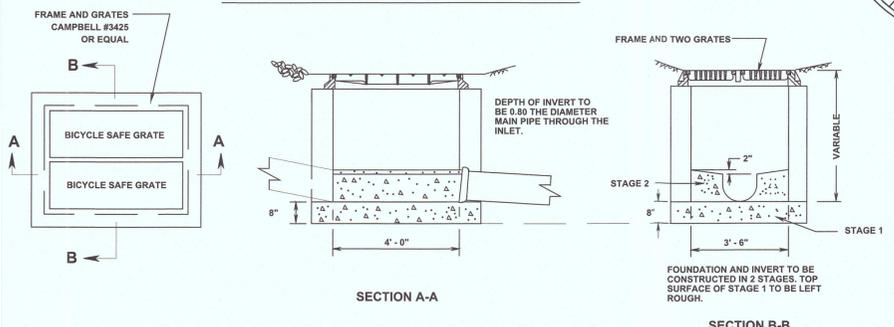
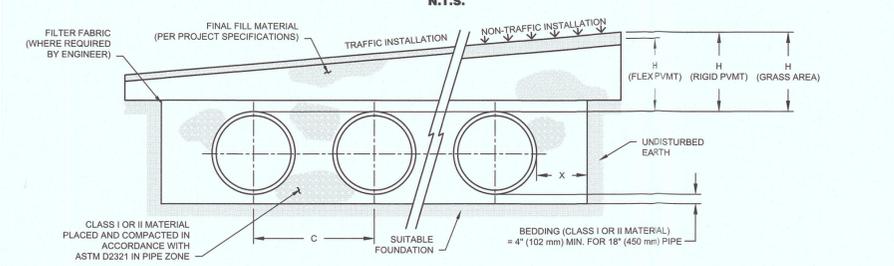


**SANITARY SEWER CLEAN OUT**  
N.T.S.



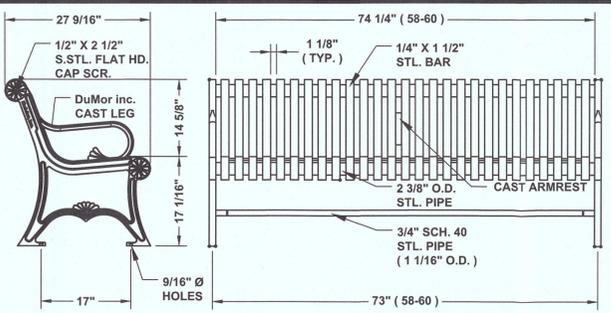
**TYPE "E" INLET**  
N.T.S.



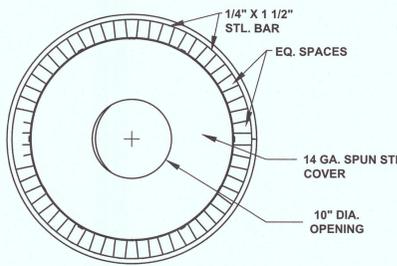
NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	MIN. H (NON-TRAFFIC)	MIN. H (TRAFFIC)	MAX. H*
18"	21"	35.3"	9"	12"	12"	8"
(450 mm)	(533 mm)	(897 mm)	(229 mm)	(305 mm)	(305 mm)	(2.4 m)

- NOTES:**
- ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
  - ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
  - MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED, SEE ASTM D2321.
  - FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
  - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
  - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (102 mm) FOR 4"-24" (100-600 mm); 6" (152 mm) FOR 30"-60" (750-900 mm).
  - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" (152 mm) ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
  - COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (305 mm) FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" (305 mm) UP TO 36" (900 mm) DIAMETER PIPE AND 24" (610 mm) OF COVER FOR 42"-60" (1050-1500 mm) DIAMETER PIPE. MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. MAXIMUM FILL HEIGHT LIMITED TO 8 FT (2.4 m) OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM FILL HEIGHTS EXCEED 8 FT (2.4 m) FOR INSTALLATION CONSIDERATIONS.

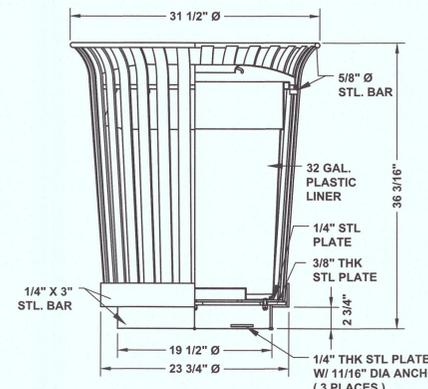
**PROPOSED UNDERGROUND DETENTION SYSTEM DETAIL**  
N.T.S.



