

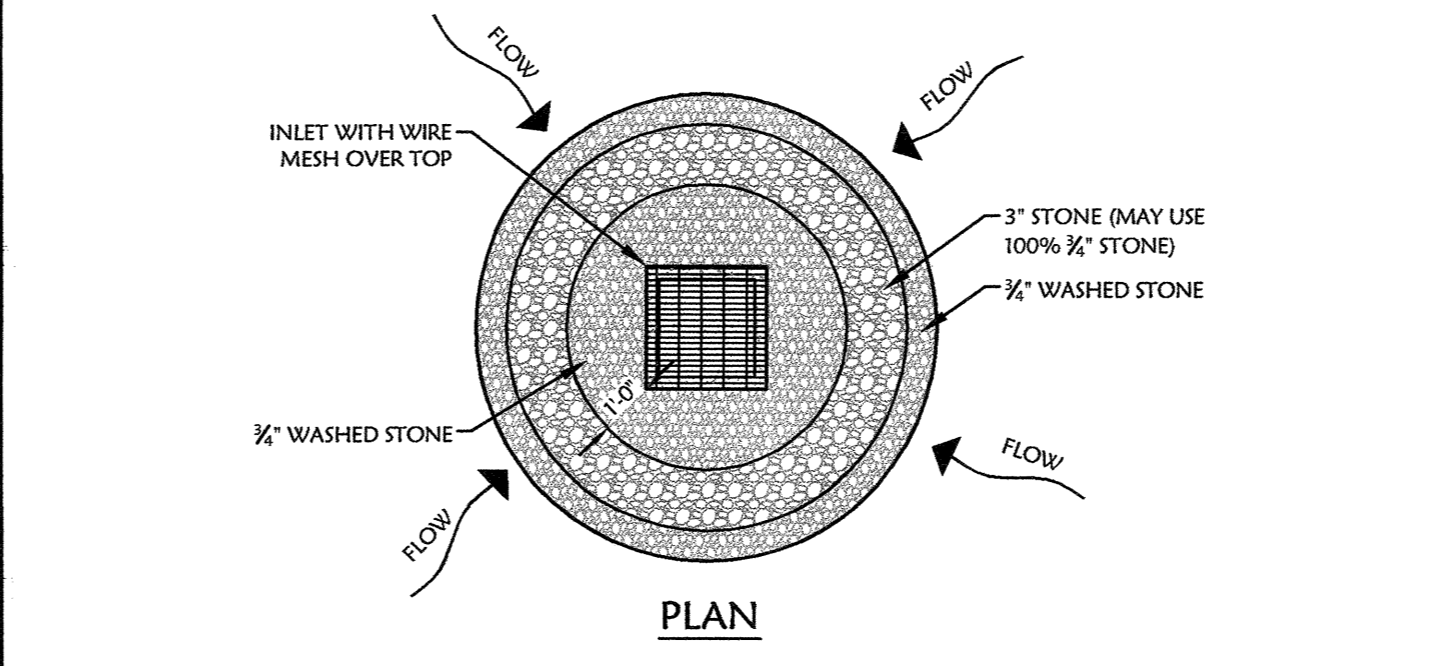
TRENCH AND BEDDING DETAILS

NOTE: MINIMUM TRENCH WIDTH (T.W.) SHALL BE THE GREATER OF (2.25 O.D. + 12") OR (O.D. + 16")

