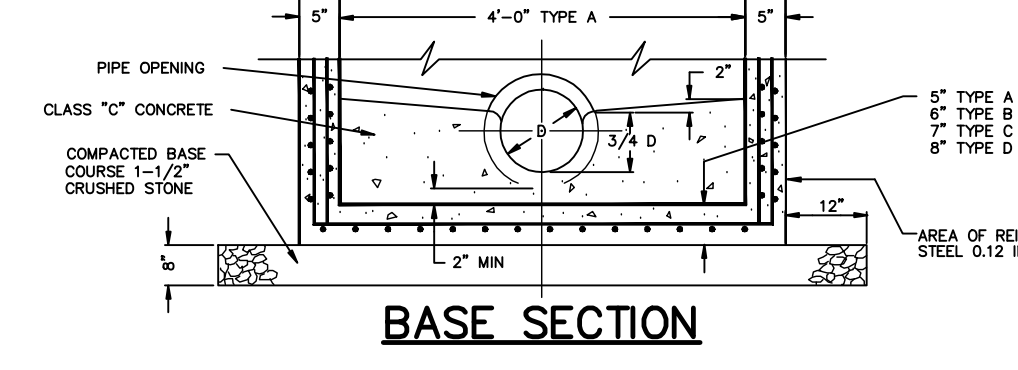
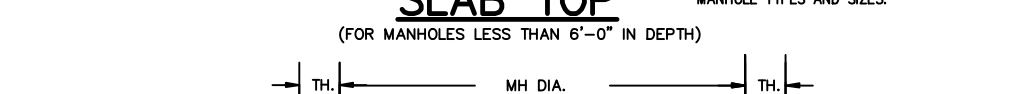
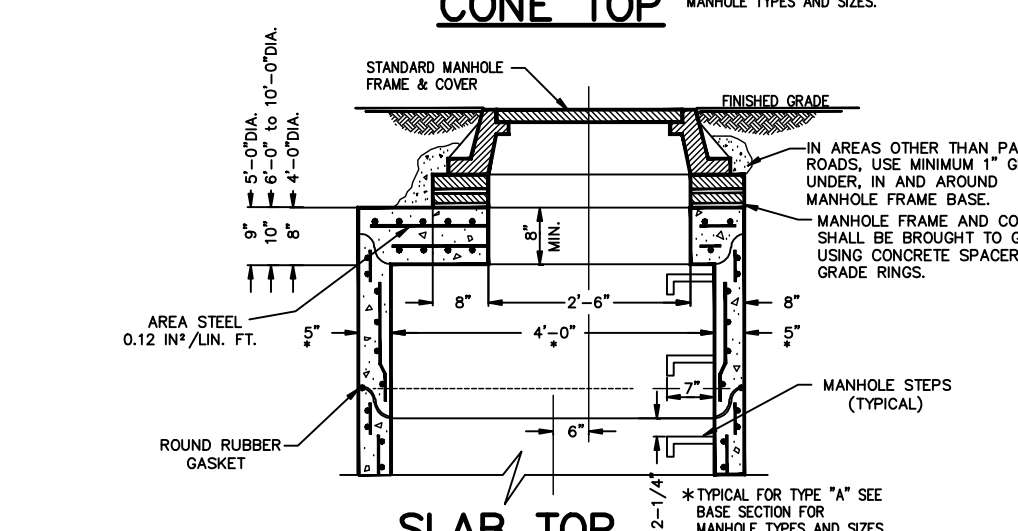


WALL THICKNESS TABLE

MIN. DIA.	THICK.
7'-0" TYPE D	8"
6'-0" TYPE C	7"
5'-0" TYPE B	6"
4'-0" TYPE A	5"

MANHOLE NOTES

- PRECAST CONCRETE MANHOLE (ASTM C-478)**
- WHERE TYPE "B" AND "C" BASES ARE USED A TAPER SECTION CONNECTING BASE SECTION AND RISER SHALL BE USED AND SHALL HAVE A THICKNESS AS SHOWN. THE BASE SECTION AND RISER ALLOW FOR AT LEAST 6" MINIMUM VERTICAL CLEARANCE WHERE POSSIBLE.
 - BASES TO BE TYPE "A" FOR SENSERS UNDER 24" DIA., TYPE "B" FOR SENSERS 24" TO 33" DIA., AND TYPE "C" FOR SENSERS 36" TO 42" DIA.
- MANHOLE STEPS**
- ALUMINUM MANHOLE STEPS SHALL BE ALCOA 12653, ALLOY 6061-T6 DROP FRONT DESIGN, OR APPROVED EQUAL.
 - THE PORTION TO BE IMBEDDED IN THE MANHOLE SHALL BE COATED WITH COAL TAR PITCH OR OTHER APPROVED MATERIAL AND SHALL BE IN ACCORDANCE WITH THE LATEST O.S.H.A. STANDARD.
- WORK AT EXISTING MANHOLES**
- AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL CUT INTO THE MANHOLE AND COMPLETE A CONNECTION USING A SUITABLE ADAPTOR AS REQUIRED.
 - THE CONTRACTOR SHALL NOT INTERFERE WITH EXISTING SERVICING SERVICE DURING THE PERIOD OF CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO KEEP SERVICES OUT OF MANHOLE.

