

LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
SOUTH ORANGE AVENUE REDEVELOPMENT  
VILLAGE OF SOUTH ORANGE  
ESSEX COUNTY, NEW JERSEY

\* ONE UNIT RESERVED FOR BUILDING OPERATIONS STAFF SHALL NOT BE COUNTED AS PART OF THE OVERALL RESIDENTIAL DENSITY

\*\* RESIDENTIAL SPACES 110, OFFICE SPACES 30, COMMERCIAL SPACES 49, PUBLIC SPACES 16

4	REVISED PER REVIEW COMMENTS	8/5/2020	AH-H
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/10/2020	JMP
2	REVISED FOR BESS SUBMISSION	6/18/2020	AH-H
1	REVISED FOR PRELIMINARY SUBMISSION	5/28/2020	AH-H
REVISION	DESCRIPTION	DATE	BY

Designer: JMP  
 Craftsman: AHH  
 Checked By: JMP  
 Project No.: 19-0078  
 Scale: AS NOTED  
 Sheet:  
**SP-1**

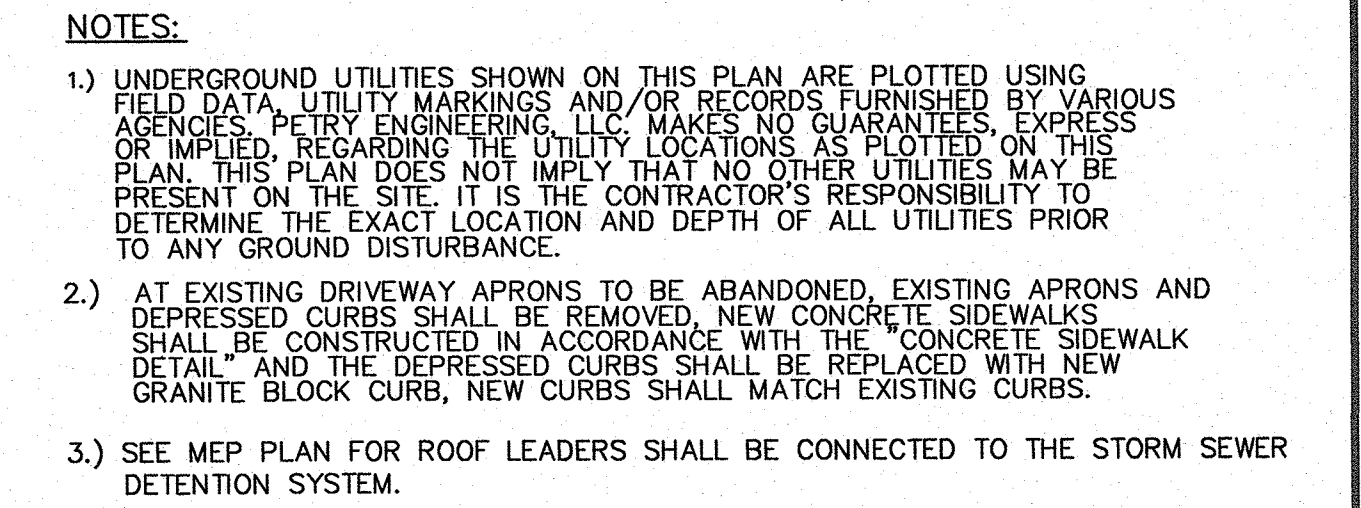
1. New Jersey American Water  
167 John F Kennedy Pkwy – Bldg A  
Short Hills, New Jersey 07078
2. Public Service Electric & Gas Co.  
Manager – Corporate Properties  
80 Park Place, T6B  
Newark, New Jersey 07102
3. Verizon  
540 Broad Street  
Newark, New Jersey 07101
4. CABLEVISION  
186 West Mark Street  
Newark, New Jersey 07103

**TAX AND ZONING MAP** **SCALE 1" = 100'**

MAP REFERENCES:  
 VILLAGE OF SOUTH ORANGE ZONING MAP AND TAX MAPS #10, 19, 20

**CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.**





- 1) THE LOCATION OF EXISTING SUBSTRUCTURES AND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON FIELD OBSERVATIONS OF SURFACE EVIDENCE AND CERTAIN INFORMATION CONTAINED IN THE PUBLIC RECORD, AND RECORD DATA PROVIDED BY OWNER. THIS PLAN IN NO WAY REPRESENTS ANY GUARANTEE, EXPRESS OR IMPLIED, TO THE ACCURACY OF THESE PLOTTED LOCATIONS. ADDITIONALLY, THIS PLAN MAKES NO GUARANTEE THAT UTILITIES AND OTHER SUBSURFACE UTILITIES AND OTHER SUBSURFACE STRUCTURES SHOWN ON THIS PLAN ARE THE ONLY SUBSURFACE STRUCTURES WHICH MAY BE ENCOUNTERED DURING THE DEMOLITION OR SUBSEQUENT CONSTRUCTION ASSOCIATED WITH THIS OR ANY OTHER PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ANY SUPPLEMENTAL OR VERIFYING INVESTIGATIONS RELATED TO THE LOCATION, SIZE AND NATURE OF UNDERGROUND STRUCTURES WHICH MAY IMPACT THE WORK ON OR NEAR THIS SITE.
- 2) DISCONNECTION OF EXISTING UTILITY SERVICES SHALL BE COORDINATED WITH OWNER AND IN ACCORDANCE WITH THE REGULATIONS OF THE UTILITY AUTHORITY CONCERNED. THE CONTRACTOR WILL PROVIDE THE OWNER WITH WRITTEN CONFIRMATION FROM UTILITY COMPANIES THAT ALL SERVICE TO THE SITE HAS BEEN TERMINATED PRIOR TO THE CAPPING, ABANDONMENT, OR REMOVAL OF ANY SUCH UTILITIES.
- 3) EXISTING BUILDINGS, STRUCTURES, CURBS, UTILITIES, SIGNS, LANDSCAPING AND ANY OTHER IMPROVEMENTS NOT DESIGNATED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE. SHOULD DAMAGES OCCUR, THE OWNER SHALL BE NOTIFIED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 4) ALL CONCRETE SLABS, FLOORS, BARRIERS, CURBS AND SIDEWALKS DESIGNATED FOR DEMOLITION SHALL BE COMPLETELY REMOVED FROM THE SITE.
- 5) WALLS, BEAMS, COLUMNS, FLOORS, SLABS, PAVEMENTS, RAMPS, FOOTINGS AND ALL OTHER BUILDING COMPONENTS OR APPURTENANCES DESIGNATED FOR REMOVAL SHALL BE COMPLETELY REMOVED FROM THE SITE. THE RESULTING DEPRESSIONS SHALL BE FILLED AND COMPACTED AS DIRECTED. USING ONLY SUITABLE MATERIAL FROM ON-SITE OR APPROVED MATERIAL FROM OFF-SITE. NO DEBRIS FROM DEMOLITION OR OTHER UNSUITABLE MATERIAL SHALL BE USED. IN SPECIAL CASES, DEEP SEATED CONCRETE OR MASONRY STRUCTURES WHICH WILL NOT INTERFERE WITH SUBSEQUENT CONSTRUCTION MAY REMAIN IN PLACE IF SO APPROVED BY THE OWNER'S ENGINEER.
- 6) FOLLOWING THE DEMOLITION AND REMOVAL OF ALL IMPROVEMENTS SO DESIGNATED, THE DISTURBED AREA SHALL BE GRADED, AS DIRECTED BY THE OWNER'S ENGINEER, SO THAT THE RESULTING LANDFORM WILL NOT ALLOW FOR PONDING OR THE FORMATION OF GULLIES RESULTING FROM STORMWATER RUN-OFF.
- 7) CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL MATERIAL.
- 8) CONTRACTOR TO COORDINATE REMOVAL OF ANY EXISTING SITE LIGHTING WITH THE APPROPRIATE UTILITY COMPANY. LIGHT POLES SHALL BE REMOVED AND DISPOSED OF AS REQUIRED.
- 9) AT EXISTING DRIVEWAY APRONS TO BE ABANDONED, EXISTING APRONS AND DEPRESSED CURBS SHALL BE REMOVED, NEW CONCRETE SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CONCRETE SIDEWALK DETAIL" AND THE DEPRESSED CURBS SHALL BE REPLACED WITH NEW GRANITE BLOCK CURB, NEW CURBS SHALL MATCH EXISTING CURBS.



**BUILDING FOOTPRINT**

**DOOR ENTRY PAD**

**MODIFIED PAVEMENT AREA**

REFERENCES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 8&-17, BLOWY, 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, NULS# 37605 DATED 08/04/20.
2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/6/2020.

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

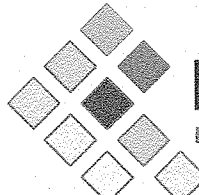
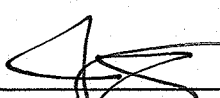
4	REVISED PER REVIEW COMMENTS	8/5/2020	AHH
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
2	REVISED FOR SESC SUBMISSION	6/18/2020	AHH
1	REVISED FOR PRELIMINARY SUBMISSION	5/26/2020	AHH
REVISION	DESCRIPTION	DATE	BY

PREPARED FOR

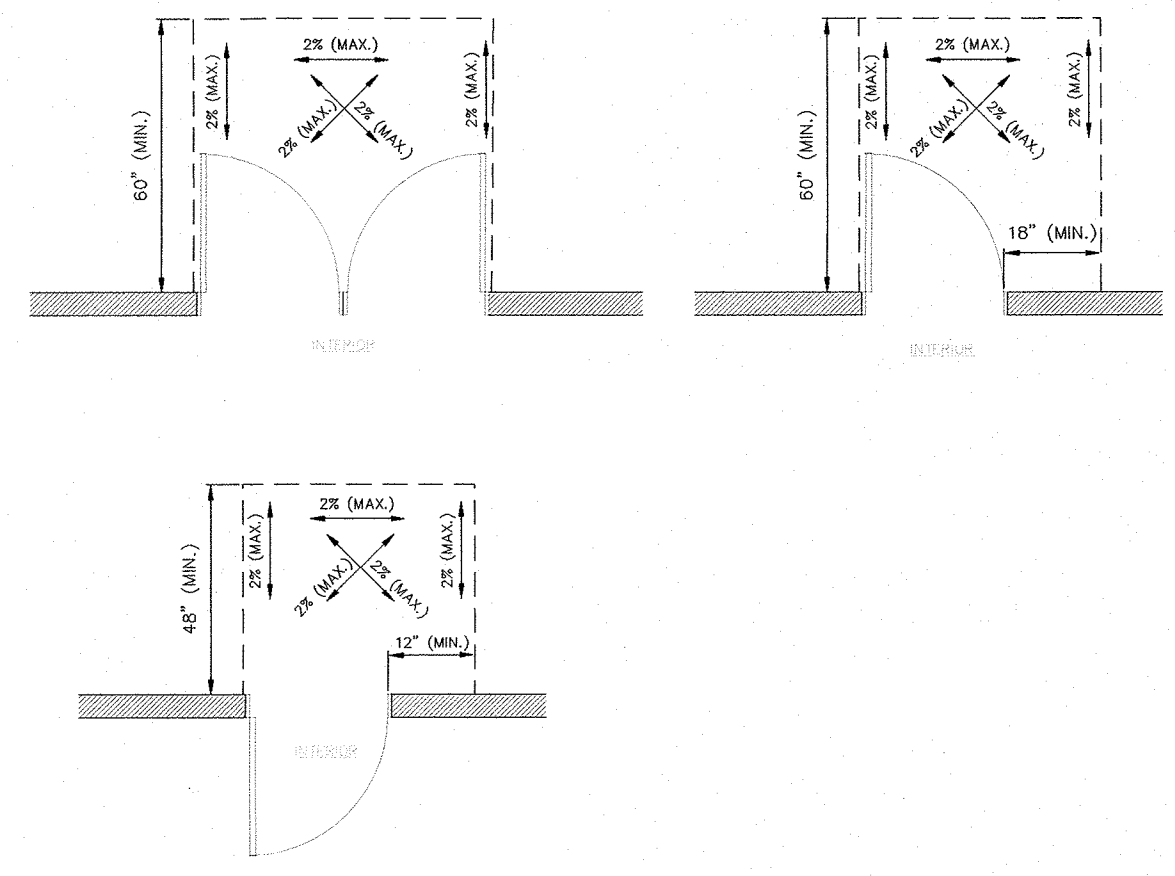
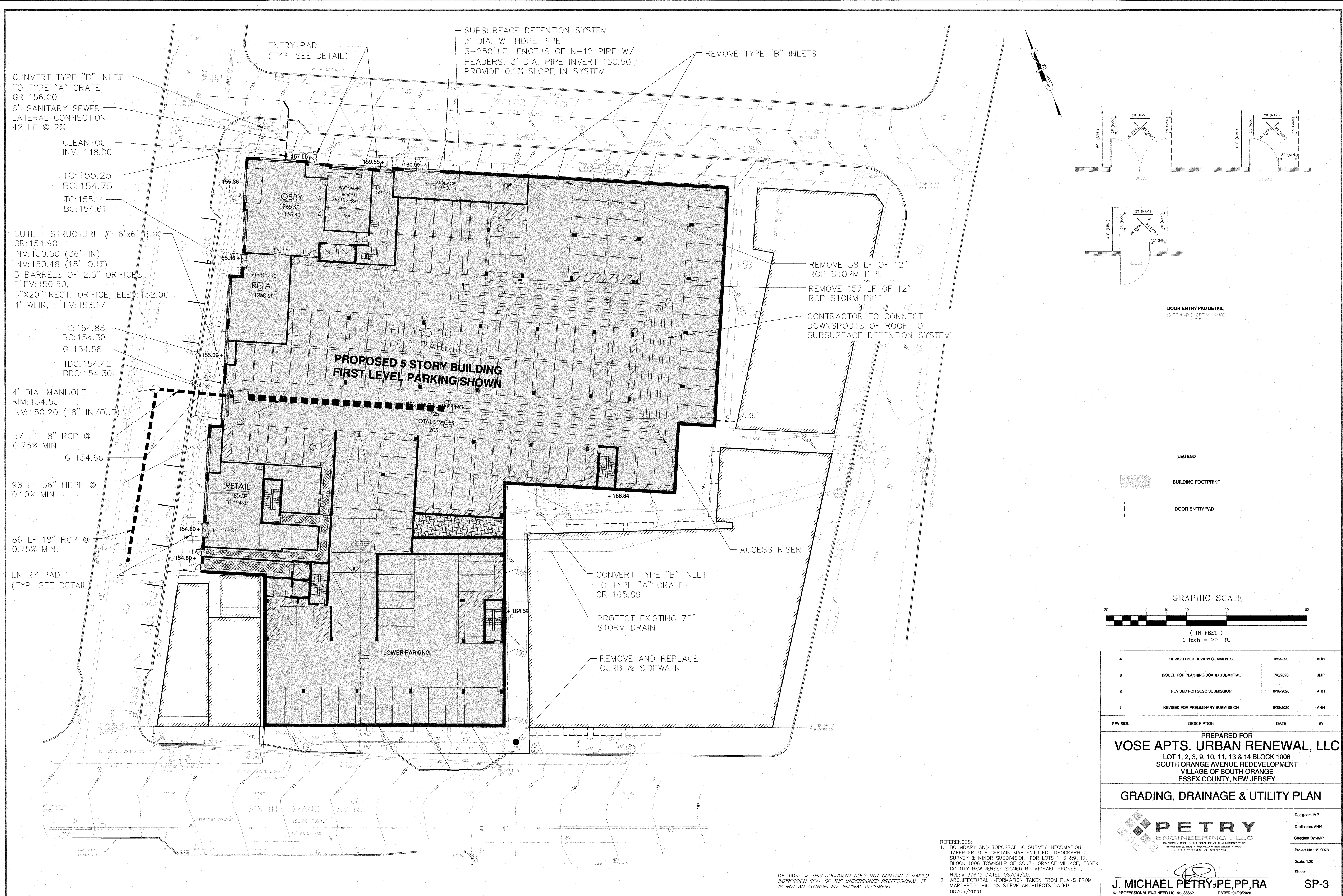
# VOSE APTS. URBAN RENEWAL, LLC

LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
 SOUTH ORANGE AVENUE REDEVELOPMENT  
 VILLAGE OF SOUTH ORANGE  
 ESSEX COUNTY, NEW JERSEY

## LAYOUT SHEET

 <p><b>PETRY</b> ENGINEERING, LLC  <small>DIVISION OF CONSTRUCTION/ARCHITECTURE (NEW JERSEY REG. #3600000000)          155 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004          TEL: (973) 237-7004 FAX: (973) 237-5074</small></p>	Designer: JMP
	Draftsman: AHH
	Checked By: JMP
	Project No.: 19-00078
	
<p><b>J. MICHAEL PETRY-PE,PP,RA</b></p> <p> <small>JJ PROFESSIONAL ENGINEER LIC. No. 355662</small> <small>DATED: 04/29/2020</small> </p>	
<p>Scale: 1/20</p> <p>Sheet:</p> <h1>SP-2</h1>	



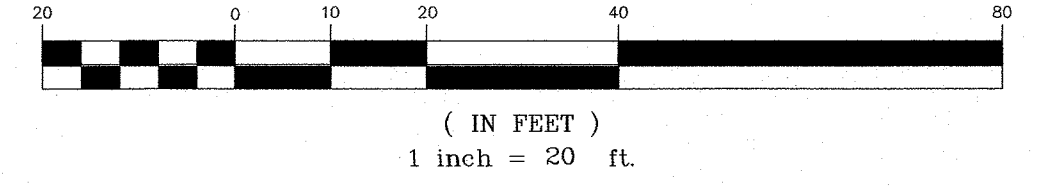


DOOR ENTRY PAD DETAIL  
(SIZE AND SLOPE MIN/MAX)  
N.T.S.

LEGEND

- BUILDING FOOTPRINT
- DOOR ENTRY PAD

GRAPHIC SCALE



4	REVISED PER REVIEW COMMENTS	8/5/2020	AHH
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
2	REVISED FOR SESC SUBMISSION	6/18/2020	AHH
1	REVISED FOR PRELIMINARY SUBMISSION	5/28/2020	AHH
REVISION	DESCRIPTION	DATE	BY

PREPARED FOR  
**VOSE APTS. URBAN RENEWAL, LLC**  
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
SOUTH ORANGE AVENUE REDEVELOPMENT  
VILLAGE OF SOUTH ORANGE  
ESSEX COUNTY, NEW JERSEY

GRADING, DRAINAGE & UTILITY PLAN



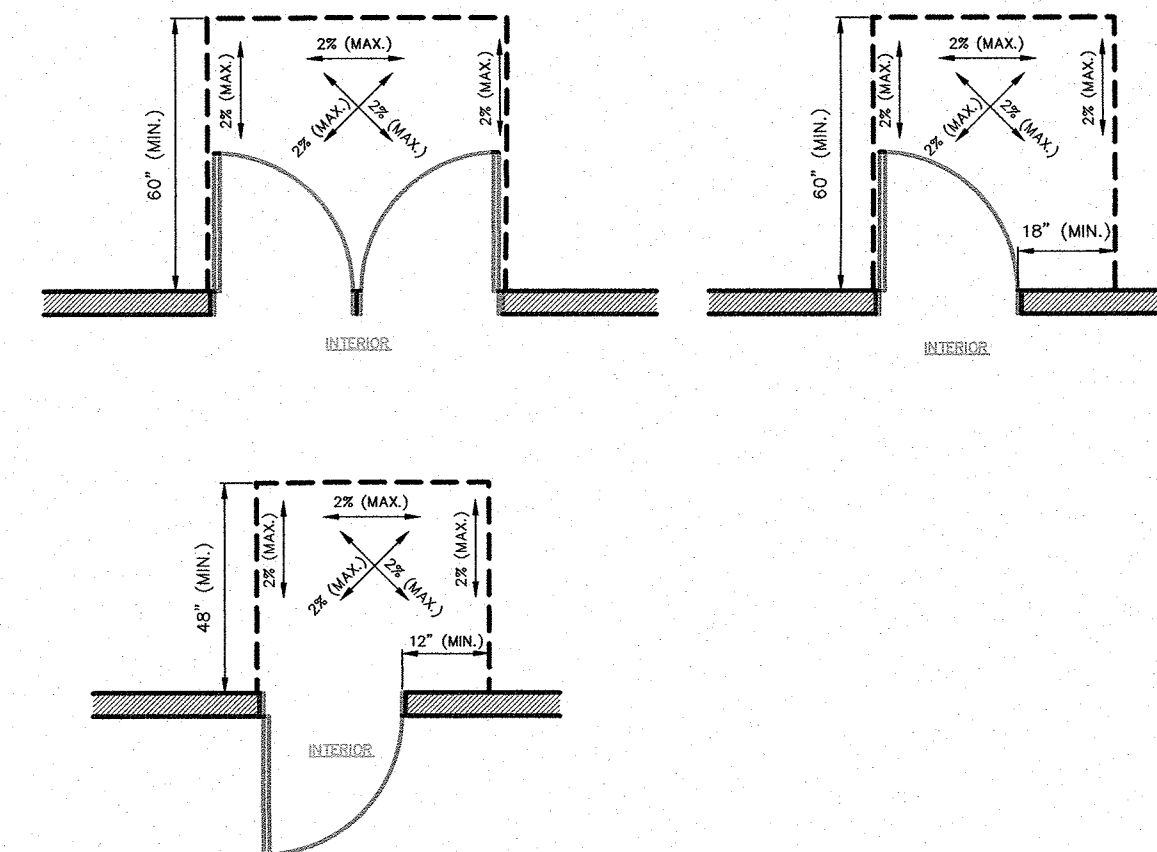
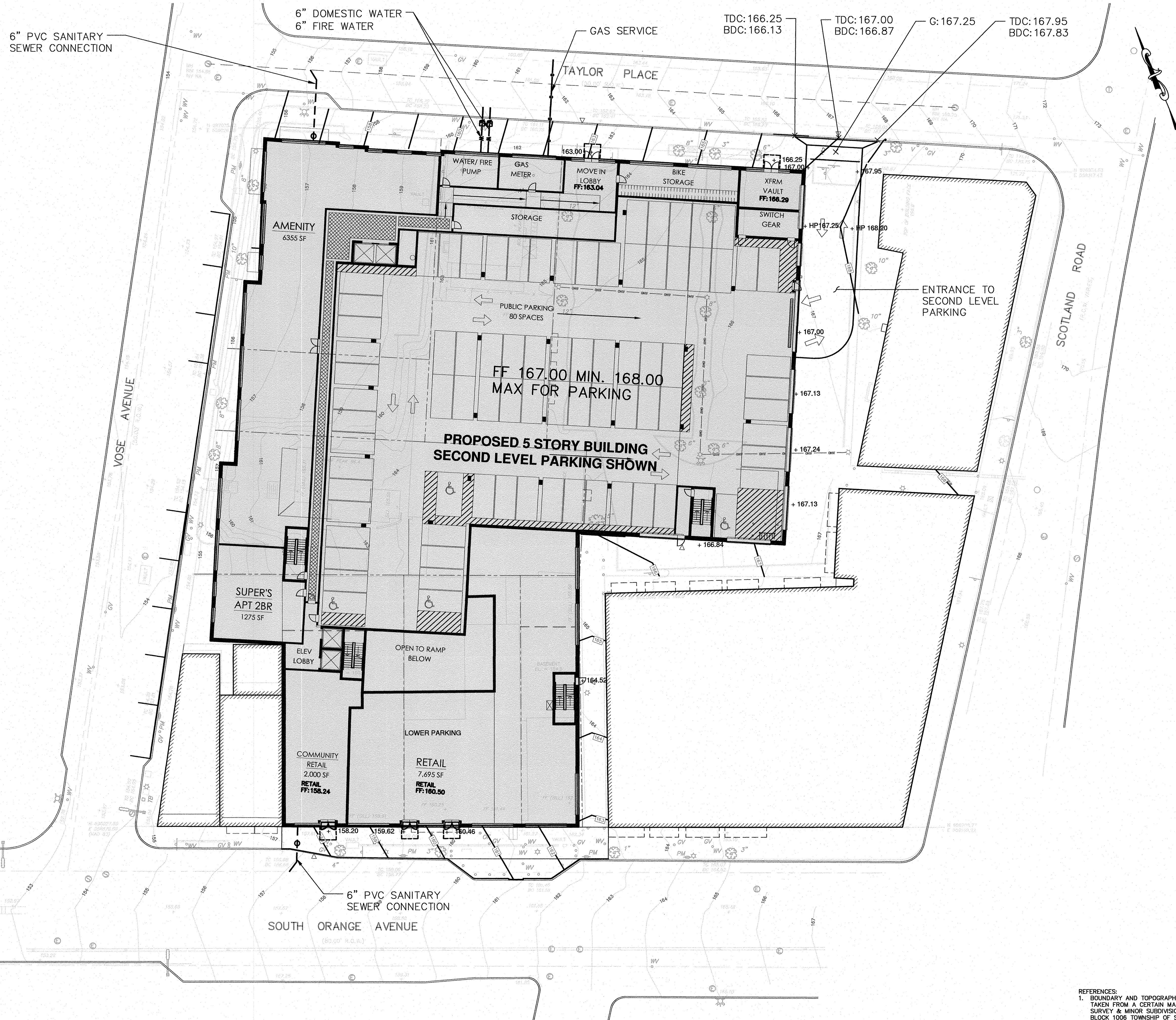
**J. MICHAEL PETRY, PE, PP, RA**  
NJ PROFESSIONAL ENGINEER LIC. NO. 36662 DATED: 04/29/2020

Designer: JMP  
Draftsman: AHH  
Checked By: JMP  
Project No.: 19-0078  
Scale: 1/20  
Sheet:  
**SP-3**

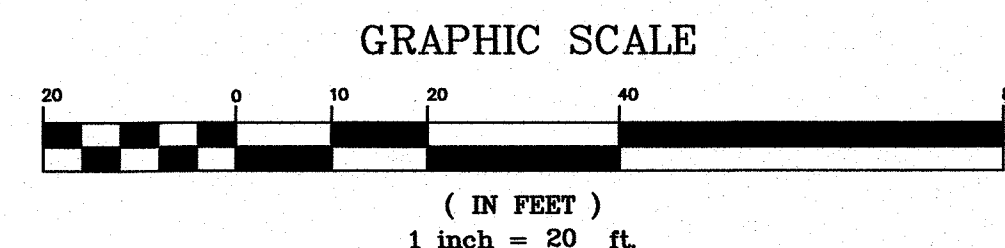
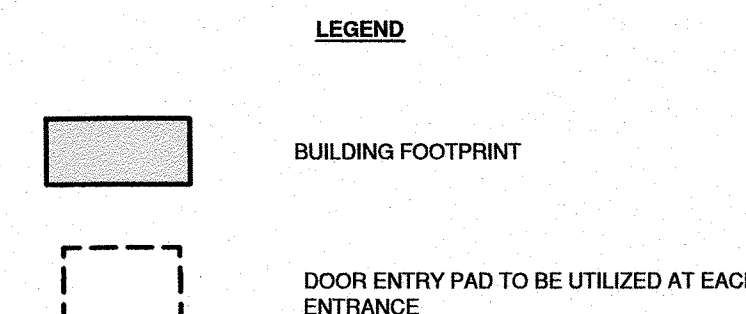
REFERENCES:  
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.L.S.# 37605 DATED 08/04/20.  
2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STIEVE ARCHITECTS DATED 08/06/2020.

