

# PRELIMINARY AND FINAL SITE PLAN

## FOR

### 108-126 SOUTH AVENUE EAST

### 32 & 41 HIGH STREET & 2 CHESTNUT STREET

### BLOCK 478, LOTS 2, 3, 4, 5, AND 6

### BLOCK 483, LOT 18, AND 17.01

### TOWNSHIP OF CRANFORD

### UNION COUNTY, NEW JERSEY

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15	CONSTRUCTION DETAILS 1	2/19/2021	04/06/2023
16	CONSTRUCTION DETAILS 2	2/19/2021	4/6/2023

**GENERAL NOTES:**

- THE SUBJECT PROPERTY IS KNOWN AND DESIGNATED AS BLOCK 478, LOTS 2, 3, 4, 5, 6, AND BLOCK 483, LOTS 18 AND 17.01 AS SHOWN ON THE CURRENT TAX ASSESSMENT MAP OF THE TOWNSHIP OF CRANFORD, SHEET NOS. 105 AND 106 AND IS SITUATED IN THE "D-C" (DOWNTOWN CORE) ZONING DISTRICT, DT-DOWNTOWN TRANSITION DISTRICT, AND BUSINESS ZONE DISTRICT, AND WITHIN SUBDISTRICT 1 OF THE SOUTH AVENUE & CHESTNUT STREET REDEVELOPMENT PLAN ("RDP"). THE SUBJECT PROPERTY CONTAINS A TOTAL OF 35,080 SF, ±0.81 ACRES.
- PROPERTY OWNERS\*/CO-APPLICANT: (\*SEE OWNERS LIST)

IRON ORE PROPERTIES LLC,  
C/O PROPERTY OWNERS  
55 BLEEKER STREET, 2ND FLOOR  
MILBURN, NEW JERSEY 07041

I HEREBY CERTIFY THAT I AM THE CO-APPLICANT AND RE-DEVELOPER ON BEHALF OF THE OWNERS OF RECORD OF THE PLAN HEREIN DEPICTED AND THAT I CONCUR WITH THE PLAN.

- CO-APPLICANT, IRON ORE PROPERTIES LLC
- EXISTING USE: MIXED USE  
PROPOSED USE: NO CHANGE
  - BASE MAP INFORMATION WAS OBTAINED FROM THE FOLLOWING SOURCES:
    - TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "TOPOGRAPHIC SURVEY PREPARED FOR LOTS 2, 3, 4, 5, AND 6 BLOCK 478 SITUATED IN TOWNSHIP OF CRANFORD, UNION COUNTY, NEW JERSEY" PREPARED BY BUTLER SURVEYING AND MAPPING, INC.
    - "TOPOGRAPHIC SURVEY TAX LOT 18 BLOCK 483 2 CHESTNUT STREET, BOROUGH OF CRANFORD, UNION COUNTY, NEW JERSEY" PREPARED BY BUTLER SURVEYING AND MAPPING, INC., LAST REVISED 11/07/2022

	PERMITTED:	EXISTING:	PROPOSED:
<b>MINIMUM LOT REQUIREMENTS</b>			
MINIMUM LOT AREA	0.75 ACRES	0.803	TRACT 1 – 0.803 TRACT 2 – 0.12 TOTAL – 0.923
<b>PRINCIPAL BUILDING REQUIREMENTS</b>			
MINIMUM FRONT YARD	9 FT. FROM FACE OF CURB	9.5 FT.	9.8 FT.
MINIMUM SIDE YARD	10 FT. FROM CURB, OTHERWISE 0	12.6 FT.	13.4 FT.
MINIMUM REAR YARD	9 FT. BETWEEN BUILDINGS OR 5 FT. BETWEEN PROPERTY LINE AND BUILDING FACADE	95.0 FT.	9 FT. 10 FT. BETWEEN PROPERTY LINE AND BUILDING FACADE
MAXIMUM BUILDING HEIGHT	55 FT. / 4 STORIES	2 1/2 STORIES	LESS THAN 55 FT. / 4 STORIES
MAXIMUM BUILDING COVERAGE	90%	29.6%	75.8%
MAXIMUM LOT COVERAGE	96%	96.0%	96.0%

- OFF-STREET PARKING REQUIREMENTS – USE: DWELLING, MULTI-FAMILY
 

REQUIRED	PROVIDED
1.4 SPACES PER UNIT X 55 UNITS = 77 AT LEAST 15% TO BE ELECTRIC VEHICLE MAKE-READY PARKING SPACES = 11.55 OR 12.	57 PARKING SPACES ON-SITE INCLUDING 2 ADA PARKING SPACES 20 PARKING SPACES +9 NET SPACES AT 2 CHESTNUT STREET +6 STREET PARKING SPACES ON CHESTNUT STREET. +3 STREET PARKING SPACES ON SOUTH AVENUE EAST +2 STREET PARKING SPACES ON HIGH STREET TOTAL 77 PARKING SPACES, INCLUDING 12 ELECTRIC VEHICLE MAKE-READY PARKING SPACES 10% CREDIT FOR PROVIDING ELECTRIC VEHICLE SPACES = 7

BICYCLE PARKING:		REQUIRED	PROVIDED
DEWLLING, MULTIFAMILY	INDOOR : 0.25 SPACES PER UNIT X 55 UNITS = 13.75, OR 14 OUTDOOR : 0.10 SPACES PER UNIT X 55 UNITS = 5.5 OR 6		16 SPACES 9 SPACES

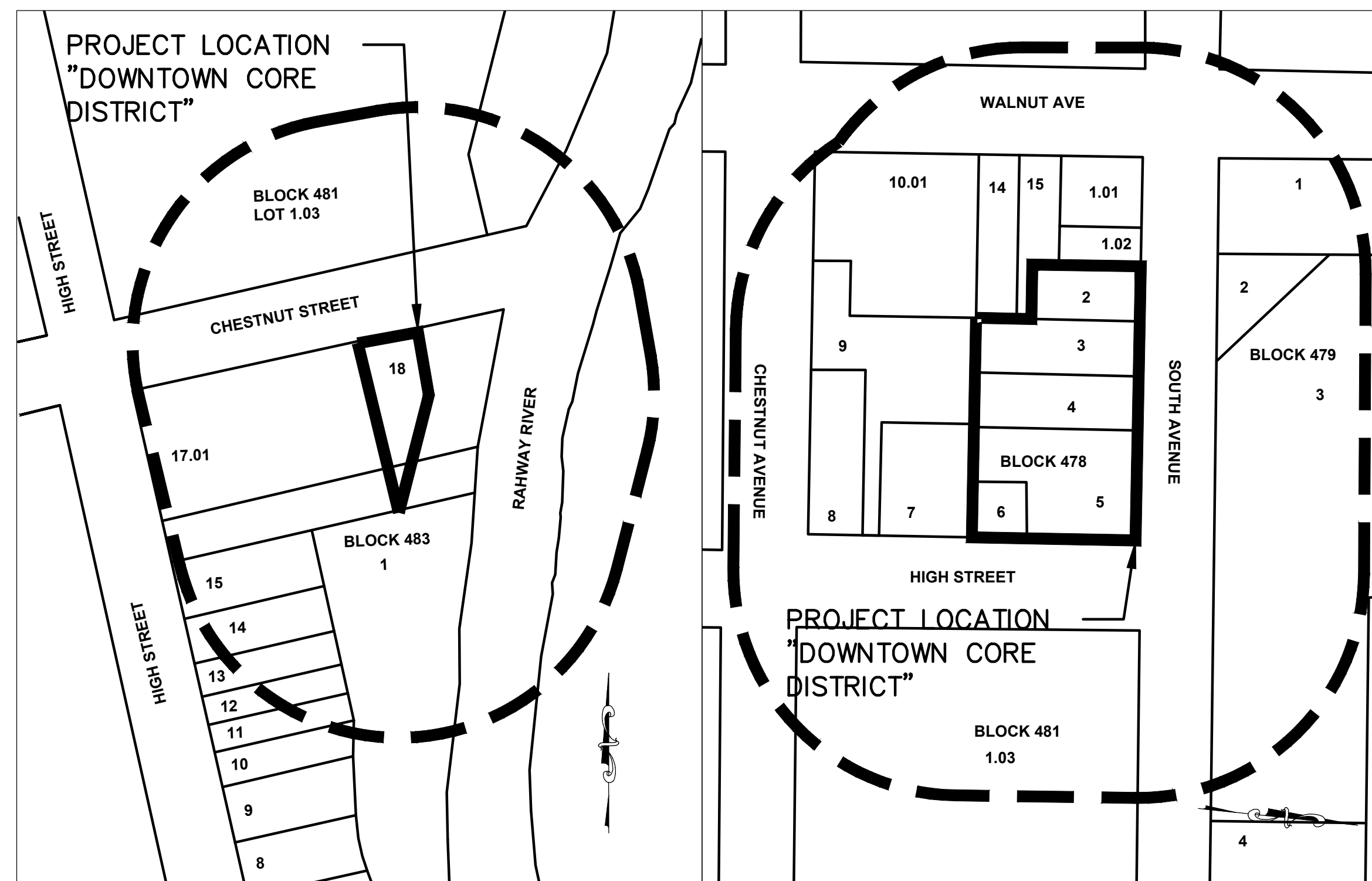
- RDP REQUIRES A MINIMUM OF 8,000 SQUARE-FEET OF NON-RESIDENTIAL USES ON BLOCK 478, LOTS 1.01 THROUGH 6. APPLICANT PROPOSES ±5,672 SQUARE-FEET OF COMMERCIAL USES ON THE SUBJECT PROPERTY. BLOCK 478, LOTS 1.01 & 1.02 CONTRIBUTE AN ADDITIONAL 7,500 SQUARE-FEET OF NON-RESIDENTIAL USES, THEREFORE COLLECTIVELY SATISFYING THIS REQUIREMENT.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWNSHIP OF CRANFORD DESIGN STANDARDS AND DETAILS.
- TRASH AND RECYCLING DISPOSAL SHALL BE IN ACCORDANCE WITH THE TOWNSHIP OF CRANFORD DEPARTMENT OF PUBLIC UTILITIES REQUIREMENTS.
- THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE 'ISSUES FOR CONSTRUCTION'.
- ALL DESIGN FEATURES DEPICTED HEREON WERE BASED ON CONSTRAINTS AND REGULATIONS IN EFFECT AT THE TIME OF PREPARATION AND INITIAL PRESENTATION OF THIS PLAN. ALL CURRENT DEVELOPMENT CONSTRAINTS SHOULD BE INVESTIGATED PRIOR TO COMMENCEMENT OF ANY ACTIVITY BASED ON THIS PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES FOR GAS, ELECTRIC, PHONE AND CABLE TV SERVICE LOCATIONS. LOCATION OF UTILITIES AS SHOWN ON THESE PLANS ARE PLOTTED FROM AVAILABLE DATA ON FILE WITH THE UTILITY COMPANIES AND IS NOT GUARANTEED AS TO EXACTNESS. THE CONTRACTOR IS TO CONTACT UTILITY COMPANIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE EXACT LOCATION. THE CONTRACTOR SHALL USE THE UTILITY LOCATIONS SHOWN AS AN AID IN DETERMINING EXACT LOCATIONS. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATIONS PRIOR TO PERFORMING ANY CONSTRUCTION. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES ASSOCIATED WITH THE UTILITIES. ALL REPAIRS SHALL BE TO THE SATISFACTION OF THE AGENCIES GOVERNING THOSE UTILITIES.
- ANY CONFLICTS ENCOUNTERED WITH EXISTING UTILITIES MUST BE ADDRESSED. COORDINATE RELOCATION WITH RESPECTIVE UTILITY COMPANY.
- ANY IMPORTED FILL SHALL MEET THE DEFINITION OF CLEAN FILL, PURSUANT TO THE TECHNICAL REQUIREMENTS FOR SITE REMEDIATION (NJAC 7:26E-1.8).
- THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY AREA THAT HE/SHE DISTURBED BEYOND THE PROPERTY LIMITS TO ITS ORIGINAL CONDITION.
- CONTRACTOR TO PROVIDE NECESSARY FOUNDATION DRAINS AND WATER-PROOFING AROUND FOUNDATION. COORDINATE WITH ARCHITECT AS REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY ROAD OPENING PERMITS THAT MAY BE REQUIRED FOR THE INSTALLATION OF NEW UTILITY SERVICES OR DRIVEWAY OPENINGS.
- REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN FOR REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE. NO MATERIAL IS TO BE STORED ON TOWNSHIP PROPERTY UNLESS PRIOR APPROVAL IS OBTAINED FROM THE TOWNSHIP ENGINEER. UNDER NO CIRCUMSTANCES CAN THE CONTRACTOR PLACE EXCAVATED MATERIAL WITHIN TOWNSHIP-OWNED PROPERTY. ANY SOIL DISTURBANCE SHALL BE DONE AS SET FORTH BY SUBSECTION 351.

**REGULATORY BODIES AND UTILITY PROVIDERS**

PROPERTY OWNERS WITHIN 200'		
Depau, Nancy 103 High Street Cranford, New Jersey 07016	Di Tullio & La Corte Associates 102-108 Walnut Avenue Cranford, New Jersey 07016	Township of Cranford – Construction Official 8 Springfield Avenue Cranford, New Jersey 07016
Minirelli, Paul & Judy 109 High Street Cranford, New Jersey 07016	IOP Cranford 100 South LLC 55 Bleeker Street 2 <sup>nd</sup> Floor Millburn, New Jersey 07041	Township of Cranford – Environmental Commission 8 Springfield Avenue Cranford, New Jersey 07016
Union County Court House Elizabeth, New Jersey 07207	116 Walnut Avenue, LLC 206 Avenue F Matamoras, PA 18336	Township of Cranford – Planning Board 8 Springfield Avenue Cranford, New Jersey 07016
Riverfront Developers, LLC 820 Morris Turnpike Short Hills, New Jersey 07078	East Coast Cranford Crossing, LLC PO Box 182585 Mail Stop #3 Columbus, Ohio 43218	Union County Planning Board 10 Elizabethtown Plaza Elizabeth, New Jersey 07202
Rennie, Kimberly A 101 High Street Cranford, New Jersey 07016	DB Walnut Ave, LLC 55 Bleeker Street, 2 <sup>nd</sup> Floor Millburn, New Jersey 07041	Somerset Union Soil Conservation Dist. 308 Milltown Road Bridgewater, New Jersey 08801
Curtis, Vera 107 High Street Cranford, New Jersey 07016	Union County Economic Dev. Corp 76 Chestnut Street Cranford, New Jersey 07016	Comcast Cablevision C/O Corporation Trust Co. 820 Bear Tavern Road West Trenton, New Jersey 08628
Titre, Shenwin & Nivine 105 High Street Cranford, New Jersey 07016	EFRUS JED 114 Orchard Street Cranford, New Jersey 07015	NJAW- GIS Supervisor 1025 Laurel Oak Road Voorhees, New Jersey 08043
Smith Cleveland C 111 High Street Cranford, New Jersey 07016	Sunkin Properties, LLC PO Bo 636 Cranford, New Jersey 13360	Verizon – Executive Offices Corporate Secretary One Verizon Way Basking Ridge, New Jersey 07920
Township of Cranford 8 Springfield Avenue Cranford, New Jersey 07016	O V A Realty 206 Stoughton Avenue Cranford, New Jersey 07016	Elizabethtown Gas Company Engineering Department 520 Green Lane Union, New Jersey 07083
CRFD Cong of Jehovahs Wts. 77 Chestnut Street Cranford, New Jersey 07016	St. Mark AME Church 34 High Street Cranford, New Jersey 07016	PSE&G – Manager Corp. Properties 80 Park Plaza T6B Newark, New Jersey 07101
109 South Avenue, LLC 206 Avenue F Matamoras, PA 18336	Junior League of Eliz & Cranford Inc. 110 Walnut Avenue Cranford, New Jersey 07016	Rahway Valley Sewerage Authority Chief Engineer 1050 East Hazelwood Avenue Rahway, New Jersey 07065
NJ Transit Corp. PO Bo 10009 Newark, New Jersey 07101		Union County Div Parks & Recreation Admin Bldg/Elizabethtown Plaza Elizabeth, New Jersey 07207

**\*OWNERS LIST**

EXHIBIT A			
Property Address	Block	Lot	Owner
108 South Avenue E	478	2	108 South Ave E LLC
112 South Avenue E	478	3	112 South Avenue E LLC
118 South Avenue E	478	4	Boffard Holdings LLC
122-126 South Avenue E	478	5	VIBO Holdings LLC
32 High Street	478	6	Boffard Holdings LLC
2 Chestnut Street	483	18	2 Chestnut St LLC
41 High Street	483	17.01	Township of Cranford



**KEY MAP**  
NOT TO SCALE

I HAVE CAREFULLY EXAMINED THIS MAP AND FIND IT CONFORMS TO THE PROVISIONS OF THE MAP FILING LAW AND MUNICIPAL ORDINANCES AND REQUIREMENTS THERETO

CHAIRPERSON \_\_\_\_\_

TOWNSHIP ENGINEER (AFFIX SEAL) \_\_\_\_\_

DATE \_\_\_\_\_

SECRETARY \_\_\_\_\_

DATE \_\_\_\_\_

THIS APPLICATION NO. \_\_\_\_\_ IS APPROVED BY THE CRANFORD TOWNSHIP PLANNING BOARD AS A MAJOR DEVELOPMENT

CHAIRPERSON \_\_\_\_\_

DATE \_\_\_\_\_

SECRETARY \_\_\_\_\_

DATE \_\_\_\_\_

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SCALE IN FEET

**FPA**  
**FRENCH & PARRELLO**  
ASSOCIATES

Corporate Office:  
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732.312.9800  
FPAEngineers.com

New Jersey • New York • Pennsylvania • Georgia

**BAHRAM FARZANEH, PE, PP**  
PROFESSIONAL ENGINEER, NJ LIC. NO. 24GE03454800

COVER SHEET			
FOR PRELIMINARY AND FINAL SITE PLAN FOR MIXED USE DEVELOPMENT			
BLOCK 478, LOTS 2, 3, 4, 5, AND 6			
BLOCK 483, LOT 18, AND 17.01			
TOWNSHIP OF CRANFORD			
UNION COUNTY NEW JERSEY			
DATE: 2/19/2021	DESIGNED BY: WGS	SCALE: AS SHOWN	PROJECT NUMBER: 16753.001
DRAWN BY: WGS	CHECKED BY: BF	FIELD BOOK	SHEET: 1 of 16

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NJDEP ELECTRONIC APPROVAL STAMP



**GENERAL NOTES:**

1. SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR FOR THE DURATION OF THE DEMOLITION PROJECT. ALL PERSONNEL WORKING OR VISITING THE SITE SHALL BE PROVIDED A PROJECT SAFETY BRIEFING. THE CONTRACTOR SHALL DESIGNATE A TRAINED, RESPONSIBLE INDIVIDUAL FOR ALL SAFETY RELATED ITEMS. THIS PERSON SHALL HAVE THE AUTHORITY TO SUSPEND WORK SHOULD AN UNSAFE CONDITION BE ENCOUNTERED.
2. THE CONTRACTOR SHALL ERECT AND MAINTAIN FENCING AROUND THE PERIMETER OF THE WORK AREAS. AN EIGHT FOOT HIGH CHAIN LINK FENCE SHALL BE USED. DURING THE DEMOLITION OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE PERIMETER FENCING, LOCATED ALONG THE LIMITS OF EACH DESIGNATED DEMOLITION AREA AND SHALL REPLACE ANY DAMAGED SECTIONS TO THE SATISFACTION OF THE OWNER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TEMPORARY OFFICE TRAILERS, ON-SITE DECONTAMINATION AREAS, DISPOSAL CONTAINERS AND ALL OTHER ITEMS AS MAY BE REQUIRED TO PERFORM HIS ACTIVITIES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL NECESSARY PERMITS AND LICENSES REQUIRED TO CARRY OUT HIS WORK IN FULL ACCORDANCE WITH REQUIREMENTS OF ALL REGULATIONS AND AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND ALL CODES, RULES AND REGULATIONS OF HEALTH, PUBLIC OR OTHER AUTHORITY CONTROLLING OR LIMITING THE METHODS, MATERIAL TO BE USED, OR THE ACTIONS OF THOSE EMPLOYED IN WORK OF THIS KIND. ALL WORK, LABOR OR MATERIAL NECESSARY TO COMPLY WITH THESE LAWS, CODES, RULES AND REGULATIONS SHALL BE PERFORMED AND FURNISHED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FERTILIZING AND SEEDING ALL AREAS DISTURBED BY HIS/HER ACTIVITIES WITHIN THE LIMITS OF THE PROJECT SITE. ROAD PAVEMENT REPLACEMENT AND ALL OTHER RESTORATION WORK WITHIN THE CITY OF PATERSON RIGHT-OF-WAY SHALL MEET THE REQUIREMENTS OF THE CITY ENGINEER.
6. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY EQUIPMENT AND METHODS TO KEEP EXCAVATIONS FREE OF WATER AND PROTECT WORK AND ADJACENT STRUCTURES FROM DAMAGE BY WATER DURING ALL STAGES OF HIS/HER ACTIVITIES.

