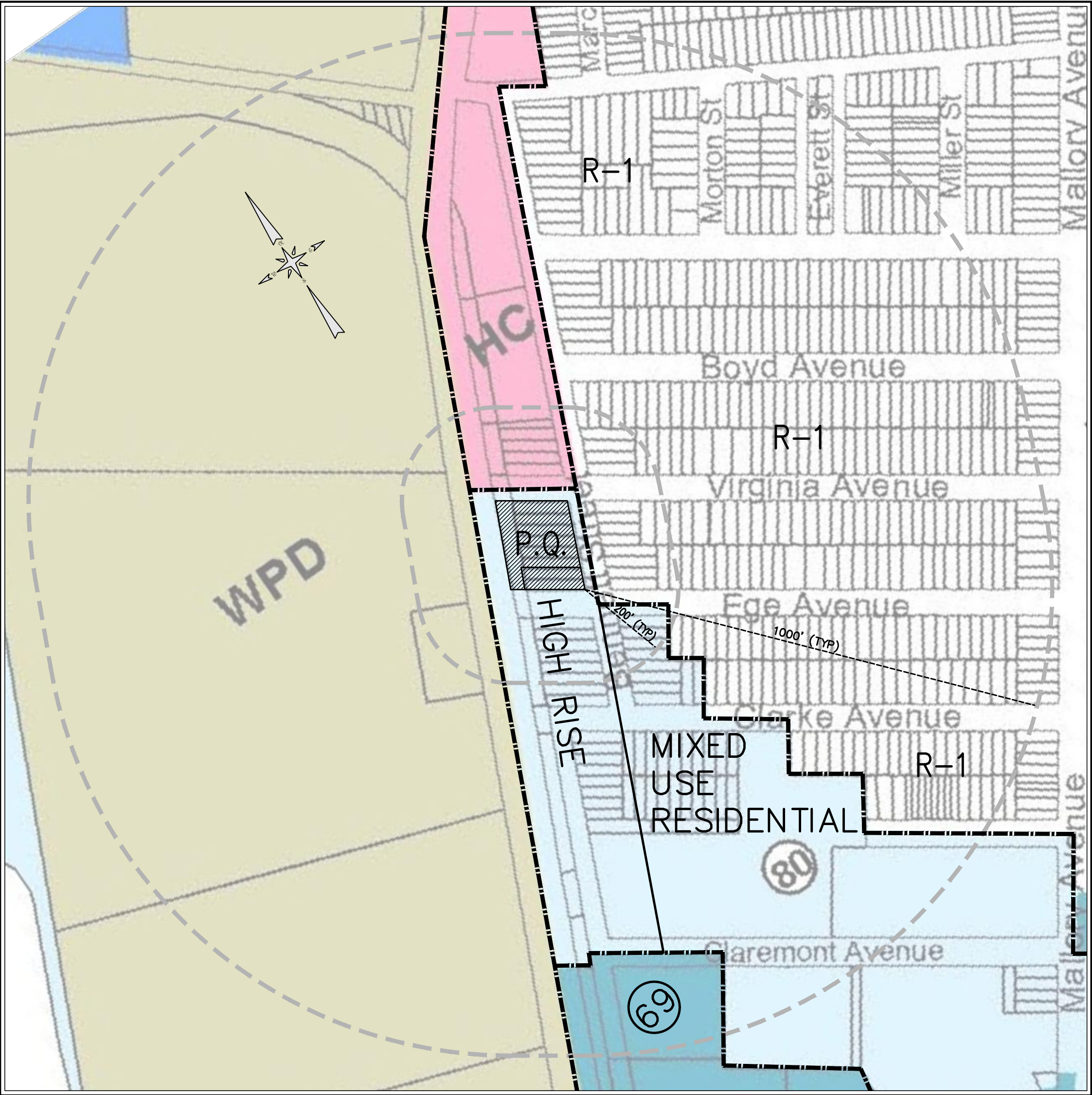


SITE PLAN  
MYNENI PROPERTIES, LLC  
MULTI-STORY MIXED USE BUILDING  
BLOCK 20403, LOTS 1 & 2  
682 N.J. STATE HIGHWAY ROUTE 440  
CITY OF JERSEY CITY, HUDSON COUNTY, NJ

| PROPERTY OWNERS WITHIN 200 FEET OF P.Q.<br>CITY OF JERSEY CITY |       |      |                                              |                                      |                         |                      |          |
|----------------------------------------------------------------|-------|------|----------------------------------------------|--------------------------------------|-------------------------|----------------------|----------|
| BLOCK                                                          | LOT   | QUAL | PROPERTY LOCATION                            | OWNERS NAME                          | MAILING ADDRESS         | CITY / STATE         | ZIP CODE |
| 16001                                                          | 3     |      | 725-775 ROUTE 440                            | J.C. VF.LLC. C/O VORNADO RTY.TRUST   | 210 RT. 4 EAST          | PARAMUS,N.J.         | 07652    |
| 16001                                                          | 4     |      | 701 ROUTE 440                                | UE HUDSON MALL LLC.                  | 210 ROUTE 4 EAST        | PARAMUS, NJ          | 07652    |
| 16001                                                          | 5     |      | 685 ROUTE 440                                | UE HUDSON MALL LLC.                  | 210 ROUTE 4 EAST        | PARAMUS, NJ          | 07652    |
| 19101                                                          | 2     |      | 740 ROUTE 440                                | 50-44 BENNETT STREET LLC             | 4 SAWGRASS STREET       | JACKSON, NJ          | 08527    |
| 19101                                                          | 3     |      | 41 BENNETT ST.                               | 500 BRUNSWICK AV.CORP.%JOSEPH ATSUS  | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 19101                                                          | 4     |      | 39 BENNETT ST.                               | 500 BRUNSWICK AV.CORP.%JOSEPH ATSUS  | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 19101                                                          | 5     |      | 37 BENNETT ST.                               | 500 BRUNSWICK AV.CORP.%JOSEPH ATSUS  | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 19101                                                          | 6     |      | 33 BENNETT ST.                               | 500 BRUNSWICK AV.CORP.%JOSEPH ATSUS  | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 19101                                                          | 7     |      | ROUTE 440                                    | 500 BRUNSWICK AVE.CORP.%JOSEPH ATSUS | 353 PLYMOUTH ROAD       | UNION, N.J.          | 07083    |
| 20401                                                          | 1     |      | 301 BOYD AVE.                                | BONEY, ESTELLA                       | 301 BOYD AVENUE         | JERSEY CITY, NJ      | 07304    |
| 20401                                                          | 2     |      | 299 BOYD AVE.                                | GUTIERREZ, RIGOBERTO                 | 299 BOYD AVE.           | JERSEY CITY, N.J.    | 07304    |
| 20401                                                          | 3     |      | 297 BOYD AVE.                                | LE FURGE, LENA                       | 297 BOYD AVE.           | JERSEY CITY, N.J.    | 07304    |
| 20401                                                          | 4     |      | 295 BOYD AVE.                                | LIPTAK, JOANNA C.                    | 8 OAKWOOD CT.           | TOWACO, NJ           | 07082    |
| 20401                                                          | 5     |      | 293 BOYD AVE.                                | SANKAT, SEAN I.                      | 293 BOYD AVE.           | JERSEY CITY, NJ      | 07305    |
| 20401                                                          | 73    |      | 416 VIRGINIA AVE.                            | NGUYEN, KIM ANH                      | 416 VIRGINIA AVE.       | JERSEY CITY,N.J.     | 07304    |
| 20401                                                          | 74    |      | 418 VIRGINIA AVE.                            | FERRAO, ZITO                         | 62 CALVERT AVE., EAST   | EDISON, NJ           | 08820    |
| 20401                                                          | 75    |      | 420 VIRGINIA AVE.                            | LE, KEVIN                            | 420 VIRGINIA AVE.       | JERSEY CITY, NJ      | 07304    |
| 20401                                                          | 76    |      | 34 BENNETT ST.                               | ADELEM, L.L.C. C/O J. ATSUS          | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 20401                                                          | 77    |      | 36 BENNETT ST.                               | ADELEM, L.L.C. C/O J. ATSUS          | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 20401                                                          | 78    |      | 38 BENNETT ST.                               | ADELEM, L.L.C. C/O J. ATSUS          | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 20401                                                          | 79    |      | 40 BENNETT ST.                               | ADELEM, L.L.C. C/O JOSEPH ATSUS      | 353 PLYMOUTH RD.        | UNION, N.J.          | 07083    |
| 20402                                                          | 1     |      | 32 BENNETT ST.                               | MYNENI PROPERTIES, LLC               | 682 ROUTE 440           | JERSEY CITY, N.J.    | 07304    |
| 20402                                                          | 2     |      | 423 VIRGINIA AVE.                            | RAHMAN, AMIN, MALIK & PRATIMA        | 423 VIRGINIA AVE.       | JERSEY CITY, NJ      | 07304    |
| 20402                                                          | 3     |      | 421-A VIRGINIA AVE                           | MUNSHI,BUSHRA NASAR                  | 421A VIRGINIA AVE.      | JERSEY CITY, NJ      | 07304    |
| 20402                                                          | 4     |      | 421 VIRGINIA AVE                             | GHAJBRIAL, RAYEK & JANDARK           | 5430 WENBRIDGE DRIVE    | EAST SYRACUSE, NY    | 13057    |
| 20402                                                          | 65    |      | 404 EGE AVE.                                 | LUTCHMAN, E.E.& R.SANKAT, M.& S.     | 404 EGE AVE.            | JERSEY CITY,N.J.     | 07304    |
| 20402                                                          | 66    |      | 406 EGE AVE.                                 | HARRIS, ARON & THERESA               | 406 EGE AVE.            | JERSEY CITY, NJ      | 07305    |
| 20402                                                          | 67    |      | 18 BENNETT ST.                               | DIUMENDEN, MARIO & GLORIA            | 18 BENNETT ST           | JERSEY CITY, NJ      | 07304    |
| 20402                                                          | 68    |      | 20 BENNETT ST.                               | 20 BENNETT JERSEY CITY, LLC.         | 561 BROADWAY, STE #1    | BAYONNE, NJ          | 07002    |
| 20402                                                          | 69    |      | 22 BENNETT ST.                               | MIJARES, GERALDYN                    | 22 BENNETT ST.          | JERSEY CITY, N.J.    | 07304    |
| 20402                                                          | 70    |      | 24 BENNETT ST.                               | VO, QUOC D.                          | 24 BENNETT ST.          | JERSEY CITY, NJ      | 07304    |
| 20402                                                          | 71    |      | 26 BENNETT ST.                               | SHAMYN PROPERTIES, LLC               | 682 ROUTE 440           | JERSEY CITY, NJ      | 07304    |
| 20402                                                          | 72    |      | 28 BENNETT ST.                               | GITA TRADHANI, LLC                   | 19707 TURNBERRY WAY#19J | MIAMI, FL            | 33180    |
| 20402                                                          | 73    |      | 30 BENNETT ST.                               | MYNENI PROPERTIES, LLC.              | 682 ROUTE 440           | JERSEY CITY, N.J.    | 07304    |
| 20701                                                          | 1     |      | 660 ROUTE 440                                | 407 EGE B LLC.                       | 258 NEWARK ST.,#STE 200 | HOBOKEN, NJ          | 07030    |
| 20701                                                          | 2     |      | 664 ROUTE 440                                | 407 EGE B LLC.                       | 258 NEWARK ST.,#STE 200 | HOBOKEN, NJ          | 07030    |
| 20701                                                          | 3     |      | ROUTE 440                                    | CITY OF JERSEY CITY                  | 280 GROVE ST.           | JERSEY CITY, N.J.    | 07302    |
| 20702                                                          | 1     |      | 405 EGE AVE.                                 | LUNEN, MARISSA M & CHENIER, JANICE   | 2 NEAL DR.              | EAST BRUNSWICK, N.J. | 08816    |
| 20702                                                          | 60.01 |      | 160 CLARKE AVE                               | 16 BENNETT ST. URBAN RENEWAL LLC     | 258 NEWARK ST.,#200     | HOBOKEN, NJ          | 07030    |
| UTILITIES TO BE NOTIFIED                                       |       |      |                                              |                                      |                         |                      |          |
| P.S.E.& G.                                                     |       |      | 80 PARK PLAZA, NEWARK, NEW JERSEY 07102      |                                      |                         |                      |          |
| COMCAST CABLEVISION                                            |       |      | 2121 KENNEDY BLVD., JERSEY CITY, NJ 07305    |                                      |                         |                      |          |
| UNITED WATER COMPANY                                           |       |      | 200 HOOK ROAD, HARRINGTON PARK, NJ 07640     |                                      |                         |                      |          |
| JERSEY CITY M.U.A.                                             |       |      | 555 ROUTE 440, JERSEY CITY, NEW JERSEY 07305 |                                      |                         |                      |          |
| VERIZON TELEPHONE                                              |       |      | 540 BROAD STREET, NEWARK, NEW JERSEY 07102   |                                      |                         |                      |          |



KEY MAP WITH ZONING

SCALE: 1"=200'

R-1 = ONE AND TWO FAMILY HOUSING  
HC = HIGHWAY COMMERCIAL  
80 = WATER STREET REDEVELOPMENT AREA  
69 = ROUTE 440/CULVER REDEVELOPMENT AREA  
WPD = WATERFRONT PLANNED DEVELOPMENT

| SHEET INDEX |                                      |
|-------------|--------------------------------------|
| 1.          | KEY MAP WITH ZONING ANALYSIS         |
| 2.          | SITE PLAN/LOT CONSOLIDATION          |
| 3.          | GARAGE, GRADING AND DRAINAGE PLAN    |
| 4.          | EXISTING CONDITIONS/DEMOLITION PLAN  |
| 5.          | LANDSCAPE & PEDESTRIAN LIGHTING PLAN |
| 6.          | SOIL EROSION & SEDIMENT CONTROL PLAN |
| 7.          | CONSTRUCTION DETAILS                 |
| 8.          | CONSTRUCTION DETAILS                 |
| 9.          | CONSTRUCTION DETAILS                 |
| 10.         | CONSTRUCTION DETAILS & SEWER PROFILE |

| ZONING DATA: WATER STREET REDEVELOPMENT PLAN AREA     |                             |                          |                               |
|-------------------------------------------------------|-----------------------------|--------------------------|-------------------------------|
| HIGH-RISE ZONE - PROPOSED USE: RESIDENTIAL AND RETAIL |                             |                          |                               |
| ITEM                                                  | REQUIRED                    | EXISTING                 | PROPOSED                      |
| PRINCIPAL USE, GROUND FLOOR                           | COMMERCIAL                  | COMMERCIAL               | COMMERCIAL                    |
| PRINCIPAL USE FLOORS ABOVE                            | RESIDENTIAL                 | N/A (ONE STORY)          | RESIDENTIAL                   |
| ACCESSORY USE                                         | STRUCTURED PARKING          | N/A                      | STRUCTURED PARKING            |
| MIN. LOT AREA                                         | 6,000 S.F.                  | 29,755 S.F. or 0.683 Ac. | 29,755 S.F. or 0.683 Ac.      |
| MIN. LOT WIDTH                                        | 60 FEET                     | 156.61 FT. (AVG.)        | 156.61 FT. (AVG.)             |
| MIN. LOT DEPTH                                        | 100 FEET                    | 193.3 FT. (AVG.)         | 193.3 FT. (AVG.)              |
| MIN. FRONT YARD                                       | 0 FEET                      | 13.11 FT. (ROUTE 440)    | 60.0 FEET                     |
| MIN. REAR YARD                                        | 30 FEET, ABOVE GARAGE **    | 0 FT. (BENNET ST.)       | 0 FT. (NO REAR YD.) ***       |
| MIN. SIDE YARD                                        | 5 FEET, ABOVE GARAGE **     | 0 FT. (VIRGINIA AVE.)    | 0 FT. (NO SIDE YD.) ***       |
| MAX. F.A.R.                                           | 7.7                         | 0.67 (20,056 S.F.)       | 7.7 (229,043 S.F.)            |
| VII.B.3.(h) BUILDING HEIGHT                           | 8 STYS. MIN., 12 STYS. MAX. | ONE STORY (E)            | 15 STORIES (V)                |
| IMPLD BUILDING HEIGHT                                 | 175 FEET                    | 12 FEET ±                | 173.75 FEET                   |
| FLOOR TO CEILING HT., RESIDENTIAL                     | 9 FT. MIN., 12 FT. MAX.     | N/A                      | 9.33 FEET (10.33' TOP 2 FLRS) |
| VII.B.3.(h) FLOOR TO CEILING HT., COMMERCIAL          | 10 FT. MIN., 15 FT. MAX.    | 10 FT. (APPROX.)         | 22 FEET (V)                   |
| VII.B.4.(c) PARKING BETWEEN BLDG & STREET             | NOT PERMITTED               | EXISTING (E)             | PROPOSED 18 SPACES (V)        |
| VII.B.4.(c) PARKING OUTSIDE BLDG ENVELOPE             | NOT PERMITTED               | EXISTING (E)             | PROPOSED 18 SPACES (V)        |

\*\* PARKING GARAGES MAY BE 0 FEET (E) = EXISTING NON-CONFORMITY (V) = VARIANCE REQUESTED

\*\*\* 345-60 SUPPLEMENTARY ZONING REGULATIONS:  
D.3. IN THE CASE OF A THROUGH LOT, THE BUILDING SETBACK FROM EACH STREET, WHETHER CONSIDERED FRONT, SIDE OR REAR YARD SHALL ADHERE TO THE FRONT YARD SETBACK REQUIREMENTS FOR THE DISTRICT IN WHICH SAID LOT, OR APPLICABLE PORTION OF THE LOT, IS LOCATED.

| PARKING REQUIREMENTS: WATER STREET REDEVELOPMENT PLAN |                     |                               |                                                  |
|-------------------------------------------------------|---------------------|-------------------------------|--------------------------------------------------|
| RESIDENTIAL AND RETAIL                                |                     |                               |                                                  |
| ITEM                                                  | MINIMUM REQUIRED    | MAXIMUM REQUIRED              | PROPOSED                                         |
| VII.B.4.(b) APARTMENT BUILDINGS                       | 0.5 SPACES PER D.U. | 1.0 SPACES PER D.U.           | 218 D.U. x 0.47 = 103 SPACES (V)                 |
| RETAIL/RESTAURANT/OFFICE                              | N/A                 | 1 SPACE PER 1,000 S.F. G.F.A. | 2,025/1,000 = 2.0 SPACES                         |
| TOTAL SPACES                                          |                     |                               | 87 INTERIOR AND 18 EXTERIOR = 105 PARKING SPACES |

| WATER STREET REDEVELOPMENT PLAN ADDITIONAL REQUIREMENTS |                     |                                                    |
|---------------------------------------------------------|---------------------|----------------------------------------------------|
| URBAN DESIGN REQUIREMENTS                               |                     |                                                    |
| ITEM                                                    | REQUIRED            | PROPOSED                                           |
| LANDSCAPING                                             | MIN. OF 10% OF LOT  | 3.35% (996 S.F.) (WAIVER REQUESTED)                |
| TREES ALONG CURB LINES                                  | 30 TO 40 FEET APART | 30 TO 40 FEET APART                                |
| PEDESTRIAN LIGHTING                                     | 16 FEET HIGH MAX.   | 15.5 FEET                                          |
| SIDEWALKS ALONG ROUTE 440                               | 15 FEET WIDE MIN.   | 6 TO 11 FEET WIDE (WAIVER REQUESTED)               |
| TREES IN PARKING AREAS                                  | 1 PER 5 SPACES      | 18/5 = 3.6 REQUIRED; 2 PROPOSED (WAIVER REQUESTED) |
| COMMERCIAL PARKING STALL SIZE                           | 10' WIDE x 18' LONG | 9' WIDE x 18' LONG (WAIVER REQUESTED)              |

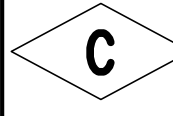
FINAL FOR SEWER DESIGN

ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639  
PROFESSIONAL ENGINEER AND PLANNER

SIGNED:  DATE: 9-22-21

0 200 400 600 800

GRAPHIC SCALE

|                                                                                                                                                                                                                                                                                                                                                                      |                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|  <b>COSTA ENGINEERING CORPORATION</b><br>PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS<br><small>State of New Jersey Certificate of Authorization No. GA 276726.<br/>325 So. RIVER STREET - SUITE 302, HACKENSACK, N.J. 07601<br/>TEL (201) 467-0015 FAX (201) 467-9122</small> |                                        |
| DRAWING TITLE:                                                                                                                                                                                                                                                                                                                                                       | KEY MAP AND ZONING COMPARISON CHART    |
| PROJECT NAME:                                                                                                                                                                                                                                                                                                                                                        | MULTI-STORY MIXED USE BUILDING         |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                            | BLOCK 20403, LOTS 1 AND 2              |
|                                                                                                                                                                                                                                                                                                                                                                      | 682 N.J. STATE HIGHWAY ROUTE 440       |
|                                                                                                                                                                                                                                                                                                                                                                      | CITY OF JERSEY CITY, HUDSON COUNTY, NJ |
| PROJ. NO. 20-2206                                                                                                                                                                                                                                                                                                                                                    | SCALE: 1"=200' DRAWN BY: JEM           |

JERSEY CITY  
APPROVED AT A REGULAR MEETING OF  
THE PLANNING BOARD OF THE  
CITY OF JERSEY CITY,  
HUDSON COUNTY, NEW JERSEY

CHAIRMAN \_\_\_\_\_

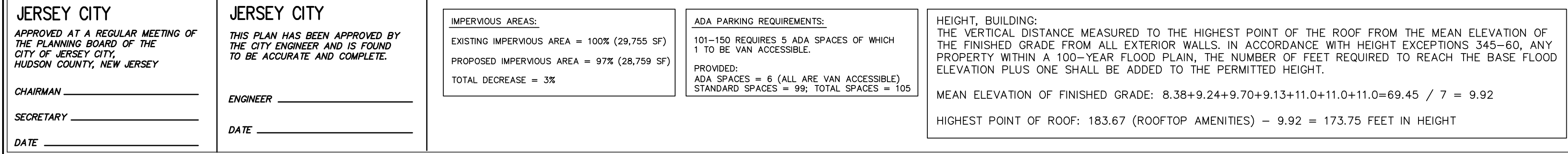
SECRETARY \_\_\_\_\_

DATE \_\_\_\_\_

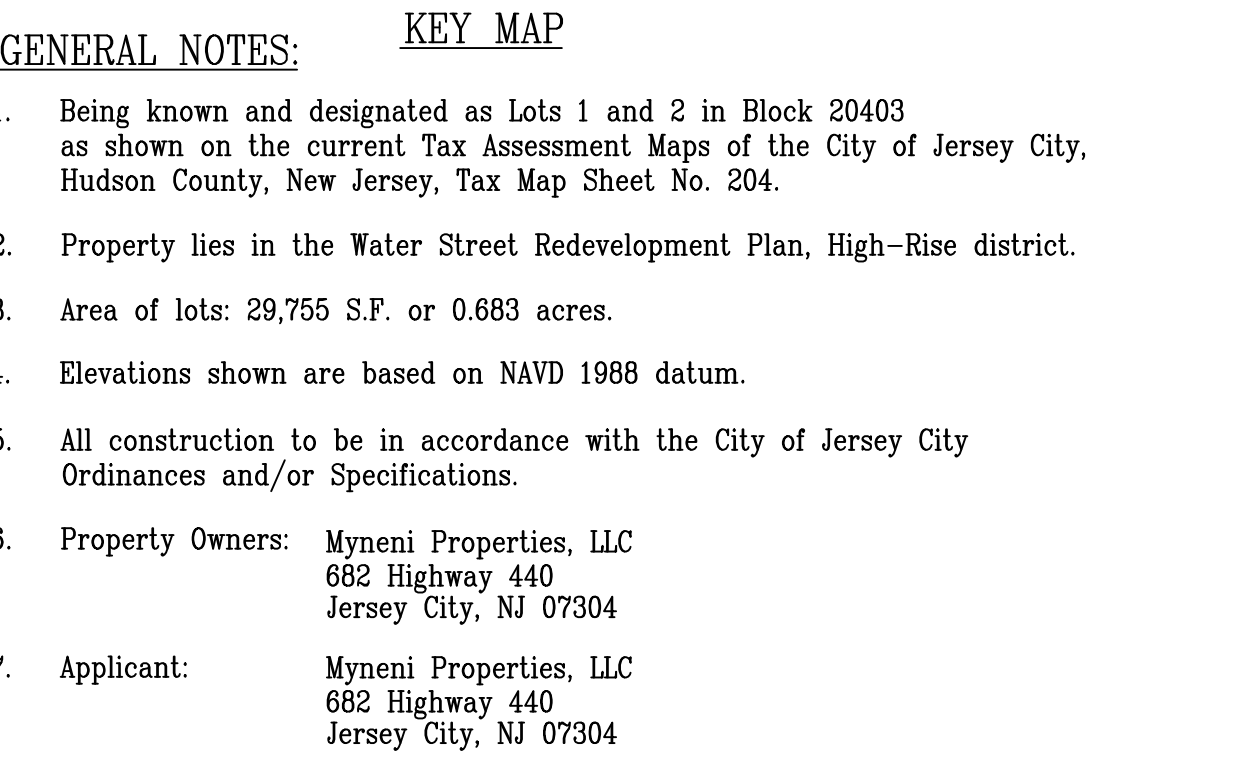
JERSEY CITY  
THIS PLAN HAS BEEN APPROVED BY  
THE CITY ENGINEER AND IS FOUND  
TO BE ACCURATE AND COMPLETE.

ENGINEER \_\_\_\_\_

DATE \_\_\_\_\_



- REFRACE SIDEWALKS AND CURBS ON VIRGINIA AVENUE, BENNET STREET, EYE AVENUE & ROUTE 440; DAMAGED ROAD WILL BE MILLED AND PAVED CURB TO CURB, IN ACCORDANCE WITH THE CITY'S CIVIL ENGINEERING DESIGN STANDARDS, DATED JULY 2007. AND THE DIVISIONS CONSTRUCTION GUIDELINES, DATED JUNE 23, 2005 FOR STREET OPENINGS WITH A PUBLIC RIGHT-OF-WAY. STATE STANDARDS TO BE FOLLOWED FOR STREET AND SIDEWALK CONSTRUCTION. AVG N.J.S.A. ROUTE 440.
- ALL DEMOLITION MATERIAL AND DEBRIS AND ALL ITEMS REMOVED FROM THE PROPERTY AND THE PUBLIC AREAS ADJACENT, SHALL BE DISPOSED OUTSIDE THE CITY LIMITS OF JERSEY CITY IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE CITY'S ENVIRONMENTAL COMMISSION AND IN ACCORDANCE WITH THE REGULATIONS AND LAWS OF THE NJDEP.
- ALL OFF-SITE INFRASTRUCTURE SUCH AS HANDICAP RAMPS, CROSSWALK MARKINGS, CONCRETE CURB, CONCRETE SIDEWALKS, DEPRESSED CURBS, CONCRETE APRONS, ASPHALT PAVEMENT ETC. SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY'S DIVISION OF ENGINEERING DESIGN STANDARDS, DATED JULY, 2007.
- BORINGS AND SOIL SAMPLES ARE REQUIRED TO DETERMINE "QUALITY OF EXCAVATED MATERIAL" AND TO DETERMINE THE POSSIBILITY THAT ROCK MAY UNDERLIE A THIN MANVILE OF EARTH IN THIS AREA.
- ALL EXCAVATED MATERIALS MUST BE DISPOSED OF OUTSIDE OF JERSEY CITY LIMITS.