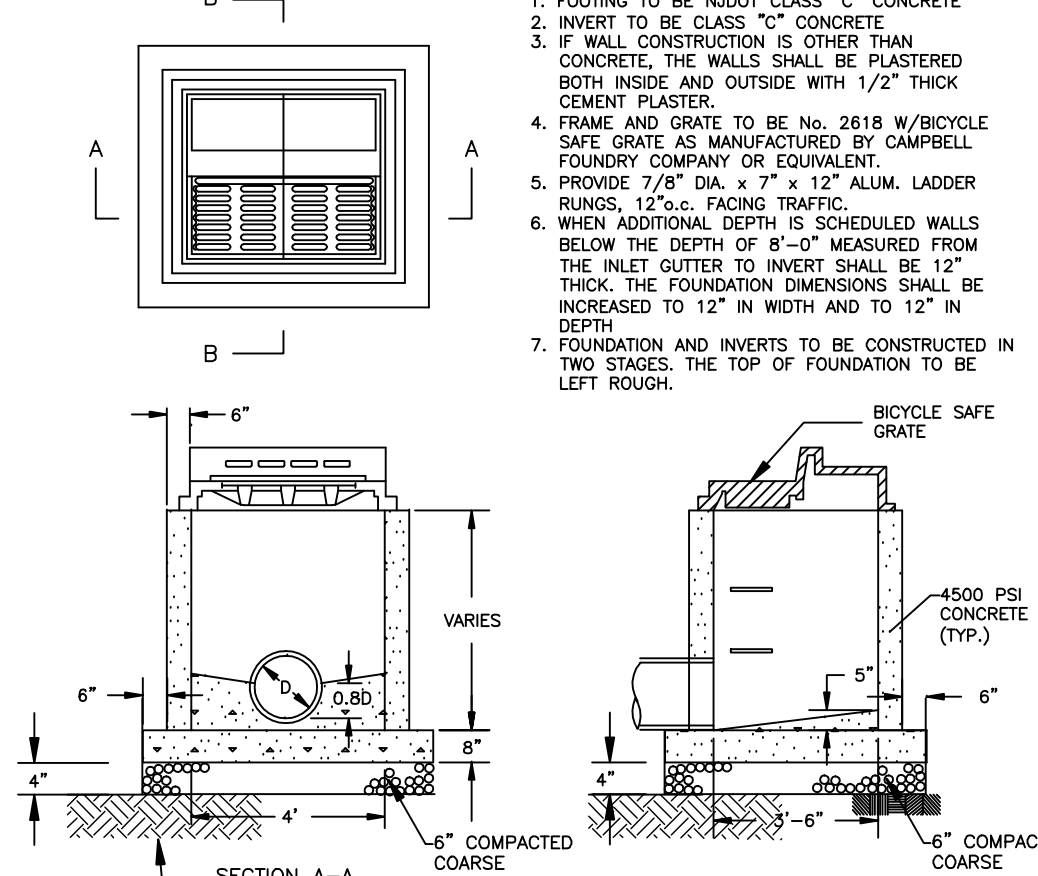


PRECAST CONCRETE MANHOLE TYPES A,B,C&D

NOT TO SCALE

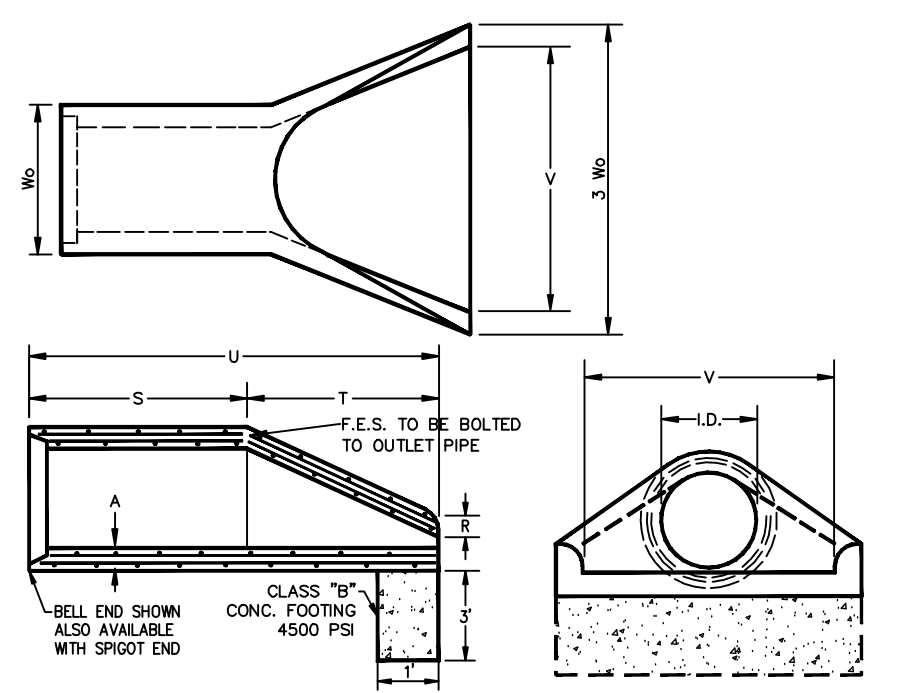
GENERAL INLET NOTES

- FOOTING TO BE NUDOT CLASS "C" CONCRETE
- INVERT TO BE CLASS "C" CONCRETE
- IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
- FRAME AND GRATE TO BE NO. 2618 W/BICYCLE SAFE GRATE, AS MANUFACTURED BY CAMPBELL FOUNDRY COMPANY OR EQUIVALENT.
- PROVIDE 7/8" DIA. x 7" x 12" ALUM. LADDER RUNGS, 12% G. FACING TRAFFIC.
- WHEN ADDITIONAL DEPTH IS SCHEDULED WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET GUTTER TO INVERT