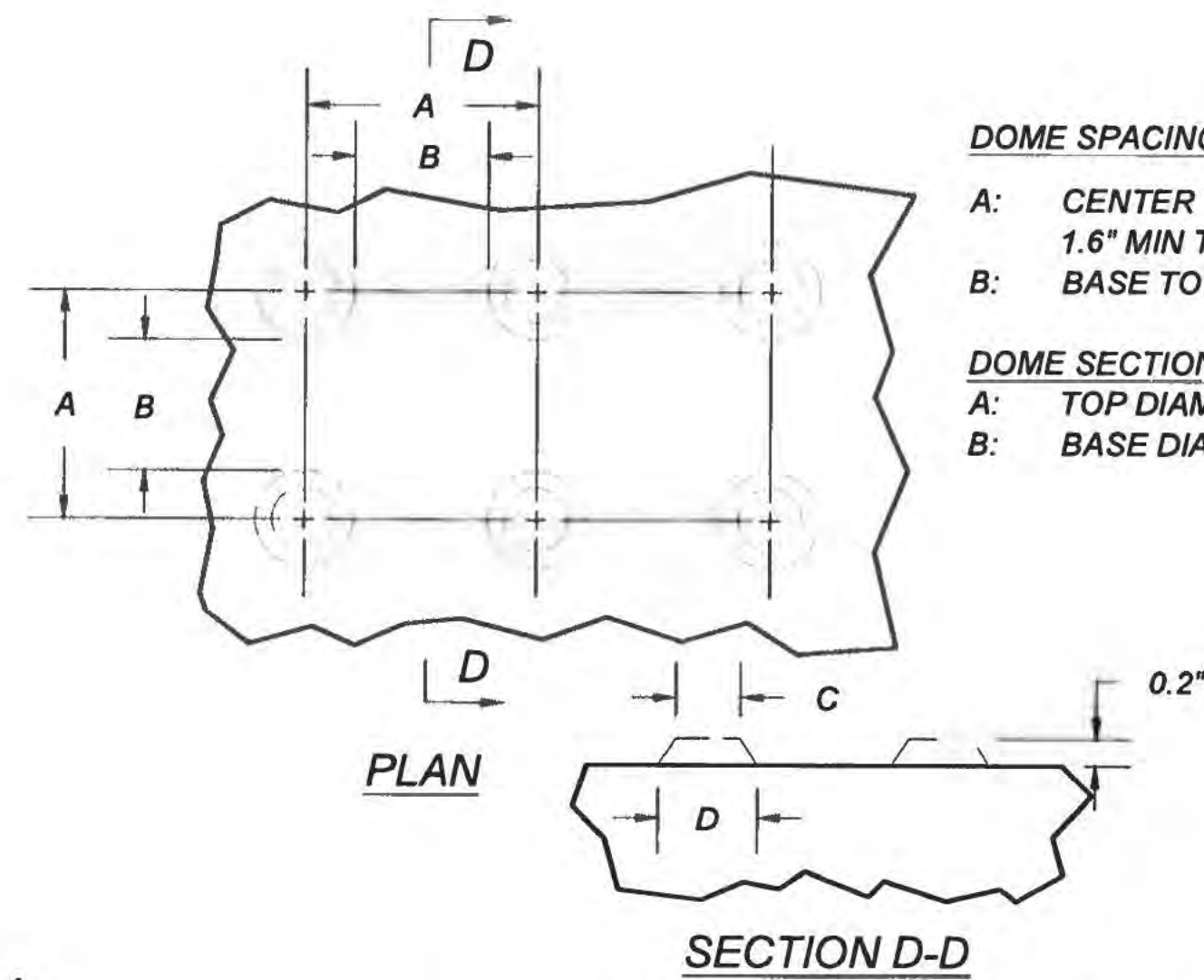
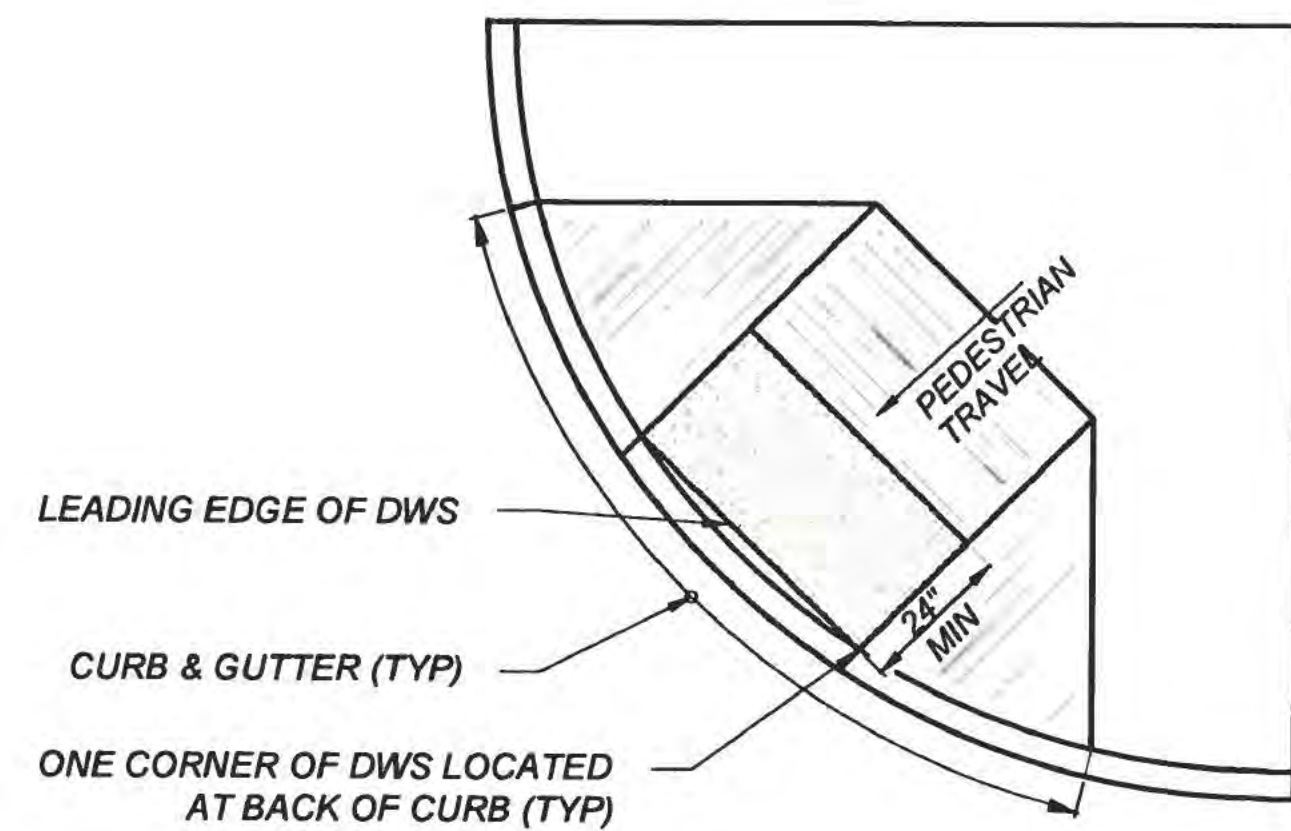


**CURB RAMP TRANSITION TO EXISTING SIDEWALK DETAIL**

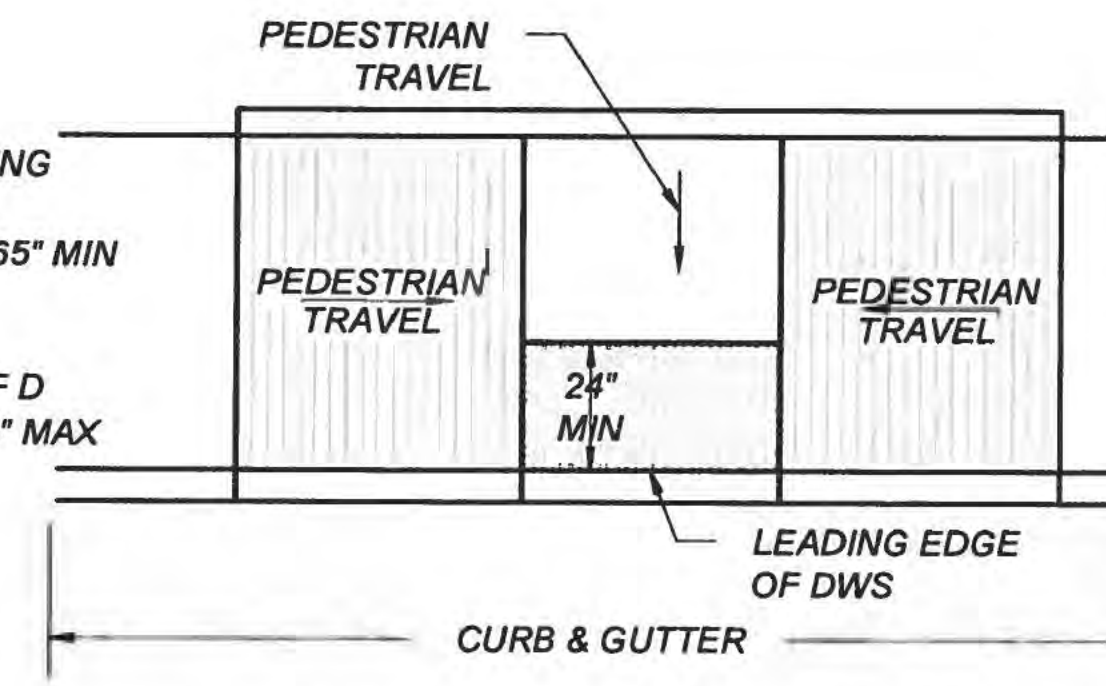


NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
<b>CURB RAMP AND SIDEWALK TRANSITION DETAILS</b>			
APPROVED	DESIGN ENGINEER		DATE 1-13-15
608-001-7		608-7 of 12	

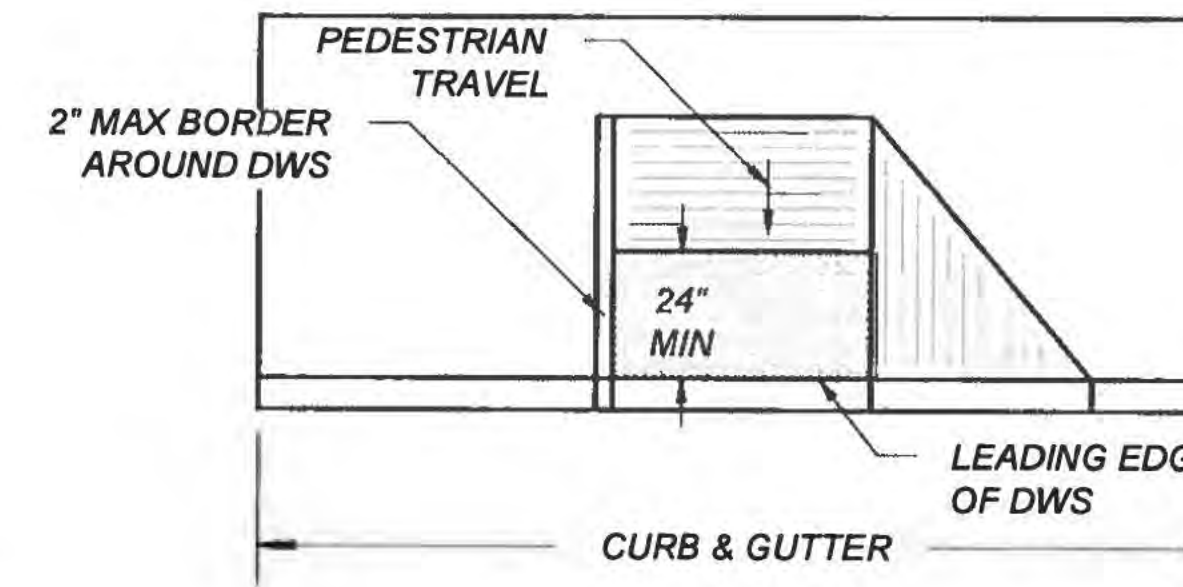




**DETECTABLE WARNING SURFACE (DWS) TRUNCATED DOME DETAILS**  
SCALE: NONE



**DETECTABLE WARNING SURFACE**  
SCALE: NONE



**DETECTABLE WARNING SURFACE**  
SCALE: NONE

**DETECTABLE WARNING SURFACE (DWS):**

A STANDARDIZED TRUNCATED DOME GRID SURFACE BUILT IN OR APPLIED TO THE PEDESTRIAN ACCESS ROUTE TO WARN VISUALLY IMPAIRED PEOPLE OF HAZARDS. THE SURFACE IS PLACED WHERE DETECTABLE WARNING SURFACE (DWS): A STANDARDIZED TRUNCATED DOME GRID SURFACE BUILT IN OR APPLIED TO THE PEDESTRIAN ACCESS ROUTE TO WARN VISUALLY IMPAIRED PEOPLE OF HAZARDS. THE SURFACE IS PLACED WHERE PEDESTRIANS WILL ENCOUNTER THE PRESENCE OF HAZARDS IN THE LINE OF TRAVEL, SUCH AS THE EDGE OF ROADWAY AND AT-GRADE RAIL CROSSINGS, INDICATING THEY SHOULD STOP AND DETERMINE THE NATURE OF THE HAZARD BEFORE PROCEEDING.