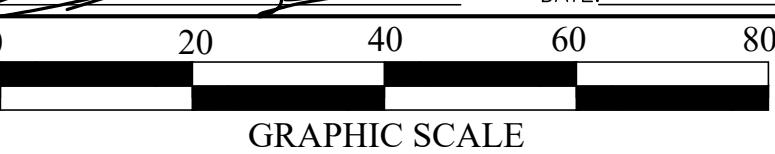


| <b><u>PARKING REQUIREMENTS: WATER STREET REDEVELOPMENT PLAN</u></b> |                            |                                      |                                         |
|---------------------------------------------------------------------|----------------------------|--------------------------------------|-----------------------------------------|
| <b>RESIDENTIAL AND RETAIL</b>                                       |                            |                                      |                                         |
| <b>ITEM</b>                                                         | <b>MINIMUM REQUIRED</b>    | <b>MAXIMUM REQUIRED</b>              | <b>PROPOSED</b>                         |
| <b>APARTMENT BUILDINGS</b>                                          | <b>0.5 SPACES PER D.U.</b> | <b>1.0 SPACES PER D.U.</b>           | <b>218 D.U. x 0.47 = 103 SPACES</b> ⑤   |
| <b>RETAIL/RESTAURANT/OFFICE</b>                                     | <b>N/A</b>                 | <b>1 SPACE PER 1,000 S.F. G.F.A.</b> | <b>2,025/1,000 = 2.0 SPACES</b>         |
| <b>TOTAL SPACES</b>                                                 |                            | <b>87 INTERIOR AND</b>               | <b>18 EXTERIOR = 105 PARKING SPACES</b> |

SIGNS AS PER WATER STREET REDEVELOPMENT PLAN:  
TOTAL EXTERIOR SIGN AREA SHALL NOT EXCEED THE EQUIVALENT OF TWENTY (20%) PERCENT OF THE FIRST STORY PORTION OF THE WALL TO WHICH IT IS ATTACHED. EACH USE SHALL BE PERMITTED ONE (1) IDENTIFICATION SIGN FOR EACH STREET FRONTAGE. BUILDINGS WITH MULTIPLE USES SHALL HAVE NOT MORE THAN ONE SIGN PER USE, PROVIDED THAT THE AGGREGATE AREA OF ALL SIGNS DOES NOT EXCEED THE MAXIMUM AREA PERMITTED FOR EACH STREET FRONTAGE. FOR PURPOSES OF CALCULATING PERMITTED SIGN AREA, THE FIRST STORY PORTION OF THE BUILDING SHALL NOT BE CONSIDERED TO BE ANY TALLER THAN FIFTEEN (15) FEET IN HEIGHT.

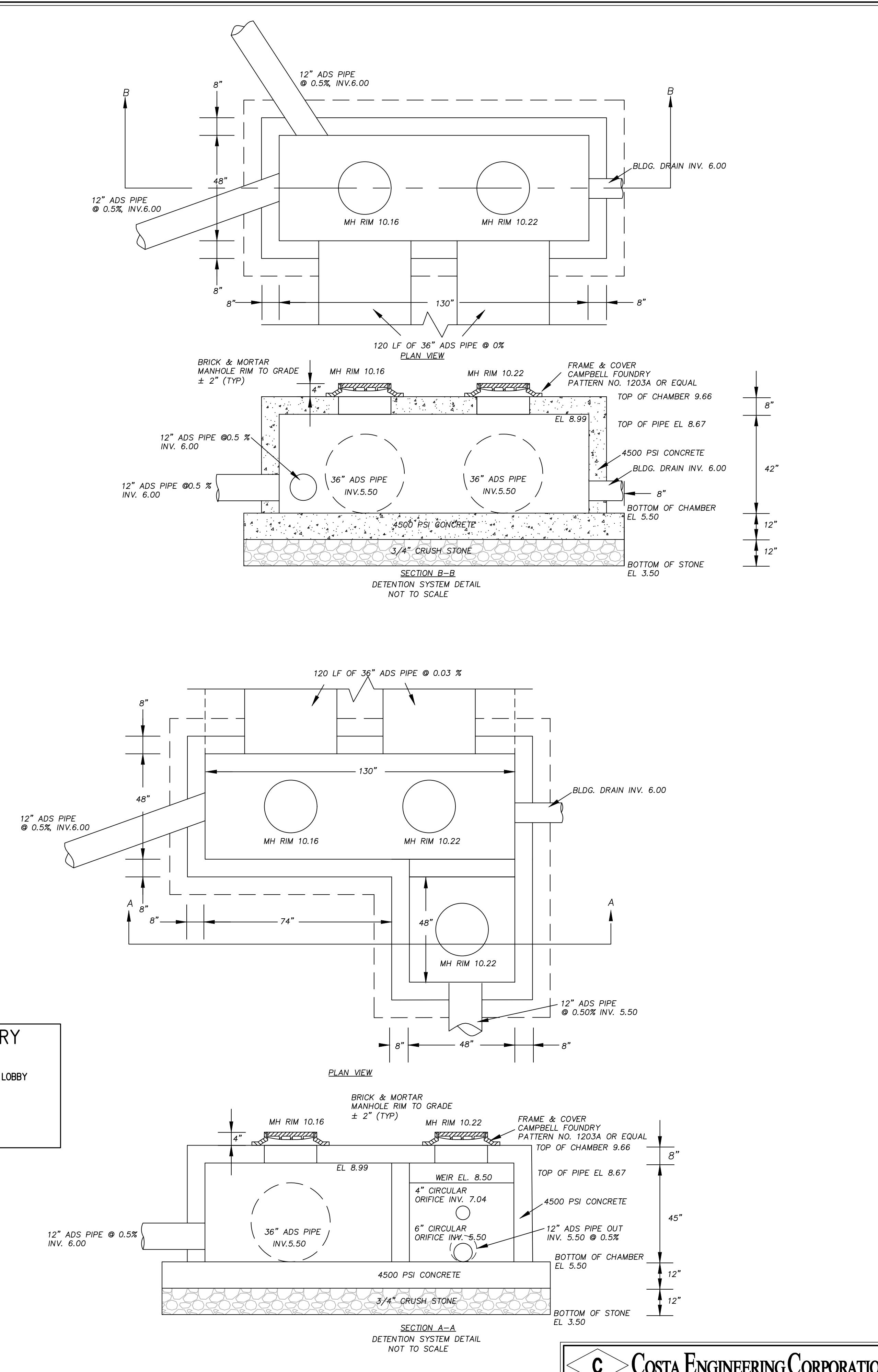
ALL REFUSE, GARBAGE & RECYCLING WILL BE STORED IN THE BUILDING. SEE ARCHITECTURAL PLANS FOR TRASH AND REFUSE COLLECTION ROOM LOCATIONS.

ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639  
PROFESSIONAL ENGINEER AND PLANNER



| PROPOSED SANITARY FLOW (AS PER N.J.A.C. 7:44A-23) |                                |              |
|---------------------------------------------------|--------------------------------|--------------|
| RESIDENTIAL                                       | TOTAL NO. OF RESIDENTIAL UNITS | 218 UNITS    |
| (117) 1 BEDROOM UNITS @ 150 GPD =                 |                                | 17,550 GPD   |
| (66) 2 BEDROOM UNITS @ 225 GPD =                  |                                | 14,850 GPD   |
| (35) 3 BEDROOM UNITS @ 300 GPD =                  |                                | 10,500 GPD   |
| COMMERCIAL-RETAIL                                 | 2,025 S.F. @ 0.100 GPD =       | 202.5 GPD    |
| TOTAL FLOW IN GPD                                 |                                | 43,102.5 GPD |
| TOTAL FLOW IN MGPD                                |                                | 0.043 MGPD   |
| TOTAL FLOW IN CFS                                 |                                | 0.0687 CFS   |

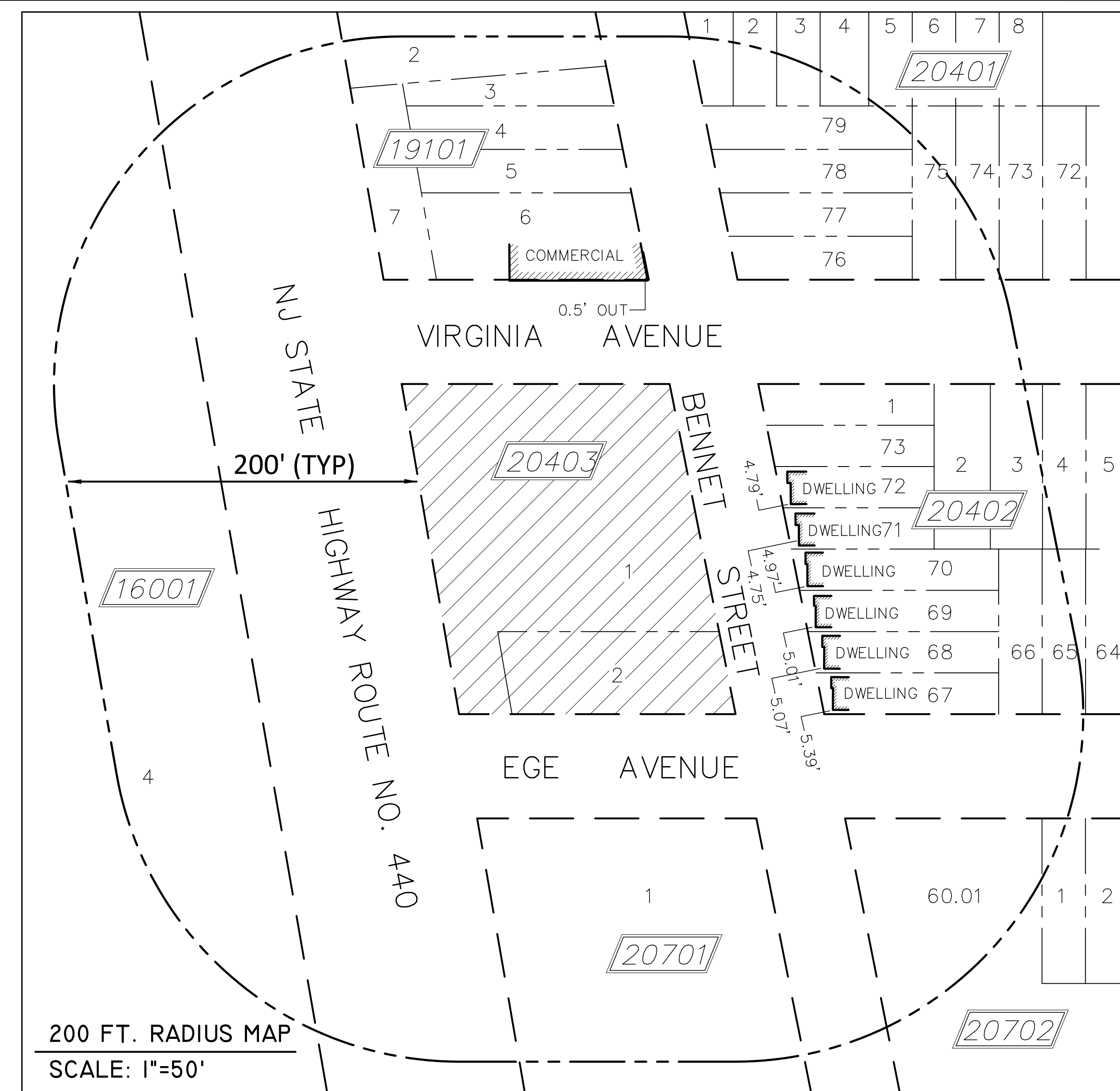
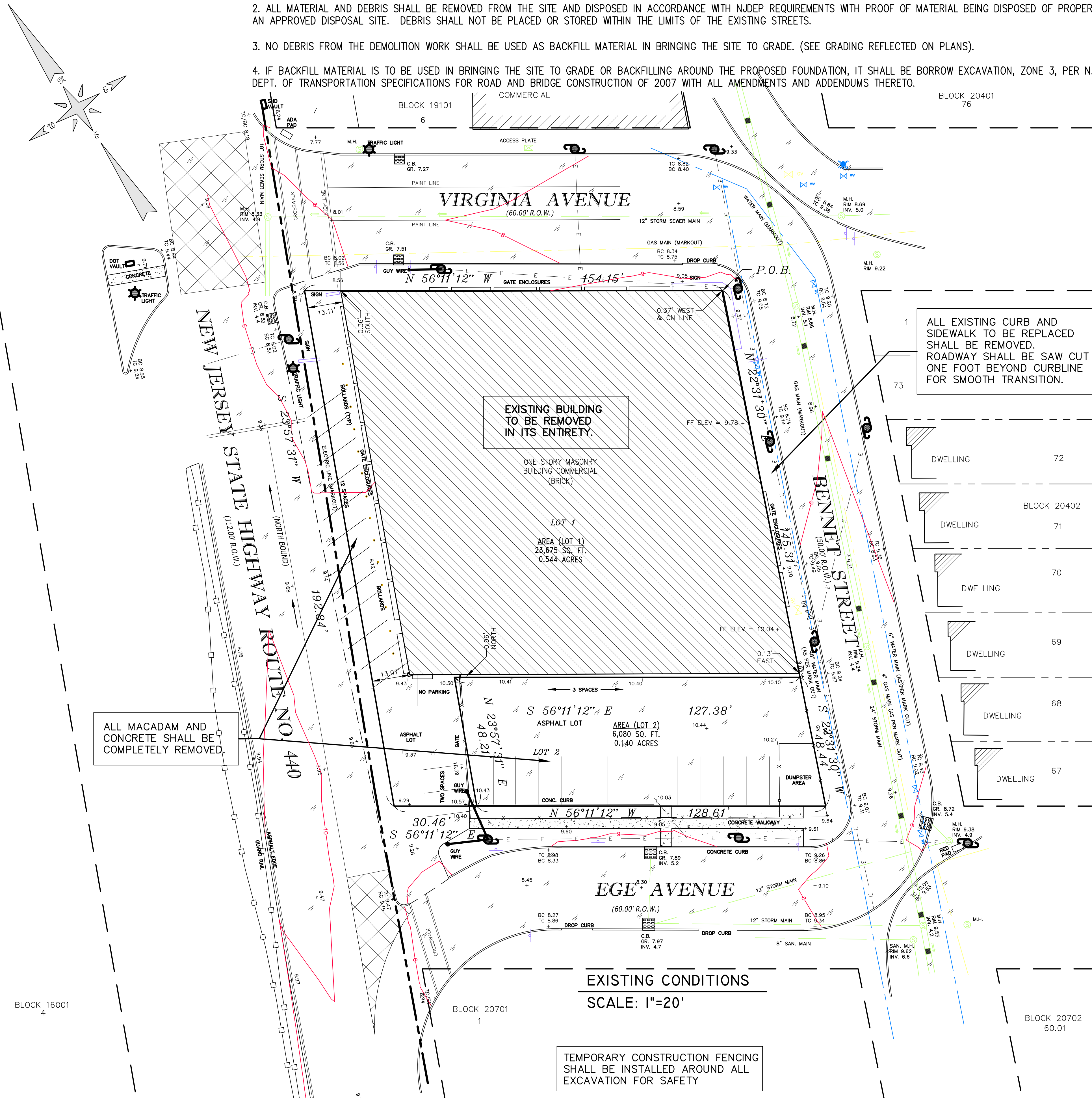
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|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----|
|  | <h1 style="margin: 0;">COSTA ENGINEERING CORPORATION</h1> <h2 style="margin: 0;">PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS</h2> <p style="margin: 0;">State of New Jersey Certificate of Authorization No. A6 276728.<br/>         325 SO. RIVER STREET - SUITE 302, HAZENSBACH, N.J. 07831<br/>         TEL (201) 487-0015 FAX (201) 487-5122</p> |   |    |
| DRAWING TITLE:                                                                        | <b>SITE PLAN</b>                                                                                                                                                                                                                                                                                                                                       |   |    |
| PROJECT NAME:                                                                         | MULTI-STORY MIXED USE BUILDING                                                                                                                                                                                                                                                                                                                         |   |    |
| LOCATION:                                                                             | BLOCK 20403, LOTS 1 AND 2<br>682 N.J. STATE HIGHWAY ROUTE 440<br>CITY OF JERSEY CITY, HUDSON COUNTY, NJ                                                                                                                                                                                                                                                |   |    |
| PROJ. NO.                                                                             | SCALE: 1"=20'                                                                                                                                                                                                                                                                                                                                          |   |    |
| 20-2206                                                                               | DRAWN BY: JEM                                                                                                                                                                                                                                                                                                                                          |   |    |
|                                                                                       | <table border="1" style="float: right; margin-top: -10px;"> <tr> <td style="width: 40px; height: 40px; text-align: center; vertical-align: middle;">2</td> </tr> <tr> <td style="width: 40px; height: 40px; text-align: center; vertical-align: middle;">10</td> </tr> </table>                                                                        | 2 | 10 |
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| 10                                                                                    |                                                                                                                                                                                                                                                                                                                                                        |   |    |



2021 Costa Engineering Corp

# REMOVAL OF DEBRIS AND BACKFILLING:

1. EXISTING BUILDING AND PARKING LOT ON SITE TO BE DEMOLISHED IN THEIR ENTIRETY.
2. ALL MATERIAL AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED IN ACCORDANCE WITH NJDEP REQUIREMENTS WITH PROOF OF MATERIAL BEING DISPOSED OF PROPERLY IN AN APPROVED DISPOSAL SITE. DEBRIS SHALL NOT BE PLACED OR STORED WITHIN THE LIMITS OF THE EXISTING STREETS.
3. NO DEBRIS FROM THE DEMOLITION WORK SHALL BE USED AS BACKFILL MATERIAL IN BRINGING THE SITE TO GRADE. (SEE GRADING REFLECTED ON PLANS).
4. IF BACKFILL MATERIAL IS TO BE USED IN BRINGING THE SITE TO GRADE OR BACKFILLING AROUND THE PROPOSED FOUNDATION, IT SHALL BE BORROW EXCAVATION, ZONE 3, PER N.J. DEPT. OF TRANSPORTATION SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2007 WITH ALL AMENDMENTS AND ADDENDUMS THERETO.



## DEMOLITION:

- 1) WORK INCLUDES THE DEMOLITION OF THE EXISTING BUILDING AND PARKING LOT ON SITE AS INDICATED ON THIS PLAN, INCLUDING CONCRETE CURBING AND WALKS, MACADAM DRIVEWAYS, AND VEGETATION IN AREAS OF PROPOSED CONSTRUCTION, THE REMOVAL OF ALL RUBBISH AND DEBRIS RESULTING FROM DEMOLITION OPERATIONS, SAFETY PROTECTION FOR PERSONS INVOLVED IN AND AROUND THE WORK AREA AND THE PROTECTION OF ADJACENT STRUCTURES.
- 2) DO NOT USE ANY EXPLOSIVES.
- 3) TAKE APPROPRIATE ACTION TO CHECK SPEED OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. COMPLY WITH GOVERNMENT REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- 4) REMOVE ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION FROM THE SITE. BURNING OF SUCH MATERIALS IS NOT PERMITTED. TRANSPORT REMOVED MATERIALS AND DISPOSE OF OFF SITE IN A LEGAL MANNER.
- 5) UPON COMPLETION OF DEMOLITION WORK, REMOVE TOOLS, EQUIPMENT AND DEBRIS FROM THE SITE.
- 6) NO TESTING OF MATERIALS TO BE DEMOLISHED HAVE BEEN PERFORMED. THEREFORE, IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE THE COMPOSITION OF ANY UNDERLYING MATERIALS. IF ANY CONTAMINATED MATERIALS ARE FOUND, THEY SHALL BE REMOVED AND DISPOSED AS REQUIRED BY THE NEW JERSEY STATE REGULATIONS. A CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED TO THE OWNER UPON COMPLETION OF THIS WORK, SHOULD IT BE REQUIRED.

ALL EXISTING ITEMS IN PUBLIC RIGHT-OF-WAYS DESIGNATED AS TO REMAIN SHALL BE PROTECTED FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. ALL DAMAGE SHALL BE REPAIRED AND REPLACED TO THE CITY OF JERSEY CITY'S SATISFACTION AND REQUIREMENTS.

DURING DEMOLITION WORK, HUDSON, ESSEX, PASSAIC SOIL CONSERVATION DISTRICT MEASURES SHALL BE PUT IN PLACE. REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN.

|                                                                                                                                                                                                                                                                  |                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>C COSTA ENGINEERING CORPORATION</b><br>PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS<br>State of New Jersey Certificate of Authorization No. GA 276726.<br>325 So. RIVER STREET - SUITE 302, HACKENSACK, N.J. 07601<br>TEL. (201) 487-0015 FAX (201) 487-9122 |                                        |
| DRAWING TITLE:                                                                                                                                                                                                                                                   | EXISTING CONDITIONS/DEMOLITION PLAN    |
| PROJECT NAME:                                                                                                                                                                                                                                                    | MULTI-STORY MIXED USE BUILDING         |
| LOCATION:                                                                                                                                                                                                                                                        | BLOCK 20403, LOTS 1 AND 2              |
|                                                                                                                                                                                                                                                                  | 682 N.J. STATE HIGHWAY ROUTE 440       |
|                                                                                                                                                                                                                                                                  | CITY OF JERSEY CITY, HUDSON COUNTY, NJ |
| PROJ. NO. 20-2206                                                                                                                                                                                                                                                | SCALE: 1"=20' DRAWN BY: JEM            |

| DATE | BY | CHKD | DESCRIPTION |
|------|----|------|-------------|
|      |    |      | REVISIONS   |
|      |    |      |             |
|      |    |      |             |
|      |    |      |             |
|      |    |      |             |

|                                                                                 |               |
|---------------------------------------------------------------------------------|---------------|
| ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639<br>PROFESSIONAL ENGINEER AND PLANNER |               |
| SIGNED:                                                                         | DATE: 9-22-21 |
| 0 20 40 60 80<br>GRAPHIC SCALE                                                  |               |

5/8" GROUND ROD (8'-0" LONG) AT ANY  
CONVENIENT LOCATION TO BE CONNECTED TO  
POLE WITH #6 GROUND WIRE

| PLANT LIST: |                                |                                |      |        |         |             |
|-------------|--------------------------------|--------------------------------|------|--------|---------|-------------|
| KEY         | BOTANICAL NAME                 | COMMON NAME                    | QTY. | CAL.   | SIZE    | ROOT        |
| STF         | SORBUS THURINGIACA FASTIGIATA  | COLUMNAR OAKLEAF MOUNTAIN ASH  | 12   | 3-1/2" | 10'-12' | B&B UNIFORM |
| BGV         | BUXUS 'GREEN VELVET'           | GREEN VELVET BOXWOOD           | 33   |        | 18"-24" | B & B       |
| TCG         | TILIA CORDATA 'GREENSPIRE'     | 'GREENSPIRE' LITTLELEAF LINDEN | 7    | 3-1/2" | 7' MIN. | B&B UNIFORM |
| JHP         | JUNIPERUS HORIZONTALIS PLUMOSA | YOUNGSTOWN ANDORRA JUNIPER     | 45   |        | 24" SP. | #3 CAN      |
| AZ          | AZALEA "TRADITION"             | DOUBLE PINK AZALEA             | 9    |        | 18"-24" | #3 CAN      |

[illegible]