SHALL BE 12" THICK. THE FOUNDATION DIMENSIONS SHALL BE INCREASED TO 12" IN WIDTH AND TO 12" IN DEPTH.
- FOUNDATION AND INVERTS TO BE CONSTRUCTED IN TWO STAGES, THE TOP OF FOUNDATION TO BE LEFT ROUGH.



INLET TYPE 'B' (W/ BICYCLE SAFE GRATE)

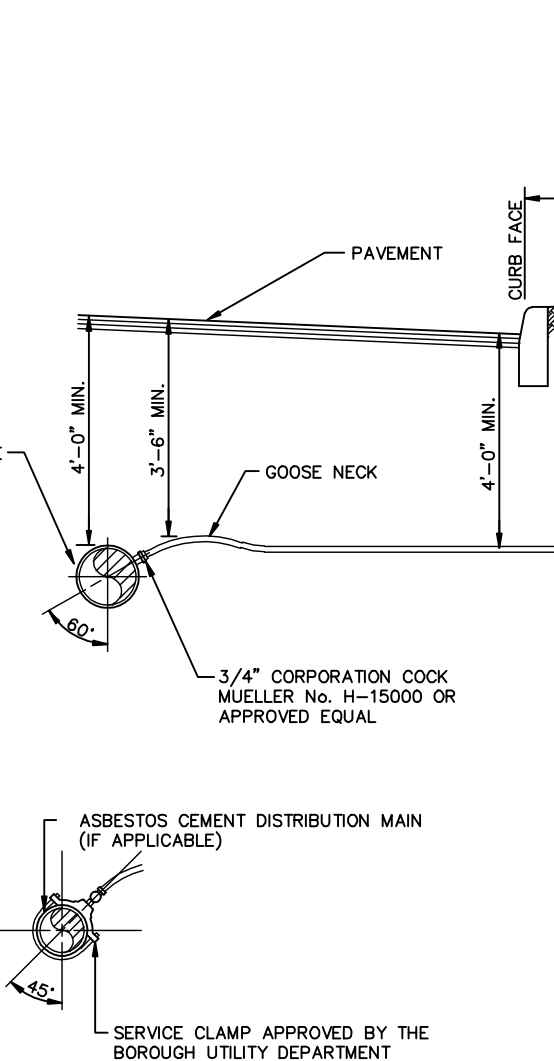
INLET TYPE 'E' (W/ BICYCLE SAFE GRATE)



I.D.	12	15	18	21	24	27	30	36	42	48	54	60
A	2	2.25	2.5	2.75	3	3.25	3.5	4	4.5	5	5.5	6
R	5	7.5	9	10	10	14	14	21	24	27	31	31
S	24	24	24	24	24	24	26	26	36	30	36	36
T	24	24	24	24	24	24	30	36	60	66	60	60
U	4	4	4	4	4	4	4	4	4	4	4	4
V	24	28	34	40	48	54	60	72	78	84	90	96