**6' WIDE BACKED BENCH DETAIL**  
N.T.S.

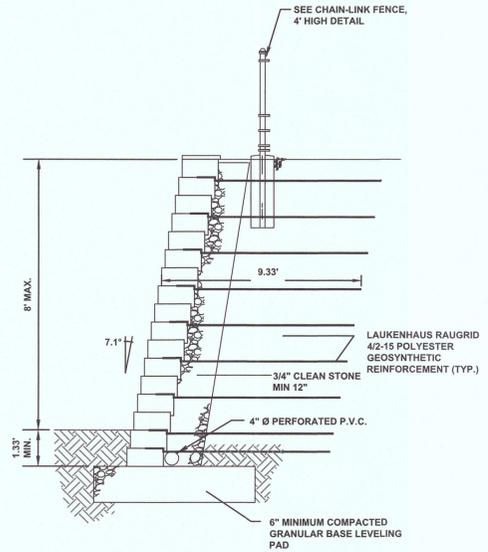


- NOTES:**
- CONTRACTOR SHALL FURNISH AND INSTALL TRASH RECEPTACLE, MODEL #84-32-FTO, LID TO BE BT BONNET, COLOR TO BE BLACK, MANUFACTURED BY DUMOR SITE FURNISHINGS OR APPROVED EQUAL.
  - ALL STEEL MEMBERS COATED WITH ZINC RICH EPOXY THEN FINISHED WITH POLYESTER POWDER COATING.
  - 1/2" x 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
  - ALL TRASH RECEPTACLES TO BE INSTALLED WITH TAMPER RESISTANT STAINLESS STEEL HARDWARE.

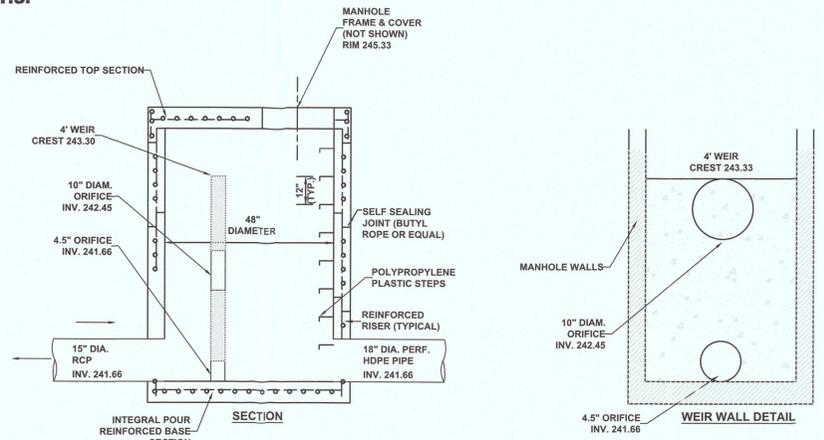


**TRASH RECEPTACLE**  
N.T.S.

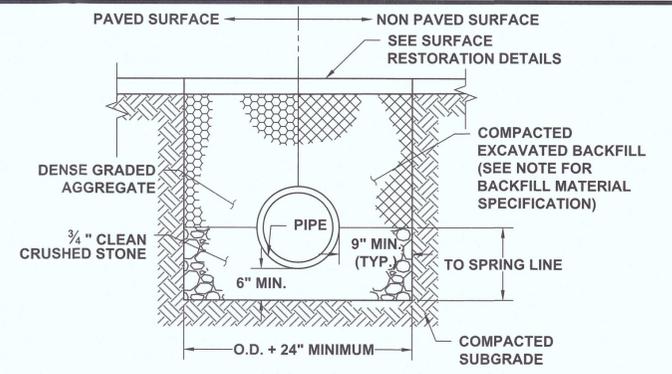
- NOTES:**
- CONTRACTOR SHALL FURNISH AND INSTALL BENCH, MODEL #58-60-3AR, LENGTH TO BE 6', COLOR TO BE BLACK, MANUFACTURED BY DUMOR SITE FURNISHINGS OR APPROVED EQUAL.
  - ALL STEEL MEMBERS COATED WITH ZINC RICH EPOXY THEN FINISHED WITH POLYESTER POWDER COATING.
  - 1/2" x 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
  - ALL BENCHES SHALL BE SURFACE MOUNTED AND INSTALLED WITH TAMPER RESISTANT STAINLESS STEEL HARDWARE.