**UTILITY NOTES:**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES TO DETERMINE THE EXACT LOCATIONS AS NECESSARY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. UTILITY LOCATIONS SHOWN ON THESE PLANS ARE FROM ABOVE-GROUND OBSERVATIONS AND FROM RECORD INFORMATION PROVIDED BY THE UTILITY COMPANIES. IN ADDITION, THE LOCATION AND TYPE OF THE EXISTING UTILITIES SHOWN ON THESE PLANS IS NOT GUARANTEED TO BE ACCURATE NOR ALL INCLUSIVE. THE CONTRACTOR SHALL USE THE EXISTING UTILITY LOCATIONS SHOWN AS AN AID IN DETERMINING EXACT LOCATIONS. THE CONTRACTOR MUST CONTACT THE "ONE CALL SYSTEM" AT 1-800-272-1000 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION, SCHEDULING AND ALL COSTS REQUIRED TO CAP, DISCONNECT AND REMOVE THE UTILITIES, IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY AGENCY OR THE AUTHORITY HAVING JURISDICTION. IN ADDITION, IF ANY EXISTING IMPROVEMENTS LOCATED WITHIN THE BOROUGH RIGHT-OF-WAY ARE DISTURBED BY THE CONTRACTOR OR THE UTILITY COMPANIES, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE IMPROVEMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE BOROUGH ENGINEER. THE CONTRACTOR SHALL CALL THE PSE&G DEMOLITION CENTER AT 1-800-817-3366 TO SCHEDULE THE INDIVIDUAL METER REMOVAL AND CUTTING OF SERVICE LINES FOR EACH STRUCTURE THAT IS TO BE DEMOLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS REQUIRED BY THE BOROUGH OF SAYREVILLE BUILDING BUREAU FOR THIS WORK, INCLUDING LETTERS FROM THE WATER, GAS AND ELECTRICAL COMPANIES, WHICH INDICATES ALL UTILITIES TO BE REMOVED ARE CLEARED FOR DEMOLITION AND/OR EXCAVATION.
3. IF ANY UTILITY FACILITIES, INCLUDING DISTRIBUTION MAINS OR SERVICES FOR ADJACENT PROPERTIES, ARE DISRUPTED OR DAMAGED DURING THE CONSTRUCTION WORK ASSOCIATED WITH THIS PROJECT, THEN THE CONTRACTOR IS RESPONSIBLE FOR RESTORING THE UTILITY FACILITIES BY THE END OF THE WORKING DAY AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED TO REMOVE OR TEMPORARILY SUPPORT.
4. ANY UTILITY POLE AND/OR GUY ANCHORS THAT MAY BE IN CONFLICT WITH HIS ACTIVITIES. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EXISTING FACILITIES FROM THESE POLES, INCLUDING ALL LIGHTS, ELECTRICAL LINES, TELEPHONE LINES, CABLE LINES AND ALL ELSE AS REQUIRED TO REMOVE THE UTILITY POLES OR GUY ANCHORS. THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES FOR THE REMOVAL OF ANY EXISTING FACILITIES THAT ARE NOT PRIVATELY OWNED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION, INSTALLATION AND SUPPLY OF ANY UTILITY SERVICE REQUIRED FOR THIS PROJECT, INCLUDING TEMPORARY POWER AND TELEPHONE SERVICES. ALL COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THIS PROJECT.

**TRAFFIC CONTROL NOTES:**

1. THE CONTRACTOR IS RESPONSIBLE TO INSURE THE SAFE, ORDERLY AND EXPEDITIOUS CIRCULATION OF VEHICULAR AND PEDESTRIAN TRAFFIC FLOW AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 12 FEET WIDE, TRAVEL LANE FOR EACH DIRECTION OF TRAFFIC FLOW ALONG THE ADJACENT ROADWAYS, AT ALL TIMES DURING HIS/HER CONSTRUCTION ACTIVITIES, TO ALLOW LOCAL AND EMERGENCY TRAFFIC ACCESS.
2. WATCHMEN AND FLAGMEN SHALL BE EMPLOYED BY THE CONTRACTOR FOR THE PROTECTION OF ANY EQUIPMENT ENTERING, LEAVING OR CROSSING ACTIVE TRAFFIC LANES, OR AS MAY BE REQUIRED FOR ROUTING OF ANY TRAFFIC AROUND OR THROUGH THE CONSTRUCTION. WATCHMEN AND FLAGMEN WILL BE EMPLOYED BY THE CONTRACTOR AT HIS OWN EXPENSE.
3. BEFORE BEGINNING WORK ON ANY STAGE OF THE PROJECT, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL WARNING SIGNS, BARRICADES, TRAFFIC GUIDES, LIGHTS, SAFETY CONES AND OTHER DEVICES AS NECESSARY TO PROTECT THE PUBLIC DURING THAT PHASE OF HIS OPERATIONS. IN ADDITION, THE CONTRACTOR MUST NOTIFY ANY TENANTS OR PROPERTY OWNERS AT LEAST ONE WEEK PRIOR TO ANY ACTIVITIES THAT MAY AFFECT EXISTING OFF-STREET PARKING AND/OR THE FLOW OF TRAFFIC.
4. ALL NECESSARY REGULATORY AND WARNING SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LAST REVISED AND SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

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06	04/06/2023	Revise per Planning Board Memorandums	SP	BF
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**BAHRAM FARZANEH, PE, PP**  
PROFESSIONAL ENGINEER, NJ LIC. No. 24GE03454800

EXISTING CONDITIONS PLAN - TRACT 1 FOR PRELIMINARY AND FINAL SITE PLAN FOR MIXED USE DEVELOPMENT BLOCK 478, LOTS 2, 3, 4, 5, AND 6 BLOCK 483, LOT 18, AND 17.01 TOWNSHIP OF CRANFORD UNION COUNTY NEW JERSEY			
DATE: 2/19/2021	DESIGNED BY: MS	SCALE: 1" = 20'	PROJECT NUMBER: 16753.001
DRAWN BY: MS	CHECKED BY: BF	FIELD BOOK	SHEET: 2 of 16





NJDEP ELECTRONIC APPROVAL STAMP



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\*DEBRIS FILLED AT TIME OF SURVEY

NOTE: THE ENTIRE PROPERTY BOUNDARY IS IN THE FLOOD HAZARD AREA. THE NJ FLOOD HAZARD AREA DESIGN FLOOD ELEVATION = 61.9'.

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BAHRAM FARZANEH, PE, PP  
PROFESSIONAL ENGINEER, NJ LIC. No. 24GE03454800

EXISTING CONDITIONS PLAN - TRACT 2  
FOR  
PRELIMINARY AND FINAL SITE PLAN  
FOR  
MIXED USE DEVELOPMENT  
BLOCK 478, LOTS 2, 3, 4, 5, AND 6  
BLOCK 483, LOT 18, AND 17.01  
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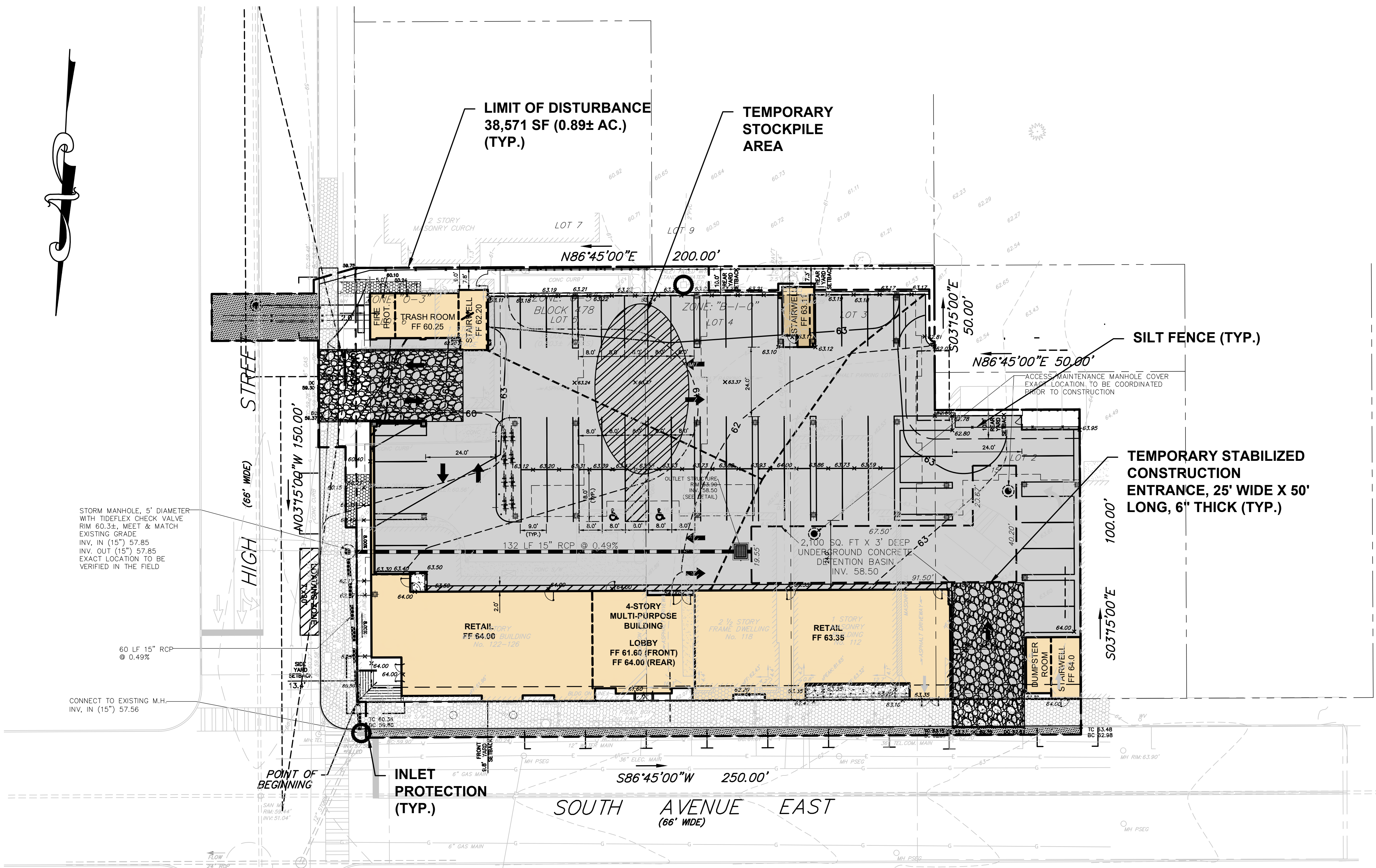
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**PROJECT SITE**

**KEY MAP**  
SCALE: NOT TO SCALE



**TOTAL DISTURBANCE AREA**  
AREA = 38,878 SF ± (0.89 AC ±)

AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PA-1). UNDER EXISTING CONDITIONS, THE SITE IS NOT COVERED IN WOODY VEGETATION OR REGROWTH. IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING (REVISED 2017), THE PROJECT FALLS UNDER THE SOIL COMPACTION EXEMPTION LIST AS "URBAN REDEVELOPMENT AREA", AND THEREFORE IS EXEMPT FROM THE SOIL COMPACTION REQUIREMENTS.

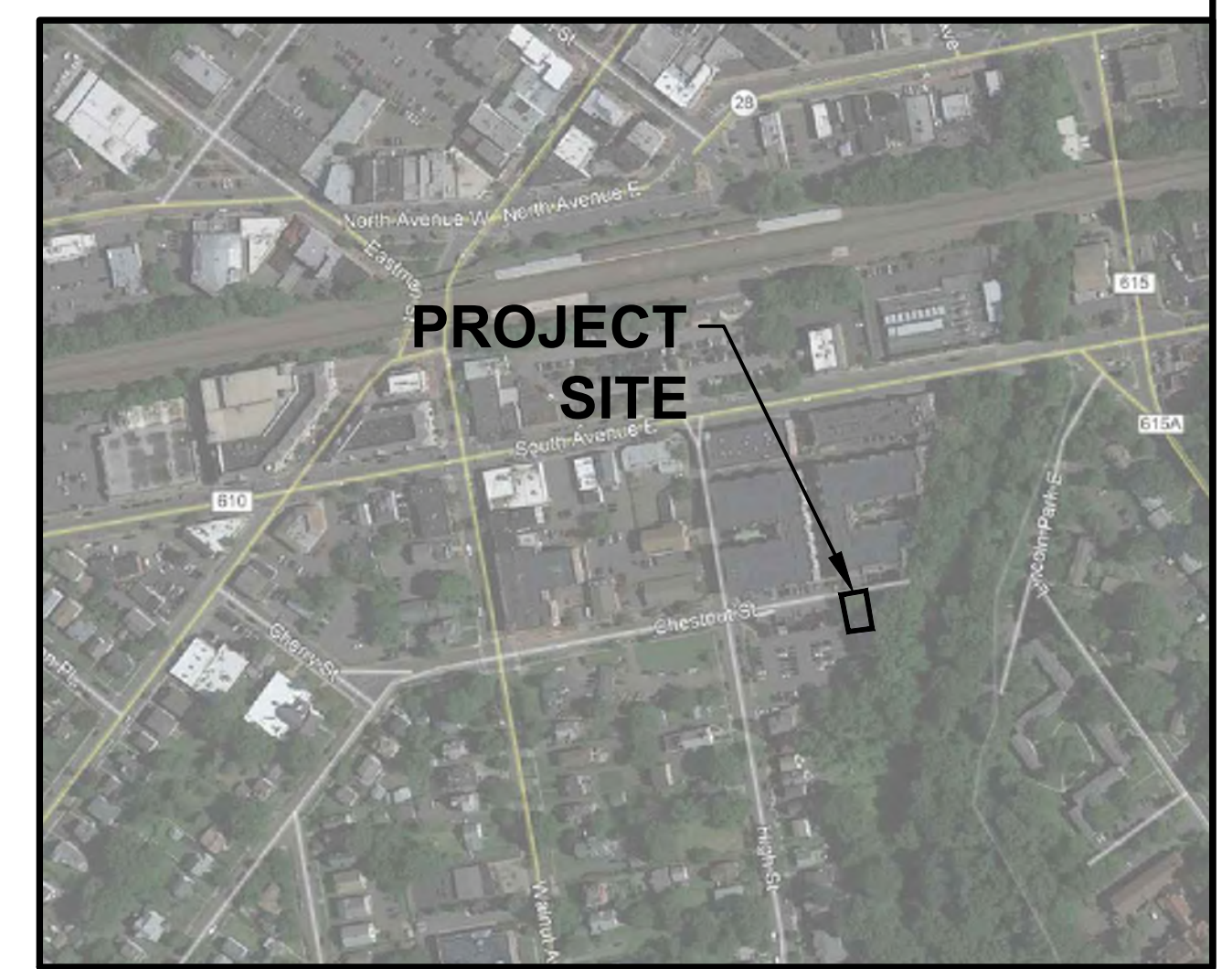
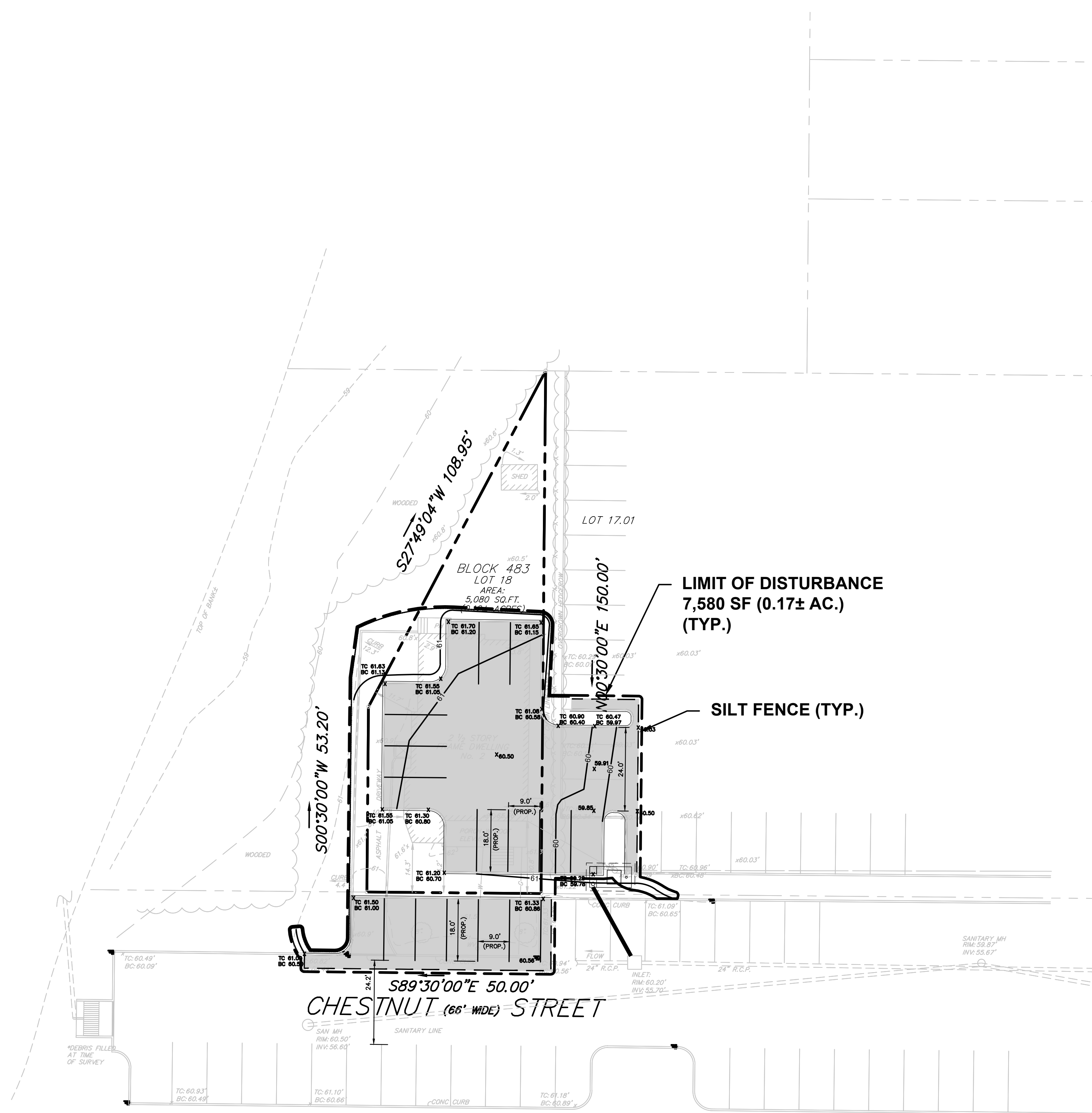
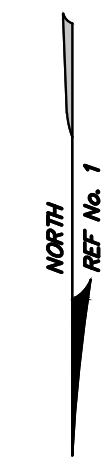
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**BAHRAM FARZANEH, PE, PP**  
PROFESSIONAL ENGINEER, NJ LIC. No. 24GE03454800

**SOIL EROSION AND SEDIMENT CONTROL PLAN (1)**  
FOR  
**PRELIMINARY AND FINAL SITE PLAN**  
FOR  
**MIXED USE DEVELOPMENT**  
BLOCK 478, LOTS 2, 3, 4, 5, AND 6  
BLOCK 483, LOT 18, AND 17.01  
TOWNSHIP OF CRANFORD  
UNION COUNTY NEW JERSEY

DATE:	DESIGNED BY:	SCALE:	PROJECT NUMBER:
2/19/2021	BF	1" = 20'	16753.001
DRAWN BY:	CHECKED BY:	FIELD BOOK	SHEET:
SP	BF		7 of 16



**KEY MAP**  
SCALE: NOT TO SCALE

**TOTAL DISTURBANCE AREA**  
AREA = 7,580 SF ± (0.17 AC ±)

AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PA-1). UNDER EXISTING CONDITIONS, THE SITE IS NOT COVERED IN WOODY VEGETATION OR REGROWTH. IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING (REVISED 2017), THE PROJECT FALLS UNDER THE SOIL COMPACTION EXEMPTION LIST AS "URBAN REDEVELOPMENT AREA", AND THEREFORE IS EXEMPT FROM THE SOIL COMPACTION REQUIREMENTS.