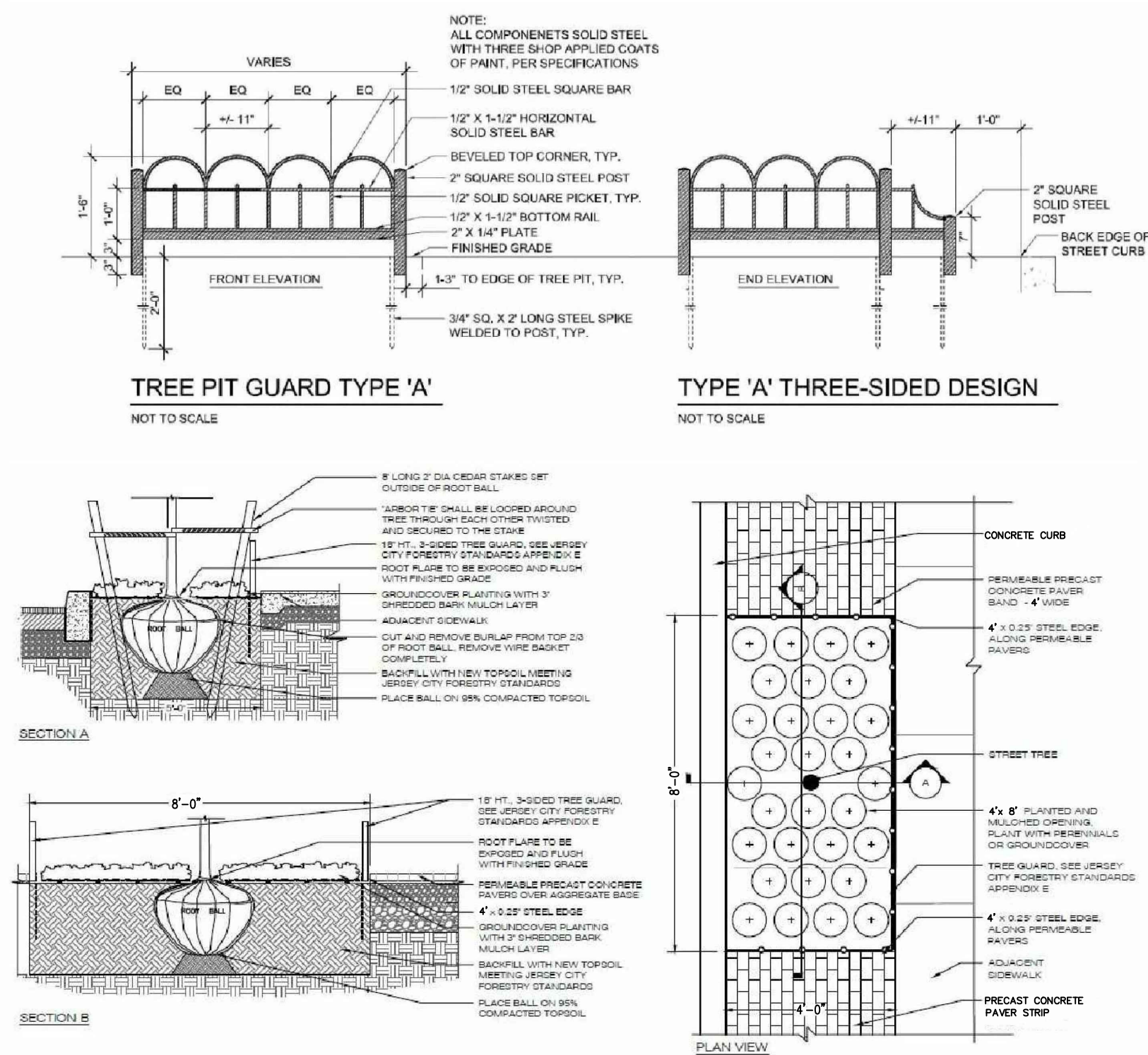
SIGNED:  DATE: 9-22-21

0 20 40 60 80



GRAPHIC SCALE

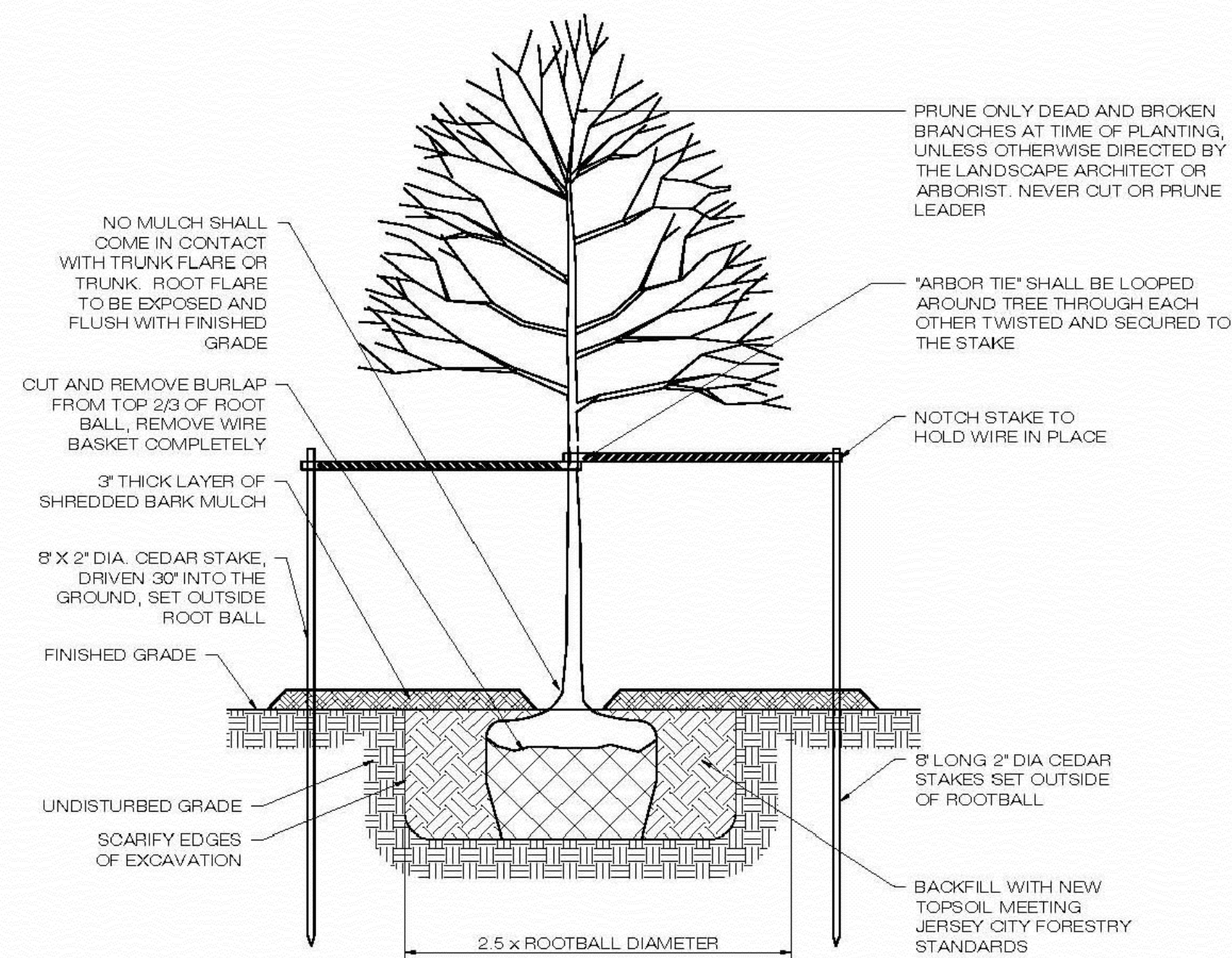
|                                                                                       |                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <h1 style="margin: 0;">COSTA ENGINEERING CORPORATION</h1> <h2 style="margin: 0;">PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS</h2> <p style="margin: 0;">State of New Jersey Certificate of Authorization No. A 27676-76<br/>         325 SO. RIVER STREET • SUITE 300 • ROCKAWAY, N.J. 07866<br/>         TEL (201) 487-0015 FAX (201) 487-5122</p> |
| DRAWING TITLE:<br><br>PROJECT NAME:<br><br>LOCATION:                                  | <p style="margin: 0;"><b>LANDSCAPE AND PEDESTRIAN LIGHTING PLAN</b></p> <p style="margin: 0;">MULTI-STORY MIXED USE BUILDING</p> <p style="margin: 0;">BLOCK 20403, LOTS 1 AND 2</p> <p style="margin: 0;">682 N.J. STATE HIGHWAY ROUTE 440</p> <p style="margin: 0;">CITY OF JERSEY CITY, HUDSON COUNTY, NJ</p>                                      |
| PROJ. NO. <u>20-2206</u>                                                              | SCALE: 1"=20'<br>DRAWN BY: JEM                                                                                                                                                                                                                                                                                                                        |



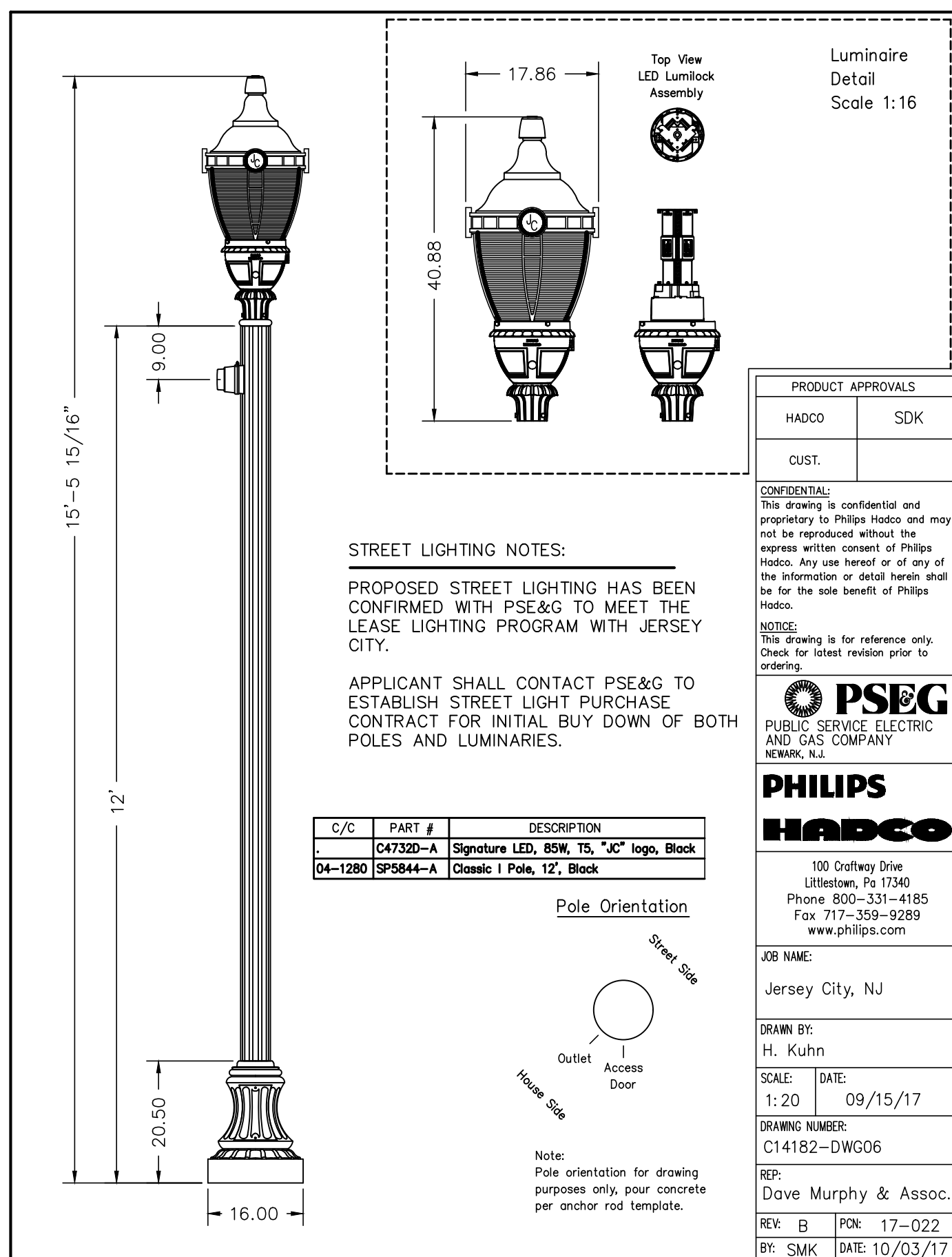
TREE PLANTING NOTES:

1. GAS OR ELECTRICAL LINES SHALL BE 2' MINIMUM FROM EDGE OF TREE PIT. OIL FILLED PIPES SHALL BE 4' MINIMUM FROM EDGE OF TREE PIT. WATER AND SEWER LINES SHALL BE 2' FROM TRUNK.
2. TREES SHALL NOT BE LOCATED IN FRONT OF DRIVEWAYS.
3. MINIMUM RECOMMENDED DISTANCE FROM TREE TRUNK:
  - 3.1. TO UTILITY POLES AND/OR LIGHTS SHALL BE 15'.
  - 3.2. TO WALKWAY SHALL BE 5'.
  - 3.3. TO STREET SIGNS AND TRAFFIC SIGNS SHALL BE 5'.
  - 3.4. TO CURB SHALL BE 7'.
  - 3.5. TO FIRE HYDRANT SHALL BE 3'.
  - 3.6. TO EDGE OF GRAVEL OR INTERSECTION SHALL BE 30'.
4. MINIMUM DISTANCE FROM EDGE OF TREE PIT TO NEAREST WALL OR FENCE SHALL BE 5'.
5. NO TREES SHALL BE INSTALLED BETWEEN UTILITY VAULTS AND CURB.
6. DO NOT PLANT NEW TREES UNDER OVERHEAD BRANCHES OF ADJACENT TREES.
7. TREE GROWTH AND TRUNK SHALL BE FREE OF DEFECTS AND TOE TO FORM.
8. MAINTENANCE TRACKING TAG SHALL BE ATTACHED TO STURDY BRANCH.
9. NO PAVERS, 4 SIDED TREE GUARDS, OR OTHER MATERIALS SHALL BE PLACED WITHIN THE TREE BED.
10. OUT AND REMOVE BURLAP FROM TOP 23 OF ROOT BALL, REMOVE BAGS AND TRUNK PROTECTORS.
11. FLOOD TREES WITH WATER WITHIN THE FIRST 24 HOURS OF PLANTING.
12. USE TREE PROTECTOR SAYER MYCORRHIZAL FUNGAL TRANSPLANT INOCULANT FOR TREES AND SHRUBS. INSTALL ONE 3 OUNCE PACKET PER CALIPER INCH OR PER 1 FOOT OF ROOTBALL DIA.
13. CONTRACTOR SHALL HAVE A GUARANTEE PERIOD OF 2 YEARS.
14. TOPSOIL SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
  - 14.1. NATURAL LOAM WITH THE ADDITION OF COMPOST OR HUMUS.
  - 14.2. TOPSOIL MOISTURE CONTENT SHALL BE BETWEEN 5% - 12%.
  - 14.3. THE PH SHALL BE IN THE RANGE OF 6.0 TO 7.0 INCLUSIVE, UNLESS OTHERWISE APPROVED OR SPECIFIED BY THE JERSEY CITY FORESTER.
  - 14.4. TOPSOIL SUBSTRATIS: TOP SOIL SHALL CONSIST OF THE FOLLOWING PERCENTAGES OF SAND, SILT, AND CLAY. ANY SOIL THAT DOES NOT MEET THE REQUIREMENTS BELOW WILL BE REJECTED AND REMOVED FROM THE SITE.

|                       | ROCKS, STONE AND GRAVEL > 2.0 mm | <5%         |
|-----------------------|----------------------------------|-------------|
| SAND (0.05 - 0.25 mm) |                                  | 40 - 60%    |
| SILT (0.002 - 0.05mm) |                                  | 20 - 50%    |
| CLAY (<0.002 mm)      |                                  | 20% MAXIMUM |
  - 14.5. WHEN TOPSOIL OTHERWISE COMPLIES WITH THE REQUIREMENTS OF THE SPECIFICATION BUT SHOWS A SIGNIFICANT CLAY OR SILT CONTENT, THE CONTRACTOR SHALL BE INCORPORATED WHEN AND AS PERMITTED BY THE FORESTER.
15. ROOT BALL SIZE RELATIVE TO TREE HEIGHT SHALL BE WITHIN THE RANGES SET BY THE AMERICAN NURSERY STANDARDS



## TREE PLANTING DETAIL



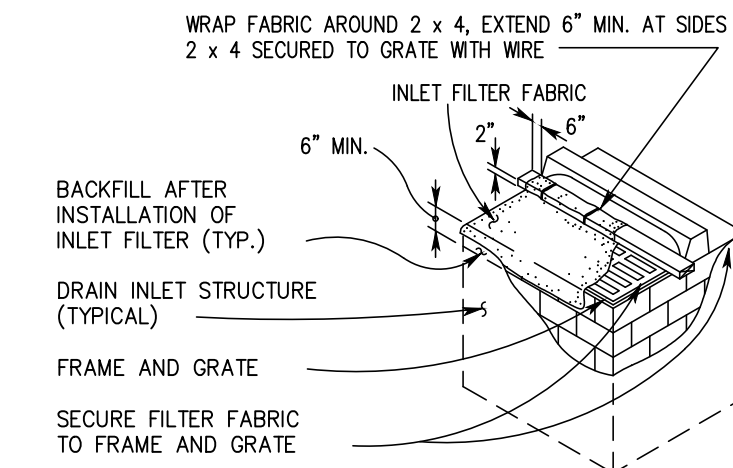
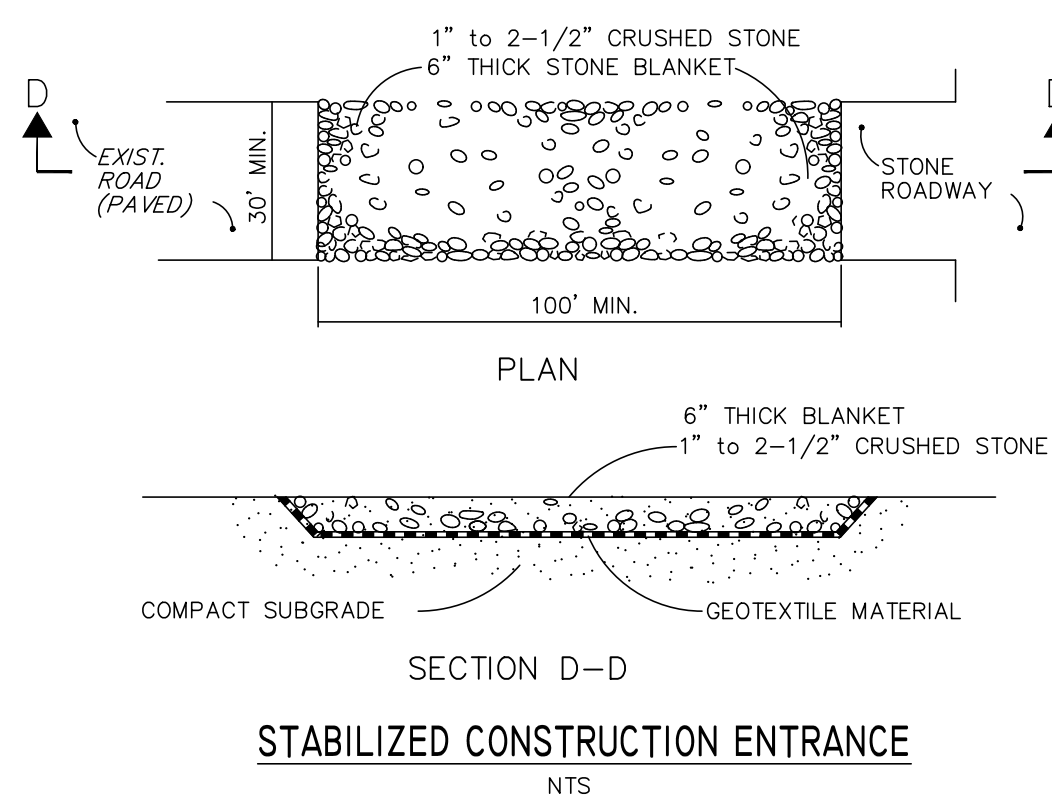
## PEDESTRIAN LIGHTING DETAIL

SOIL EROSION AND SEDIMENT CONTROL NOTES

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 restabilization 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 restabilization 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 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.**

CONSTRUCTION SEQUENCE:

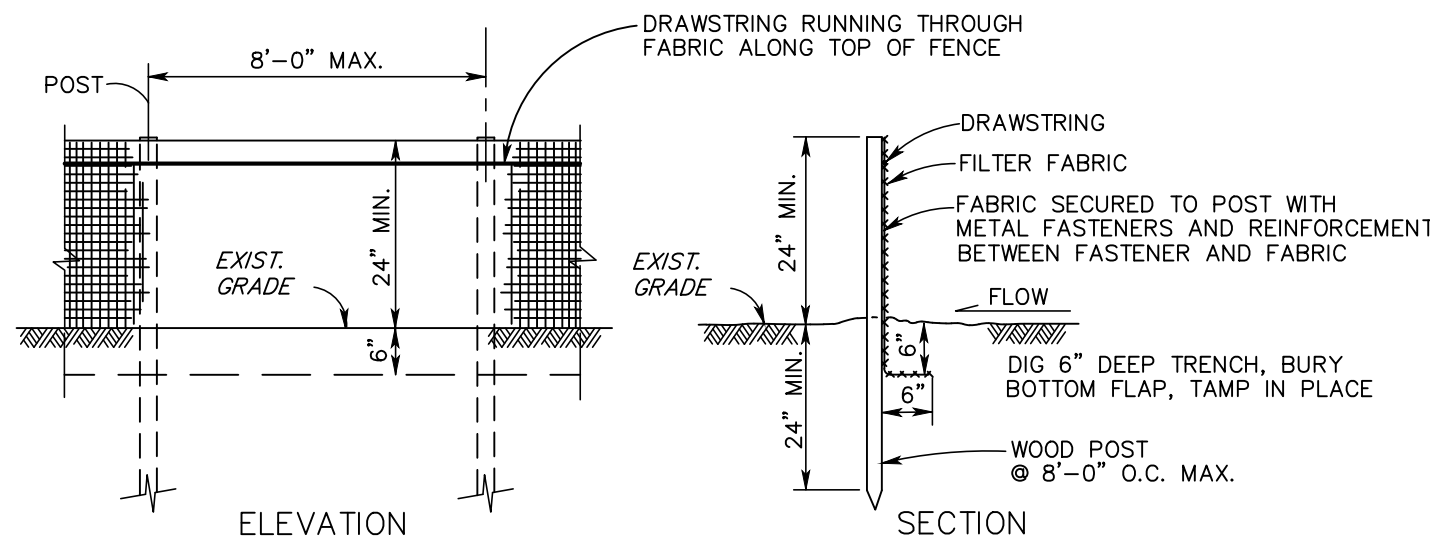
1. The Soil Conservation District shall be notified in writing 72 hours prior to any land disturbance.
2. Remove all macadam, concrete and existing structures from area of construction as shown on plans (one week).
3. Construct stabilized construction access as shown on plans (one day).
4. Install sediment fence as shown on plans (one day).
5. rough grade to proposed grades as shown on plans (three days).
5. Construct proposed drainage as shown on plans (four days).
6. Construct proposed building foundation as shown on Architectural and Engineering plans (four weeks).
7. Construct proposed sanitary sewer connection as shown on plans (two days).
8. Construct all remaining underground utilities where shown on plans (three days).
9. Complete construction of proposed building as shown on Architectural and Engineering plans (eighteen months).
10. Complete construction of all adjacent concrete sidewalks and curbing as shown on plans (four days).
11. Apply topsoil and landscape all areas as shown on the Landscape & Lighting Plan (four days).
12. Upon completion of all stabilization, remove all erosion control devices (one day).
13. The contractor shall be responsible for the installation and maintenance of all erosion control devices prior to and during construction.



- NOTES:
1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
  2. CONTRACTOR TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING.
  3. IF BOTTOM OF ROADWAY IS BELOW TOP OF INLET GRATE, CONSTRUCT PROPERLY FITTED OPENING(S) IN INLET WALL TO ALLOW PASSAGE OF WATER.
  4. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

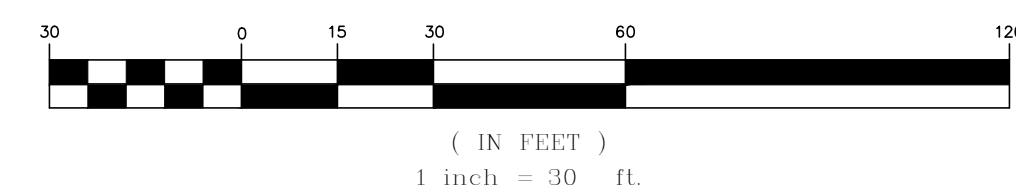
INLET FILTER BARRIER PROTECTION DETAIL

NTS



SEDIMENT FENCE BARRIER

GRAPHIC SCALE



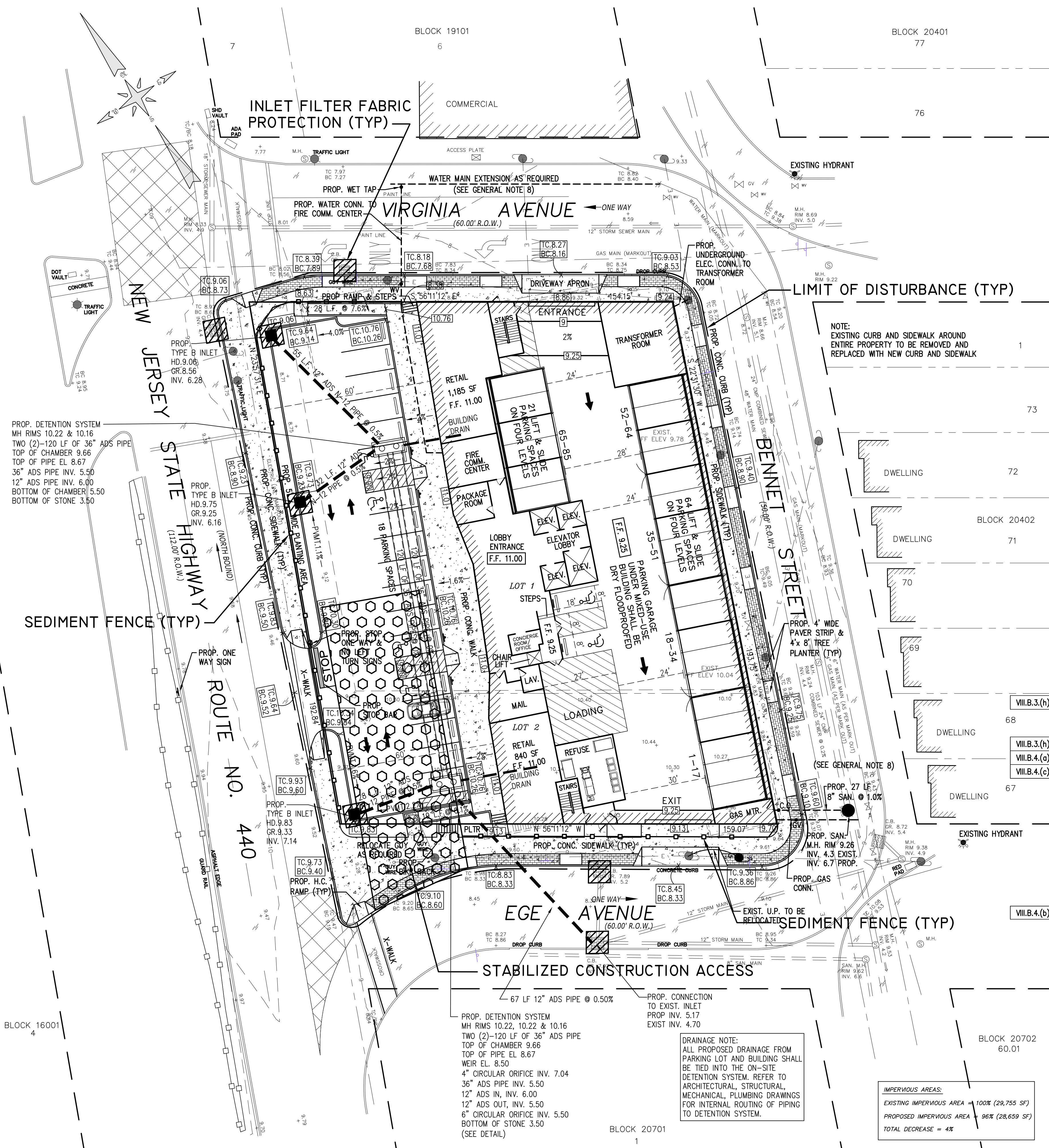
FINAL FOR SEWER DESIGN

ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639  
PROFESSIONAL ENGINEER AND PLANNER

