

# PRELIMINARY AND FINAL SITE PLAN

## PREPARED FOR

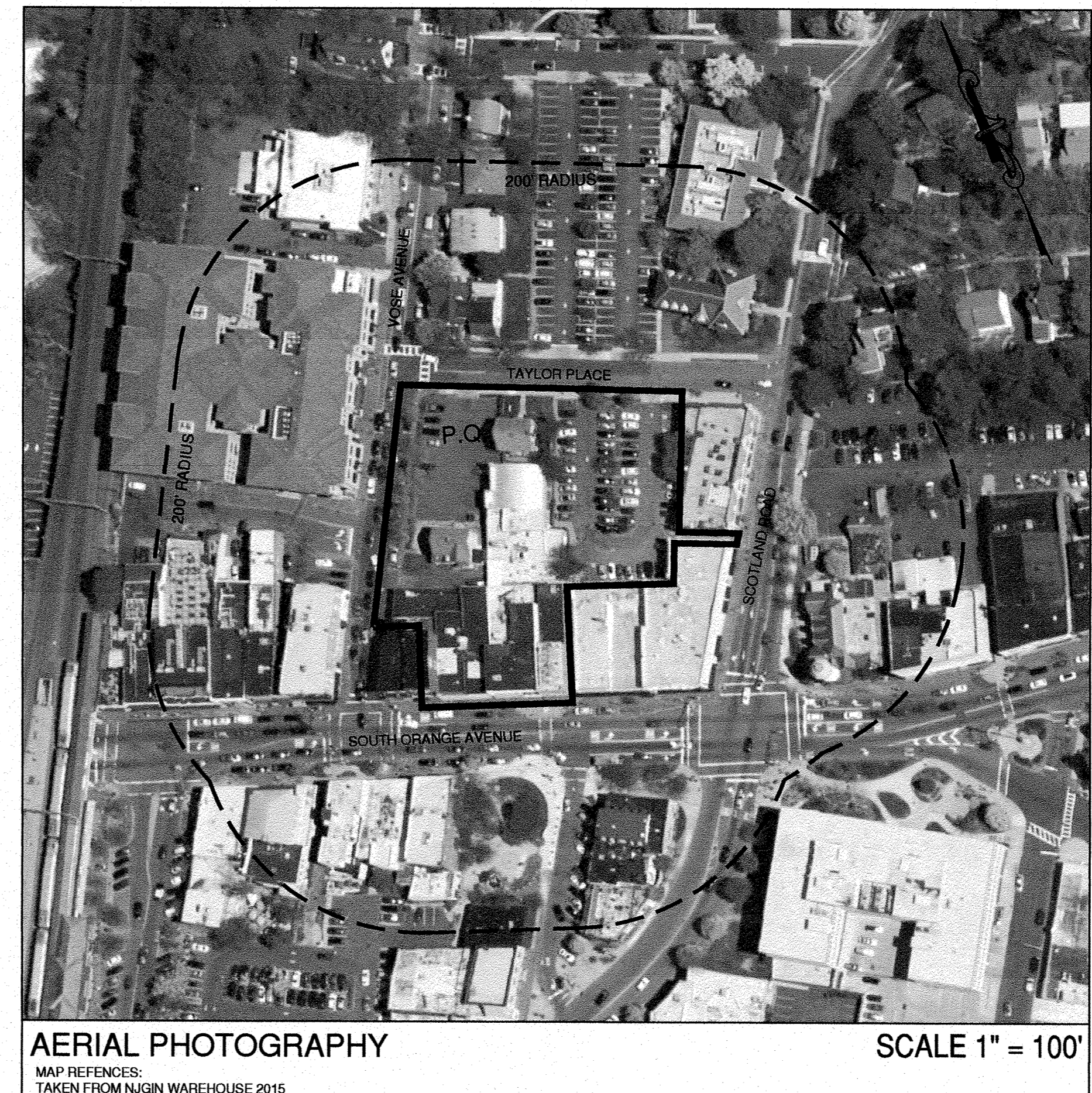
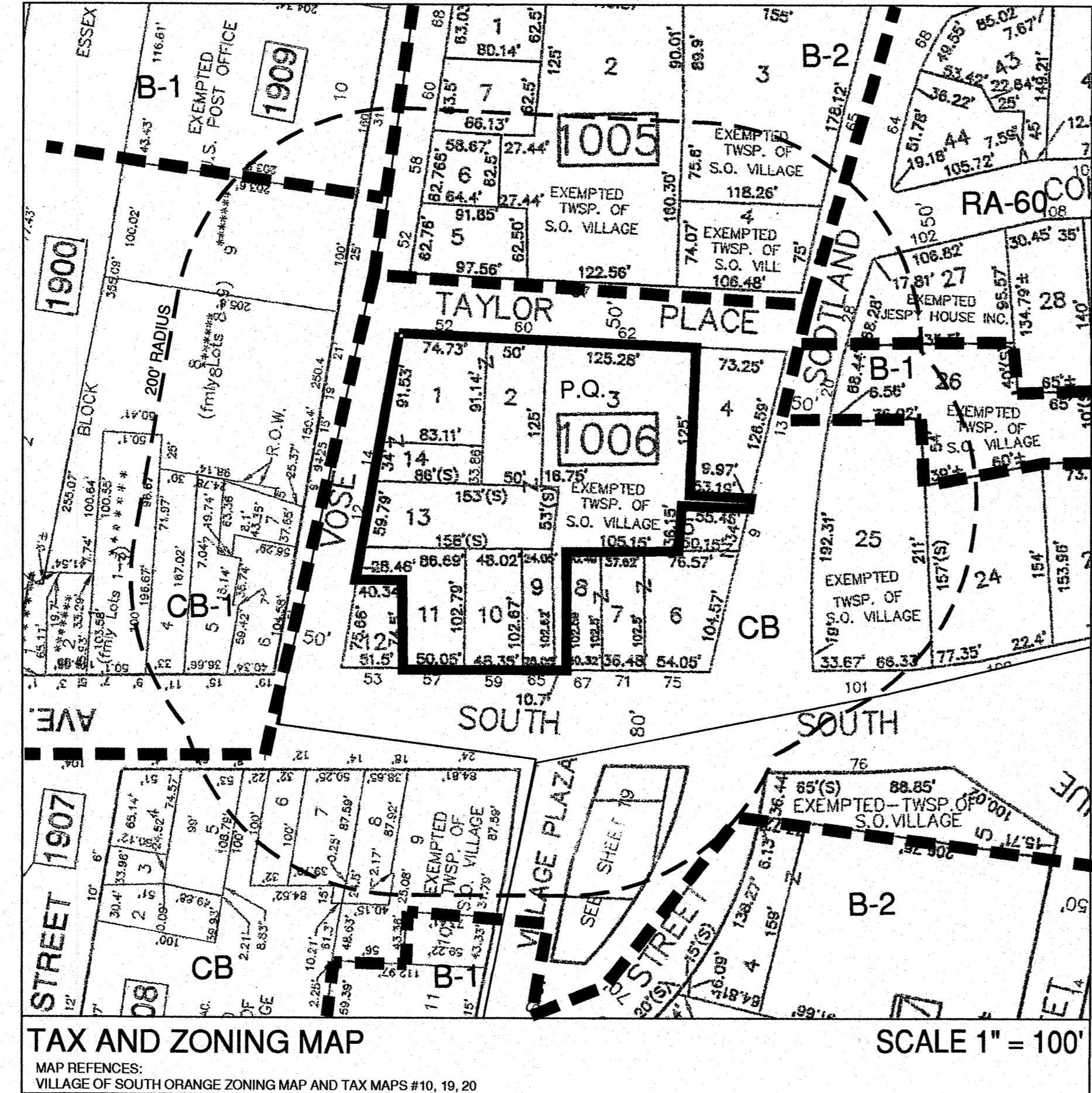
# VOSE APTS. URBAN RENEWAL, LLC

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

SITE DATA CHART				
OWNER & APPLICANT:	VOSE APTS. URBAN RENEWAL, LLC 447 NORTHFIELD AVENUE, SUITE 200 WEST ORANGE, NJ 07082			
PROPERTY:	LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 AREA = 1.403± ACRES (61,147 SF)			
ZONE:	VOSE+ TAYLOR REDEVELOPMENT PLAN			
EXISTING USE:	MIXED USE			
PROPOSED USE:	MIXED USE			
DESCRIPTION	CODE (RDP)	EXISTING	PROPOSED	COMPLIANCE
<b>AREA YARD AND BULK REGULATIONS</b>				
DWELLING UNITS	110 MAX.	-	110 UNITS*	YES*
AFFORDABLE HOUSING	20% OR 22 UNITS	-	22 UNITS	YES
OFF-SITE AFFORDABLE HOUSING	50% MAX.	-	11 UNITS	YES
COMMERCIAL/OFFICE SPACE	24,000 SF MAX.	-	22,045 SF	YES
MIN. LOT AREA	47,000 SF	61,147 SF	61,147 SF	YES
MINIMUM LOT WIDTH	230 FT	208.1 FT	208.1 FT	NO
MINIMUM LOT DEPTH	260 FT	284.4 FT	284.4 FT	YES
MAX. IMPERVIOUS COVERAGE	95%	91.6%	100%	NO
MAX. BUILDING COVERAGE	95%	-	84.1 %	YES
MIN. SETBACK - SOUTH ORANGE AVE	8 FT	-	9.1 FT	YES
MAX. SETBACK - SOUTH ORANGE AVE	22 FT	-	21.1 FT	YES
MAX. BUILDING HEIGHT	5 STORIES/66 FT	-	5 STORIES/66.58 FT	YES
FLOOR-TO-FLOOR HEIGHT (RETAIL SO)	13' - 20'	-	16' 6"	YES
FLOOR-TO-FLOOR HEIGHT (RETAIL VOSE)	13' - 20'	-	12' 6" - 13' 3"	NO
FLOOR-TO-FLOOR HEIGHT (RESIDENTIAL)	10' - 16'	-	10' 8" - 11' 6"	YES
FLOOR-TO-FLOOR HEIGHT (OFFICE)	13' - 20'	-	14' 6"	YES
<b>PARKING AND LOADING</b>				
MIN. PARKING SPACES	110 RESIDENTIAL 48 COMMERCIAL	59 PUBLIC SPACES	125 RESIDENTIAL 10 OFFICE 70 COMMERCIAL	YES NO YES
TANDEM SPACES QUANTITY MAX	15 SPACES	-	28 SPACES	NO
TANDEM PARKING SPACES	OFFICE ONLY	-	RESIDENTIAL	NO
STALL SIZE	9'X18' (REG.)	-	RESIDENTIAL 8'X12' 8'X16'	YES NO NO
ADA STALLS	5 STAIRWELL ELEVATOR	-	15 STAIRWELL ELEVATOR	YES
MIN. BICYCLE SPACES	74 SPACES	-	80 OUTDOOR PUBLIC 4 OFFICE	YES

\* ONE ADDITIONAL UNIT RESERVED FOR BUILDING OPERATIONS STAFF SHALL NOT BE COUNTED AS PART OF THE OVERALL RESIDENTIAL DENSITY  
\*\* RESIDENTIAL SPACES 125 (INCLUDING 9 TANDEM), OFFICE/COMMERCIAL/PUBLIC 80, DESIGNATED OFFICE SPACES 10 (INCLUDING 5 TANDEM)

TAXING DISTRICT	PROPERTY LOCATION	CLASS	OWNER'S NAME & ADDRESS	APPLICANT'S ADDRESS	APPLICANT'S PHONE
1005	17 VILLAGE PLACE	15C	COUNCIL OF SOUTH ORANGE VILLAGES VILLAGE HALL SOUTH ORANGE, N.J.	07079	
1006	69 SCOTLAND ROAD	15C	COUNCIL OF SOUTH ORANGE VILLAGES VILLAGE HALL SOUTH ORANGE, N.J.	07079	
1007	13 SCOTLAND ROAD	15C	COUNCIL OF SOUTH ORANGE VILLAGES VILLAGE HALL SOUTH ORANGE, N.J.	07079	
1008	42 VOSE AVENUE	4A	VOSE, GEORGE & JAMES 11 CHATEAU HILL ROAD SOUTH ORANGE, N.J.	07079	
1009	58 VOSE AVENUE	4A	F. & R. CORRODIO 25 VOSE AVENUE SOUTH ORANGE, N.J.	07079	
1010	60 VOSE AVENUE	4A	THE TAYLOR FAMILY, LTD. 28889 21 HENRIETTA ROAD SOUTH ORANGE, N.J.	07081	
1011	50 FAYTOL PLACE	4A	VOSE AVE. 3971, URBAN RENEWAL, LLC 417 NORTHFIELD AVE. SUITE 200 WEST ORANGE, NJ	07082	
1012	69 FAYTOL PLACE	4A	VOSE AVE. 3971, URBAN RENEWAL, LLC 417 NORTHFIELD AVE. SUITE 200 WEST ORANGE, NJ	07082	
1013	42 TAYLOR PLACE	15C	COUNCIL OF SOUTH ORANGE VILLAGES VILLAGE HALL SOUTH ORANGE, N.J.	07079	
1014	13 SCOTLAND ROAD	4A	13 SCOTLAND MANAGEMENT, LLC 24 SOUTH ORANGE AVENUE WEST ORANGE, NJ	07082	
1015	9-11 SCOTLAND ROAD	4A	VILLAGE SCOTLAND LLC 24 SOUTH ORANGE AVENUE WEST ORANGE, NJ	07078	
1016	75 SOUTH ORANGE AVENUE	4A	VILLAGE SCOTLAND LLC 24 SOUTH ORANGE AVENUE WEST ORANGE, NJ	07078	
1017	71 SOUTH ORANGE AVENUE	4A	VILLAGE SCOTLAND LLC 24 SOUTH ORANGE AVENUE WEST ORANGE, NJ	07078	
1018	43-49 SOUTH ORANGE AVENUE	4A	VILLAGE SCOTLAND LLC 24 SOUTH ORANGE AVENUE WEST ORANGE, NJ	07078	
1019	65 SOUTH ORANGE AVENUE	4A	VOSE AVE. 3971, URBAN RENEWAL, LLC 417 NORTHFIELD AVE. SUITE 200 WEST ORANGE, NJ	07082	
1020	58 SOUTH ORANGE AVENUE	4A	VOSE AVE. 3971, URBAN RENEWAL, LLC 417 NORTHFIELD AVE. SUITE 200 WEST ORANGE, NJ	07082	
1021	57 SOUTH ORANGE AVENUE	4A	VOSE AVE. 3971, URBAN RENEWAL, LLC 417 NORTHFIELD AVE. SUITE 200 WEST ORANGE, NJ	07082	
1022	53 SOUTH ORANGE AVENUE	4A	3 INTERESTS CO. LLC 100 SOUTH ORANGE AVENUE WEST ORANGE, N.J.	07082	



OPEN SPACE	COMPLIANCE	SIDEWALKS	COMPLIANCE
ADA Compliant walkways - On Site	YES	Sidewalks are provided along improved streets	YES
ADA Compliant walkways - Roadway	NO	Sidewalks are 12' wide Min.	NO
Ped Connection to Scotland Rd. accessible 24/7	YES	PEDESTRIAN CROSSINGS	
Alleyway Differentiated from public walkway along S. Orange Ave.	YES	Ped crossings are provided at	
Design Promotes Passive Activities	YES	S Orange Ave & Scotland Road	NO
Seating	YES	S Orange Avenue & Vose Avenue	NO
Height: 18-24 inches Depth 15 in. Min.	YES	Taylor Place & Scotland Road	NO
Aligned to face each other	YES	Taylor Place & Vose Avenue	YES
Minimized ped crossing distance	YES	Minimized ped crossing distance	YES
Regulations governing wall mounted signs 185-142 B1	YES	Curb extended at corners to minimize crossing distance	YES
Regulations governing projecting signs 185-142 B2	YES	Materials:	
Regulations governing canopy signs 185-142 B3	YES	High quality pavers	YES
Regulations governing temporary signs 185-142 B9	NO	Crosswalk treatment designed for maximum visibility	YES
<b>LIGHTING</b>		Warning signs are installed	YES
Lights at 60' intervals	YES	Crosswalks are 10' wide	YES
Light height NTE 20'	YES	<b>CURB HEIGHT</b>	
Lights prevent upward spillage	YES	Ped ramps should be extended horizontally to the extent practical	YES
Lights are LED lamps providing "warm-white" light	YES	Ballards installed where curb is flush with roadway	YES
Lights provide not less than 1/2 horizontal foot-candle average	YES	Illuminated bollards are installed at crosswalks	YES
Dimmable Lights and able to be controlled by timer	YES	<b>LANDSCAPING</b>	
Pathways to be lit for pedestrians	YES	Street trees have cast iron grates	NO
Lights directed away from adjacent lots	YES	Block pavers are installed around perimeter of tree	YES
Architectural and accent to on structures and will be off between 11-5	YES	Shade trees are planted along the street at 25' intervals	NO
Safety lighting is provided on structures	YES	Trees are 3.5" caliper min.	YES
Light finishes are modern, human-oriented and imaginative	YES	Tree irrigation bags are installed	YES
Cobra lights are not incorporated into plan	YES	Foundation landscaping is provided at building setbacks	YES
Lighting at crosswalks is maximized	NO	Shrubs planted at a max of 2' 6" on center	YES
<b>STREETSCAPE</b>			
Facade Landscape Architect prepared streetscape	YES		
<b>FAÇADE</b>			
Streetscape and Façade were designed to indicate clear sense of entry to building	YES		
Path from street to building is clear and welcoming	YES		

TAXING DISTRICT	PROPERTY LOCATION	CLASS	OWNER'S NAME & ADDRESS	APPLICANT'S ADDRESS	APPLICANT'S PHONE
1009	31 VOSE AVENUE	15C	WEST ORANGE EAST OFFICE 21 VOSE AVENUE SOUTH ORANGE, N.J.	07079	
1010	10 VILLAGE PLAZA	4A	VILLAGE PLAZA MANAGEMENT 80 LAMARQUE DRIVE SOUTH ORANGE, N.J.	07078	
1011	50 SOUTH ORANGE AVENUE	4A	VILLAGE PLAZA MANAGEMENT 80 LAMARQUE DRIVE SOUTH ORANGE, N.J.	07078	
1012	16 SOUTH ORANGE AVENUE	4A	SOUTH ORANGE ASSOC. C/O APT. 8002 231 20 LITTLEWOOD AVE. SUITE 200 LITTLEWOOD, N.J.	07039	
1013	46 SOUTH ORANGE AVENUE	15C	COUNCIL OF SOUTH ORANGE VILLAGES VILLAGE HALL SOUTH ORANGE, N.J.	07079	

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

- LIST OF APPROVALS REQUIRED:**
- ESSEX COUNTY SITE PLAN APPROVAL
  - SOIL EROSION AND SEDIMENT CONTROL
  - NJDEP DIVISION OF WATER QUALITY APPROVAL
  - NJDEP TREATMENT WORKS APPROVAL

SHEET NO.	NAME	PREPARED BY
SP-1	TITLE SHEET	PETRY ENGINEERING, LLC
SP-2	LAYOUT PLAN	PETRY ENGINEERING, LLC
SP-2A	DEMOLITION PLAN	PETRY ENGINEERING, LLC
SP-3	GRADING AND DRAINAGE PLAN SHOWING LOWER LEVEL PARKING	PETRY ENGINEERING, LLC
SP-4	GRADING OF SECOND FLOOR PARKING	PETRY ENGINEERING, LLC
SP-4A	DETAILED GRADING PLAN	PETRY ENGINEERING, LLC
SP-5	SOIL EROSION SEDIMENT CONTROL PLAN	PETRY ENGINEERING, LLC
SP-6	SOIL EROSION SEDIMENT CONTROL DETAILS	PETRY ENGINEERING, LLC
SP-7	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLC
SP-8	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLC
SP-9	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLC
SP-10	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLC
C1 - A10	ARCHITECTURAL PLANS	MARCHETTO HIGGINS STRIVE
L-001 - L-503	LANDSCAPING PLANS	ARTERIAL, LLC

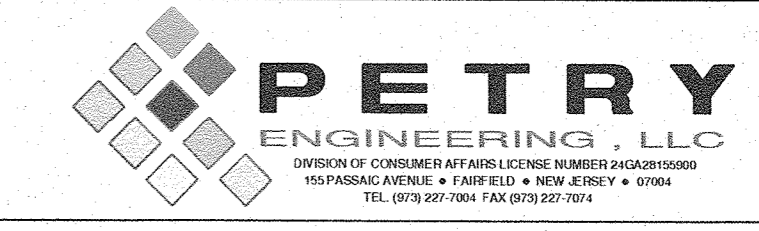
- SITE PLAN OF VOSE APTS URBAN RENEWAL LOT 1, 2, 3, 9, 10, 11, 13, 14 BLOCK 1006 ZONE: VOSE+ TAYLOR REDEVELOPMENT PLAN DATE: AUGUST 5, 2020 SCALE: AS NOTED APPLICANT: VOSE APTS. URBAN RENEWAL, LLC
- I CONSENT TO THE FILING OF THIS SITE PLAN WITH THE PLANNING BOARD OF VOSE APTS. URBAN RENEWAL, LLC ADDRESS: 447 NORTHFIELD AVENUE, SUITE 200 WEST ORANGE NJ 07082 PHONE: 973-731-2600 DATE: AUGUST 5, 2020
- I HEREBY CERTIFY THAT I HAVE PREPARED THIS SITE PLAN AND THAT ALL DIMENSIONS AND INFORMATION ARE CORRECT NAME: J. MICHAEL PETRY ADDRESS: 155 PASSAIC AVENUE FAIRFIELD NJ 07004 TITLE & LICENSE: PROJECT ENGINEER, 36682
- I HAVE REVIEWED THIS SITE PLAN AND CERTIFY THAT IT MEETS ALL CODES AND ORDINANCES UNDER MY JURISDICTION.  
(VILLAGE ENGINEER) \_\_\_\_\_ (DATE) \_\_\_\_\_
- I HEREBY CERTIFY THAT ALL THE REQUIRED IMPROVEMENTS HAVE BEEN INSTALLED OR A BOND POSTED IN COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES.  
(IF IMPROVEMENTS INSTALLED)  
(VILLAGE ENGINEER) \_\_\_\_\_ (DATE) \_\_\_\_\_  
(IF BOND POSTED)  
(VILLAGE CLERK) \_\_\_\_\_ (DATE) \_\_\_\_\_ BUILDING PERMIT ISSUED
- APPROVED BY THE PLANNING BOARD  
PRELIMINARY \_\_\_\_\_ FINAL \_\_\_\_\_  
(CHAIRMAN) \_\_\_\_\_ (DATE) \_\_\_\_\_

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
6	REVISED PER ENGINEER COMMENTS	9/10/20	AH1
5	REVISED PER PROFESSIONAL COMMENTS	8/20/2020	AH1
4	REVISED PER REVIEW COMMENTS	8/5/2020	AH1
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/10/2020	JMP
2	REVISED FOR RESC SUBMISSION	6/18/2020	AH1
1	REVISED FOR PRELIMINARY SUBMISSION	5/28/2020	AH1

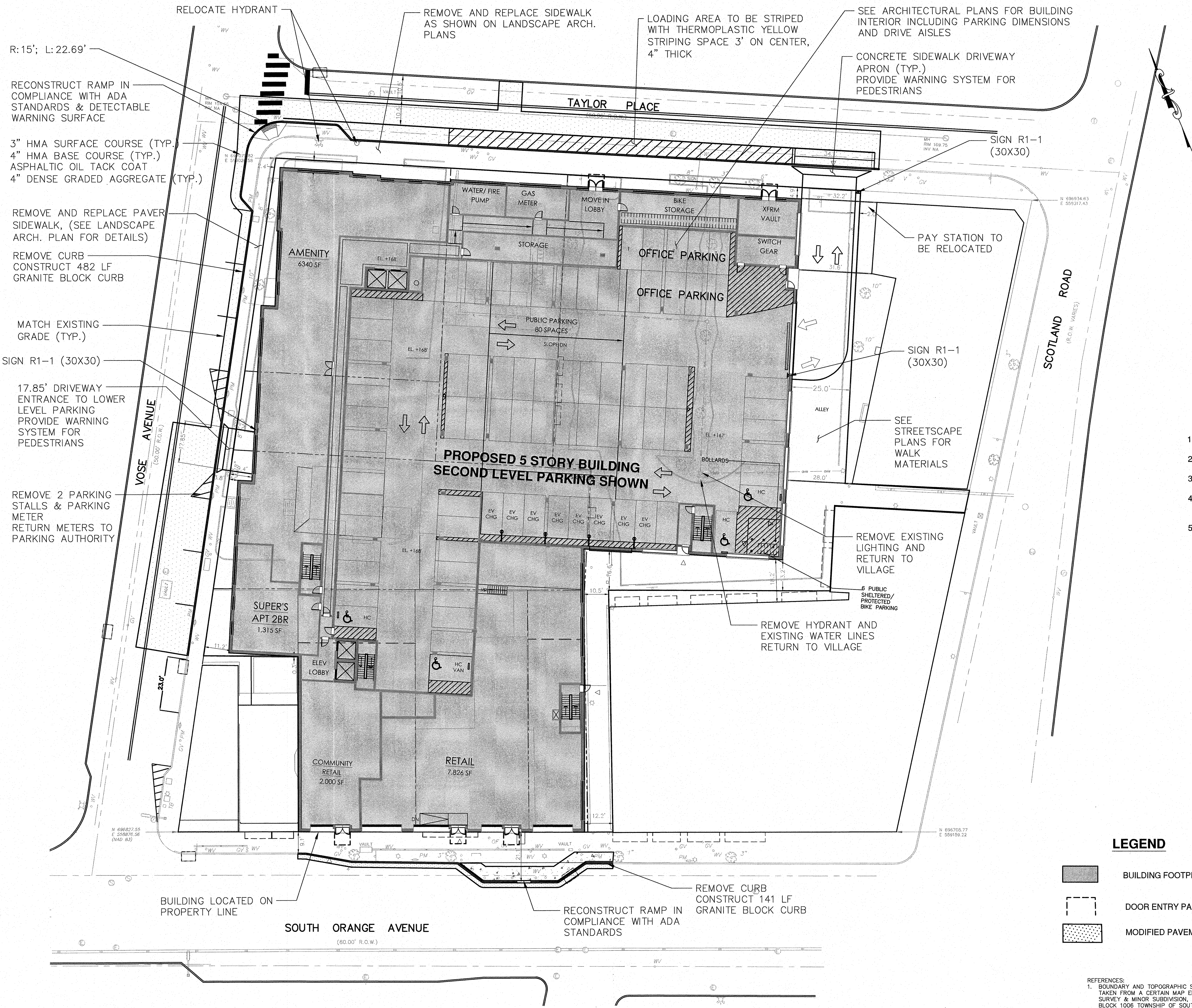
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VILLAGE OF SOUTH ORANGE  
ESSEX COUNTY, NEW JERSEY

### TITLE SHEET



J. MICHAEL PETRY-PE, PP, RA  
NJ PROFESSIONAL ENGINEER LIC. NO. 96662  
DATE: 04/29/2020

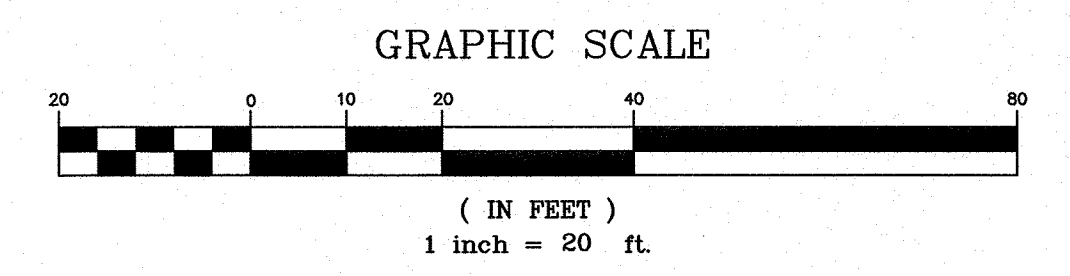
Designer: JMP  
Draftsman: AH1  
Checked by: JMP  
Project No.: 19-0078  
Scale: AS NOTED  
Sheet:  
**SP-1**



- NOTES:**
- 1.) UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE PLOTTED USING FIELD DATA, UTILITY MARKINGS AND/OR RECORDS FURNISHED BY VARIOUS AGENCIES. PETRY ENGINEERING, LLC, MAKES NO GUARANTEES, EXPRESS OR IMPLIED, REGARDING THE UTILITY LOCATIONS AS PLOTTED ON THIS PLAN. THIS PLAN DOES NOT IMPLY THAT NO OTHER UTILITIES MAY BE PRESENT ON THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY GROUND DISTURBANCE.
  - 2.) 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.
  - 3.) SEE MEP PLAN FOR ROOF LEADERS SHALL BE CONNECTED TO THE STORM SEWER DETENTION SYSTEM.