No.	Date	Revision	Revised By	Checked By
06	04/06/2023	Revise per Planning Board Memorandums	SP	BF
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**FPA**  
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ASSOCIATES

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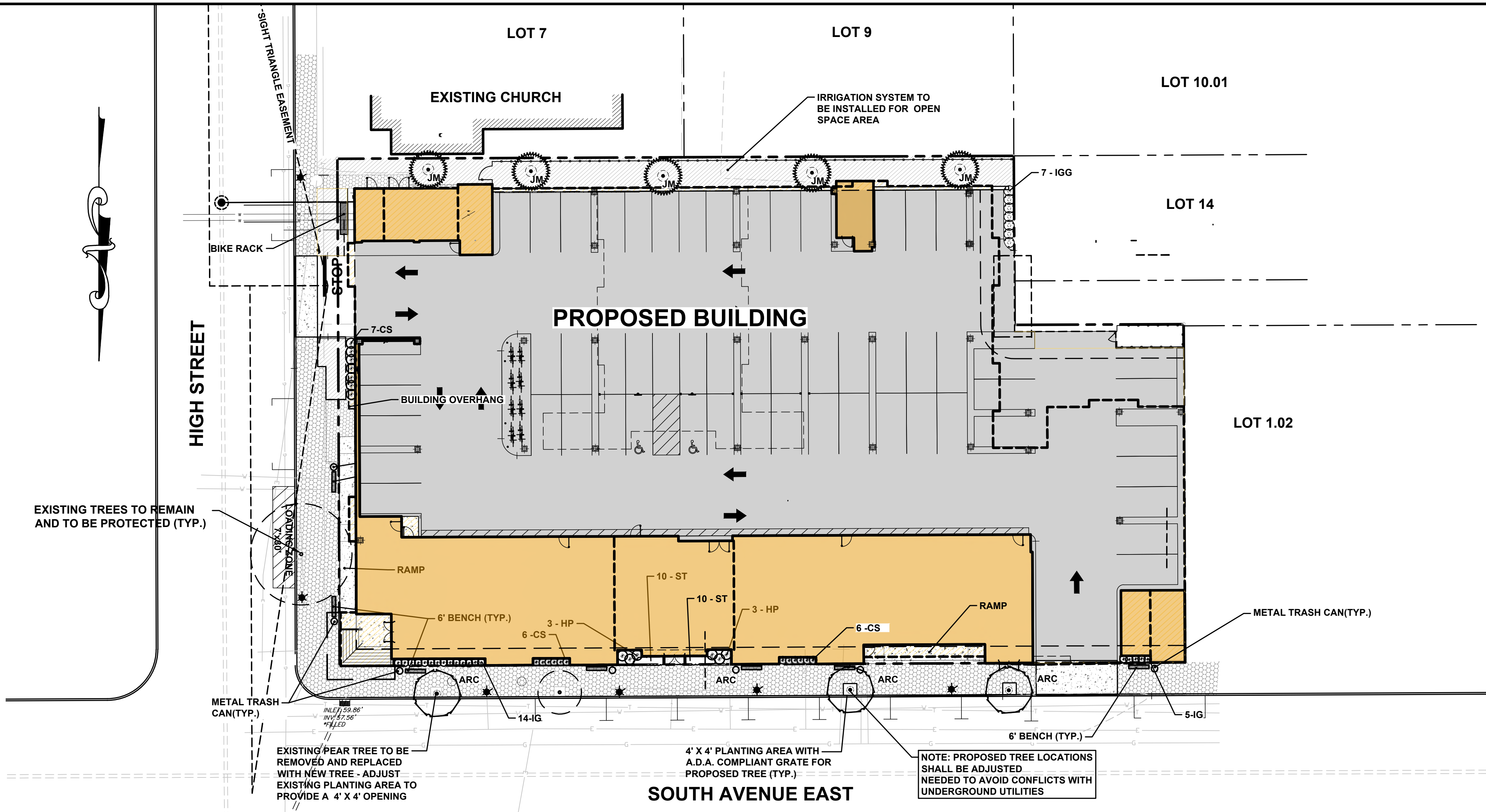
**BAHRAM FARZANEH, PE, PP**  
PROFESSIONAL ENGINEER, NJ LIC. No. 24GE03454800

**SOIL EROSION AND SEDIMENT CONTROL PLAN (2)**  
FOR  
**PRELIMINARY AND FINAL SITE PLAN**  
FOR  
**MIXED USE DEVELOPMENT**  
BLOCK 478, LOTS 2, 3, 4, 5, AND 6  
BLOCK 483, LOT 18, AND 17.01  
TOWNSHIP OF CRANFORD  
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**LEGEND**

- SODDED LAWN (TYP.)
- EXISTING STREET LIGHT FIXTURE
- EXISTING TREE TO REMAIN
- PROPOSED PLANT MATERIAL
- APPROXIMATE INSTALLED SIZE
- APPROXIMATE SIZE AT 15 TO 20 YRS GROWTH

**PLANTING NOTES**

1. THE LANDSCAPE PLAN SHALL BE USED FOR LANDSCAPING PURPOSES ONLY. THE CONTRACTOR SHOULD EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINS, ETC., AND NOTIFY THE OWNER ABOUT ANY DISCREPANCIES BEFORE STARTING WORK.
2. ALL PLANTING SHALL BE IN CONFORMANCE WITH THE AMERICAN NURSERYMEN'S ASSOCIATION STANDARDS, CURRENT EDITION. ALL PLANT MATERIALS USED SHALL BE TRUE TO NAME AND SIZE IN CONFORMANCE WITH THE CURRENT EDITION OF THE AMERICAN STANDARD OF NURSERY STOCK AND SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUN SCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS, AND ALL OTHER FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN. ALL PLANT MATERIAL SHALL BE TAGGED AT THE NURSERY SOURCE AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
3. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY ANY PERSON, VEHICLE, EQUIPMENT, OR TOOLS RELATED TO THE EXECUTION OF THIS CONTRACT.
4. EXCAVATION NEAR EXISTING UTILITIES TO BE CAREFULLY PERFORMED BY HAND.
5. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT THE NURSERY. ALL PLANT MATERIAL SHALL BE PLANTED SO THAT THE TOP OF THE ROOTBALL IS NO HIGHER OR LOWER THAN THE EXISTING/FINISHED GRADE DEPENDENT UPON SOIL CONDITIONS.
6. IN THE EVENT THAT PLANTING DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANT MATERIALS LIST, THE LANDSCAPING PLAN SHALL GOVERN. THE USE AND PLANTING OF BARE ROOT MATERIAL SHALL BE PROHIBITED.
7. ANY SUBSTITUTIONS OF PLANT MATERIAL WITH REGARDS TO SIZE, SPECIES, VARIETY, ETC., SHALL BE SUBJECT TO APPROVAL BY THE OWNER.
8. PLANTS SHALL ONLY BE INSTALLED WHEN THE SOIL IS FROST FREE.
9. UNDER NO CIRCUMSTANCES SHOULD THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED. DECIDUOUS TREES SHALL BE PRUNED BY REMOVAL OF 1/3 OF THE INTERIOR BRANCHING STRUCTURE WITHOUT ALTERING THE ORIGINAL BRANCHING FORM OF THE TREE.
10. ALL DISTURBED AREAS, NOT BEING PLANTED, SHALL BE TOPSOILED 4" THICK, FERTILIZED, SEEDED, AND MULCHED WITH APPROVED MULCH. TOPSOIL SHALL BE NATURAL FRABLE, FERTILE SOIL CHARACTERISTIC OF PRODUCTIVE SOIL IN THE VICINITY. IT SHALL BE FREE OF LUMPS OF CLAY, STONES, ROOTS, AND OTHER FOREIGN MATTER.
11. CUT AND LOOSEN SISAL HEMP CHOKE TIE AROUND TREE TRUNK. ALL PLASTIC MATERIAL SHALL NOT BE PERMITTED. ALL WIRE BASKETS AND PLASTIC LINERS OF CONTAINER GROWN TREES AND SHRUBS MUST BE COMPLETELY REMOVED. NO CONTAINER GROWN MATERIAL WILL BE ACCEPTED IF IT IS ROOT BOUND AND NOT ROOT PRUNED. THE USE OF NYLON TWINE ON ROOT BALLS IS PROHIBITED.
12. THE DEPTH OF PLANT PITS SHALL BE INCREASED BY 12" THROUGH THE ADDITION OF LOOSE AGGREGATE (3/4" TO 1 1/2" DIAMETER) WHEREVER POOR DRAINAGE OCCURS OR WHERE DIRECTED BY THE OWNER.
13. GUY WIRES SHALL BE LOCATED SO THAT THEY WILL NOT PULL CROTCH APART. GUY WIRES TO SECOND BRANCH (MINIMUM ONE-THIRD HEIGHT OF TREE), USE THREE GUY PER TREE UNLESS OTHERWISE INDICATED. ALL TREE STAKES, GUY WIRES, TREE WRAPPING AND SAUCERS SHALL BE REMOVED AFTER ONE GROWING SEASON.
14. PLANTS PLANTED IN ROWS SHALL BE MATCHED SPECIMENS AND BE UNIFORM IN SIZE AND FORM.
15. IN THE EVENT THAT EXISTING VEGETATION IS REMOVED BEYOND THE CLEARING LIMITS SHOWN ON THE PLANS, ADDITIONAL PLANTING MUST BE PROVIDED AS APPROVED BY THE TOWNSHIP AND AT NO COST TO THE OWNER.
16. PLANTING BACKFILL MIXTURE SHALL CONSIST OF ONE PART TOPSOIL, ONE PART NATIVE SOIL AND ONE PART PEAT MOSS. NOTE THAT PLANTING MIXTURE MAY CHANGE BASED UPON SOIL CONDITIONS.
17. MULCH, 4" IN DEPTH, SHALL BE TREATED SHREDDED HARDWOOD BARK NOT EXCEEDING 2" IN GREATEST DIMENSION. MULCH SHALL BE INSTALLED WITH A MAXIMUM OF ONE (1) INCH WITHIN ONE (1) FOOT ON THE TREE'S ROOT FLARE. A NON-PLASTIC WEED RETARDANT BARRIER SHALL BE USED IN ALL NON GRASSED AREAS. MULCH SHALL BE FINE GRADED FOR A PLEASING APPEARANCE. THE USE OF MARBLE OR PINE BARK CHIPS IS PROHIBITED. MULCH VOLCANOES ARE NOT PERMITTED.
18. ALL PLANT MATERIAL SHALL BE GIVEN A MINIMUM OF 5 GALLONS OF WATER AT THE TIME OF INSTALLATION AND SHALL BE WATERED AT INTERVALS DURING ESTABLISHMENT TO ENSURE ADAPTATION TO THE SITE. PRIOR TO THE INSTALLATION OF THE PLANT MATERIAL, THE CONTRACTOR SHALL FILL EACH PLANTING PIT WITH WATER AND ALLOW IT TO FULLY PERCOLATE INTO THE GROUND PRIOR TO PLACEMENT OF THE PLANT. THE CONTRACTOR SHALL NOTIFY EITHER THE OWNER OR PROJECT LANDSCAPE ARCHITECT OF ANY PERCOLATION PROBLEMS PRIOR TO INSTALLATION.
19. PREFERRED PLANTING TIME PERIODS ARE FROM SEPTEMBER 1 TO NOVEMBER 30 OR MARCH 20 TO MAY 31. NO PLANTING SHALL BE EXECUTED DURING ABNORMALLY HOT WEATHER NOR WHEN THE GROUND IS FROZEN.
20. THE CONTRACTOR SHALL REMOVE ALL DAMAGED BRANCHES AND NURSERY TAGS AT THE TIME OF INSTALLATION.
21. ALL TURF SHALL RECEIVE FERTILIZER CONSISTING OF 19-6-4 (50% ORGANIC) COMPOSITION, APPLIED AT 3 L.B. PER 100 SQ. FT. SLOW RELEASE FERTILIZER TABLETS OR PACKETS OF 20-10-5 COMPOSITION SHALL BE ADDED TO ALL PLANTING PITS AT THE FOLLOWING RATIOS: 1 PER SHRUB, 2 PER DECIDUOUS OR EVERGREEN TREES UP TO 2" IN CALIPER AND 3 FOR DECIDUOUS AND EVERGREEN TREES ABOVE 2" IN CALIPER.
22. EACH TREE THAT IS PLANTED MUST BE TAGGED WITH A DURABLE LABEL BEARING THE GENUS, SPECIES, VARIETY, PLANT PATENT NUMBER (IF APPLICABLE) AND CULTURAL REQUIREMENTS AND MUST BE INSPECTED PRIOR TO REMOVAL.
23. ALL GROUPED SHRUBS SHALL BE MULCHED TOGETHER TO FORM ONE CONTINUOUS PLANTING BED.
24. CONTRACTOR TO BE RESPONSIBLE FOR SODDING AREAS BEING DISTURBED BY CONSTRUCTION. SOD TO BE IN ACCORDANCE WITH SOIL CONSERVATION DISTRICT'S STANDARDS.
25. ALL TREES FOUR (4) FEET OR GREATER IN HEIGHT SHALL BE STAKED PER TOWNSHIP DESIGN STANDARDS.
26. ALL PLANT RELOCATIONS SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
27. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR PERIOD OF ONE YEAR FROM THE TIME OF PLANTING.
28. ALL TREE "GATOR" IRRIGATION BAGS SHALL BE MAINTAINED FOR SIX MONTHS AND THEN REMOVED.

**PLANT LIST**

TREES	KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER TYPE	MATURE SIZE	REMARKS
ARC	N*	4	ACER RUBRUM COLUMNARE "ARMSTRONG"	ARMSTRONG COLUMNAR RED MAPLE	3" CAL.	B&B	40' HEIGHT, 15' SPREAD	COLUMNAR VERSION OF RED MAPLE, SINGLE TRUNK ONLY
JM	N#&	5	JUNIPERUS SCOPULORUM "MOONGLW"	MOONGLW JUNIPER	8'-10' HEIGHT	B&B	20' HEIGHT, 8'-10' SPREAD	BLUE GREEN FOLIAGE, EVERGREEN, NARROW HABIT
SHRUBS AND PERENNIALS AND GRASSES	KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER TYPE	MATURE SIZE	REMARKS
CS	N*	8	ARONIA MELANOCARPA LOW SCAPE MOUND	LOW SCAPE MOUND CHOKEBERRY	8' HEIGHT	1 GALLON CONT	18"-24" HEIGHT AND SPREAD	COMPACT DECIDUOUS SHRUB, WHITE FLOWERS IN SPRING
HP	N&	6	HYDRANGEA QUERCIFOLIA "RUBY SLIPPERS"	RUBY SLIPPERS OAKLEAF HYDRANGEA	1.5' HT.	3 GALLON CONT	3'-4' HEIGHT AND SPREAD	DECIDUOUS SHRUB, WHITE FLOWERS SUMMER
IG	N#&	19	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	2'-3' HEIGHT	B & B	4' HEIGHT AND SPREAD	EVERGREEN SHRUB, COMPACT FORM
IGG	N#&	18	ILEX GLABRA	INKBERRY HOLLY	2'-3' HEIGHT	B & B	6"-8" HEIGHT AND SPREAD	EVERGREEN SHRUB
ST	N#&	20	SEDUM TERNATUM	THREE LEAF STONECROP	2" HEIGHT	1 GAL. CONT.	6"-8" HEIGHT AND SPREAD	SUCCULENT TRAILING GROUNDCOVER, WHITE FLOWERS, JUNE

**KEY:**  
 N = NATIVE PLANT OF NORTH AMERICA \* = SPRING INSTALLATION ONLY  
 & = SALT SPRAY TOLERANT # = SELDOM OR RARELY DAMAGED BY DEER AS PER RUTGERS AG AGENCY (HTTP://NJAES.RUTGERS.EDU)

**SODDING SPECIFICATIONS**

THE CONTRACTOR WILL BE RESPONSIBLE FOR RE-ESTABLISHING ALL AREAS DISTURBED BY CONSTRUCTION. THE SODDING WILL BE IN ACCORDANCE WITH UNION COUNTY SOIL CONSERVATION DISTRICT STANDARDS. SPECIFIC SEED TYPES SHALL BE USED AS FOLLOWS:

- A. ALL DISTURBED AREAS SHALL BE SODDED AS SHOWN ON THE LANDSCAPE PLAN WITH ERNST SEED CO. (ERNSTSEED.COM) ATHLETIC FIELD MIXTURE #ERNMX-106 OR APPROVED EQUAL. SOD SHALL BE INSTALLED DURING THE GROWING SEASON ONLY.
- B. SLOPED AREAS 3:1 AND GREATER SHALL RECEIVE IN COMBINATION WITH THE ABOVE SPECIFIED GRASS MIXTURE AN EROSION CONTROL MATTING BY BONTERRA AMERICA, PINELANDS NURSERIES, COLUMBUS, NJ, MODEL # CS2 OR APPROVED EQUAL.

**LANDSCAPE PLAN UTILITY NOTE:**

DO NOT INSTALL PROPOSED PLANT MATERIAL DIRECTLY ON TOP OF ANY PROPOSED OR EXISTING UNDERGROUND UTILITIES. FIELD ADJUST MATERIAL AS NEEDED AS DIRECTED BY THE PROJECT PROFESSIONAL TO ACCOMMODATE ANY POTENTIAL CONFLICTS.

THIS PLAN SHALL BE USED FOR LANDSCAPING PURPOSES ONLY.

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**SARAH REBAR BISAHA, L.L.A., PP**  
 LICENSED LANDSCAPE ARCHITECT NJ LIC NO AS000639

LANDSCAPING PLAN - TRACT 1  
 FOR  
 PRELIMINARY AND FINAL SITE PLAN  
 FOR  
 MIXED USE DEVELOPMENT  
 BLOCK 478, LOTS 2, 3, 4, 5, AND 6  
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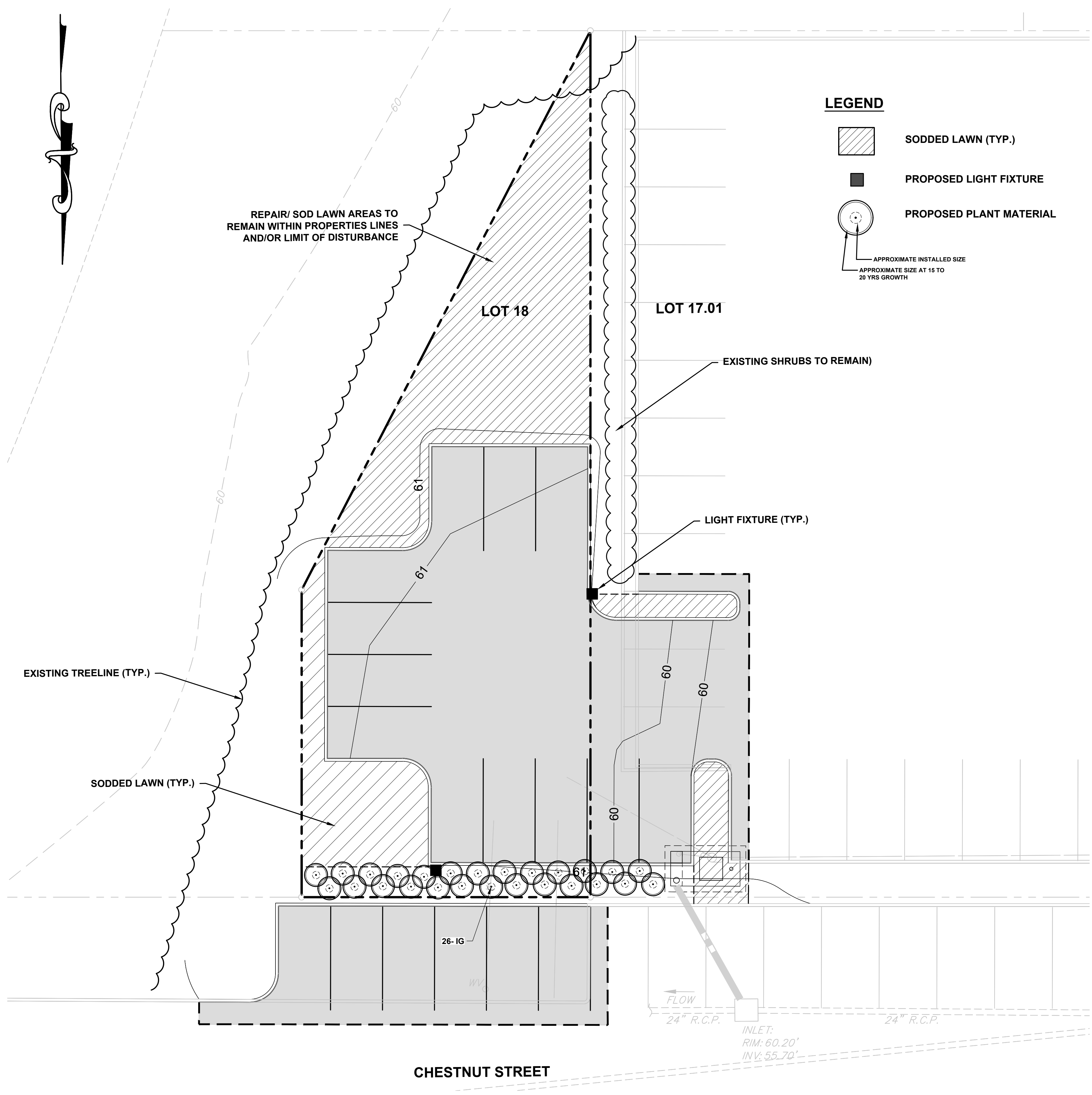
DATE: 2/19/2021  
 DESIGNED BY: SRB  
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SCALE: 1"=20'  
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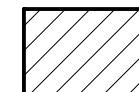