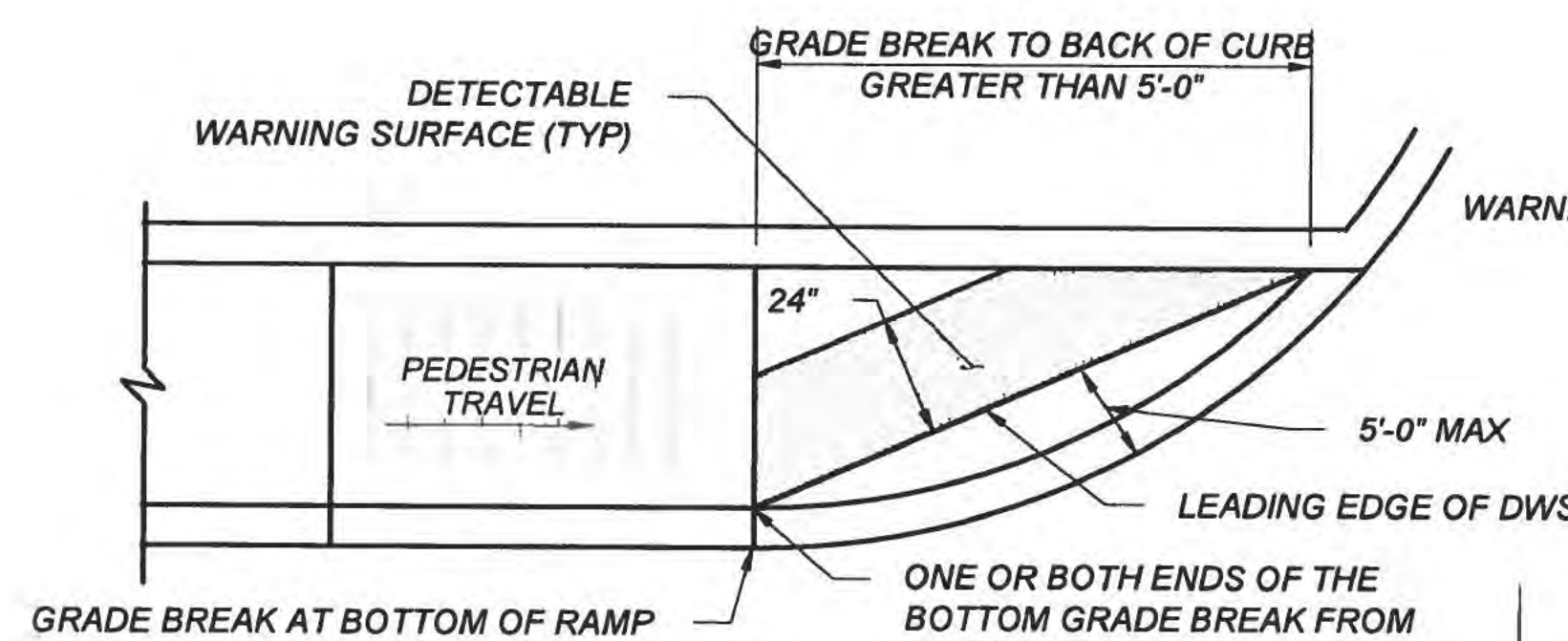
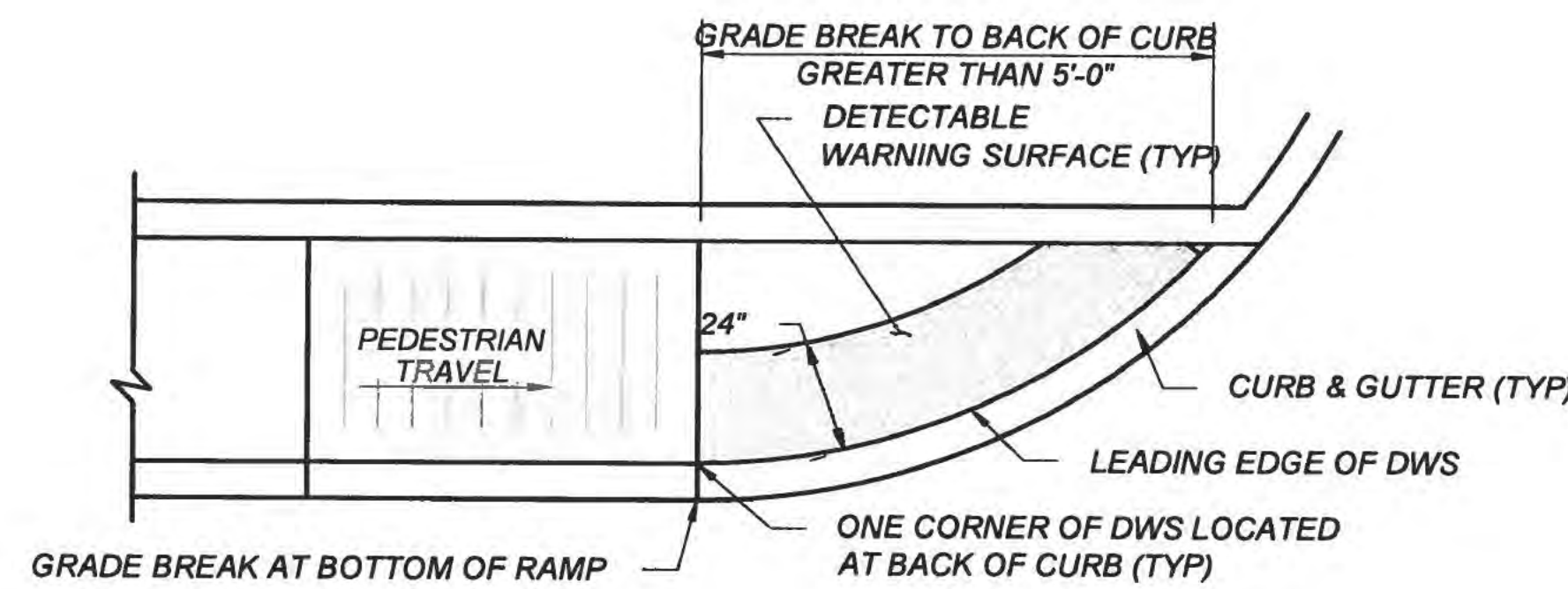
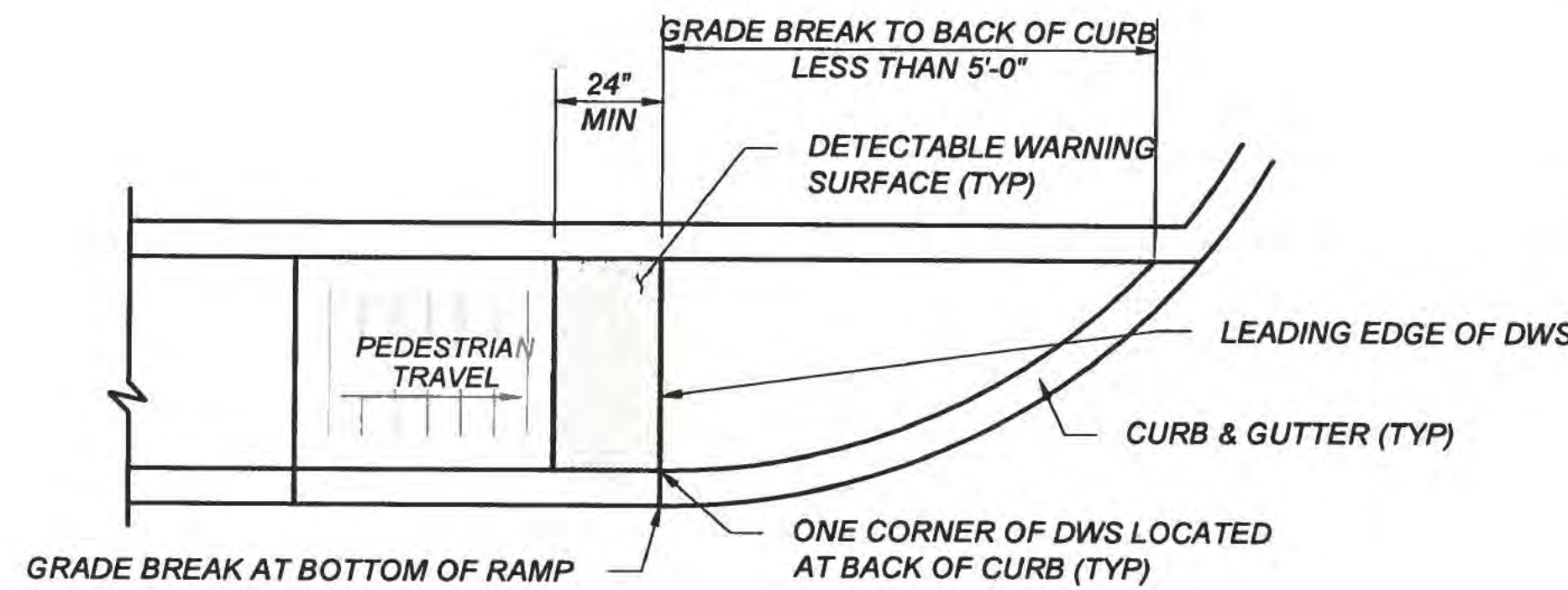
**LOCATION:**

1. THE DETECTABLE WARNING SURFACE (DWS) SHALL BE 2.0 FT MINIMUM WIDTH AND EXTENDED THE FULL WIDTH OF THE CURB RAMP RUN, TURNING SPACE, BLENDED TRANSITION, AN EXCLUDING ANY THE FLARED SIDES
2. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PERPENDICULAR TO THE GRADE BREAK AT THE BACK OF THE CURB.
3. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PARALLEL TO THE DIRECTION OF TRAVEL.
4. IF CURB AND GUTTER ARE NOT PRESENT, SUCH AS A SHARED-USE PATH CONNECTION, THE DETECTABLE WARNING SURFACE SHALL BE PLACED AT THE PAVEMENT EDGE.
5. PEDESTRIAN REFUGE ISLANDS SHALL HAVE DETECTABLE WARNINGS. DETECTABLE WARNINGS AT CUT THROUGH ISLANDS SHALL BE SEPARATED BY A 24 INCH MINIMUM LENGTH OF THE WALKWAY WITHOUT MARKINGS.