**NOTES**

1. LOTS DELINEATED ON SITE PLAN TO BE CONSOLIDATED.
2. CONTRACTOR TO TEST PIT 72" STORM PIPE AFTER DEMOLITION OF BUILDINGS TO VERIFY LOCATION.
3. 72" STORM LINE TO BE VIDEO INSPECTED PRIOR TO CONSTRUCTION
4. 72" STORM LINE TO BE VIDEO INSPECTED UPON COMPLETION OF CONSTRUCTION TO VERIFY CONDITION OF PIPE.
5. CONTRACTOR TO MAINTAIN ACCESS TO EXISTING CELLARS ON LOTS 4 & 5 AT ALL TIMES.



**LEGEND**

- 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 & 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 06/6/2020.

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5	REVISED PER ENGINEER COMMENTS	9/10/20	AHH
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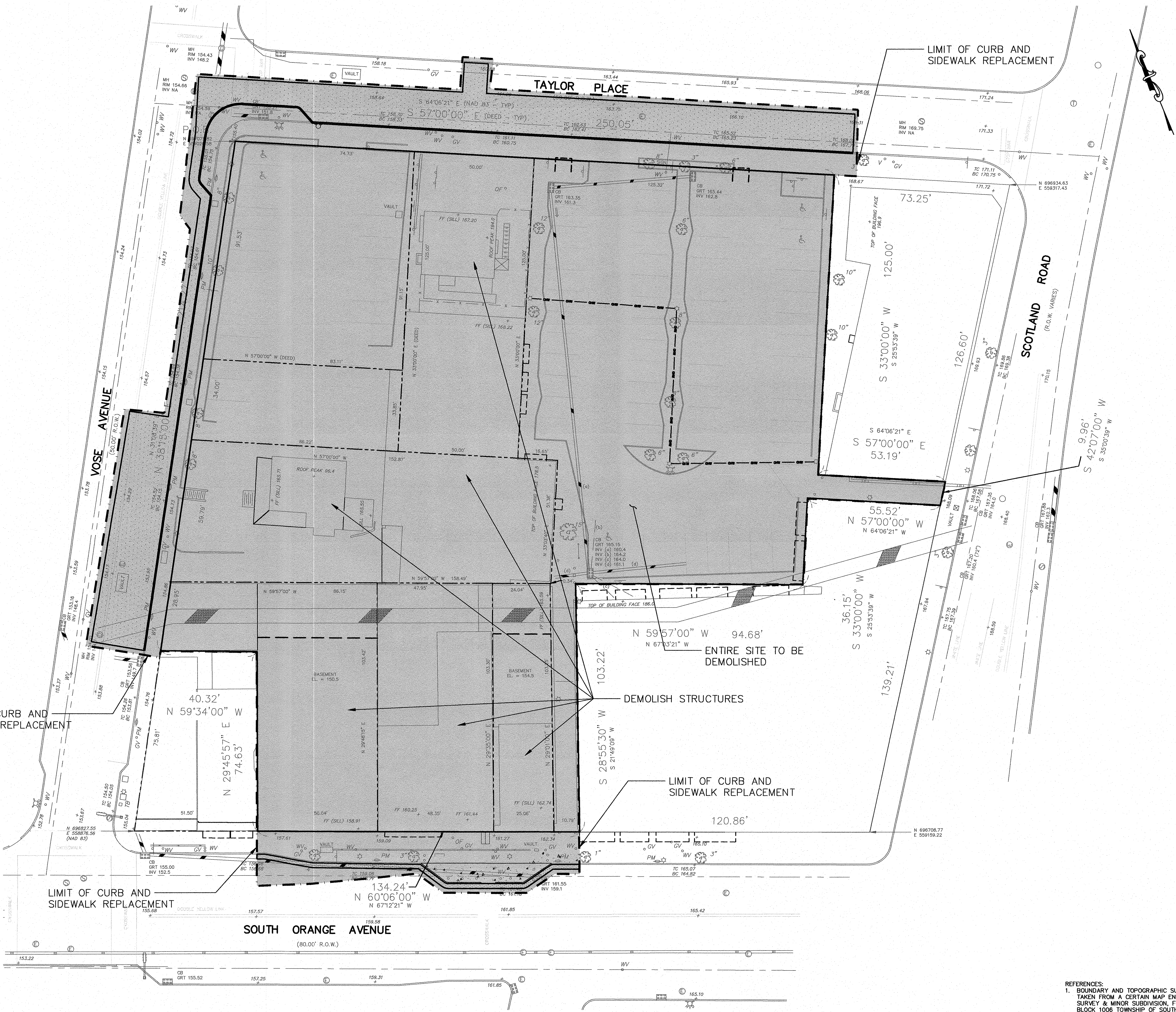
PREPARED FOR  
**VOSE APTS. URBAN RENEWAL, LLC**  
 LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
 SOUTH ORANGE AVENUE REDEVELOPMENT  
 VILLAGE OF SOUTH ORANGE  
 ESSEX COUNTY, NEW JERSEY

**LAYOUT SHEET**

**PETRY ENGINEERING, LLC**  
CORPORATE OFFICE: 100 MADISON AVENUE • FARGO, ND 58103 • TEL: 701.281.4444  
 NEW JERSEY OFFICE: 100 MADISON AVENUE • FARGO, ND 58103 • TEL: 973.227.7004 FAX: 973.227.7001

**J. MICHAEL PETRY-PE, PP, RA**  
N.J. PROFESSIONAL ENGINEER LIC. NO. 36862 DATED: 04/29/2020

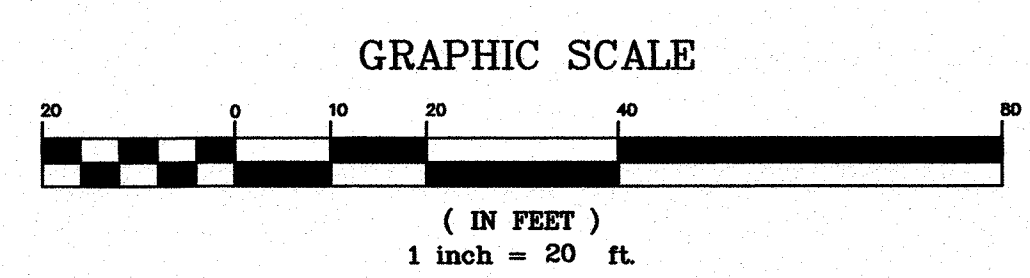
Designer: JMP  
 Draftsman: AHH  
 Checked By: JMP  
 Project No: 19-0078  
 Scale: 1/20  
 Sheet: **SP-2**



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  - 2) 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.
  - 3) SEE MEP PLAN FOR ROOF LEADERS SHALL BE CONNECTED TO THE STORM SEWER DETENTION SYSTEM.

**THE ENTIRE EXISTING SITE IS SCHEDULED FOR DEMOLITION**  
**DEMOLITION NOTES**

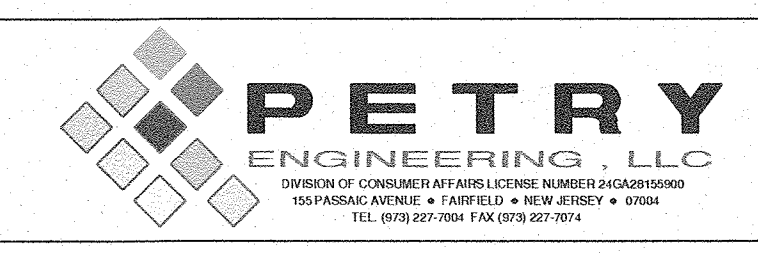
- 1) THE LOCATION OF EXISTING SUBSTRUCTURES AND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON FIELD OBSERVATIONS OF SURFACE EVIDENCE AND CERTAIN INFORMATION CONTAINED IN THE PUBLIC RECORD, AND RECORD DATA PROVIDED BY OWNER. THIS PLAN IN NO WAY REPRESENTS ANY GUARANTEE, EXPRESS OR IMPLIED, TO THE ACCURACY 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.



REVISION	DESCRIPTION	DATE	BY
1	REVISED PER ENGINEER COMMENTS	9/10/20	AHH

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**DEMOLITION PLAN**

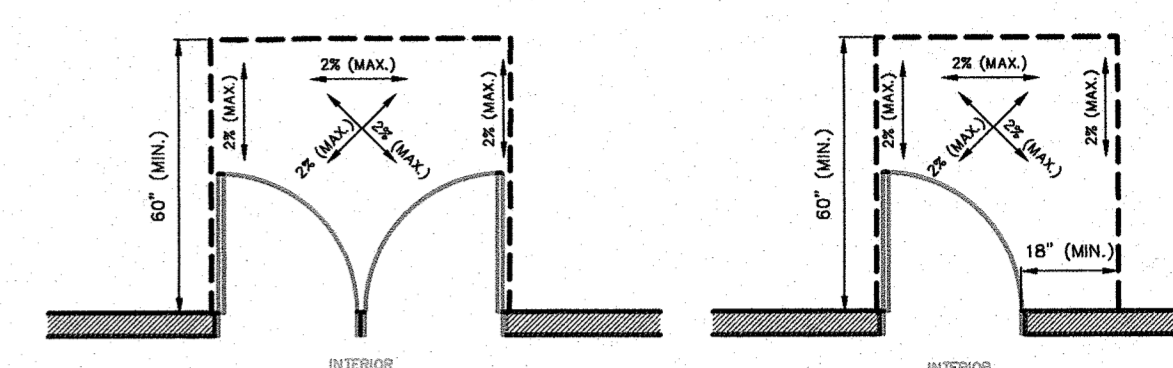
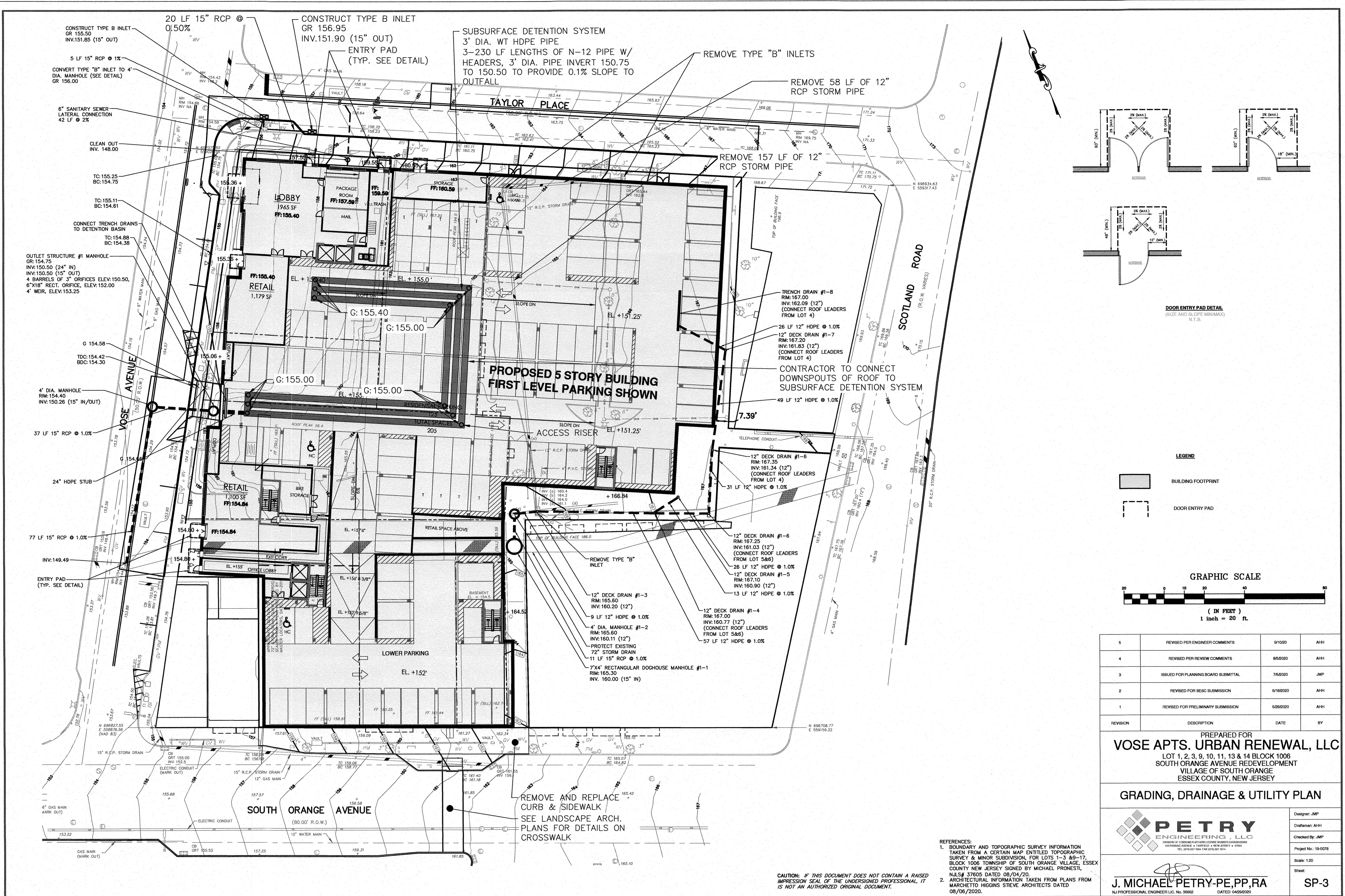


**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER, LIC. NO. 36962      DATED: 08/26/2020

Designer: JMP  
Draftsman: AHH  
Checked By: JMP  
Project No.: 19-0078  
Scale: 1/20  
Sheet: **SP-2A**

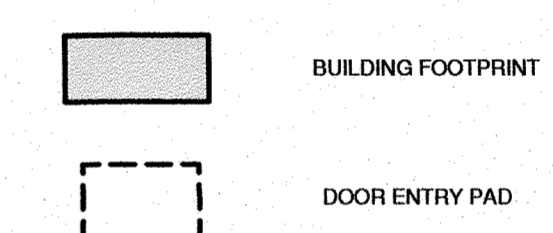
- REFERENCES:**
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.E.S.# 37605 DATED 05/04/20.
  2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/6/2020.

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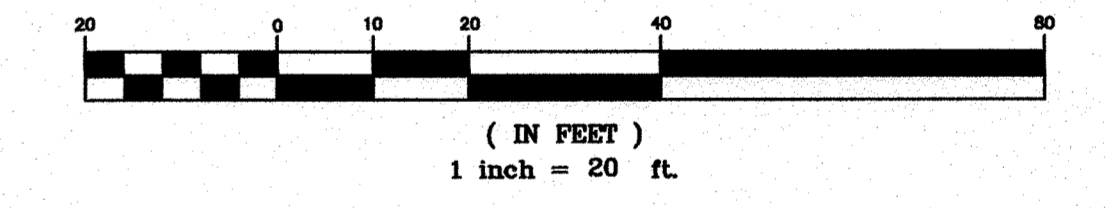


DOOR ENTRY PAD DETAIL  
(SIZE AND SLOPE MIN/MAX)  
N.T.S.

LEGEND



GRAPHIC SCALE



REVISION	DESCRIPTION	DATE	BY
5	REVISED PER ENGINEER COMMENTS	9/10/20	AHH
4	REVISED PER REVIEW COMMENTS	8/5/2020	AHH
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
2	REVISED FOR BESSC SUBMISSION	6/18/2020	AHH
1	REVISED FOR PRELIMINARY SUBMISSION	5/28/2020	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

GRADING, DRAINAGE & UTILITY PLAN



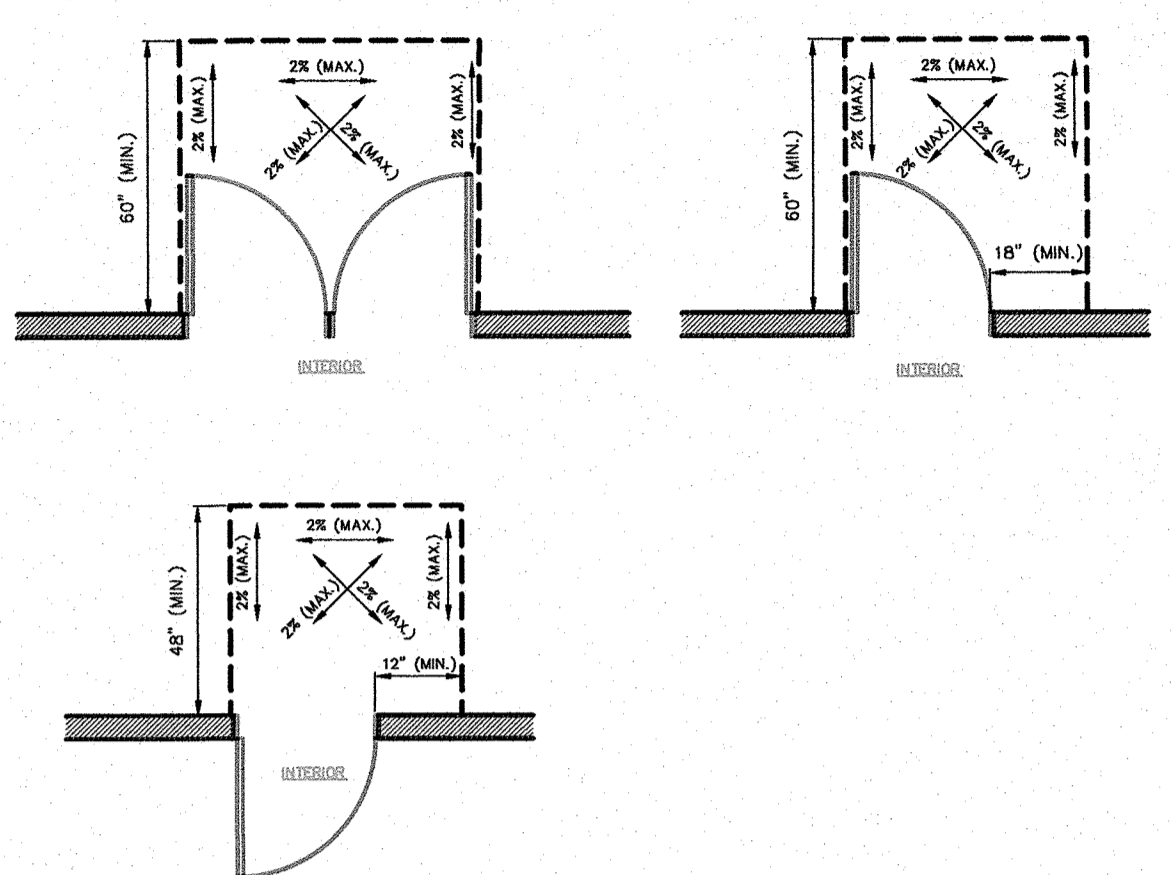
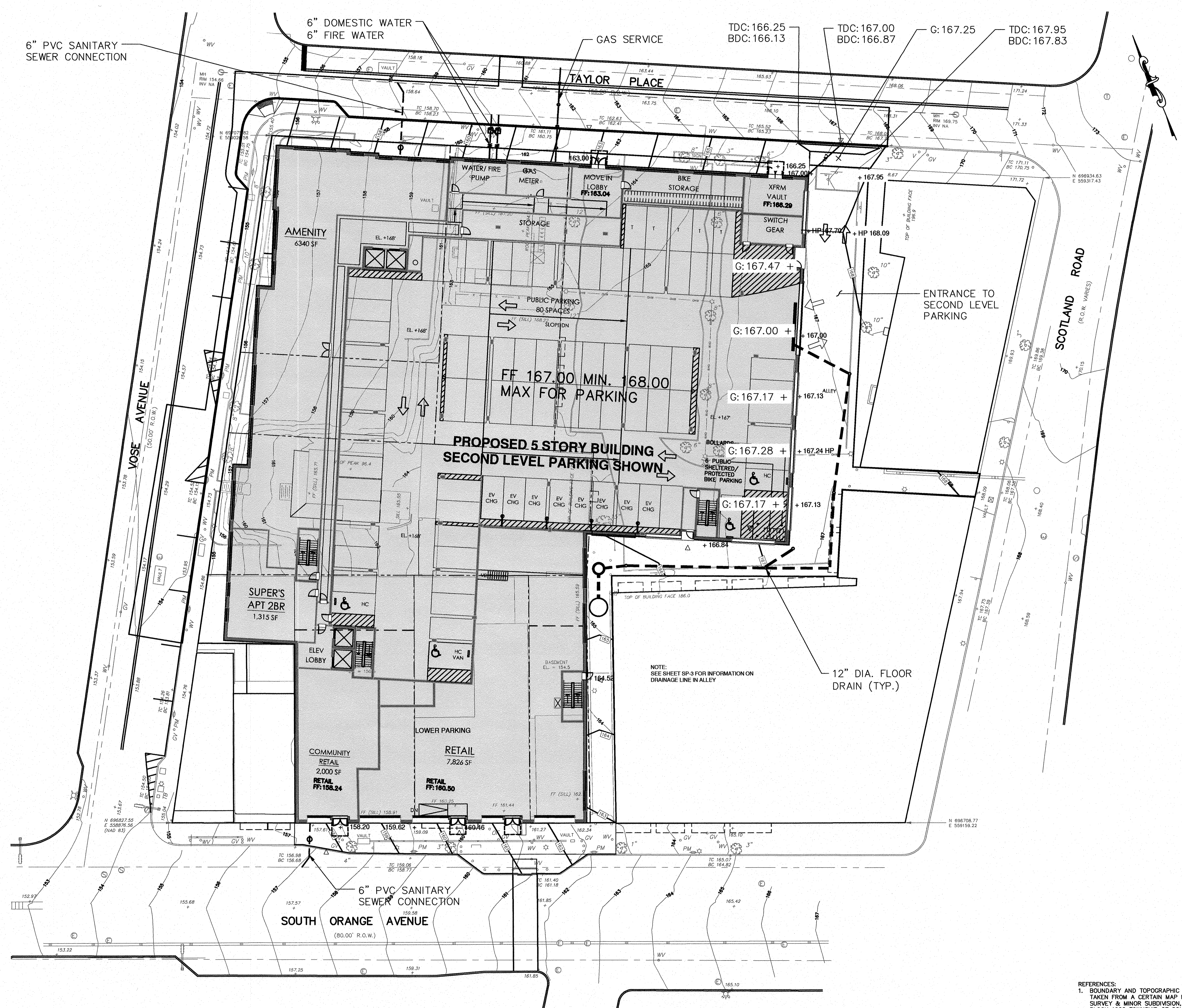
Designer: JMP  
Draftsman: AHH  
Checked By: JMP  
Project No: 19-0076  
Scale: 1:20  
Sheet:

**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER LIC. NO. 36552 DATED: 04/29/2020

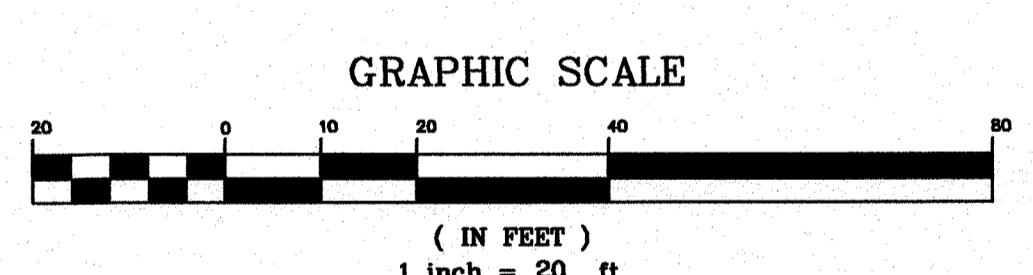
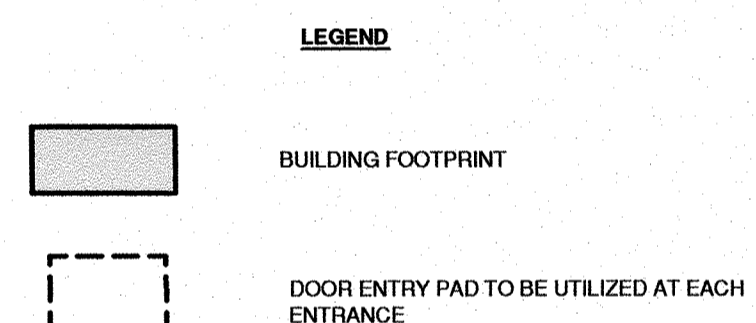
**SP-3**

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 STEVE ARCHITECTS DATED 08/06/2020.