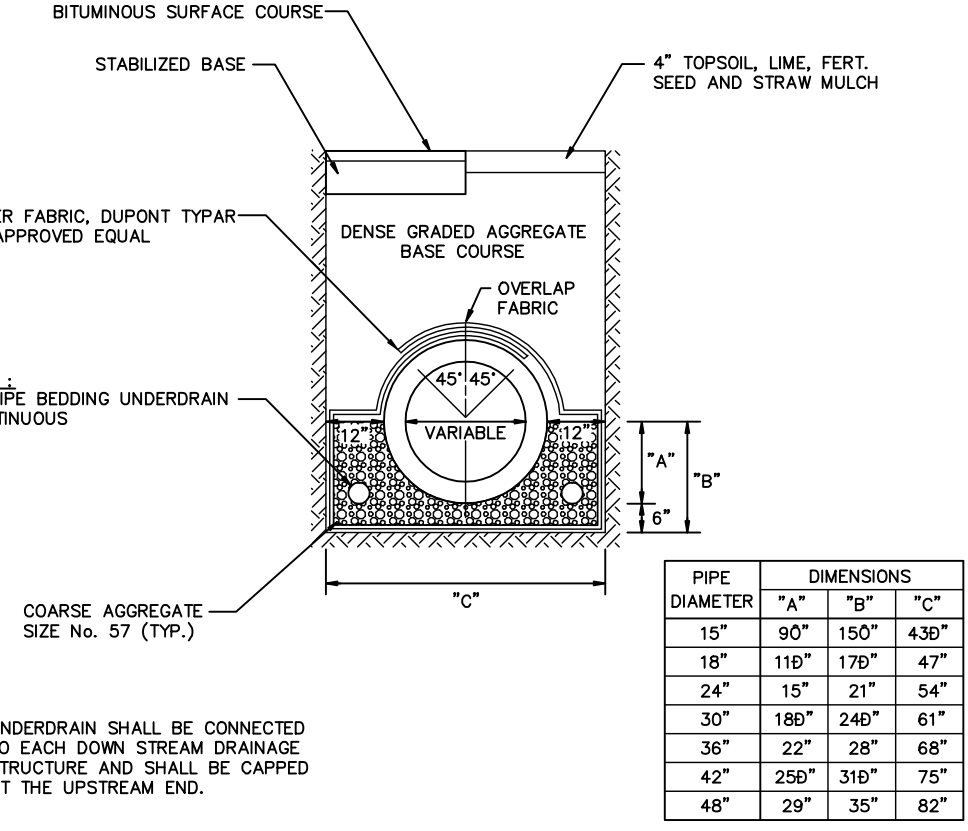
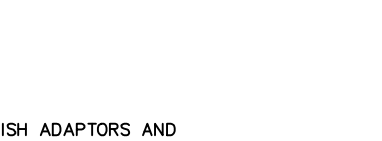
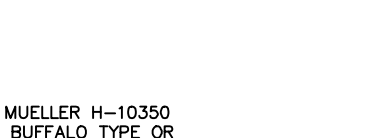
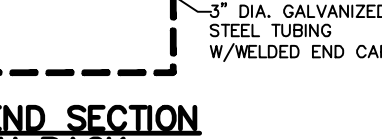
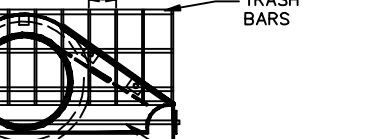
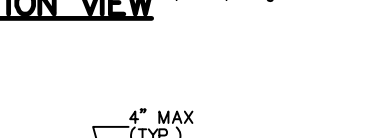
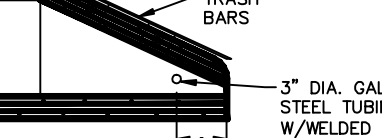
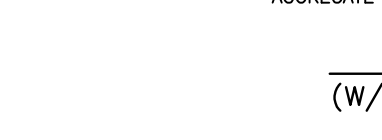
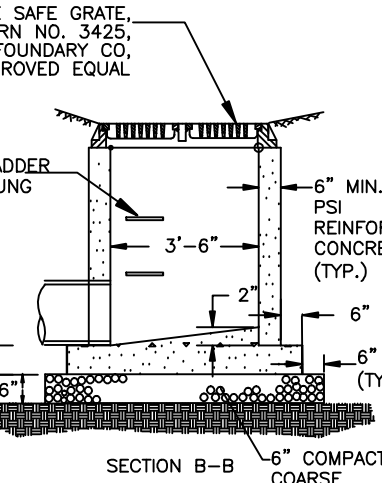
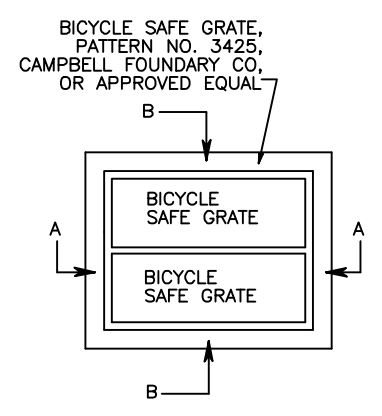
PRECAST F.E.S. DETAIL

N.T.S.