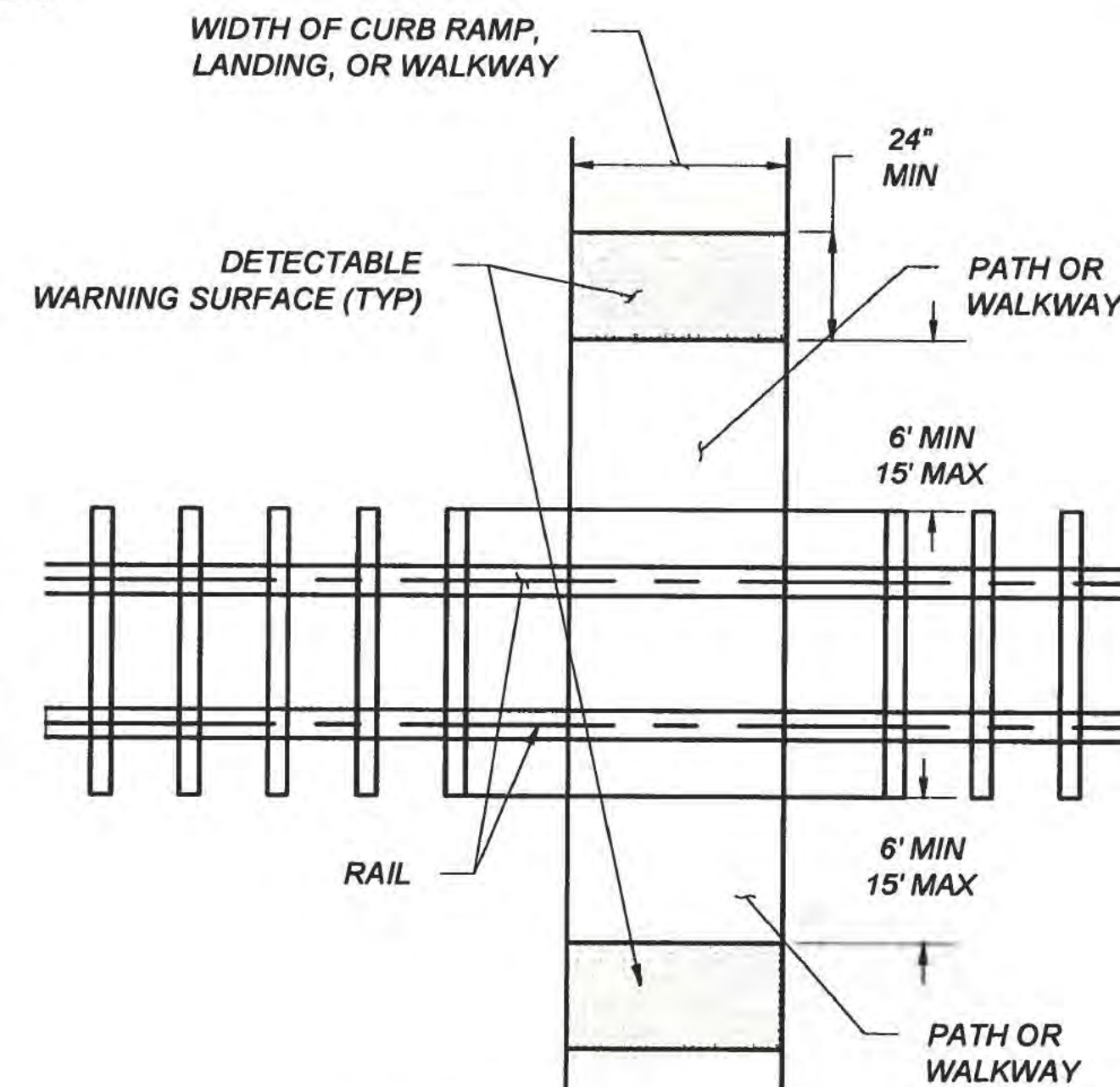
EXCEPTION: DETECTABLE WARNINGS SHALL NOT BE REQUIRED ON CUT THROUGH ISLANDS WHERE THE CROSSING IS LESS THAN 6 FT IN THE DIRECTION OF PEDESTRIAN TRAVEL

**NOTES:**

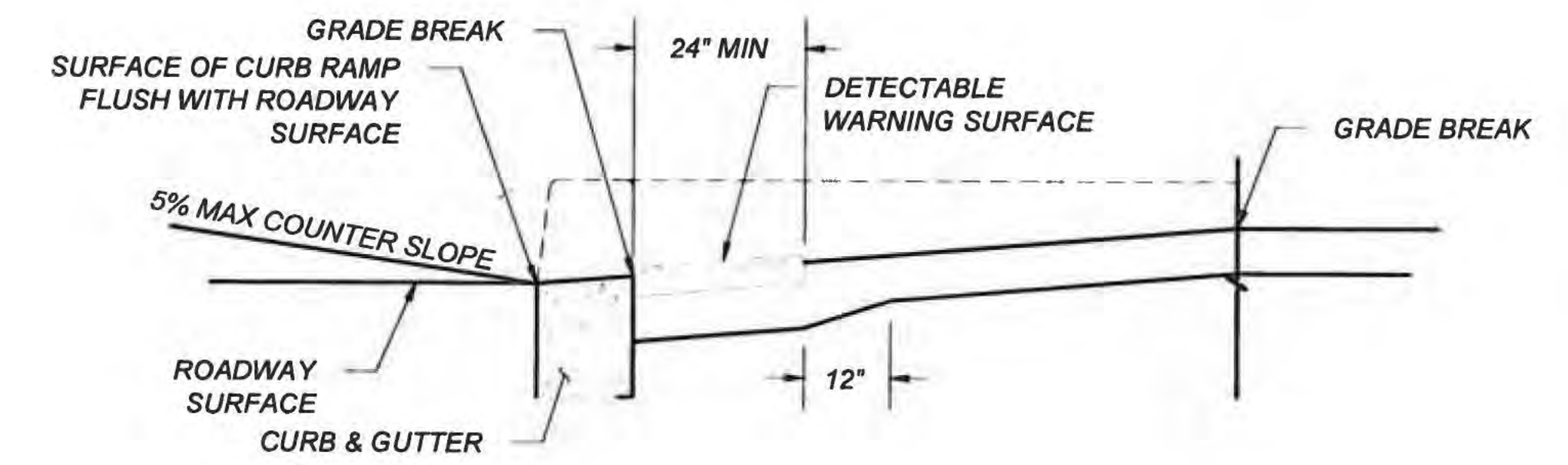
1. DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS, OR SIDEWALKS BY ALL PUBLIC AGENCIES AND BY ALL PRIVATE ORGANIZATIONS CONSTRUCTING FACILITIES FOR PUBLIC USE
2. DETECTABLE WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.
3. ALL PRODUCTS USED FOR DETECTABLE WARNING SURFACES SHALL BE ON THE DEPARTMENT'S APPROVED PRODUCT LIST.