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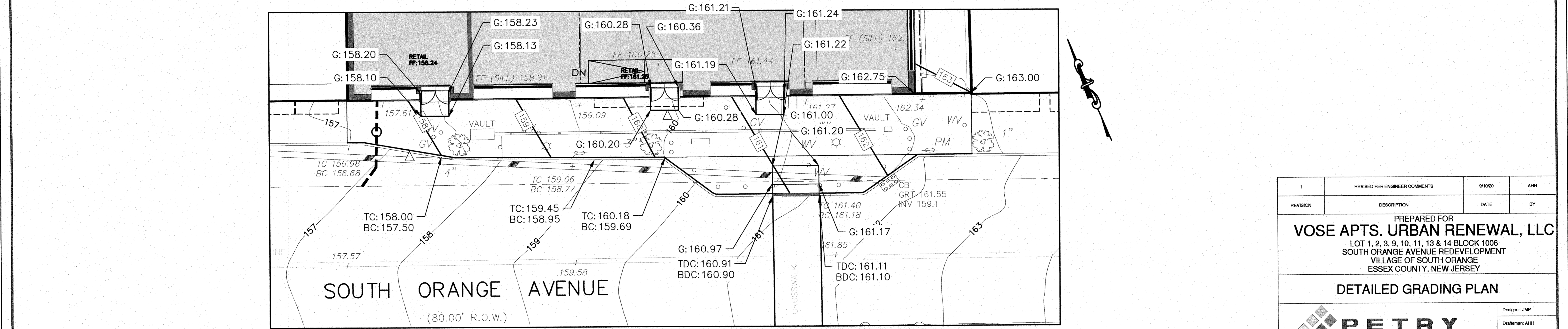
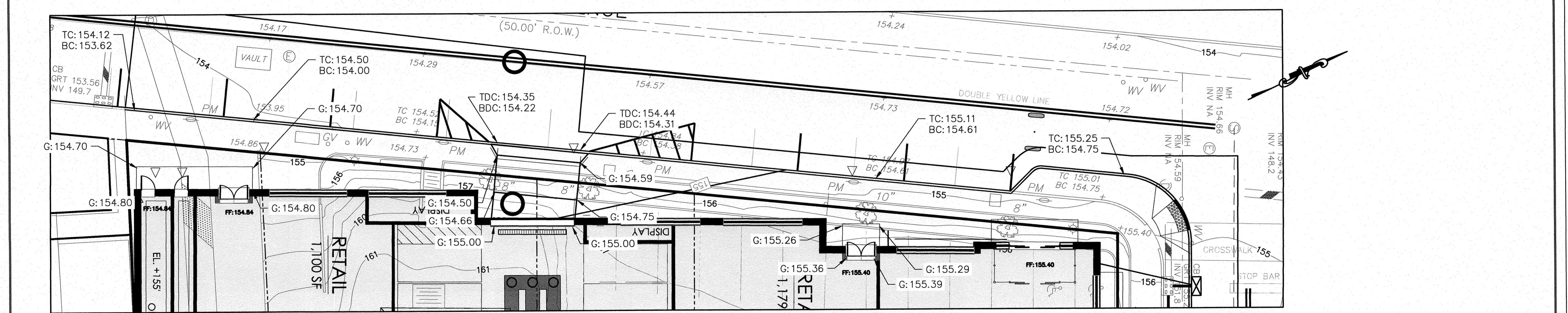
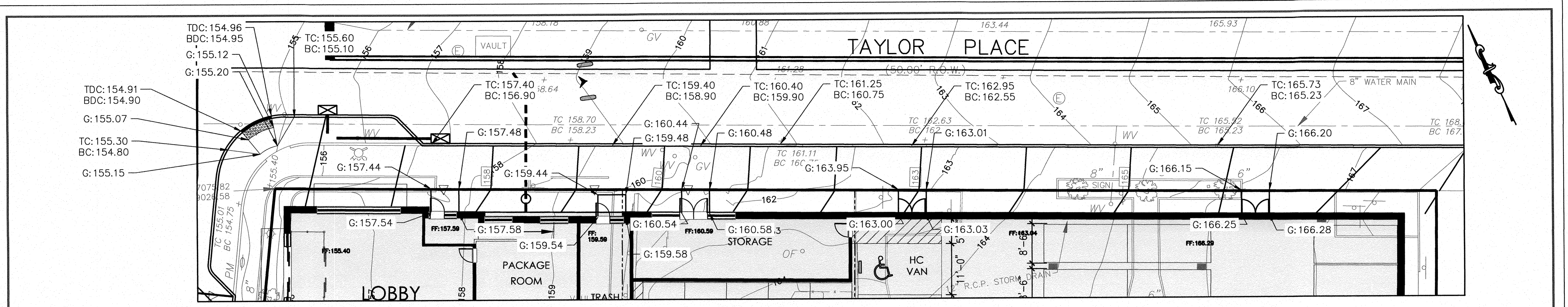
DOOR ENTRY PAD DETAIL  
(SIZE AND SLOPE MIN/MAX)  
N.T.S.



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2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/06/2020.

1	REVISED PER ENGINEER COMMENTS	9/10/20	AJH
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>			
		Designer: JMP	
<b>J. MICHAEL PETRY-PE, P.P.R.A.</b> <small>N.J. PROFESSIONAL ENGINEER LIC. NO. 96992</small>		Draftsman: AJH	
		Checked By: JMP	
<small>DATED: 09/05/2020</small>		Project No: 19-0078	
<small>DATE: 09/05/2020</small>		Scale: 1:20	
<b>SP-4</b>		Sheet:	



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  - ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STIEVE ARCHITECTS DATED 08/06/2020.

1	REVISED PER ENGINEER COMMENTS	9/10/20	A#1
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>DETAILED GRADING PLAN</b>			
		Designer: JMP Draftsman: A#1 Checked By: JMP Project No.: 19-0078 Scale: 1:10 Sheet:	
		<b>J. MICHAEL PETRY-PE, PP, RA</b> NJ PROFESSIONAL ENGINEER LIC. NO. 36682 DATED: 08/20/2020	
		<b>SP-4A</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 HEPSCD: **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@HEPSCD.ORG](mailto:INFORMATION@HEPSCD.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, firmed 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 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 SEEDED & MULCHED 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 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.

REVISION	DESCRIPTION	DATE	BY
5	REVISED PER SECC REVIEW COMMENTS	8/13/2020	AHH
4	REVISED PER REVIEW COMMENTS	8/5/2020	AHH
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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

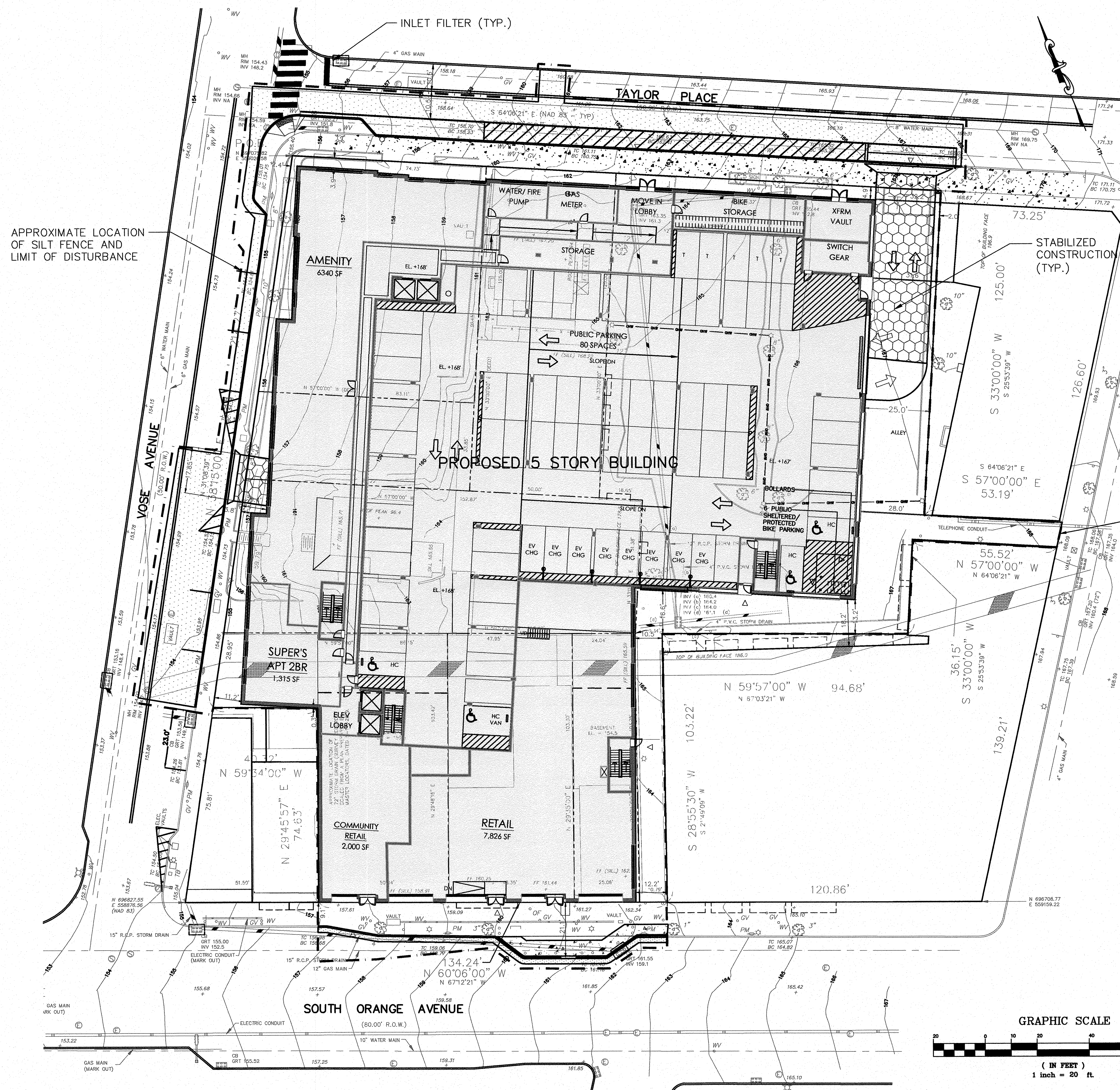
**SOIL EROSION SEDIMENT CONTROL**



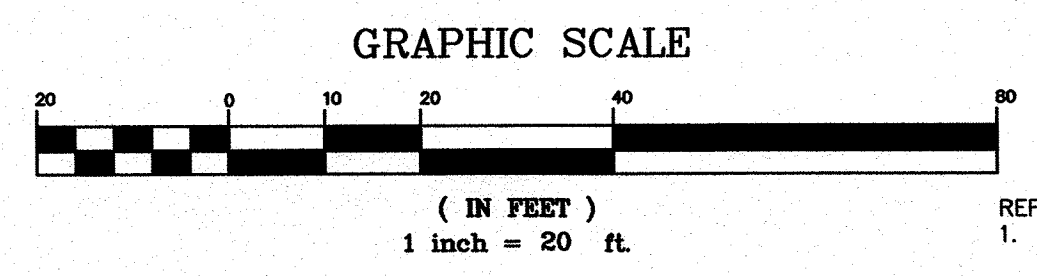
**PETRY**  
ENGINEERING, LLC

DIVISION OF CONCRETE & REINFORCED CONCRETE  
100 PARKWAY AVENUE • SUITE 202 • NEW ORANGE, NJ 07054  
TEL: (973) 207-7665 FAX: (973) 207-7674

Designer: JMP  
Draftsman: AHH  
Checked By: JMP  
Project No.: 19-0078  
Scale: 1:20  
Sheet:  
**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER LIC. No. 36552 DATED: 04/29/2020



APPROXIMATE LOCATION OF SILT FENCE AND LIMIT OF DISTURBANCE



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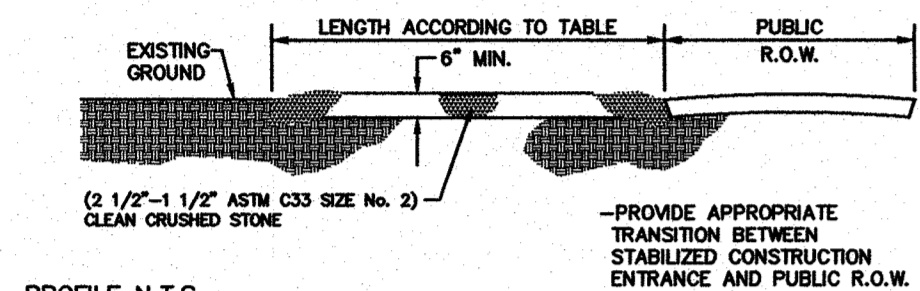
**DUST CONTROL NOTES**

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST

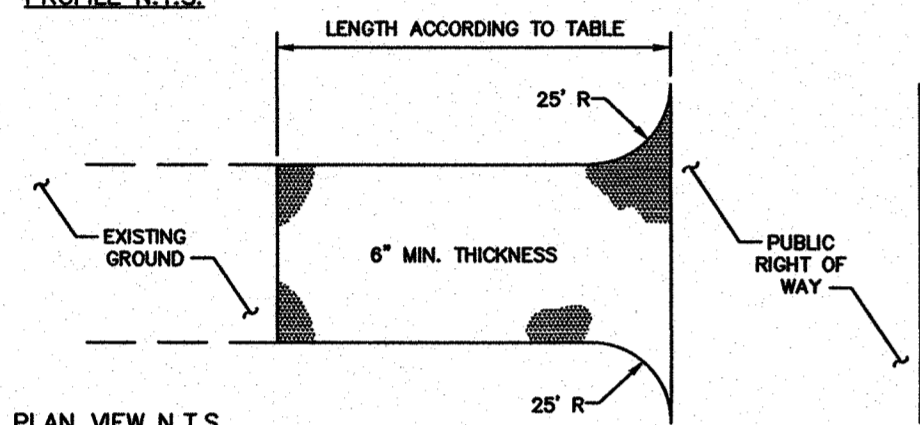
1. **MULCHES** - SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY (PG. 5-1).
2. **VEGETATIVE COVER** - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER (PG. 7-1, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION (PG. 4-1) AND PERMANENT STABILIZATION WITH SOD (PG. 6-1).
3. **SPRAY-ON ADHESIVES** - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

MATERIAL	WATER DILUTION	TYPE OF NOZZEL	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SORAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) SPRAY ON/DRY SPRAY	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1)		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

4. **TILLAGE** - TO TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BECOM FLOWING ON WINDWARD SIDE IF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
5. **SPRINKLING** - SITE IS SPRINKLED UNTIL SURFACE IS WET.
6. **BARRIERS** - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIALS CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
7. **CALCIUM CHLORIDE** - SHALL BE IN THE FORM OF LOOSE, DRY GRANULATES OF FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP THE SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.



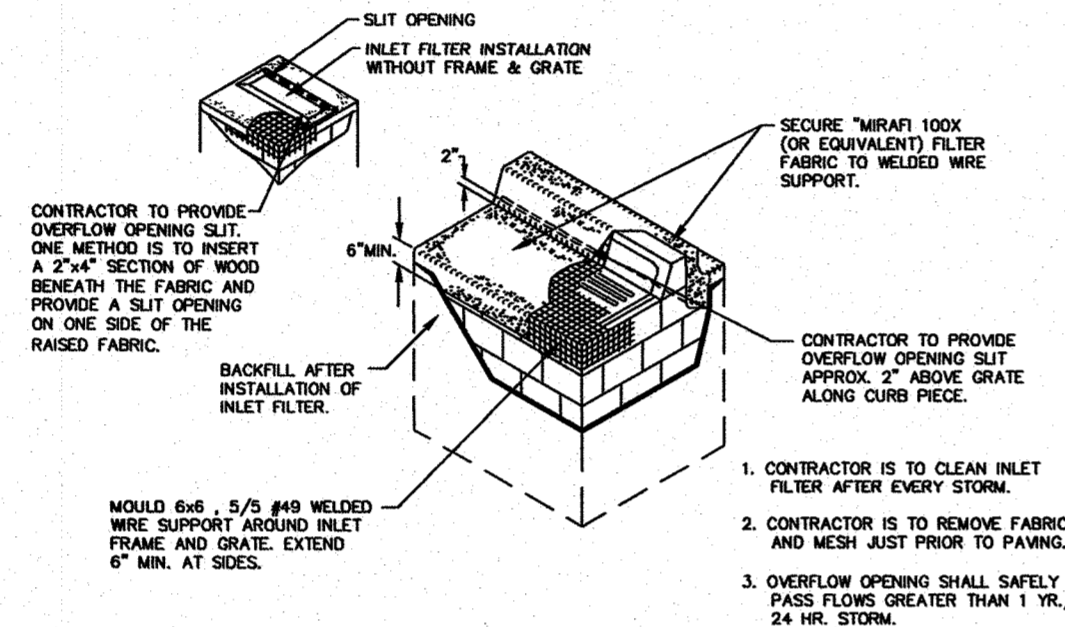
PROFILE N.T.S.



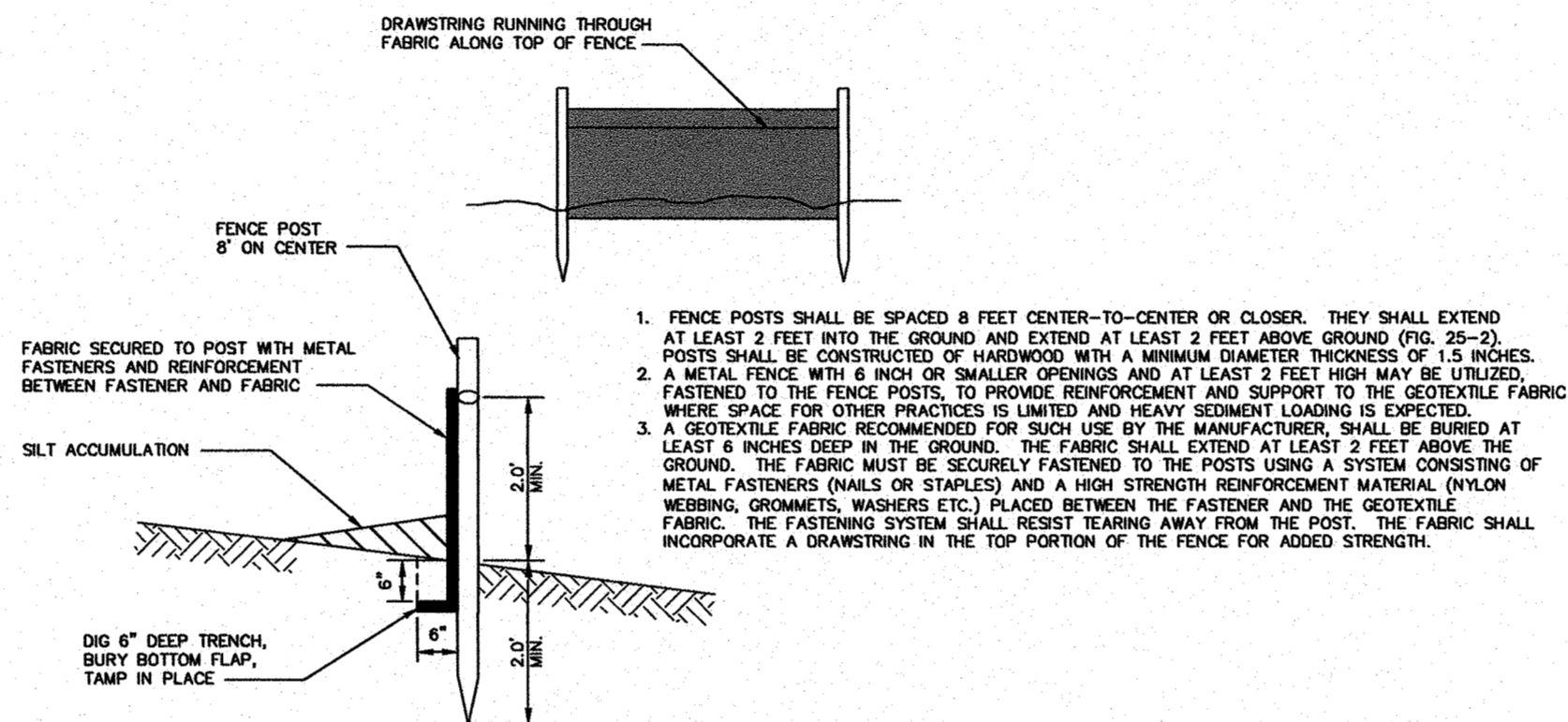
PLAN VIEW N.T.S.

PERCENT SLOPE OF ROADWAY	LENGTH OF CONSTRUCTION EXT TABLE	
	COURSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT.	100 FT.
2 TO 5%	100 FT.	200 FT.
> 5%	ENTIRE SURFACE STABILIZED WITH FABR BASE COURSE.	

ANTI-TRACKING PAD DETAIL  
SCALE N.T.S.



INLET FILTER DETAIL  
SCALE N.T.S.



SILT FENCE DETAIL  
SCALE N.T.S.