TABLE 1: CLASSES OF EMBEDMENT AND BACKFILL MATERIALS

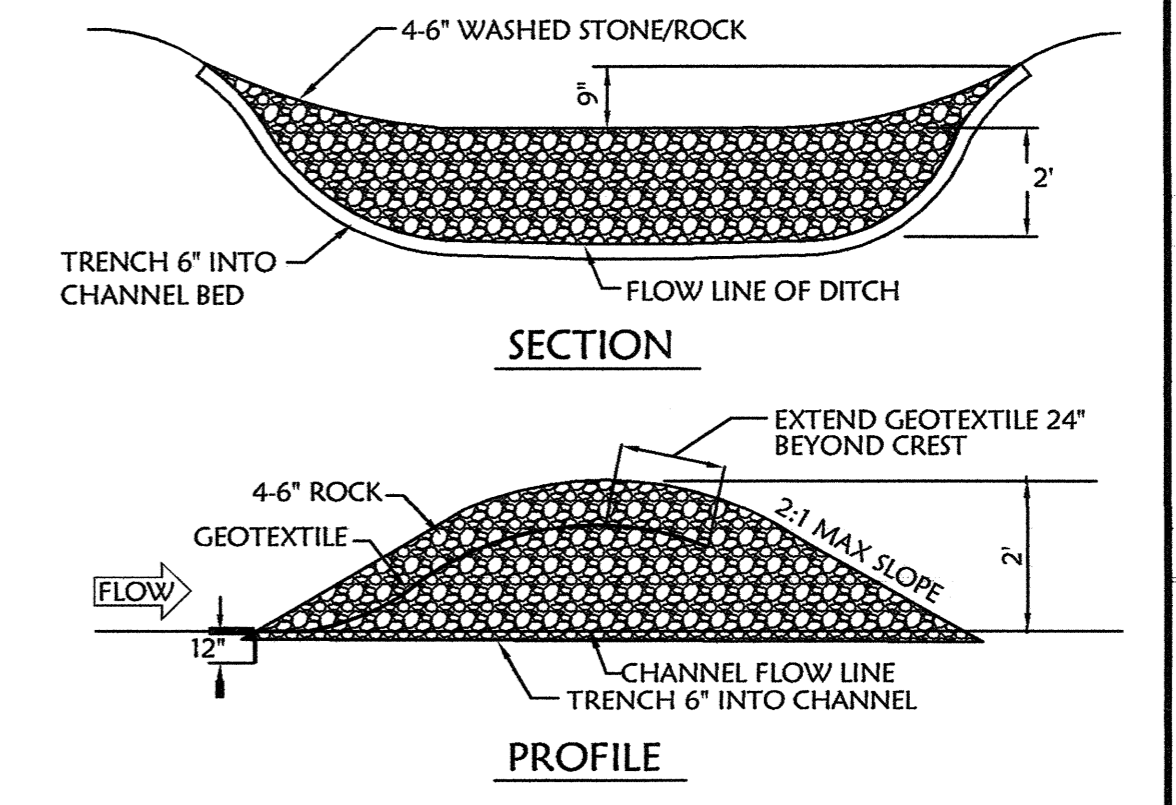
ASTM D 2321 MATERIAL CLASS	ASTM D 2487 USCS SOIL GROUP	MATERIAL TYPE	% PASSING			ATTERBERG LIMITS	
			1 1/2 IN.	NO. 4	NO. 200	LL	PI
IA	NONE	MANUFACTURED OPEN GRADED AGGREGATES	100%	<10%	<5%		NON PLASTIC
IB	NONE	MANUFACTURED DENSE GRADED AGGREGATES	100%	<5%	<5%		NON PLASTIC
II	GW	COARSE-GRAINED SOILS, CLEAN	100%	<50% OF "COARSE FRACTION"	<5%		NON PLASTIC
	GP						
	SW						
	SP						
	GM						
III	GC	COARSE-GRAINED SOILS W/ FINES	100%	>50% OF "COARSE FRACTION"	12% TO 50%		<4 OR <"A" LINE
	GM						<7 OR >"X" LINE
	JM						>4 OR >"A" LINE
	SM						>7 OR >"X" LINE
	SC						>4 OR <"A" LINE
IV-A	ML	FINE-GRAINED SOILS	100%	100%	>50%	<50	<4 OR <"A" LINE
	CL						>7 OR >"X" LINE