**6'-8' MODULAR BLOCK RETAINING WALL**  
N.T.S.

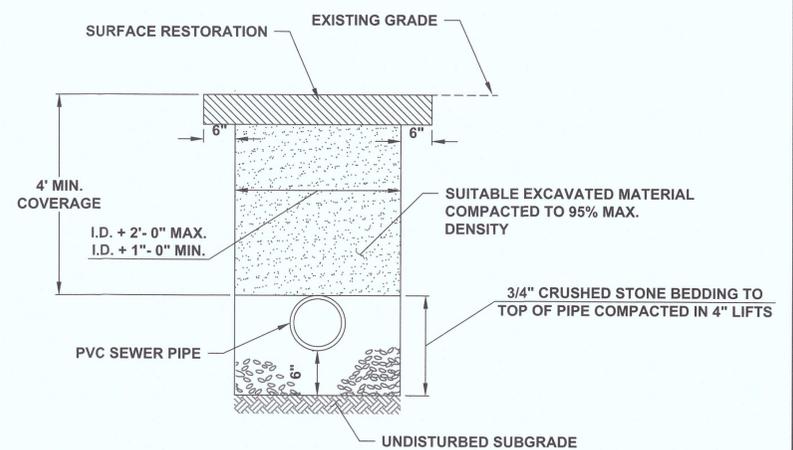


**PROPOSED OUTLET CONTROL STRUCTURE #100**  
N.T.S.

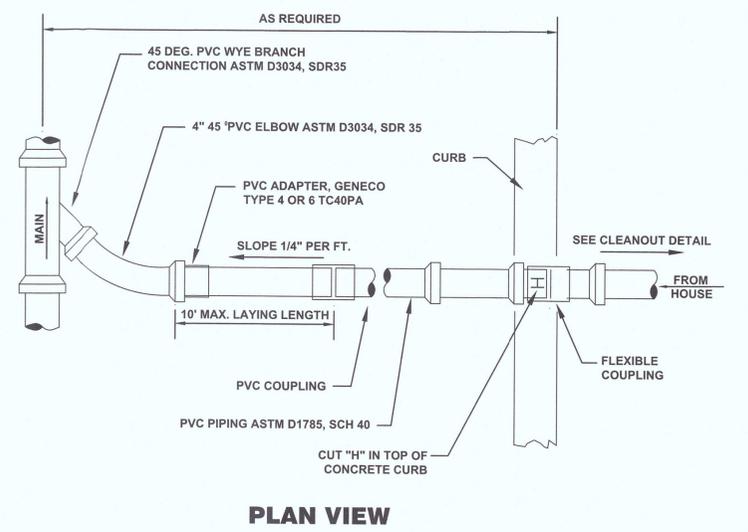


- BACKFILL SPECIFICATION**
- SHALL BE FREE OF DEBRIS AND STONES 2" OR GREATER IN ANY DIMENSION.
  - SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY.

**DRAINAGE PIPE TRENCH**  
N.T.S.



**TYPICAL PVC SEWER PIPE TRENCH DETAILS**  
N.T.S.



**TYPICAL LATERAL CONNECTION**  
N.T.S.

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DESCRIPTION	NO.	DATE	BY	CHK
REVISED PER RECEIVED COMMENTS	B	10/09/2020	KAK	CJS
REVISED PER RECEIVED COMMENTS	A	08/21/2020	KAK	CJS

**DAREN J. PHIL, PE**  
NJ PROFESSIONAL ENGINEER  
LICENSE NO. 246503610100  
DATE: 05/14/2020

**SUBURBAN CONSULTING ENGINEERS, INC.**  
COA NO. 24G128037500  
24S1100004200  
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- Planners - Environmentalists - Land Surveyors -  
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EXCELLENCE ♦ ECONOMY ♦ ENVIRONMENT

**PRELIMINARY AND FINAL MAJOR SITE PLAN FOR PARK VALLEY DEVELOPMENT**  
**No. 4 COMMUNITY PLACE, BLOCK 1501 LOT 4**  
BOROUGH OF MADISON, COUNTY OF MORRIS, STATE OF NEW JERSEY  
CONSTRUCTION DETAILS

PROJECT NUMBER: SCE-11521.011  
SCALE: AS NOTED  
SHEET 11 OF 11  
REVISION B

E:\SCE\Madison\11521\_011\_4 Community Place\Sheets\11521.011 9-10 Construction Details.dwg Thu, Oct 08, 2020 - 11:51am kkemper SUBURBAN CONSULTING ENGINEERS, INC.