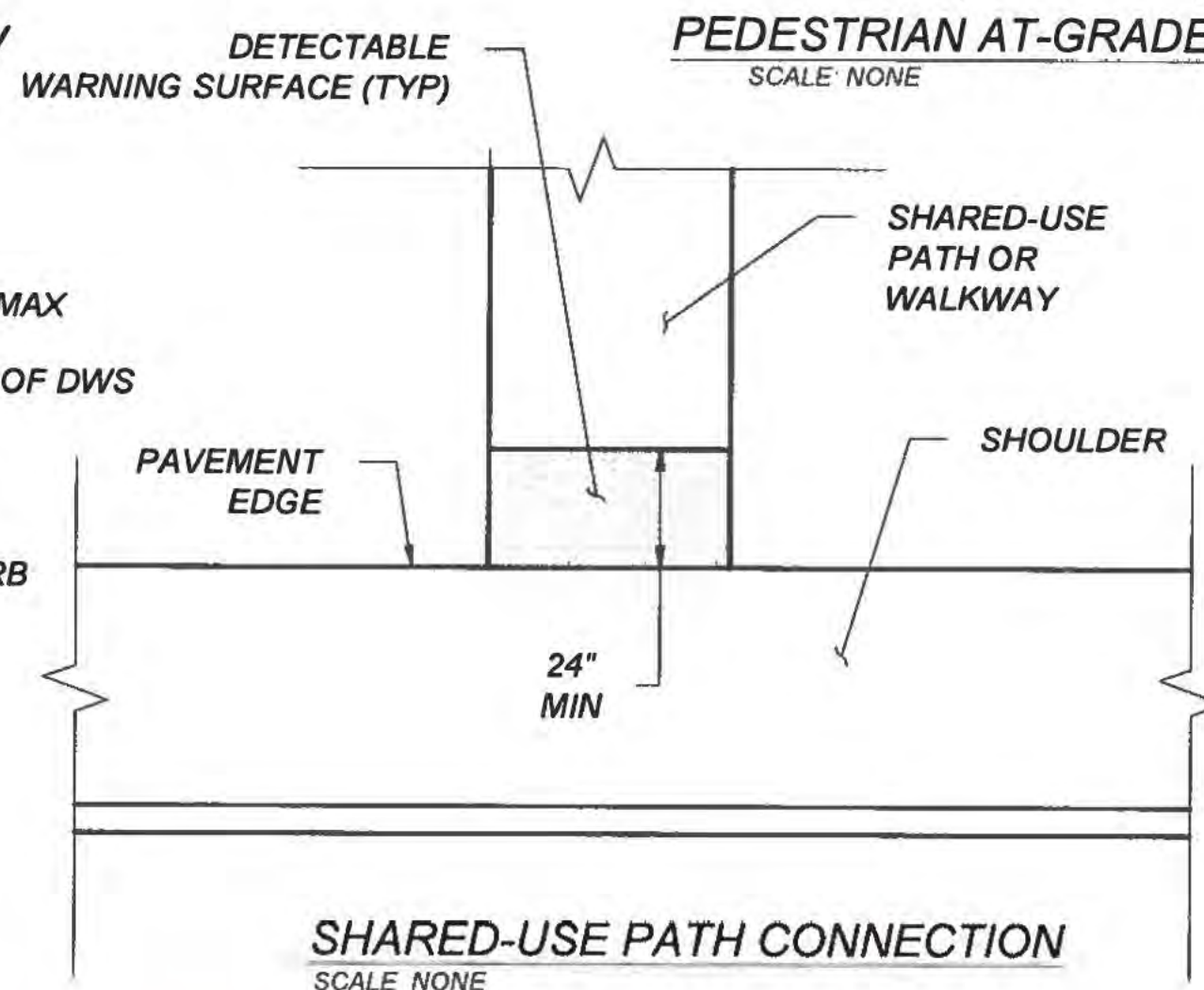
**DETECTABLE WARNING SURFACE (DWS) ON CURVED SURFACES**  
SCALE: NONE



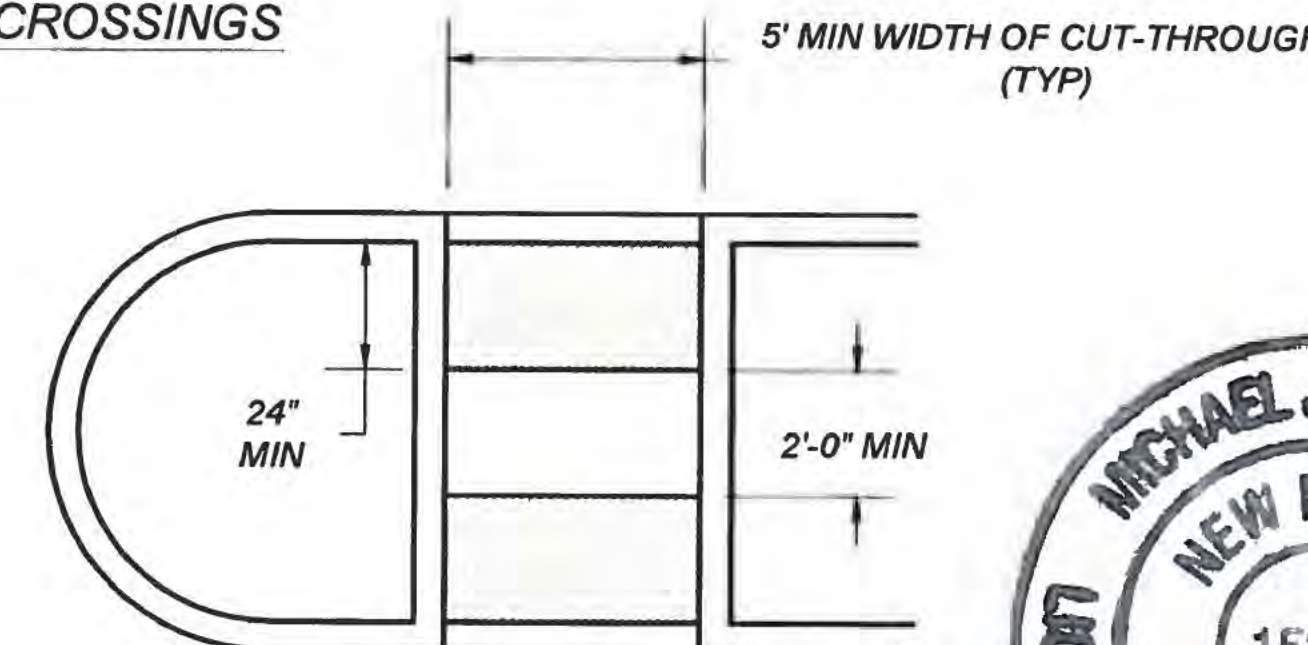
**PEDESTRIAN AT-GRADE RAIL CROSSINGS**  
SCALE: NONE



**DETECTABLE WARNING SURFACE**  
SCALE: NONE



**SHARED-USE PATH CONNECTION**  
SCALE: NONE

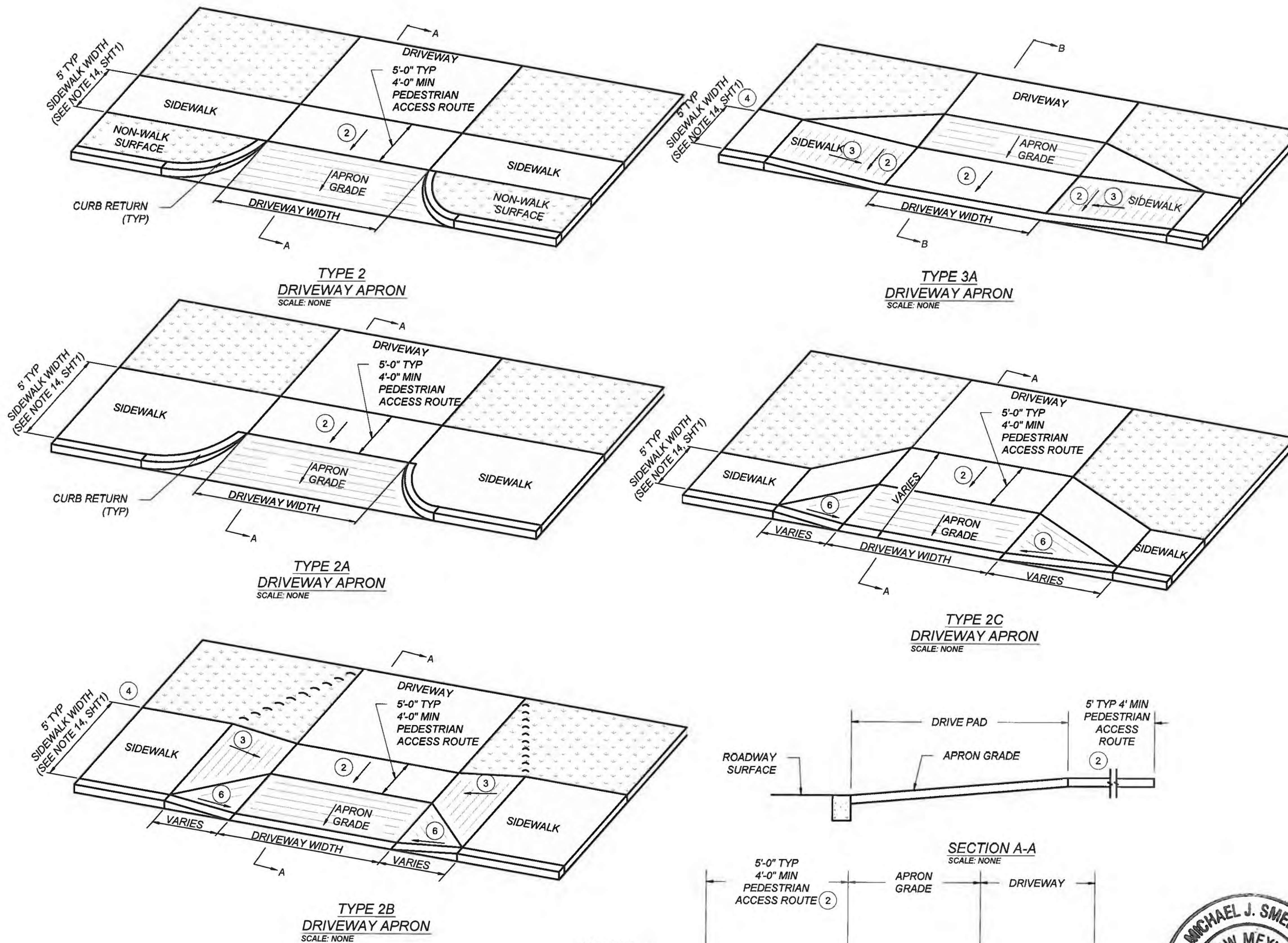


**MEDIAN CUT-THROUGH**  
SCALE: NONE  
EXCEPTION: IF THE LENGTH BETWEEN TWO DWS SURFACE IS LESS THAN 2' THEN DETECTABLE WARNING SURFACE WILL NOT BE INSTALLED



NO.	DATE	REV. BY	DESCRIPTION
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<b>DETECTABLE WARNING SURFACE</b>			
APPROVED	[Signature]		1-13-15 DATE
DESIGN ENGINEER			
608-001-8		608- 8 of 12	





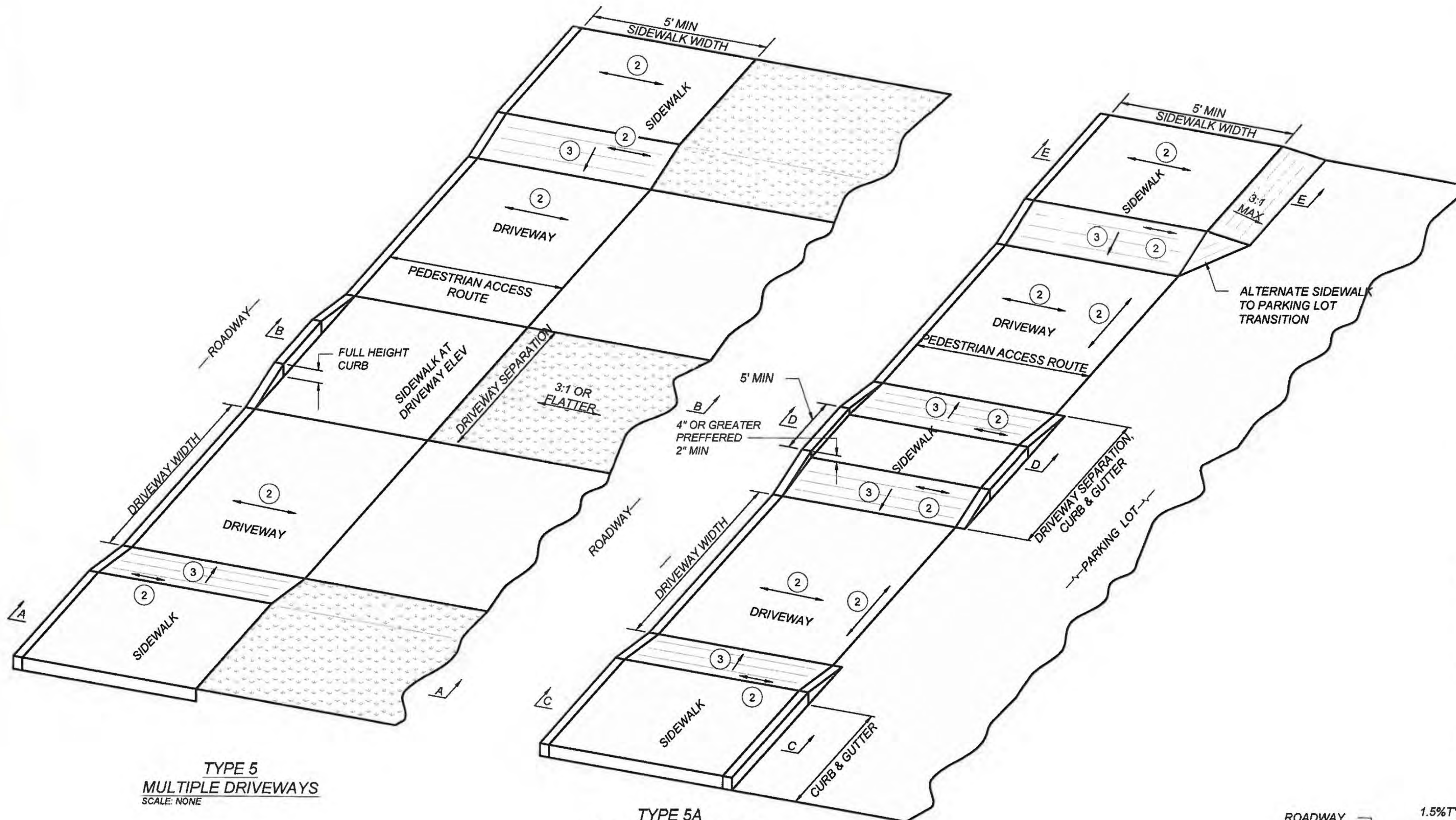
**KEYED NOTES**

- 1 TURNING SPACE SHALL HAVE MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.0% (RECOMMEND 1.5%). TURNING SPACE SHALL BE 4.0 FT BY 4.0 FT MIN (RECOMMEND 5.0 FT BY 5.0 FT) AT THE TOP OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER TURNING SPACES AND CLEAR SPACES. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, THE TURNING SPACE SHALL BE 4.0 FT MIN BY 5.0 FT MIN. THE 5.0 FT SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.
  - 2 CROSS SLOPE SHALL BE 2.0% MAX (RECOMMENDED 1.5%). EXCEPTION: THE CROSS SLOPE OF CURB RAMPS AT PEDESTRIAN STREET CROSSING WITHOUT YIELD OR STOP CONTROL, TRAFFIC SIGNALS DESIGNED FOR THE GREEN PHASE, AND AT MIDBLOCK PEDESTRIAN STREET CROSSING, THE CROSS SLOPE IS PERMITTED TO MATCH STREET OR HIGHWAY GRADE.
  - 3 RUNNING SLOPE OF THE CURB RAMP SHALL BE 8.3% MAX (RECOMMENDED 7.0%) BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FT TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAX LENGTH, THE RUNNING SLOPE OF THE CURB RAMP SHALL BE EXTENDED AS FLAT AS MAXIMUM EXTENT PRACTICABLE.
  - 4 GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
  - 5 COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, RUN OR TURNING SPACE SHALL BE 5% MAX.
  - 6 FLARED SIDES ARE TO HAVE A SLOPE OF 10% MAX (RECOMMEND 9%), MEASURED PARALLEL TO THE BACK OF THE CURB, UNLESS THE FLARED SIDES ARE PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, CHAINS, FENCING, OR RAILINGS.
- NOTES:**
- A DO NOT SCORE OR MAKE GROOVES IN SLOPED SURFACE. LINES SHOWN ON STANDARD DETAILS ARE FOR ILLUSTRATION ONLY.
  - B DETAILS OF THE DETECTABLE WARNING SURFACE ARE SHOWN IN THE CONSTRUCTION PLANS AND SHEET 608-001-8/12 OF THE STANDARD DRAWINGS.
  - C IN ALTERATIONS WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT COMPLIANCE TO PROVIDE A CURB RAMP FOR EACH PEDESTRIAN CROSSING A SINGLE DIAGONAL CURB RAMP SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS.
  - D CONCRETE HEADER CURBS CONSTRUCTED AS PART OF THE CURB RAMP WILL BE CONSIDERED INCIDENTAL TO ITEM NUMBER 608004 AND NO SEPARATE PAYMENT WILL BE MADE.