- GENERAL NOTES**
- BEDDING SHALL BE DUMPED CLASS 1A WORKED BY HAND, OR CLASS 1B COMPACTED TO 95% STANDARD PROCTOR. LOCAL SOILS PERMITTING WITH GEOTECHNICAL ENGINEER AND OWNER APPROVAL, NATIVE SOIL MAY BE USED FOR BEDDING PROVIDED IT MEETS THE EMBEDMENT AND BACKFILL MATERIALS IN TABLE 1 EXCLUDING CLASS 1.
 - HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS 1A, OR CLASS 1B OR CLASS 1C COMPACTED TO 95% STANDARD PROCTOR. FEA GRAVEL SHALL NOT BE USED AS A HAUNCHING MATERIAL. CLASS II MATERIAL SHALL BE USED FOR FLEXIBLE PIPE WHEN FILL HEIGHTS EXCEED 8".
 - INITIAL BACKFILL SHALL BE CLASS 1A WORKED BY HAND, OR CLASS 1B OR CLASS 1C COMPACTED TO 90% STANDARD PROCTOR. OR CLASS 1C COMPACTED TO 95% STANDARD PROCTOR. CLASS II MATERIAL SHALL BE USED FOR FLEXIBLE PIPE WHEN FILL HEIGHTS EXCEED 8".
 - BACKFILL SHALL BE CLASS 1A WORKED BY HAND, OR CLASS 1B OR CLASS 1C COMPACTED TO 90% STANDARD PROCTOR. OR CLASS 1C COMPACTED TO 95% STANDARD PROCTOR.
 - FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
 - ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321. (SEE TABLE 1)
 - ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 6" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 998. CLASS II AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
 - FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 2".
 - ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.
 - DESIGN ENGINEER SHALL DESIGNATE ON THE PLANS WHERE WATER/TIGHT JOINTS ARE TO BE REQUIRED.
 - REPLACE WET OR UNSUITABLE SOIL AS NECESSARY TO PROVIDE A SUITABLE BASE AS DIRECTED BY GEOTECHNICAL ENGINEER OR OWNER.
 - WHERE GROUND WATER IS PRESENT CLASS 1A MATERIAL SHALL BE WRAPPED WITH A NON-WOVEN GEO-TEXTILE, EXCLUDING BEDDING MATERIAL BETWEEN # 4 & 6" THICK.
 - CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR SOIL TYPE AND CLASSIFICATIONS FOR THIS PROJECT.
 - CONTRACTOR SHALL REFER TO THE LATEST VERSION OF ASTM STANDARDS PRIOR TO CONSTRUCTION.



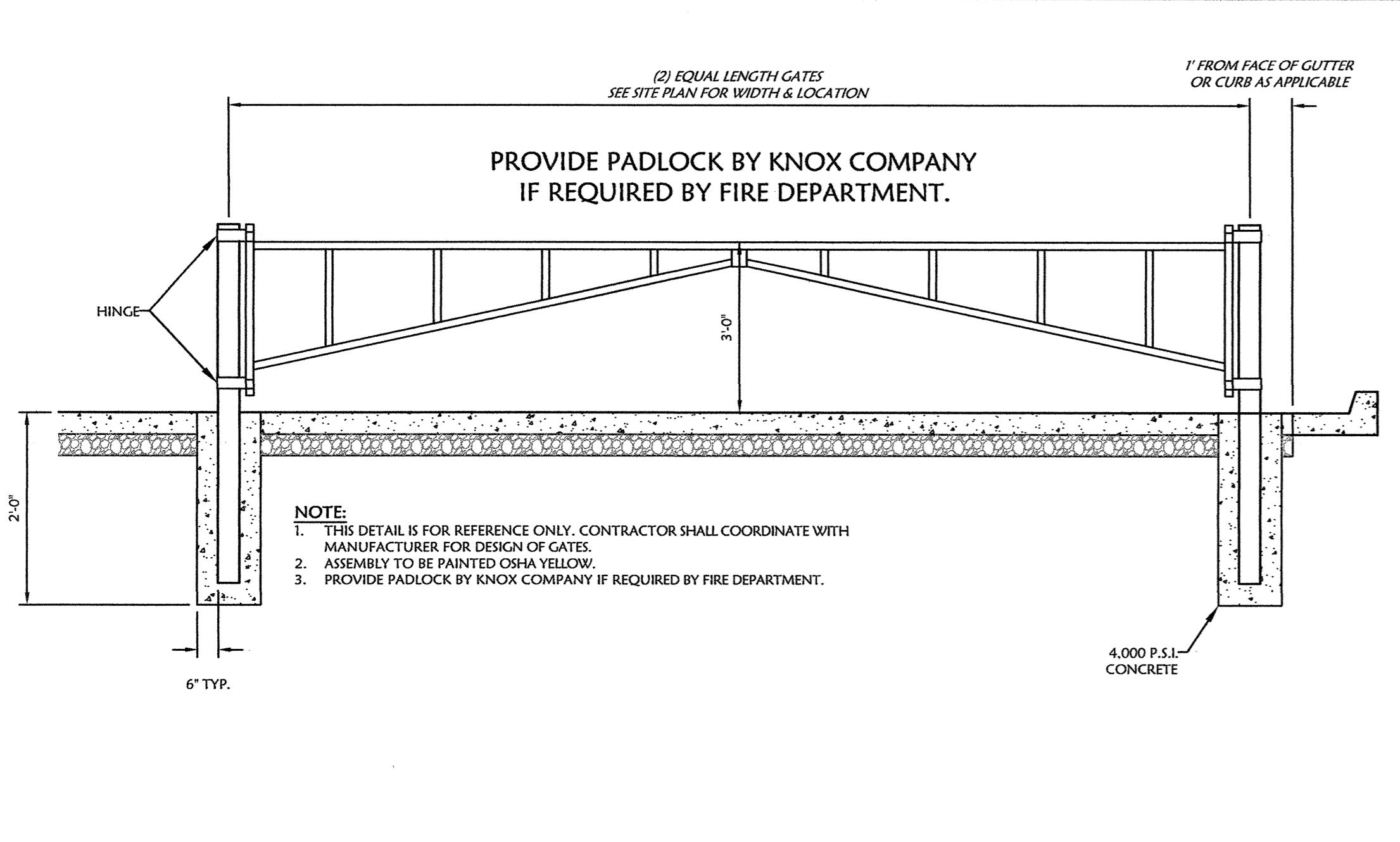
GRAVEL DROP INLET PROTECTION (GRAVEL DONUT)