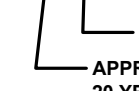

PROJECT NUMBER: 16753.001  
 SHEET: 10 of 16

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**LEGEND**

-  SODDED LAWN (TYP.)
-  PROPOSED LIGHT FIXTURE
-  PROPOSED PLANT MATERIAL
-  APPROXIMATE INSTALLED SIZE
-  APPROXIMATE SIZE AT 15 TO 20 YRS GROWTH

**PLANTING NOTES**

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19. ALL TURF SHALL RECEIVE FERTILIZER CONSISTING OF 10-6-4 (50% ORGANIC) COMPOSITION, APPLIED AT 3 LB. PER 100 SQ. FT. SLOW RELEASE FERTILIZER TABLETS OR PACKETS OF 20-10-5 COMPOSITION SHALL BE ADDED TO ALL PLANTING PITS AT THE FOLLOWING RATIOS: 1 PER SHRUB, 2 PER DECIDUOUS OR EVERGREEN TREES UP TO 2" IN CALIPER AND 3 FOR DECIDUOUS AND EVERGREEN TREES ABOVE 2" IN CALIPER.
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NJDEP ELECTRONIC APPROVAL STAMP

**PLANT LIST**

SHRUBS	KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER TYPE	MATURE SIZE	REMARKS
IG	N#&	26	ILEX GLABRA	INKBERRY HOLLY	2'-3' HEIGHT	B & B	6'-8' HEIGHT AND SPREAD	EVERGREEN SHRUB

**KEY:**  
 N = NATIVE PLANT OF NORTH AMERICA \* = SPRING INSTALLATION ONLY  
 & = SALT SPRAY TOLERANT # = SELDOM OR RARELY DAMAGED BY DEER AS PER RUTGERS AG AGENCY (HTTP://NJAES.RUTGERS.EDU)

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**SARAH REBAR BISAHA, LLA, PP**  
 LICENSED LANDSCAPE ARCHITECT NJ LIC NO AS000639

LANDSCAPING PLAN FOR PRELIMINARY AND FINAL SITE PLAN FOR MIXED USE DEVELOPMENT			
BLOCK 478, LOTS 2, 3, 4, 5, AND 6 BLOCK 483, LOT 18, AND LOT 19			
TOWNSHIP OF CRANFORD UNION COUNTY NEW JERSEY			
DATE: 2/19/2021	DESIGNED BY: JB	SCALE: 1" = 10'	PROJECT NUMBER: 16753.001
DRAWN BY: JB	CHECKED BY: SRB	FIELD BOOK	SHEET: 11 of 16



**METAL BENCH DETAIL**

NOT TO SCALE

**NOTES:**

- 6' LONG METAL BENCH SHALL BE MANUFACTURED THOMAS STEELE, (THOMAS-STEEL.COM) MODEL "CARNIVAL", 6 FT BENCH #CRB-6 WITH BACK AND ARMS
- POWDER COATED COLOR FINISH TO BE SELECTED BY OWNER FROM STANDARD AVAILABLE COLORS
- BENCH SHALL HAVE PREDRILLED MOUNTING HOLES FOR SURFACE MOUNT



**METAL TRASH RECEPTACLE DETAIL**

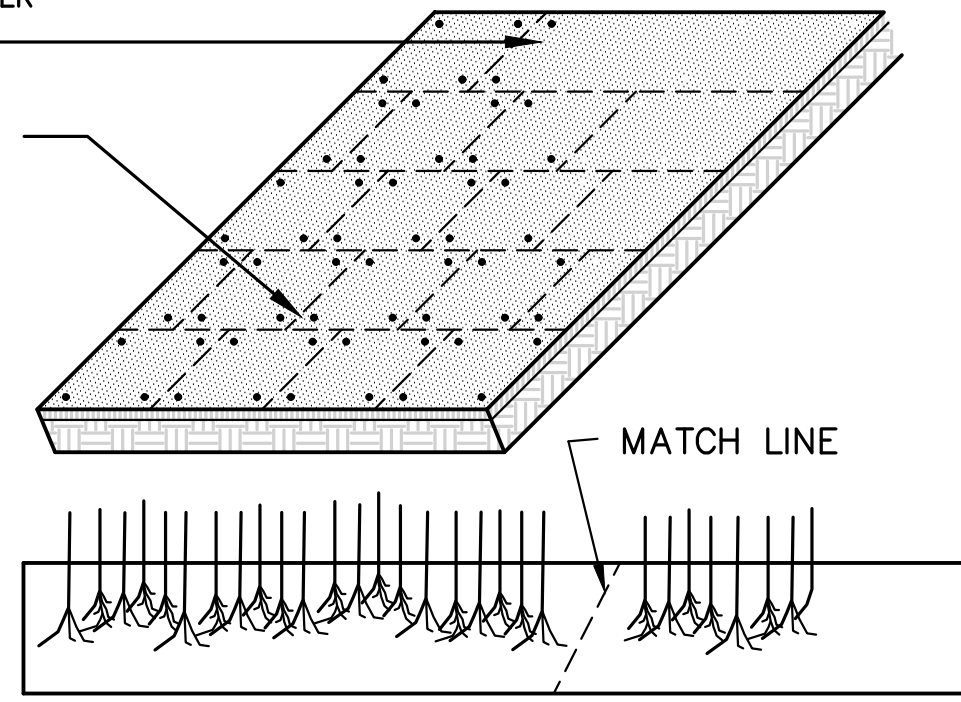
NOT TO SCALE

**NOTES:**

- TRASH RECEPTACLES SHALL BE OUTDOOR SLATTED STEEL TRASH CAN WITH FLAT LID, 36 GALLON, BLACK, AS MANUFACTURED BY GLOBAL INDUSTRIAL™ MODEL 237726BK. COLOR TO BE BRONZE OR AS PER OWNER'S SELECTION FROM FULL RANGE OF STANDARD COLORS PROVIDED BY THE MANUFACTURER.

PEG ON SLOPES GREATER THAN 3 : 1

STAGGERED SOD PANEL JOINTS



**NOTES :**

- CULTIVATED SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
- APPLY FERTILIZER AT THE RATE OF 500 POUNDS PER ACRE USING 10-20-10 RATIO OR AS DETERMINED BY SOIL TESTING.
- SUPPLY PULVERIZED DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE OR AS DETERMINED BY SOIL TESTING.
- APPLY 300 POUNDS 38-0-0 PER ACRE IN LIEU OF TOP DRESSING OR AS DETERMINED BY SOIL TESTING.
- PLACE SOD STRIPS ON THE CONTOUR STARTING AT THE BOTTOM.
- PLACE SOD WITH SNUG EVEN JOINTS THAT ARE STAGGERED.
- ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT.
- ON SLOPES GREATER THAN 3 TO 1 SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (6 TO 10 INCHES LONG BY 3/4 OF AN INCH).
- ANCHOR SOD IN WATER CARRYING CHANNELS WITH HEAVY JUTE OR PLASTIC NETTING.
- SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH THE SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

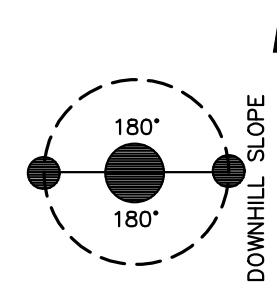
**SOD INSTALLATION DETAIL**

NOT TO SCALE

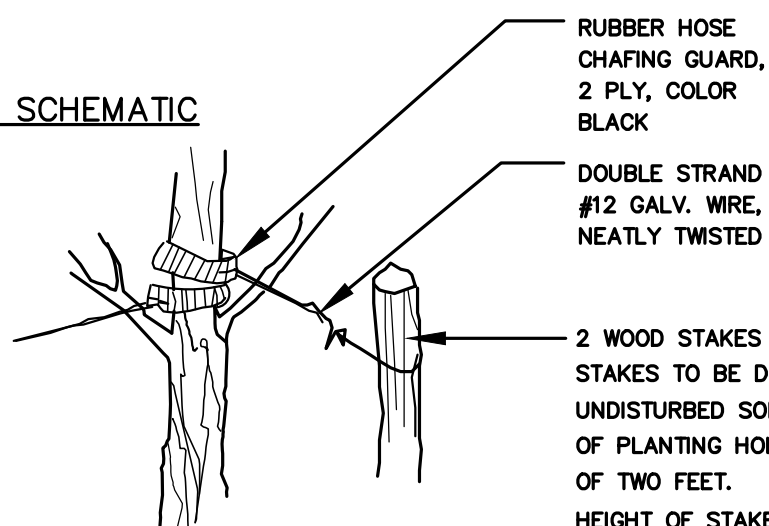
**SODDING SPECIFICATIONS**

THE CONTRACTOR WILL BE RESPONSIBLE FOR RE-ESTABLISHING ALL AREAS DISTURBED BY CONSTRUCTION. THE SODDING WILL BE IN ACCORDANCE WITH BERGEN COUNTY SOIL CONSERVATION DISTRICT STANDARDS. SPECIFIC SEED TYPES SHALL BE USED AS FOLLOWS:

- ALL DISTURBED AREAS SHALL BE SODDED AS SHOWN ON THE LANDSCAPE PLAN WITH ERNST ATHLETIC FIELD MIXTURE OR APPROVED EQUAL. SEED SHALL BE APPLIED AT A RATE OF 170 LBS/ACRE BETWEEN THE PERIODS OF EITHER 4/1 TO 5/31 OR 8/15 TO 10/16.
- SLOPED AREAS 3:1 AND GREATER SHALL RECEIVE IN COMBINATION WITH THE ABOVE SPECIFIED GRASS MIXTURE AN EROSION CONTROL MATTING BY BONTERRA AMERICA, PINELANDS NURSERIES, COLUMBUS, NJ, MODEL # CS2 OR APPROVED EQUAL.



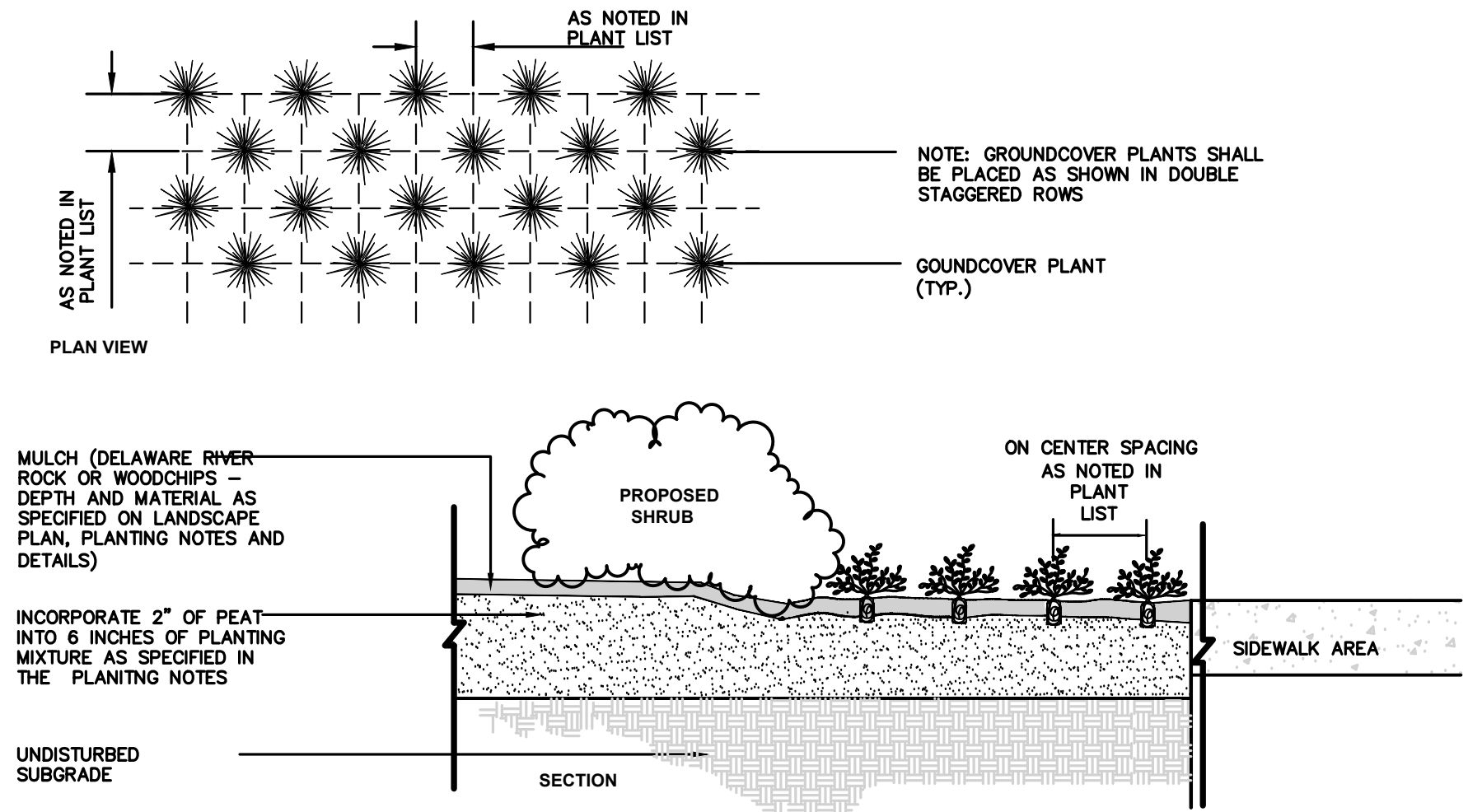
**STAKING PLAN SCHEMATIC**



**STAKING DETAIL**

**TREE STAKING DETAIL**

NOT TO SCALE



**GROUNDCOVER PLANTING DETAIL**

NOT TO SCALE

**NOTES:**

- ALL TREES UNDER 3" IN CALIPER SHALL BE STAKED ALL TREES 3" IN CALIPER AND GREATER SHALL BE GUYED
- TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE
- SET STAKES VERTICAL AND AT SAME HEIGHT
- REMOVE ALL WIRE BASKETS PRIOR TO BACKFILLING THE PLANTING PIT.
- ALL WIRE BASKETS SHALL BE REMOVED PRIOR TO BACKFILLING THE PLANTING PIT.

STAKES TO BE SET 2/3'RDS UP TREE OR JUST AT FIRST BRANCHES SEE TREE STAKING AND GUYING DETAIL

20 GALLON TREE GATOR SLOW RELEASE WATERING BAG MODEL #98183 OR APPROVED EQUAL. PROVIDE ONE BAG PER INSTALLED TREE FOR TREES LESS THAN 4" IN CALIPER, PROVIDE TWO PER TREE FOR LARGER SIZES- BAGS TO BE REMOVED AFTER 6 MONTHS

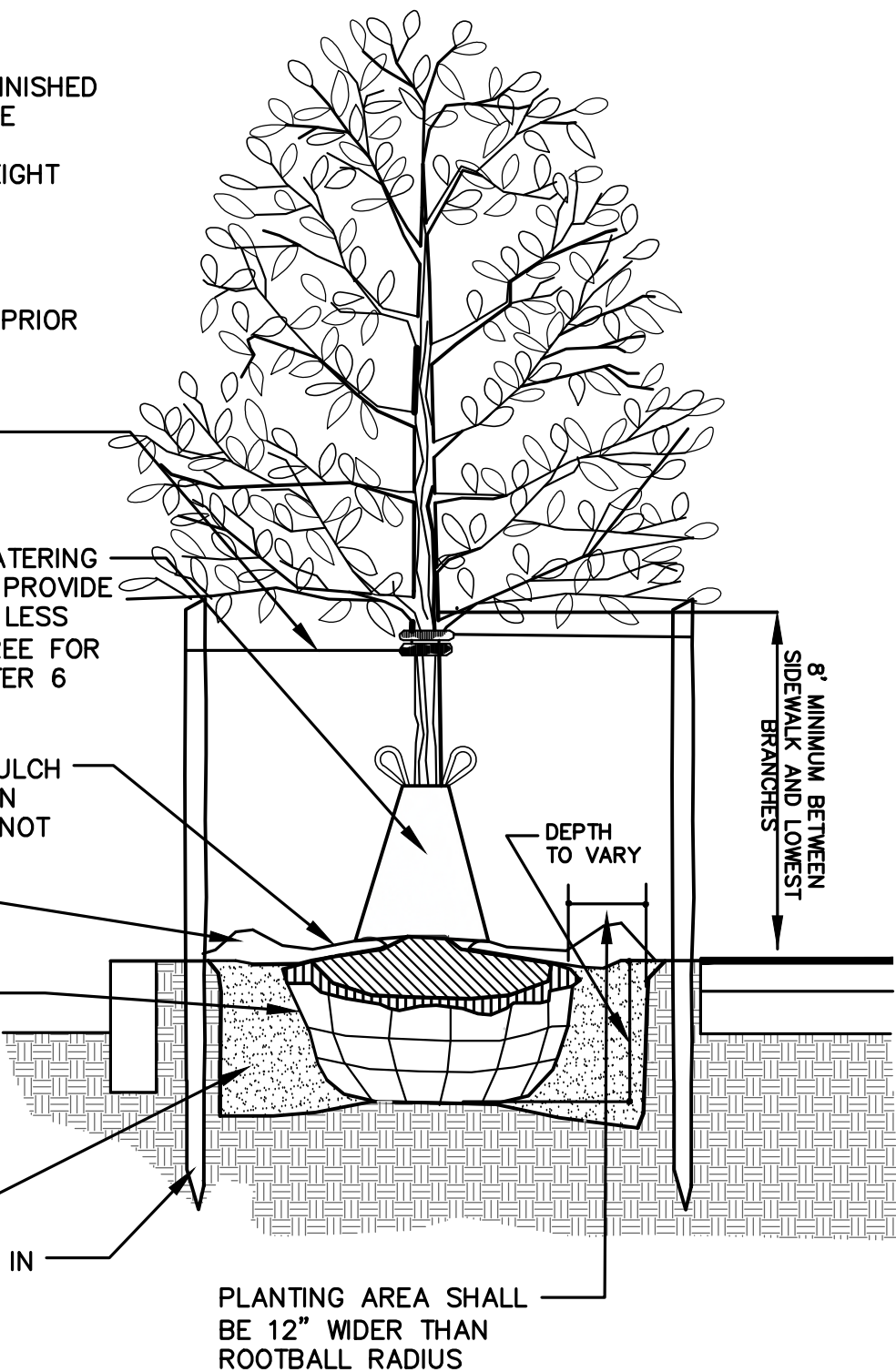
4" SHREDDED HARDWOOD MULCH- KEEP MULCH AWAY FROM ROOT COLLAR AS DESCRIBED IN PLANTING NOTES. MULCH VOLCANOES ARE NOT PERMITTED