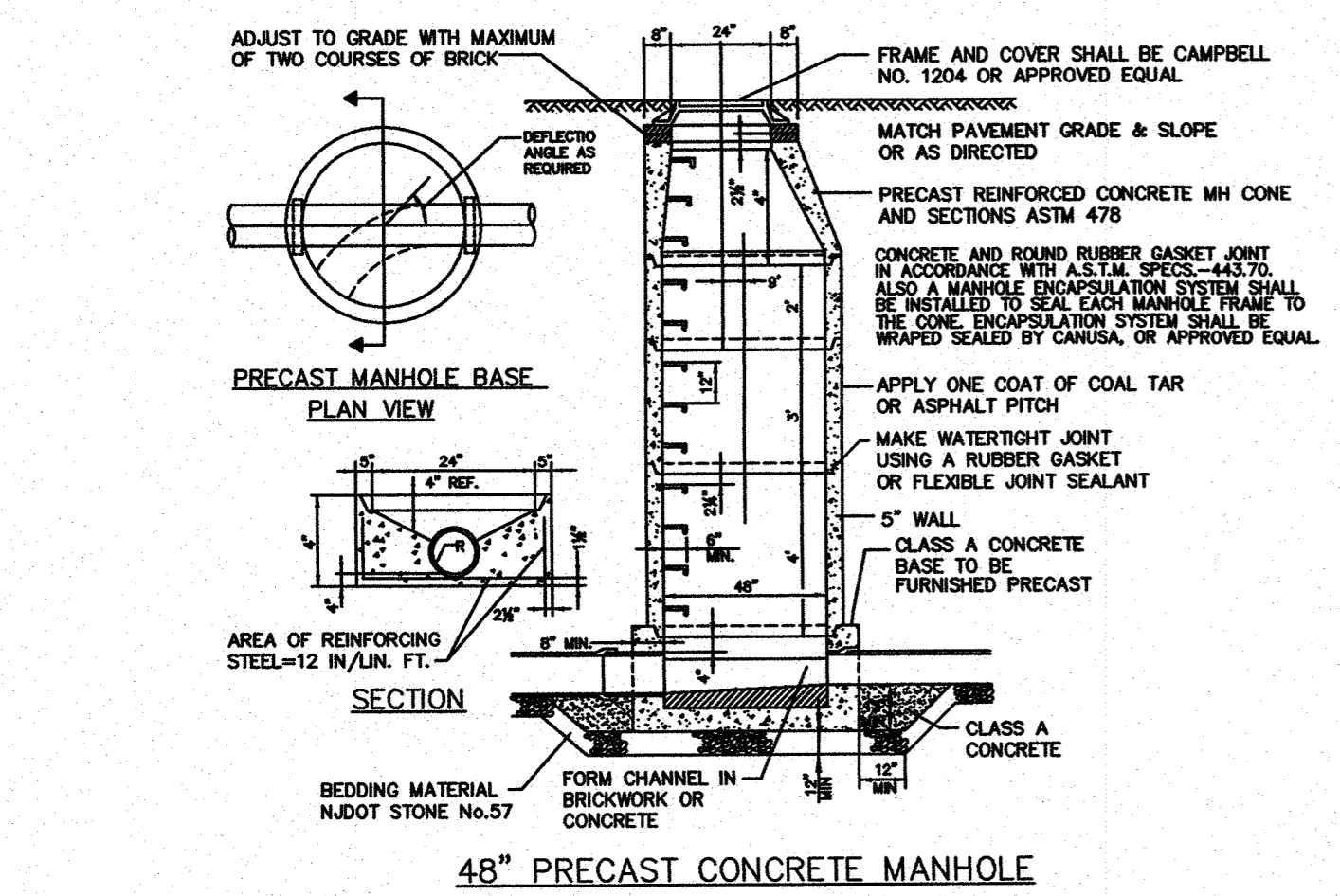
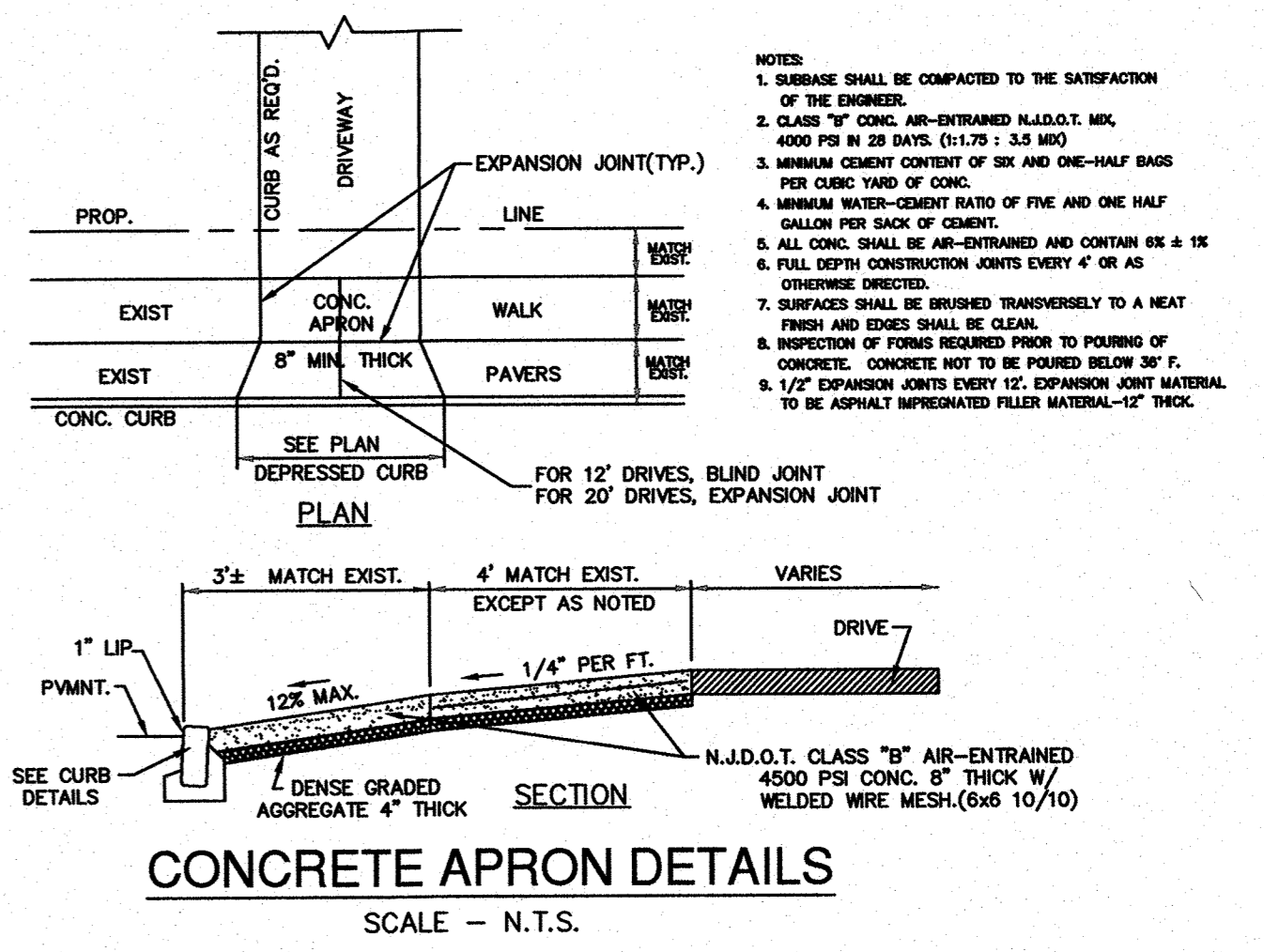
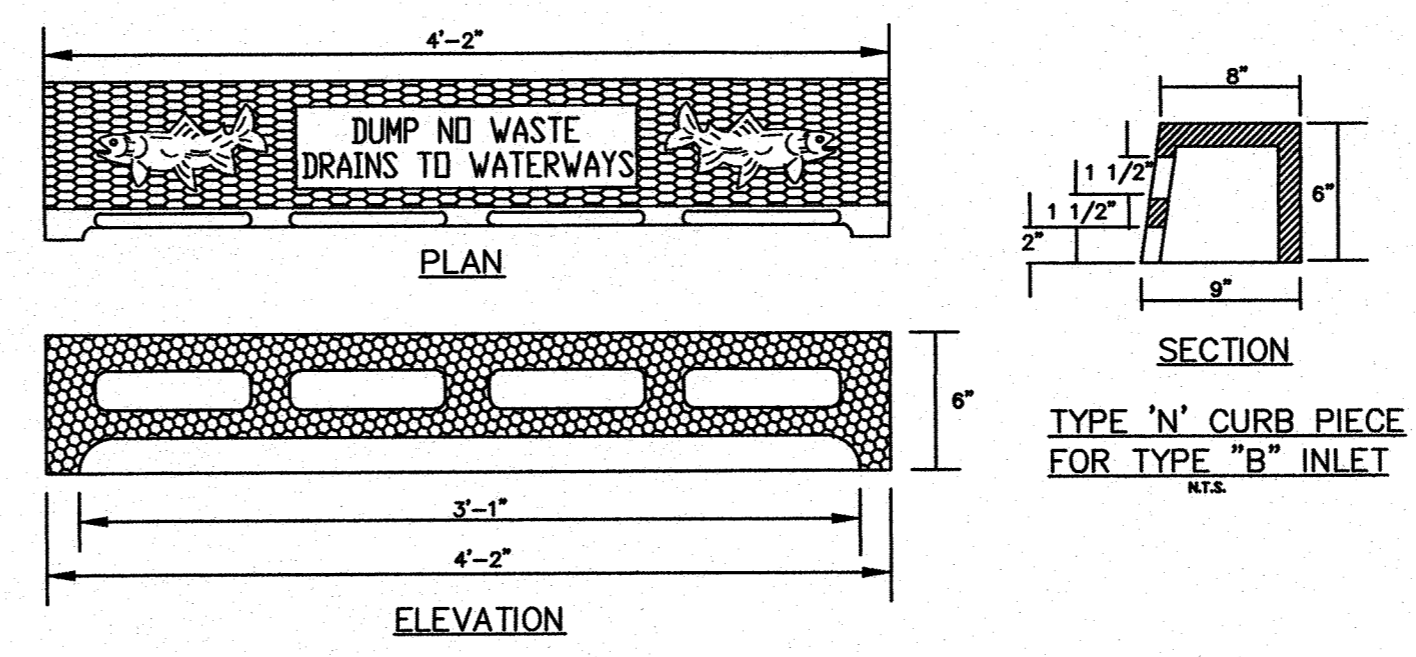
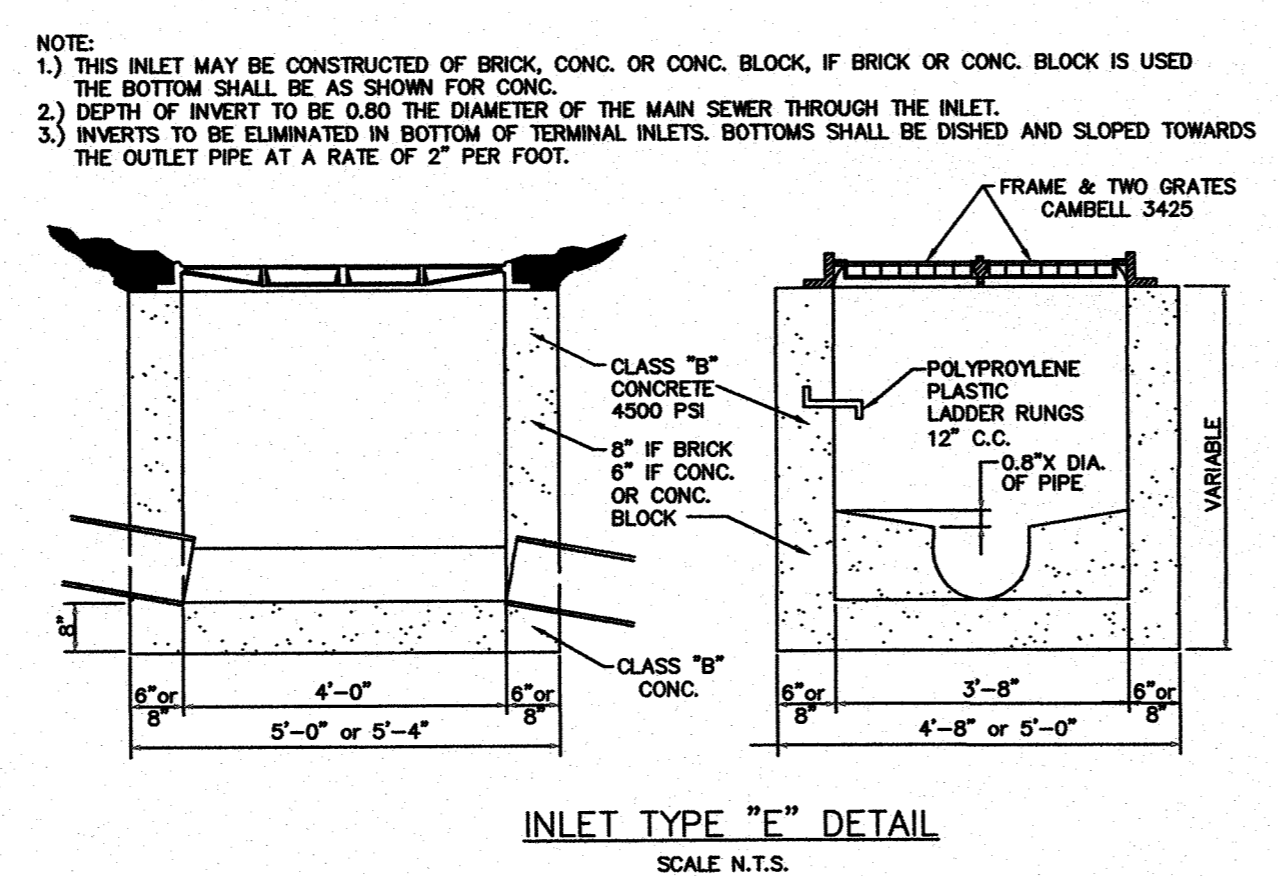
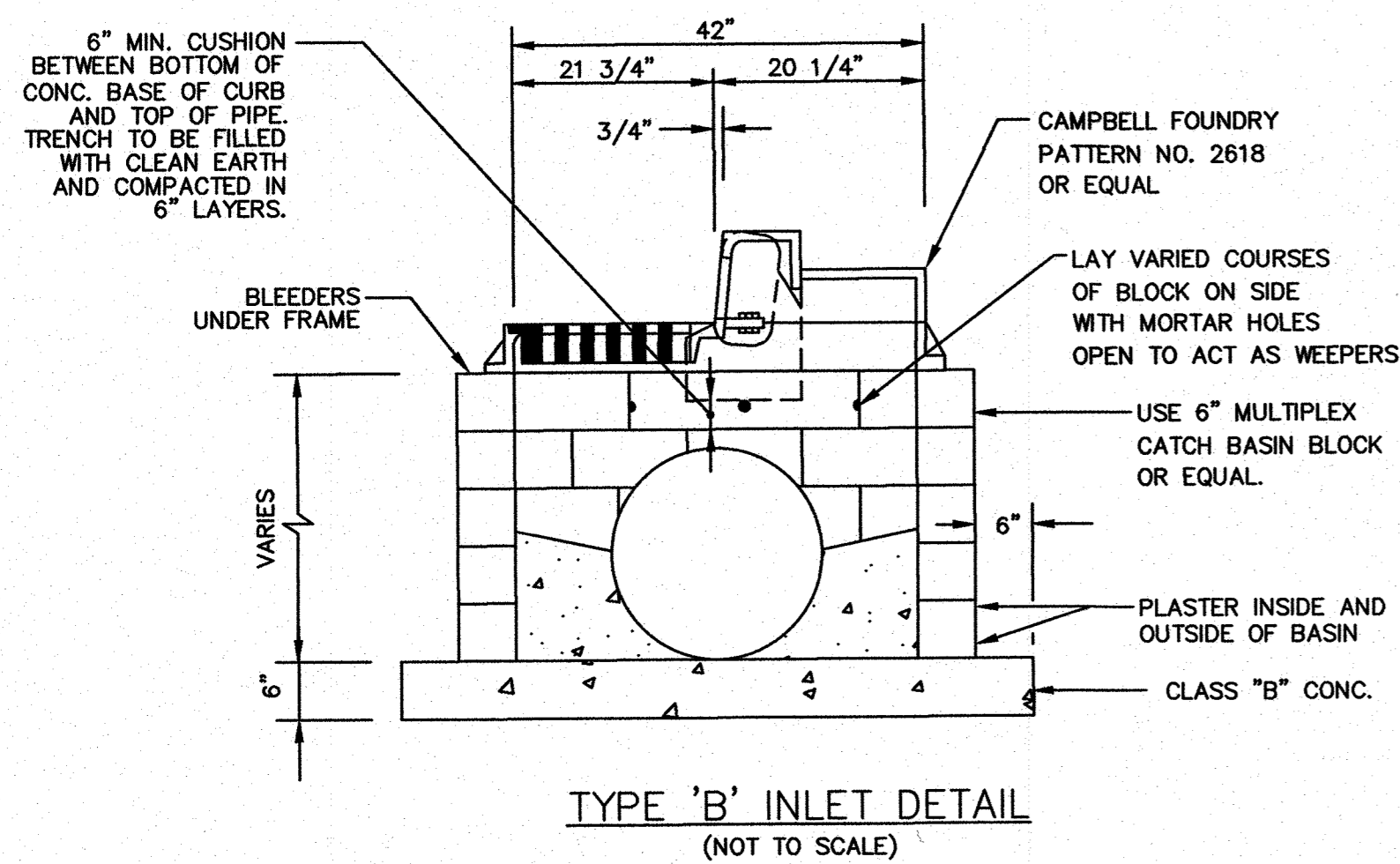
**SOIL COMPACTION EXEMPTION NOTE**

AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PA1). UNDER EXISTING CONDITIONS, THE SITE IS NOT COVERED IN WOODY VEGETATION NOR REGROWTH. IN ACCORDANCE WITH NEW JERSEY STANDARD FOR LAND GRADING (REVISED 2017), NON WOODY VEGETATED PA1 AREAS FALL UNDER THE SOIL COMPACTION EXEMPTION LIST AS A "URBAN REDEVELOPMENT" AND IS DEFINED BY NIDEP AS "PREVIOUSLY DEVELOPED".

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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>SOIL EROSION SEDIMENT CONTROL DETAILS</b>			
			Designer: JMP Drafter: AHH Checked By: JMP Project No.: 19-0078
			Scale: 1:20 Sheet: <b>SP-6</b>



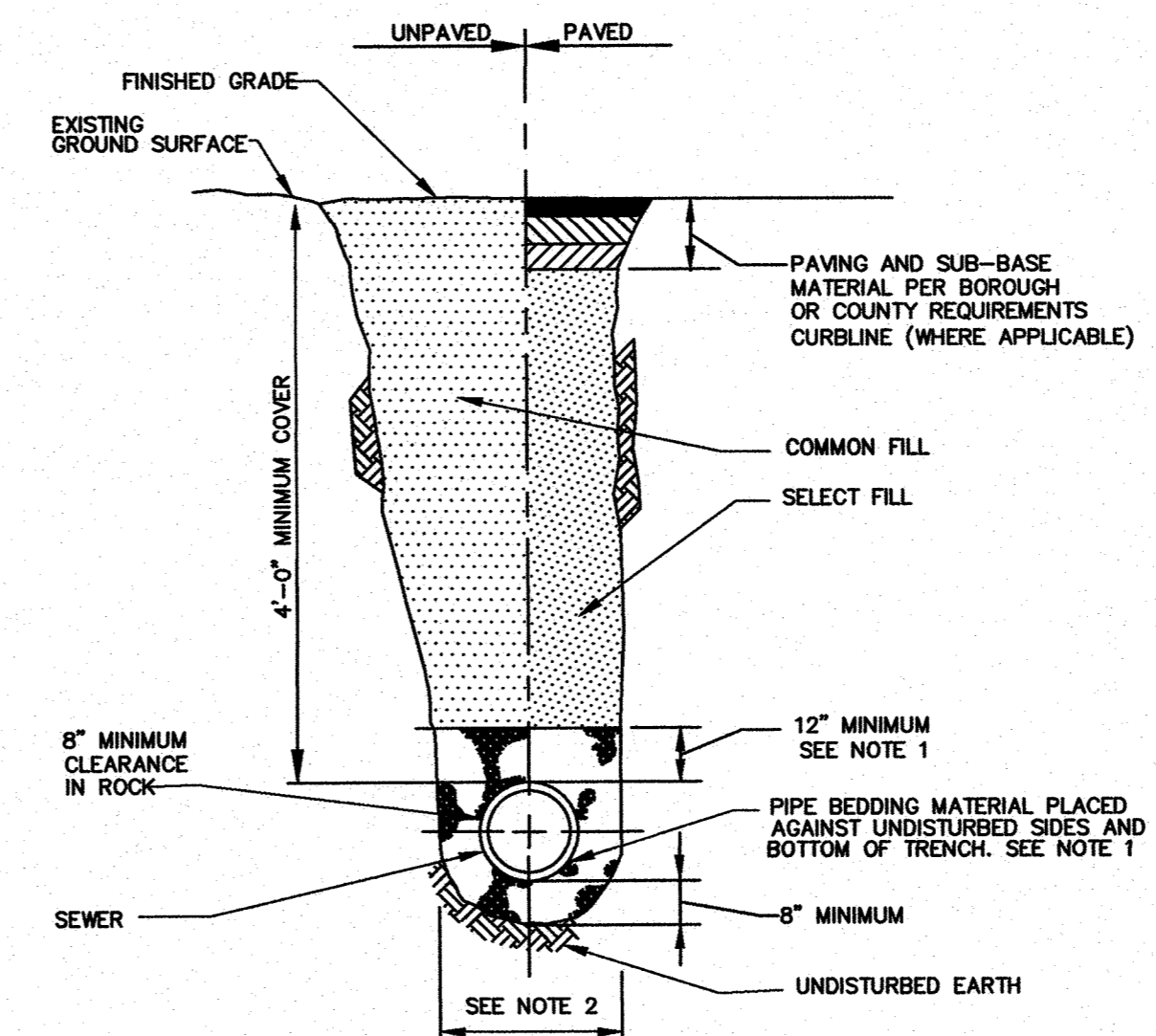


- GENERAL NOTES**
- INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8 INCHES THICK IF BRICK OR 6 INCHES THICK IF CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS B CONCRETE.
  - CORRELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2 INCH PER 8 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.
20'-1" TO 25'-0"	#13 @ 4" C.C.	#13 @ 18" C.C.

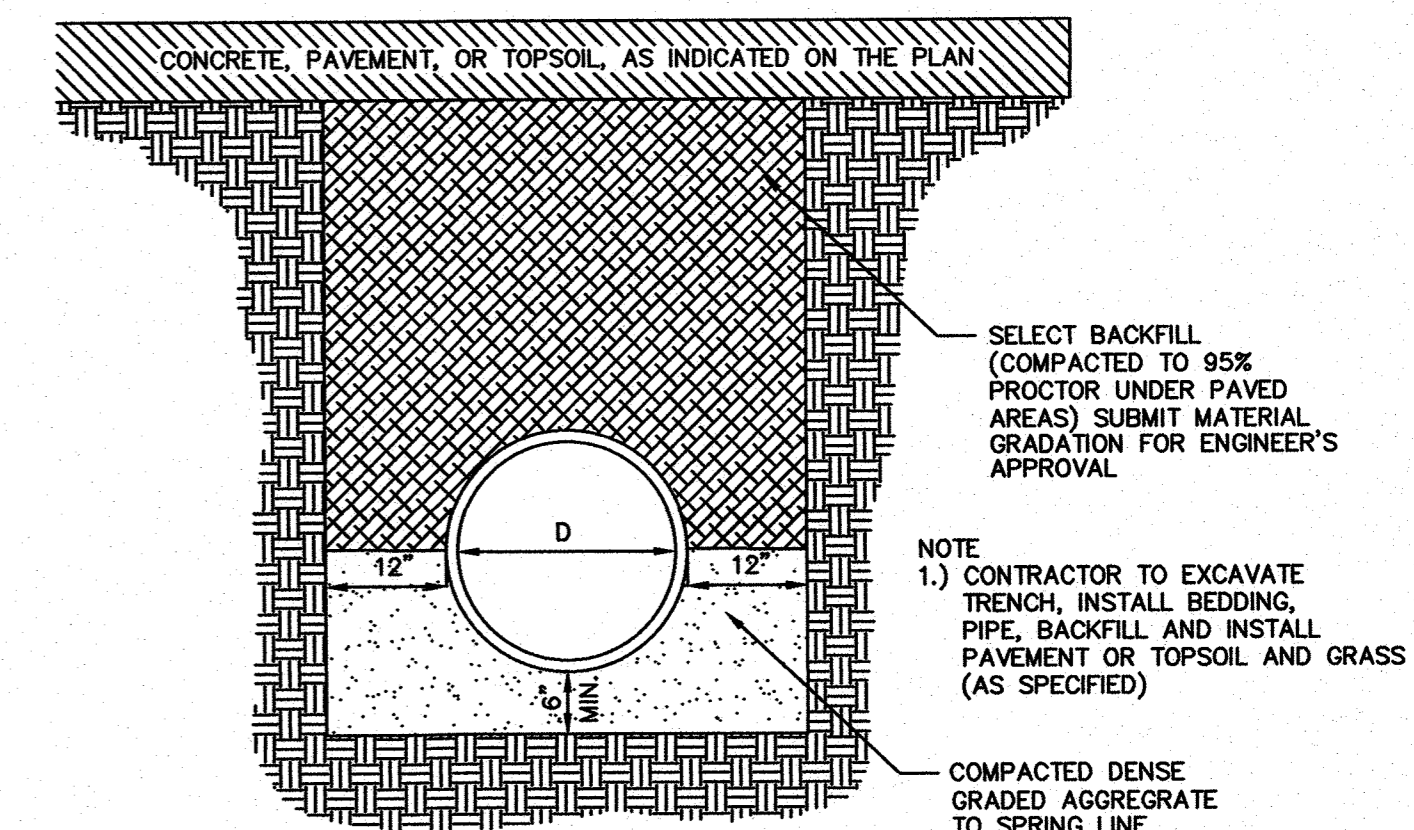
 ALTERNATE REINFORCEMENT:
 

DEPTH BELOW TOP OF GRATE	REINFORCEMENT
0' TO 10'-0"	WWF 3 x 6 W6 WIRES SPACED AT 3" TO RUN HORIZONTAL IN ALL CASES.
10'-1" TO 15'-0"	WWF 3 x 6 W6 ADD #10 BAR @ 18" 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 TECHNOLOGYS AND PRODUCTS APPROVED PRODUCTS LIST.

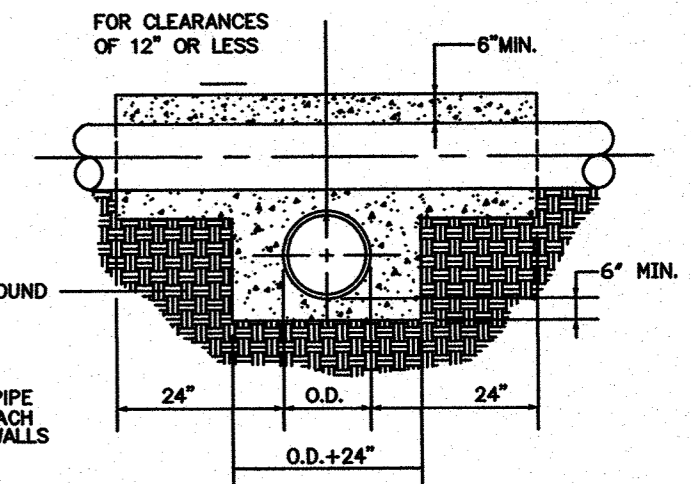


- NOTES:**
- FOR PIPES OTHER THAN PVC, SELECT FILL MAY BE USED FROM MID-DIAMETER OF PIPE TO 12" ABOVE TOP OF PIPE.
  - PIPE TRENCH WIDTH SHALL BE PIPE OD +2'-0" MAXIMUM FOR PIPES 12" AND LARGER, FOR PIPES LESS THAN 12", TOTAL PIPE TRENCH WIDTH SHALL BE 3'-0".
  - TRENCHES LOCATED ON ROAD SHOULDER SHALL 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.

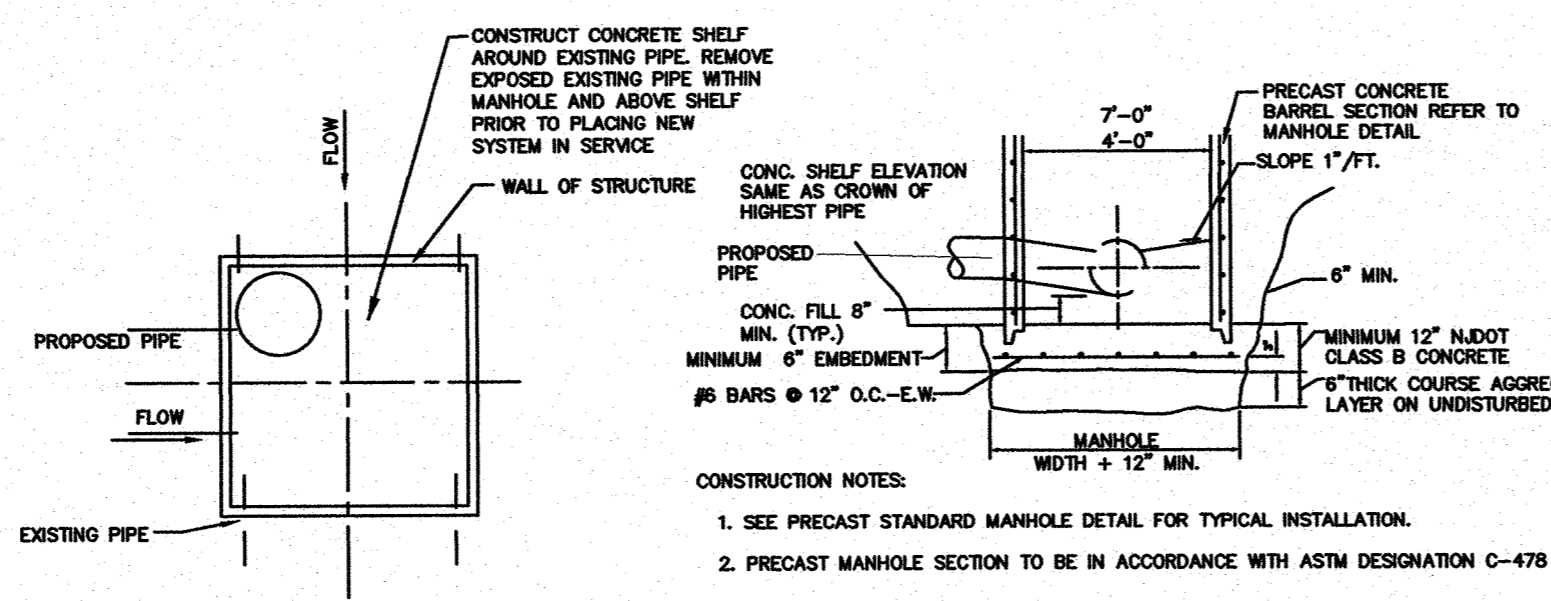
**TYPICAL TRENCH DETAIL FOR 6" PVC SDR-35 SEWER PIPE**  
SCALE - N.T.S.



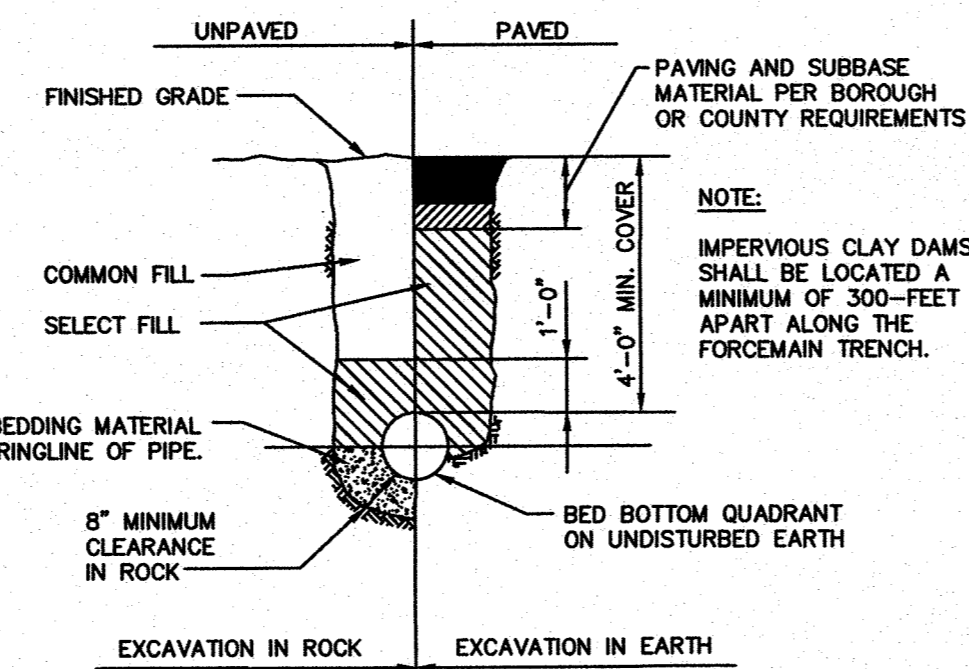
**PIPE TRENCH DETAIL WITHIN SITE**  
SCALE - N.T.S.