N.T.S. D354-A



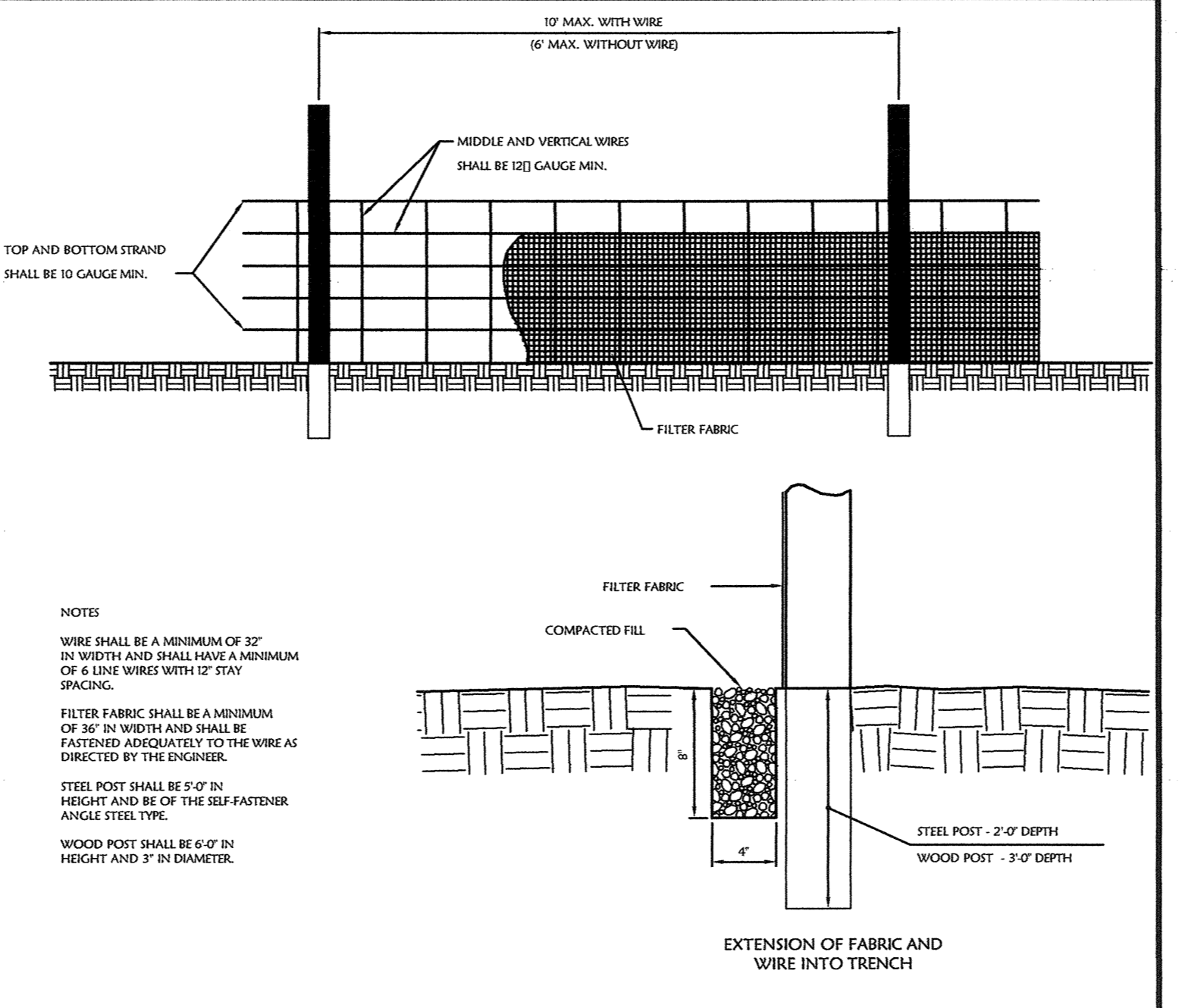
ROCK CHECK DAM DETAIL

N.T.S. RCD-C



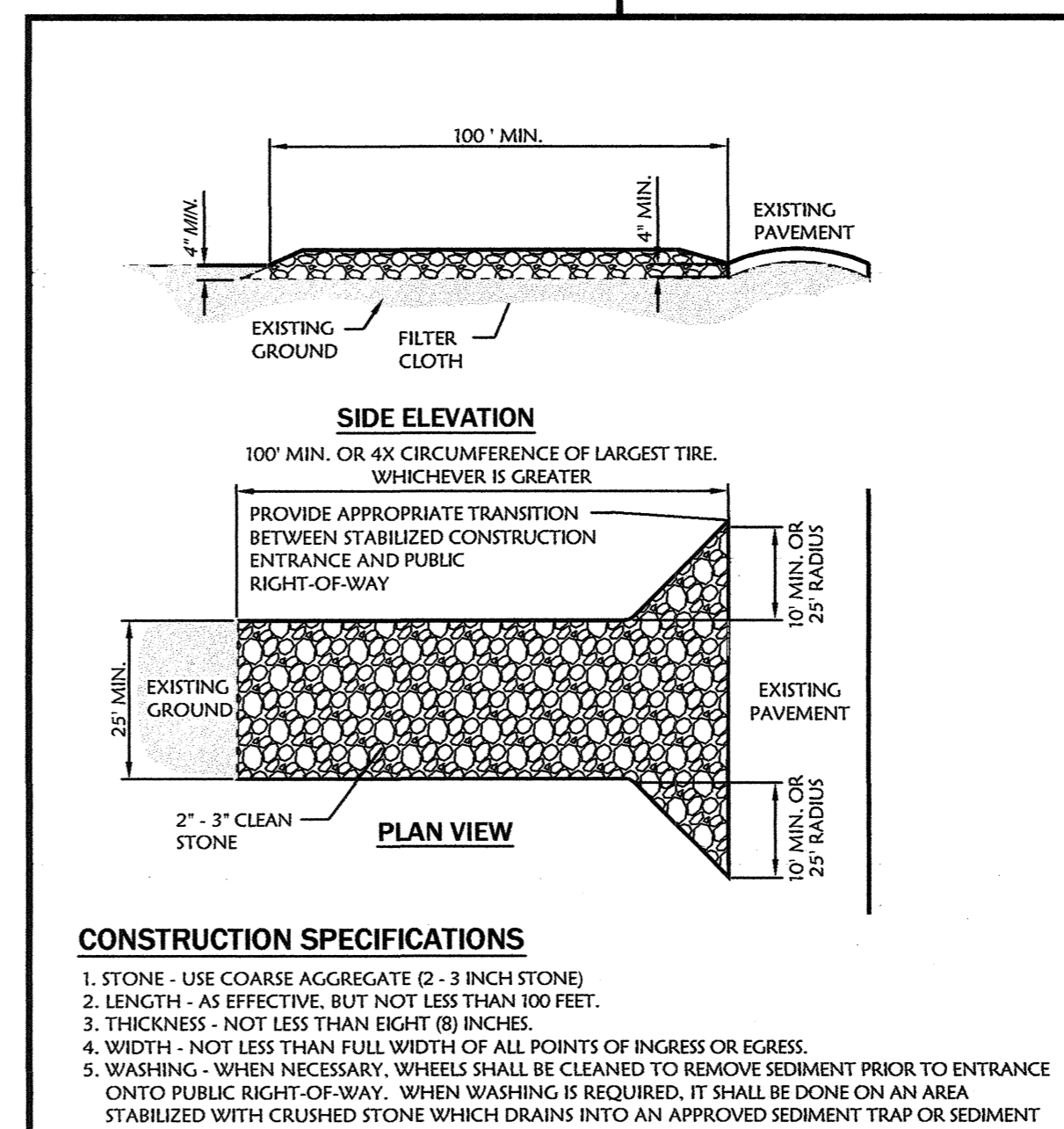
METAL TRAFFIC GATES

N.T.S. D302



TEMPORARY SILT FENCE

N.T.S. TSF-A

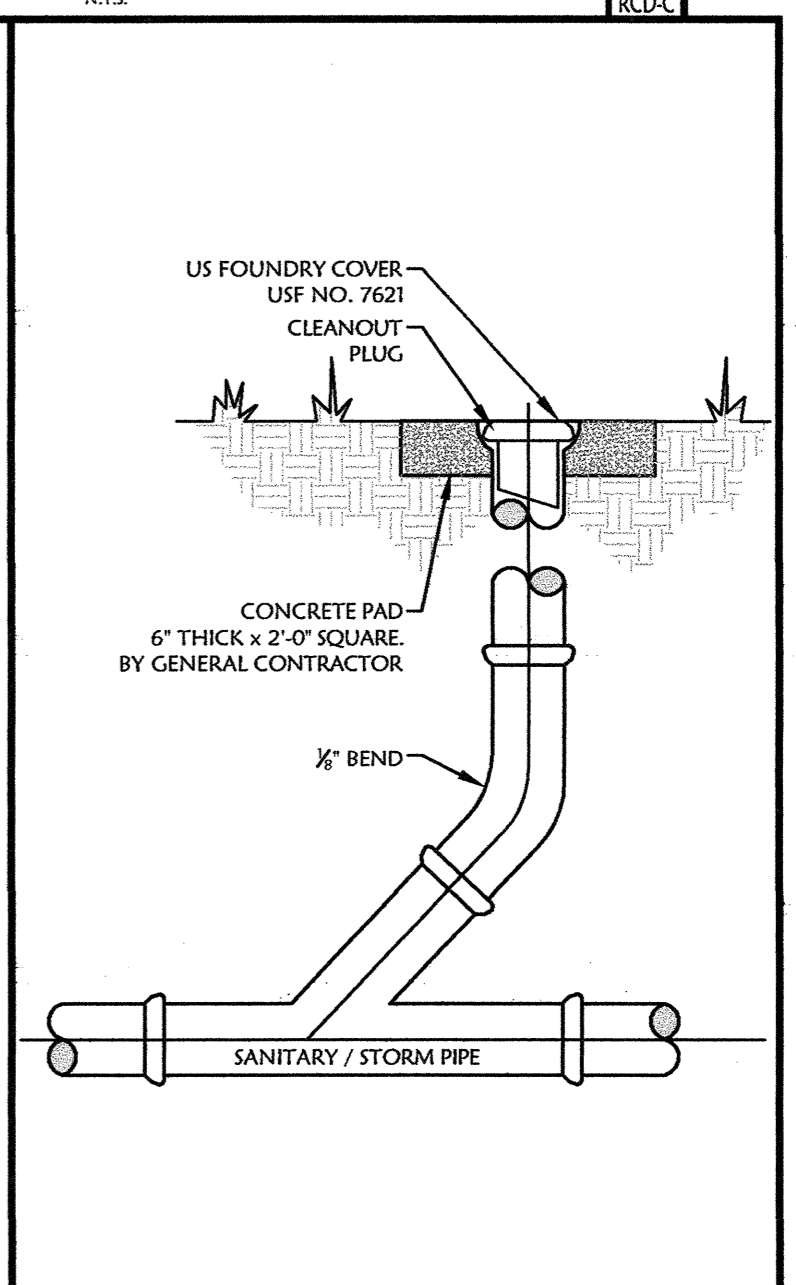


CONSTRUCTION SPECIFICATIONS

- STONE - USE COARSE AGGREGATE (2 - 3 INCH STONE)
- LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 100 FEET.
- THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
- WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL BOARDS OR OTHER APPROVED METHODS.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 12" X 24" METAL GRATE MAY BE USED. GRATE SHALL BE 25' AWAY FROM PAVEMENT AND APPROPRIATE SEDIMENT CONTROL TRAPPING DEVICE SHALL BE USED AT GRATE OUTLET POINT.