6" SOIL MOUND FOR FOR WATER RETENTION

REMOVE ALL PLASTIC MATERIAL, BURLAP SYNTHETIC BURLAP, STRING OR CONTAINERS AT THE TIME OF PLANTING

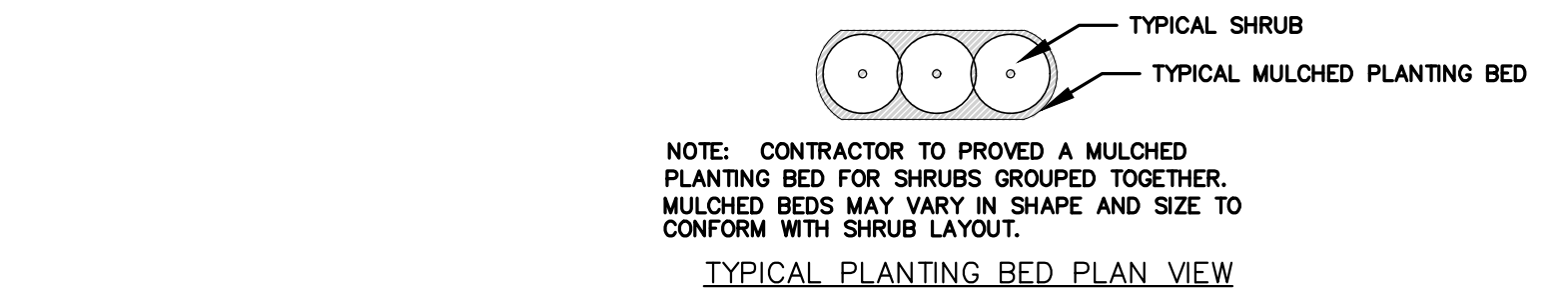
BACKFILL AUGMENTED WITH TOPSOIL

STAKES TO EXTEND 18" BELOW TREE PIT IN UNDISTURBED GROUND



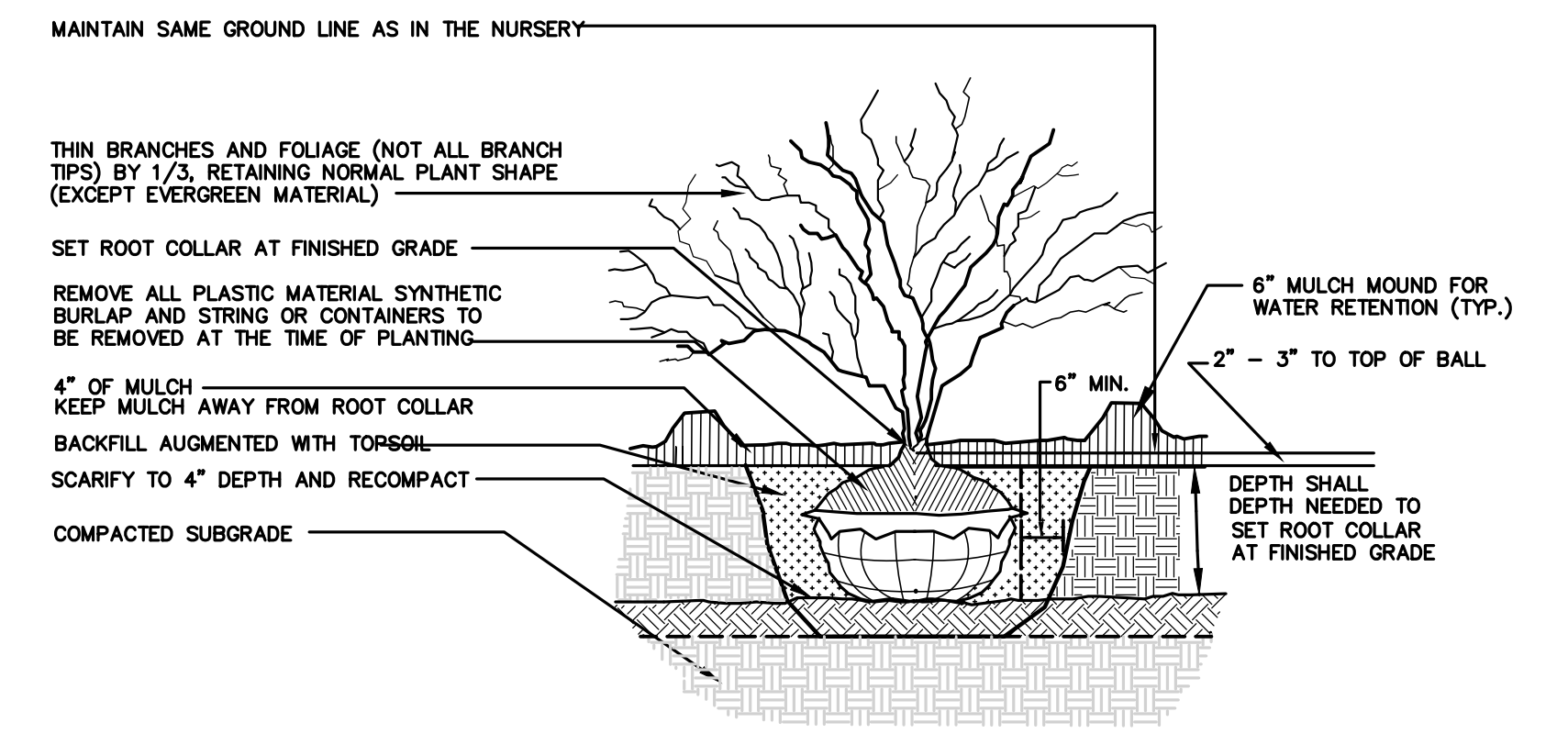
**DECIDUOUS TREE PLANTING DETAIL**

NOT TO SCALE



NOTE: CONTRACTOR TO PROVIDE A MULCHED PLANTING BED FOR SHRUBS GROUPED TOGETHER. MULCHED BEDS MAY VARY IN SHAPE AND SIZE TO CONFORM WITH SHRUB LAYOUT.

**TYPICAL PLANTING BED PLAN VIEW**



**SHRUB PLANTING DETAIL**

NOT TO SCALE

O:\16753\16753 - South Avenue East, Cranford\CADD\DWG\16753.001 - LA.dwg LA NOTES

NJDEP ELECTRONIC APPROVAL STAMP

No.	Date	Revision	Revised By	Checked By
06	04/06/2023	Revise per Planning Board Memorandums	SP	BF
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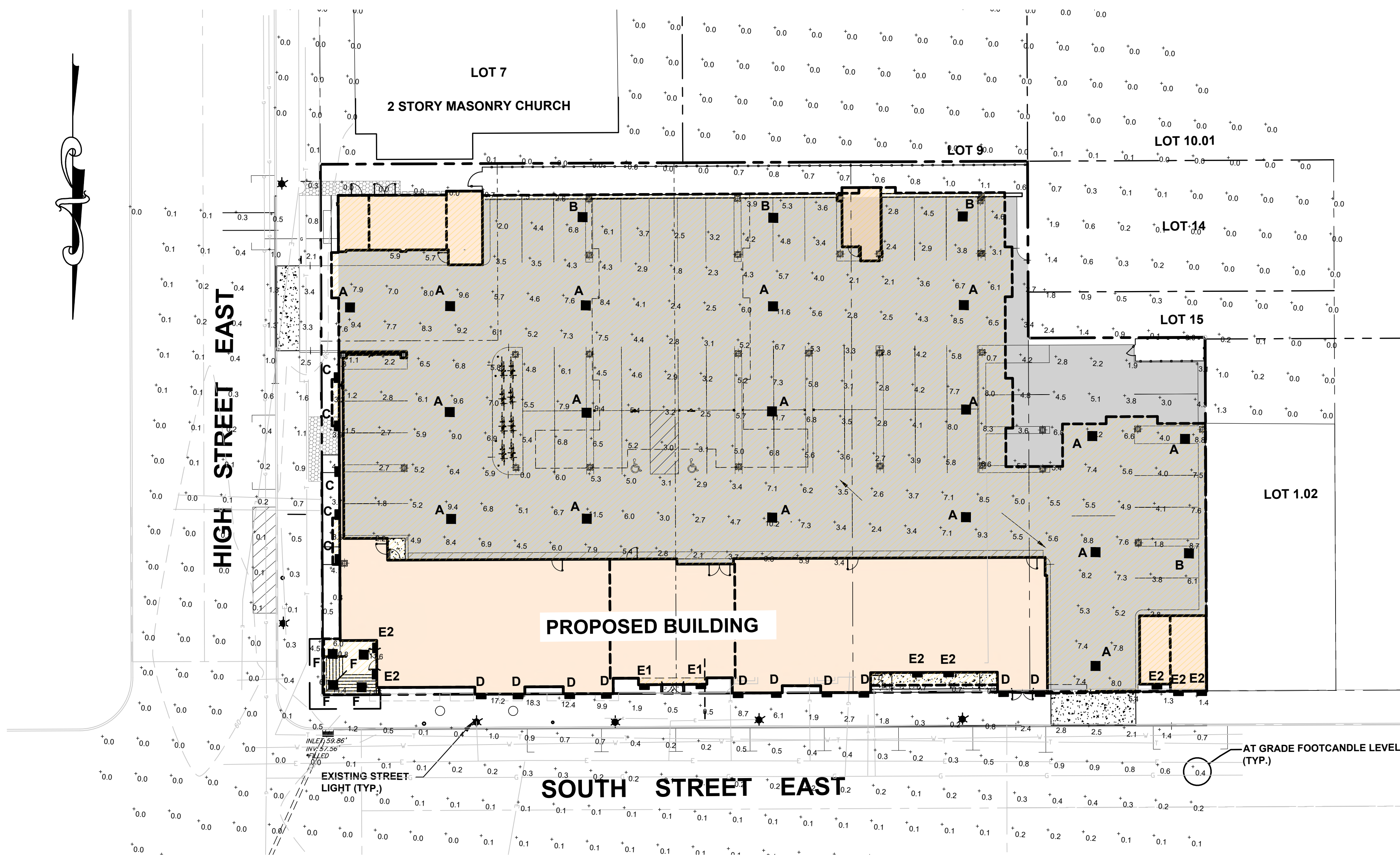
*Sarah Bisaha*

**SARAH REBAR BISAHA, LLA, PP**  
LICENSED LANDSCAPE ARCHITECT NJ LIC NO AS000639

LANDSCAPING DETAILS  
FOR  
PRELIMINARY AND FINAL SITE PLAN  
FOR  
MIXED USE DEVELOPMENT  
BLOCK 478, LOTS 2, 3, 4, 5, AND 6  
BLOCK 483, LOT 18, AND 17.01  
TOWNSHIP OF CRANFORD  
UNION COUNTY NEW JERSEY

DATE: 2/19/2021  
DESIGNED BY: SRB  
DRAWN BY: SRB  
CHECKED BY: BF

SCALE: FIELD BOOK  
PROJECT NUMBER: 16753.001  
SHEET: 12 of 16



CEILING MOUNTED LIGHT FIXTURE TYPE A AND B SHALL BE MANUFACTURED BY COOPER LIGHTING SOLUTIONS (WWW.COOPERLIGHTING.COM) OR APPROVED EQUAL, MODEL VPL VALET LED LIGHT SOURCE, HOUSING COLOR TO BE SELECTED BY OWNER FROM AVAILABLE STANDARD COLORS

**CEILING MOUNTED LIGHT FIXTURE TYPE A, B**  
NOT TO SCALE



WALL MOUNTED LIGHT FIXTURE TYPE D SHALL BE MANUFACTURED BY TECH LIGHTING (WWW.TECHLIGHTING.COM) OR APPROVED EQUAL, MODEL TEGEL 18 OUTDOOR WALL LED LIGHT SOURCE, HOUSING COLOR TO BE SELECTED BY OWNER FROM AVAILABLE STANDARD COLORS

**WALL MOUNTED LIGHT FIXTURE TYPE D**  
NOT TO SCALE



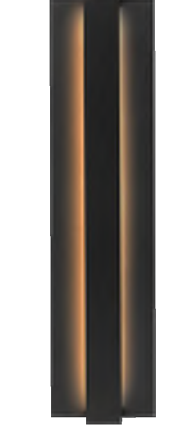
WALL MOUNTED LIGHT FIXTURE TYPE E2 SHALL BE MANUFACTURED BY TECH LIGHTING (WWW.TECHLIGHTING.COM) OR APPROVED EQUAL, MODEL WINDFALL 16 WALL SCONCE LED LIGHT SOURCE, HOUSING COLOR TO BE SELECTED BY OWNER FROM AVAILABLE STANDARD COLORS

**WALL MOUNTED LIGHT FIXTURE TYPE E2**  
NOT TO SCALE



CEILING MOUNTED LIGHT FIXTURE TYPE C SHALL BE MANUFACTURED BY TECH LIGHTING (WWW.TECHLIGHTING.COM) OR APPROVED EQUAL, MODEL PITCH SINGLE OUTDOOR WALL LED LIGHT SOURCE, HOUSING COLOR TO BE SELECTED BY OWNER FROM AVAILABLE STANDARD COLORS

**WALL MOUNTED LIGHT FIXTURE TYPE C**  
NOT TO SCALE



WALL MOUNTED LIGHT FIXTURE TYPE E1 SHALL BE MANUFACTURED BY TECH LIGHTING (WWW.TECHLIGHTING.COM) OR APPROVED EQUAL, MODEL WINDFALL WALL SCONCE LED LIGHT SOURCE, HOUSING COLOR TO BE SELECTED BY OWNER FROM AVAILABLE STANDARD COLORS

**WALL MOUNTED LIGHT FIXTURE TYPE E1**  
NOT TO SCALE



CEILING MOUNTED LIGHT FIXTURE TYPE F SHALL BE MANUFACTURED BY TECH LIGHTING (WWW.TECHLIGHTING.COM) OR APPROVED EQUAL, MODEL ENTRA CL 3" LED LED LIGHT SOURCE, HOUSING COLOR TO BE SELECTED BY OWNER FROM AVAILABLE STANDARD COLORS

**CEILING MOUNTED LIGHT FIXTURE TYPE F**  
NOT TO SCALE

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Area South and West	Illuminance	Fc	0.1	2.6	0.0	N.A.	N.A.
Corner Entrance	Illuminance	Fc	11.3	11.6	10.8	1.1	1.1
High Street and Sidewalk	Illuminance	Fc	0.6	7.6	0.0	N.A.	N.A.
Parking Garage	Illuminance	Fc	5.2	11.7	0.0	N.A.	N.A.
Ramp	Illuminance	Fc	3.6	6.0	0.4	9.1	15.0
South Ave and Sidewalk	Illuminance	Fc	0.8	18.3	0.0	N.A.	N.A.

Symbol	Label	Description	Arr. Watts	Arr. Lum. Lumens	LLF
■	A	MCGRAW #VPL-E03-LED-E1-WQ	75.2	9276	0.900
■	B	MCGRAW #VPL-E01-LED-E1-RW	24.7	3004	0.900
■	C	TECH PITCH #700OWSPITSB-LED830-VOLT	26.2	803	0.900
■	D	TECH TEGAL 18 #700OWTEG830NW18BUNV	30	2426	0.900
■	E1	TECH WINDFALL #700OWWIND8-LED	20	184	0.900
■	E2	TECH WINDFALL #700OWWIND168-LED	18.5	184	0.900
■	F	TECH HENCL3-TBD-F-L121 + ENCL3-TBD-FD-930BB + 353LEDGATOPT80	11.7	1122	0.900

**LIGHTING NOTES**

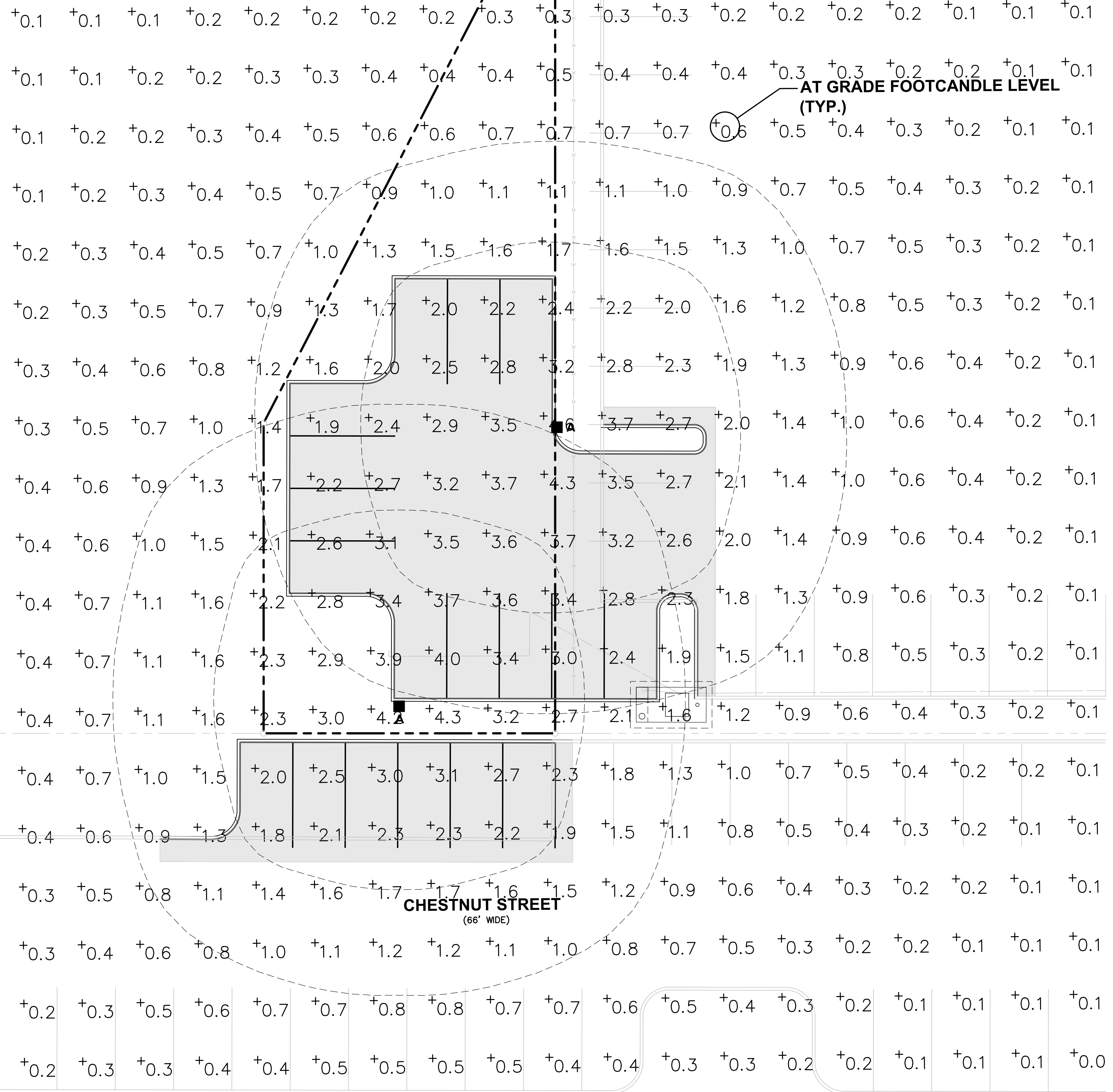
- SEE ARCHITECTURAL PLANS FOR PROPOSED STREET SIDE LIGHTING.
- LIGHTING LEVELS SHOWN ON THIS PLAN DO NOT INCLUDE ANY CONTRIBUTIONS FROM EXISTING STREET LIGHT FIXTURES.
- FIXTURE ARE CALCULATED WITH 0.9 LIGHT LOSS FACTOR. INITIAL FC LEVELS WILL BE APPROXIMATELY 10% HIGHER.
- FIXTURES ARE DIMMABLE WITH 0-10V CONTROLS.

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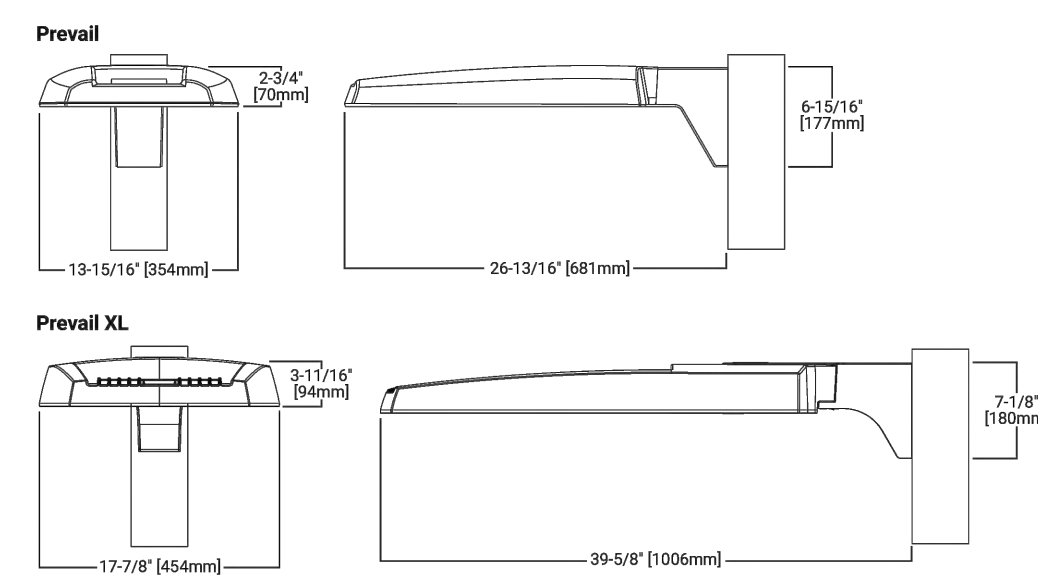