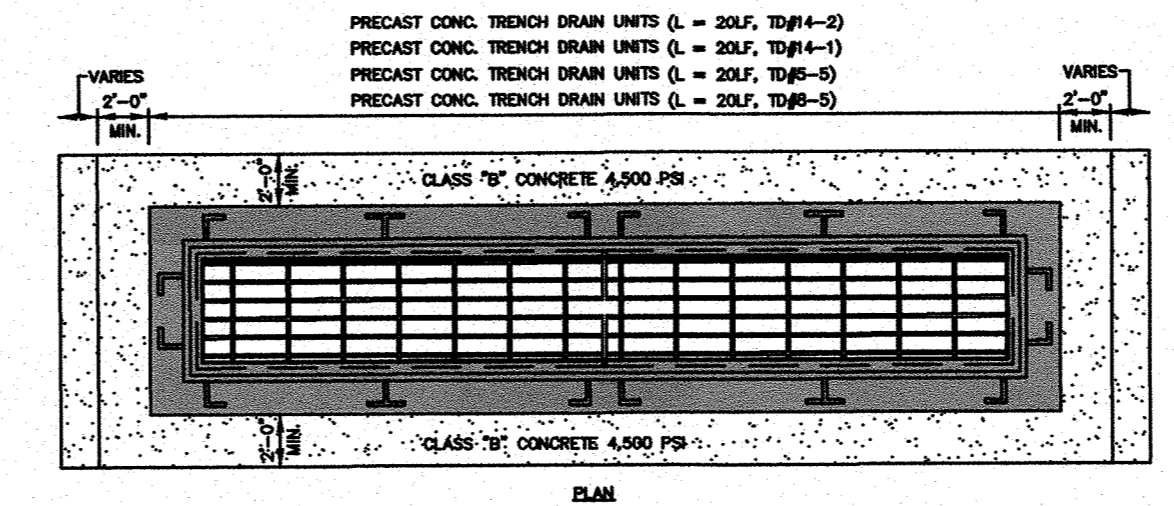
**UTILITY CROSSING**  
SCALE - N.T.S.



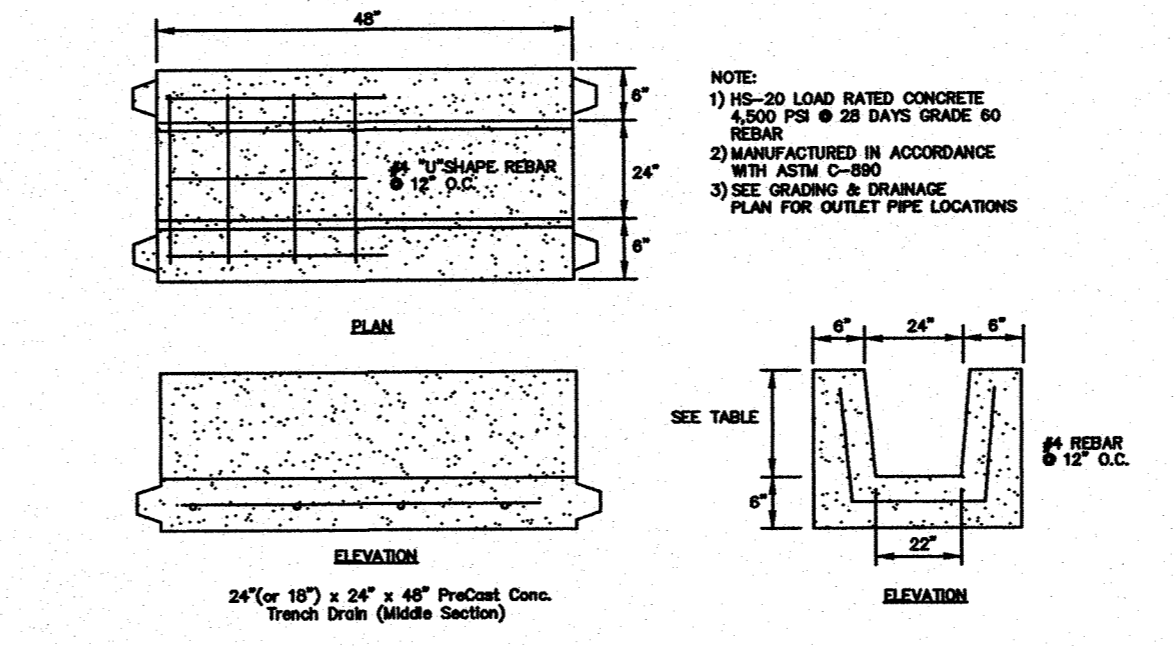
**DOGHOUSE STRUCTURE**  
SCALE N.T.S.



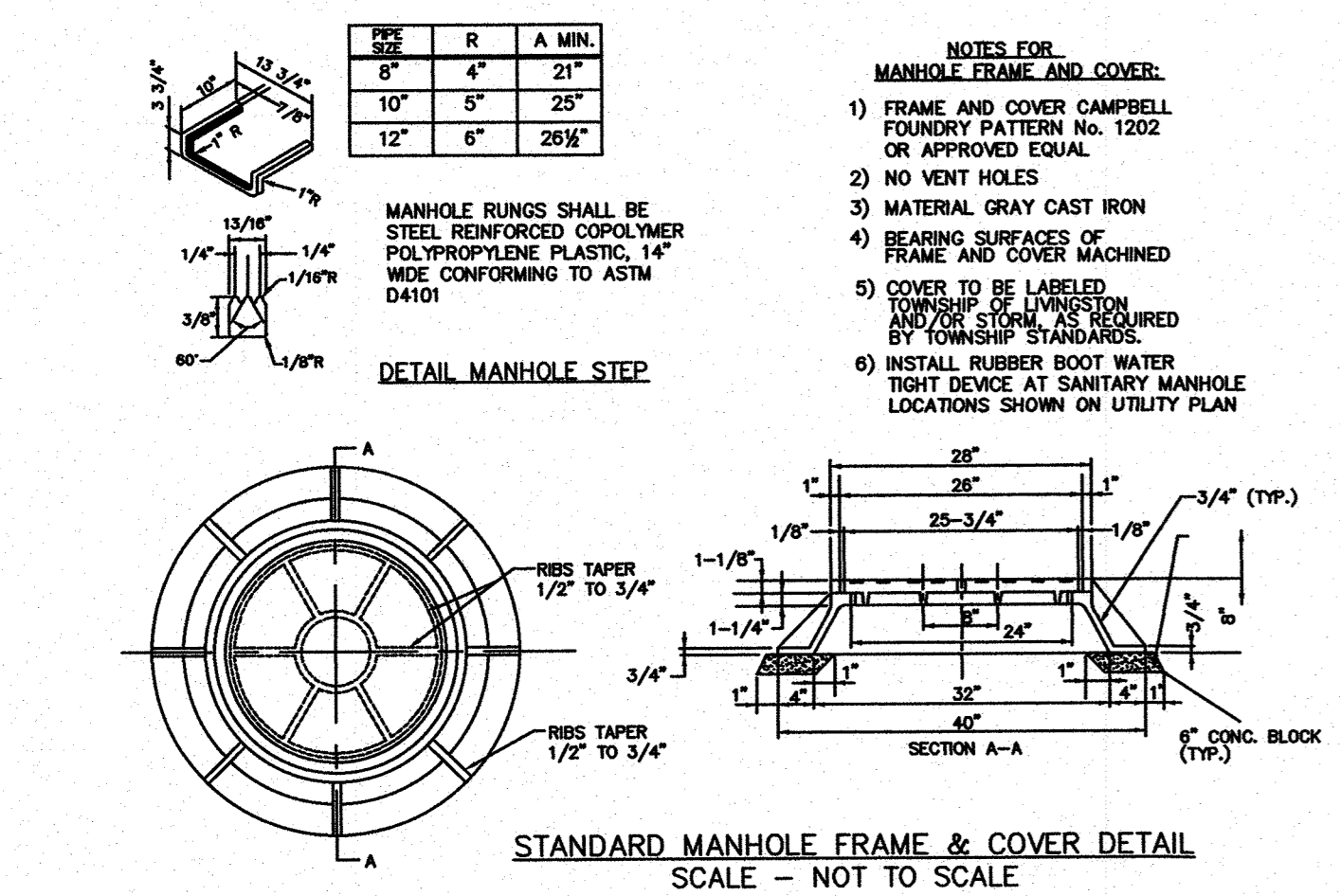
**TYPICAL TRENCH DETAIL FOR UTILITIES**  
SCALE N.T.S.



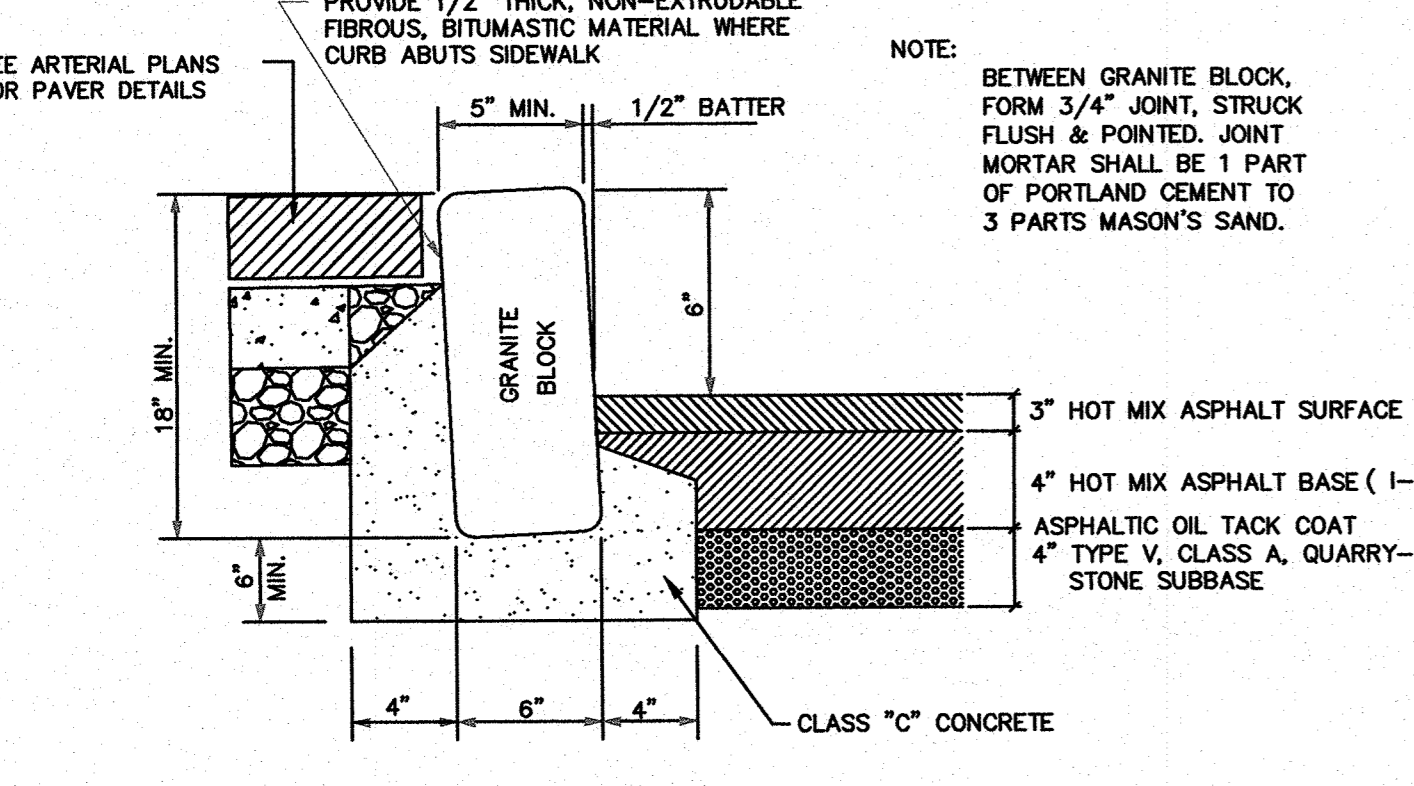
**TRENCH DRAIN DETAIL**  
SCALE - N.T.S.



**PAVEMENT RESTORATION**  
SCALE N.T.S.



**STANDARD MANHOLE FRAME & COVER DETAIL**  
SCALE - NOT TO SCALE



**GRANITE BLOCK CURB & PAVEMENT DETAIL**  
SCALE N.T.S.

REVISION	DESCRIPTION	DATE	BY
5	REVISED PER ENGINEER COMMENTS	9/10/20	AH1
4	REVISED PER PROFESSIONAL COMMENTS	6/20/20	AH1
3	REVISED PER PROFESSIONAL COMMENTS	8/5/20	JMP
2	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/20	JMP
1	REVISED FOR SESC SUBMISSION	6/18/20	AH1

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**  
DESIGNER OF CONCRETE REPAIRS, AFFILIATE LICENSE NUMBER 124280000  
1000 PARKWAY DRIVE • FORT LEE • NEW JERSEY • 07024  
TEL: (973) 267-1000 FAX: (973) 267-7074

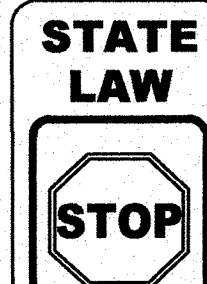
Designer: JMP  
Draftsman: AH1  
Checked By: JMP  
Project No.: 19-0078  
Scale: AS NOTED  
Sheet: **SP-7**

**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER LIC. NO. 36862 DATED: 04/22/2020

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



R1-1  
30" x 30"  
(MUTCD STD.)  
STOP SIGN

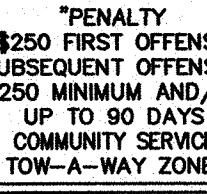


**STATE LAW**  
STOP  
WITIN CROSSWALK

R1-6a  
(MUTCD STD.)  
PEDESTRIAN STOP



INSTALL AT ALL HANDICAP LOCATIONS  
R7-B  
12" x 18"  
(MUTCD STD.)

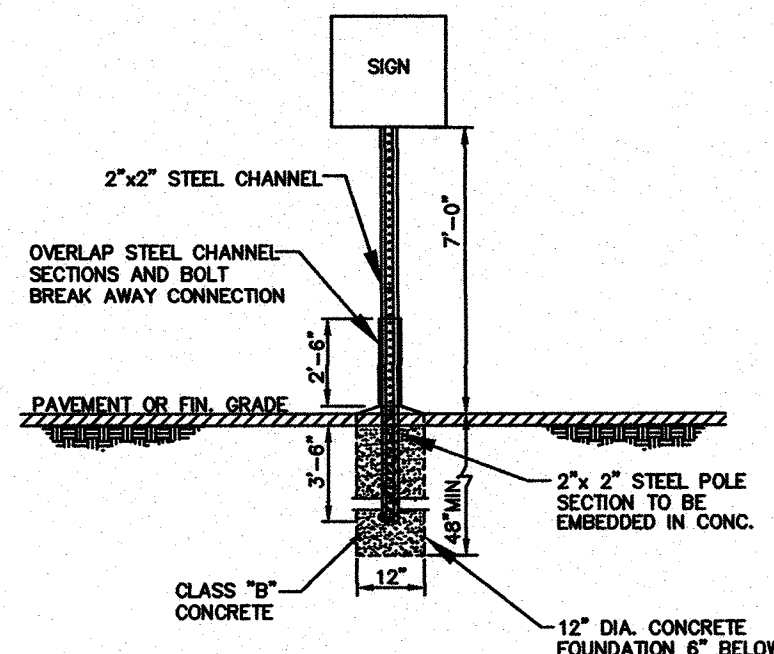


INSTALL AT ALL HANDICAP LOCATIONS  
R7-8b  
12" x 18"  
(MUTCD STD.)

HANDICAP PARKING

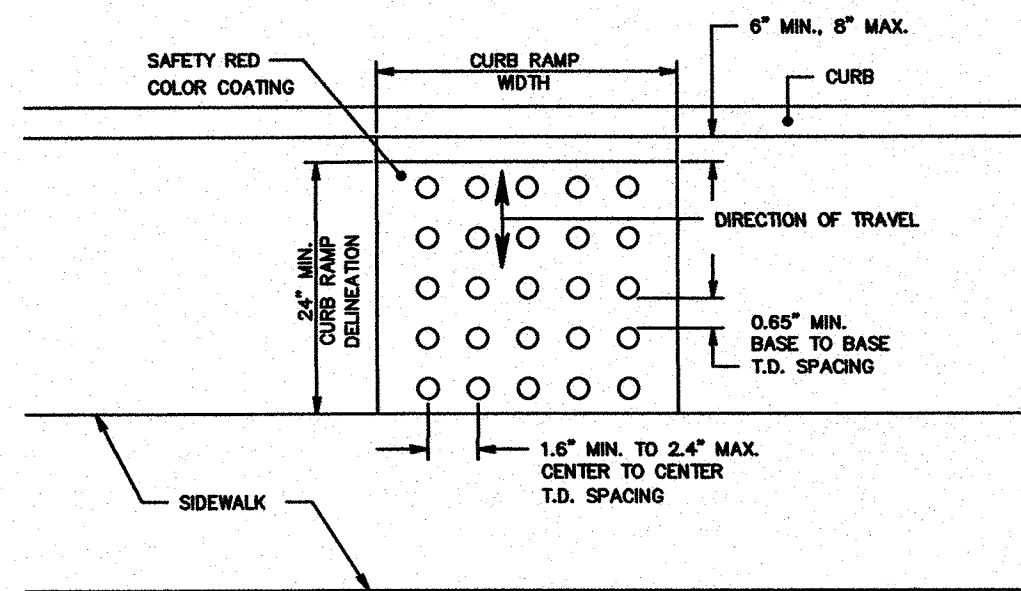


INSTALL VAN ACCESSIBLE SIGN WHERE DIRECTED ON PLAN

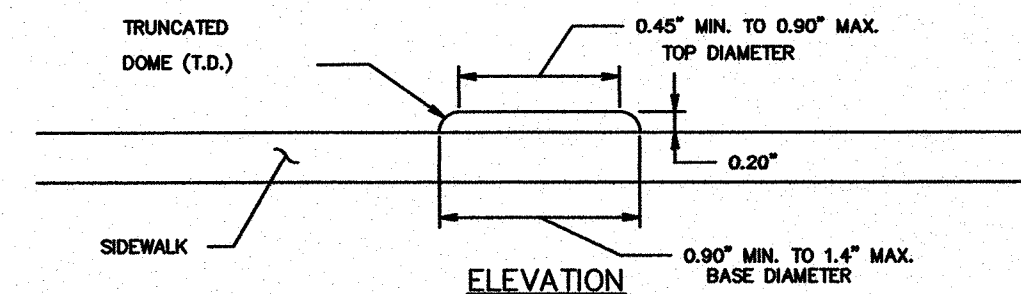


STD. SIGN DETAIL

SCALE - N.T.S.

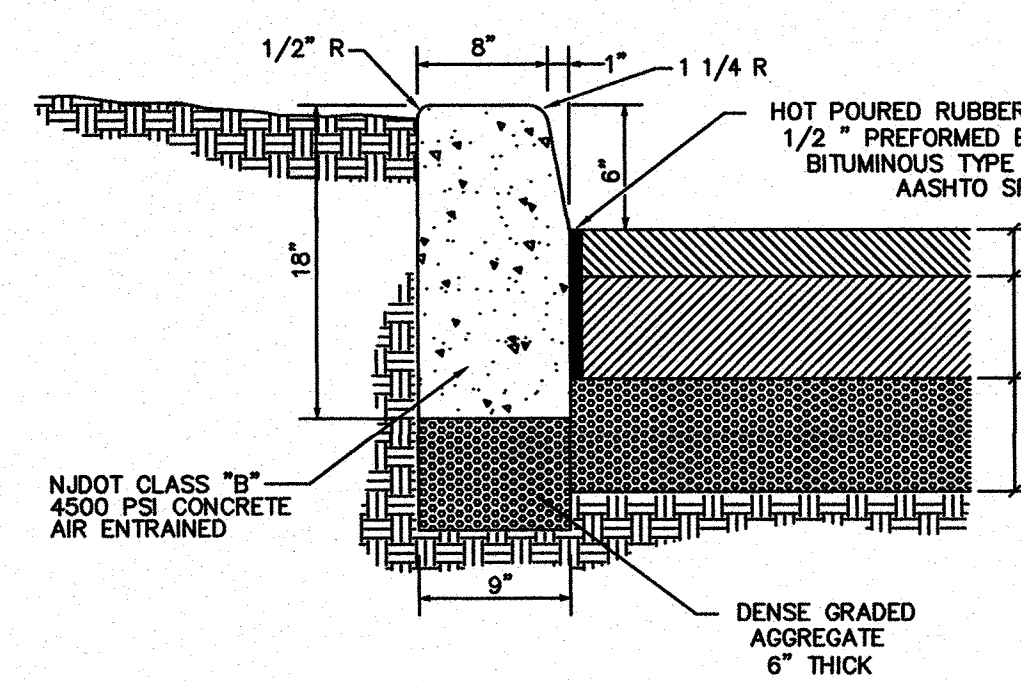


PLAN VIEW



ELEVATION

DETECTABLE WARNING SURFACE



CONCRETE CURB AND FULL DEPTH PAVEMENT

SCALE N.T.S.



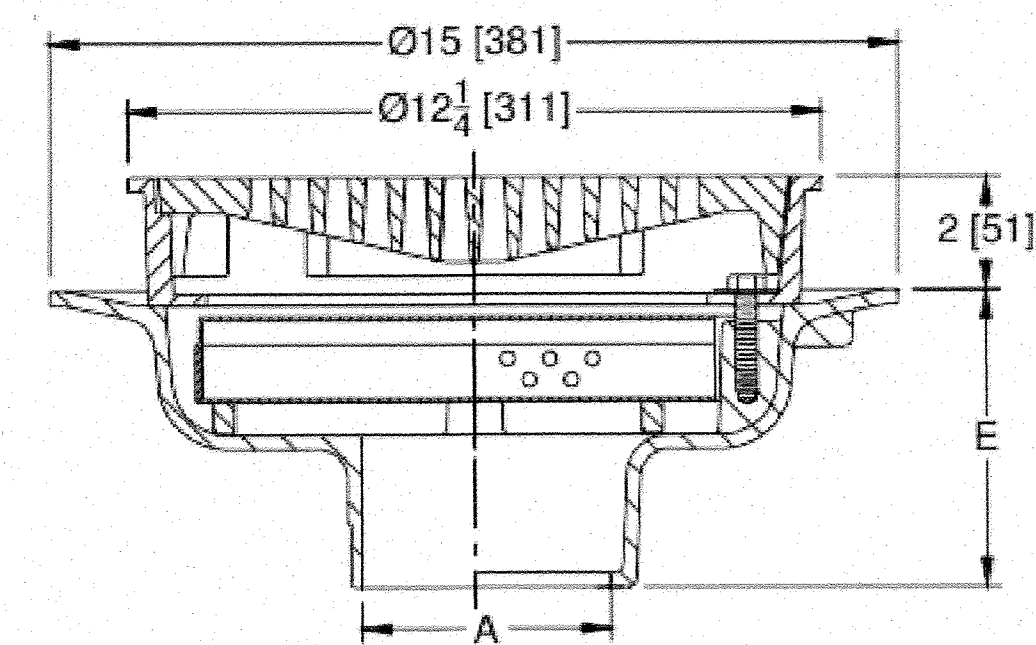
Z505

12-1/4 [311] DIAMETER TOP HEAVY DUTY DRAIN W/ SEDIMENT BUCKET

SPECIFICATION SHEET

TAG \_\_\_\_\_

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Pipe Size In. [mm]	Approx. Wt. Lbs. [kg]	Grate Open Area Sq. In. [cm <sup>2</sup> ]
2.3, 4.6 [51, 76, 102, 152]	39 [18]	30 [194]
8 [203]	41 [19]	

**ENGINEERING SPECIFICATION: ZURN Z505**  
12-1/4" [311mm] Diameter top drain. Dura-Coated cast iron body with bottom outlet, seepage pan and combination membrane flashing clamp and frame for heavy duty deep flange slotted grate with sediment bucket.

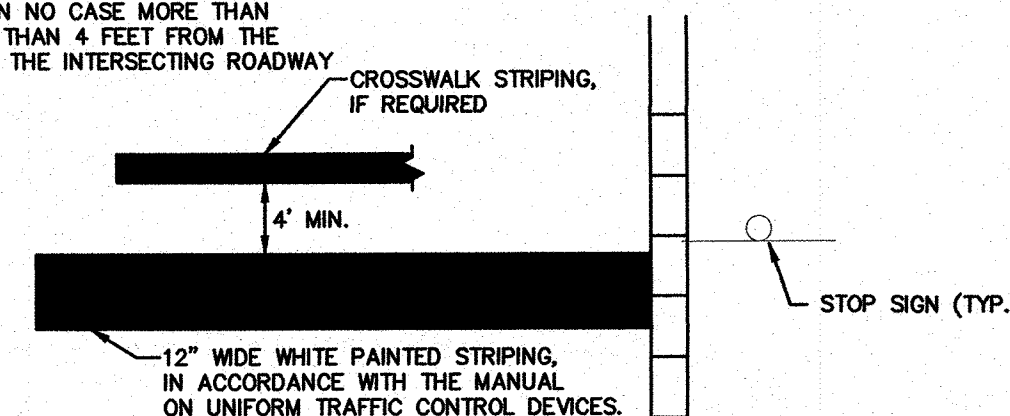
PIPE SIZE	OUTLET	'E' BODY HT. DIM.
3.4, 6 [76, 102, 152]	IC Inside Caulk	5-1/4 [133]
3.4, 6 [76, 102, 152]	IG Inside Gasket	5-1/4 [133]
2.3, 4, 6, 8 [51, 76, 102, 152, 203]	IP Threaded	3-3/4 [95]
2.3, 4, 6, 8 [51, 76, 102, 152, 203]	NH No-Hub	5-1/4 [133]
2.3, 4 [51, 76, 102]	NL Neo-Loc	4-5/8 [117]

PREFIXES	DESCRIPTION
2	D.C.C.I. Body and Top*
ZB	D.C.C.I. Body with Polished Bronze Top (Add 3/16 [5] to 2 [51] Dim. and 3/4 [20] to 12-1/4 [311] Dim.)
ZN	D.C.C.I. Body with Polished Nickel Bronze Top (Add 3/16 [5] to 2 [51] Dim. and 3/4 [20] to 12-1/4 [311] Dim.)