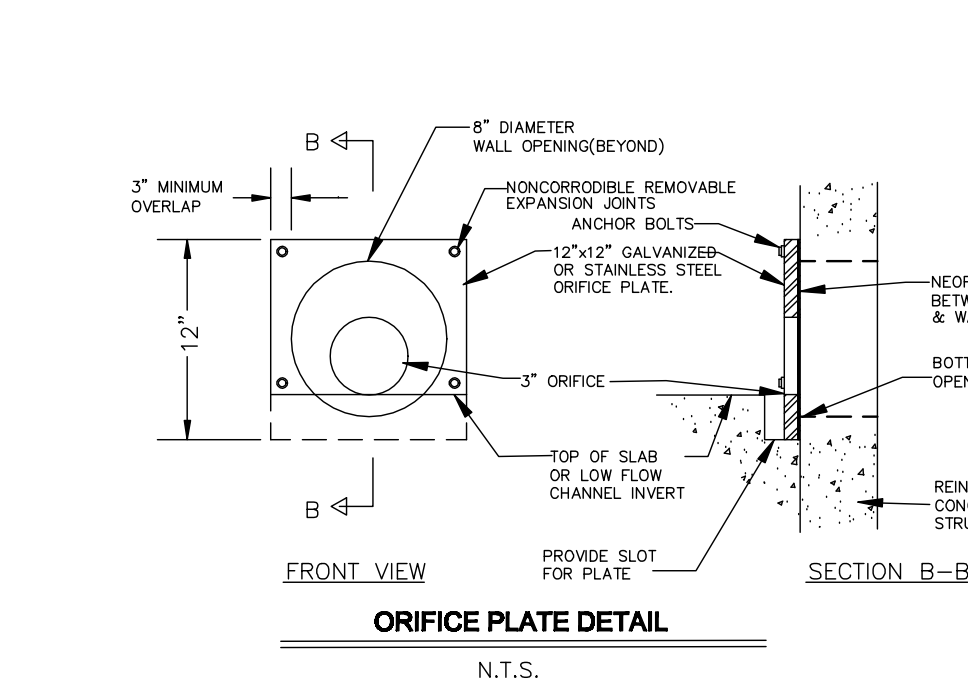
WATER SERVICE CONNECTION DETAIL

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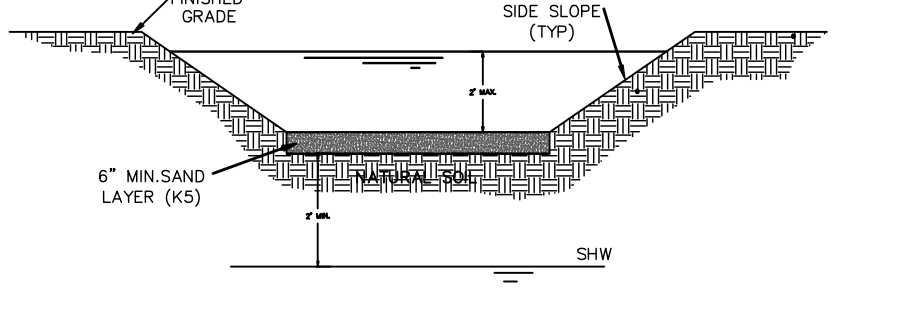
TYPICAL PIPE BEDDING STORM SEWER

N.T.S.



ORIFICE PLATE DETAIL

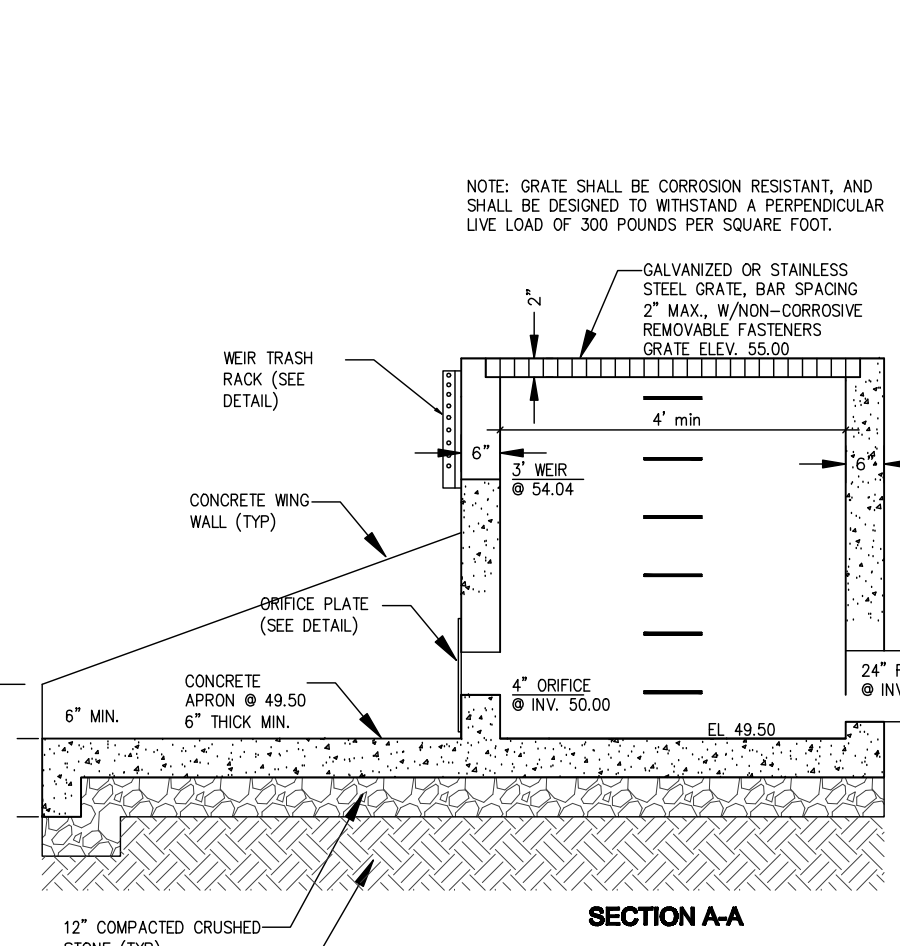
N.T.S.