SIGNED:  DATE: 9-22-21



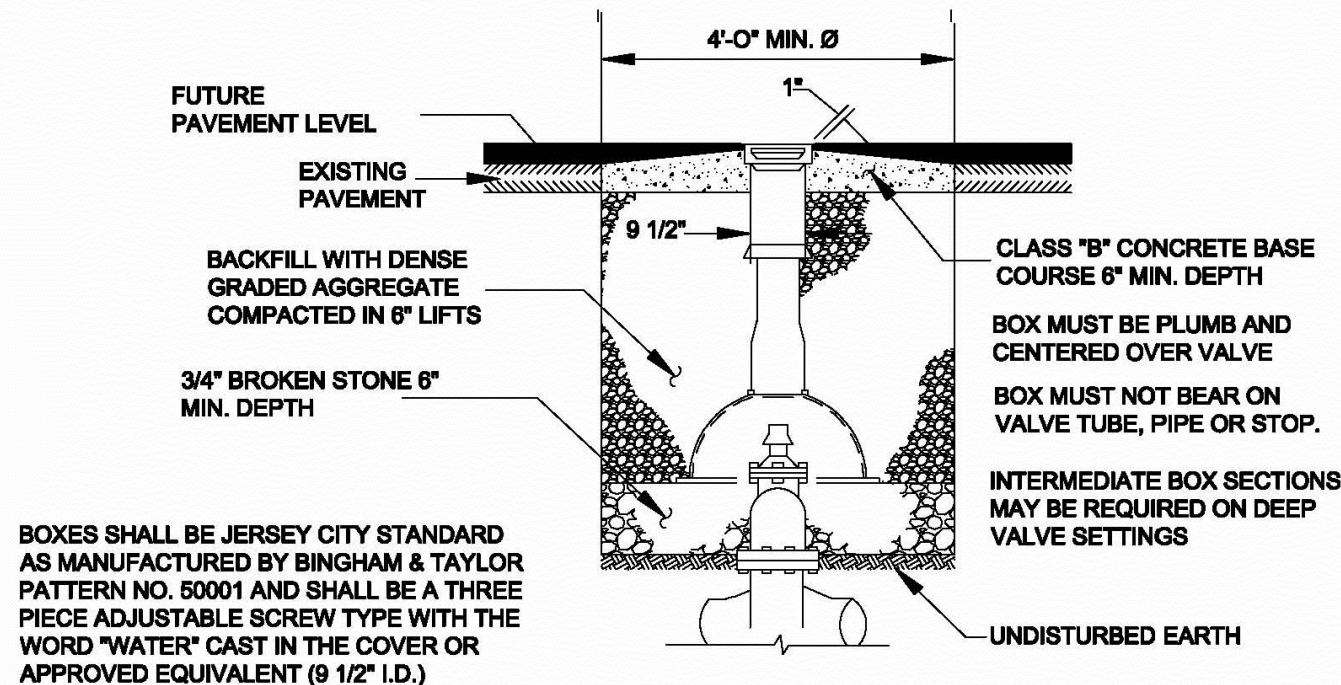
|                                                                                                                                                                                                                                                                        |                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>C</b> <b>COSTA ENGINEERING CORPORATION</b><br>PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS<br>State of New Jersey Certificate of Authorization No. GA 276726,<br>325 So. RIVER STREET - SUITE 302, HACKENSACK, N.J. 07601<br>TEL (201) 487-0015 FAX (201) 487-9122 |                                        |
| DRAWING TITLE:                                                                                                                                                                                                                                                         | SOIL EROSION AND SEDIMENT CONTROL PLAN |
| PROJECT NAME:                                                                                                                                                                                                                                                          | MULTI-STORY MIXED USE BUILDING         |
| LOCATION:                                                                                                                                                                                                                                                              | BLOCK 20403, LOTS 1 AND 2              |
|                                                                                                                                                                                                                                                                        | 682 N.J. STATE HIGHWAY ROUTE 440       |
|                                                                                                                                                                                                                                                                        | CITY OF JERSEY CITY, HUDSON COUNTY, NJ |
| PROJ. NO. 20-2206                                                                                                                                                                                                                                                      | SCALE: 1"=20' DRAWN BY: JEM            |



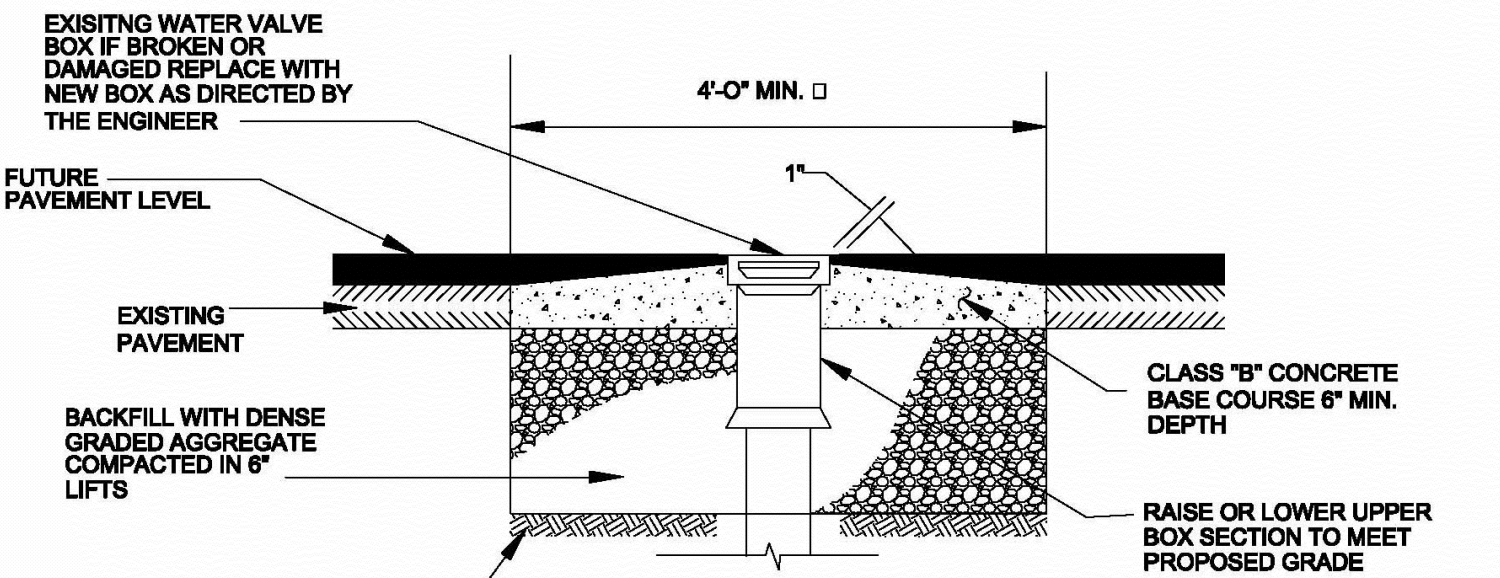
This project is exempt from soil de-compaction  
remediation and testing as it is located in an Urban  
Redevelopment Area

AREA OF DISTURBANCE  
= 38,463 S.F. OR 0.883 AC.

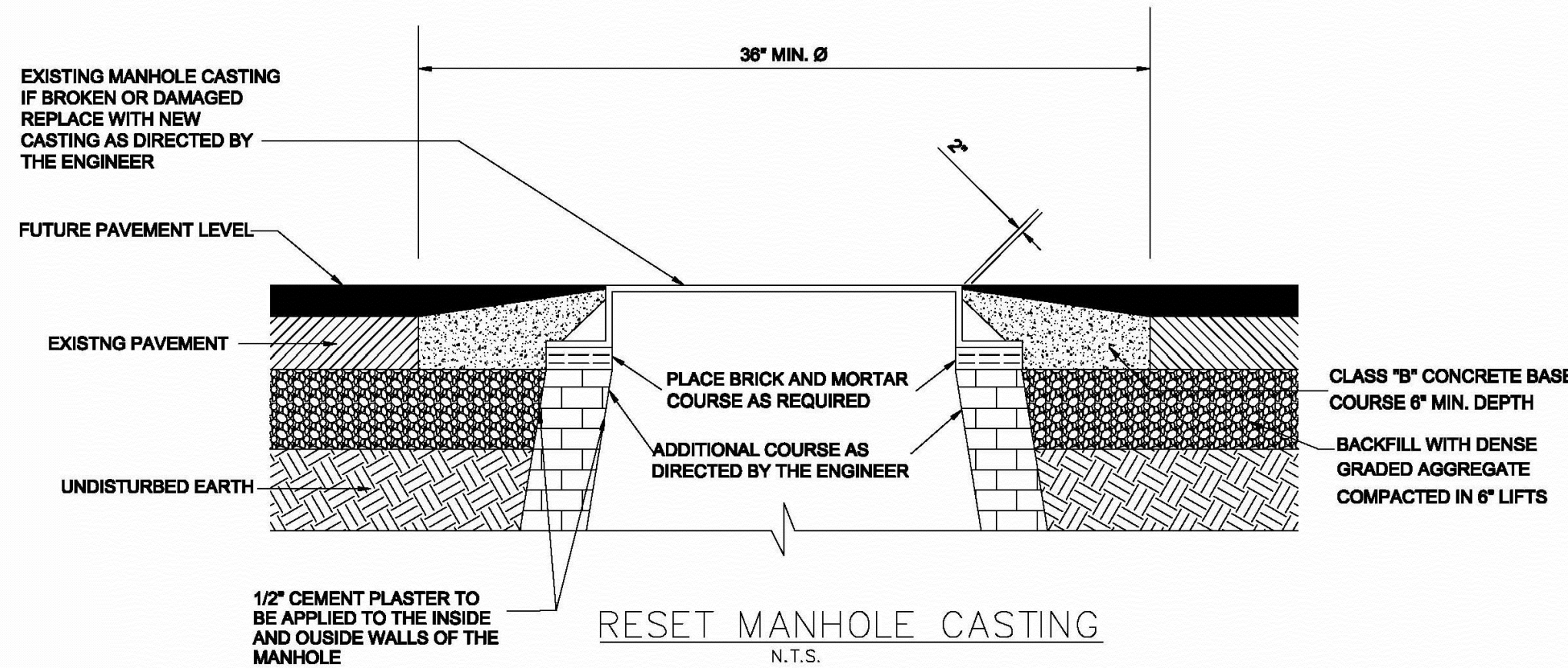
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|      |    |      | REVISIONS   |



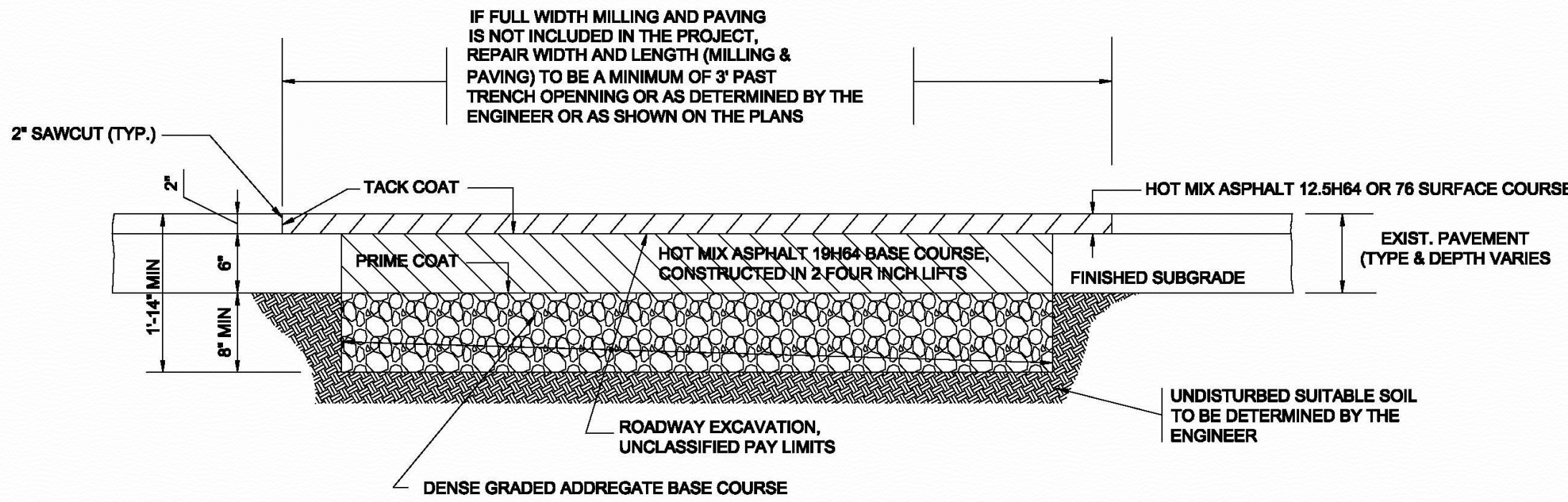
NEW WATER VALVE BOX DETAIL  
N.T.S.



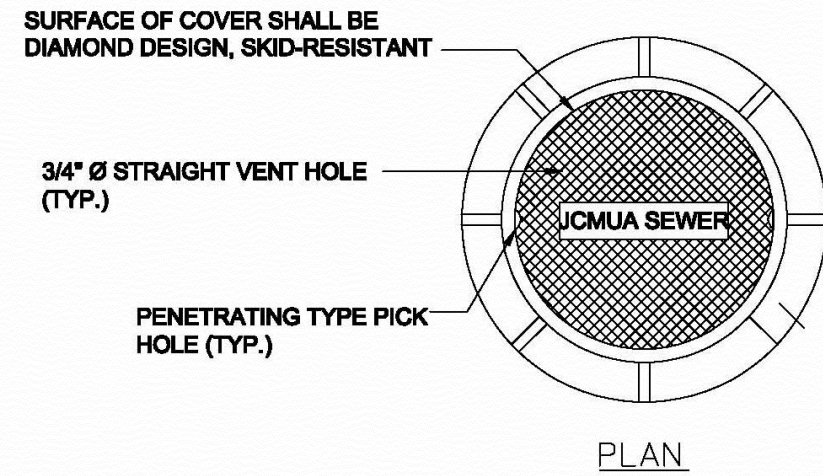
RESET WATER VALVE BOX  
N.T.S.



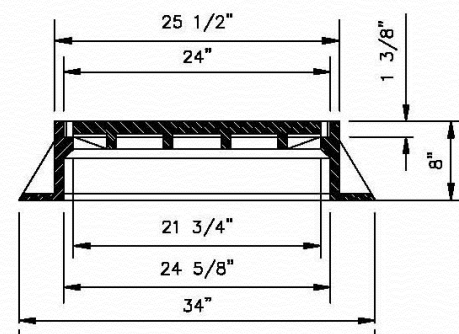
RESET MANHOLE CASTING  
N.T.S.



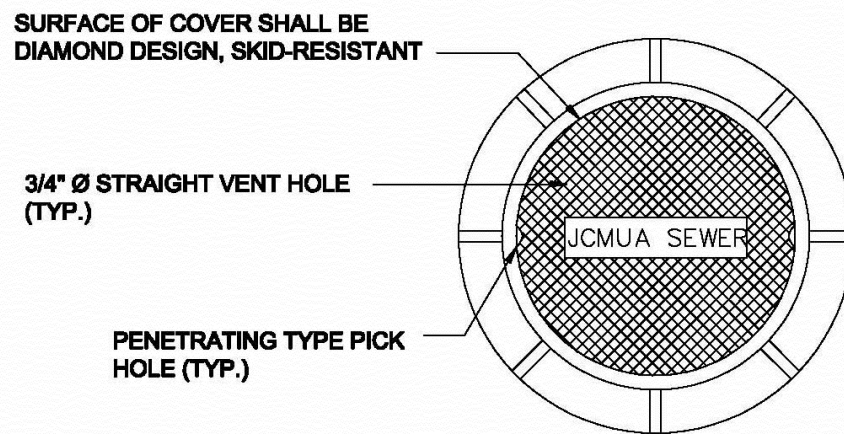
HOT MIX ASPHALT PAVEMENT REPAIR  
N.T.S.



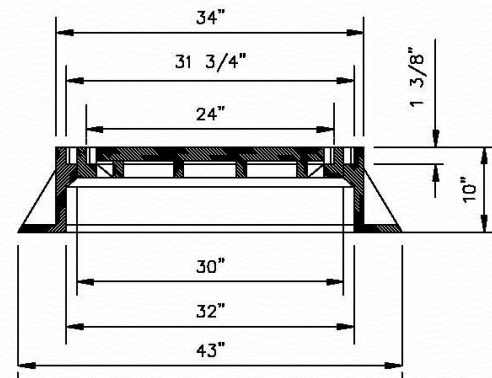
STANDARD J.C.M.U.A.  
MANHOLE FRAME AND COVER  
(FOR EXISTING MANHOLE CASTING REPLACEMENT ON MANHOLES WITH 24\"/>



SECTION

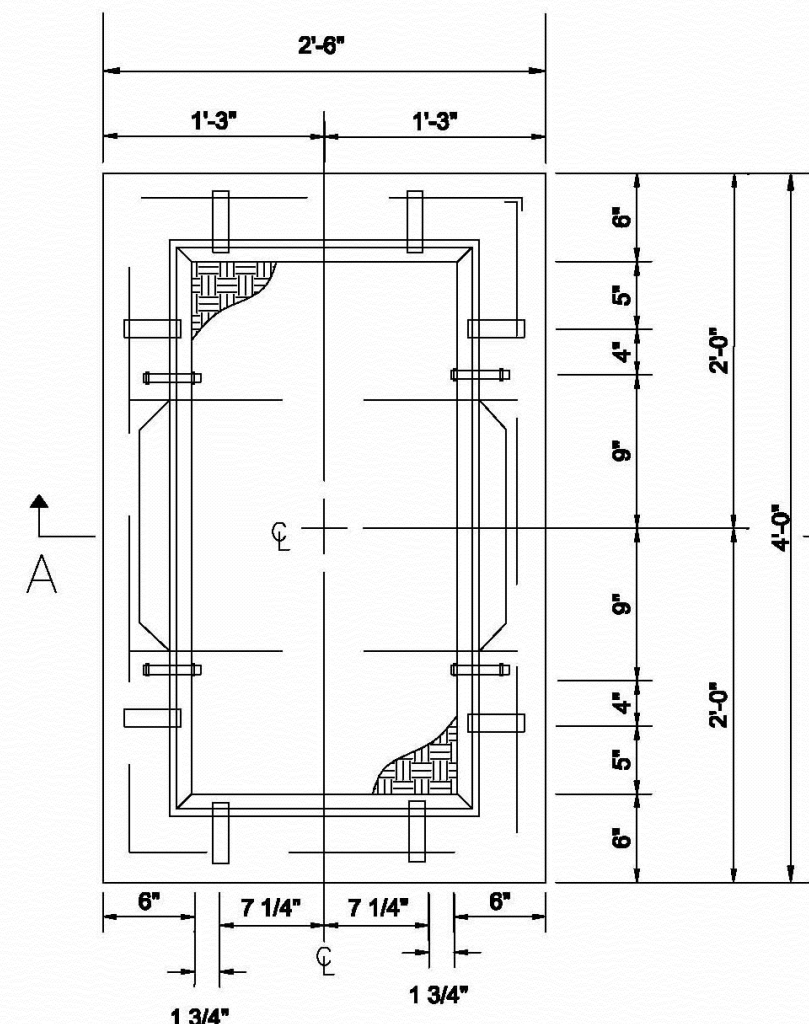


PLAN

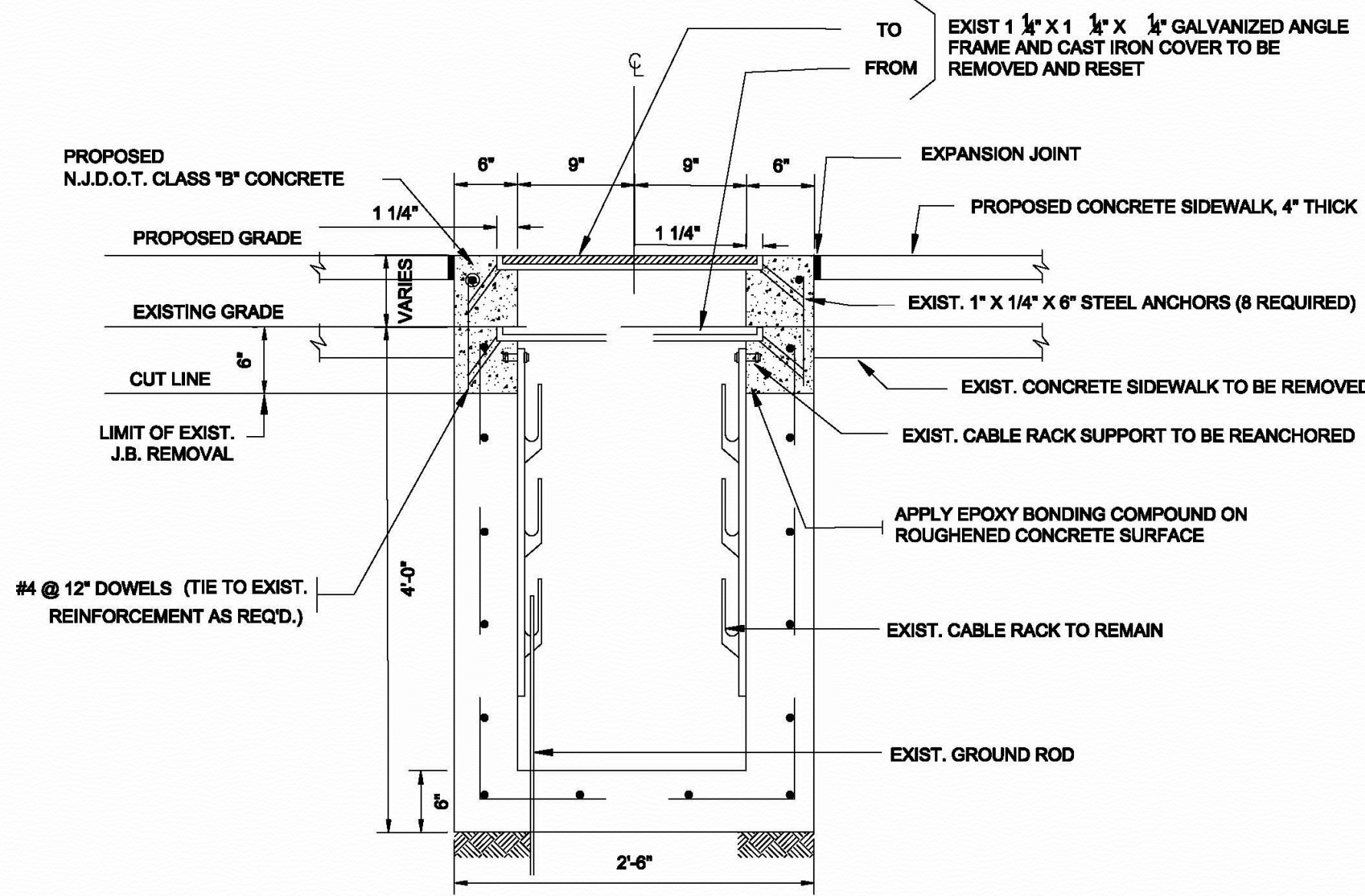


SECTION

STANDARD J.C.M.U.A.  
MANHOLE FRAME AND COVER  
(FOR NEW MANHOLE CONSTRUCTION WITH STANDARD 30\"/>



PLAN  
RESET JUNCTION BOX CASTING  
N.T.S.



SECTION A-A  
RESET JUNCTION BOX CASTING  
N.T.S.

