

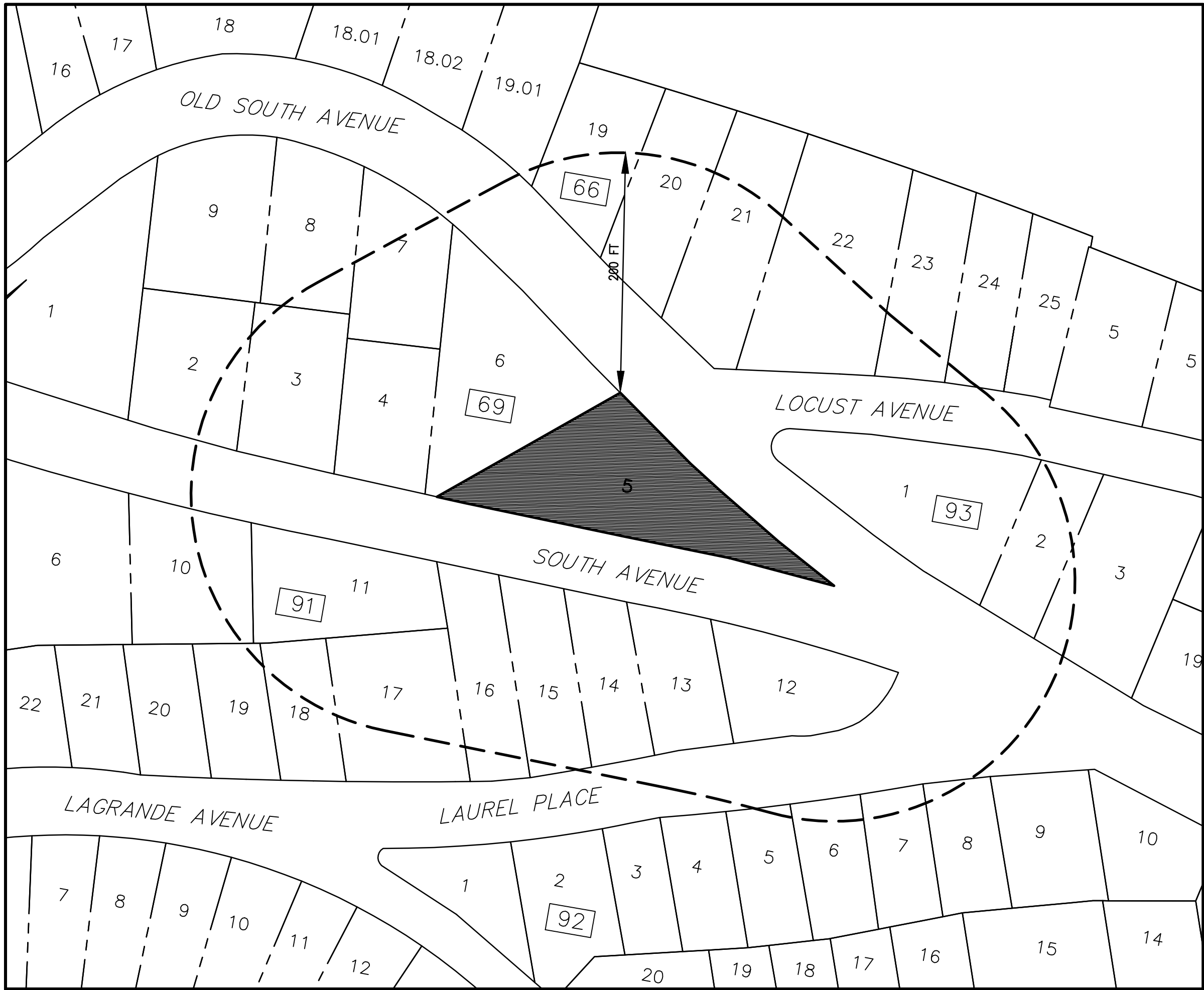
# PRELIMINARY AND FINAL SITE PLAN

## No. 383 SOUTH AVENUE BLOCK 69, LOT 5 TAX MAP SHEET No. 21

TOWN OF FANWOOD UNION COUNTY NEW JERSEY

### 200 FT ADJOINING OWNERS LIST - TOWN OF FANWOOD

BLOCK/LOT	PROPERTY LOCATION	PROPERTY OWNER & MAIL ADDRESS
66 19.01	334 OLD SOUTH AVE	DHALMAL, SURINDER K 1370 ORATION COURT ONKOS, FL 32765
66 19	35 OLD SOUTH AVE	BERTHA, MARIE 35 OLD SOUTH AVE FANWOOD, NJ 07023
66 20	37 OLD SOUTH AVE	KUSHAVAR, BEHROUZ & MARCIA S 37 OLD SOUTH AVE FANWOOD, NJ 07023
66 21	39 OLD SOUTH AVE	VAN BRUNT, RONALD & BARBARA 39 OLD SOUTH AVE FANWOOD, NJ 07023
66 22	33 LOCUST AVE	SKOP, OKSANA 33 LOCUST AVE FANWOOD, NJ 07023
66 23	37 LOCUST AVE	EMSKA, DONALD & DIANE 37 LOCUST AVE FANWOOD, NJ 07023
66 24	41 LOCUST AVE	OLKUSZ, DIANE 41 LOCUST AVE FANWOOD, NJ 07023
69 2	363 SOUTH AVE	MARRA, FLORENTINO & ASSUNTA 363 SOUTH AVE FANWOOD, NJ 07023
69 3	367 SOUTH AVE	TREES, JEAN L 367 SOUTH AVE FANWOOD, NJ 07023
69 4	371 SOUTH AVE	AGUIRCHO, MARIA T 371 SOUTH AVE FANWOOD, NJ 07023
69 6	36 OLD SOUTH AVE	DINIZO, NICOLA & DINA 36 OLD SOUTH AVE FANWOOD, NJ 07023
69 7	32 OLD SOUTH AVE	FEDERIO, TIMOTHY & MELISSA 32 OLD SOUTH AVE FANWOOD, NJ 07023
69 8	28 OLD SOUTH AVE	WILSON, M. LILIANOS-WILSON, A ETAL 28 OLD SOUTH AVE FANWOOD, NJ 07023