SUFFIXES	DESCRIPTION
AFR	Acid Resisting Epoxy Coated Cast Iron
D	Dome Grate
F	Extension Frame
G	Galvanized Cast Iron
HP	Hex Proof Grate
HT	Square Hinged Grate
IP	Trap Primer Connection
S	Secondary Strainer
SA	Stabilizer Assembly (See Z1036)
SC	Solid Cover
SS	Stainless Mesh Liner for Bucket
T	Square Top
TC	Neo Loc Test Cap Gasket (2.3, 4 [51, 76, 102] NL Bottom Outlet Only)
TS	Top Secured with Slotted Screws
V	Backwater Valve (See Z1099)
VP	Vandal-Proof Secured Top
90	90° Threaded Side Outlet Body (2.3, 4, 6 [51, 76, 102, 152] Only)

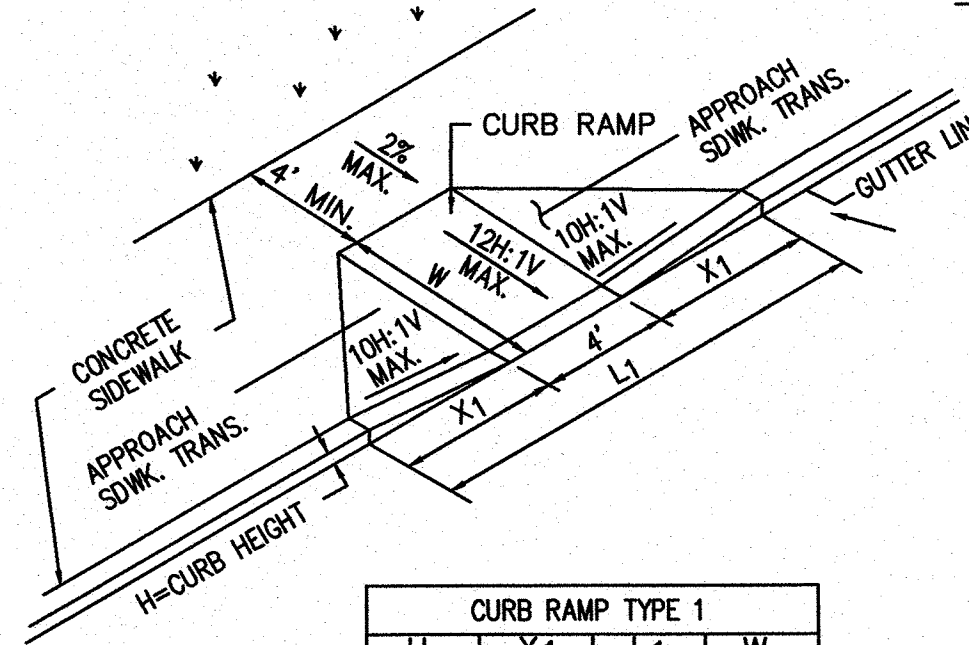
\* Regularly furnished unless otherwise specified.  
Zurn Industries, LLC | Specification Drainage Operation  
1801 Pittsburgh Avenue, Erie, PA 16502, Ph: 814-833-9570, Fax: 814-454-7329  
In Canada | Zurn Industries Limited  
7900 Goreway Drive, Unit 18, Brampton, Ontario L6T 5W6, Ph: 877-892-5216  
www.zurn.com  
Rev: G  
Date: 10/16/2019  
C.N. No.: 141246  
Prod. | Dwg. No.: 2505

NOTE:  
STOP LINES SHOULD ORDINARILY BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK LINE. IN THE ABSENCE OF A MARKED CROSSWALK, THE "STOP" LINE SHOULD BE PLACED AT THE DESIRED STOPPING POINT, IN NO CASE MORE THAN 30 FEET OR LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY.



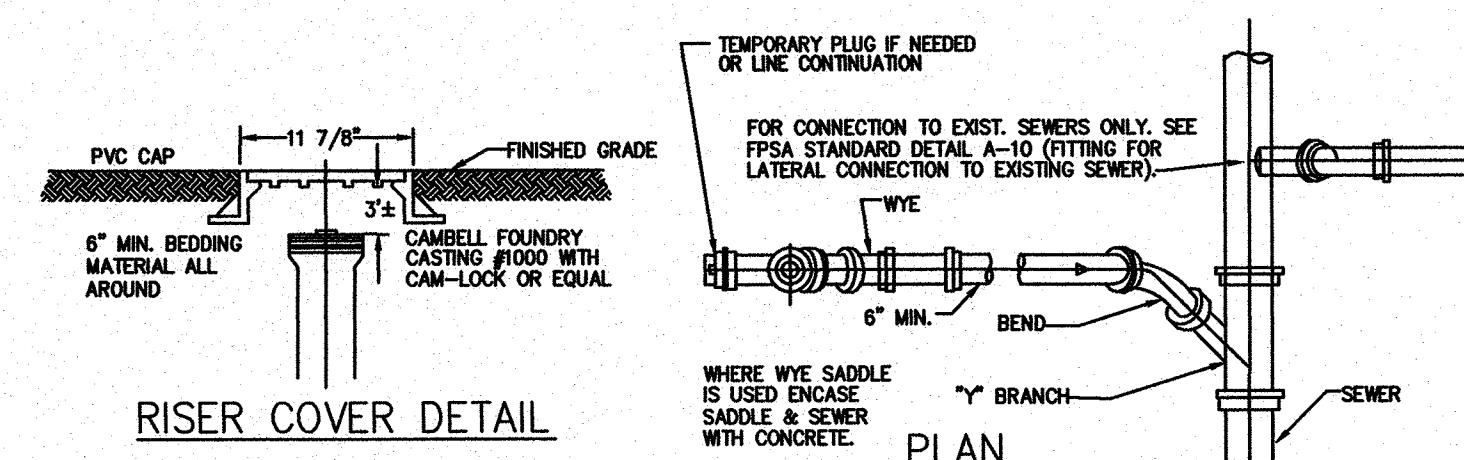
"STOP BAR" DETAIL

SCALE N.T.S.

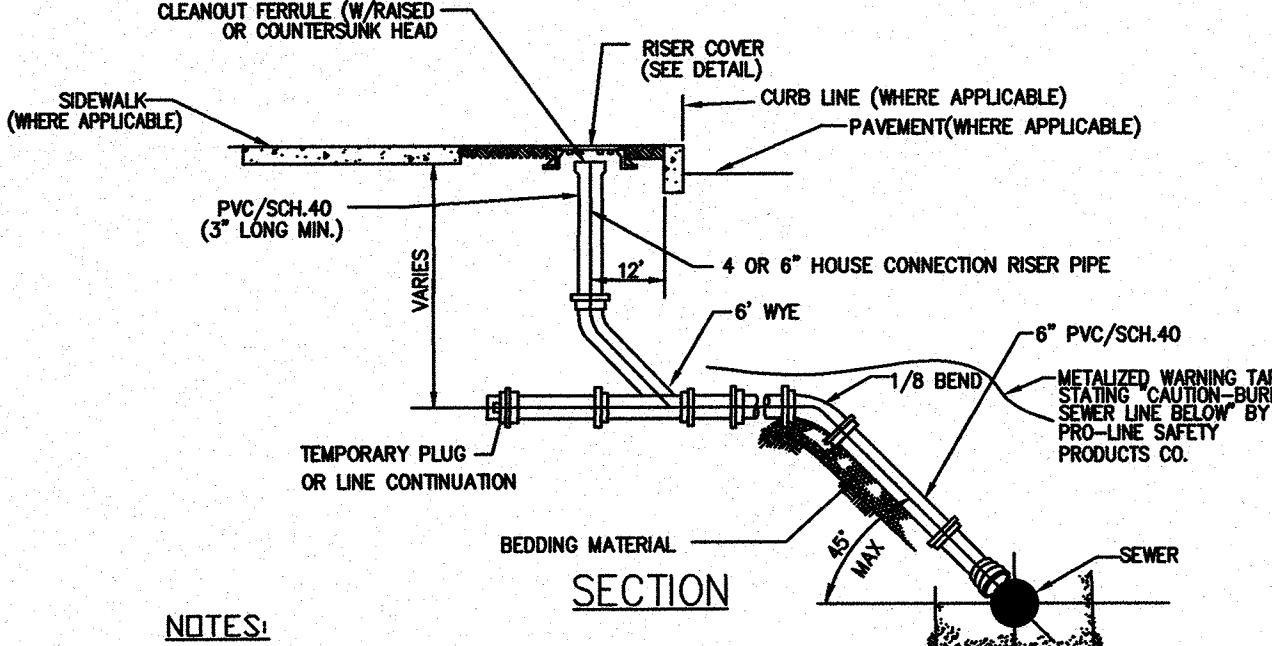


H INCHES	X1 FEET	L1 FEET	W FEET
3	2.5	9.0	3
4	3.3	10.6	4
5	4.2	12.4	5
6	5.0	14.0	6
7	5.8	15.6	7
8	6.7	17.4	8
9	7.5	19.0	9

HANDICAP CURB RAMP TYPE 1



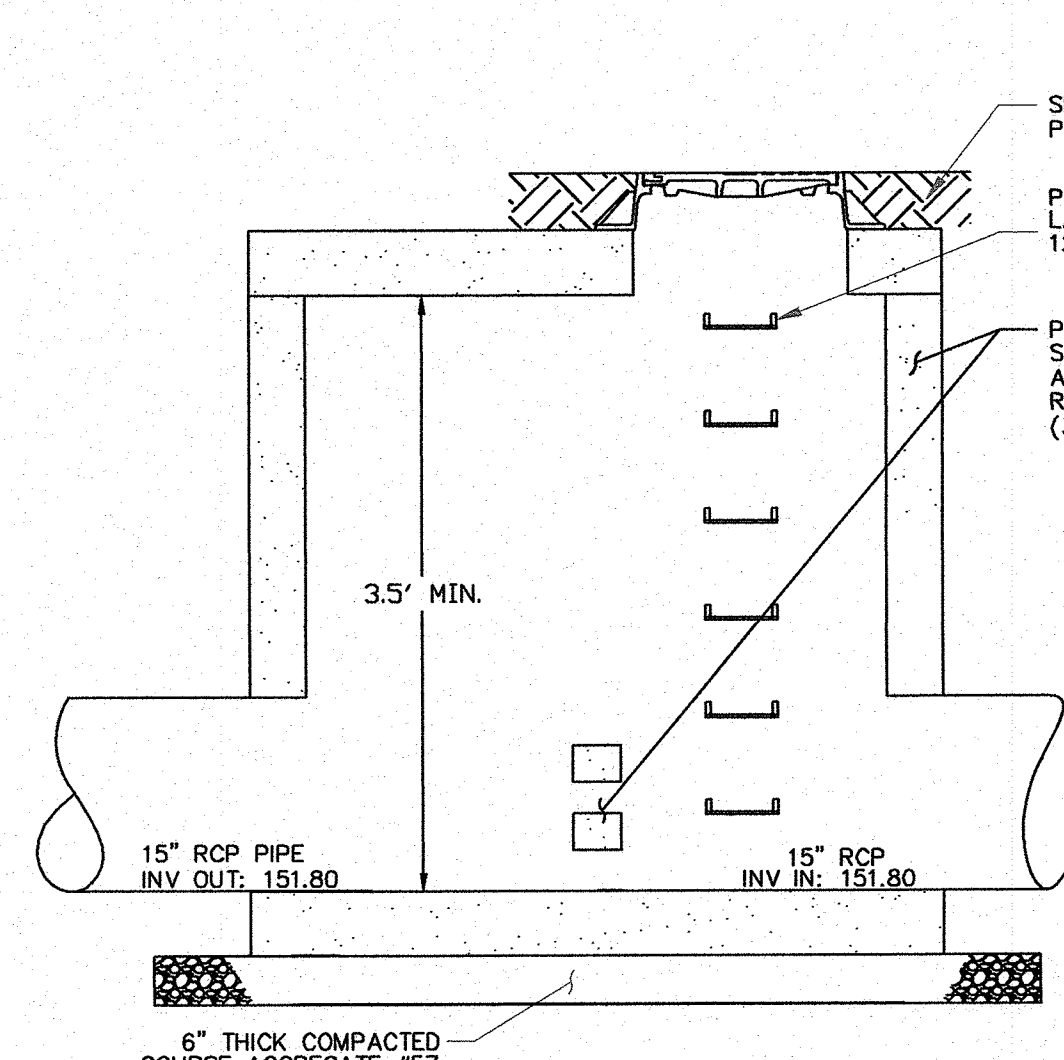
RISER COVER DETAIL



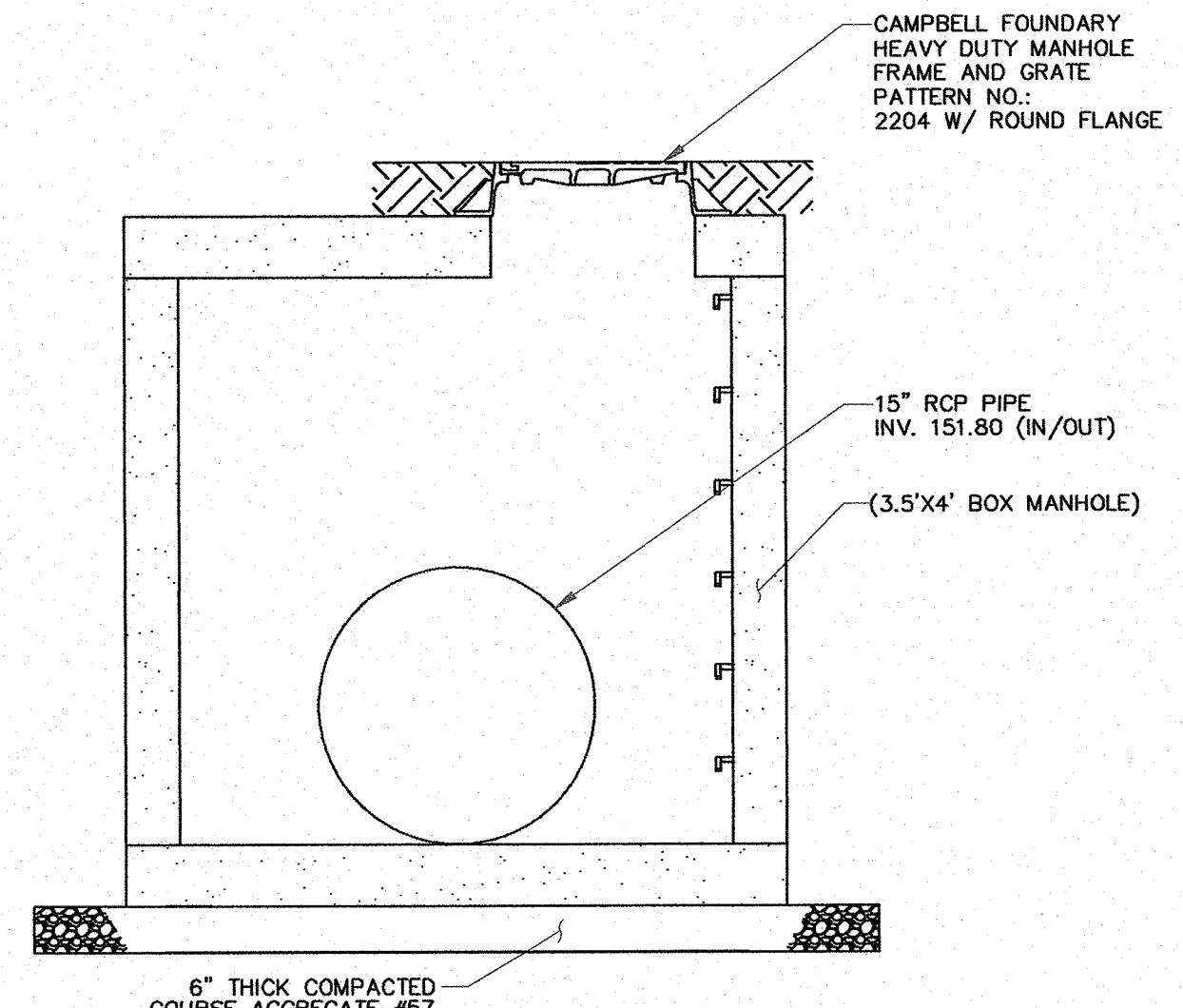
SANITARY SEWER DETAIL

SCALE - N.T.S.

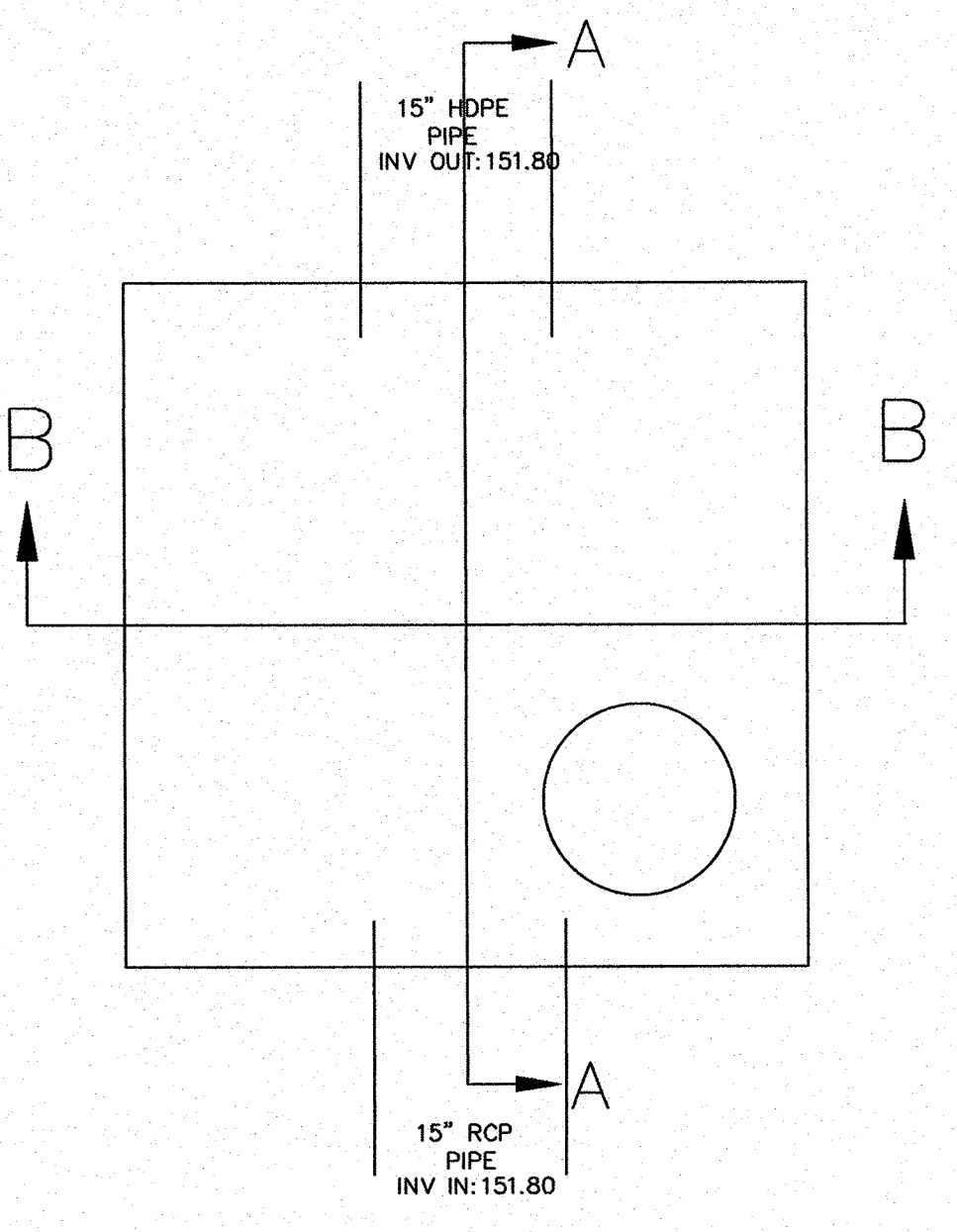
- NOTES:
- CLEANOUT TO BE LOCATED IN GRASSED AREA BETWEEN SIDEWALK AND CURB. CLEANOUTS WILL NOT BE PERMITTED IN DRIVEWAYS OR SIDEWALKS.
  - LATERAL TO BE SAME SIZE FOR ENTIRE LENGTH FROM BUILDING TO SEWER, 6" PVC SCH. 40.
  - IN EASEMENT AREAS, RISER PIPE SHALL BE LOCATED AS CLOSE TO EASEMENT LINE AS POSSIBLE.



SECTION A-A



SECTION B-B



PLAN VIEW

SLAB MANHOLE FOR INTERSECTION OF VOSE AND TAYLOR

SCALE N.T.S.

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
1	REVISED PER ENGINEER COMMENTS	9/10/20	AHH

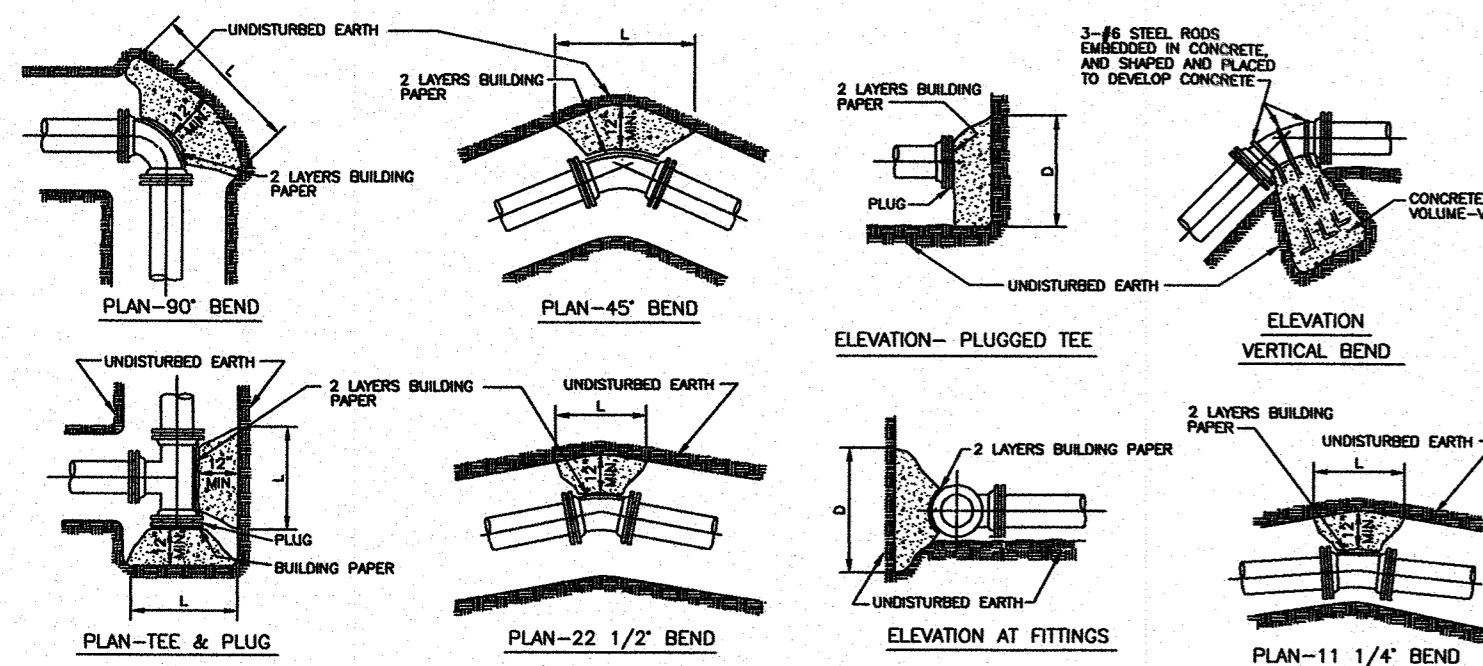
PREPARED FOR  
**VOSE APTS. URBAN RENEWAL, LLC**  
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
SOUTH ORANGE AVENUE REDEVELOPMENT  
VILLAGE OF SOUTH ORANGE  
ESSEX COUNTY, NEW JERSEY

**CONSTRUCTION DETAILS**

**PETRY ENGINEERING, LLC**  
DIVISION OF CONSTRUCTION PROFESSIONAL SERVICES  
155 PARKWAY AVENUE • FORT LEE, NEW JERSEY • 07024  
TEL: 973-327-7061 FAX: 973-327-7071

Designer: JMP  
Draftsman: AHH  
Checked by: JMP  
Project No.: 19-0078  
Scale: AS NOTED  
Sheet: SP-8

**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER, LIC. NO. 36692  
DATED: 09/29/2020

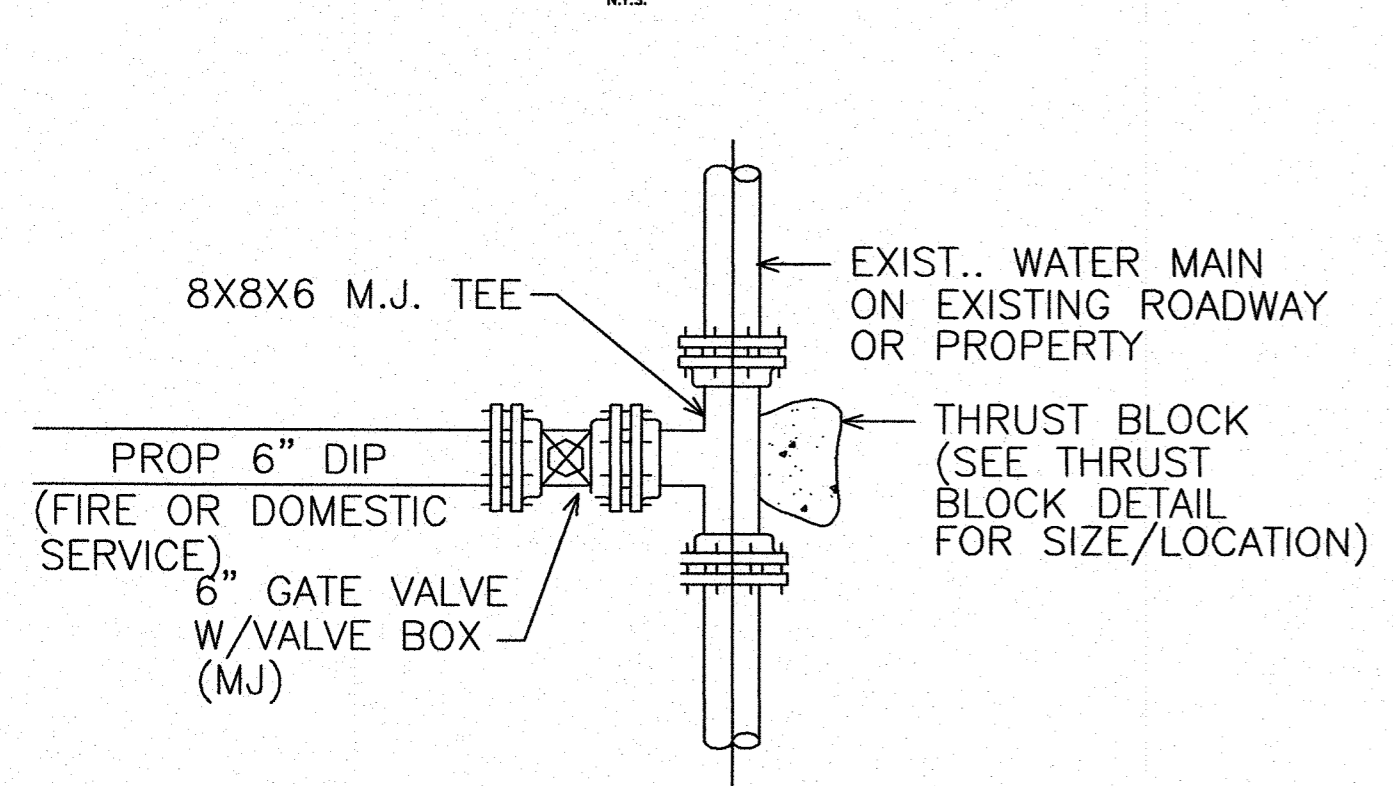


- NOTES:
1. DIMENSIONS FOR REACTION BACKING ARE BASED ON AN ALLOWABLE SOIL BEARING OF 2,000 P.S.F. AND A HYDROSTATIC PRESSURE OF 200 P.S.I.
  2. CONCRETE THRUST BLOCKS TO BE CONSTRUCTED WHERE CONDITIONS PRECLUDE THE USE OF RESTRAINED JOINT PIPE, OR WHERE ADDITIONAL RESTRAINT MAY BE REQUIRED, AT ALL DEAD ENDS INSTALLED WITH MECHANICAL JOINTS AND CONCRETE THRUST BLOCK.
  3. CONCRETE SHALL BE 3,500 P.S.I.
  4. ALL FITTINGS AND VALVES CONSTRUCTED WITH THRUST BLOCKS WILL BE INSTALLED WITH POLYETHYLENE ENCLOSURE AND PROPERLY TIED TO PROTECT BLOCKS AND NUTS FROM CONCRETE.