City of Jersey City  
Division of Engineering  
575 ROUTE 440  
JERSEY CITY, NEW JERSEY 07305  
(201) 547-4412



CITY OF JERSEY CITY  
STANDARDS

William R. Goble, P.E.  
Director  
Division of Engineering  
NJ P.E. Lic. No. 24798

Valve Box, Manhole Covers and  
Pavement Repairs

DRAWING

SHEET

6  
17

DRAWN BY: DESIGNED BY: CHECKED BY:  
PROJECT NO.: CADD FILE: SCALE:

Date

FINAL FOR SEWER DESIGN

| DATE | BY | CHKD | DESCRIPTION |
|------|----|------|-------------|
|      |    |      | REVISIONS   |

ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639  
PROFESSIONAL ENGINEER AND PLANNER

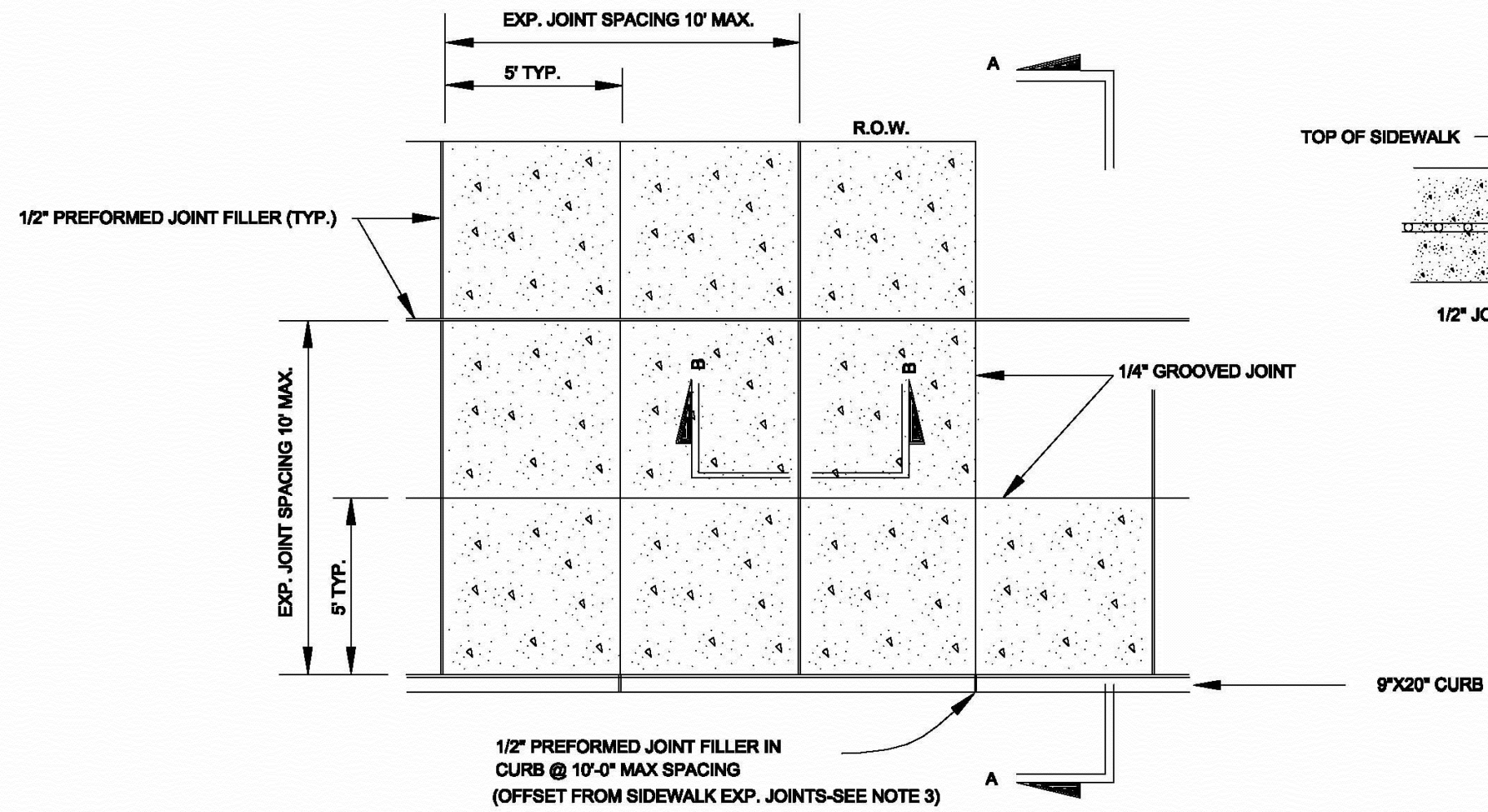
SIGNED: DATE: 9-22-21

0 20 40 60 80

GRAPHIC SCALE

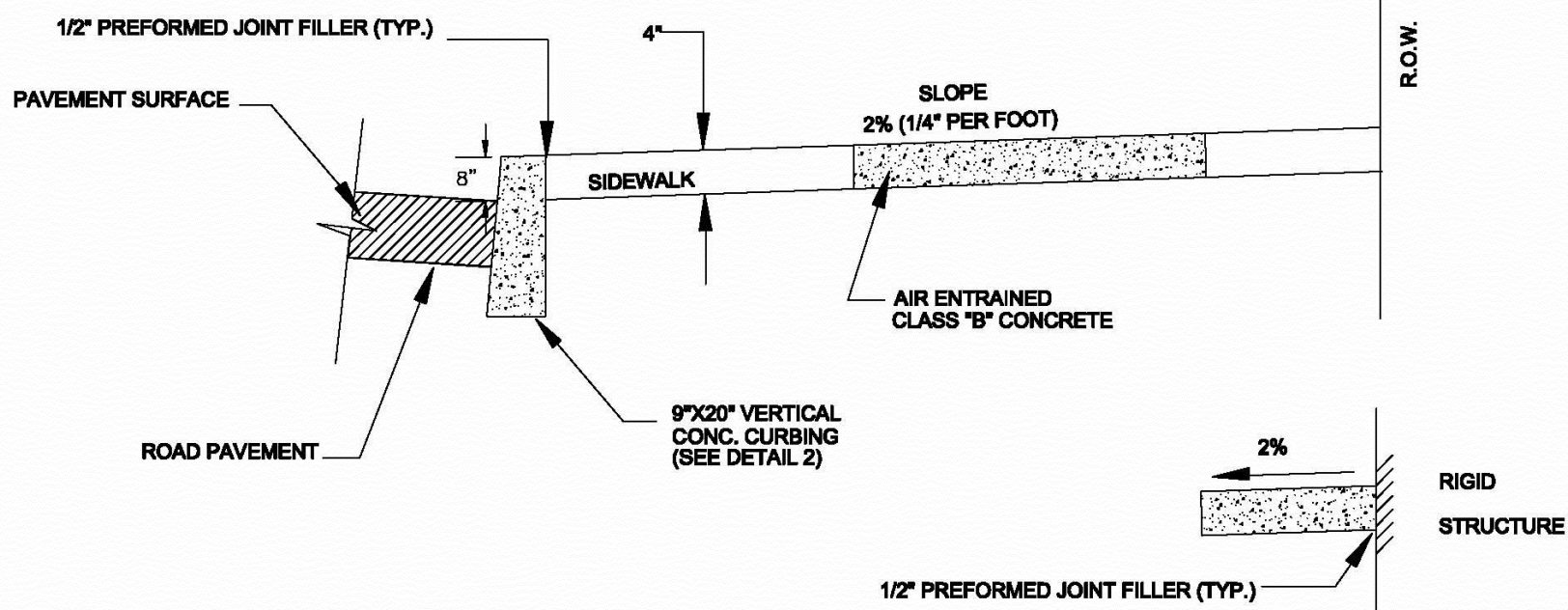
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| <b>C</b> COSTA ENGINEERING CORPORATION<br>PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS<br>State of New Jersey Certificate of Authorization No. GA 276726.<br>325 So. RIVER STREET - SUITE 302, HACKENSACK, N.J. 07601<br>TEL (201) 487-0015 FAX (201) 487-5122 | DRAWING TITLE: | CONSTRUCTION DETAILS                   |
|                                                                                                                                                                                                                                                                 | PROJECT NAME:  | MULTI-STORY MIXED USE BUILDING         |
|                                                                                                                                                                                                                                                                 | LOCATION:      | BLOCK 20403, LOTS 1 AND 2              |
|                                                                                                                                                                                                                                                                 |                | 682 N.J. STATE HIGHWAY ROUTE 440       |
|                                                                                                                                                                                                                                                                 |                | CITY OF JERSEY CITY, HUDSON COUNTY, NJ |
| PROJ. NO. 20-2206                                                                                                                                                                                                                                               | SCALE: AS SHN. | DRAWN BY: JEM.                         |

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10



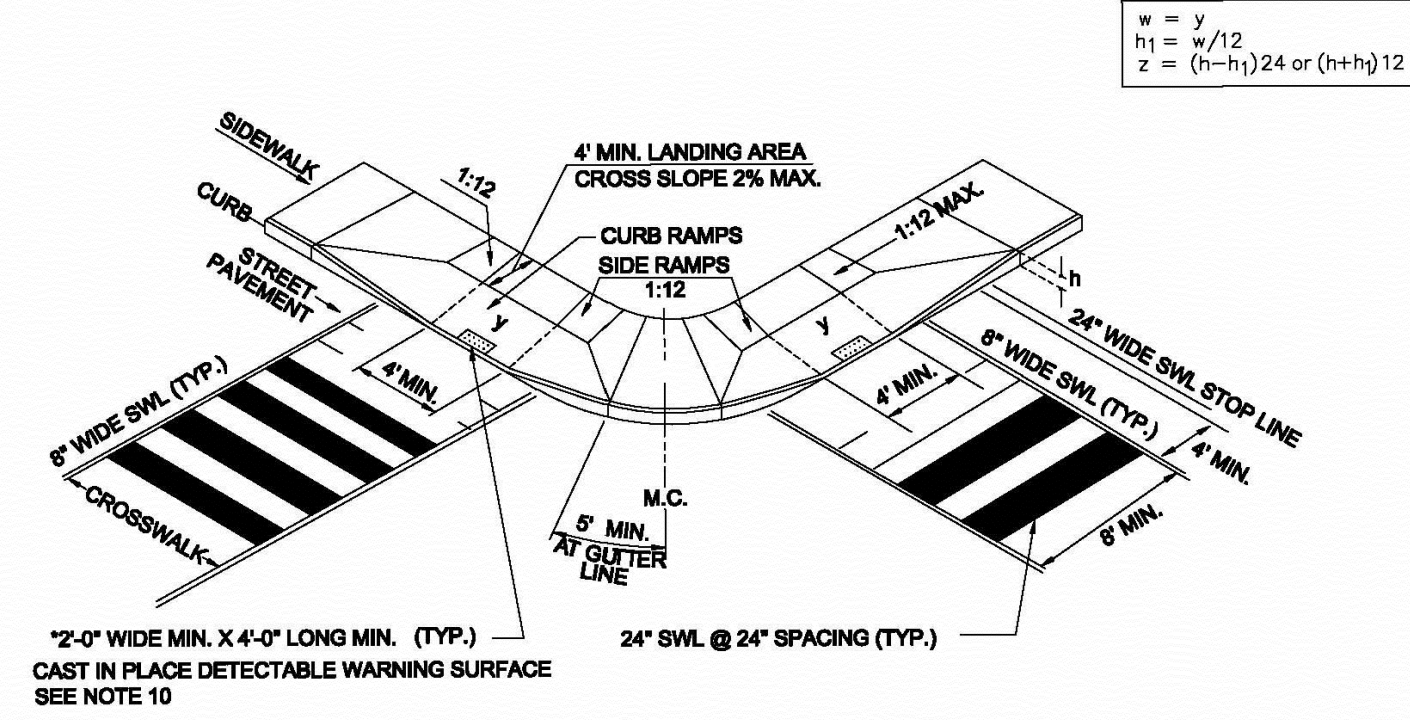
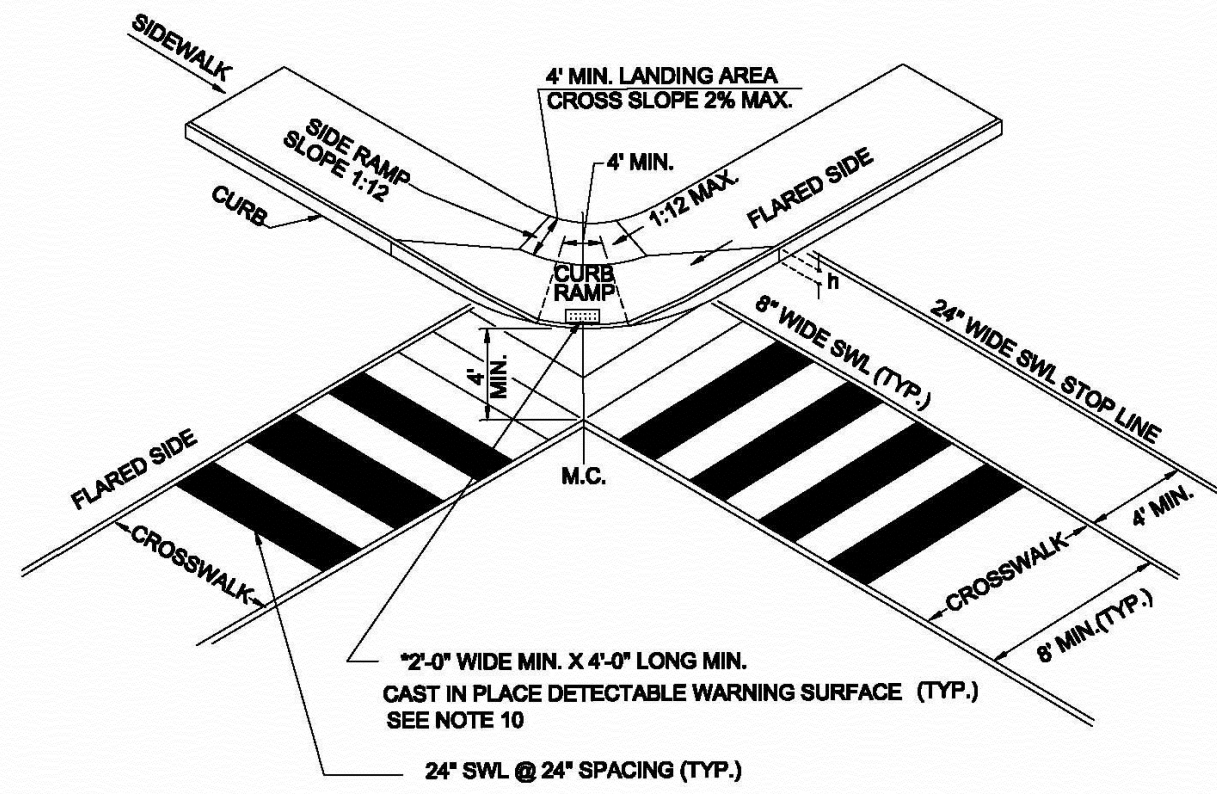
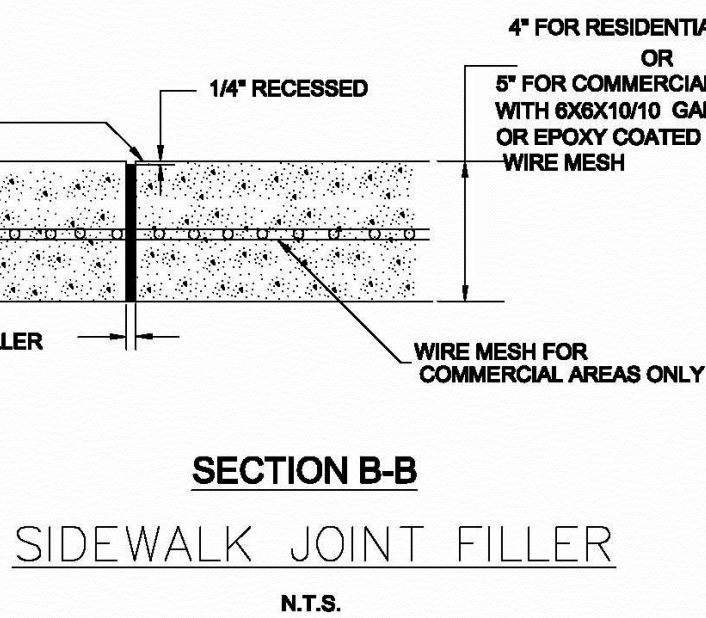
PLAN

TYPICAL CONCRETE SIDEWALK



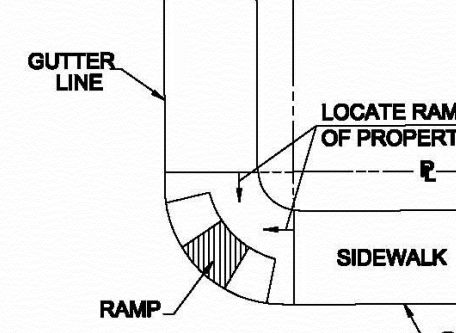
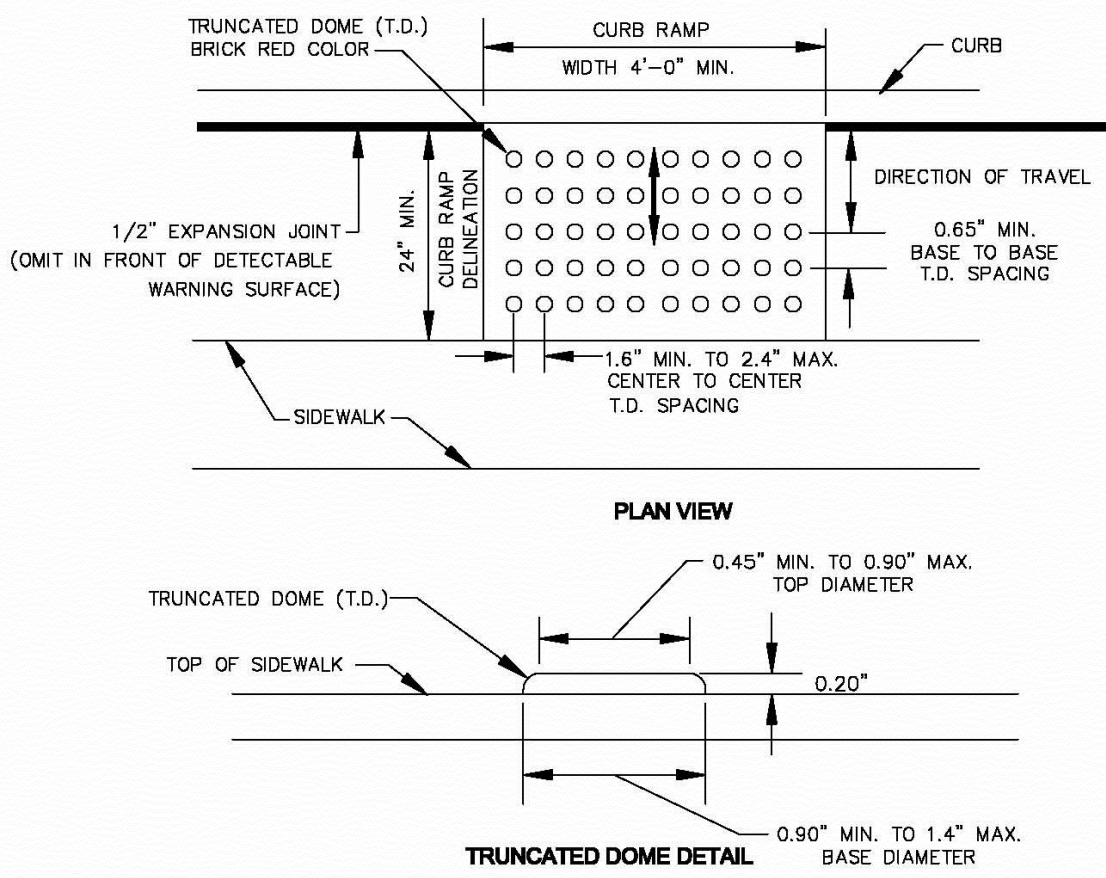
SECTION A-A

N.T.S.



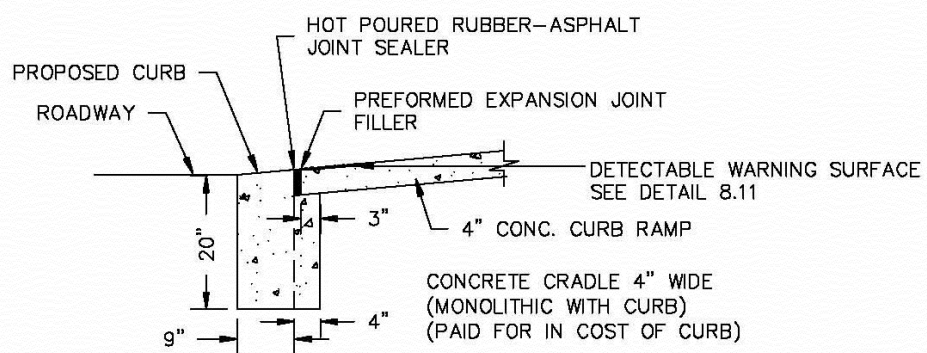
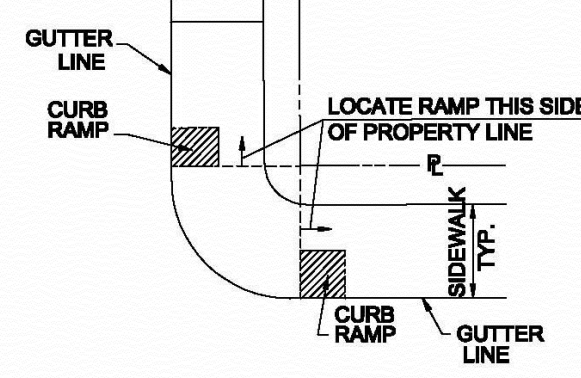
NOTE:

RAMPS TO BE INSTALLED AND CONSTRUCTED IN ACCORDANCE WITH THE "BARRIER FREE DESIGN REGULATIONS" AS ADOPTED BY THE STATE OF NEW JERSEY AND AS MAY BE AMENDED.



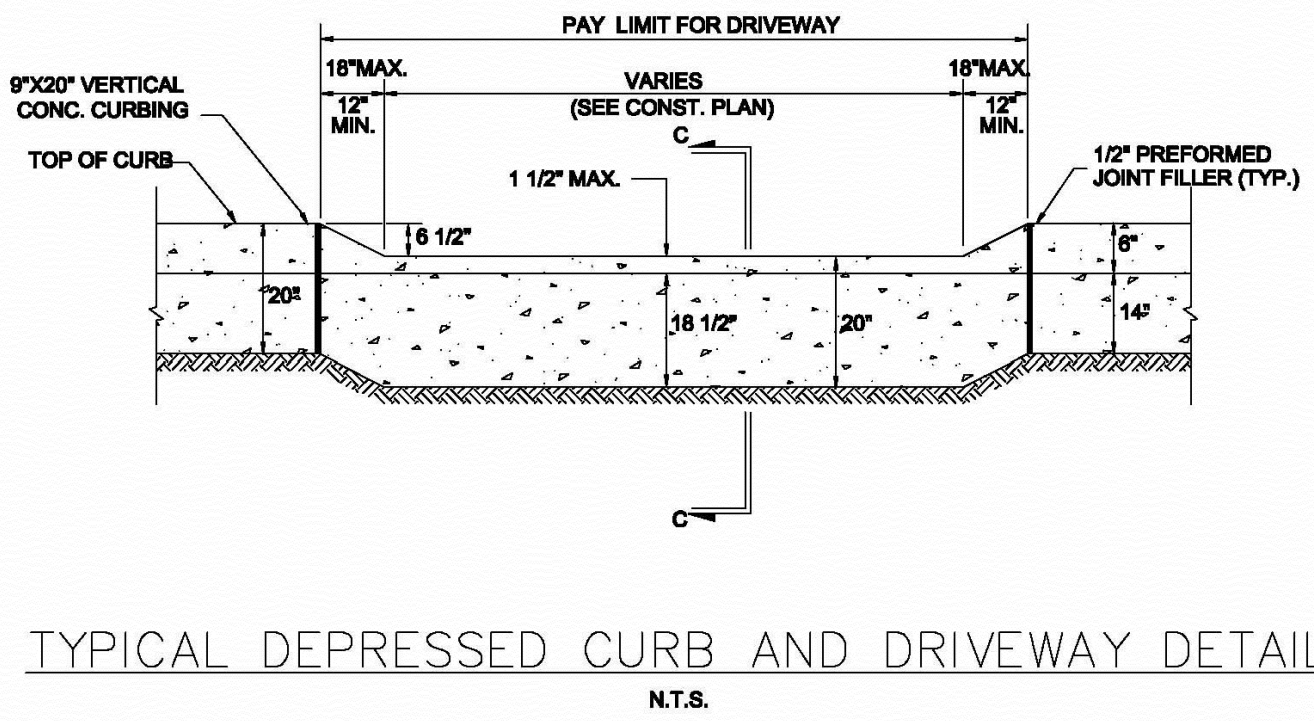
SECTION THROUGH RAMP FOR DOUBLE AND SINGLE RAMPS

N.T.S.



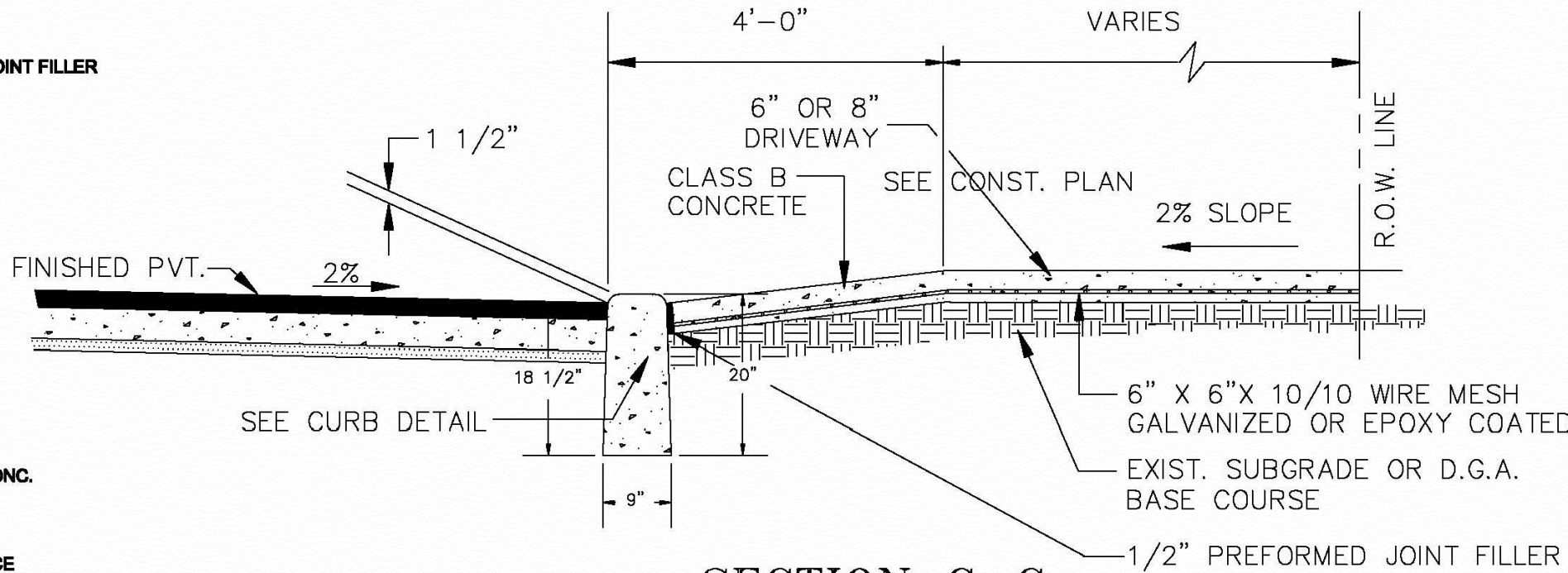
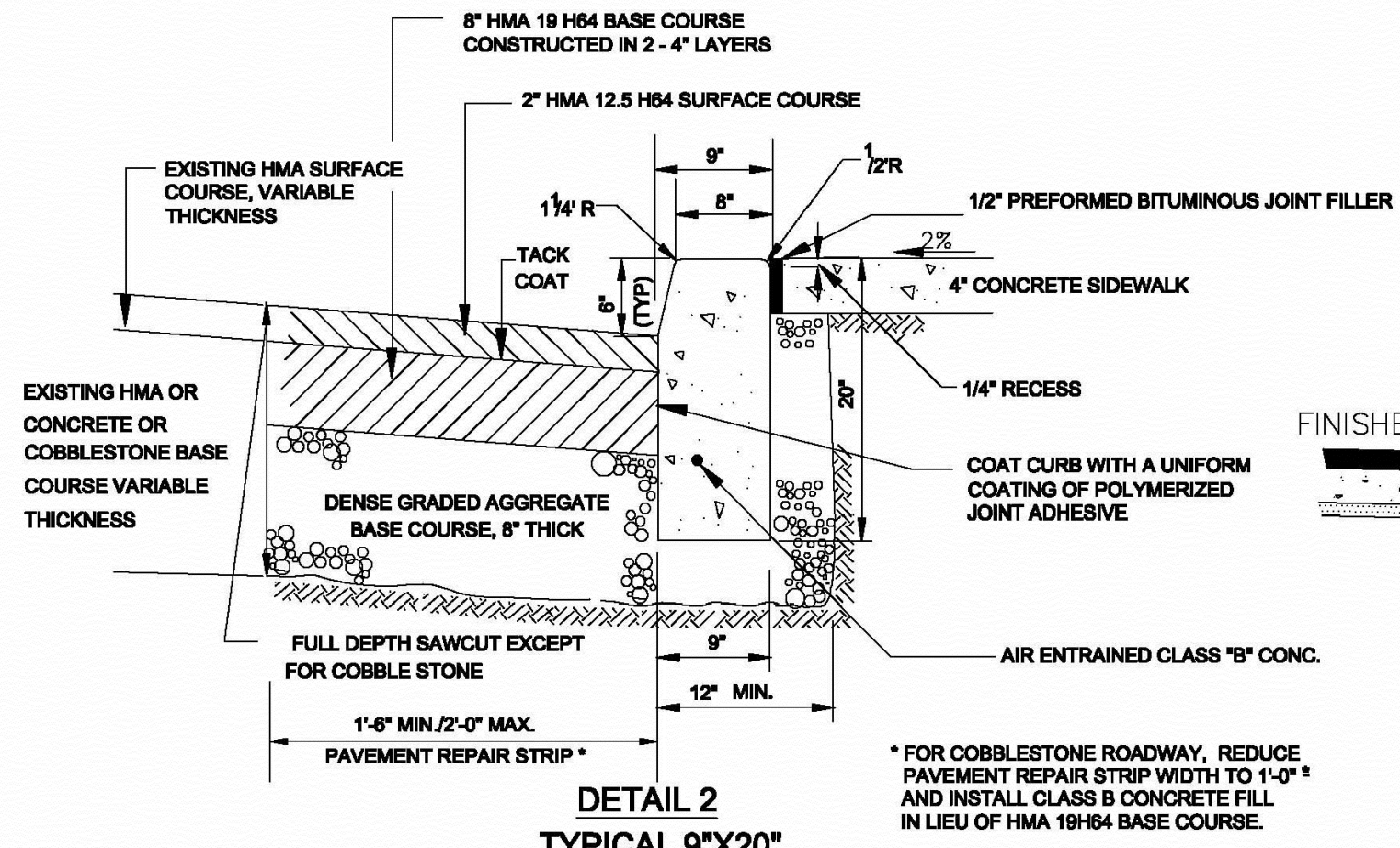
CURB & SIDEWALK NOTES:

- ALL CURBING AND SIDEWALK SHALL BE CONSTRUCTED OF AIR ENTRAINED CLASS B CONCRETE, (N.J.D.O.T. SPECS)
- A 1/2" PREFORMED EXPANSION JOINT FILLER BITUMINOUS TYPE, CONFORMING TO A.A.S.H.T.O. SPECS M-33 IS TO BE INSTALLED BETWEEN THE CURBING AND CONCRETE SIDEWALK AND AT 10' MAX. SPACING (TRANSVERSE AND LONGITUDINAL) IN THE SIDEWALK, RECESSED 1/4" IN FROM TOP OF SIDEWALK.
- TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURBING 10'-0" APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS FILLER OF A.A.S.H.T.O. SPECS M-33 FLUSH WITH THE TOP AND FACE OF CURB.
- COST OF EXPANSION JOINTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SIDEWALK AND CURBING.
- ALL SIDEWALK, CURB RAMPS AND SIDE RAMPS SHALL HAVE A HAND BROOMED FINAL FINISH.
- THE NORMAL PAVEMENT EDGE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE CURB RAMPS.
- COST OF ANY DENSE GRADED AGGREGATE NEEDED FOR CURB AND SIDEWALK CONSTRUCTION WILL BE PAID FOR UNDER THE ITEM D.G.A.
- CONCRETE CURB SHALL NOT BE CONSTRUCTED FROM NOVEMBER 1 TO MARCH 15 UNLESS WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
- IMMEDIATELY AFTER THE CONCRETE HAS BEEN FINISHED, THE CONTRACTOR SHALL APPLY A COMPLETE UNIFORM COAT OF CURING COMPOUND AT A RATE OF NOT LESS THAN ONE (1) GALLON PER 200 SQUARE FEET.
- DETECTABLE WARNING SURFACE SHALL BE "ARMOR-TILE" TAC TILE SYSTEMS AS MANUFACTURED BY ENGINEERED PLASTICS INC. WILLIAMSVILLE, NEW YORK, TELEPHONE NO. 1-800-882-0325 OR APPROVED EQUIVALENT. TACTILE TILE SIZE SHALL BE A MINIMUM OF 24"x48" AND SHALL BE A BRICK RED COLOR. DETECTABLE WARNING SURFACES SHALL BE INSTALLED ACCORDING TO THE CORRESPONDING CONSTRUCTION DETAILS SHOWN ON THE PLANS. THE MANUFACTURER'S RECOMMENDATION AND ACCORDING TO SUBSECTION 807 OR SUBPART 8 DETECTABLE WARNING SURFACES OF THE NJDOT STANDARD SPECIFICATIONS AS AMENDED BY JERSEY CITY SUPPLEMENTARY SPECIFICATIONS.
- ALL TRAFFIC STRIPES AND MARKINGS SHALL BE LONG-LIFE, THERMOPLASTIC IN ACCORDANCE WITH SECTION 615 - TRAFFIC STRIPES AND MARKINGS OF THE NJDOT STANDARD SPECIFICATIONS AS AMENDED BY JERSEY CITY SUPPLEMENTARY SPECIFICATIONS.



TYPICAL DEPRESSED CURB AND DRIVEWAY DETAIL

N.T.S.



TYPICAL 9'x 20" CONCRETE VERTICAL CURB/DRIVEWAY DETAIL

N.T.S.

City of Jersey City  
Division of Engineering

575 ROUTE 440  
JERSEY CITY, NEW JERSEY 07305  
(201) 547-4412



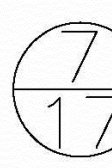
CITY OF JERSEY CITY  
STANDARDS

William R. Goble, P.E.  
Director  
Division of Engineering  
NJ P.E. Lic. No. 24798

Curb and Sidewalk

DRAWING

SHEET



|     |                        |      |
|-----|------------------------|------|
| 1   | Extensive Changes Made | 7/09 |
| NO. | REVISIONS              | DATE |

|     |           |      |
|-----|-----------|------|
| NO. | REVISIONS | DATE |
|-----|-----------|------|

FINAL FOR SEWER DESIGN

|      |    |      |             |
|------|----|------|-------------|
| DATE | BY | CHKD | DESCRIPTION |
|      |    |      | REVISIONS   |

ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639  
PROFESSIONAL ENGINEER AND PLANNER

SIGNED: DATE: 9-22-21

0 20 40 60 80  
GRAPHIC SCALE

**C COSTA ENGINEERING CORPORATION**  
PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS  
State of New Jersey Certificate of Authorization No. GA 276726.  
325 So. RIVER STREET - SUITE 302, HACKENSACK, N.J. 07601  
TEL (201) 487-0015 FAX (201) 487-5122

|                   |                                        |
|-------------------|----------------------------------------|
| DRAWING TITLE:    | CONSTRUCTION DETAILS                   |
| PROJECT NAME:     | MULTI-STORY MIXED USE BUILDING         |
| LOCATION:         | BLOCK 20403, LOTS 1 AND 2              |
|                   | 682 N.J. STATE HIGHWAY ROUTE 440       |
|                   | CITY OF JERSEY CITY, HUDSON COUNTY, NJ |
| PROJ. NO. 20-2206 | SCALE: 1"=20'                          |
| DRAWN BY: JEM     | 8                                      |

**JERSEY CITY MUNICIPAL UTILITIES AUTHORITY  
STANDARD REQUIREMENTS FOR NEW  
SANITARY AND STORM SEWERS  
AND SERVICE LATERALS**

Plans and any additional information as applicable must be presented to the JCMUA for review and comments for all proposed sanitary and storm sewer connections to the JCMUA sewer system or that are proposed in Jersey City. Repairs to existing services do not require the review and approval of the JCMUA. All plans must be signed and sealed by a Professional Engineer or Registered Architect licensed to practice in New Jersey and submitted to the JCMUA's Sewer Engineering Office, 555 Route 440, Jersey City, NJ 07305 for approval.

The following technical requirements shall be addressed in preparation of site/utility plans:

- Bedding and backfill material shall comply with the requirements of the NJDOT's Standard Specification for Road and Bridge Construction, and the Design and Construction of Urban Stormwater Management Systems, ASCE Manuals and Reports of Engineering Practice No. 77, 1993, as applicable.
- All sewer service connections 6-inches in size or smaller must be made directly to the sewer main and all connections 8-inches in size or larger must be made to a manhole. Where a connection to a manhole is required, manhole bench and channel may require modification.
- The JCMUA requires that sewer service connections to be re-used be televised to verify their integrity and that the pipe is free from any defects.
- Each building connection requires a curb cleanout (refer to attached detail drawings). T-Wye cleanouts which enable cleaning in both directions should be installed on both the storm and sanitary lateral.
- Proposed sewer lateral connection to JCMUA's sewer main shall be made above horizontal center line of pipe (refer to attached sewer service connection details).
- The size, material, depth, condition, direction of flow and any other relevant conditions of the existing JCMUA sewer to which you plan to connect must be field verified by developer to determine if said connection is physically possible and practical. In addition, manhole inverts and rim elevation must be shown on plans. This verification is to be included on the plans for the project.
- Circular hole saws which are approximately sized or hand drills must be used to make the openings in the existing sewer to receive the laterals. Jackhammers, sledgehammers and other unsuitable tools or machinery which may damage the JCMUA's sewer main are not allowed to be used to make the lateral openings. All debris must be removed and not allowed to fall into pipe.
- A detail of any proposed manhole or catch basin showing all dimensions in addition to rim, grate and invert elevations of the structure and all pipes connected to the structure must be shown on plans. Refer to JCMUA standard detail drawings for manholes and catch basins.
- Proposed manholes constructed in the public R.O.W. on existing or proposed JCMUA sewers shall be furnished with concentric manhole covers as manufactured by Campbell Foundry Co., Pattern #4428 or equal with outside cover diameter of 31-3/4 inches and inside cover diameter of 24 inches.

The letters "JCMUA" and "SEWER" shall be cast in the inside cover. Manhole frames shall be Campbell Foundry Co. Pattern #4428 (for 30-inch opening) or #1206 (for 41-inch opening) or equal furnished with a Pattern #4428 concentric cover as specified in the preceding paragraph.

Refer to JCMUA's standard detail for manhole frame and covers.

- Storm inlets which are connected directly to JCMUA combined sewers must be furnished with a sump and trap as per JCMUA standard details.
- The JCMUA has a combined sewer system which surcharges during wet weather periods resulting in possible sewage back-ups through plumbing fixtures (sinks, toilets, floor drains, etc.) below street level. This possibility must be addressed during the design/construction phase.
- A drop manhole connection shall be used where there is a difference in elevation of two (2) feet or greater between the invert of a sanitary or combined inlet pipe to manhole and the crown of the outlet pipe from manhole. Refer to attached JCMUA's standard detail for drop manhole connection which must be shown on site plan if required.
- Test pits must be performed at the developer's expense during the design phase of the project to ensure that proposed sewers and sewer services may be constructed as proposed without conflicting with other underground utilities or structures.
- All existing sewer mains and sanitary laterals to be abandoned must be filled with concrete slurry or removed from the ground. Catch basins and manholes must be removed from the ground. Connections must be cut and sealed at the main and precautions must be undertaken by the contractor to ensure concrete and other materials do not enter the main and create obstruction(s).
- All proposed inlets/catch basins must be constructed with a bicycle safe grate and Campbell Foundry Co. Type 'N' curbpiece where required.
- Proposed water services require the review and approval of the Division of Water Engineering.
- The contractor is responsible for obtaining permits for street openings from the Jersey City Building Department located at 30 Montgomery Street, Jersey City, NJ and all other applicable permits from agencies having jurisdiction.

The system designer is also responsible for compliance with the applicable regulations of the New Jersey Administrative Code, NJDEP Rules and Regulations Governing treatment Works Approval Program, local codes and ordinances, federal and state regulations etc. in addition to other requirements that may be imposed by the JCMUA.

| NUMBER OF 34" ROPS REQUIRED |     |     |     |     |
|-----------------------------|-----|-----|-----|-----|
| PIPE SIZE INCHES            | 12" | 14" | 16" | 24" |
| NUMBER OF ROPS              | 2   | 4   | 6   | 8   |

| THRUST BLOCK SCHEDULE |        |       |       |     |       |       |        |       |     |   |   |
|-----------------------|--------|-------|-------|-----|-------|-------|--------|-------|-----|---|---|
| PIPE SIZE             | L      | D     | L     | D   | L     | D     | L      | D     | L   | D | W |
| 6"                    | 18"    | 15"   | 15"   | 12" | 18"   | 12"   | 16"    | 15"   | 21" |   |   |
| 8"                    | 2'-0"  | 18"   | 18"   | 12" | 18"   | 12"   | 2'-0"  | 18"   | 24" |   |   |
| 12"                   | 3'-0"  | 2'-0" | 2'-0" | 12" | 2'-0" | 12"   | 3'-0"  | 2'-0" | 28" |   |   |
| 16"                   | 4'-0"  | 2'-6" | 2'-0" | 12" | 2'-4" | 18"   | 4'-0"  | 2'-6" | 31" |   |   |
| 20"                   | 5'-3"  | 3'-0" | 2'-0" | 18" | 3'-0" | 2'-0" | 5'-3"  | 3'-0" | 33" |   |   |
| 24"                   | 7'-6"  | 3'-0" | 3'-0" | 18" | 4'-0" | 2'-6" | 7'-6"  | 3'-0" | 36" |   |   |
| 30"                   | 11'-0" | 4'-0" | 3'-0" | 24" | 6'-0" | 4'-0" | 11'-0" | 4'-0" | 40" |   |   |

**JERSEY CITY MUNICIPAL UTILITIES AUTHORITY**

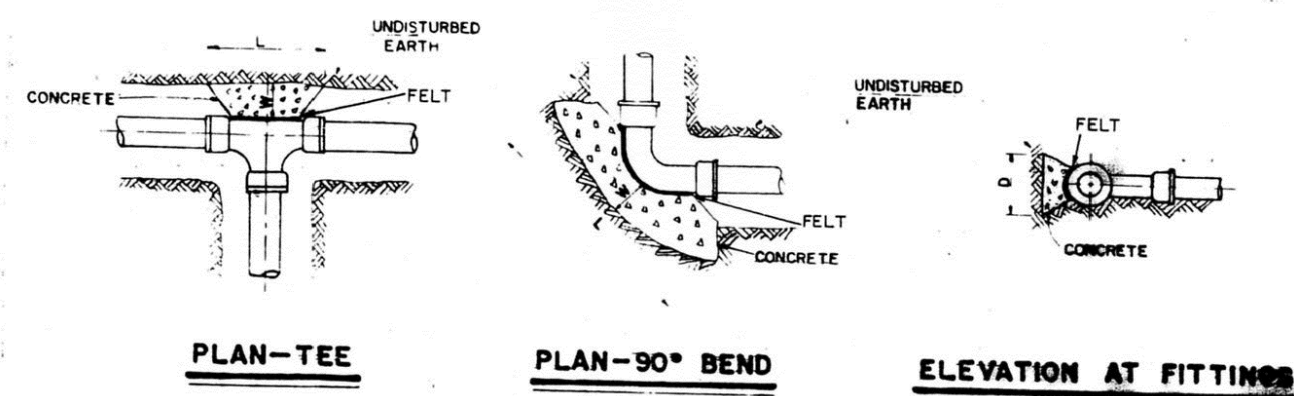
**BUREAU OF WATER ENGINEERING**

555 Route 440, Jersey City, New Jersey. 07305  
Telephone: (201) 209-0319 Fax: (201) 432-3795

**REQUIREMENTS FOR FIRE AND DOMESTIC WATER LINE AND METER INSTALLATIONS**

- All fire service applications and all domestic service applications two (2) inches and larger must be submitted to the JCMUA's Bureau of Water Engineering for approval. Five (5) sets of plans shall be submitted for approval. All plans shall be signed and sealed by a Professional Engineer or Registered Architect licensed to practice in New Jersey.
- Submitted plans shall be standard engineering drawings, size 24 inches x 36 inches. Included shall be a site plan showing adjacent streets with water main, service, and details indicated. Also included shall be a key map showing general location within the City.
- Indicated on the submitted plans shall be the size of tap, location of tapping and curb gate valves, detailed meter set-up, and size of facility's meter. Also indicated on the plans shall be the type of occupancy of the facility receiving the water service. (i.e. hospital, warehouse, apartment building, etc.)
- All existing water service lines to be abandoned shall be cut and capped at the main, in accordance with JCMUA standards, and inspected within 24 hours after installation of new tap. The maximum of one (1) tap shall be made for both domestic and fire service per facility. The tap shall be the maximum of one (1) size smaller than the City's water main. No tapping shall be done by anyone except by United Water Jersey City (UWJC) unless specifically approved by JCMUA.
- Only one domestic/ fire service is allowed for each facility. Applicant may install check meters on individual branch connections downstream of domestic meter setup where there is more than one owner/ tenant for a facility. However, only one water bill will be issued for the facility.
- A solid ductile iron tapping sleeve such as Mueller H-615 tapping sleeve or approved equal shall be utilized for all taps 2-inches and larger. The tapping sleeve shall pass pressure testing based on AWWA standards before tap is made.
- For all services included herein, two (2) gate valves are required that are to be installed by the applicant; a tapping valve, located at the tap and a curb valve, located in the sidewalk before the meter. Tapping gates shall be furnished opened right. All tapping and curb valves shall be double disc gate valves and meet AWWA standards. The wet tap up to 12 inches shall be performed by UWJC.
- For taps off mains sixteen (16) inches and larger, the applicant shall furnish and install an additional gate valve adjacent to the tapping valve. No taps shall be permitted on mains larger than twenty (20) inches unless there is no alternative water source, and special written approval is issued by the JCMUA.
- Valve box parts for all valves shall be provided by the applicant. All tapping gate valves larger than 2-inches and all curb valves/ stops regardless of size require a valve box with the word "Water" cast in the cover. Buried corporation valves/ stops shall be used at the tap for Class K copper services 2-inches and smaller.
- All service pipes, sizes 2-inches through 12-inches, shall be Pressure Class 350 psi, cement-lined ductile iron pipe with mechanical joints.
- The applicant shall install the meter inside the building. If the building line is in excess of 75 ft. from the main, the applicant shall place the meter in a pit near the sidewalk or street in close proximity to the tap.
- For a regular fire suppression system (combined service line larger than 2"), a combined reduced pressure detector assembly (Ames 5000 SS, Ames 5000 RPDA or Watts 909 RPDA\*) shall be installed on the main fire service line and a reduced pressure backflow preventer on the bypass (Ames 4000 SS or Watts 909\*) (refer to Figure 1). On the limited fire suppression system (combined service line 1.5" or 2"), a fire line detector check with a single check valve (Ames 1000 DCV\*) shall be installed on the main fire line and a reduced pressure backflow preventer (Ames 4000 SS or Watts 909\*) shall be installed downstream of the bypass (refer to Figure 2). All regular fire suppression systems must have OS&Y valves, however, limited fire suppression systems may use ball valves (Victaulic Series 728 Firelock\*) instead of OS&Y valves. The fire unit shall be furnished with a 5/8 inch x 3/4 inch metered bypass. Bypass meters shall be Jersey City standard single displacement Sensus meters with touchpad and radio read capabilities. The same radio MXU unit shall be used for a combined domestic and fire service.
- For domestic service, an approved reduced pressure backflow preventer (Ames 4000 SS or Watts 909\*) is required when the JCMUA determines that there is a cross-connection hazard and the facility presents a threat to the City's distribution system water quality in accordance with the Plumbing Subcode of the New Jersey State Uniform Construction Code, NJAC 5:23-3.15 and the New Jersey Safe Drinking Water Act NJAC 7:10-10 Physical Connections and Cross Connections Control by Containment. Some services which require such devices include: a hospital, school, chemical plant, factory, and a facility with sewage ejectors.
- If a reduced pressure backflow preventer is not required on the domestic service, a check valve should be installed downstream of the test tee.
- All meters sizes 2 inches through 6 inches shall be single compound meters and all meters 8 inches and larger shall be duplex compound manifold meters.

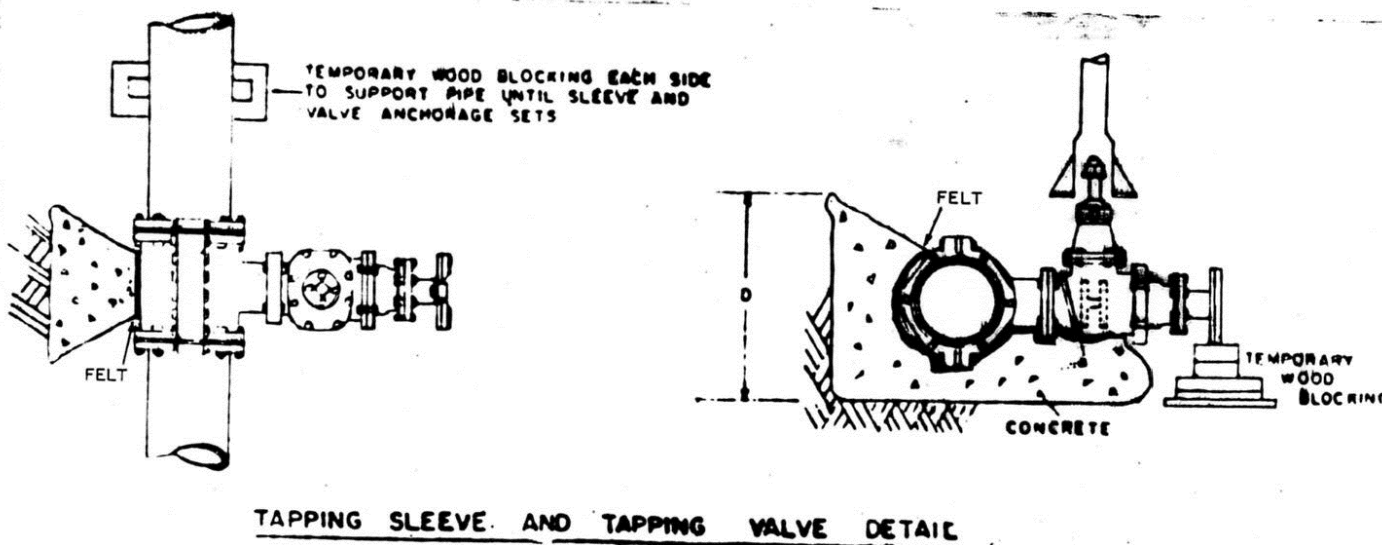
Page 2 of 3



**PLAN-TTEE**

**PLAN-90° BEND**

**ELEVATION AT FITTINGS**



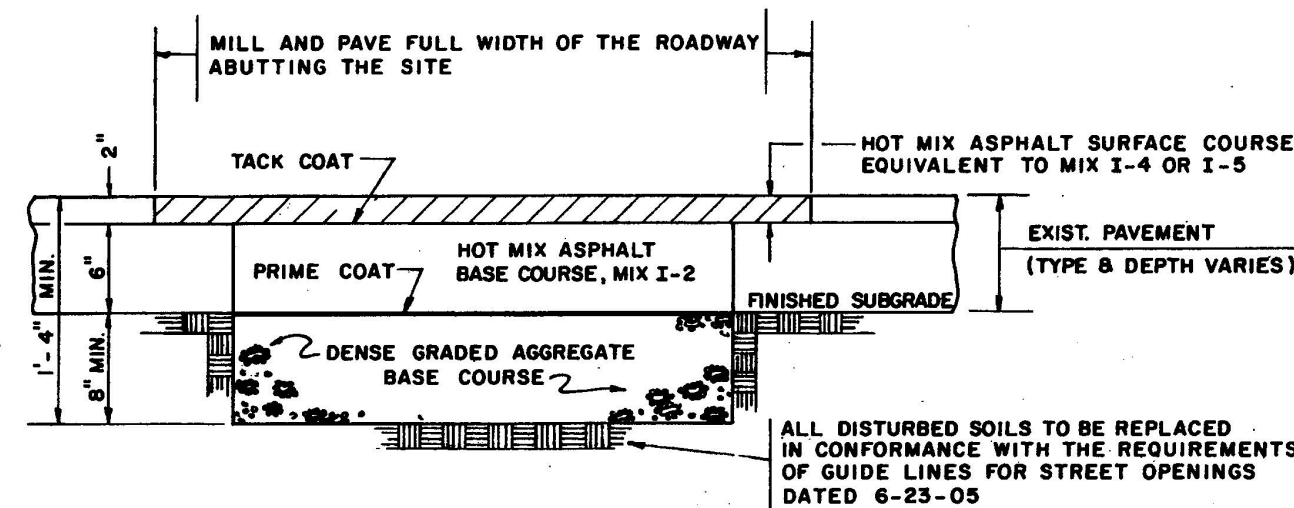
**TAPPING SLEEVE AND TAPPING VALVE DETAIL**

- All meters shall be adequately restrained with metal brackets fastened to the floor or wall or other approved means such as uniflanges where internal pipe pressure and flow warrant such restraints. Meters, detector checks, and valves may be seated on concrete block and tapered shims to provide adequate support. Meters shall be installed approximately 36" above floor grade.
- All meter installations in meter pit or vault shall be pre-approved by JCMUA and have proper access openings for meter reading and replacement.
- Each compound meter shall have strainer installed on the inlet side immediately before the meter. All strainers must be purchased from JCMUA or its authorized agent.
- All meters 2" and larger shall be furnished with Sensus ECR/WP Remote Touch Pad Modules and Radio MXU units for both types of reading capabilities.
- Remote Touch Pad Module wire shall be connected to the meter register utilizing a gel cap for watertight sealing of all terminal connections. Touch pads may be wall mounted or lid mounted where a meter pit is utilized. Touch pads are to be installed on exterior building wall facing the street and located as close as possible to street. The radio MXU unit must be installed with mounting bracket and likewise is to be installed in proximity to street.
- All installations of equipment and components shall be performed in accordance with manufacturer's recommendations.
- All meters including touch pad modules, and radio MXU units shall be purchased through the permit clerk at JCMUA office. Approved plans must be submitted to the permit clerk for issuance of required permits.
- After obtaining the required permits (street opening, tap, and meter) the applicant shall call UWJC at (201) 239-1108 to schedule the tap. The excavation shall be completed twenty-four (24) hours prior to the scheduled tap, and verified by JCMUA or its authorized agent before the tap will be installed. Excavation shall be constructed in accordance with OSHA requirements for sheeting and safety.
- Upon completion of the installation, the applicant shall submit three (3) sets of "as built" plans, to the JCMUA's Bureau of Water Engineering. The JCMUA will authorize supply water upon acceptance of the "as built" drawings.

\* Specified model or approved equal.