**BAHRAM FARZANEH, PE, PP**  
PROFESSIONAL ENGINEER, NJ LIC. No. 24GE03454800

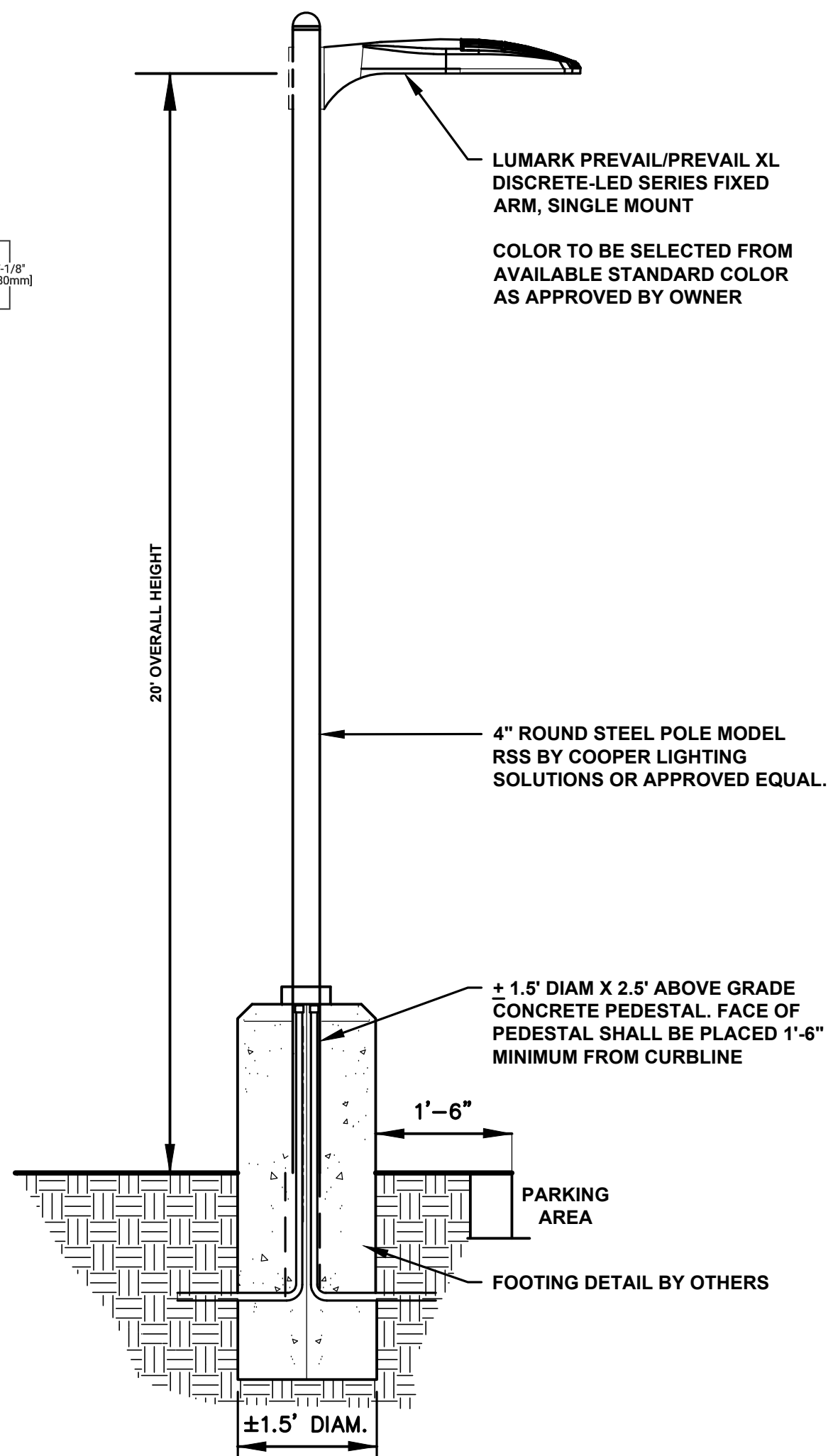
DATE:	DESIGNED BY:	SCALE:	PROJECT NUMBER:
2/19/2021	SRB	1" = 20'	16753.001
DRAWN BY:	CHECKED BY:	FIELD BOOK:	SHEET:
SRB	BF		13 of 16



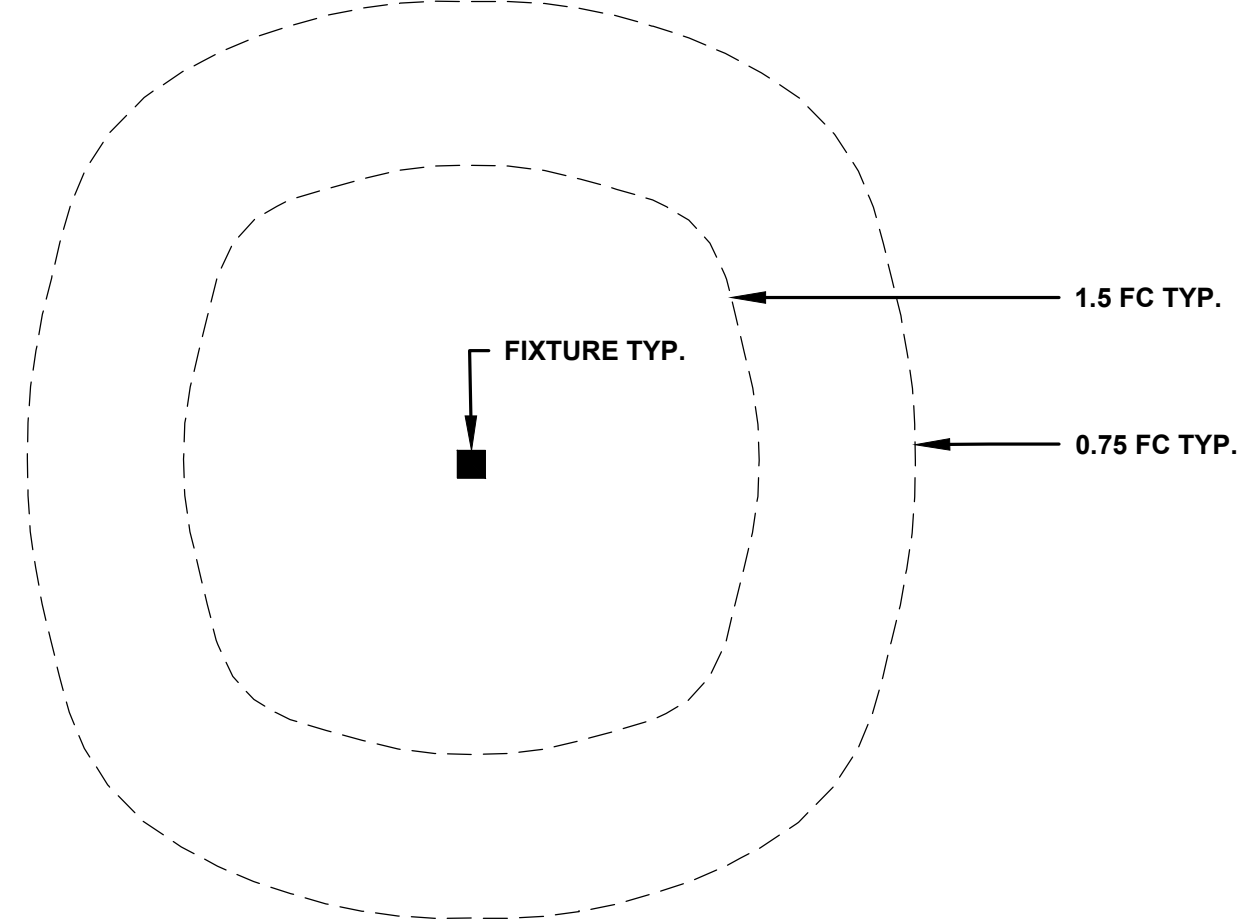
NJDEP ELECTRONIC APPROVAL STAMP



**LUMARK PREVAIL/PREAVIL XL DETAIL**  
NOT TO SCALE



**POLE MOUNTED LIGHT FIXTURE DETAIL**  
NOT TO SCALE



**PHOTOMETRIC CONTOUR DETAIL**  
NOT TO SCALE

Luminaire Schedule			Arr. Watts	Arr. Lum. Lumens	LLF
Symbol	Label	Description			
■	A	LUMARK #PRV-PA2B-740-U-5WQ 20' OVERALL HEIGHT, INCLUDES 2'-6\"/>	151	20332	1.000

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking Lot Within Property Lines	Illuminance	Fc	2.9	4.6	1.8	1.6	2.6

- SCHEDULE NOTES:
- 1) FIXTURE IS CALCULATED WITH 0.9 LLF. INITIAL FC LEVELS WILL BE APPROXIMATELY 10% HIGHER, THEN SLOWLY DECREASE OVER TIME IN ACCORDANCE WITH TM-21 AND L70 DATA PUBLISHED ON FIXTURE CUTSHEET.
  - 2) FIXTURE IS DIMMABLE WITH 0-10V CONTROLS.

**LIGHTING NOTES**

1. DO NOT INSTALL PROPOSED LIGHTS ON TOP OF ANY PROPOSED OR EXISTING UNDERGROUND UTILITIES. FIELD ADJUST LIGHTS AS NEEDED AS DIRECTED BY THE PROJECT PROFESSIONAL TO ACCOMMODATE ANY POTENTIAL CONFLICTS.
2. ALL POLE MOUNTED FIXTURES SHALL HAVE 2'-6\"/>
3. LIGHTING LEVELS SHOWN ON THIS PLAN DO INCLUDE ANY CONTRIBUTIONS FROM EXISTING STREET AND/OR PARKING LOT LIGHT FIXTURES.