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.






DOOR ENTRY PAD DETAIL  
(SIZE AND SLOPE MIN/MAX)  
N.T.S.



- REFERENCES:
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006, TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.S. 37605 DATED 08/04/20.
  2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHEITO HIGGINS STEVE ARCHITECTS DATED 08/06/2020.

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

REVISION	DESCRIPTION	DATE	BY
PREPARED FOR <b>VOSE APTS. URBAN RENEWAL, LLC</b> LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 SOUTH ORANGE AVENUE REDEVELOPMENT VILLAGE OF SOUTH ORANGE ESSEX COUNTY, NEW JERSEY			
<b>GRADING OF SECOND FLOOR PARKING</b>			
 DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER JAS04818500 100 PARKING AVENUE • FARGO, ND • 58103 • NEW JERSEY • 2004 TEL: (701) 221-7004 FAX: (701) 221-7004		Designer: J.M.P. Draftsman: A.H.H. Checked By: J.M.P. Project No.: 19-0078 Scale: 1/20 Sheet: <b>J. MICHAEL PETRY-PE, PP, RA</b> NJ PROFESSIONAL ENGINEER LIC. No. 36962 DATED: 08/05/2020	
		<b>SP-4</b>	



SOIL EROSION AND SEDIMENT CONTROL NOTES  
(To be included on the signed erosion control plan sheet)

1. All soil erosion and sediment control practices on this plan will be constructed in accordance with the "New Jersey Standards for Soil Erosion and Sediment Control" 7th Edition last revised July 2017, effective December 2017. These measures will be installed prior to any major soil disturbance or in their proper sequence and maintained until permanent protection is established.
2. Soil to be exposed or stockpiled for a period of greater than 14 days, and not under active construction, may be required to be temporarily mulched, and seeded or otherwise provided with vegetative cover as per Appendix A3. This temporary cover shall be maintained until such time whereby permanent revegetation is established.
3. **Seeding Dates:** The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPCSD: **Spring - 3/1-5/15** and **Fall - 8/15-10/1**
4. Sediment fences are to be properly trenched and maintained until permanent vegetative cover is established
5. All storm drainage inlets shall be protected by one of the practices accepted in the Standards, and protection shall remain until permanent stabilization has been established. Storm drainage outlet points shall be protected as required before they become functional.
6. Mulch materials shall be un-rotted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District.
7. All erosion control devices shall be periodically inspected, maintained and corrected by the contractor. Any damage incurred by erosion shall be rectified immediately.
8. The Hudson-Essex-Passaic Soil Conservation District will be notified in writing at least 48 hours prior to any soil disturbing activities. Fax - (862) 333-4507 OR email - INFORMATION@HEPCSD.ORG
9. **The applicant must obtain a District issued Report-of-Compliance prior to applying for the Certificate of Occupancy or Temporary Certificate of Occupancy from the respective municipality, NJ - DCA or any other controlling agency.** Contact the District at 862-333-4505 to request a Final Inspection, giving advanced notice upon completion of the revegetation measures. A performance deposit may be posted with the District when winter weather or snow cover prohibits the proper application of seed, mulch, fertilizer or hydro-seed.
10. Paved roadways must be kept clean at all times. Do not utilize a fire or garden hose to clean roads unless the runoff is directed to a properly designed and functioning sediment basin. Water pumped out of the excavated areas contains sediments that must be removed prior to discharging to receiving bodies of water using removable pumping stations, sump pits, portable sedimentation tanks and/or silt control bags.
11. All surfaces having lawn or landscaping as final cover are to be provided topsoil prior to re-seeding, sodding or planting. A depth of 5.0 inches, firm in place, is required, as per the Standards for Topsoiling and Land Grading, effective December 2017.
12. All plan revisions must be submitted to the District for proper review and approval.
13. A crushed stone wheel cleaning tracking-pad is to be installed at all site exits using 2 1/2 - 1" crushed angular stone (ASTM 2 or 3) to a minimum length of 50 feet and minimum depth of 6". All driveways must be provided with crushed stone until paving is complete.
14. Steep slopes incurring disturbance may require additional stabilization measures. These "special" measures shall be designed by the applicant's engineer and be approved by the Soil Conservation District.
15. **The Hudson-Essex-Passaic Soil Conservation District shall be notified, in writing, for the sale of any portion of the project or for the sale of individual lots. New owners' information shall be provided. Additional measures deemed necessary by District officials shall be implemented as conditions warrant.**

TEMPORARY STABILIZATION

- SOILS EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, SHALL BE SEED & MULCH AND STABILIZED WITH TEMPORARY VEGETATIVE COVER OR OTHER APPROVED.
1. STREETS, DRIVEWAYS AND PARKING AREAS NOT SCHEDULED FOR PAVING WITHIN THE ALLOTTED TIME FRAME SHALL BE STABILIZED USING PAVEMENT SUBBASE COURSE. THIS SUBBASE COURSE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.
  2. ALL AREAS NOT SCHEDULED FOR PAVING SHALL RECEIVE A TEMPORARY SEEDING IMMEDIATELY FOLLOWING FOLLOWING ROUGH GRADING.
  3. APPLY FERTILIZER AT A RATE OF 500 LBS./ACRE OR 11 LBS./1,000 SF. OF 10-20-10 EQUIVALENT. APPLY LIMESTONE AT A RATE OF 2 TONS/ACRES.
  4. WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES UNTIL UNIFORM.
  5. TEMPORARY SEEDING WILL BE A MIX OF ANNUAL RYEGRASS OR PERENNIAL RYEGRASS AT A RATE OF 100 LBS./ACRE OR 1 LB./1,000 SF.
  6. UN-ROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS./1,000 SF).

PERMANENT STABILIZATION

1. ALL AREAS NOT SCHEDULED FOR CONSTRUCTION OR LANDSCAPING TO BE STABILIZED USING SEED MIXTURE NO. 13 CONSISTING OF HARD FESCUE AND/OR CHEWING FESCUE AT A RATE OF 175 LBS./ACRE (4 LBS./1,000 SF), STRONG CREEPING RED FESCUE PERENNIAL RYEGRASS & KENTUCKY BLUEGRASS (BLEND), BOTH AT A RATE OF 45 LBS./ACRE (1LB/1000 SF)
2. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO SPREAD TOPSOIL AT A RATE OF 500 LBS./ACRE OR 11 LBS./1,000 SF OF 10-10-10 EQUIVALENT.
3. WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES UNTIL UNIFORM.
4. REMOVE ALL SURFACE DEBRIS AND STONES 2 INCHES OR LARGER.
5. UN-ROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS./1,000 SF).
6. INSPECT SEEDBED JUST BEFORE SEEDING IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
7. A DEPTH OF 5 INCHES OF TOPSOIL (FIRMED IN PLACE) IS REQUIRED FOR ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER.

SEQUENCE OF CONSTRUCTION

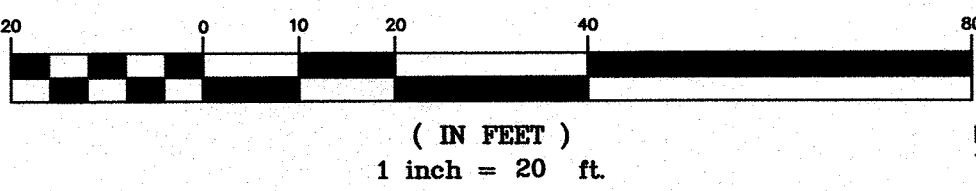
1. INSTALL SEDIMENT FILTER FENCE. (DURATION: APPROX. 2 DAYS)
2. CONSTRUCTION IN ACCORDANCE WITH ARCHITECTURAL AND CIVIL DESIGN PLANS (DURATION: APPROX. 2 YEARS)
3. REMOVE AND REINSTALL FILTER FABRIC AS NEEDED TO ACCOMMODATE CONSTRUCTION SEQUENCING. (DURATION: APPROX. 1 DAY)
4. FINAL GRADING AND STABILIZATION (DURATION: APPROX. 2 DAYS)
5. UPON STABILIZATION OF ALL AREAS, REMOVE ALL SOIL EROSION DEVICES AND CLEAN ENTIRE DRAINAGE SYSTEM. (DURATION: APPROX. 1 DAY)

SOIL EROSION LEGEND

--- FILTER FABRIC FENCING & LIMIT OF DISTURBANCE

TOTAL AREA OF DISTURBANCE:  
76,373 SQ.FT. OR 1.75± AC.

GRAPHIC SCALE



CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

- REFERENCES:
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.S.# 37605 DATED 08/04/20.
  2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCETTO HIGGINS STIEVE ARCHITECTS DATED 08/06/2020.

4	REVISED PER REVIEW COMMENTS	8/5/2020	A/H
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
2	REVISED FOR SESC SUBMISSION	6/16/2020	A/H
1	REVISED FOR PRELIMINARY SUBMISSION	5/26/2020	A/H
REVISION	DESCRIPTION	DATE	BY

PREPARED FOR  
**VOSE APTS. URBAN RENEWAL, LLC**  
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
SOUTH ORANGE AVENUE REDEVELOPMENT  
VILLAGE OF SOUTH ORANGE  
ESSEX COUNTY, NEW JERSEY