Revised 06/28/06

Page 3 of 3



**ROADWAY EXCAVATION / REPAIR / NEW PAVEMENT**

**JCMUA REQUIREMENTS FOR NEW SANITARY AND STORM SEWERS AND SERVICE LATERALS**

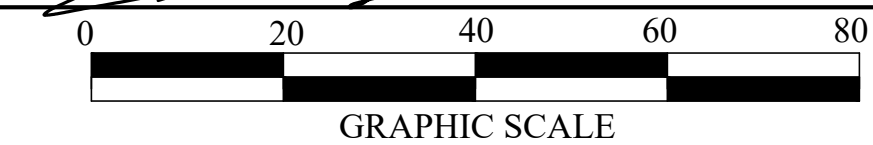
- Bedding and backfill material shall comply with the requirements of the NJDOT's Standard Specification for Road and Bridge Construction, and the Design and Construction of Urban Stormwater Management Systems, ASCE Manuals and Reports of Engineering Practice No.777,1993, as applicable.
- All sewer service connections 6-inches in size or smaller must be made directly to the sewer main and all connections 8-inches in size or larger must be made to a manhole.
- The JCMUA recommends that sewer service connections to be re-used be televised to verify their integrity.
- Each building connection requires a curb cleanout. A T-Wye cleanout should be installed on both the storm and sanitary lateral.
- Proposed sewer lateral connection to JCMUA's sewer main shall be made above horizontal center line of pipe.
- The size, material, depth, condition, direction of flow and any other relevant conditions of the existing JCMUA sewer to which you plan to connect must be field verified by developer to determine if said connection is physically possible and practical. This verification is to be included on the plans for the project. Also, the condition, inverts and rim elevation of any existing manhole to which connection is proposed must be field verified.
- Circular hole saws which are appropriately sized or hand drills will be used to make the openings in the existing sewer to receive the laterals. Jackhammers, sledgehammers and other unsuitable tools or machinery which may damage the JCMUA's sewer main are not allowed to be used to make the lateral openings. All debris must be removed and not allowed to fall into pipe.
- A detail of any proposed manhole or catch basin showing all dimensions in addition to rim, grate and invert elevations of the structure and all pipes connected to the structure must be shown on the plans. Refer to JCMUA standard detail drawings for manholes and catch basins.
- Proposed manholes constructed in the public R.O.W. on existing or proposed JCMUA sewers shall be furnished with concentric manhole covers as manufactured by Campbell Foundry Co., Pattern # 4428 or equal with outside cover diameter of 31 3/4 inches and inside cover diameter of 24 inches.
- The letters "JCMUA" and "SEWER" shall be cast in the inside cover. Manhole frames shall be Campbell Foundry Co. Pattern #4428 or 1206 or equal furnished with a Pattern #4428 concentric cover as specified in the preceding paragraph. Refer to the JCMUA's standard detail for manhole frames and covers.
- Inlets which are connected directly to JCMUA combined sewers must be furnished with a sump and trap as per JCMUA standard details.
- The JCMUA has a combined sewer system which surcharges during wet-weather periods, resulting in possible sewage back-ups through plumbing fixtures,(sinks, toilets, floor drains, etc.) below street level. This possibility must be addressed during the design/construction phase.
- A drop manhole connection shall be used where there is a difference in elevation of two (2) feet or greater between the invert of a sanitary or combined inlet pipe to manhole and the crown of the outlet pipe from manhole.
- All existing sewer mains and storm and sanitary laterals to be abandoned must be filled with concrete slurry or removed from the ground. Catch basins and manholes must be removed from the ground. Connections must be cut and sealed at the main and precautions must be undertaken by the contractor to ensure concrete and other materials do not enter the main and create obstruction (s).
- Proposed water services require the review and approval of the Division of Water Engineering.
- The contractor is responsible for obtaining permits for street openings (excavations) and sewer service connections from the Jersey City Building Department located at 30 Montgomery Street, Jersey City, N.J.

**FINAL FOR SEWER DESIGN**

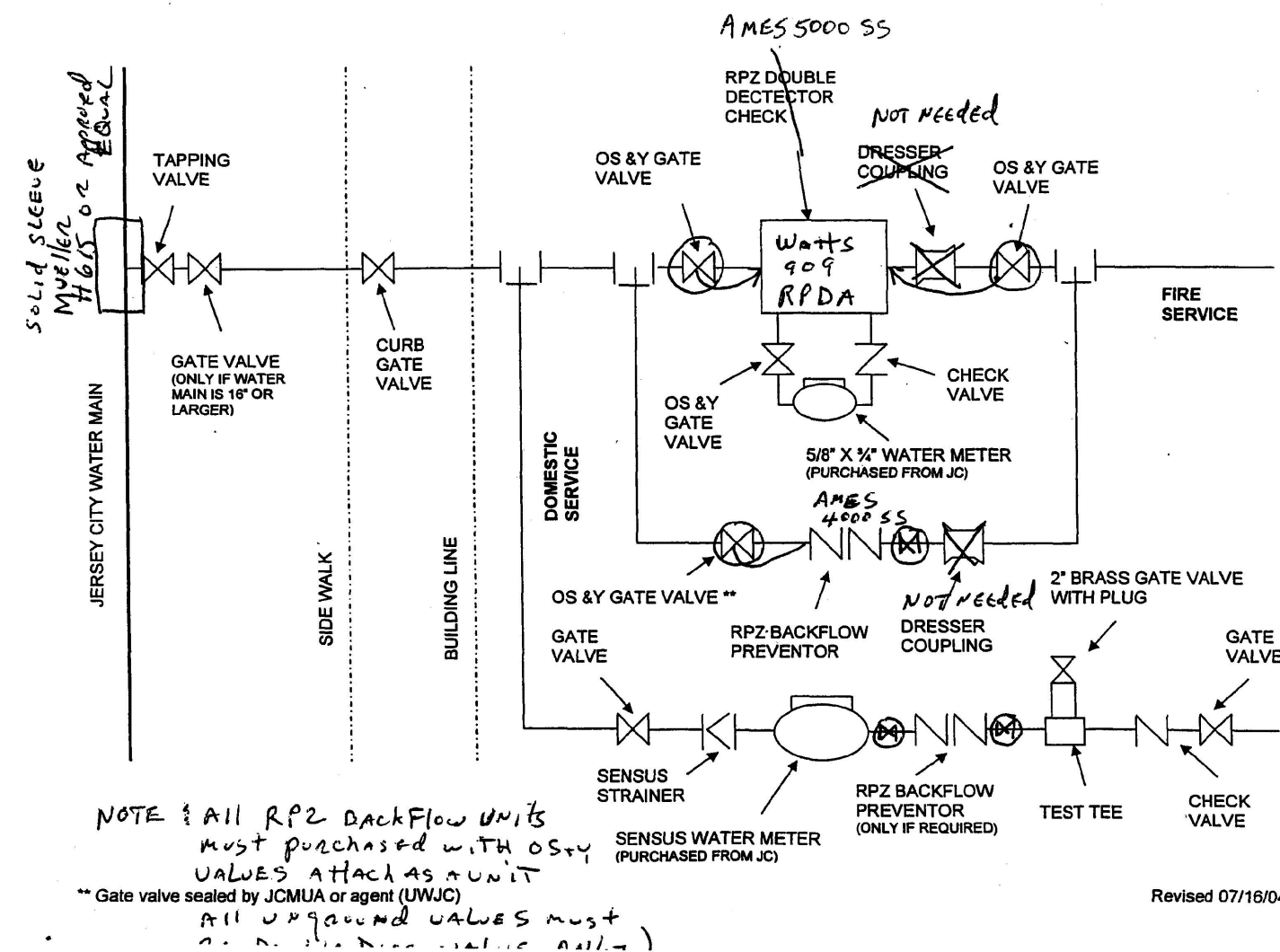
| DATE | BY | CHKD | DESCRIPTION |
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|      |    |      | REVISIONS   |

ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639  
PROFESSIONAL ENGINEER AND PLANNER

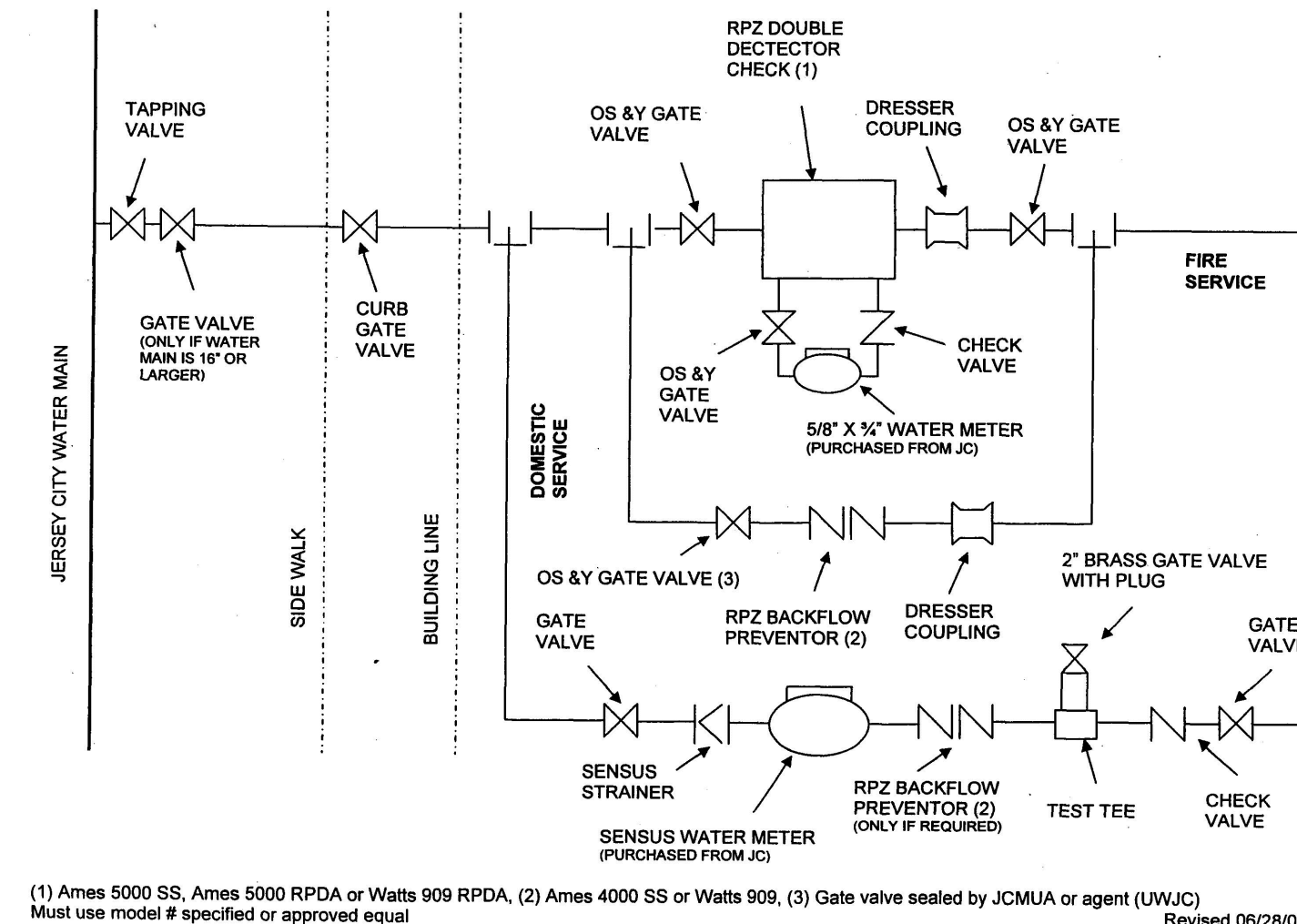
SIGNED: DATE: 9-22-21



**FIGURE 1. J.C.M.U.A. REQUIREMENTS FOR FIRE AND DOMESTIC WATER LINE AND METER INSTALLATIONS**

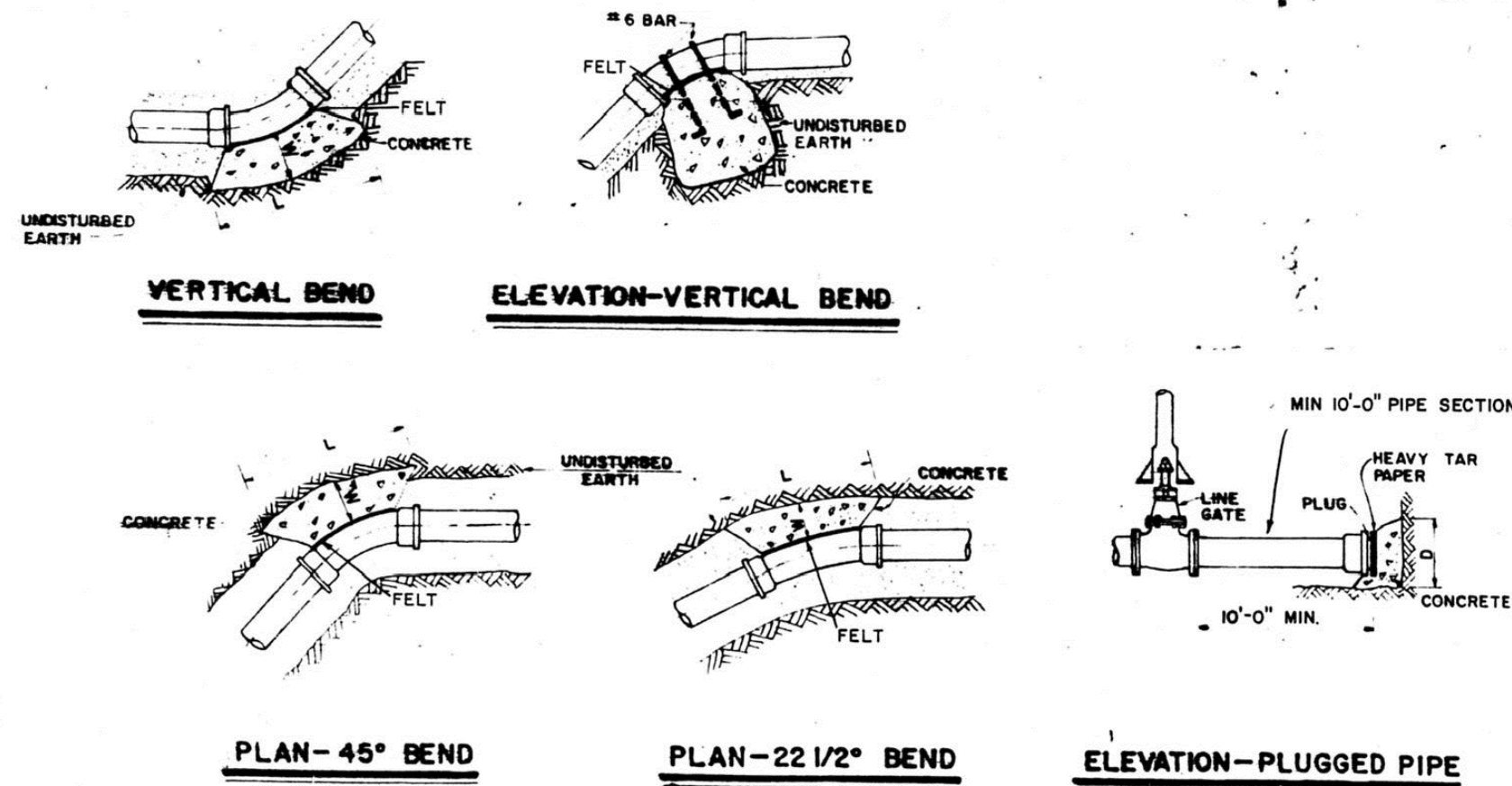


**FIGURE 1. J.C.M.U.A. REQUIREMENTS FOR FIRE AND DOMESTIC WATER LINE AND METER INSTALLATIONS**



(1) Ames 5000 SS, Ames 5000 RPDA or Watts 909 RPDA, (2) Ames 4000 SS or Watts 909, (3) Gate valve sealed by JCMUA or agent (UWJC). Must use model # specified or approved equal

Revised 05/28/05



**VERTICAL BEND**

**ELEVATION-VERTICAL BEND**

**PLAN-45° BEND**

**PLAN-22 1/2° BEND**

**ELEVATION-PLUGGED PIPE**

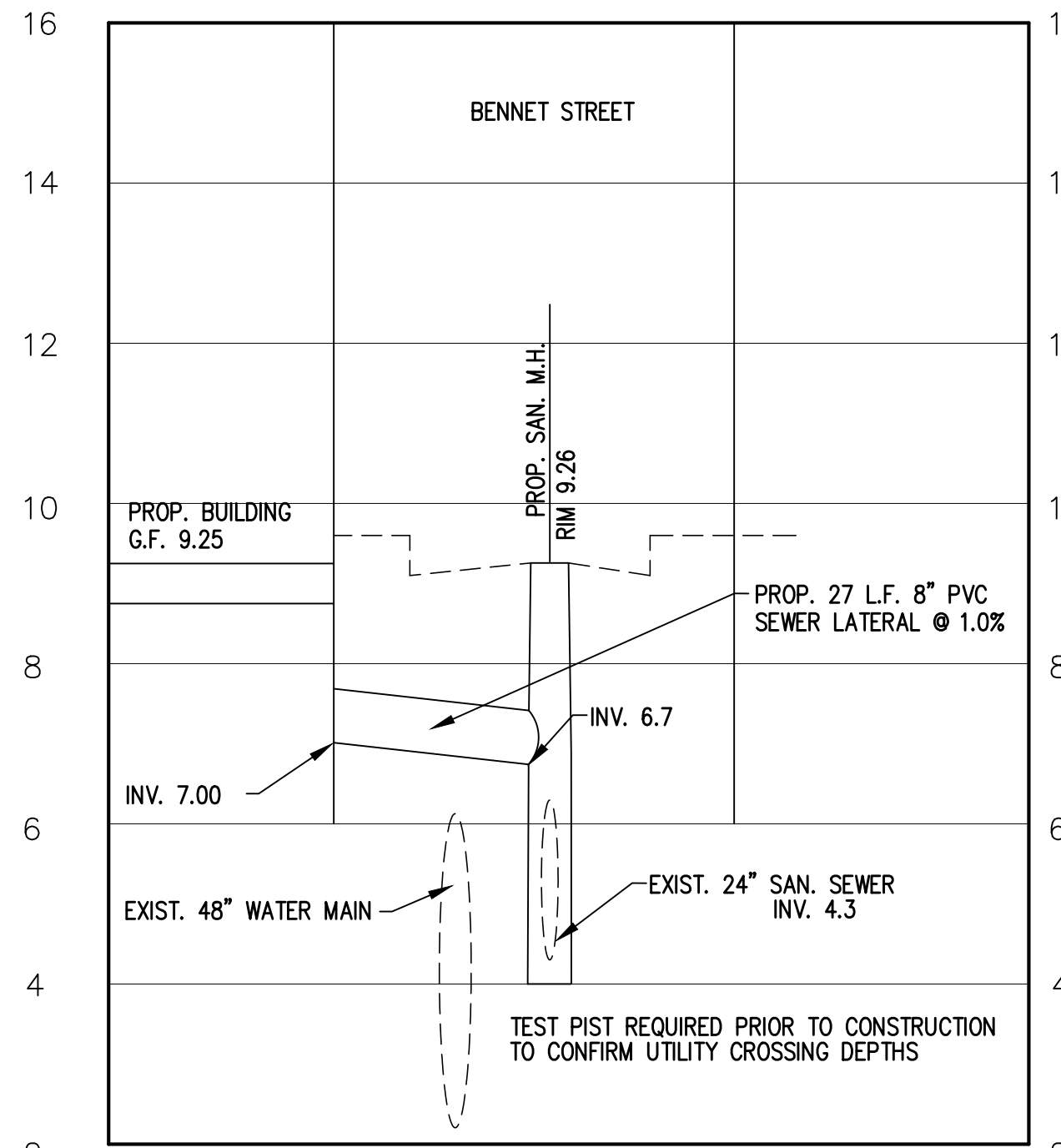
**COSTA ENGINEERING CORPORATION**  
PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS  
State of New Jersey Certificate of Authorization No. A 276726.  
325 So. RIVER STREET - SUITE 302, HACKENSACK, N.J. 07601  
TEL (201) 487-0015 FAX (201) 487-3122

DRAWING TITLE:  
CONSTRUCTION DETAILS

PROJECT NAME:  
MULTI-STORY MIXED USE BUILDING

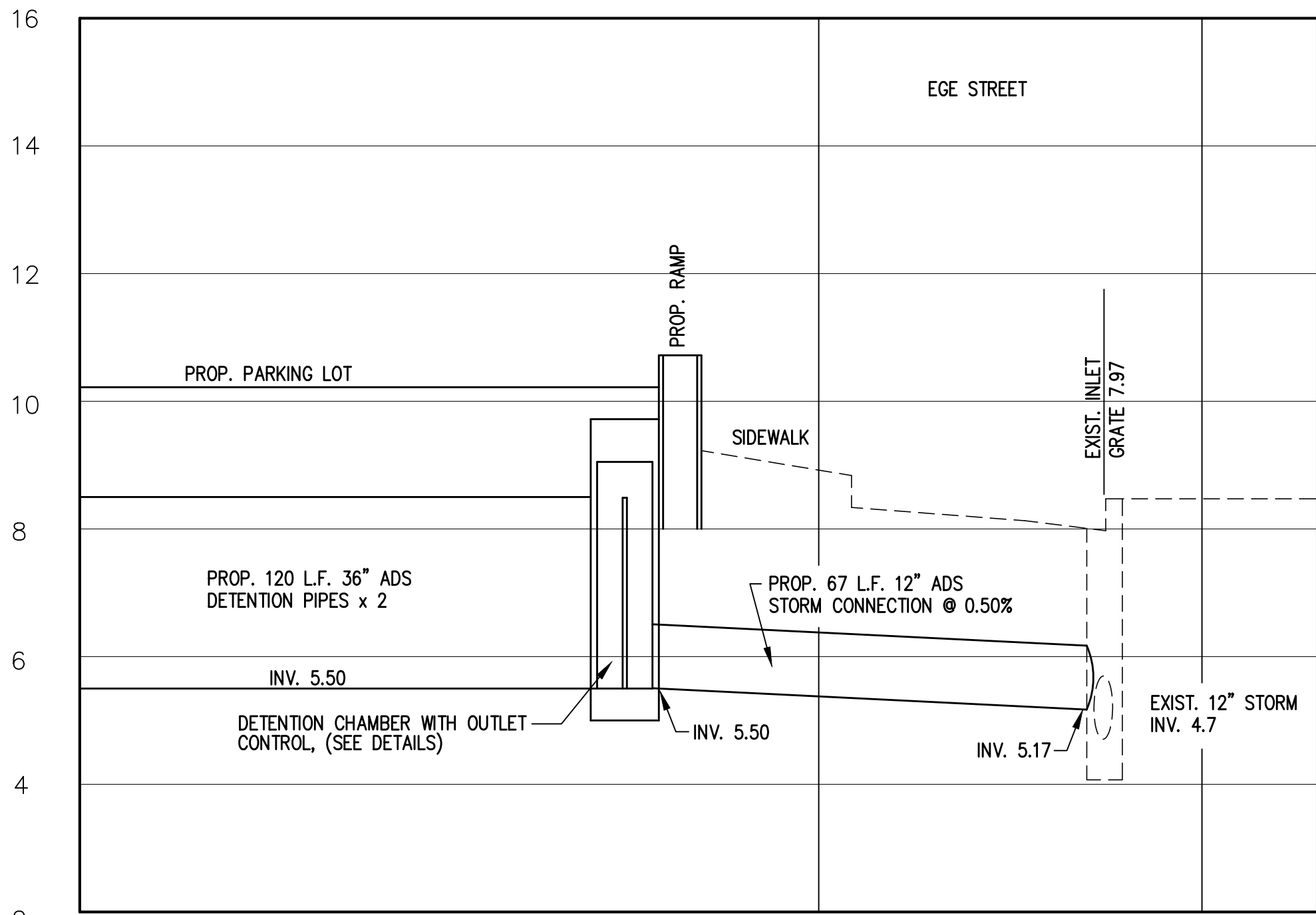
LOCATION:  
BLOCK 20403, LOTS 1 AND 2  
682 N.J. STATE HIGHWAY ROUTE 440  
CITY OF JERSEY CITY, HUDSON COUNTY, NJ

PROJ. NO. 20-2206 SCALE: AS SHN. DRAWN BY: JEM.



### PROFILE: SANITARY LATERAL

SCALE: HORIZ. 1"= 20'  
VERT. 1"= 2'

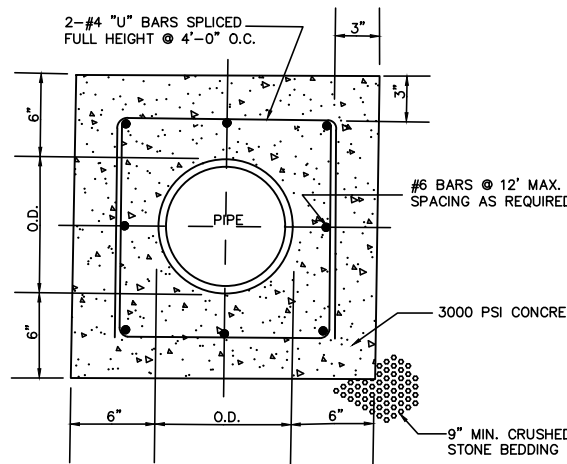


### PROFILE: STORM DRAIN CONNECTION

SCALE: HORIZ. 1"= 20'  
VERT. 1"= 2'

#### NOTES:

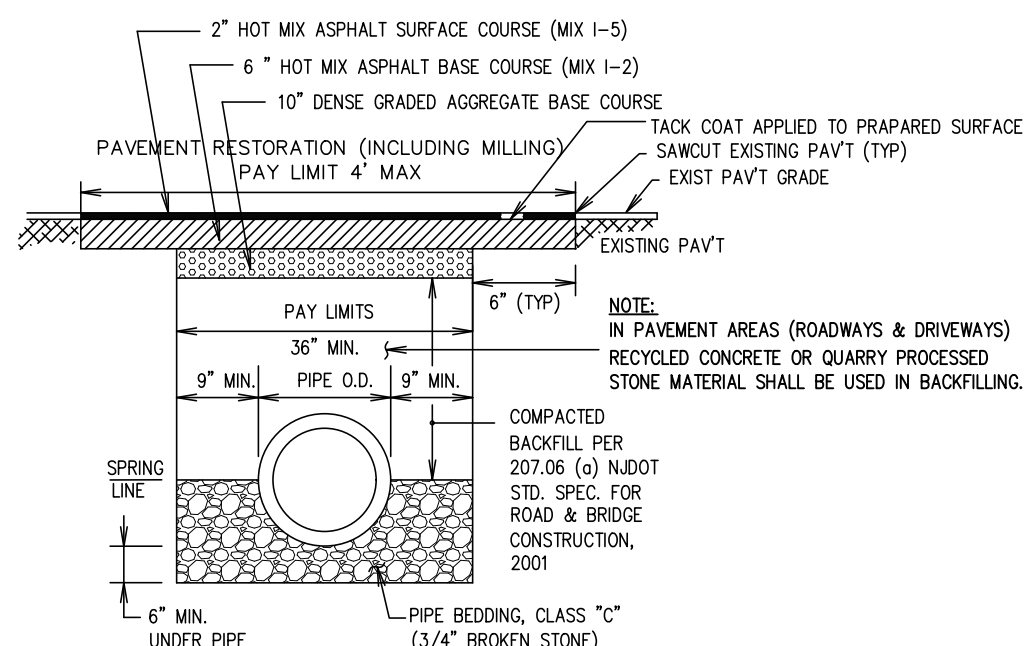
- CONCRETE ENCASEMENT WILL BE USED WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR WILL PROVIDE A MECHANICAL JOINT A MINIMUM OF ONE FOOT FROM EACH END OF THE ENCASEMENT.