TYPICAL CROSS SECTION INFILTRATION BASIN

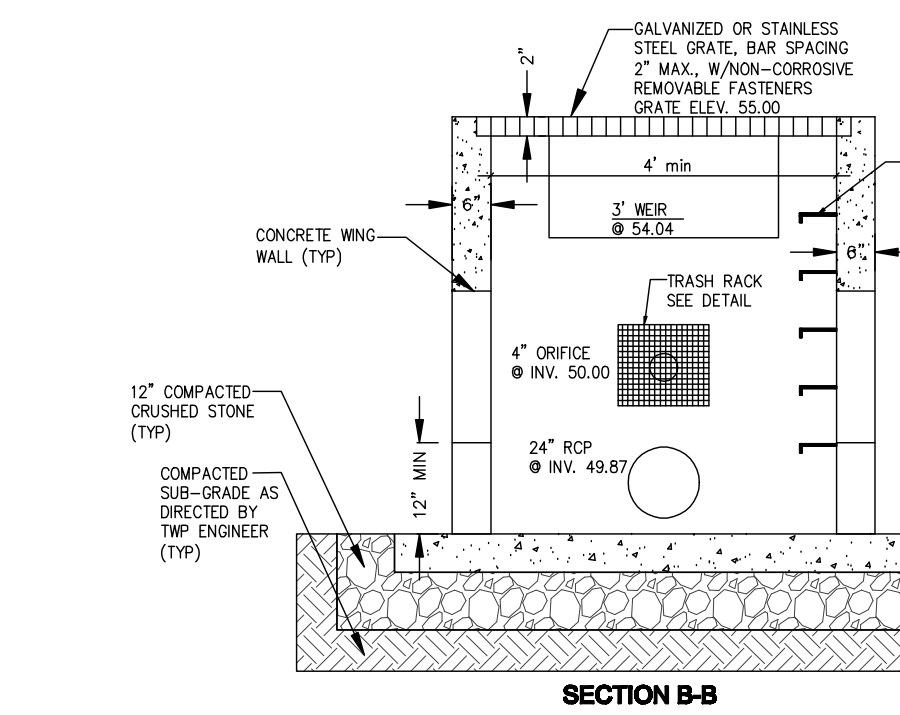
N.T.S.

- NOTES:**
- BOTTOM SAND LAYER MUST CONSIST OF K5 SAND, WITH A MAXIMUM OF 10% FINES AND A MINIMUM PERMEABILITY RATE OF 20 INCHES PER HOUR.
 - BASE CONSTRUCTION MUST NOT COMPACT SOILS BELOW BASIN BOTTOM.
 - BOTTOM AREA OF INFILTRATION BASIN MUST BE AS LEVEL AS POSSIBLE.
 - DURING CLEARING AND GRADING OF THE SITE, MEASURES MUST BE TAKEN TO ELIMINATE SOIL COMPACTION AT THE PROPOSED INFILTRATION BASIN.
 - THE LOCATION OF THE PROPOSED INFILTRATION BASIN MUST BE CORROBORATED DURING CONSTRUCTION TO PREVENT COMPACTION OF THE SUBSOIL BY CONSTRUCTION EQUIPMENT OR STOCKPILES.
 - EXCAVATION AND CONSTRUCTION OF AN INFILTRATION BASIN MUST BE PERFORMED USING EQUIPMENT PLACED OUTSIDE THE LIMIT OF THE BASIN.
 - THE EXCAVATION OF THE FINAL DESIGN ELEVATION OF THE INFILTRATION BASIN BOTTOM MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED.