SOIL EROSION SEDIMENT CONTROL

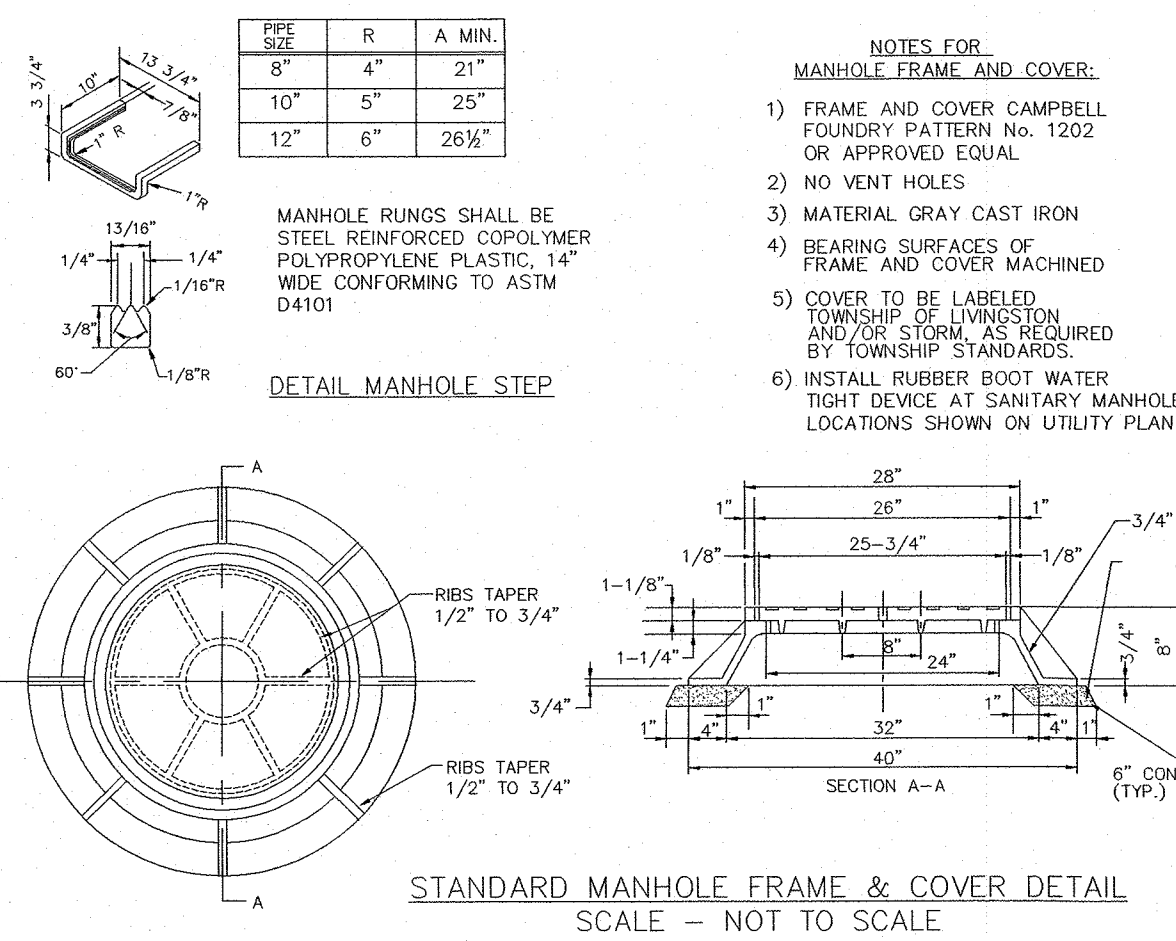
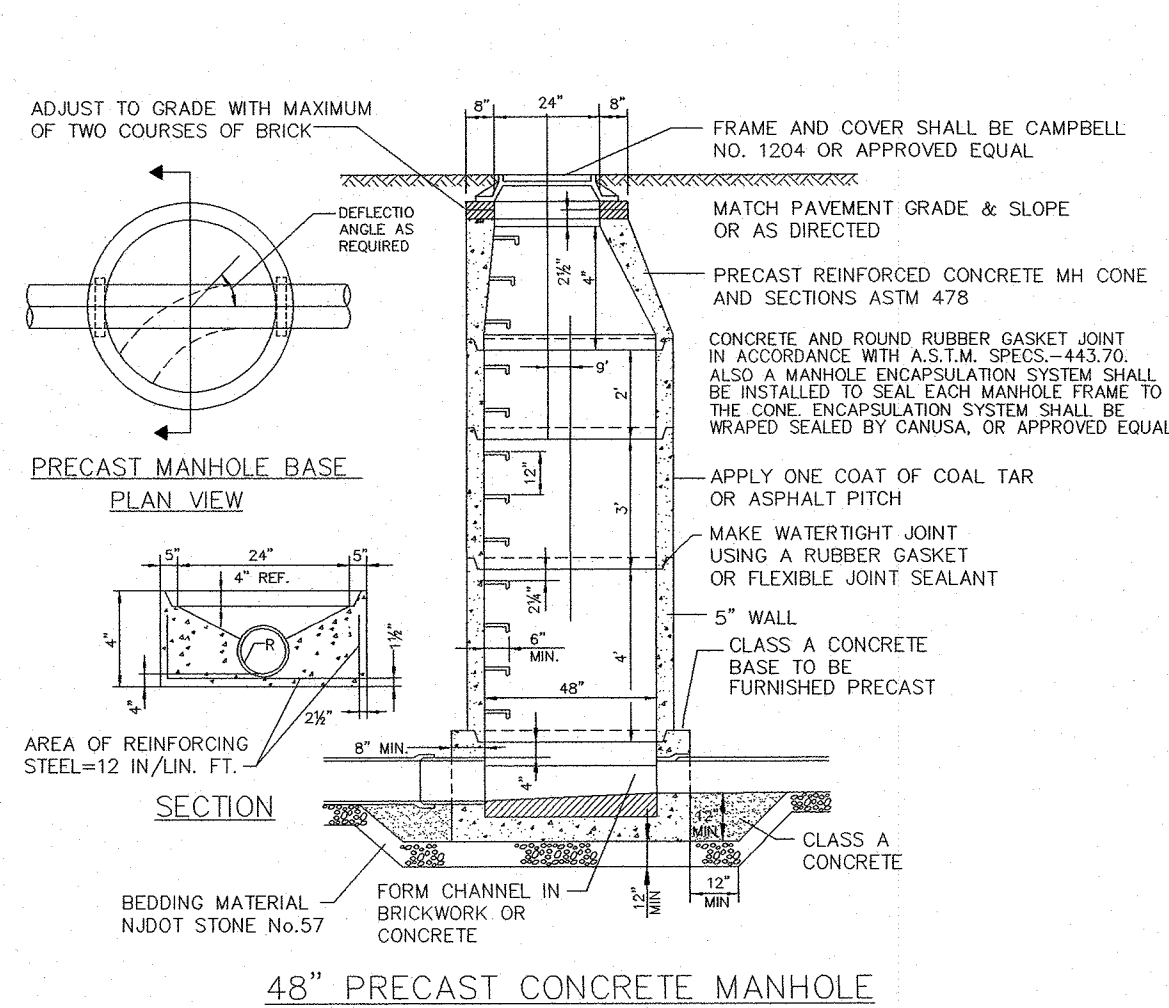
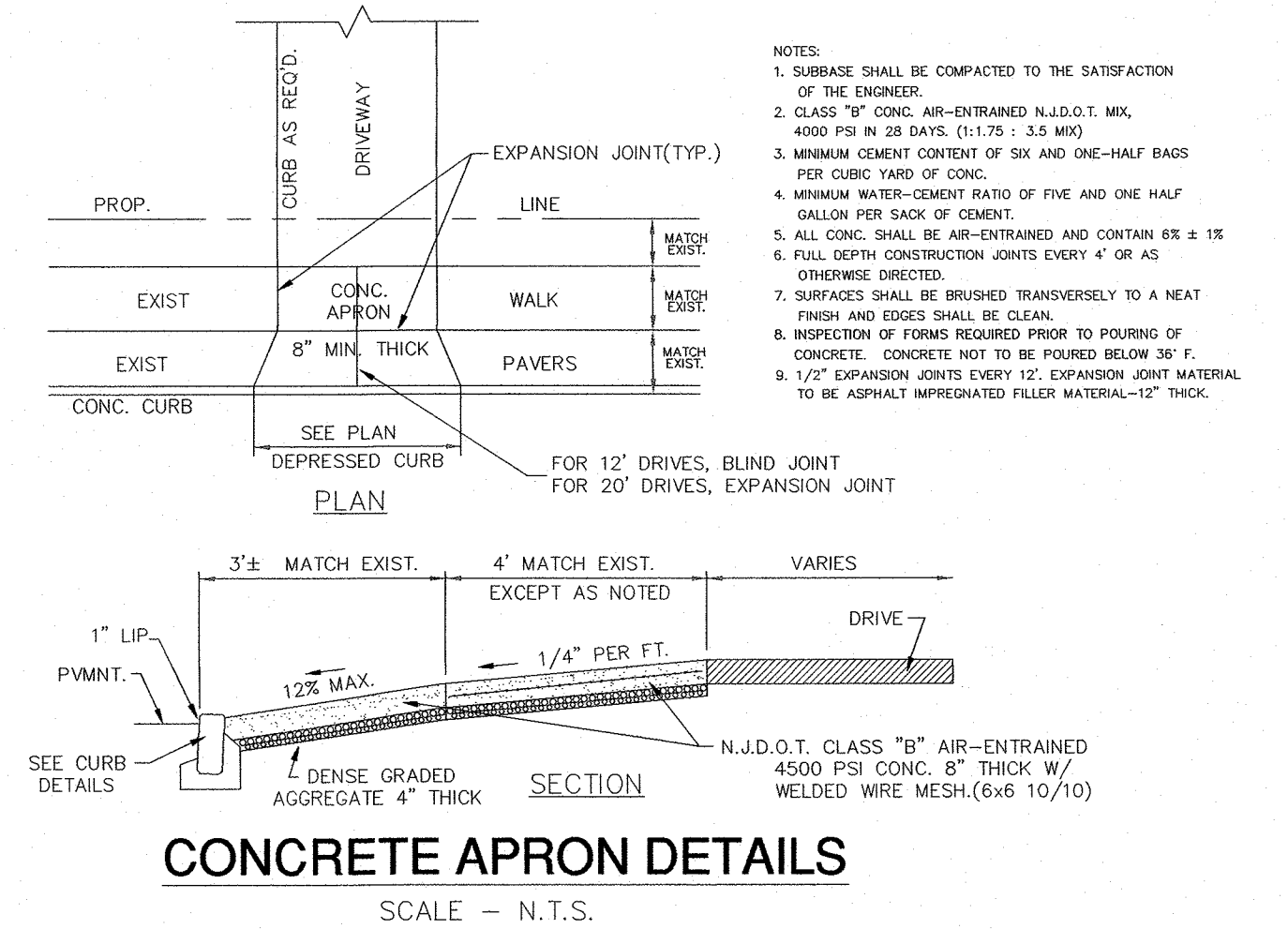
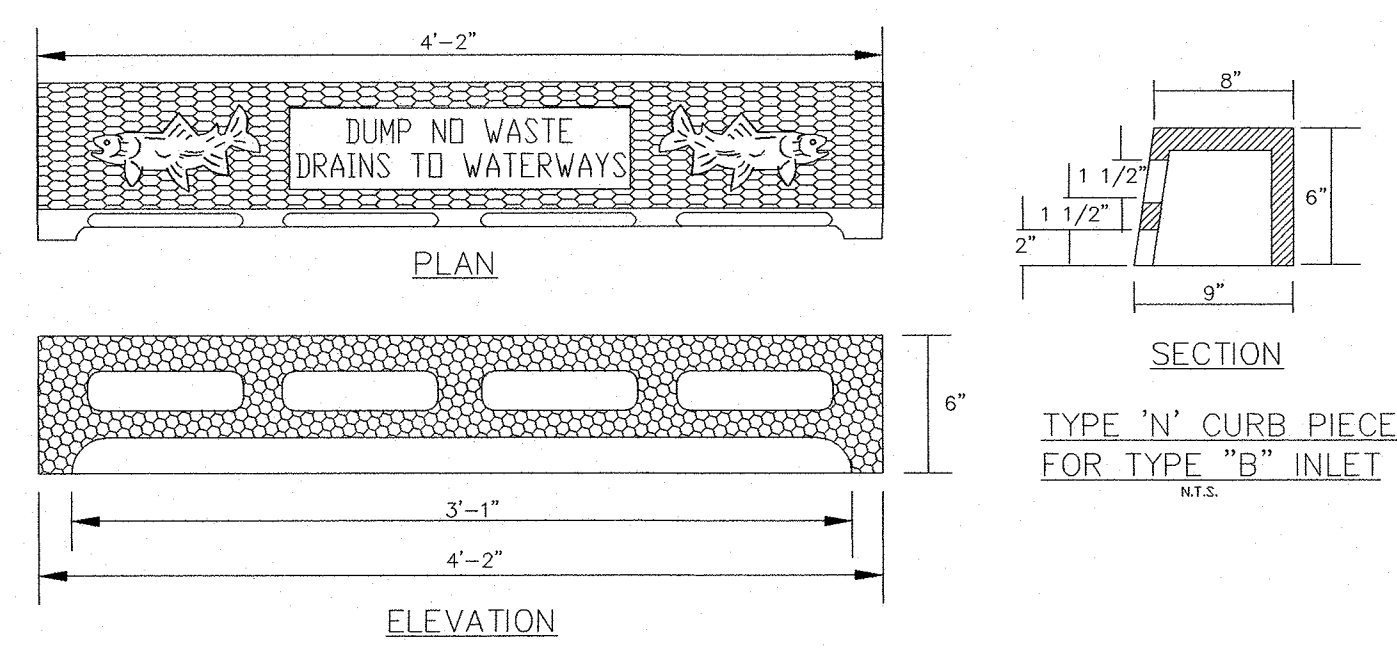
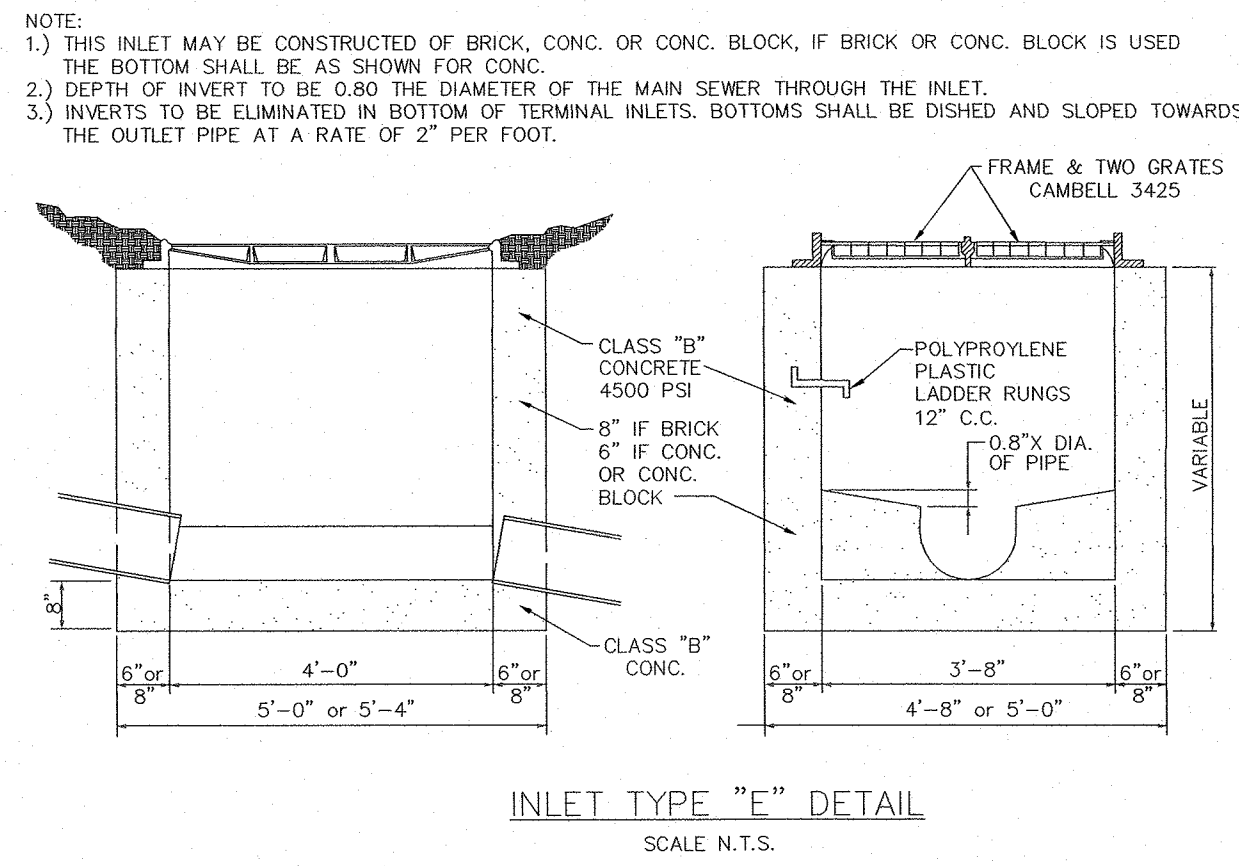
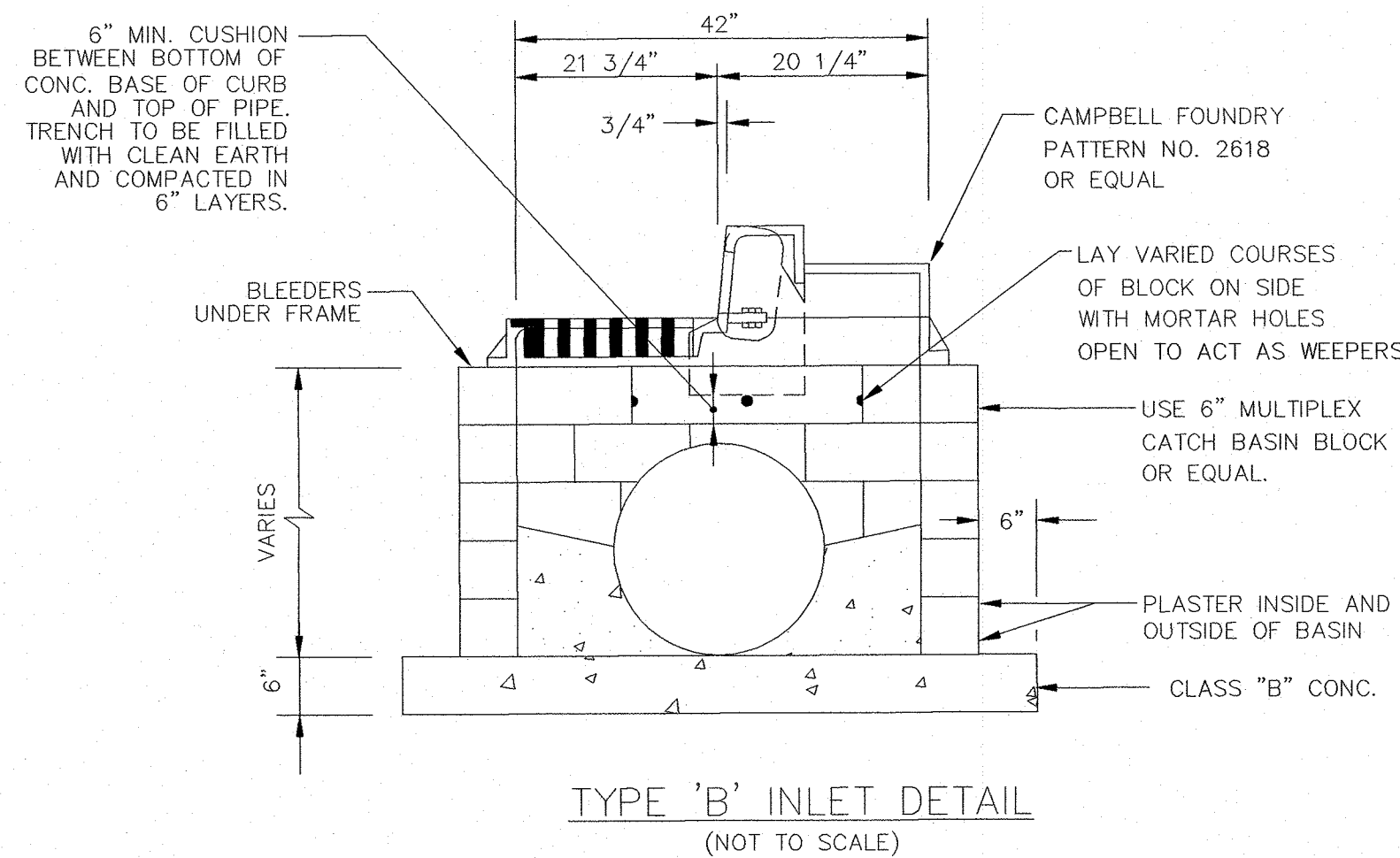
PETRY  
ENGINEERING, LLC  
DIVISION OF CONSULTING AFFAIRS LICENSE NUMBER 000000000  
185 PINEHURST AVENUE • PINEHURST • NEW JERSEY 07054  
TEL: (973) 227-7004 FAX: (973) 227-7004