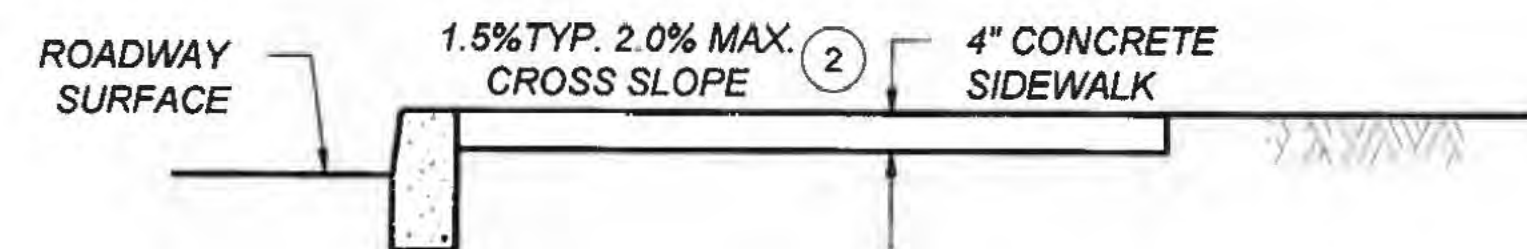
NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
<b>DRIVEWAY APRONS</b>			
APPROVED			DATE
	ENGINEER		1-18-15
608-001-9			608-9 of 12



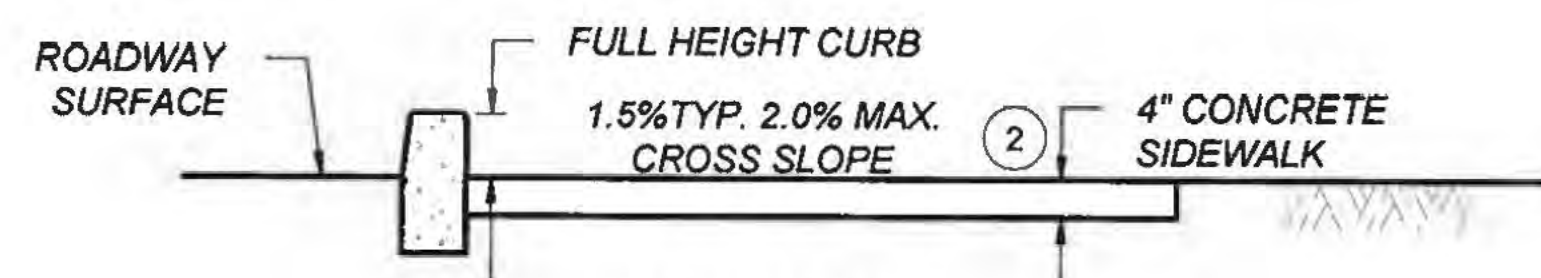


**TYPE 5**  
MULTIPLE DRIVEWAYS  
SCALE: NONE

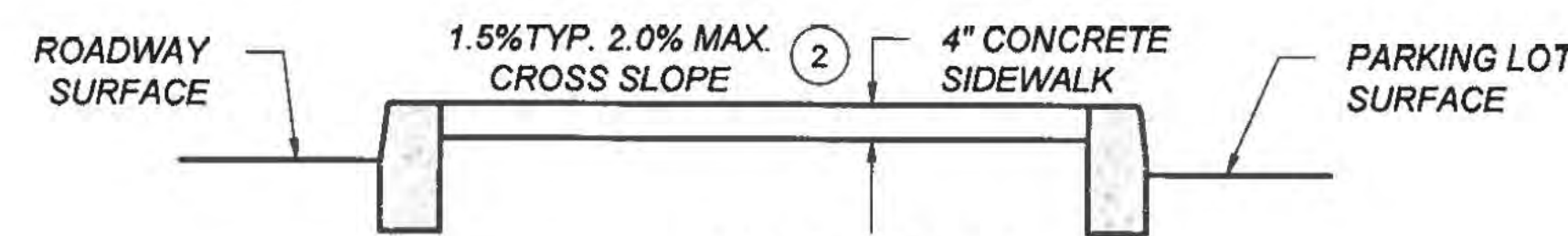
**TYPE 5A**  
MULTIPLE DRIVEWAYS  
SCALE: NONE



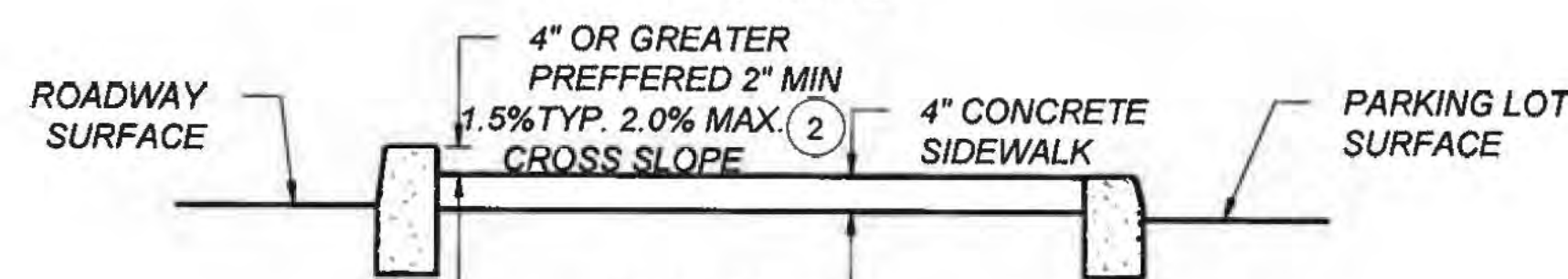
**SECTION A-A**  
SCALE: NONE



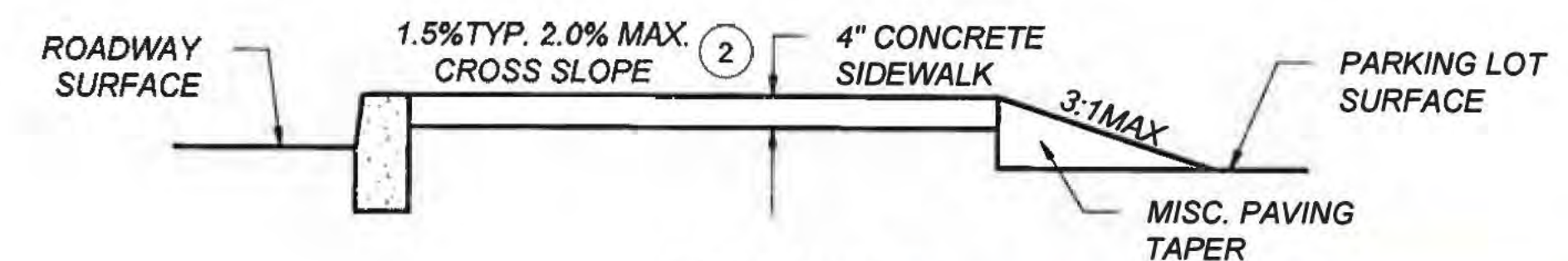
**SECTION B-B**  
SCALE: NONE



**SECTION C-C**  
SCALE: NONE



**SECTION D-D**  
SCALE: NONE



**SECTION E-E**  
SCALE: NONE

**KEYED NOTES**

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- 2 CROSS SLOPE SHALL BE 2.0% MAX (RECOMMENDED 1.5%). EXCEPTION: THE CROSS SLOPE OF CURB RAMPS AT PEDESTRIAN STREET CROSSING WITHOUT YIELD OR STOP CONTROL, TRAFFIC SIGNALS DESIGNED FOR THE GREEN PHASE, AND AT MIDBLOCK PEDESTRIAN STREET CROSSING, THE CROSS SLOPE IS PERMITTED TO MATCH STREET OR HIGHWAY GRADE.
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- 4 GRADE BREAKS AT THE TOP AND BOTTOM OF CURB RAMPS RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
- 5 COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, RUN OR TURNING SPACE SHALL BE 5% MAX.
- 6 FLARED SIDES ARE TO HAVE A SLOPE OF 10% MAX (RECOMMEND 9%), MEASURED PARALLEL TO THE BACK OF THE CURB, UNLESS THE FLARED SIDES ARE PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, CHAINS, FENCING, OR RAILINGS.

**NOTES:**

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- B DETAILS OF THE DETECTABLE WARNING SURFACE ARE SHOWN IN THE CONSTRUCTION PLANS AND SHEET 608-001-8/12 OF THE STANDARD DRAWINGS.
- C IN ALTERATIONS WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT COMPLIANCE TO PROVIDE A CURB RAMP FOR EACH PEDESTRIAN CROSSING A SINGLE DIAGONAL CURB RAMP SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS.
- D CONCRETE HEADER CURBS CONSTRUCTED AS PART OF THE CURB RAMP WILL BE CONSIDERED INCIDENTAL TO ITEM NUMBER 608004 AND NO SEPARATE PAYMENT WILL BE MADE.



NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
<b>DRIVEWAY APRONS</b>			
APPROVED: <i>[Signature]</i> DESIGN ENGINEER			DATE: 1-13-15
608-001-10		608-10 of 12	



**ACCESSIBLE ROUTES:**

ACCESSIBLE EXTERIOR ROUTES SHALL BE PROVIDED FROM TRANSPORTATION STOPS, ACCESSIBLE PARKING AND ACCESSIBLE PASSENGER LOADING ZONES AND PUBLIC SIDEWALKS TO THE ACCESSIBLE BUILDING ENTRANCE THEY SERVE. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE OR FACILITY

**ACCESSIBLE PARKING REQUIREMENTS:**

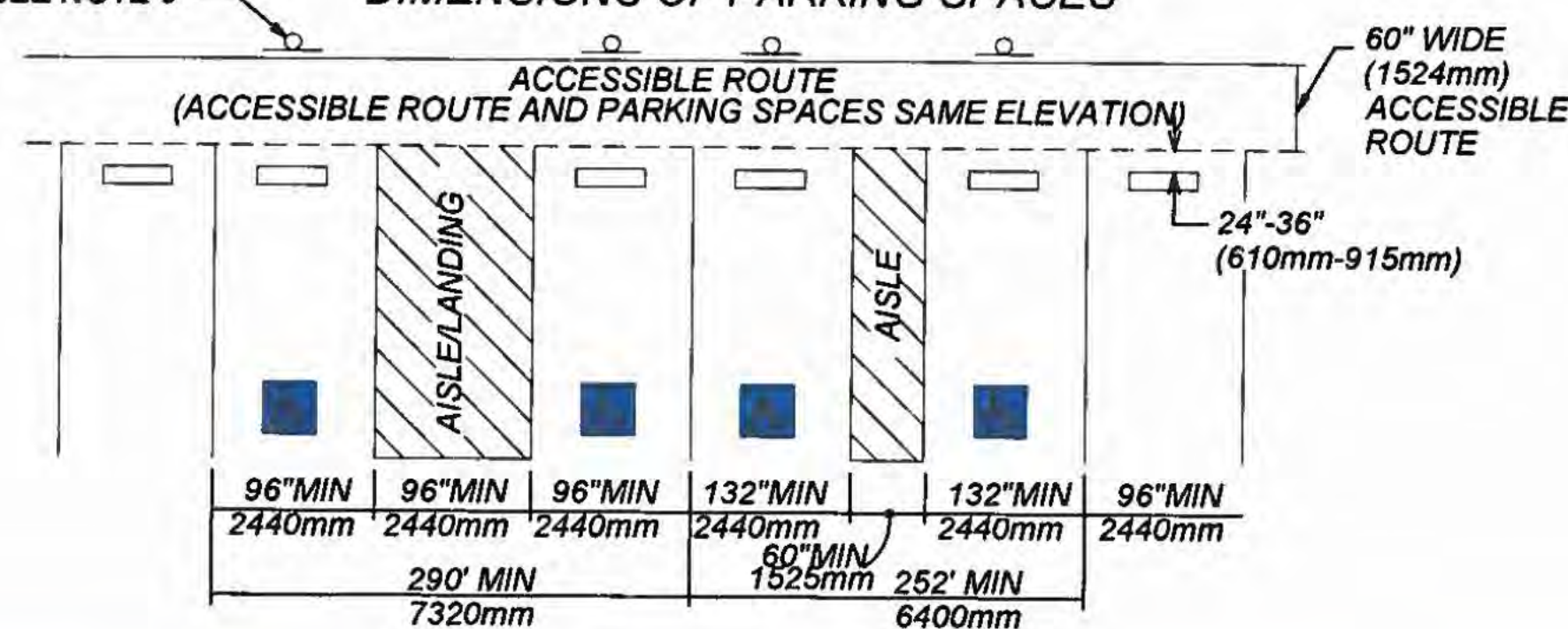
1. EACH FACILITY SHALL PROVIDE ACCESSIBLE PARKING SPACES IN COMPLIANCE WITH THE FOLLOWING TABLE:

**NUMBER OF ACCESSIBLE PARKING SPACES**

TOTAL PARKING SPACES	TOTAL REQUIRED ACCESSIBLE PARKING SPACES	NUMBER REQUIRED TO BE VAN ACCESSIBLE
1-25	1	1
26-35	2	1
36-50	3	1
51-100	4	1
101-300	8	2
301-500	12	2
501-800	16	3
801-1000	20	4
OVER 1,000	20 SPACES PLUS 1 SPACE FOR EVERY 100 SPACES, OR FRACTION THEREOF, OVER 1,000	1 OF EVERY 6 ACCESSIBLE PARKING SPACES, OR FRACTION THEREOF

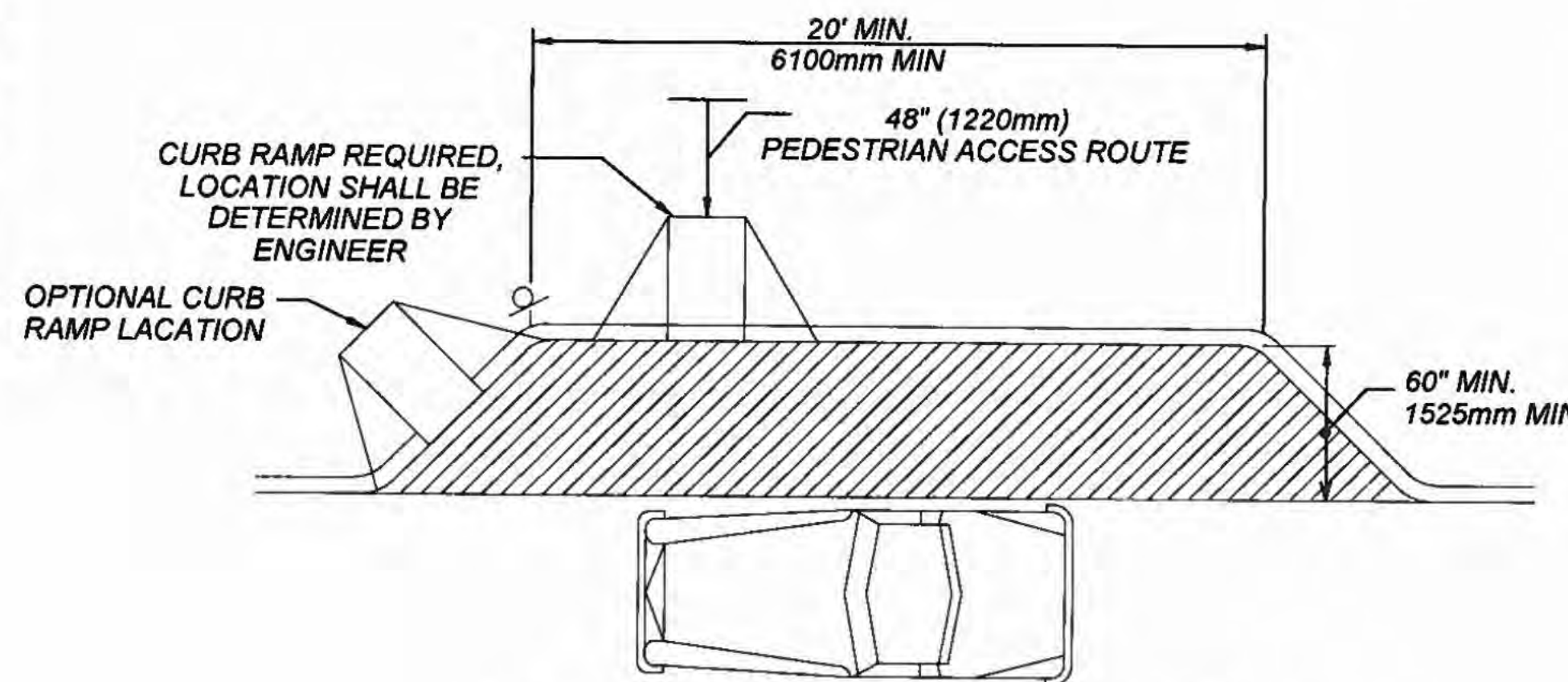
- CAR SPACES SHALL BE 96 INCHES (2440 mm) WIDE MINIMUM AND VAN PARKING SPACES SHALL BE 132 INCHES AND SHALL HAVE AN ADJACENT ACCESS AISLE.
- ACCESS AISLES SERVING PARKING SPACES SHALL CONNECT TO THE BUILDING OR FACILITY ENTRANCE BY AN ACCESSIBLE SIDEWALK. TWO PARKING SPACES SHALL BE PERMITTED TO SHARE A COMMON ACCESS AISLE. THE VAN ACCESS AISLE IS PREFERRED TO BE AT THE RIGHT SIDE (PASSENGER SIDE) OF THE PARKING SPACE. (AN ACCESSIBLE SIDEWALK IS 60 INCHES (1525mm) MINIMUM CLEAR WIDTH, 50:1 MAXIMUM CROSS SLOPE WITH A RUNNING SLOPE OF 20:1 MAXIMUM OR THE RUNNING SLOPE MAY FOLLOW THE ADJACENT ROAD PROFILE GRADE.) PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE MINIMUM 48 INCH CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
- ACCESS AISLES SERVING CAR PARKING SPACES SHALL BE 60 INCHES (1525mm) WIDE MINIMUM. ACCESS AISLES SERVING VAN PARKING SPACES SHALL BE 96 INCHES (2440mm) WIDE MINIMUM.
- ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACES THEY SERVE.
- PARKING SPACES AND ACCESS AISLES SHALL HAVE SURFACE SLOPES NOT STEEPER THAN 50:1. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE.
- PARKING SPACES FOR VANS SHALL HAVE A VERTICAL CLEARANCE OF 98 INCHES (2490mm) MINIMUM AT THE SPACE AND ALONG THE VEHICULAR ROUTE THERETO.
- EACH ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN ON A POST. SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. THE CLEARANCE TO THE BOTTOM OF THE SIGN (R7-8) SHALL BE AT LEAST 7 FEET (2100mm), LOCATED AT THE HEAD OF THE PARKING SPACE. VAN ACCESSIBLE PARKING SPACES SHALL HAVE AN ADDITIONAL SIGN (R7-8A) MOUNTED BELOW THE INTERNATIONAL SYMBOL OF ACCESS IDENTIFYING THE SPACE AS "VAN ACCESSIBLE." SIGNS MUST INCLUDE THE LANGUAGE "VIOLATORS ARE SUBJECT TO A FINE AND/OR TOWING."
- PARKING SPACE AND ACCESS AISLES SHALL HAVE OSHA SAFETY BLUE STRIPING. STRIPING SHALL BE 4 INCHES (100mm) WIDE. ACCESS AISLES STRIPING SHALL BE 30 INCHES (760mm) ON CENTER. ACCESS AISLES SHALL HAVE THE WORDS "NO PARKING" IN CAPITAL LETTER OF WHICH SHALL BE AT LEAST ONE FOOT HIGH AND AT LEAST TWO INCHES WIDE PLACED AT THE REAR OF THE PARKING SPACE SO AS TO BE CLOSE TO WHERE AN ADJACENT VEHICLES REAR TIRES WOULD BE PLACED.
- EACH ACCESSIBLE PARKING SPACE SHALL INCLUDE, CENTERED AT THE FOOT, A PAVEMENT MARKING OF THE INTERNATIONAL SYMBOL OF ACCESSIBILITY TO BE CLEARLY VISIBLE WHEN THE SPACE IS OCCUPIED.

**DIMENSIONS OF PARKING SPACES**



**ACCESSIBLE PASSENGER LOADING ZONE REQUIREMENTS:**

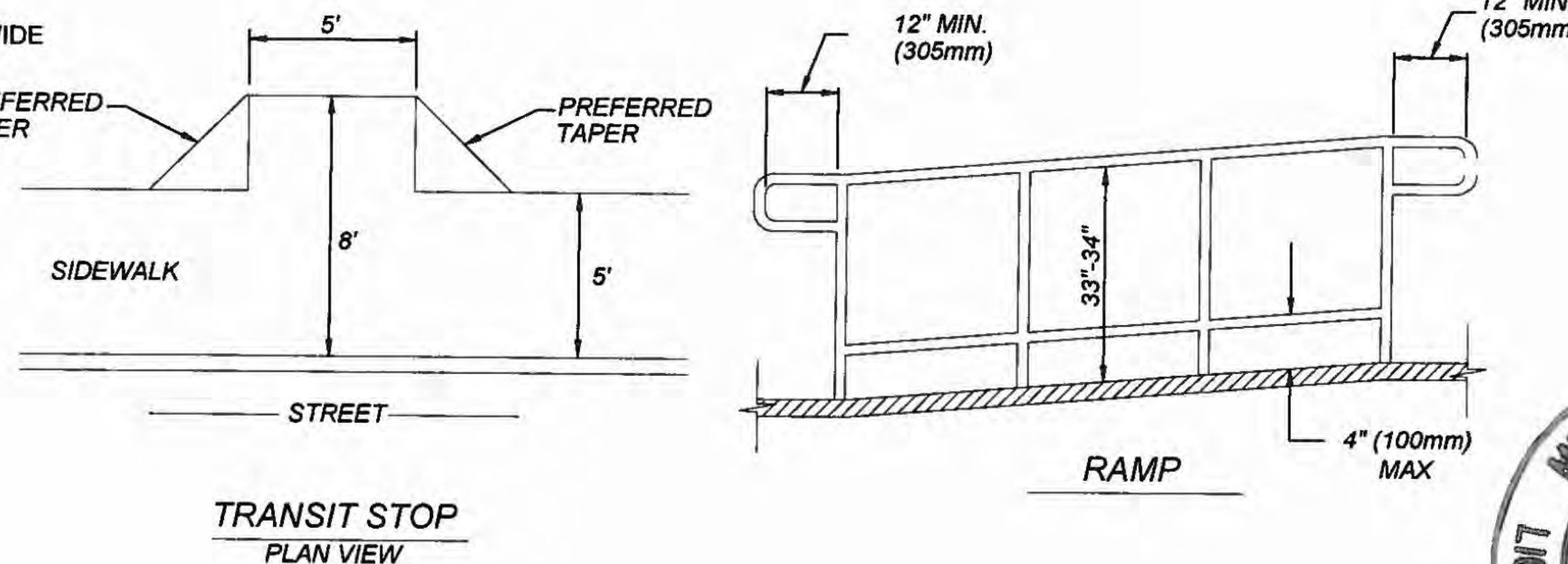
- PASSENGER LOADING ZONES SHALL PROVIDE A 60 INCH (1525mm) WIDE ACCESS AISLE ADJACENT AND PARALLEL TO A VEHICLE PULL-UP SPACE. ACCESS AISLES SHALL BE 20 FEET (6100mm) LONG MINIMUM.
- ACCESS AISLES SHALL BE PART OF THE ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE, AND MARKED TO DISCOURAGE PARKING.
- VEHICLE PULL-UP SPACES IN PASSENGER LOADING ZONES AND ACCESS AISLES SHALL HAVE SURFACE SLOPES NOT STEEPER THAN 50:1. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE.
- VERTICAL CLEARANCE OF 114 INCHES (2895mm) MINIMUM SHALL BE PROVIDED AT PASSENGER LOADING ZONES AND ALONG VEHICLE ACCESS ROUTES TO SUCH AREAS FROM SITE ENTRANCES.
- EACH ACCESSIBLE PASSENGER LOADING ZONE SHALL BE IDENTIFIED BY A SIGN ON A POST. SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.