SECTION A-A

CONTRACTOR TO DIRECT BY TYP ENGINEER (TYP)



SECTION B-B

CONTRACTOR TO DIRECT BY TYP ENGINEER (TYP)



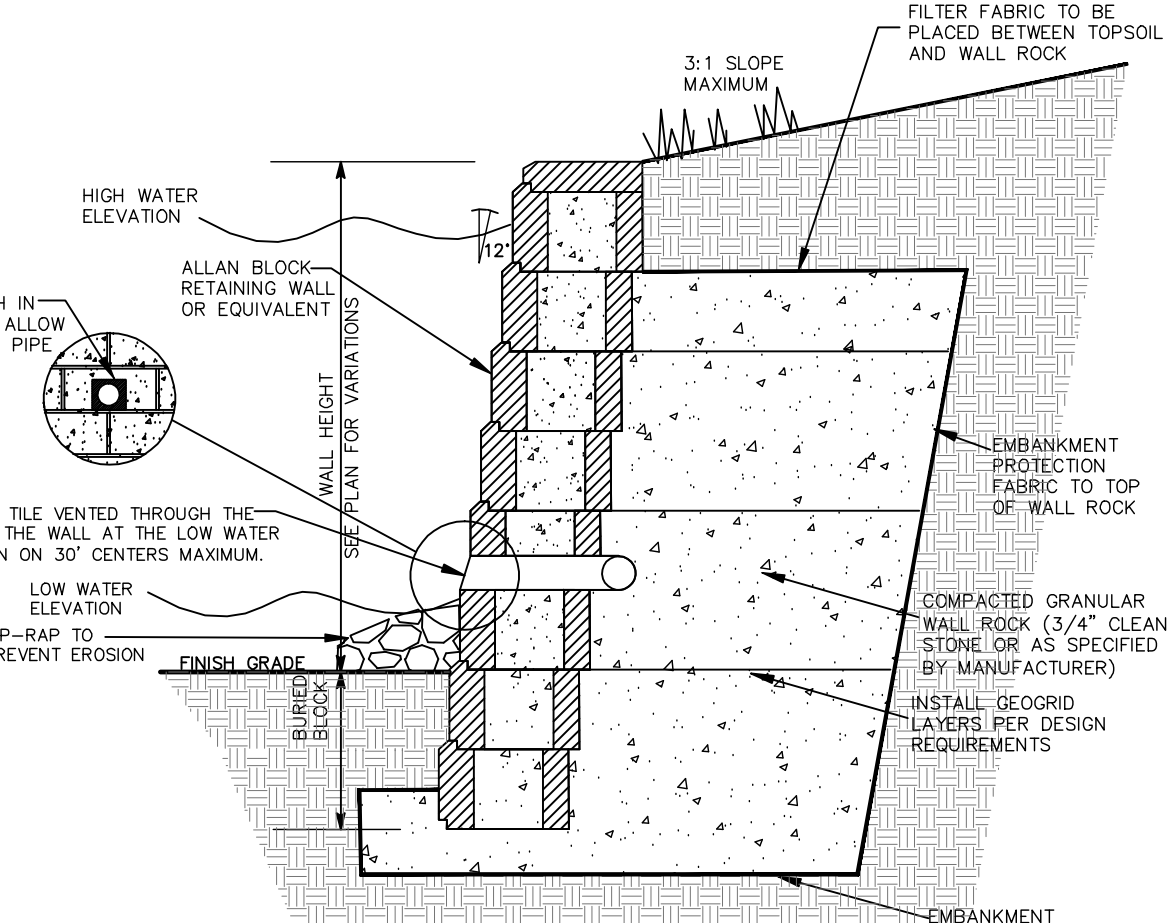
SECTION A-A

CONTRACTOR TO DIRECT BY TYP ENGINEER (TYP)