J. MICHAEL PETRY-PE, PP, RA  
NJ PROFESSIONAL ENGINEER LIC. NO. 359822 DATED: 04/29/2020

Designer: JMP  
Draftsman: A/H  
Checked By: JMP  
Project No.: 19-0078  
Scale: 1:20  
Sheet:

SP-5





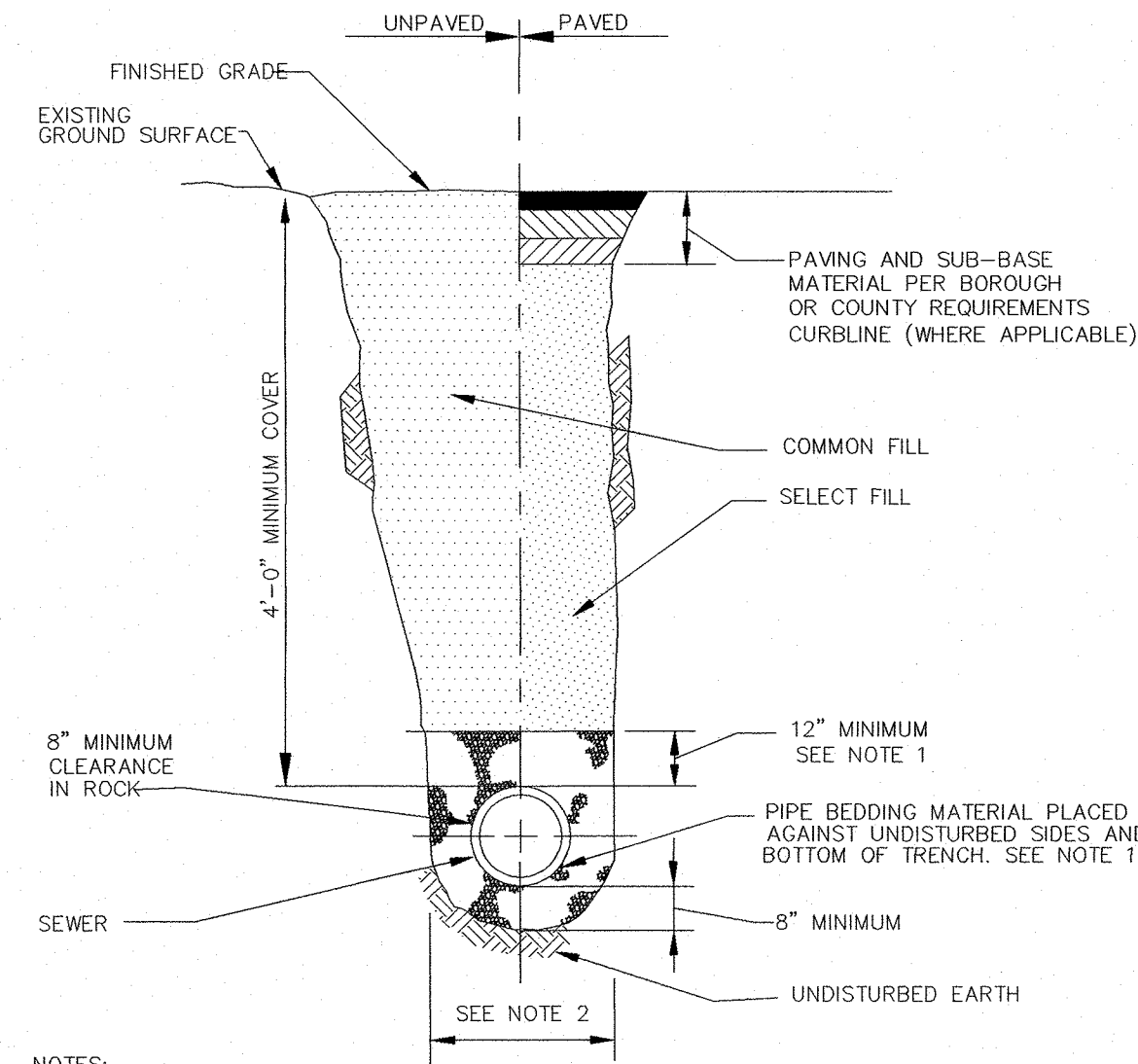
#### GENERAL NOTES

- INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8 INCHES THICK IF BRICK AND 6 INCHES THICK IF CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS B CONCRETE.
- CORRELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2" INCH PER 6 INCHES OF HEIGHT; MAXIMUM CORREL 6 INCHES PER WALL.
- EXCEPT FOR INLETS TYPE A AND C, FOUNDATIONS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS SHALL BE 8 INCHES BELOW THE OUTER WALL OF THE LOWEST PIPE IN THE INLET.
- WHEN THE DEPTH OF AN INLET THAT IS NOT PRECAST EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, WALLS BELOW A DEPTH OF 8 FEET SHALL BE 12 INCHES THICK AND THE DEPTH OF FOUNDATION INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
- INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6 INCH THICK BED OF COMPACTED COARSE AGGREGATE SIZE NO. 57. THE COARSE AGGREGATE SHALL EXTEND 6 INCHES BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
- CASTINGS FOR PRECAST INLETS SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12 INCHES MAXIMUM.
- WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
- MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPES A, B, C, E, D-1, D-2 AND B MODIFIED:
 

DEPTH BELOW TOP OF GRATE	HORIZONTAL REINF.	VERTICAL REINF.
0' TO 10'-0"	#13 @ 10" C.C.	#13 @ 18" C.C.
10'-1" TO 15'-0"	#13 @ 8" C.C.	#13 @ 18" C.C.
15'-1" TO 20'-0"	#13 @ 6" C.C.	#13 @ 18" C.C.