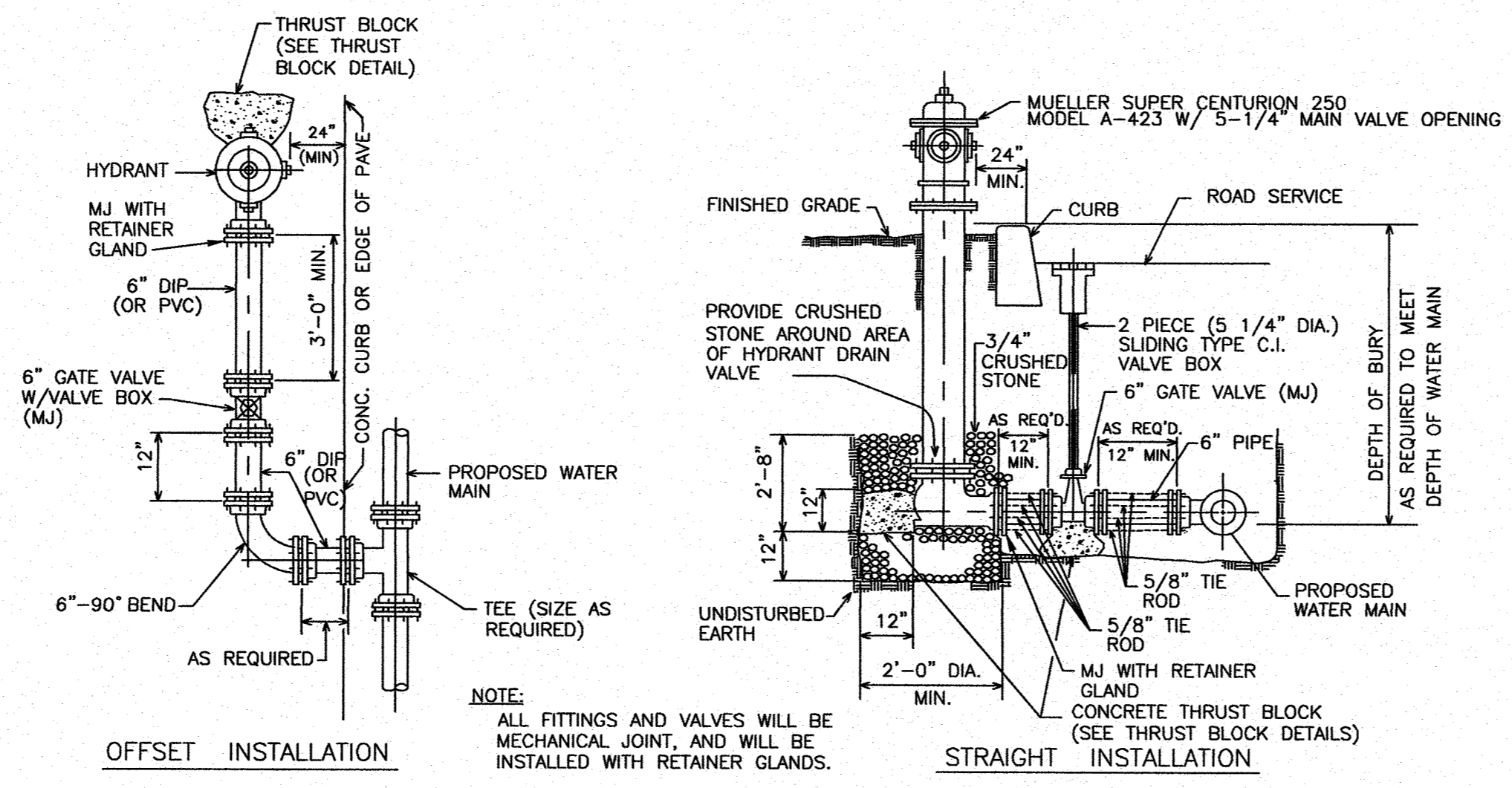
PIPE SIZE	TEE OR PLUG		90° BEND		45° BEND		22 1/2° OR 11 1/4° BEND	
	L	D	L	D	L	D	L	D
6"	3'-0"	2'-0"	2'-0"	2'-0"	3'-0"	2'-0"	2'-0"	1'-0"
8"	4'-0"	3'-0"	3'-0"	3'-0"	4'-0"	3'-0"	3'-0"	1'-0"
10" or 12"	5'-0"	4'-0"	4'-0"	4'-0"	5'-0"	4'-0"	4'-0"	1'-0"

\* REQUIRES SPECIAL ANCHORAGE, SEE CONTRACT PLANS

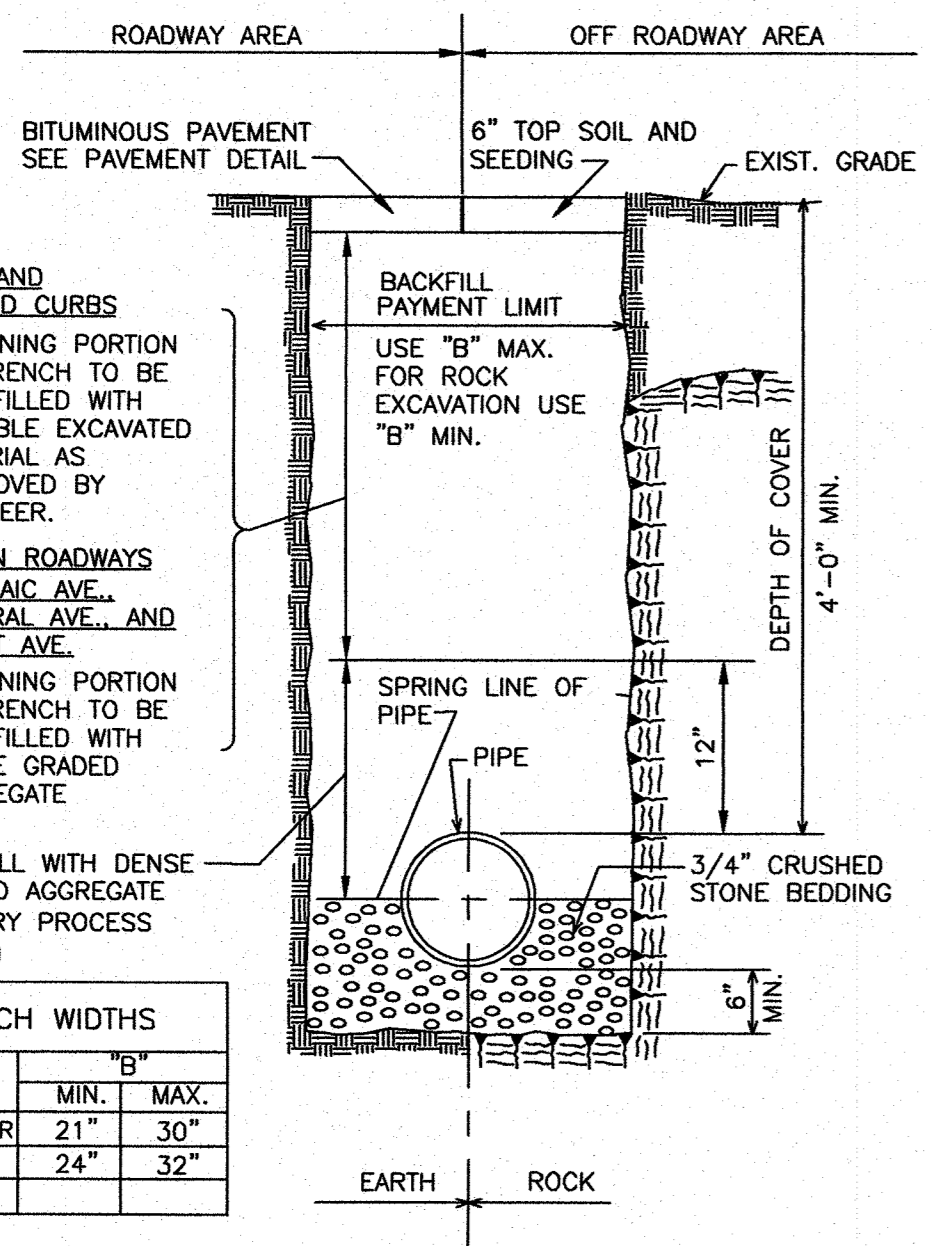
**THRUST BLOCK DETAILS**  
N.T.S.



6" DIP WATER SERVICE CONNECTION DETAIL  
N.T.S.



TYPICAL HYDRANT DETAILS  
N.T.S.



TRENCH DETAILS  
N.T.S.

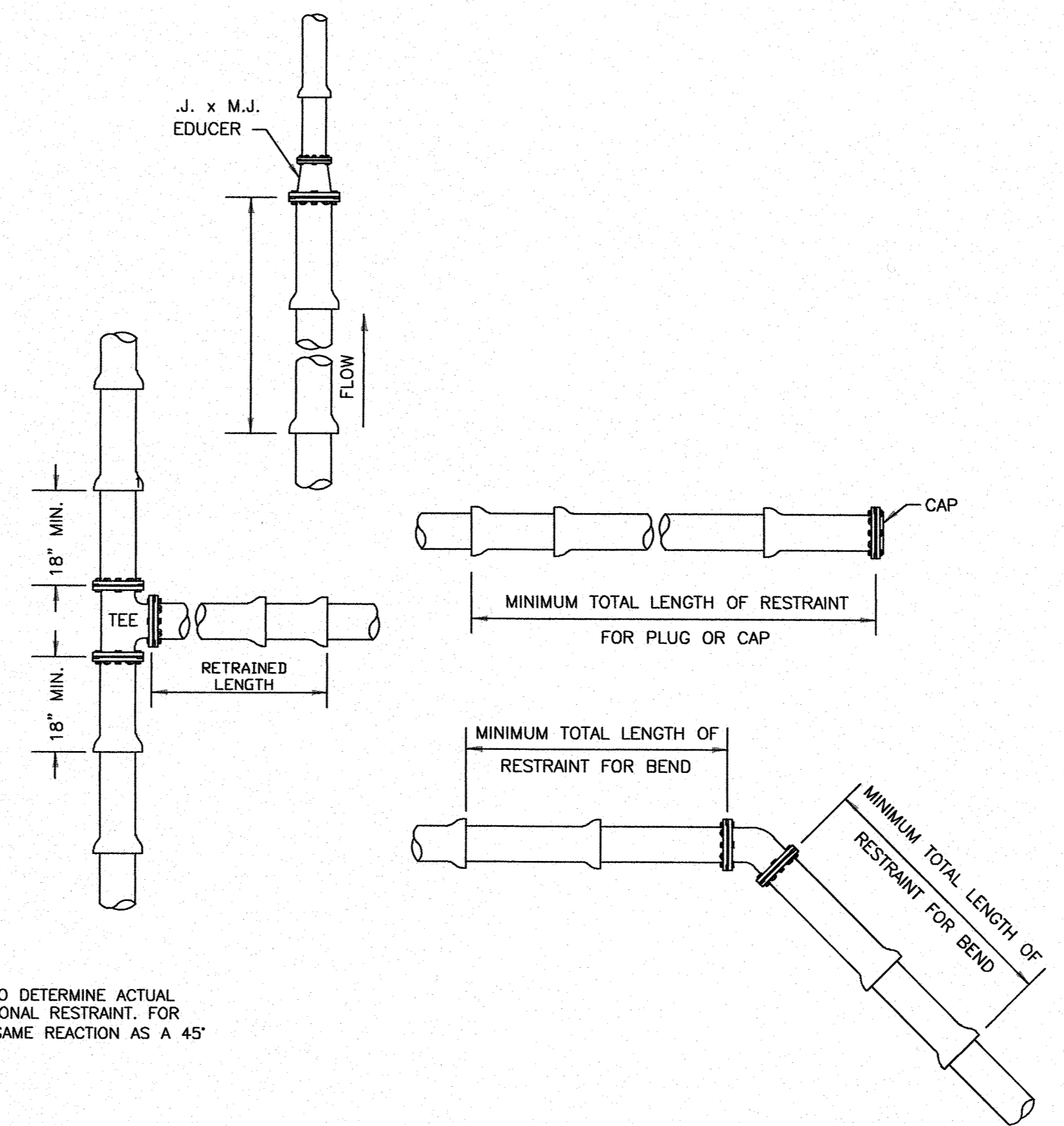
PIPE SIZE	"B"	MIN.	MAX.
6" OR SMALLER		21"	30"
8"		24"	32"

Fitting	Restraint Length (ft)							
	4" DIP	4" PVC	6" DIP	6" PVC	8" DIP	8" PVC	10" DIP	10" PVC
Horizontal Bend	90°	14	19	20	27	26	35	42
	45°	6	8	9	11	11	15	18
	22.5°	3	4	4	6	6	7	9
	11.25°	2	2	2	3	3	4	5

Fitting	Restraint Length (ft)		Fitting	Restraint Length (ft)		
	DIP	PVC		DIP	PVC	
Dead End	4"	20	36	4" x 4" x 4"	12	21
	6"	28	51	6" x 6" x 4"	8	14
	8"	37	68	6" x 6" x 6"	20	36
	10"	44	82	8" x 8" x 4"	4	8
				8" x 8" x 6"	17	32
Reducer	6" x 4"	15	27	8" x 8" x 8"	29	53
	8" x 4"	27	49	10" x 10" x 4"	1	1
	8" x 6"	16	29	10" x 10" x 6"	15	27
	10" x 4"	36	66	10" x 10" x 8"	27	49
	10" x 6"	27	50	10" x 10" x 10"	36	66

- NOTES:
1. RESTRAINED JOINT LENGTHS BASED ON PRESSURE OF 200 PSI
  2. IF STRAIGHT RUN OF PIPE ON SMALL SIDE OF REDUCER EXCEEDS LENGTH GIVEN IN TABLE, NO RESTRAINED JOINTS ARE REQUIRED.
  3. CONTRACTOR SHALL USE THE ABOVE SCHEDULE AND THE CONTRACT PLAN AND PROFILE SHEETS TO DETERMINE ACTUAL RESTRAINED LENGTHS REQUIRED. FITTINGS IN CLOSE PROXIMITY TO ONE ANOTHER MAY REQUIRE ADDITIONAL RESTRAINT. FOR EXAMPLE, TWO (2) 22 1/2° BENDS LOCATED WITHIN SEVERAL FEET OF EACH OTHER WILL HAVE THE SAME REACTION AS A 45° BEND AND, AS SUCH, WILL REQUIRE THE LENGTHS OF RESTRAINT SHOWN FOR A 45° BEND.

**RESTRAINING LENGTH SCHEDULE**  
NOT TO SCALE



**GENERAL CONSTRUCTION NOTES:**

- CONTRACTOR SHALL PROVIDE SAFETY FENCING AROUND THE PERIMETER OF THE JOB SITE AND ENSURE THAT THE AREA IS GATED AND LOCKED UPON COMPLETION OF EACH DAY OF WORK. ALL AREAS SHALL BE LEFT NEAT AND ORDERLY THROUGHOUT CONSTRUCTION AT THE END OF EACH DAY. SAFE PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES AT THE SIDEWALK ALONG VOSE AVENUE, TAYLOR PLACE, & SOUTH ORANGE AVENUE.
- CONTRACTOR SHALL COORDINATE ANY TRAFFIC CONTROL WITH THE VILLAGE OF SOUTH ORANGE POLICE DEPT. ANY WORK PERFORMED OUTSIDE OF THE RIGHT OF WAY SHALL BE COORDINATED WITH THE ESSEX COUNTY ENGINEERING DEPT.
- CONTRACTOR MUST PROVIDE MAINTAIN SAFE PEDESTRIAN ACCESS ALONG THE EXISTING SIDEWALK ALONG VOSE AVENUE, TAYLOR PLACE, AND SOUTH ORANGE AVENUE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY LOOSE, BROKEN OR UNEVEN SECTIONS OF THE EXISTING SIDEWALK TO THE SATISFACTION OF THE ENGINEER.

**GENERAL WATER MAIN CONSTRUCTION NOTES:**

1. WATER MAINS SHALL BE BLUE BRUTE (C900) PIPE.
2. WATER METERS (MAKE AND MODEL) SHALL BE COORDINATED WITH THE VILLAGE OF SOUTH ORANGE WATER DEPARTMENT TO ENSURE COMPATIBILITY WITH EXISTING EQUIPMENT. WATER METERS ARE TO BE PROVIDED AND INSTALLED BY THE APPLICANT UNDER THE SUPERVISION OF THE VILLAGE.
3. ALL WATER MAINS AND SERVICE LINES SHALL HAVE A MINIMUM OF 4 FEET OF COVER.
4. GATE VALVES SHALL BE INSTALLED AT EACH LEG OF ANY INTERSECTION OF WATER MAIN PIPING. GATE VALVE INTERIOR AND EXTERIOR SHALL BE FUSION EPOXY COATED. THE OPERATING NUT SHALL BE 2 INCH SQUARE, AN ARROW SHOWING THE DIRECTION OF OPENING AND THE WORK "OPEN" SHALL BE CAST IN THE FLANGE OF THE OPERATING NUT. VALVES SHALL BE SUITABLE FOR WATER OPERATING PRESSURES OF 250 PSI. BURIED VALVES SHALL OPEN LEFT - COUNTER CLOCKWISE. GATE VALVES SHALL BE RESILIENT SEAT GATE VALVES, CATALOG NO. A-2360 AS MANUFACTURED BY THE MUELLER COMPANY.
5. ALL WATER MAINS ARE TO BE PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS. TESTING AND DISINFECTION SHALL BE WITNESSED BY AUTHORIZED BOROUGH PERSONNEL.
6. THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE PROPER BRACING OF EXISTING UTILITIES AS MAY BE REQUIRED TO PREVENT DAMAGE DUE TO CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL ARRANGE FOR PROPER BRACING OF ALL EXISTING UTILITIES, UTILITY POLES, AND OTHER STRUCTURES WITHIN THE VICINITY OF THE WORK WHICH MAY BE AFFECTED BY HIS OPERATIONS. ALL COST ASSOCIATED WITH THIS WORK WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
7. THE CONTRACTOR WILL SUPPLY AND ERECT NECESSARY WARNING SIGNS AND PROPER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE EAST NEWARK POLICE DEPARTMENT. THE CONTRACTOR WILL FURNISH FLAGMEN AS MAY BE REQUIRED TO MAINTAIN TRAFFIC. THE CONTRACTOR WILL CONTACT THE POLICE DEPARTMENT PRIOR TO STARTING ANY WORK AND NOTIFY THEM OF HIS PROPOSED OPERATIONS.
8. THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE PROPER BRACING OF EXISTING UTILITIES AS MAY BE REQUIRED TO PREVENT DAMAGE DUE TO CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL ARRANGE FOR PROPER BRACING OF ALL EXISTING UTILITIES, UTILITY POLES, AND OTHER STRUCTURES WITHIN THE VICINITY OF THE WORK WHICH MAY BE AFFECTED BY HIS OPERATIONS. ALL COST ASSOCIATED WITH THIS WORK WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
9. THE CONTRACTOR WILL INSTALL TEMPORARY AIR RELEASE TAPS AND SAMPLING TAPS WITH COPPER SAMPLING PIPE FOR TESTING AND DISINFECTION AS NEEDED OR AS REQUIRED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE THE SAMPLING PIPE AND CLOSE OFF THE TAP AT THE MAIN AFTER ALL TESTING HAS BEEN COMPLETED AND WHEN APPROVED BY THE ENGINEER. THE FURNISHING, INSTALLATION, AND REMOVAL OF TAPS AND PIPE WILL BE INCLUDED IN UNIT PRICE BID FOR TESTING AND DISINFECTION.
10. THE CONTRACTOR WILL BACKFILL AND PAVE THE TRENCH AT THE END OF EACH DAY AND WILL TAKE ANY NECESSARY PRECAUTION TO PROVIDE A SAFE AND ACCESSIBLE WORK AREA FOR VEHICULAR AND PEDESTRIAN TRAFFIC.
11. THE GENERAL LOCATION OF FIRE HYDRANTS AND CURB BOXES ARE SHOWN ON THE DRAWINGS. HYDRANTS AND CURB BOXES WILL BE LOCATED IN THE FIELD BY THE WATER DEPARTMENT PRIOR TO CONSTRUCTING THE WATER MAIN, DUE TO FUTURE ROAD RECONSTRUCTION WHICH WILL RESULT IN RELOCATION OF EXISTING CURBS AND CHANGES IN THE GRADE. THE FINISHED GRADE ELEVATION FOR SETTING THE HYDRANT AND VALVE BOX WILL BE PROVIDED BY THE WATER DEPARTMENT.
12. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING VEHICLE ACCESS TO ALL DRIVEWAYS, BUILDING ENTRANCES, AND SIDE STREETS ALONG THE CONSTRUCTION ROUTE TO THE MAXIMUM PRACTICAL.
13. THE CONTRACTOR WILL BE RESPONSIBLE TO EXCAVATE IN ADVANCE OF PIPE WORK TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, AND DEPTH OF EXISTING UTILITY NOTED ON THE DRAWINGS PRIOR TO THE CONSTRUCTION OF THE NEW WATER MAIN. EXCEPT FOR THE EXCAVATION OF TEST PITS AS NOTED ON THE DRAWINGS OR WHEN DIRECTED BY THE ENGINEER, NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK, BUT WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
14. THE CONTRACTOR WILL BRACE AND SUPPORT ALL EXISTING CURBS IN THE IMMEDIATE VICINITY OF THE CONSTRUCTION WORK. PLANKS WILL BE PLACED OVER CURBS TO PREVENT DAMAGE BY THE CONTRACTOR'S EQUIPMENT. ANY CURB WHICH IS DAMAGED, DISTURBED, OR REMOVED IN AREAS OTHER THAN WHERE THE PIPELINE CROSSES EXISTING CURBING, AS SHOWN ON THE DRAWINGS, WILL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. CURB WILL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE DRAWINGS.
15. THE DRAWINGS SHOW THE EXISTING CONDITIONS WHICH ARE LIKELY TO AFFECT THE PROSECUTION OF THE WORK INSOFAR AS THEY HAVE BEEN DETERMINED. THESE DRAWINGS SHOULD NOT BE USED FOR SCALING OF DIMENSIONS OR FOR DETERMINING RIGHT-OF-WAY AND PROPERTY LIMITS.
16. ANY EXISTING FIRE HYDRANTS TO BE REMOVED SHALL BE DELIVERED TO THE WATER DEPT. YARD.
17. WORK PERFORMED ON COUNTY ROADS WILL BE LIMITED TO THE HOURS OF 9:00 A.M. TO 4:00 P.M., UNLESS OTHERWISE PERMITTED BY THE COUNTY OR BY THE ENGINEER.
18. THE APPROXIMATE LOCATION OF WATER SERVICE CONNECTIONS ARE SHOWN ON THE DRAWINGS. EXACT LOCATION TO BE DETERMINED IN THE FIELD BY OWNER.
19. CONSTRUCTION AND TRANSFER OF SERVICES WILL BE PERFORMED ONLY AFTER MAIN HAS BEEN TESTED AND DISINFECTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THIS INCLUDES THE INSTALLATION OF THE SERVICE CORPORATIONS.
20. WHERE EXISTING MAINS ARE TO BE ABANDONED IN PLACES, ALL OPENINGS FROM CUT PORTIONS WILL BE COMPLETELY SEALED WITH NON-SHRINKING SETTING CEMENT, AS APPROVED BY THE ENGINEER. DO NOT BACKFILL UNTIL CEMENT IS CURED.