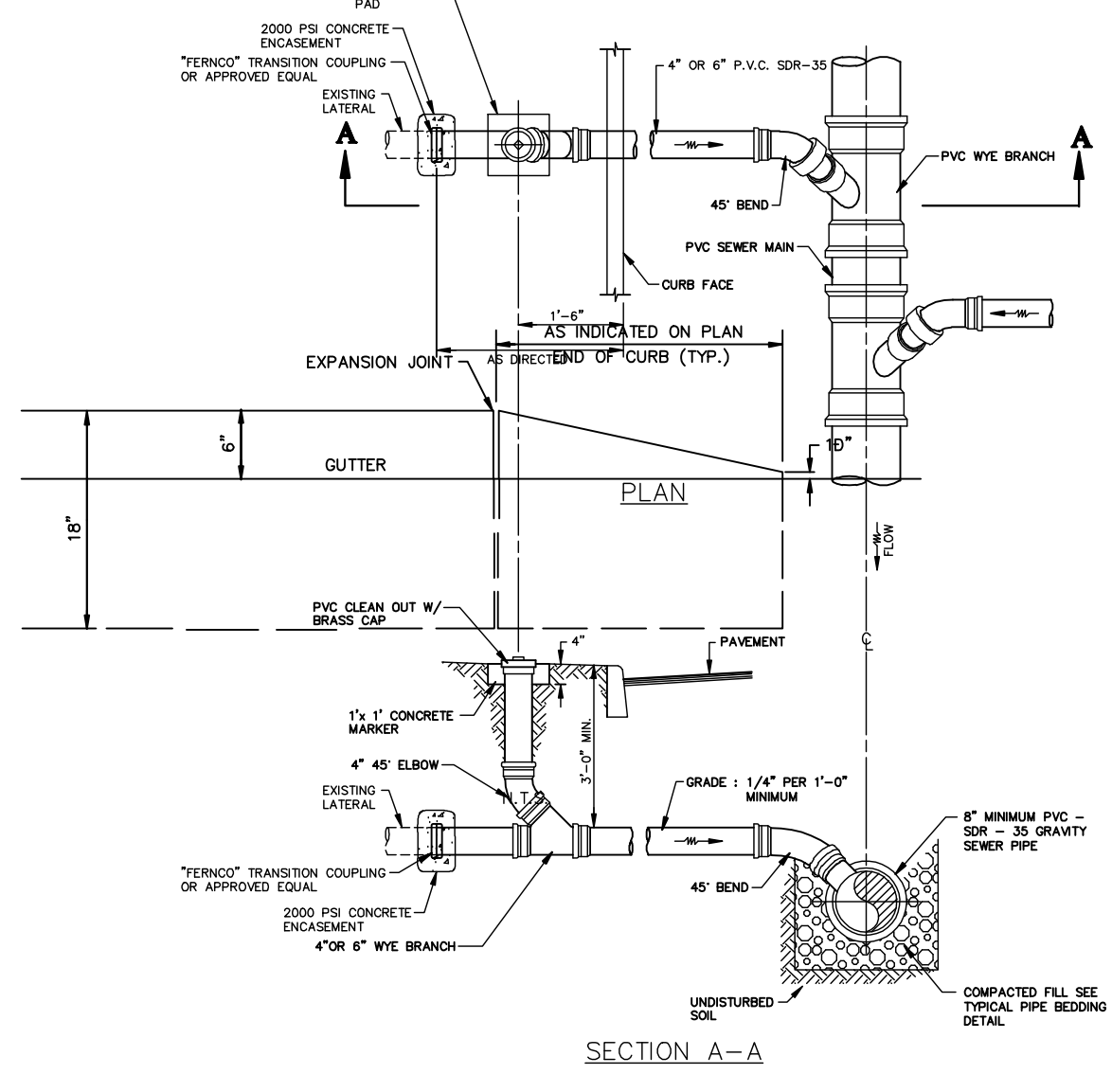
SECTION B-B

CONTRACTOR TO DIRECT BY TYP ENGINEER (TYP)



BLOCK RETAINING WALL DETAIL AT DETENTION BASIN

- BLOCK RETAINING WALL NOTES:**
- WALL TO BE "ALLAN BLOCK", OR APPROVED EQUIVALENT. COLOR TO BE SPECIFIED BY OWNER.
 - REFER TO THE PLAN FOR LOCATION AND HEIGHT OF WALLS.
 - INSTALLATION OF WALLS AND REINFORCEMENT OF WALLS, IF ANY, SHALL BE IN ACCORDANCE WITH MANUFACTURERS DESIGN, SPECIFICATIONS AND RECOMMENDATIONS.
 - WALLS GREATER THAN 30 INCHES IN HEIGHT SHALL BE DESIGNED BY A STRUCTURAL ENGINEER & CALCULATIONS SHALL BE SUBMITTED TO TOWNSHIP ENGINEER'S OFFICE FOR REVIEW & APPROVAL.
 - GEOROID REINFORCING, IF REQUIRED, SHALL BE PROVIDED AS DESIGNED BY THE STRUCTURAL ENGINEER OR MANUFACTURER BASED ON THE MAXIMUM WALL HEIGHT. REINFORCING FOR THE MAXIMUM HEIGHT OF WALL SHALL BE SIMILARLY INSTALLED TO THE LOWER WALLS TO MAINTAIN CONSISTENCY IN THE STRENGTH OF THE WALL.



PVC SANITARY SEWER LATERAL AND CLEANOUT

N.T.S.

NO.	REVISION	DATE	Dr/Ck
2	REV F502 8/9/18	10/7/2018	H/SA
1	REV PER F502 8/9/18	8/27/18	H/SA

CAD#:	DESIGN BY:	DATE:
17048-SH12-13 DET	SA	7/10/18
PB#:	DRAWN BY:	SCALE:
-	JA	N.T.S.
BOOK#:	Checked by:	FILE NO.:
-	SA	17-048

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 E-MAIL: info@amertecheng.com
 CERTIFICATE OF AUTHORIZATION NO. 24628260400

SHARIF H. ALY
 NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 34669

Preliminary & Final Major Site Plan
 Lot 31, 32, & 33 in Block 131
 Borough of Milltown
 Middlesex County, New Jersey
 T.M. Sheet #38

HERITAGE PLAZA II
CONSTRUCTION DETAILS

JOB #:
17-048

12
13