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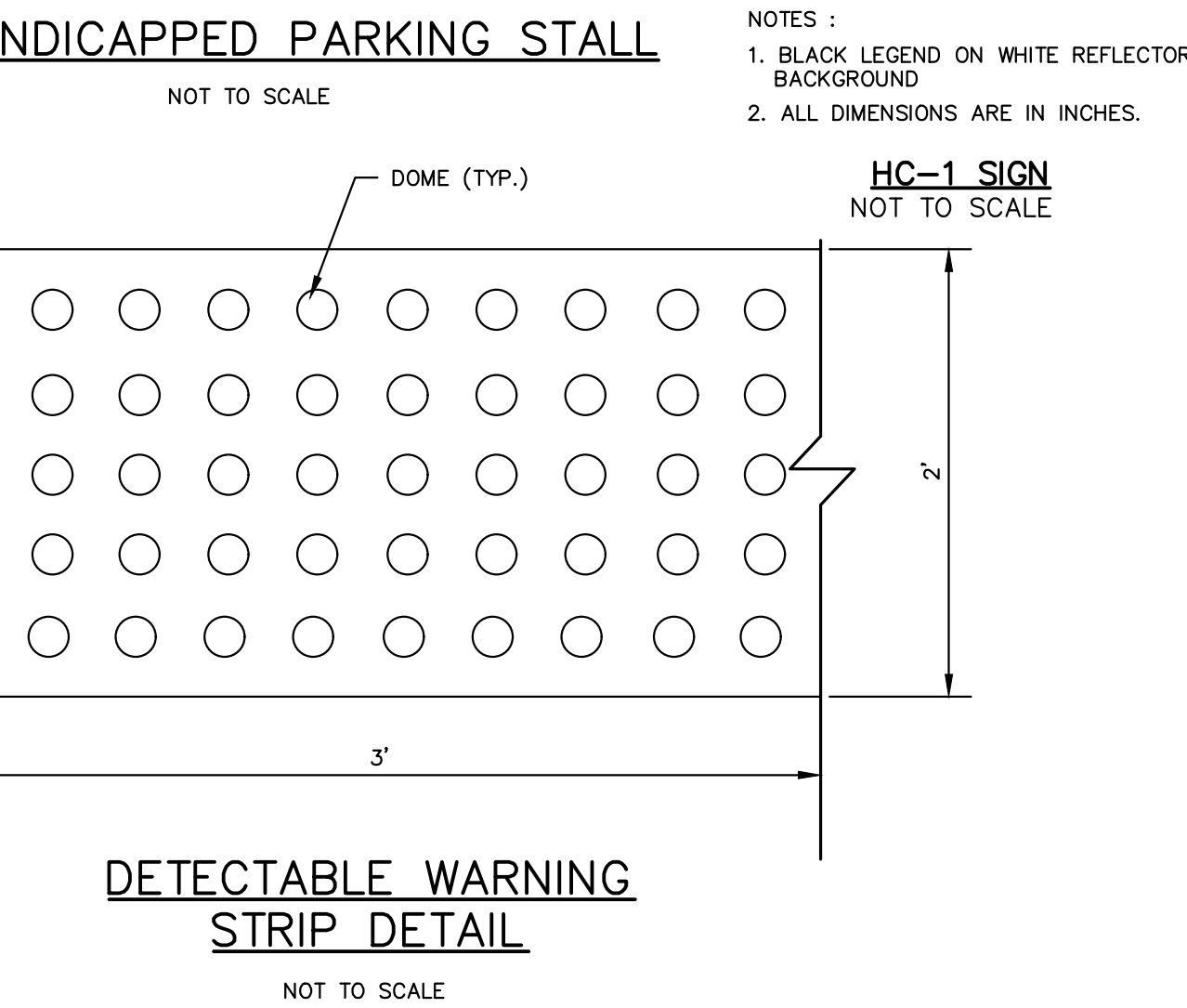
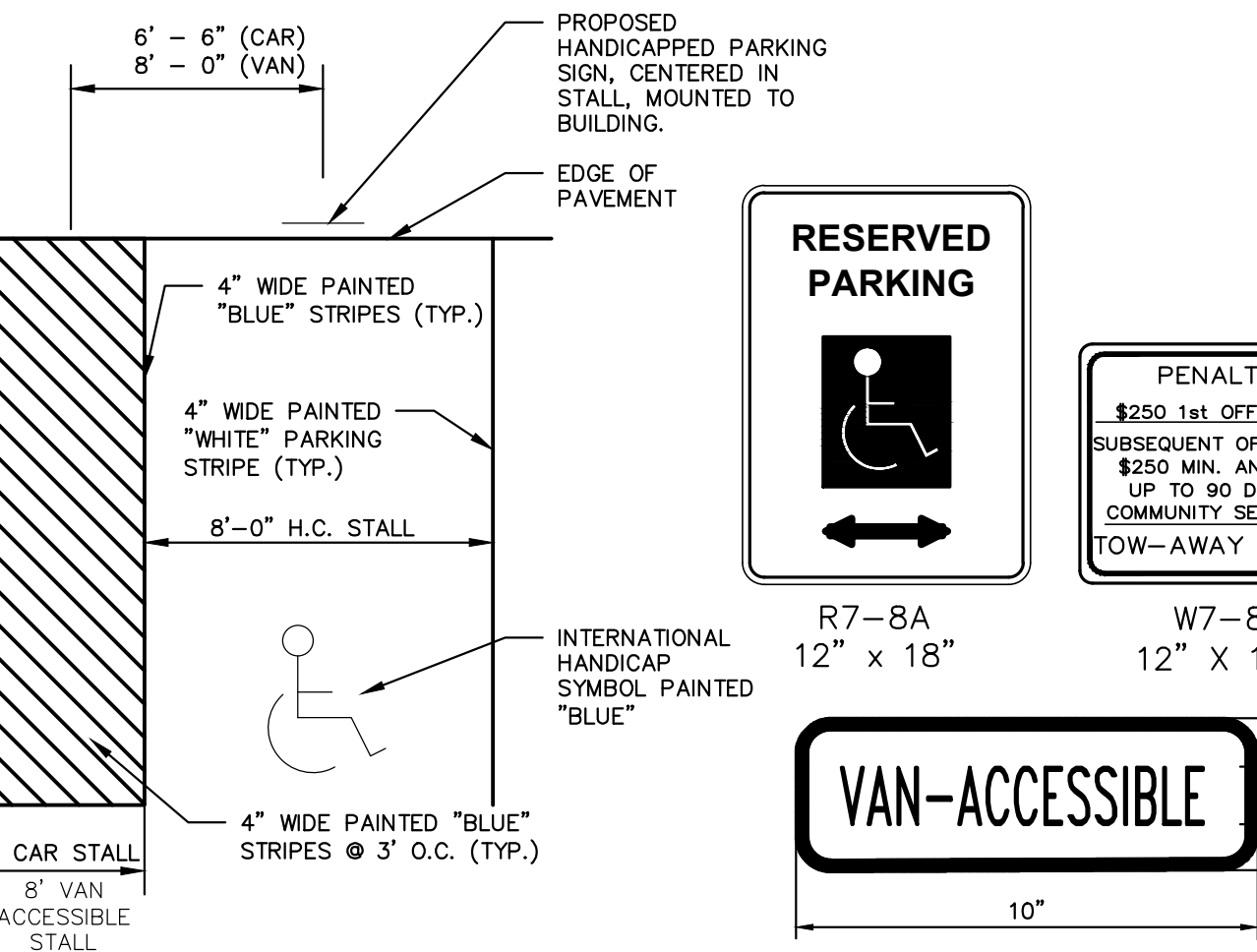
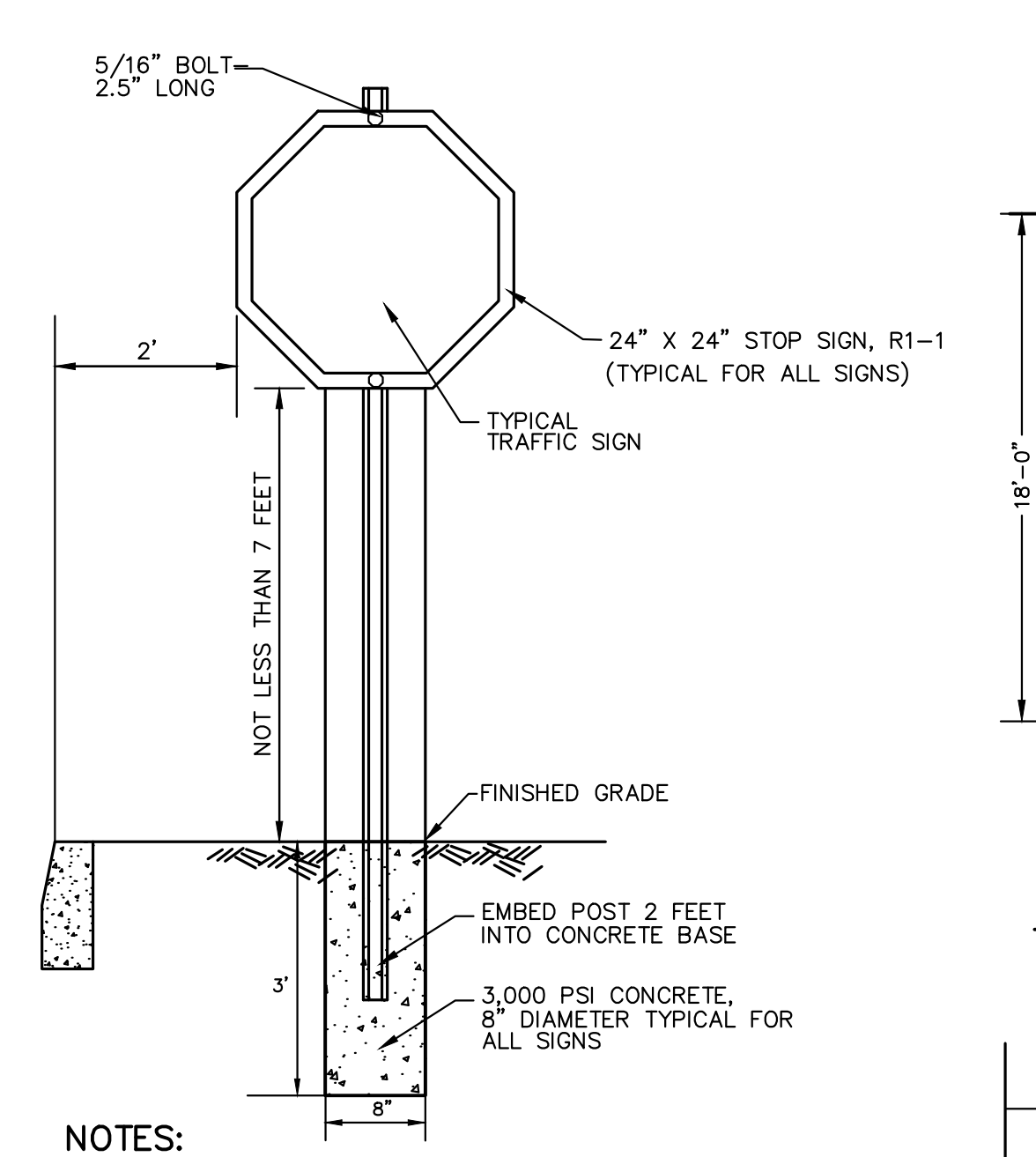
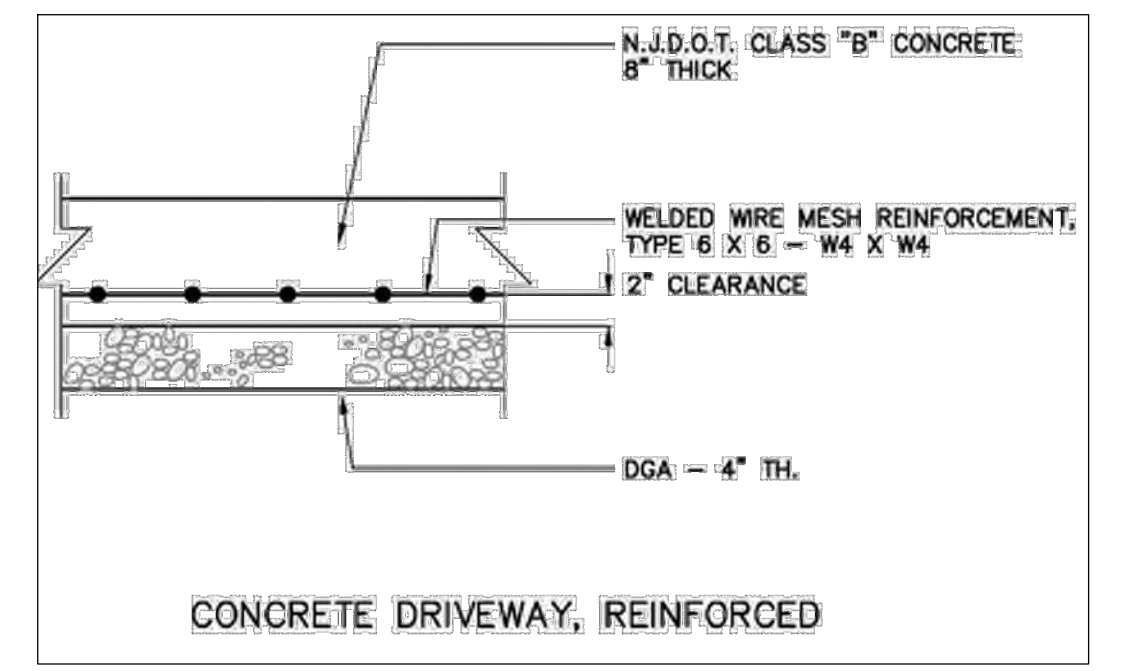
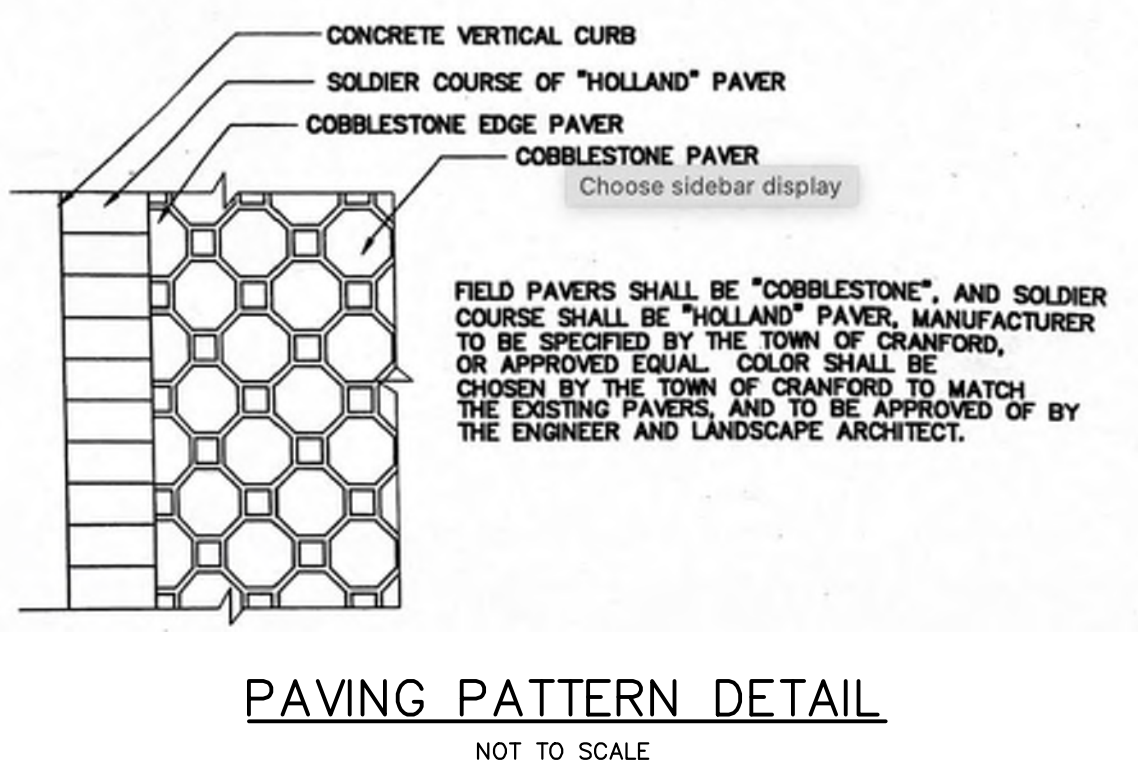
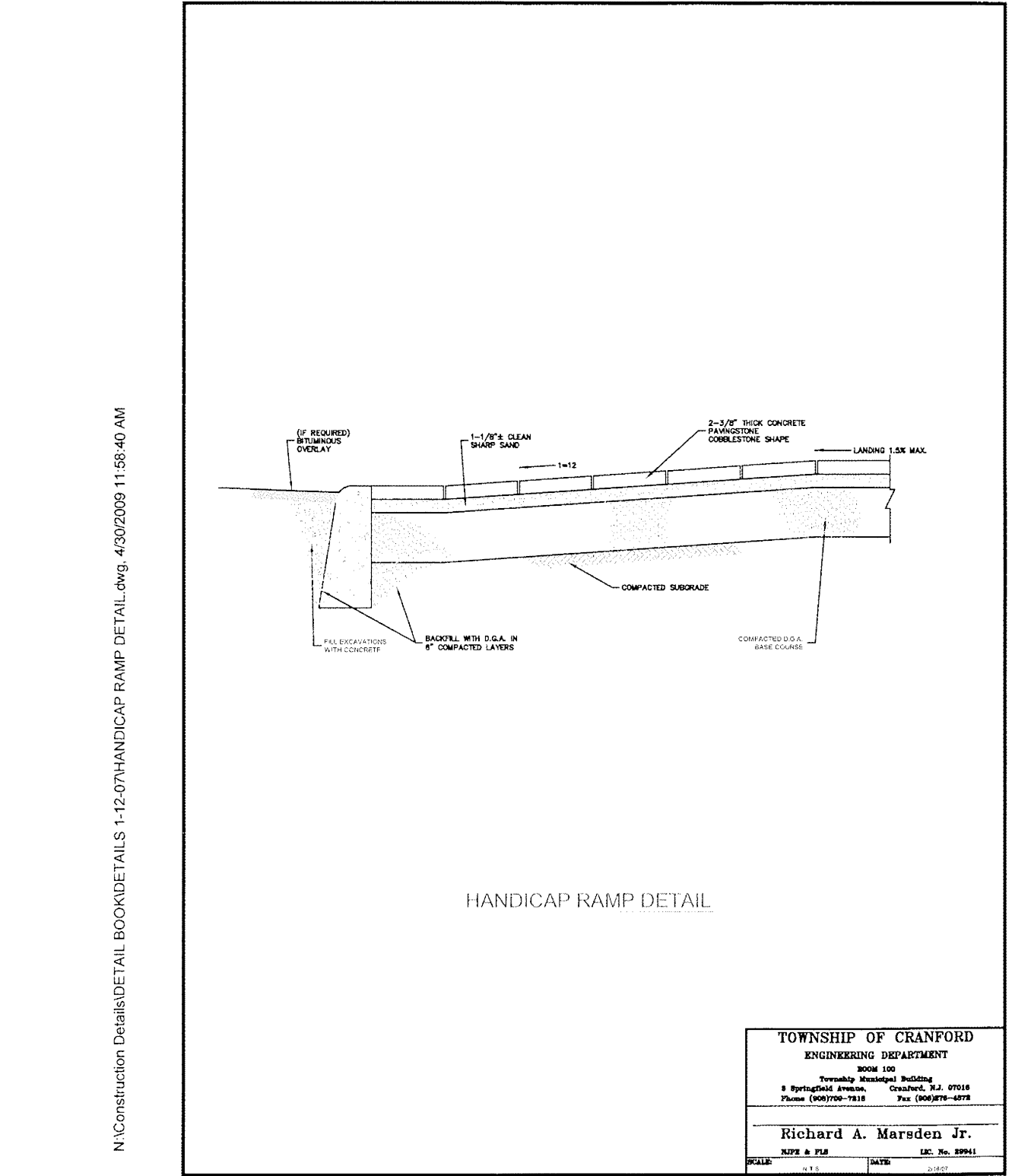
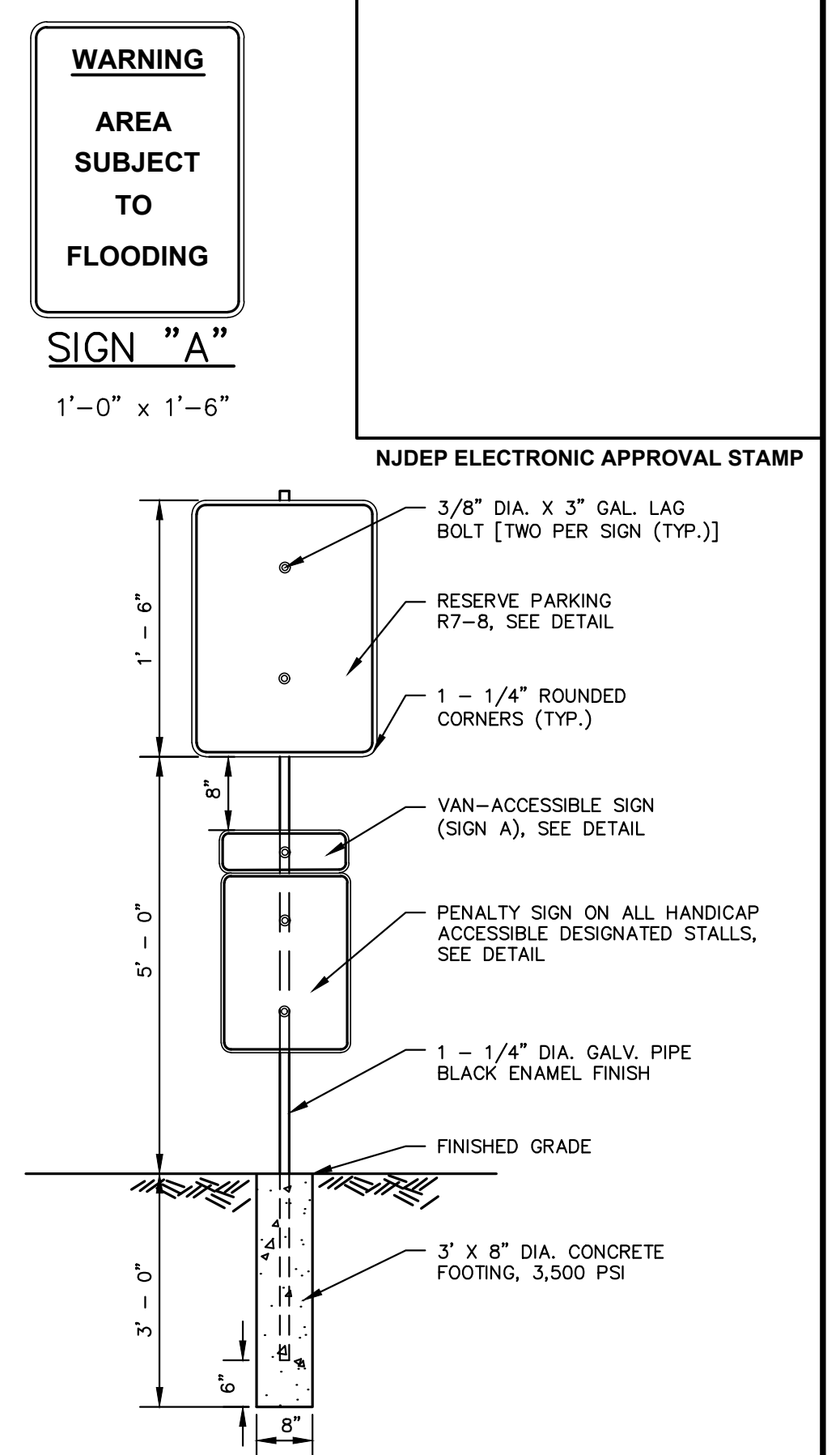
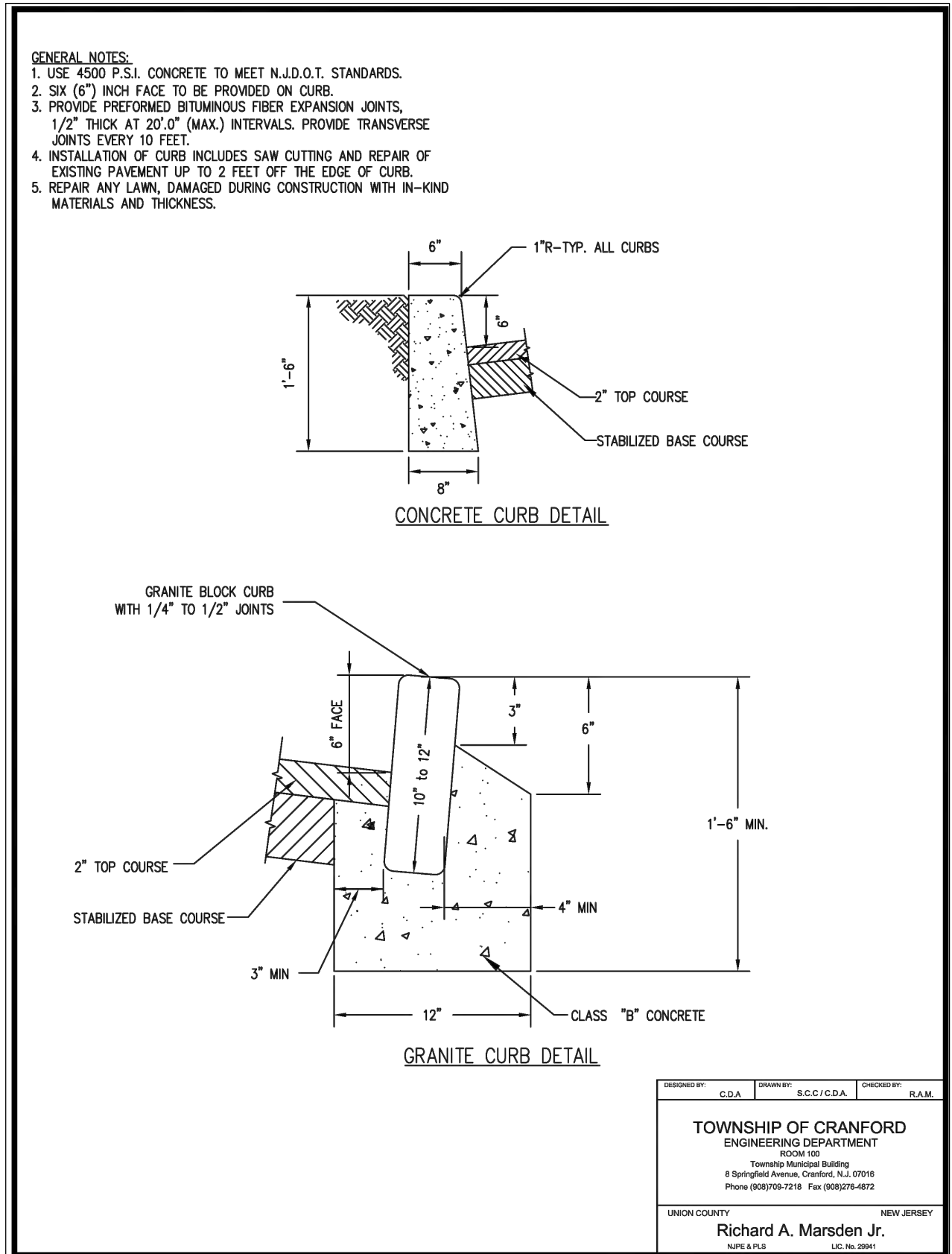
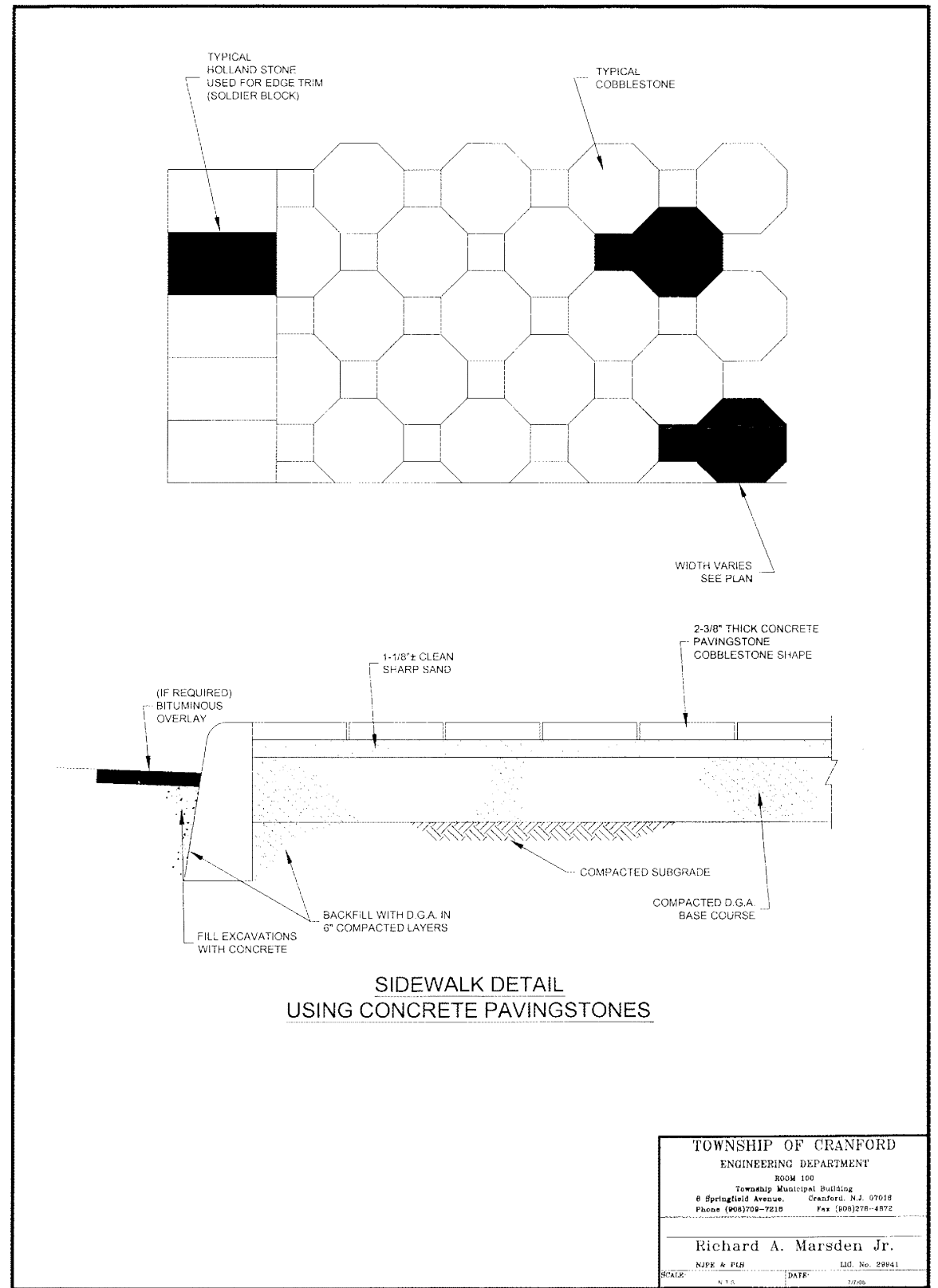
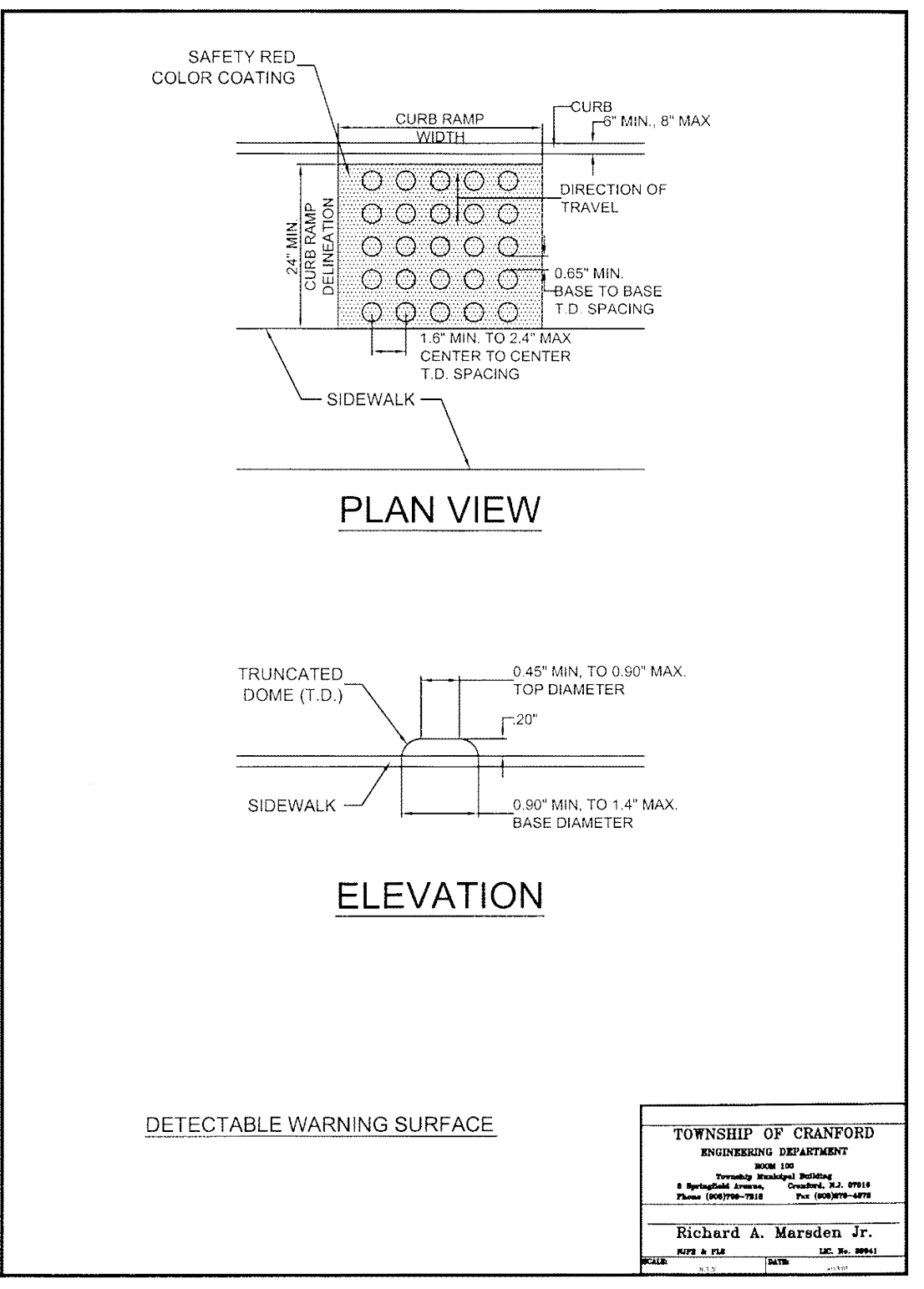
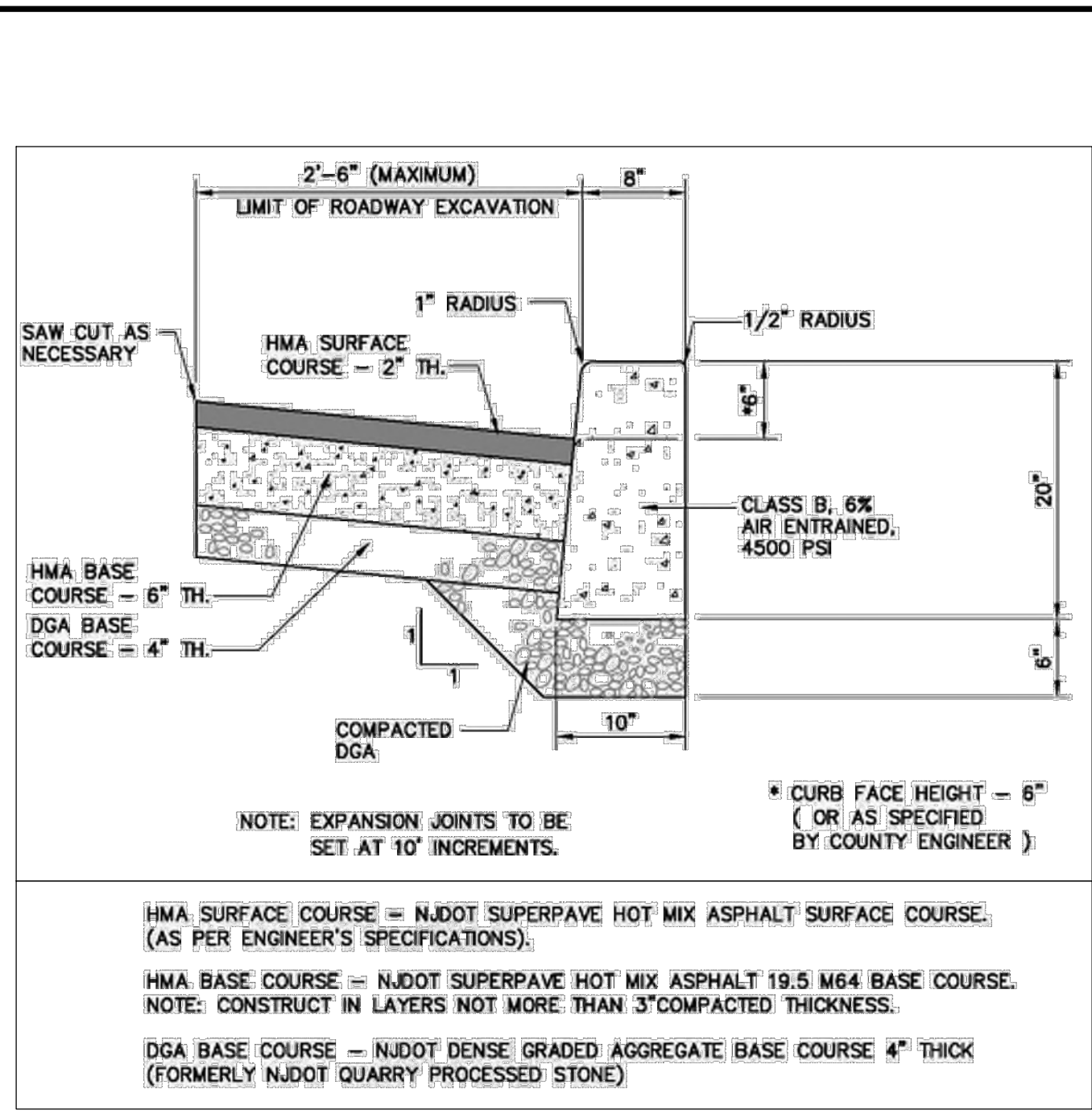