**GENERAL NOTES:**

1. LOCATIONS OF THE EXISTING UTILITIES ARE APPROXIMATE AND NOT NECESSARILY COMPLETE. THE CONTRACTOR IS CAUTIONED THAT THERE MAY BE UNDERGROUND UTILITIES OTHER THAN THOSE SHOWN ON THE DRAWINGS, AND THE CONTRACTOR WILL NOTIFY ALL UTILITY COMPANIES PRIOR TO THE START OF WORK AND REQUEST FIELD LOCATION OF ALL UNDERGROUND UTILITIES.
2. THE MINIMUM EARTH COVER OVER ALL NEW WATER MAINS WILL BE FOUR (4) FEET UNLESS OTHERWISE INDICATED ON DRAWINGS. PIPE WILL BE DUCTILE IRON, CEMENT-LINED WITH RESTRAINED OR FUSH-ON JOINTS, UNLESS OTHERWISE INDICATED. PIPE CLASSIFICATION FOR THE WATER MAINS WILL BE CLASS 52. ALL FITTINGS WILL BE DUCTILE IRON CEMENT-LINED WITH MECHANICAL JOINTS, WITH RETAINER GLANDES, CLASS 350, UNLESS OTHERWISE INDICATED ON DRAWINGS OR REQUIRED BY THE ENGINEER. ALL PIPE AND FITTINGS WILL BE POLYETHYLENE ENCLOSED.
3. EXCESS EXCAVATED MATERIAL WILL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR WILL MAKE ARRANGEMENTS TO DISPOSE OF THE MATERIAL AT A SUITABLE LOCATION. DISPOSAL OF ALL MATERIAL, GRADING AND RESTORING THE DISPOSABLES, AND OBTAINING ANY PERMITS WILL BE PERFORMED AT THE SOLE COST OF THE CONTRACTOR.
4. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR PVC PIPE WILL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS AND AWWA STANDARDS.
5. PROVIDE A MINIMUM VERTICAL CLEARANCE OF 12 INCHES BETWEEN WATER LINES AND UTILITIES OR OBSTRUCTIONS, UNLESS OTHERWISE SHOWN.
6. NOTIFY THE ENGINEER, WATER, AND FIRE DEPARTMENTS 48 HOURS PRIOR TO MAKING CONNECTIONS TO EXISTING WATER MAINS.
7. THE CONTRACTOR WILL SUPPLY AND ERECT NECESSARY WARNING SIGNS AND PROPER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE EAST NEWARK POLICE DEPARTMENT. THE CONTRACTOR WILL FURNISH FLAGMEN AS MAY BE REQUIRED TO MAINTAIN TRAFFIC. THE CONTRACTOR WILL CONTACT THE POLICE DEPARTMENT PRIOR TO STARTING ANY WORK AND NOTIFY THEM OF HIS PROPOSED OPERATIONS.
8. THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE PROPER BRACING OF EXISTING UTILITIES AS MAY BE REQUIRED TO PREVENT DAMAGE DUE TO CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL ARRANGE FOR PROPER BRACING OF ALL EXISTING UTILITIES, UTILITY POLES, AND OTHER STRUCTURES WITHIN THE VICINITY OF THE WORK WHICH MAY BE AFFECTED BY HIS OPERATIONS. ALL COST ASSOCIATED WITH THIS WORK WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
9. THE CONTRACTOR WILL INSTALL TEMPORARY AIR RELEASE TAPS AND SAMPLING TAPS WITH COPPER SAMPLING PIPE FOR TESTING AND DISINFECTION AS NEEDED OR AS REQUIRED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE THE SAMPLING PIPE AND CLOSE OFF THE TAP AT THE MAIN AFTER ALL TESTING HAS BEEN COMPLETED AND WHEN APPROVED BY THE ENGINEER. THE FURNISHING, INSTALLATION, AND REMOVAL OF TAPS AND PIPE WILL BE INCLUDED IN UNIT PRICE BID FOR TESTING AND DISINFECTION.
10. THE CONTRACTOR WILL BACKFILL AND PAVE THE TRENCH AT THE END OF EACH DAY AND WILL TAKE ANY NECESSARY PRECAUTION TO PROVIDE A SAFE AND ACCESSIBLE WORK AREA FOR VEHICULAR AND PEDESTRIAN TRAFFIC.
11. THE GENERAL LOCATION OF FIRE HYDRANTS AND CURB BOXES ARE SHOWN ON THE DRAWINGS. HYDRANTS AND CURB BOXES WILL BE LOCATED IN THE FIELD BY THE WATER DEPARTMENT PRIOR TO CONSTRUCTING THE WATER MAIN, DUE TO FUTURE ROAD RECONSTRUCTION WHICH WILL RESULT IN RELOCATION OF EXISTING CURBS AND CHANGES IN THE GRADE. THE FINISHED GRADE ELEVATION FOR SETTING THE HYDRANT AND VALVE BOX WILL BE PROVIDED BY THE WATER DEPARTMENT.
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REVISION	DESCRIPTION	DATE	BY
1	REVISED PER ENGINEER COMMENTS	9/10/20	AH+H

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**

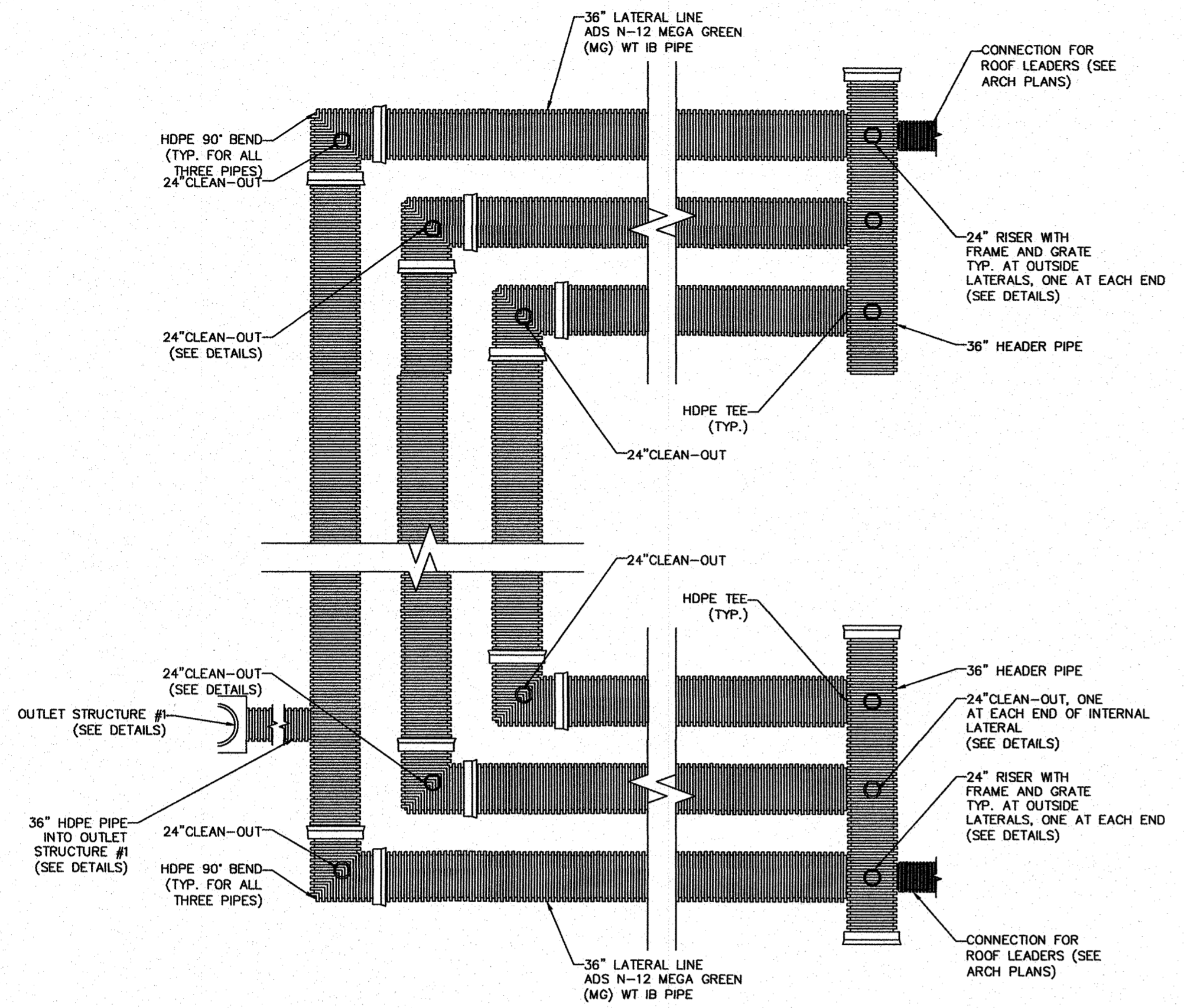
**PETRY ENGINEERING, LLC**  
DIVISION OF CONSTRUCTION SERVICES  
155 PARSONS AVENUE • FAIRFIELD • NEW JERSEY • 07004  
TEL: 973.267.1904 FAX: 973.267.1914

Designer: JMP  
Draftsman: AH+H  
Checked by: JMP  
Project No.: 19-0078  
Scale: AS NOTED  
Sheet:

**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER LIC. No. 36962 DATED: 08/29/2020

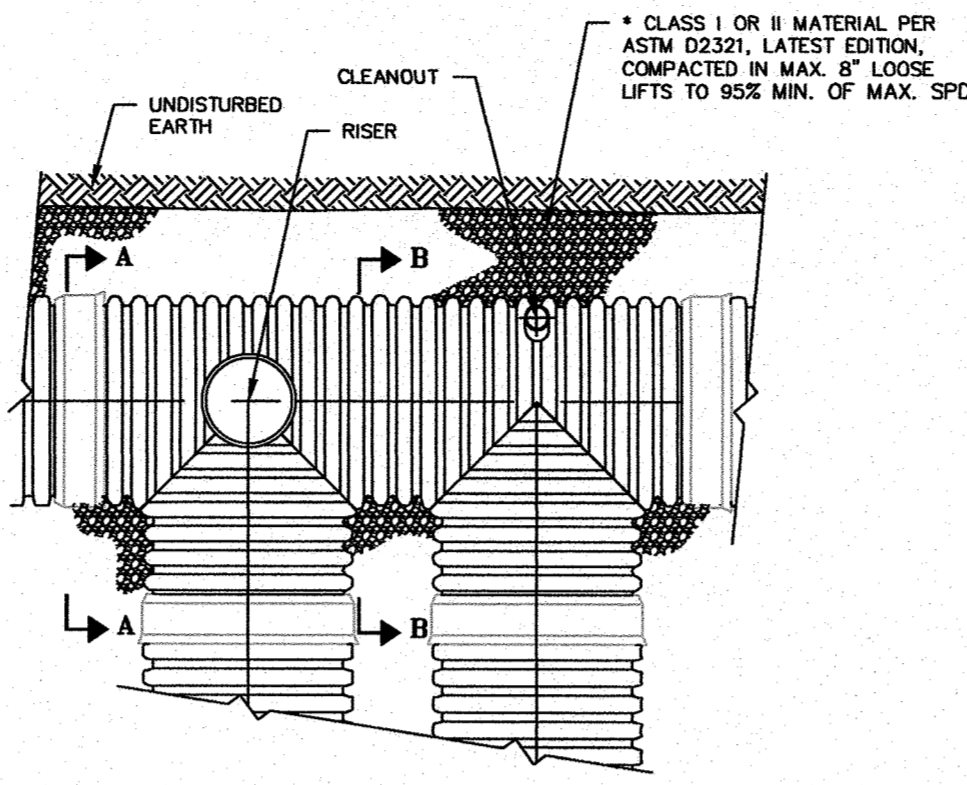
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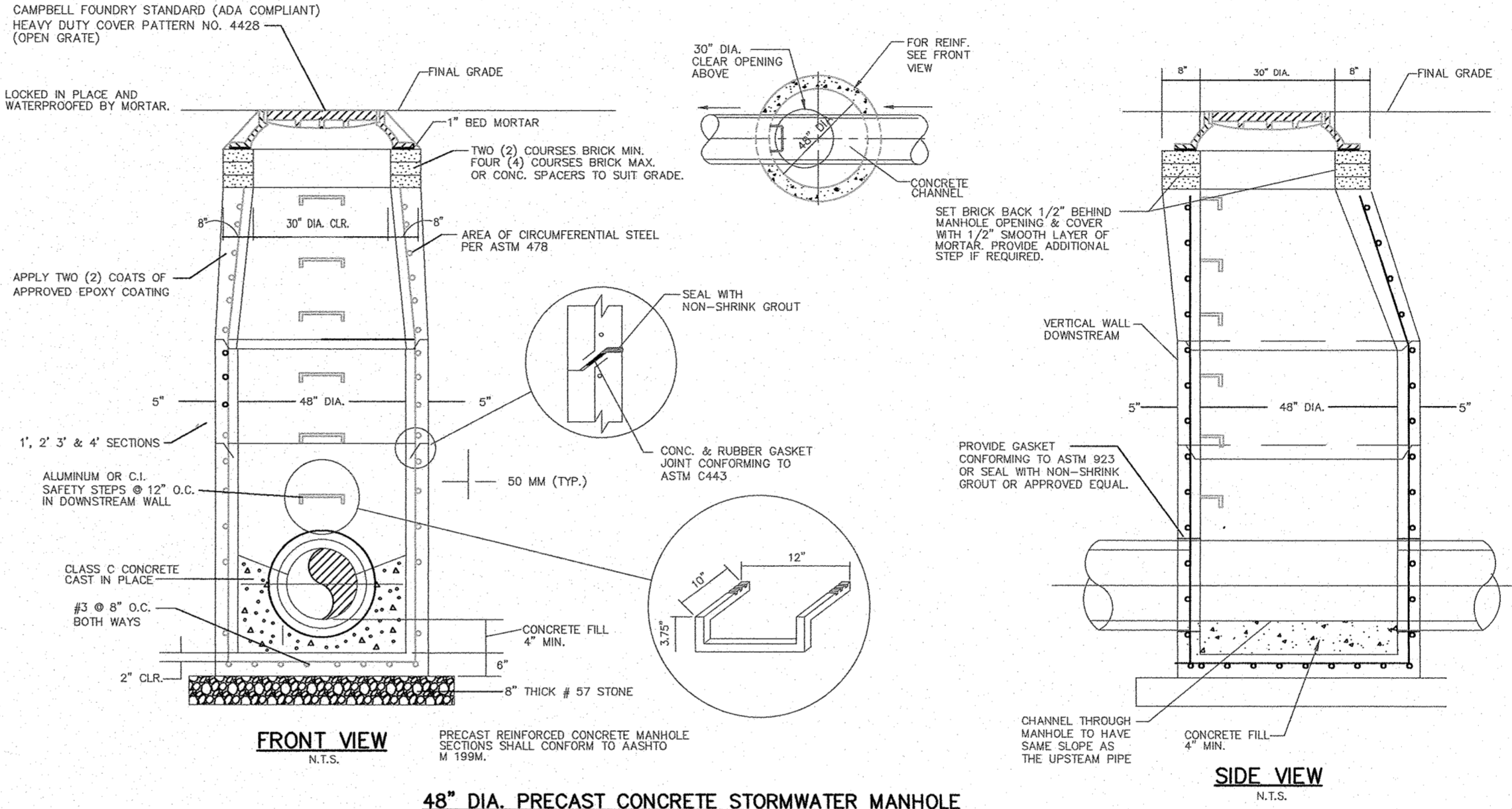
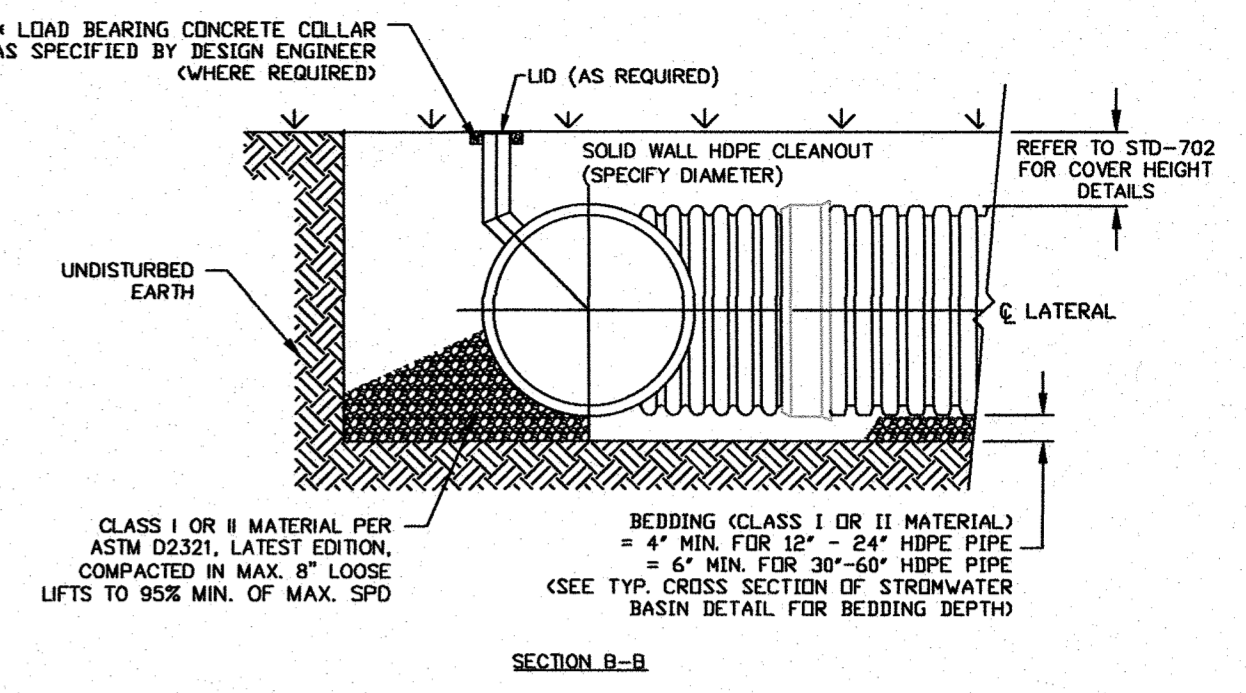


**GENERAL DESIGN NOTE:**  
ALL UNDERGROUND DETENTION STRUCTURES SHALL MEET AT A MINIMUM H20S16 LOADING. THE MANUFACTURER SHALL CERTIFY THAT THE MINIMUM DESIGN CRITERIA HAS BEEN MET, AND SUBMIT SHOP DRAWINGS FOR REVIEW TO THE ENGINEER AND THE CITY OF NEWARK PRIOR TO ANY INSTALLATION OF THE PROPOSED UNDERGROUND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

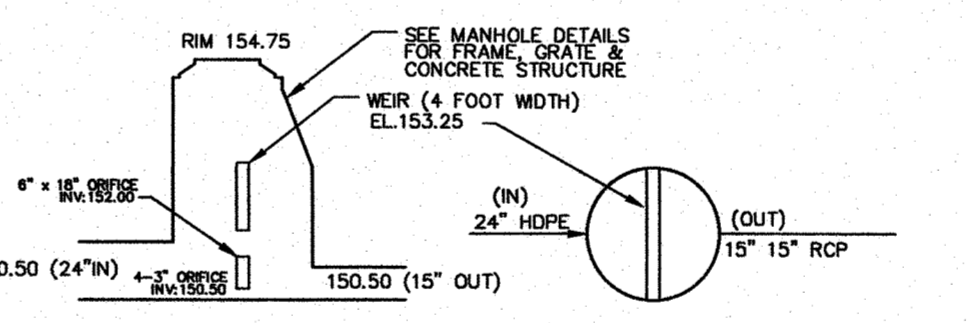
**TYPICAL PLAN & ELEVATION VIEW OF SUBSURFACE DETENTION BASIN**  
SCALE N.T.S.



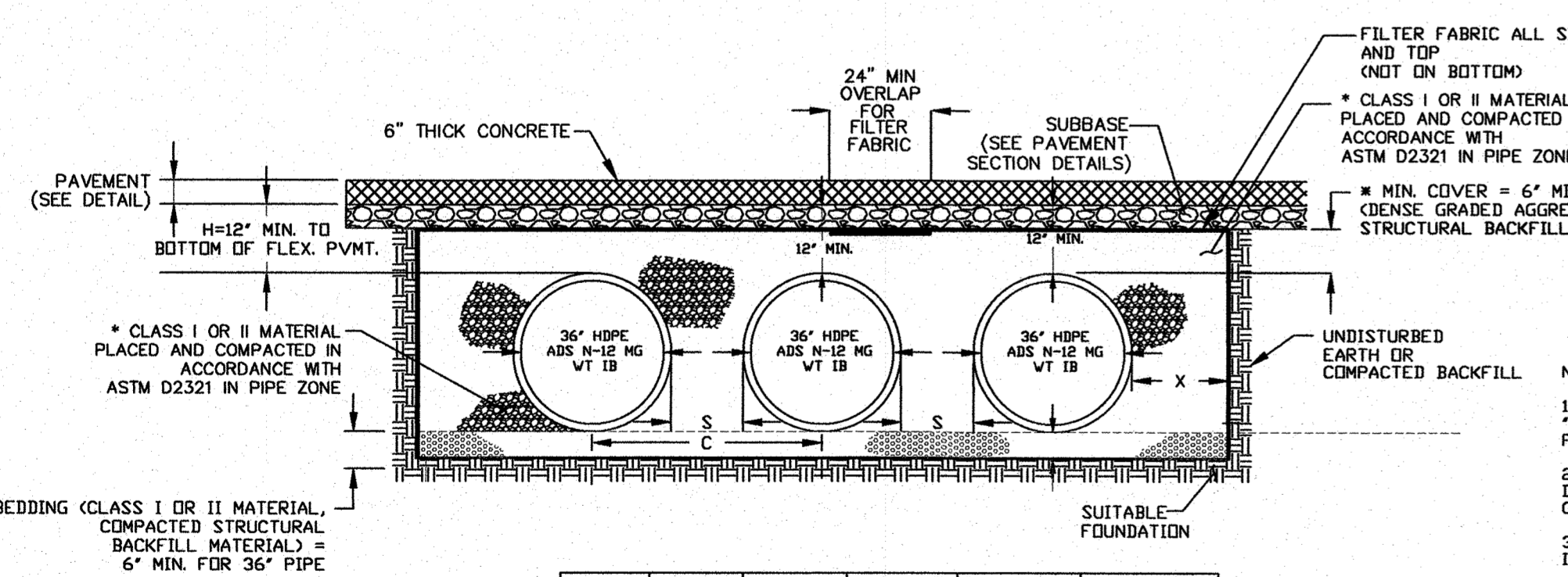
**TYPICAL RISER/CLEANOUT (C.O.) DETAIL**  
SCALE N.T.S.



**48" DIA. PRECAST CONCRETE STORMWATER MANHOLE**  
N.T.S.



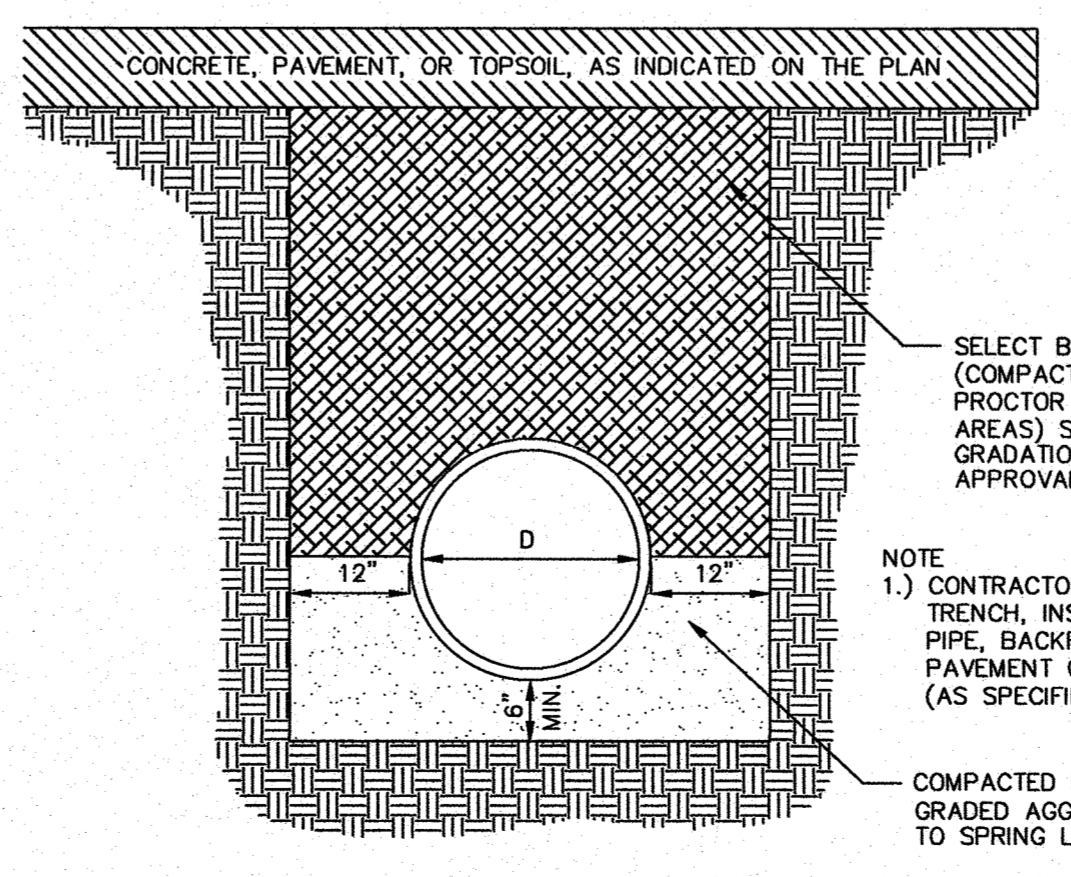
**OUTLET STRUCTURE #1 6x6 BOX MANHOLE**  
SCALE N.T.S.



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 "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.
  - FOUNDATIONS: 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) & (150mm) FOR 30"-60" (750mm-900mm).
  - 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 FLATULATION 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.



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REVISION	DESCRIPTION	DATE	BY
5	REVISED PER ENGINEER COMMENTS	9/10/20	AH1
4	REVISED PER PROFESSIONAL COMMENTS	8/20/20	AH1
3	REVISED PER PROFESSIONAL COMMENTS	8/5/20	JMP
2	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/20	JMP
1	REVISED FOR RESC SUBMISSION	6/18/20	AH1

PREPARED FOR  
**VOSE APTS. URBAN RENEWAL, LLC**  
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006  
SOUTH ORANGE AVENUE REDEVELOPMENT  
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**CONSTRUCTION DETAILS**

**PETRY ENGINEERING, LLC**  
100 PARADISE AVENUE • FARGO, ND 58103  
TEL: 701.201.1000 FAX: 701.201.1004

Designer: JMP  
Draftsman: AH1  
Checked By: JMP  
Project No.: 19-0078  
Scale: AS NOTED  
Sheet: SP-10

**J. MICHAEL PETRY-PE, PP, RA**  
NJ PROFESSIONAL ENGINEER LIC. NO. 35662 DATED: 04/29/2020