### CONCRETE ENCASEMENT DETAIL FOR SEWER LATERAL CROSSING OVER WATER MAIN

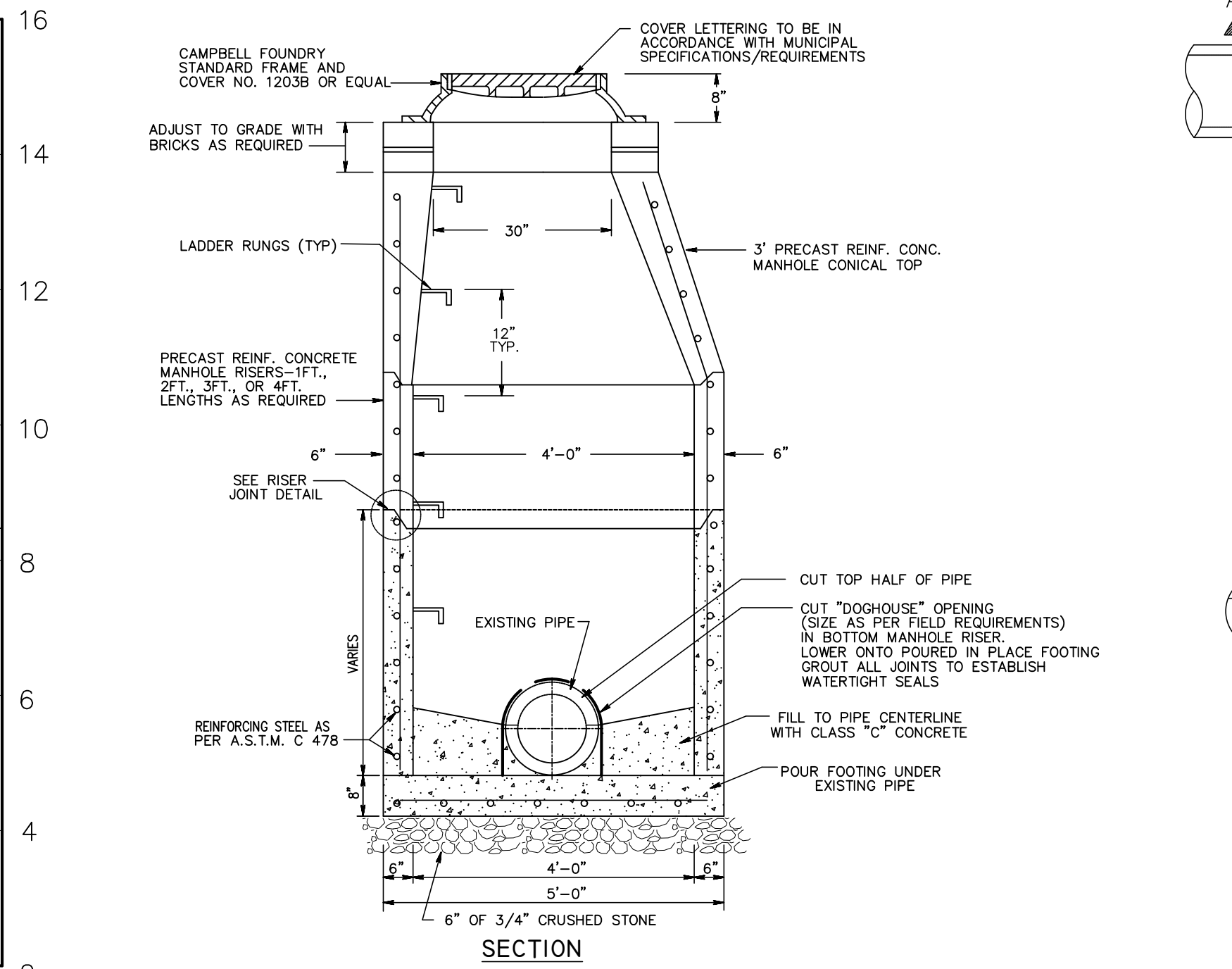
NTS

| SOIL MOVEMENT:                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXCAVATION FROM BUILDING FOUNDATION:<br>PERIMETER OF BUILDING: 580 L.F.<br>WIDTH OF FOUNDATION: 1 FOOT<br>DEPTH OF FOUNDATION: 3 FEET<br>580 x 1 x 2 = 1,160 CU.F.T. = 43 CU.YDS.<br>FOOTINGS: 580 x 2 x 1 = 1,160 CU.F.T. = 43 CU.YDS. |
| EXCAVATION FROM BELOW GRADE PARKING STRUCTURES:<br>156 x 20 x 8 = 24,960 CU.F.T. + 50 x 20 x 8 = 8,000 CU.F.T.<br>24,960 + 8,000 = 32,960 = 1,221 CU.YDS.                                                                               |
| EXCAVATION FROM DETENTION SYSTEM:<br>36\" PIPE: 240 LF x 7.065 = 1696 CU.F.T. = 63 CU.YDS.<br>CHAMBERS: 400 CU.F.T. + 575 CU.F.T. = 975 CU.F.T. = 36 CU.YDS.                                                                            |
| NET MOVEMENT:<br>TOTAL EXCAVATION= 1,221 + 63 + 36 + 43 + 43 = 1,406 CU.YDS.<br>TO BE EXPORTED= 1,406 CU.YDS.                                                                                                                           |



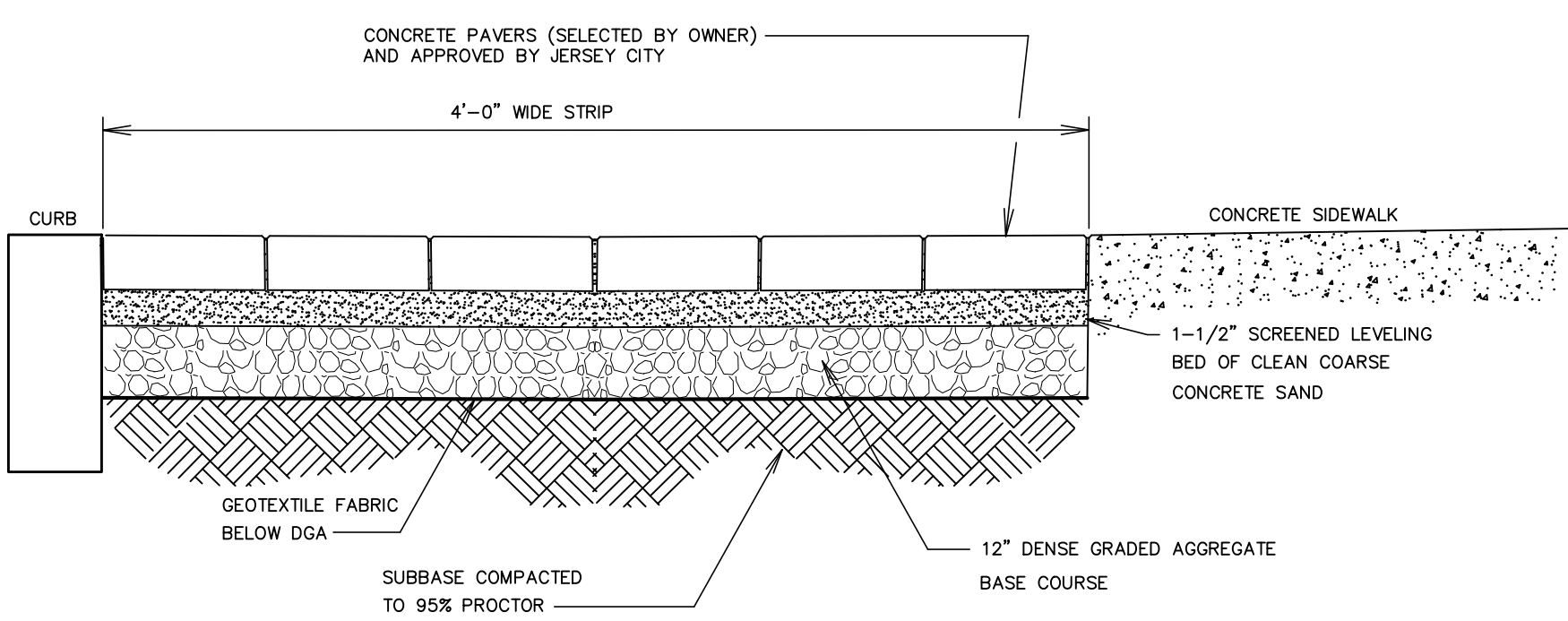
### PIPE TRENCH & PAVEMENT REPAIR DETAIL

NTS



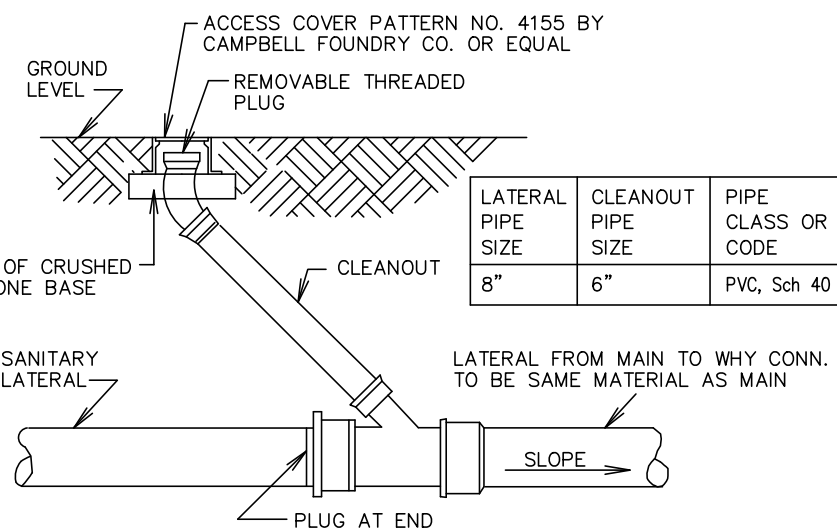
### SANITARY MANHOLE CONSTRUCTED OVER EXISTING PIPE

NTS



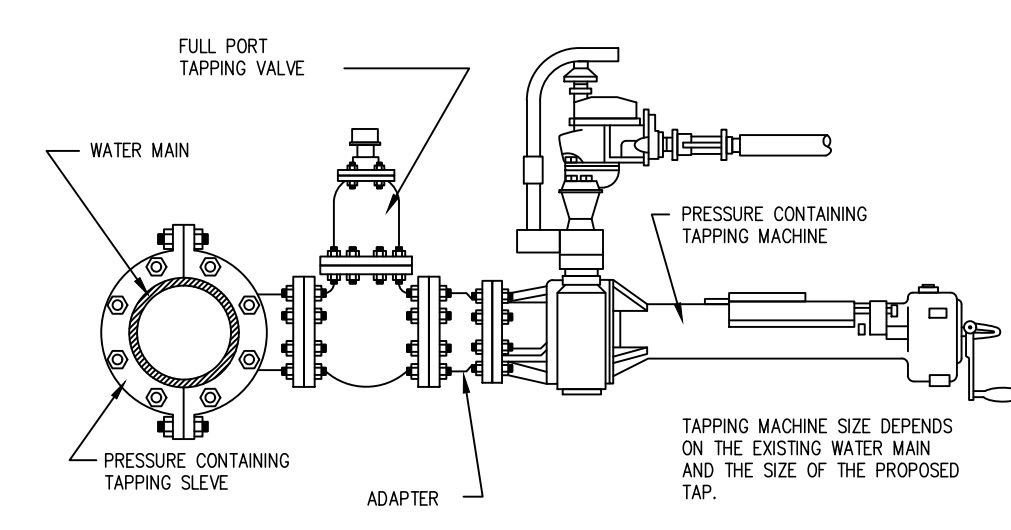
### CONCRETE PAVER DETAIL

NOT TO SCALE

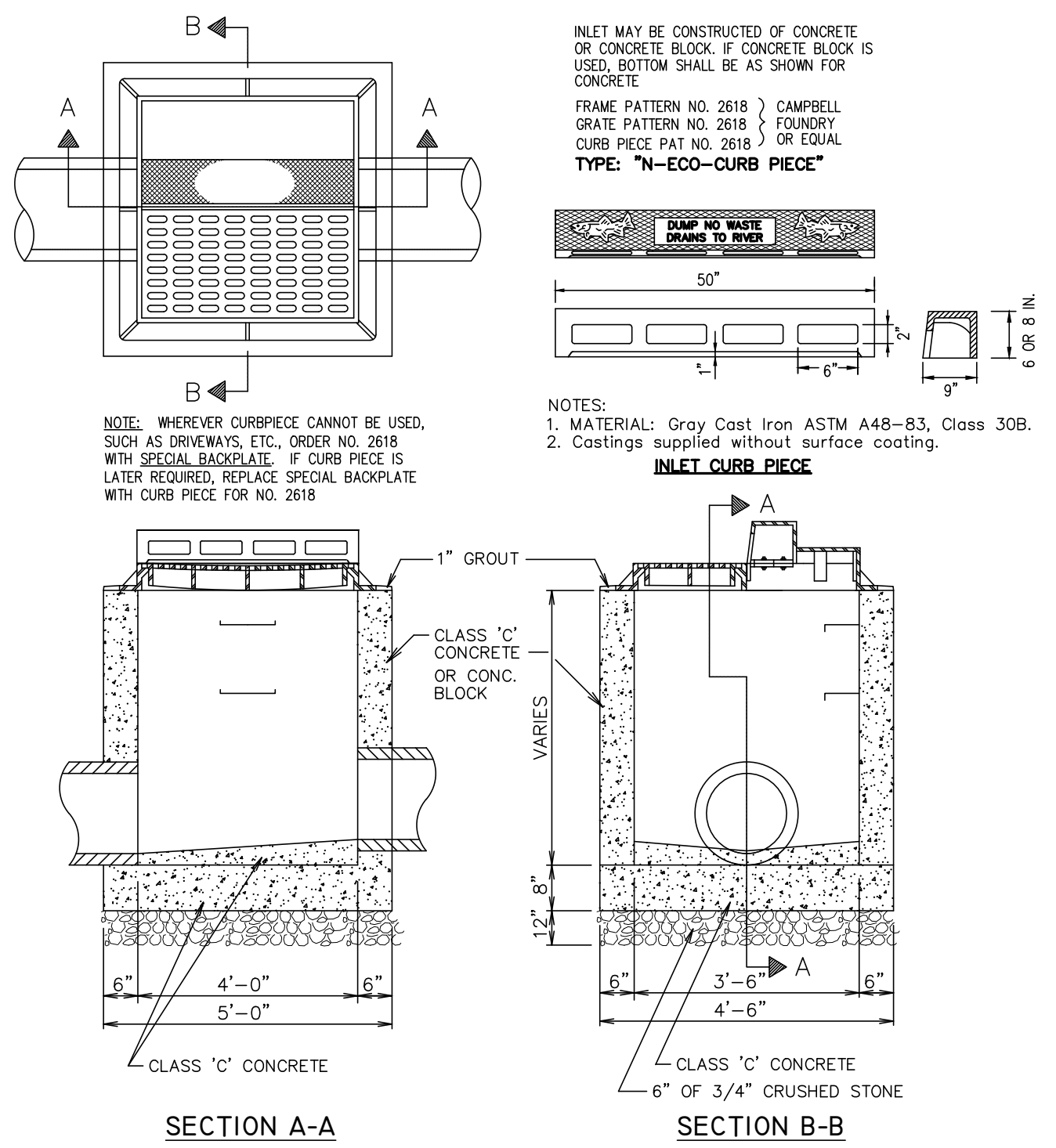


### SANITARY CLEANOUT DETAIL

NTS

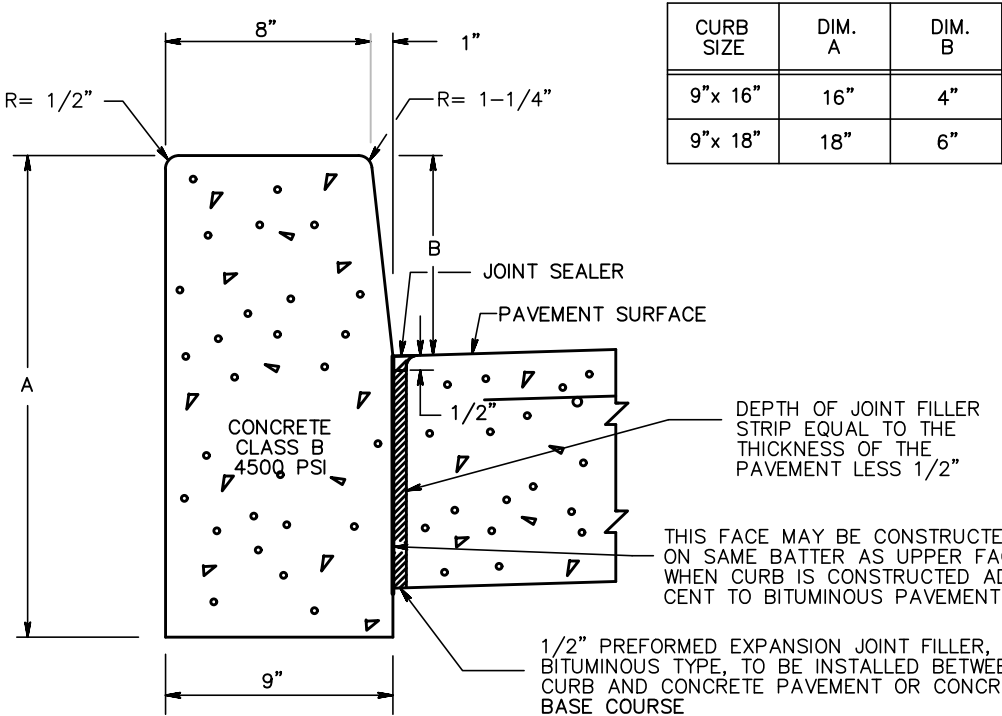


### WATER MAIN WET TAP DETAIL



### TYPE B STORM INLET DETAIL

NTS

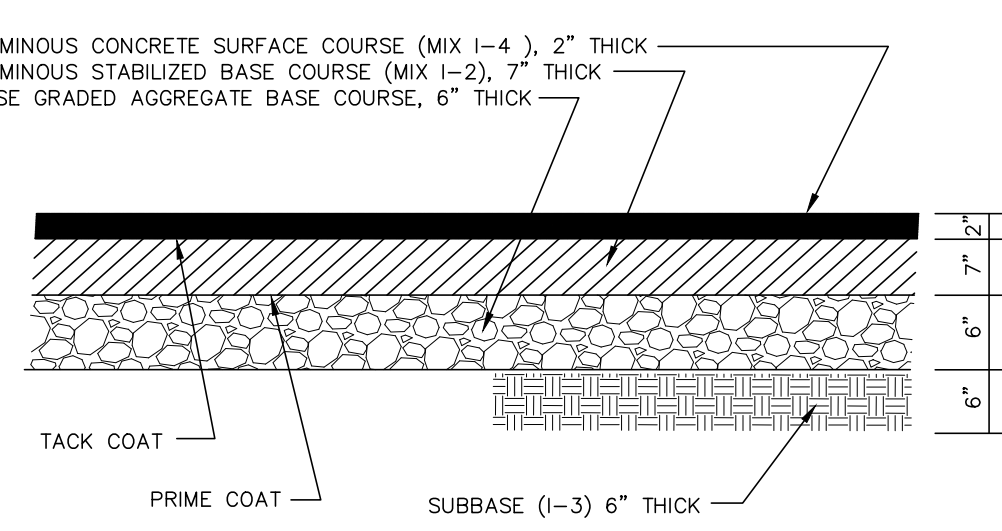


NOTES:  
TRANSVERSE JOINTS 1/2\"/>

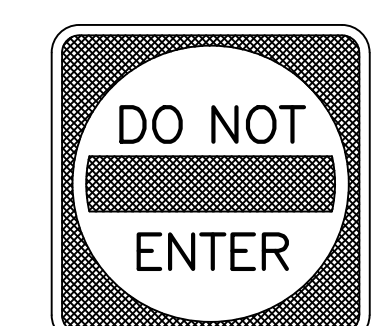
### NJDOT (ROUTE 440) WHITE CONCRETE VERTICAL CURB

N.T.S.

CD-605-1.6



### TYPICAL N.J.D.O.T. PAVEMENT SECTION



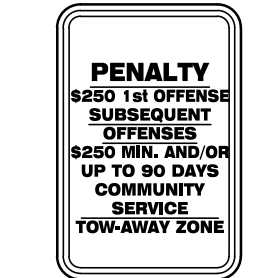
R5-1  
30\" x 30\"



R6-1R  
36\" x 12\"



R7-8  
12\"x18\"

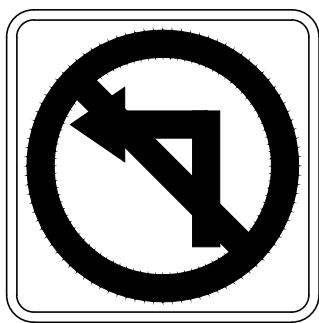


PENALTY  
SIGN  
10\"x12\"



12\"x6\"  
VAN ACCESSIBLE  
SIGN AS REQ'D.  
SEE PLAN

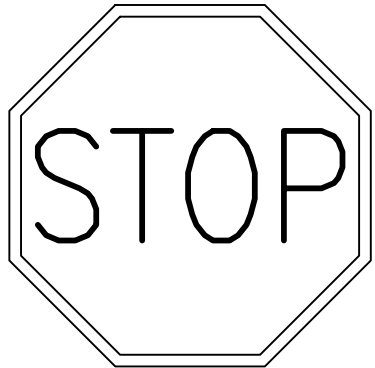
### H.C. SIGN DETAILS MOUNTED ON GARAGE WALLS



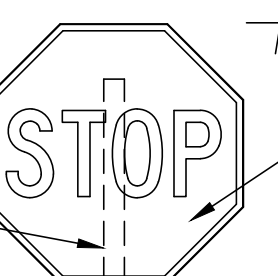
R3-2  
24\" x 24\"



R3-2P  
24\" x 18\"

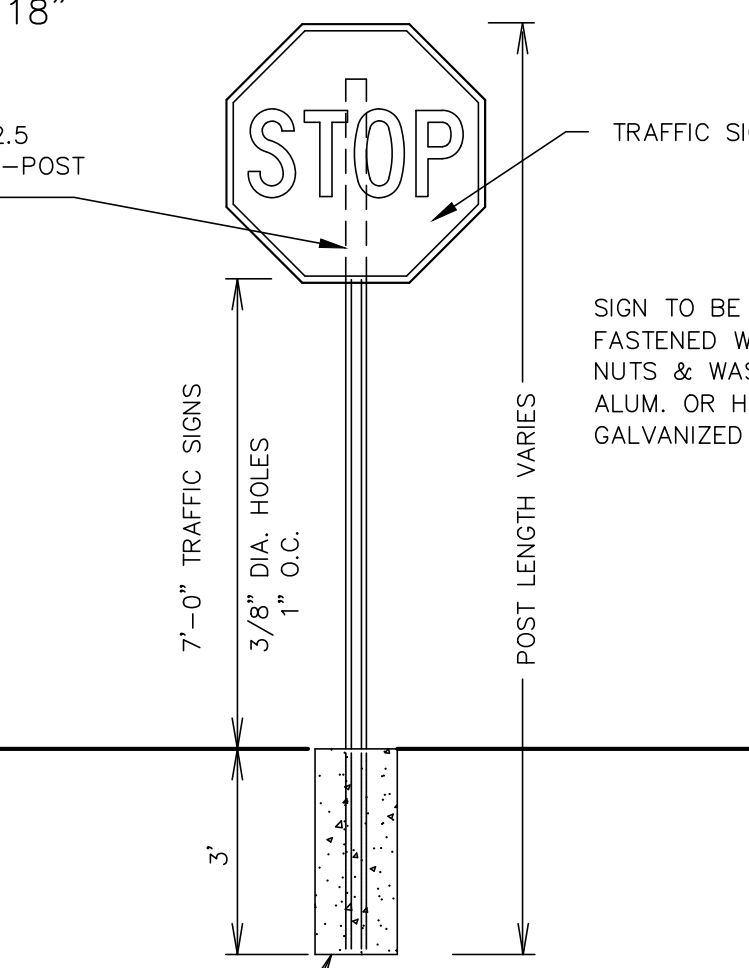


R1-1  
30\" x 30\"



TRAFFIC SIGN

SIGN TO BE SECURELY  
FASTENED WITH BOLTS  
NUTS & WASHERS OF  
ALUM. OR HOT-DIPPED  
GALVANIZED STEEL.



### TRAFFIC SIGNS & POST DETAIL

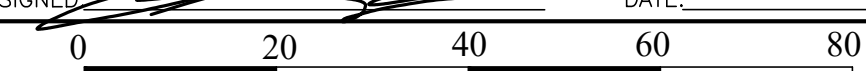
NOT TO SCALE

### FINAL FOR SEWER DESIGN

| DATE | BY | CHKD | DESCRIPTION |
|------|----|------|-------------|
|      |    |      | REVISIONS   |

ROBERT L. COSTA N.J. LIC. NO. 34702 & 4639  
PROFESSIONAL ENGINEER AND PLANNER

SIGNED: [Signature] DATE: 9-22-21



GRAPHIC SCALE

| COSTA ENGINEERING CORPORATION<br>PROFESSIONAL ENGINEERS • SURVEYORS • PLANNERS |                                        |
|--------------------------------------------------------------------------------|----------------------------------------|
| DRAWING TITLE:                                                                 | CONSTRUCTION DETAILS                   |
| PROJECT NAME:                                                                  | MULTI-STORY MIXED USE BUILDING         |
| LOCATION:                                                                      | BLOCK 20403, LOTS 1 AND 2              |
|                                                                                | 682 N.J. STATE HIGHWAY ROUTE 440       |
|                                                                                | CITY OF JERSEY CITY, HUDSON COUNTY, NJ |
| PROJ. NO. 20-2206                                                              | SCALE: AS SHN. DRAWN BY: JEM.          |