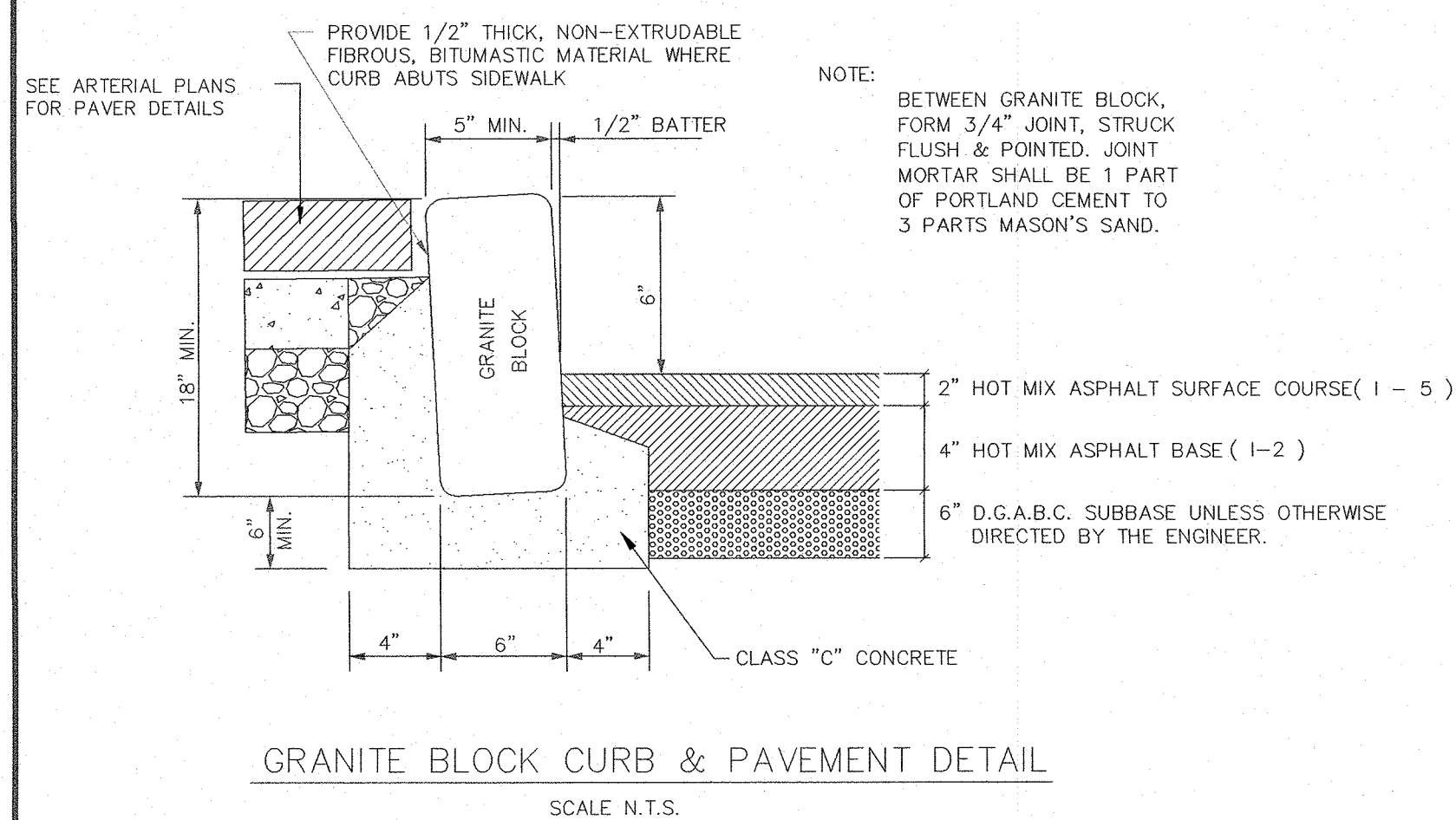
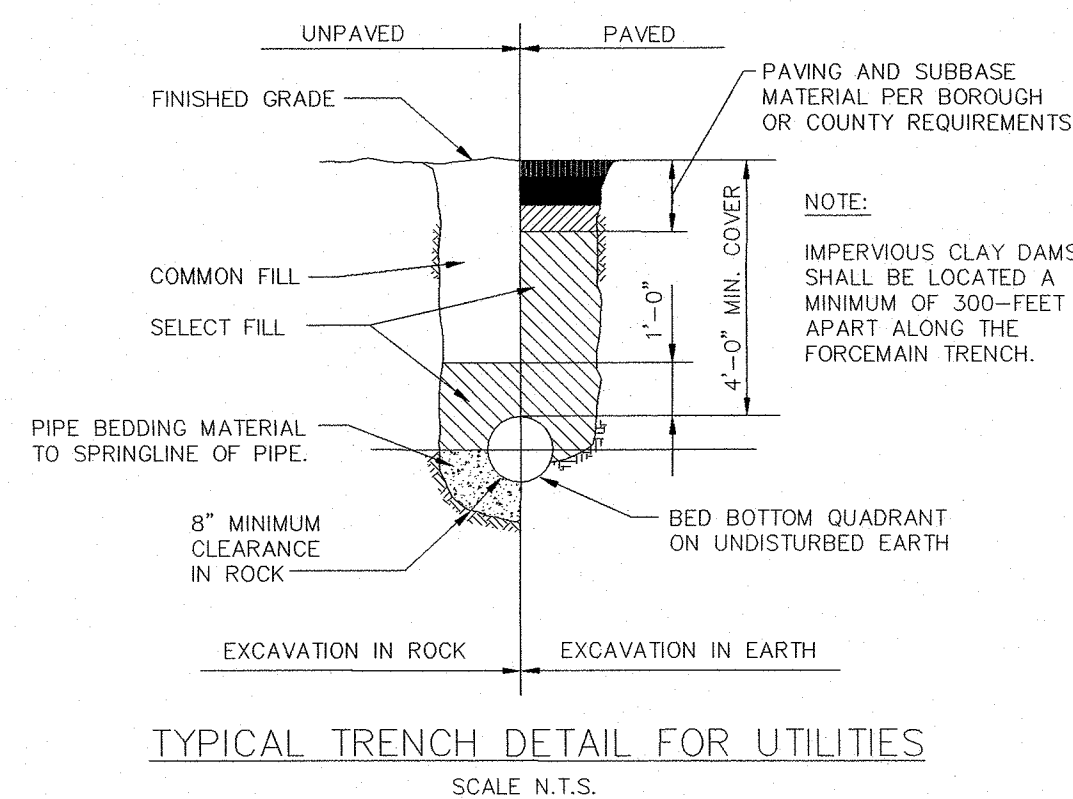
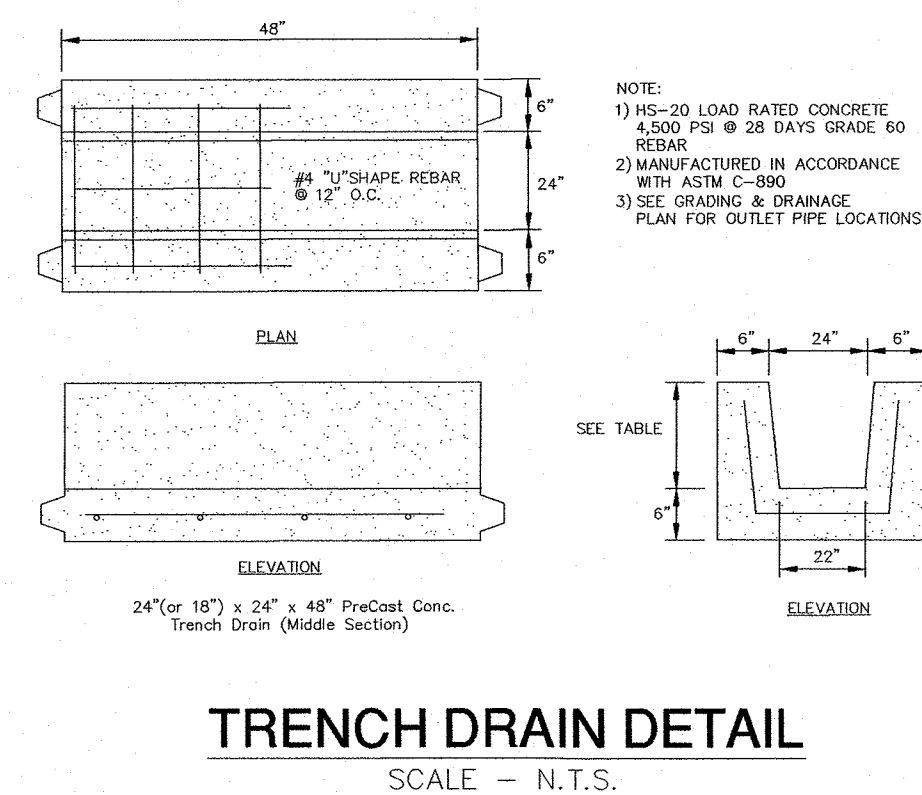
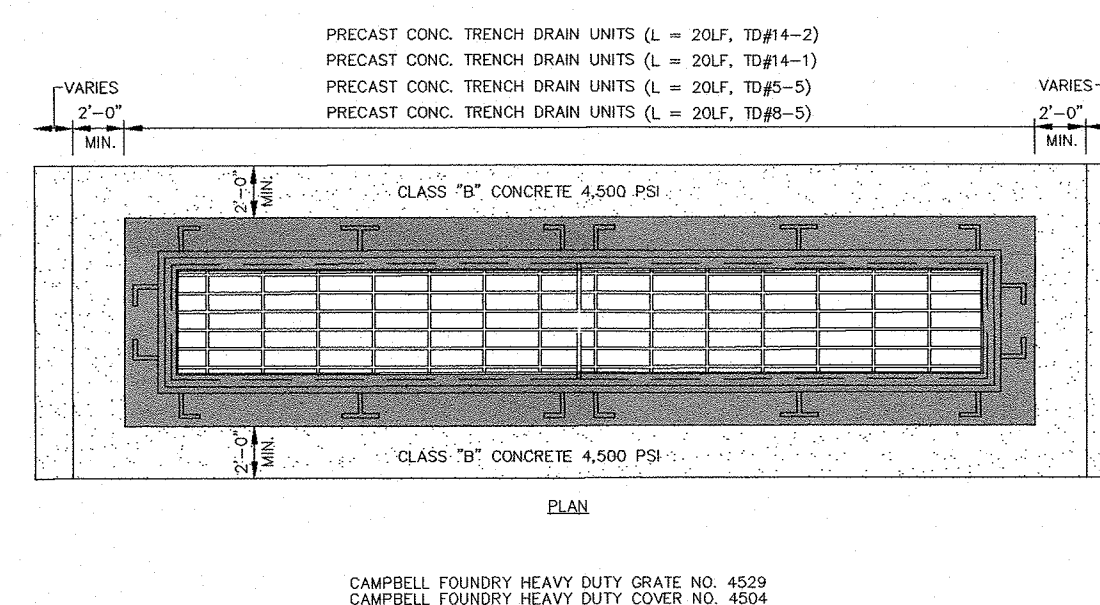
 REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALTERNATE REINFORCEMENT
 

DEPTH BELOW TOP OF GRATE	WALL REINFORCEMENT
0' TO 10'-0"	WWF 3 x 6 W6 ADD #10 BAR @ 18" HORIZONTAL
10'-1" TO 15'-0"	WWF 3 x 6 W6 ADD #10 BAR @ 9" HORIZONTAL OR ADD #13 BAR AT 15" HORIZONTAL
15'-1" TO 20'-0"	WWF 3 x 6 W6 ADD #10 BAR @ 9" HORIZONTAL OR ADD #13 BAR AT 15" HORIZONTAL
- ALL INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT N.J.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
- FOR CAST IRON CLASS 30B ONLY. ANY OTHER CLASS OF CAST IRON OR TYPE OF MATERIAL MUST BE ON THE BUREAU OF MATERIALS APPROVED PRODUCTS LIST OR NEW TECHNOLOGIES AND PRODUCTS APPROVED PRODUCTS LIST.



- NOTES:
- FOR PIPES OTHER THAN PVC, SELECT FILL MAY BE USED FROM MID-DIAMETER OF PIPE TO 12" ABOVE TOP OF PIPE.
  - PIPE TRENCH WIDTH SHALL BE PIPE O.D. + 2'-0" MAXIMUM FOR PIPES 12" AND LARGER, FOR PIPES LESS THAN 12", TOTAL PIPE TRENCH WIDTH SHALL BE 3'-0".
  - TRENCHES LOCATED ON ROAD SHOULDER SHALL BE TREATED THE SAME AS STREET EXCEPT FOR PAVING.
  - PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE OR EVERY 300 FT. WHICHEVER IS LESS.