**ACCESSIBLE PASSENGER LOADING ZONE PLAN VIEW**

**TRANSIT STOP REQUIREMENTS**

- TRANSIT STOPS SHOULD BE LOCATED SO THAT THERE IS A LEVEL AND STABLE SURFACE FOR BOARDING VEHICLES.
- LOCATING TRANSIT STOPS AT SIGNALIZED INTERSECTIONS INCREASE THE USABILITY FOR PEDESTRIANS WITH DISABILITIES.
- WHERE SECURITY BOLLARDS ARE INSTALLED AT TRANSIT STOPS, THEY MUST NOT OBSTRUCT THE CLEAR SPACE AT BOARDING AND ALIGHTING AREAS OR REDUCE THE REQUIRED CLEAR WIDTH OF PEDESTRIAN ACCESS ROUTES.
- TRANSIT STOPS SHALL COMPLY WITH PROWAG SECTION R 308 TRANSIT STOPS AND TRANSIT SHELTERS.



**TRANSIT STOP PLAN VIEW**

**RAMP REQUIREMENTS:**

- RAMP RUNS SHALL HAVE A RUNNING SLOPE GREATER THAN 1:20 AND NOT STEEPER THAN 1:12. THE EXCEPTION SHALL REMAIN AS SHOWN, INCLUDING THE TABLE FOR EXISTING BUILDINGS AND FACILITIES.
- RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 12:1. EXCEPTION: RAMPS IN OR ON EXISTING BUILDINGS OR FACILITIES SHALL BE PERMITTED TO HAVE SLOPES STEEPER THAN 12:1 AND SHALL COMPLY WITH THE FOLLOWING TABLE WHERE SUCH SLOPES STEEPER THAN 8:1 SHALL NOT BE PERMITTED.

**TABLE FOR EXISTING SITES, BUILDINGS AND FACILITIES**

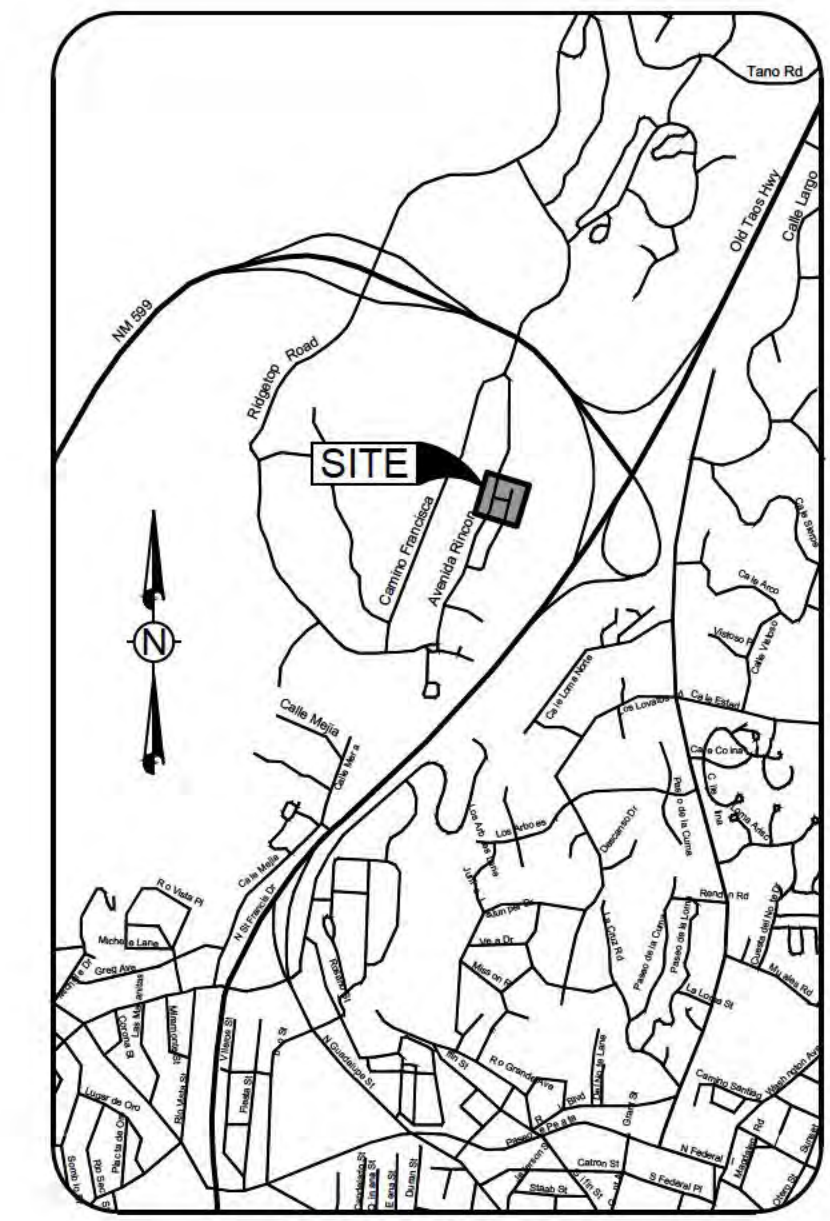
SLOPE	MAXIMUM RISE
STEEPER THAN 10:1 BUT NOT STEEPER THAN 8:1	3 INCHES (75mm)
STEEPER THAN 12:1 BUT NOT STEEPER THAN 10:1	6 INCHES (150mm)

- CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 50:1.
  - FLOOR OR GROUND SURFACES OF RAMP RUN SHALL BE STABLE, FIRM, AND SLIP RESISTANT.
  - THE CLEAR WIDTH OF A RAMP RUN SHALL BE 48 INCHES (915mm) MINIMUM MEASURED BETWEEN HANDRAILS.
  - THE RISE FOR ANY RAMP RUN SHALL BE 30 INCHES (760mm) MAXIMUM.
  - RAMPS SHALL HAVE LANDINGS AT THE BOTTOM AND TOP OF EACH RUN. LANDINGS SHALL COMPLY WITH THE FOLLOWING:
    - LANDINGS SHALL HAVE A SOPE NOT STEEPER THAN 50:1.
    - CLEAR WIDTH OF LANDINGS SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING.
    - LANDING LENGTH SHALL BE 60 INCHES (1525mm) MINIMUM CLEAR.
    - RAMPS THAT CHANGE DIRECTION AT LANDINGS SHALL HAVE A 60 INCH BY 60 INCH (1525mm) MINIMUM LANDING.
    - WHERE DOORWAYS ARE ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES SHALL COMPLY WITH 2010 AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN (2010 ADA) SECTION 404.
  - RAMPS WITH A RISE GREATER THAN 6 INCHES (150mm) SHALL HAVE HANDRAILS. HANDRAILS SHALL NOT REDUCE THE REQUIRED CLEARANCES OF A RAMP RUN OR LANDINGS.
  - EDGE PROTECTION SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH SIDE OF RAMP LANDINGS.
- EXCEPTIONS:
- RAMPS NOT REQUIRED TO HAVE HANDRAILS WHERE SIDE FLARES ARE PROVIDED.
  - SIDES OF RAMP LANDINGS SERVING AN ADJOINING RAMP RUN OR STAIRWAY.
  - SIDES OF RAMP TURN SPACE HAVING A VERTICAL DROP-OFF OF 1/2 INCH (13mm) MAXIMUM WITHIN 10 INCHES (255mm) HORIZONTALLY OF THE MINIMUM LANDING AREA.
- EDGE PROTECTION MAY BE PROVIDED BY EXTENDING A FLOOR OR GROUND SURFACE, OF THE RAMP RUN OR LANDING, 12 INCHES (305mm) MINIMUM BEYOND THE INSIDE FACE OF A HANDRAIL OR AN EDGE PROTECTION CURB OR BARRIER SHALL BE PROVIDED THAT PREVENTS THE PASSAGE OF A 4-INCH (100mm) DIAMETER SPHERE BELOW A HEIGHT OF 4 INCHES (100mm).
  - OUTDOOR RAMPS AND APPROACHES TO RAMPS SHALL BE DESIGNED SO THAT WATER WILL NOT ACCUMULATE ON WALKING SURFACES.

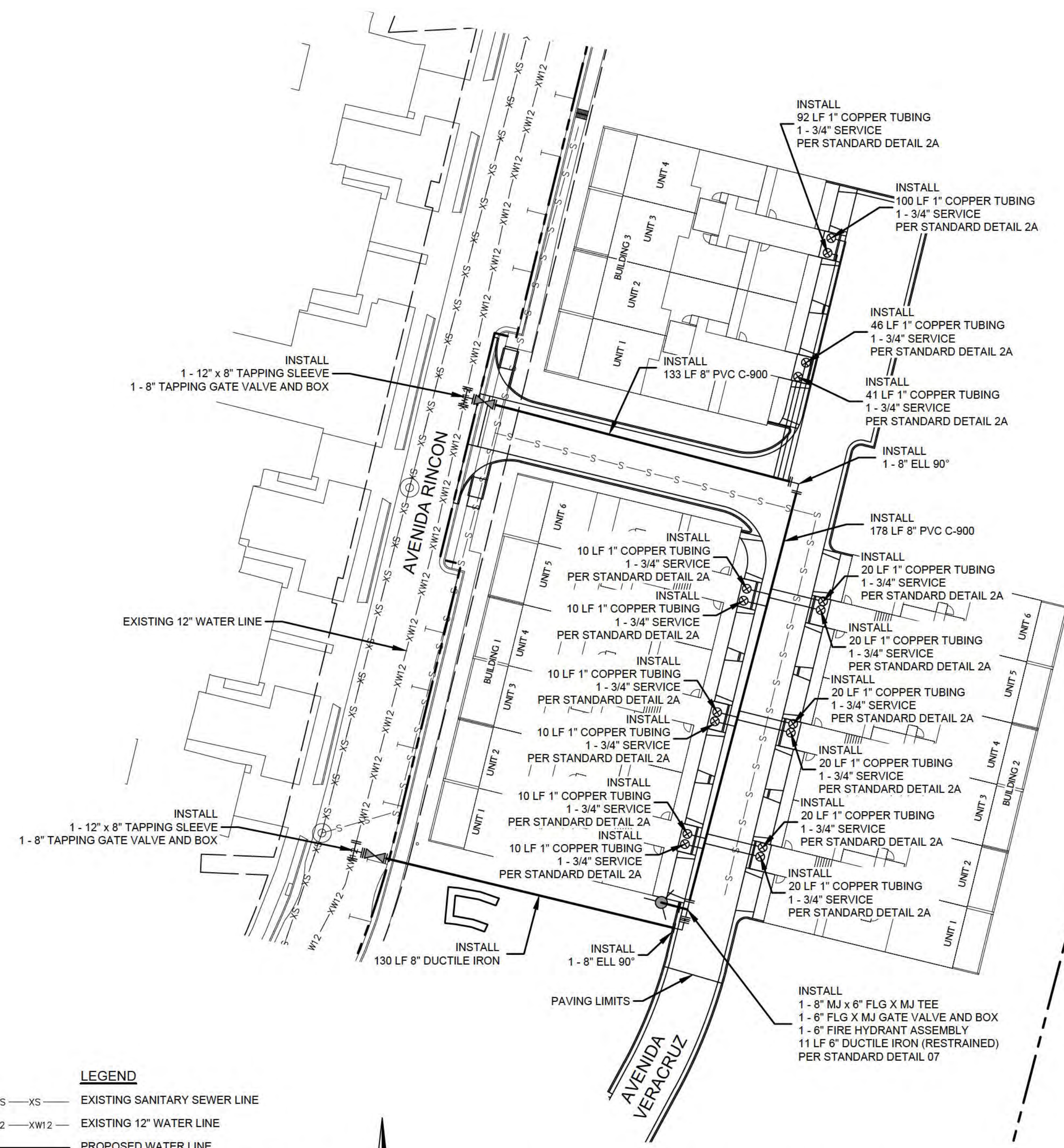


NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
<b>PEDESTRIAN ACCESS DETAILS PARKING AND PASSENGER LOADING ZONES</b>			
APPROVED	DESIGN ENGINEER		DATE
			1-13-15
608-001-12			608-12 of 12