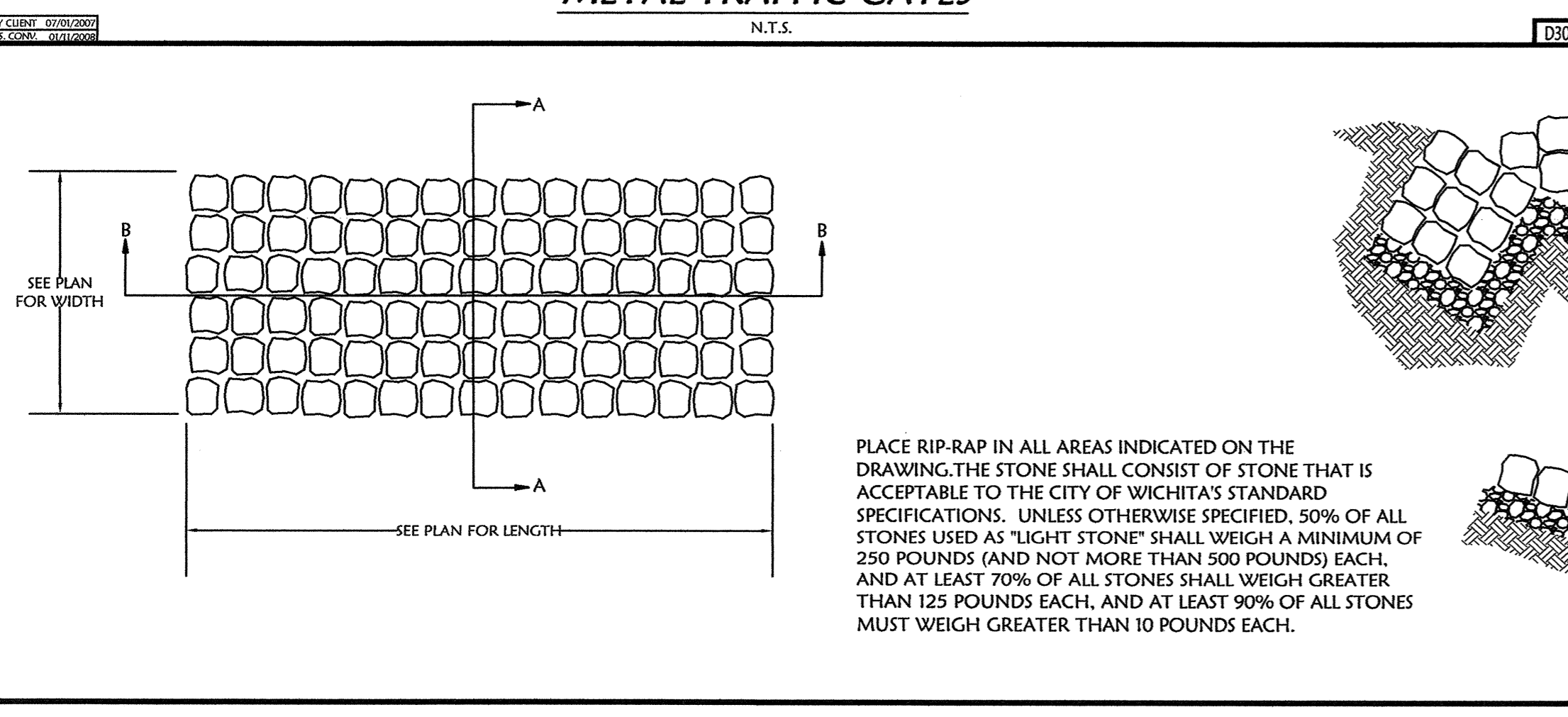
STABILIZED CONSTRUCTION ENTRANCE

N.T.S. TCE



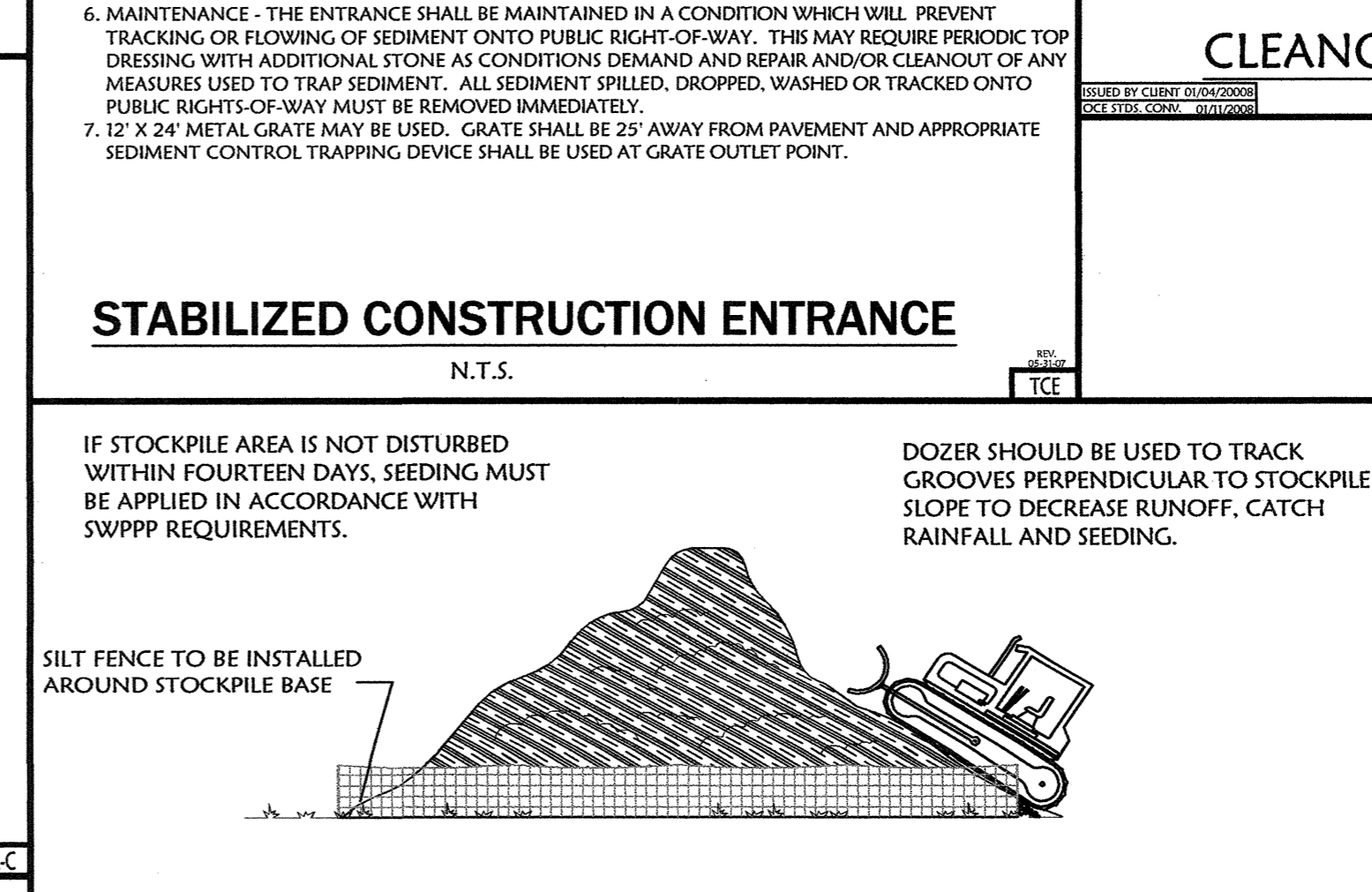
CLEANOUT DETAIL

N.T.S. D319



TYPICAL RIP-RAP PAD

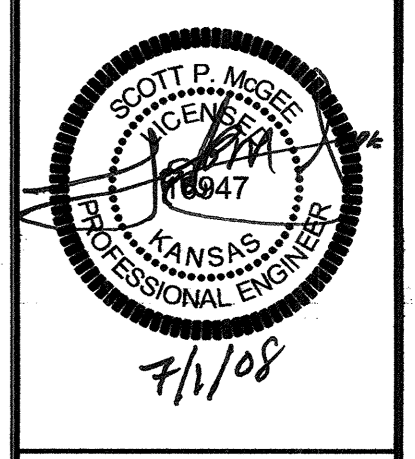
N.T.S. RR-C



STOCKPILE DETAIL

N.T.S. SPD

BY	DATE	DESCRIPTION



DETAIL SHEET

DETENTION POND (WEST)

CADILLAC LAKE DRAINAGE IMPROVEMENTS

MAIZE ROAD AND 29TH STREET NORTH

WICHITA, KS

DRAWN BY:	EDH
APPV. BY:	SPM
DWG. NAME:	07-0798-BID.dwg
DATE:	06-24-08
JOB NO.:	07-0798
SHEET NO.:	

B9

P:\07-0798 (mv wchita ks grading work with poe and assoc.)\dwg\project\bid\07-0798-bid.dwg - Plotted on 7/1/2008 10:42:25 AM @ a scale of 1:1 to hp designer 1050c by hp by Administrator