#### PIPE TRENCH DETAIL WITHIN SITE



CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

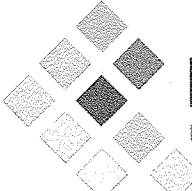
		REVISED PER PROFESSIONAL COMMENTS	8/5/2020	JMP
2		ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
1		REVISED FOR SESC SUBMISSION	6/18/2020	AHH
REVISION		DESCRIPTION	DATE	BY

PREPARED FOR

**VOSE APTS. URBAN RENEWAL, LLC**

LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
SOUTH ORANGE AVENUE REDEVELOPMENT  
VILLAGE OF SOUTH ORANGE  
ESSEX COUNTY, NEW JERSEY

**CONSTRUCTION DETAILS**



**PETRY**  
ENGINEERING, LLC  
DIVISION OF CONSULTING ENGINEERS  
105 PASSAIC AVENUE • PASSAIC, NJ 07055 • TEL: 973.267.0000 FAX: 973.267.0004

Designer: JMP


Draftsman: AHH

Checked By: JMP

Project No.: 19-0078

Scale: AS NOTED

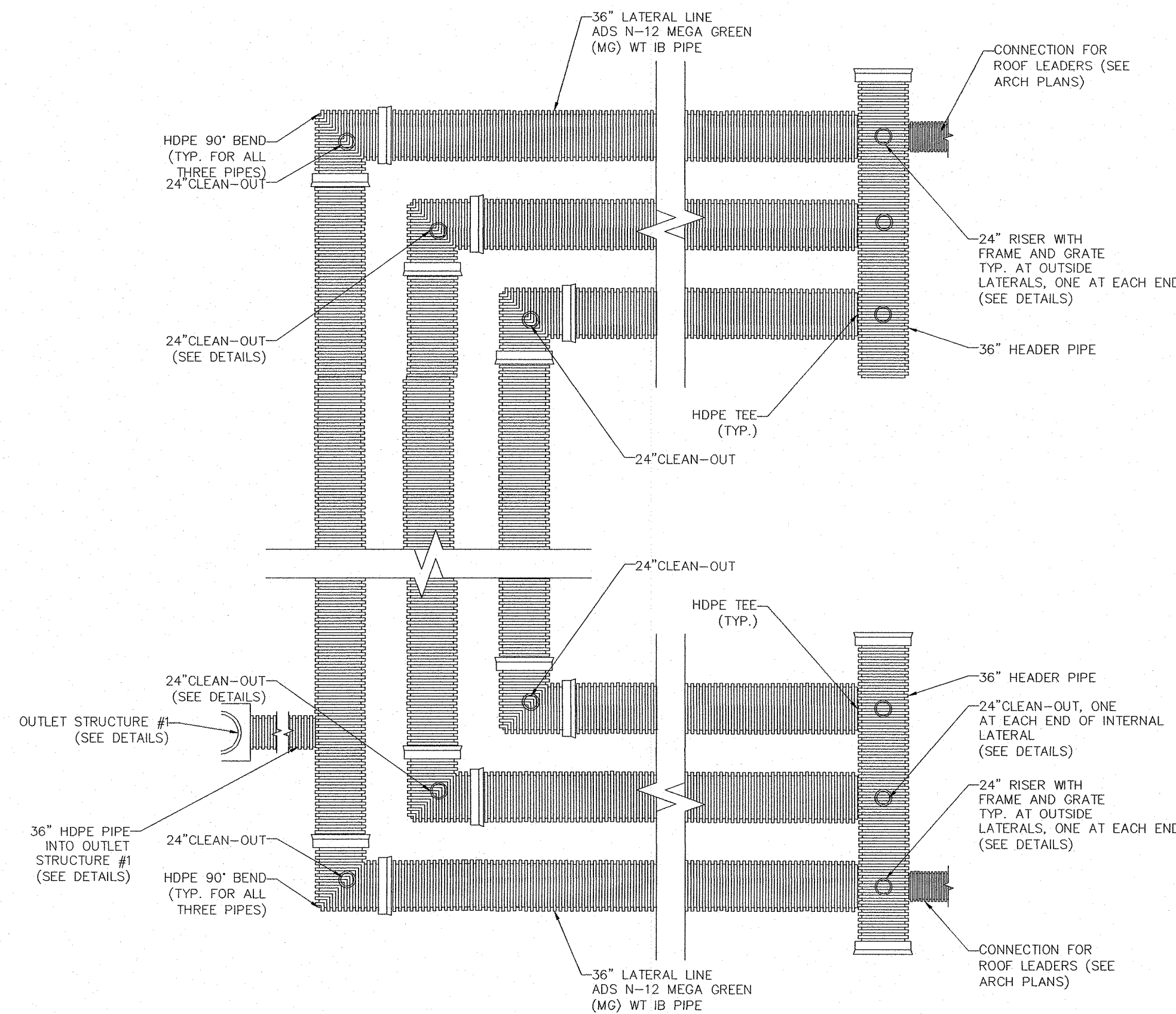
Sheet:



**J. MICHAEL PETRY-PE,PP,RA**  
NJ PROFESSIONAL ENGINEER LIC. NO. 36662  
DATED: 04/29/2020

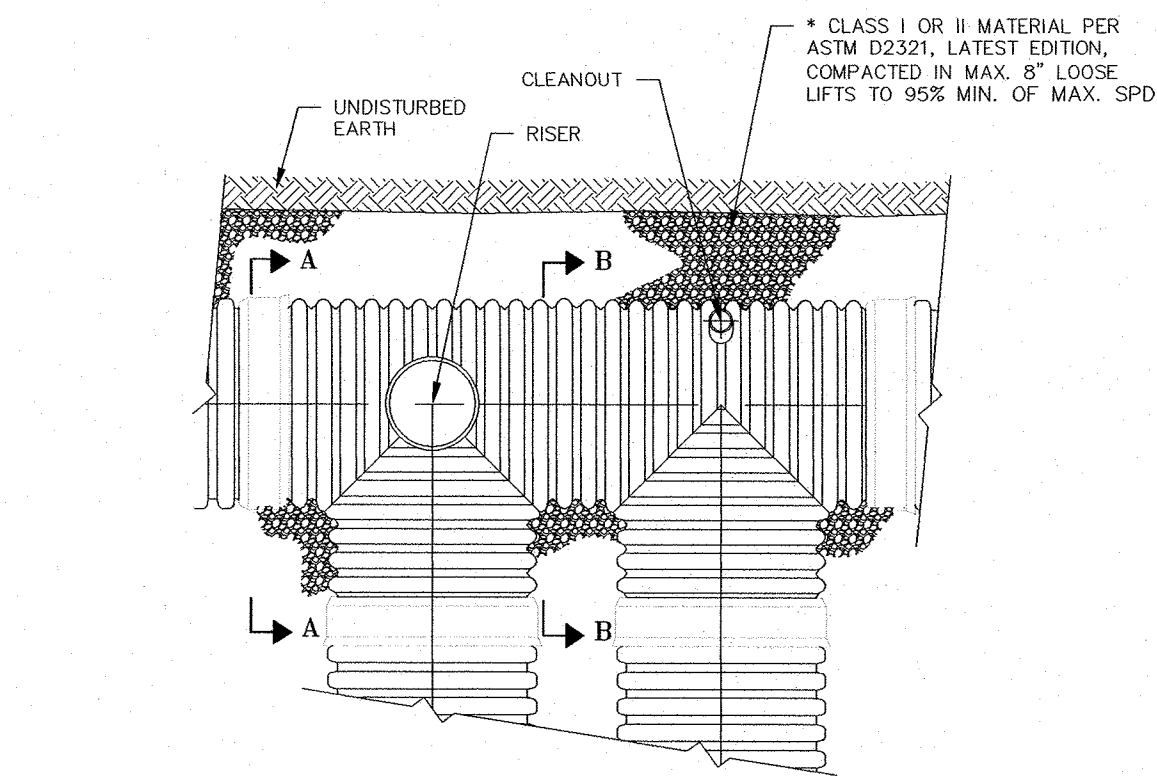
**SP-6**



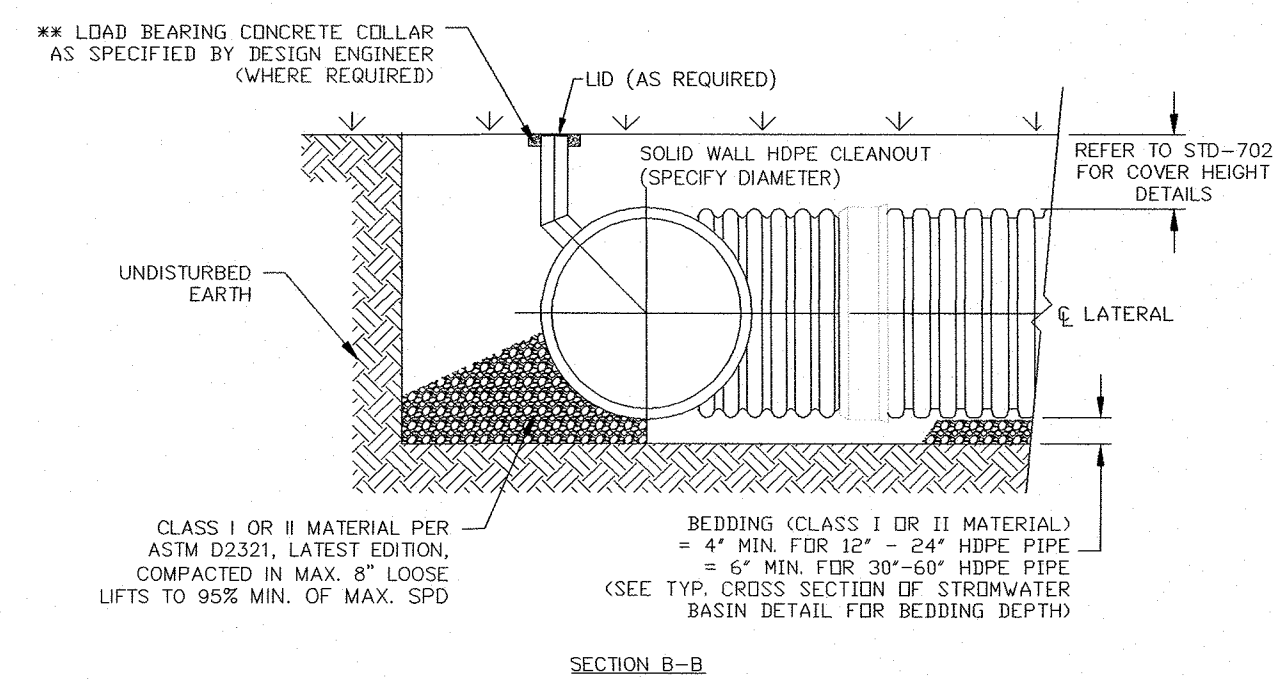


**GENERAL DESIGN NOTE:**  
ALL UNDERGROUND DETENTION STRUCTURES SHALL MEET AT A MINIMUM H20S16 LOADING. THE MANUFACTURER SHALL CERTIFY THAT THE MINIMUM DESIGN CRITERIA HAS BEEN MET, AND SUBMIT SHOP DRAWINGS FOR REVIEW TO THE ENGINEER AND THE CITY OF NEWARK PRIOR TO ANY INSTALLATION OF THE PROPOSED UNDERGROUND DETENTION SYSTEM STRUCTURES.

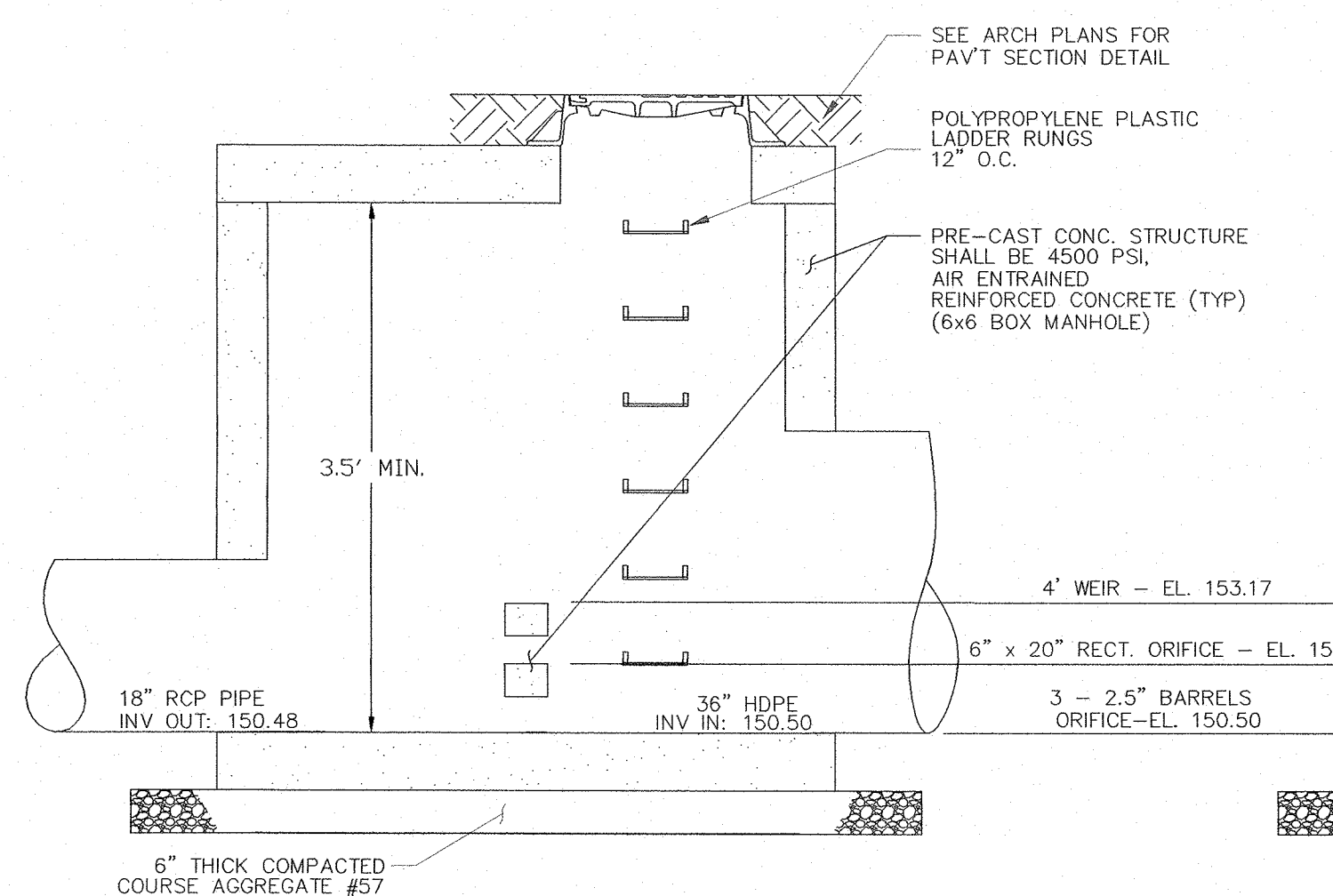
TYPICAL PLAN & ELEVATION VIEW OF SUBSURFACE DETENTION BASIN  
SCALE N.T.S.