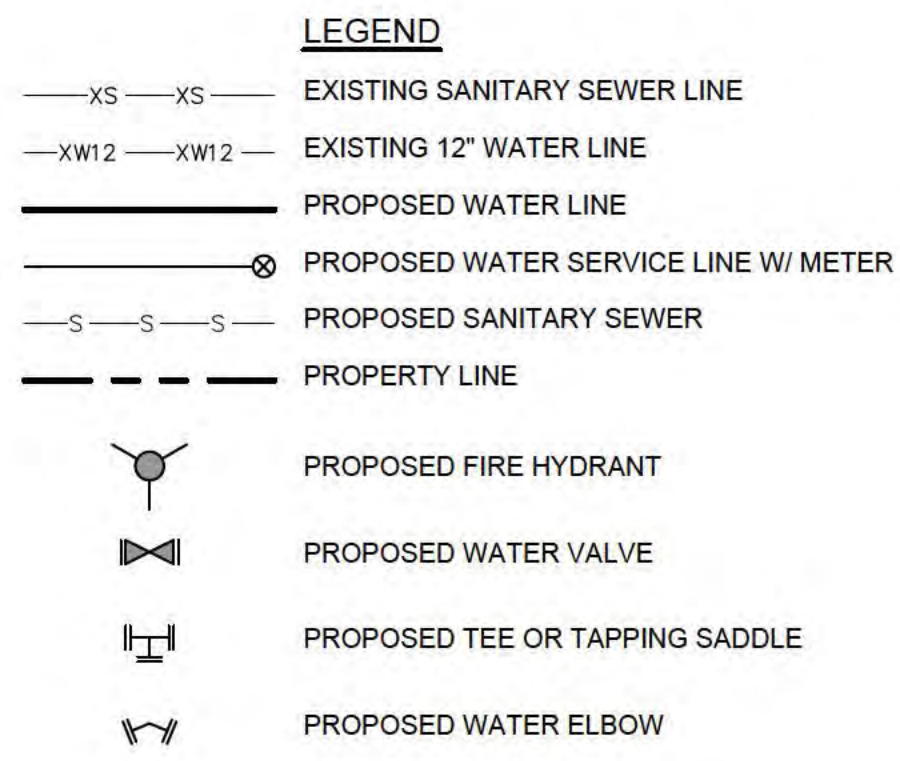
VICINITY MAP  
SCALE: 1" = 2000'



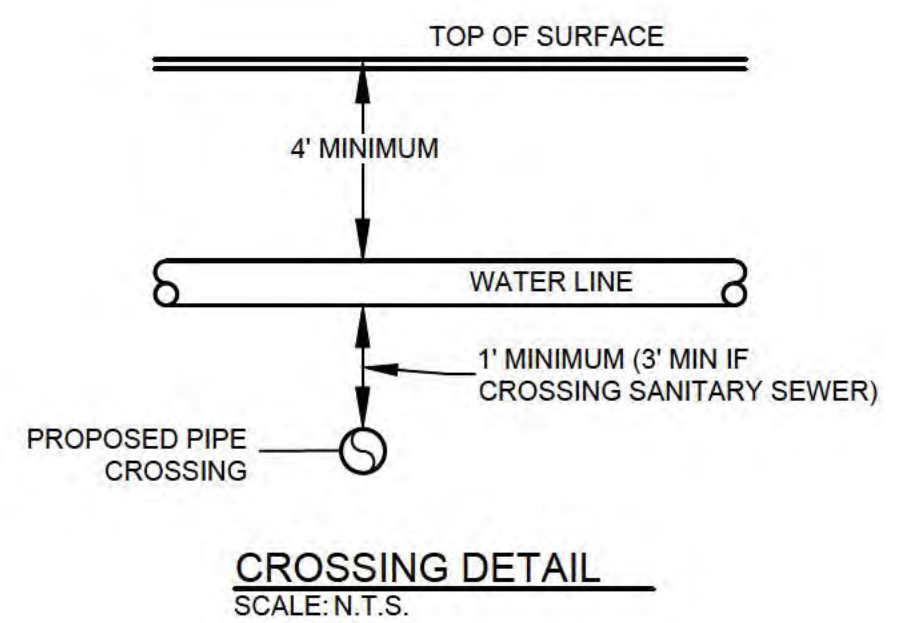
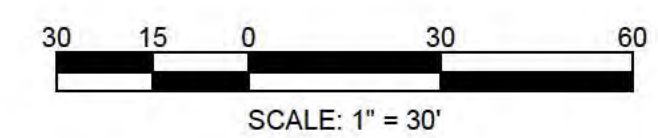
WATER SERVICE DESIGN TABLE		
SERVICE ADDRESS	STREET NAME	SERVICE SIZE
BLDG 3 UNIT 4	AVENIDA VERACRUZ	3/4"
BLDG 3 UNIT 3	AVENIDA VERACRUZ	3/4"
BLDG 3 UNIT 2	AVENIDA VERACRUZ	3/4"
BLDG 3 UNIT 1	AVENIDA VERACRUZ	3/4"
BLDG 2 UNIT 6	AVENIDA VERACRUZ	3/4"
BLDG 2 UNIT 5	AVENIDA VERACRUZ	3/4"
BLDG 1 UNIT 6	AVENIDA VERACRUZ	3/4"
BLDG 1 UNIT 5	AVENIDA VERACRUZ	3/4"
BLDG 2 UNIT 4	AVENIDA VERACRUZ	3/4"
BLDG 2 UNIT 3	AVENIDA VERACRUZ	3/4"
BLDG 1 UNIT 4	AVENIDA VERACRUZ	3/4"
BLDG 1 UNIT 3	AVENIDA VERACRUZ	3/4"
BLDG 2 UNIT 2	AVENIDA VERACRUZ	3/4"
BLDG 2 UNIT 1	AVENIDA VERACRUZ	3/4"
BLDG 1 UNIT 2	AVENIDA VERACRUZ	3/4"
BLDG 1 UNIT 1	AVENIDA VERACRUZ	3/4"

**GENERAL NOTES**

- CONTRACTOR WILL NOTIFY SDCW 5 DAYS PRIOR TO COMMENCEMENT OF WORK.
- CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE SANGRE DE CRISTO WATER DIVISION CONSTRUCTION SPECIFICATIONS.
- ALL EASEMENTS WILL BE DEDICATED, CLEARED AND GRADED, AND STAKED PRIOR TO WATER LINE INSTALLATION.
- ALL STREETS WILL BE CUT TO GRADE PRIOR TO WATER LINE INSTALLATION.
- ALL LOT CORNERS WILL BE STAKED PRIOR TO SERVICE LINE INSTALLATION. CURB AND GUTTER WILL BE INSTALLED PRIOR TO WATER LINE INSTALLATION UNLESS OTHERWISE APPROVED IN WRITING BY SDCW.
- CONTRACTOR (DEVELOPER) SHALL PROVIDE CONSTRUCTION STAKING UTILIZING THE APPROPRIATE RIGHT-OF-WAY MAPS, SIGNED PLATS AND SDCW DRAWING.
- MATERIAL SUBMITTALS SHALL BE APPROVED BY SDCW PRIOR TO CONSTRUCTION.
- CONTACT NEW MEXICO ONE CALL AT 1-800-321-2537, TWO WORKING DAYS IN ADVANCE OF CONSTRUCTION FOR UTILITY SPOTS.
- PRESSURE REGULATOR WILL BE INSTALLED ON ALL SERVICES DOWNSTREAM FROM THE METER.
- PRESSURE REGULATOR AND PRESSURE SYSTEMS MUST BE APPROVED BY THE CITY OF SANTA FE PRIOR TO INSTALLATION.
- A MINIMUM OF 4 FEET COVER TOP OF PIPE TO BE MAINTAINED.
- CONTRACTOR TO SUBMIT VALVE TIES TO SDCW COMPANY WITHIN 5 DAYS OF COMPLETION.
- CONTRACTOR TO SUBMIT FITTINGS TIES AND LENGTHS BETWEEN FITTINGS TO SDCW CO. 5 DAYS AFTER COMPLETION. THIS INCLUDES DISTANCES FROM CORPORATION TO CORPORATION. AS-BUILT QUANTITIES AND MEASUREMENTS SHALL BE LEGIBLE AND PROVIDED ON SDCW DRAWINGS OR OTHER AGREED UPON METHOD.
- ALL VALVE BOXES TO BE BROUGHT UP TO GRADE AFTER FIRST COURSE OF ASPHALT AND BEFORE FINAL COURSE OF ASPHALT.
- FIRE HYDRANTS SHALL BE NUMBERED USING REFLECTIVE NUMERALS. THE REFLECTIVE NUMERALS ARE TO BE OBTAINED BY THE CONTRACTOR FROM THE SDCW FIELD REPRESENTATIVE AT THE TIME THE INDIVIDUAL TASKS AUTHORIZATION (ITA) IS ISSUED. NUMBERS SHALL BE LEGIBLE FROM THE ROAD.
- A MECHANICAL RESTRAINT SYSTEM SHALL BE UTILIZED ON FITTINGS AND PIPING FOR THRUST RESTRAINT. CONCRETE THRUST BLOCKING TO BE USED ONLY FOR SPECIAL CONDITIONS (e.g. CAPS WHERE MAIN WILL BE EXTENDED IN FUTURE) AS SPECIFICALLY APPROVED BY SDCW.
- ANY FIELD CHANGES TO THESE PLANS REQUIRES APPROVAL OF BOTH THE DESIGN ENGINEER AND SDCW.
- WORK ON SDCW FACILITIES CANNOT PROCEED UNTIL SDCW HAS ISSUED AN INDIVIDUAL TASK AUTHORIZATION (ITA) TO UTILITY CONTRACTORS.



ZOCOLO DEVELOPMENT - POD B  
SCALE: 1" = 30'



**NOTE:**  
DRAWING BASED ON SURVEY DATA PREPARED BY "DAWSON SURVEYS INC." DATED 4/13/2015.

THIS RECORD DRAWING HAS BEEN COMPLETED ON A COPY OF THE SEALED ENGINEERING DRAWING FOR THIS PROJECT. THE INFORMATION SHOWN HEREON IS BELIEVED TO BE ACCURATE BASED ON LIMITED FIELD OBSERVATION DURING CONSTRUCTION, AS WELL AS DATA FURNISHED BY THE INSTALLER.

ENGINEER \_\_\_\_\_ PE \_\_\_\_\_ DATE \_\_\_\_\_

RECORD MAPPING	INITIALS	DATE
AS BUILT	_____	___/___/___
VALVE MAPS	_____	___/___/___
GIS (MAPPING)	_____	___/___/___
Inspector approved	_____	___/___/___

<b>SFE C</b> Santa Fe Engineering Consultants, LLC 1599 St. Francis Drive, Suite B Santa Fe, NM 87505 (505) 982-2845 Fax (505) 982-2641 http://www.SFENGR.com	<b>ZOCOLO DEVELOPMENT POD B</b>	
	APPROVED	
PLAT RECORDING INFORMATION BOOK 787 PAGE 023 FILE DATE 5/1/2015	CITY OF SANTA FE WATER DIVISION DATE _____	INSPECTOR _____ DATE: 2016 <span style="font-size: 2em; font-weight: bold;">18</span> (1 OF 1)
SANTA FE FIRE DEPARTMENT AERIAL TOWNSHIP RANGE SECTION WORK ORDER NO. K16 T 17 N . R 09 E . S 12,13		