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**BAHRAM FARZANEH, PE, PP**  
PROFESSIONAL ENGINEER, NJ LIC. No. 24GE03454800

LIGHTING PLAN - TRACT 2 FOR PRELIMINARY AND FINAL SITE PLAN FOR MIXED USE DEVELOPMENT BLOCK 478, LOTS 2, 3, 4, 5, AND 6 BLOCK 483, LOT 18, AND 17.01 TOWNSHIP OF CRANFORD UNION COUNTY NEW JERSEY			
DATE:	DESIGNED BY:	SCALE:	PROJECT NUMBER:
2/19/2021	BF	1:10	16753.001
DRAWN BY:	CHECKED BY:	FIELD BOOK	SHEET:
DC	BF		14 of 16

G:\16K\16700\16753 - South Avenue East, Cranford\KADD\DWG\16753.001 - L - SMALL SITE.dwg (I-small)



**WARNING**  
**AREA SUBJECT TO FLOODING**  
**SIGN "A"**  
1'-0" x 1'-6"

**NJDEP ELECTRONIC APPROVAL STAMP**

**RESERVED PARKING**  
R7-8A  
12" x 18"

**PENALTY**  
\$250 1st OFFENSE  
\$250 MIN. AND/OR UP TO 90 DAYS COMMUNITY SERVICE  
TOW-AWAY ZONE  
W7-8  
12" x 18"

**VAN-ACCESSIBLE**  
10"

**NOTES:**

- ALL SIGNS TO CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- OUTSIDE EDGE OF CLOSEST TO ROADWAY SHALL BE A MINIMUM DISTANCE OF 2'
- THE CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO PURCHASE OF ANY MATERIALS.

**PAVEMENT STRIPING/MARKING NOTES:**

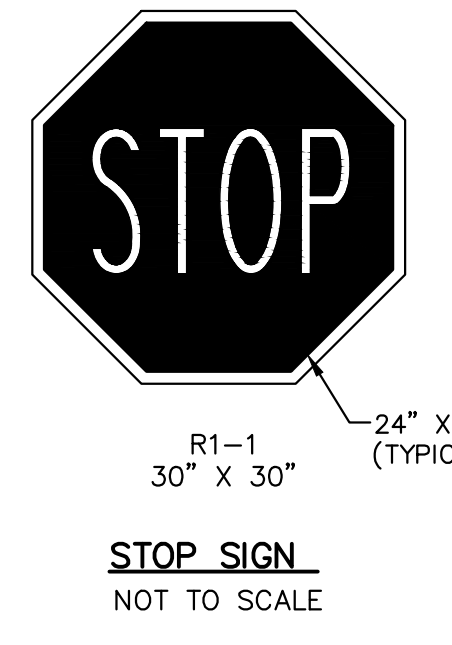
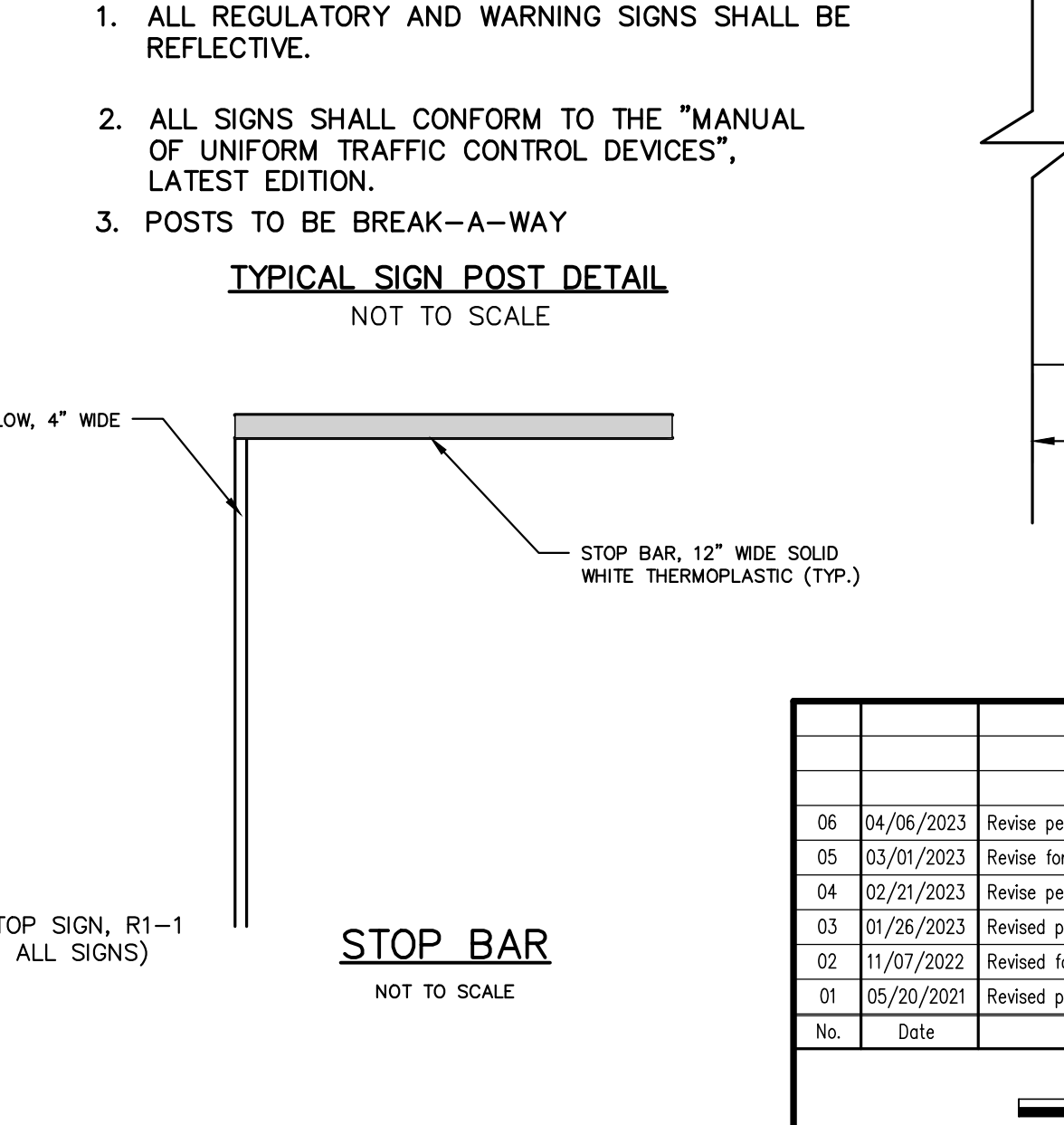
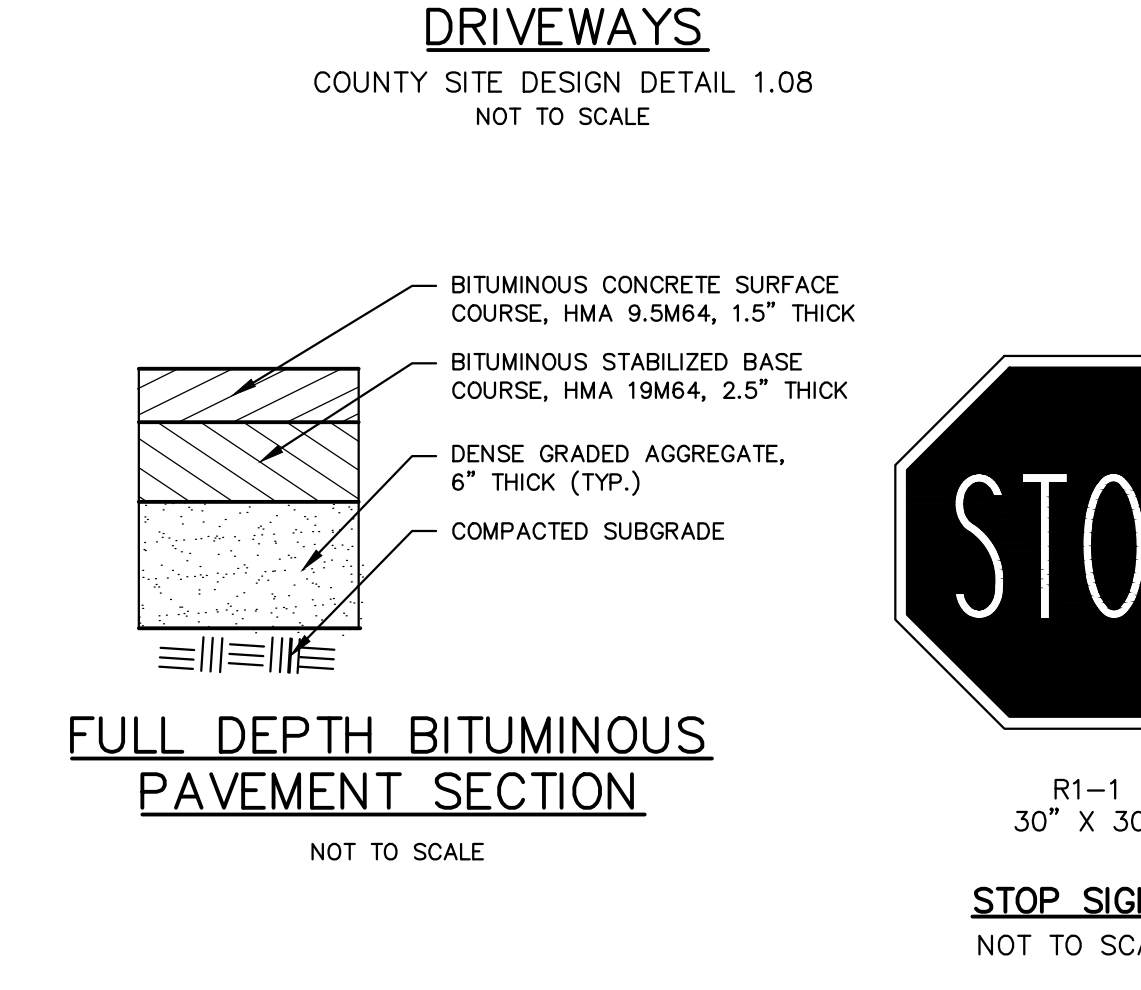
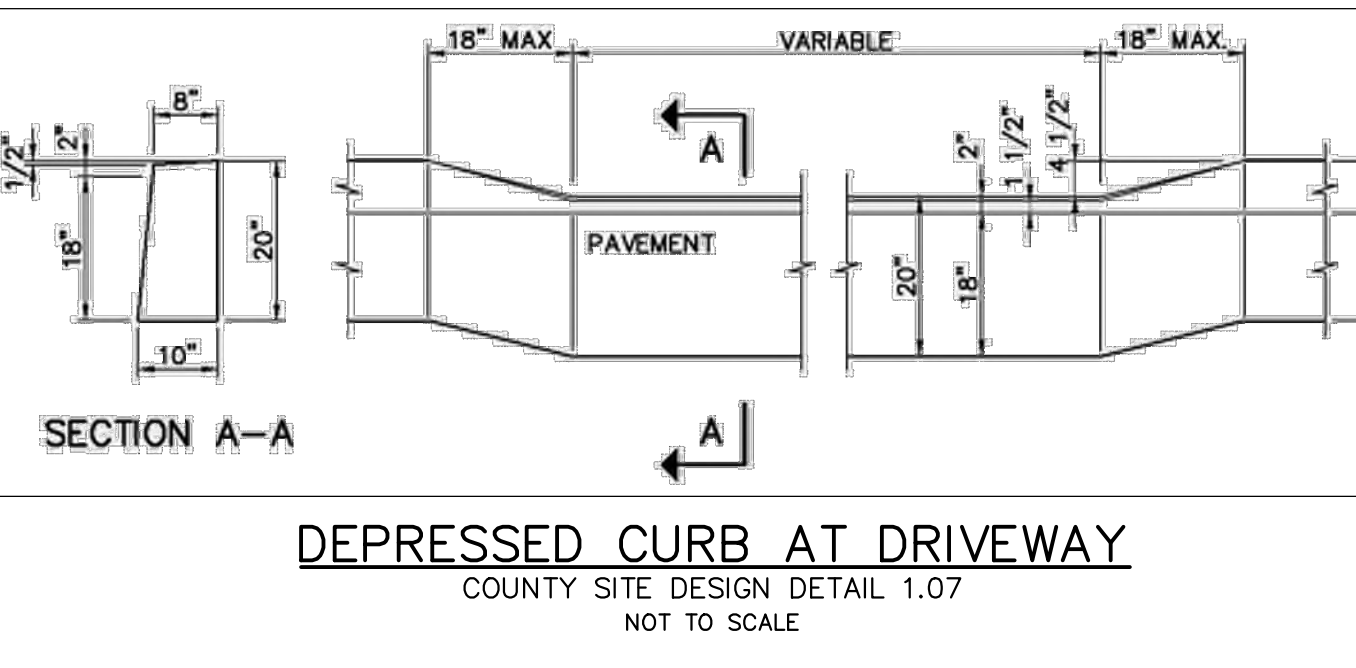
THE FIRE LANE SHALL BE IDENTIFIED BY THE CONTRACTOR PAINTING THE CURB YELLOW AND/OR PROVIDING A YELLOW STRIPE, 4" WIDE, WITHIN THE ENTIRE ACCESS DRIVE, AFTER FINAL PAVEMENT WORK IS COMPLETE.

THE LETTERING "NO PARKING FIRE LANE" SHALL BE 18" HIGH PAINTED YELLOW AND CENTERED WITHIN THE DESIGNATED FIRE LANE AT THE SAME LOCATION AS SHOWN ON THE PLANS OR AS APPROVED BY THE FIRE OFFICIAL.

IF NOT OTHERWISE INDICATED PAVEMENT STRIPING SHALL CONFORM TO THE FOLLOWING:

PARKING STRIPES	4" WIDE WHITE LINES
LANE AND CENTER LINES	4" WIDE WHITE LINES SPACED AS SHOWN
STOP LINES	12" WIDE WHITE LINES (4' MINIMUM FROM CROSSWALK)
"LETTERING"	18" HIGH PAINTED WHITE, UNLESS OTHERWISE SPECIFIED
TRAFFIC MARKINGS	PAINTED SOLID WHITE, UNLESS OTHERWISE SPECIFIED
HANDICAPPED RAMPS	SAFETY RED MOISTURE CURED POLYURETHANE COATING WITH SELF-CONTAINED WHITE RUBBER GRIT OR PREFORMED PLASTIC MARKING TAPE AS PER NJDOT STANDARDS

ALL STRIPING SHOULD BE EPOXY BASED PAINT. ALL PAVEMENT MARKINGS (ARROWS, STOP BARS, CROSSWALKS, ETC.) SHOULD BE EXTRUDED THERMOPLASTIC



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AS SHOWN  
SCALE IN FEET

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**BAHRAM FARZANEH, PE, PP**  
PROFESSIONAL ENGINEER, NJ LIC. NO. 24GE03454800

**CONSTRUCTION DETAILS 1**  
**FOR PRELIMINARY AND FINAL SITE PLAN FOR MIXED USE DEVELOPMENT**  
**BLOCK 478, LOTS 2, 3, 4, 5, AND 6**  
**BLOCK 483, LOT 18, AND 17.01**  
TOWNSHIP OF CRANFORD  
UNION COUNTY NEW JERSEY

DATE:	DESIGNED BY:	SCALE:	PROJECT NUMBER:
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WGS	BF		15 of 16

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