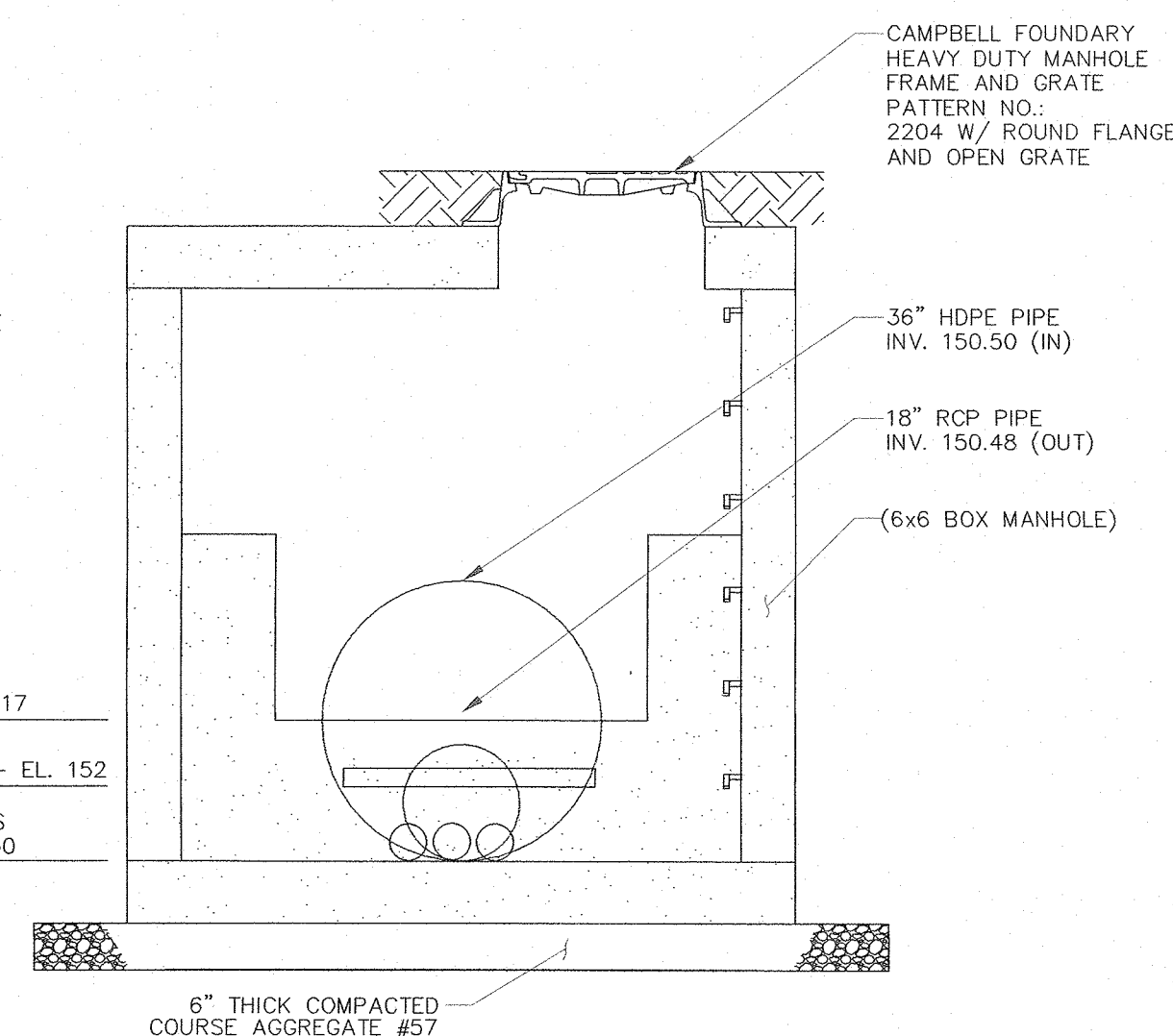
TYPICAL RISER/CLEANOUT (C.O.) DETAIL  
SCALE N.T.S.



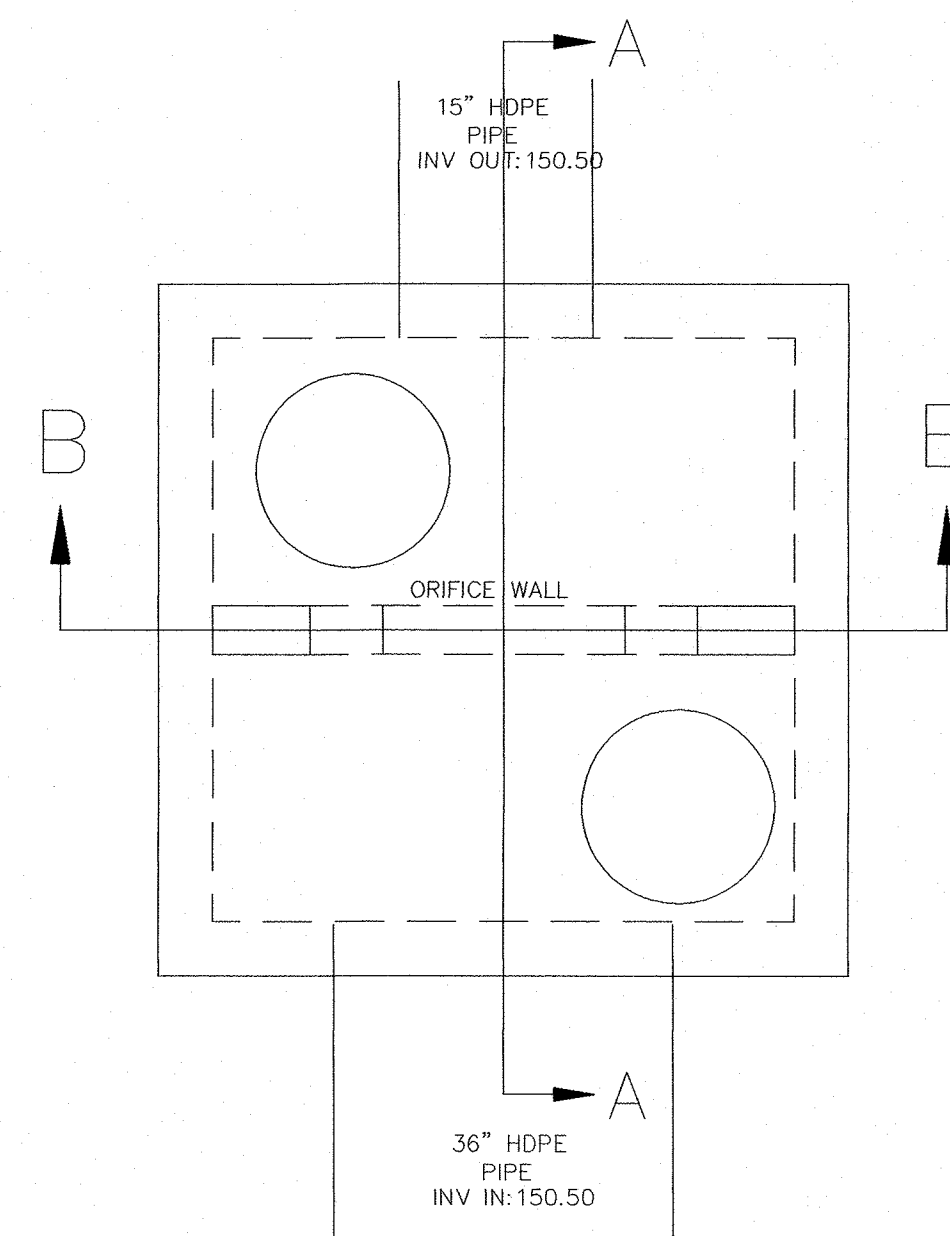
CLASS I OR II MATERIAL PER ASTM D2321, LATEST EDITION, COMPACTED IN MAX. 8" LOOSE LIFTS TO 95% MIN. OF MAX. SPD



SECTION A-A

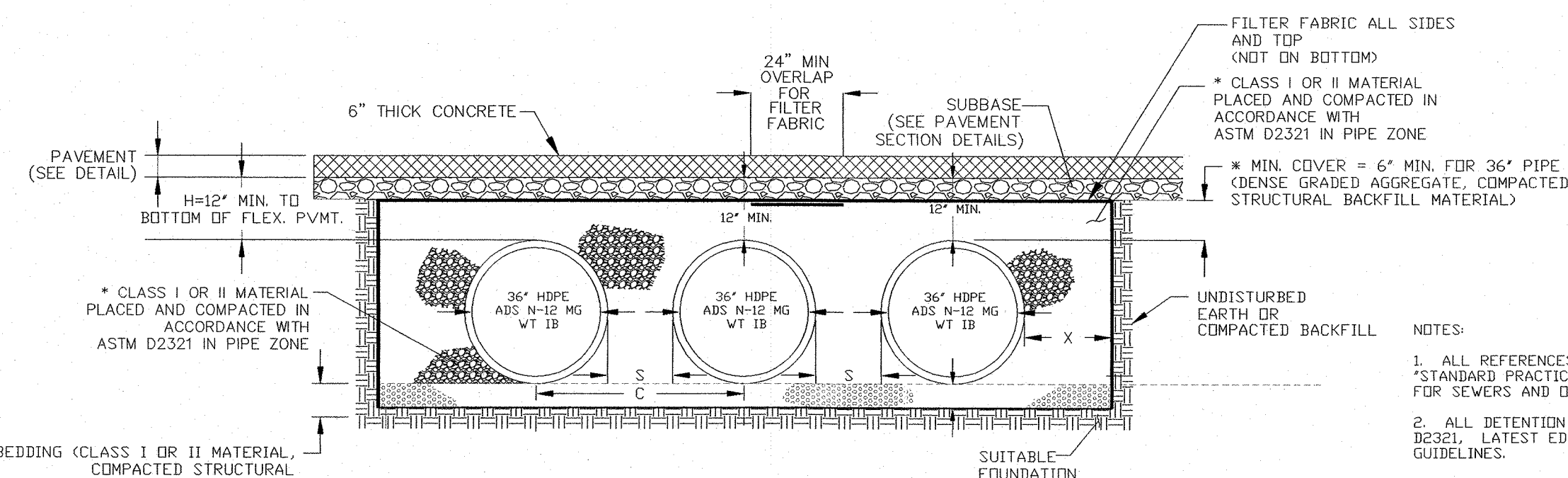


SECTION B-B



PLAN VIEW

OUTLET STRUCTURE #1 6x6 BOX MANHOLE  
SCALE N.T.S.



NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	H TO FLEX. PVMT.
36"	42"	18"	60"	18"	12" MIN.
(915 MM)	(1067 MM)	(458 MM)	(1524 MM)	(458 MM)	(305 MM)

TYPICAL CROSS SECTION OF STORMWATER BASIN  
SCALE N.T.S.

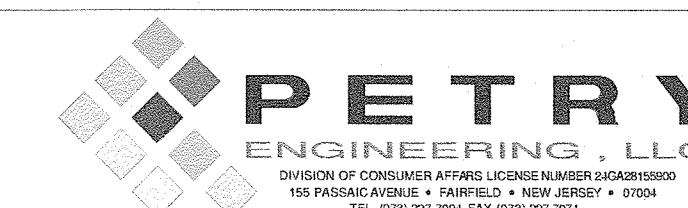
- NOTES:**
- ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321, LATEST EDITION, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
  - ALL DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, 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" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-1500mm).
  - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" 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.
  - MINIMUM COVER: MINIMUM COVER OVER ALL DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

REVISION	DESCRIPTION	DATE	BY
3	REVISED PER PROFESSIONAL COMMENTS	8/6/2020	JMP
2	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
1	REVISED FOR SESC SUBMISSION	6/18/2020	AHH

PREPARED FOR  
**VOSE APTS. URBAN RENEWAL, LLC**  
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
SOUTH ORANGE AVENUE REDEVELOPMENT  
VILLAGE OF SOUTH ORANGE  
ESSEX COUNTY, NEW JERSEY

## CONSTRUCTION DETAILS



**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER LIC. No. 36662  
DATED: 04/29/2020

Designer: JMP  
Draftsman: AHH  
Checked By: JMP  
Project No.: 19-0078  
Scale: AS NOTED  
Sheet:

SP-7