91 10	366 SOUTH AVE	ROSADO, JIMMY & CRISTAL 366 SOUTH AVE FANWOOD, NJ 07023
91 11	374 SOUTH AVE	FARRAS, ALEXANDER & SHIRLEY 374 SOUTH AVE FANWOOD, NJ 07023



PROJECT AREA MAP  
1"=150'

### MUNICIPAL & UTILITIES CONTACT LIST

COMCAST CABLEVISION C/O- CORPORATION TRUST CO. 620 BEAR TOWER ROAD WEST TRENTON, NJ 08626	PUBLIC SERVICE ELECTRIC & GAS COMPANY MANAGER, CORPORATE PROPERTIES 80 PARK PLAZA, 16B NEWARK, NJ 07101
NEW JERSEY AMERICAN WATER, Inc DONNA SHORT, GIS SUPERVISOR 1023 LAUREL OAK ROAD VOORHEES, NJ 08043	ELIZABETHTOWN GAS COMPANY ENGINEERING DEPARTMENT 523 GREEN LANE UNION, NJ 07083

PREPARED OCTOBER 2023

FOR

NB HOME IMPROVEMENTS, LLC  
1227 MORRIS AVENUE  
UNION, NJ 07085

BLOCK/LOT	PROPERTY LOCATION	PROPERTY OWNER & MAIL ADDRESS
91 12	35 LAUREL PL	BECKUS, JOAN TRUSTEE 1370 ORATION COURT ONKOS, FL 32765
91 13	33 LAUREL PL	IKANEL, DONALD & VIKTORIYA 33 LAUREL PL FANWOOD, NJ 07023
91 14	27 LAUREL PL	BOROFF, DOMAN A & AMY 27 LAUREL PL FANWOOD, NJ 07023
91 15	23 LAUREL PL	OTHENS, ANNA M TROTTA 23 LAUREL PL FANWOOD, NJ 07023
91 16	19 LAUREL PL	OSTERHUIS, LAURAL A 19 LAUREL PL FANWOOD, NJ 07023
91 17	9 LAUREL PL	SCHULTZ, DANIELLE M & BOTHE, JAMESON 9 LAUREL PL FANWOOD, NJ 07023
91 18	357 LA GRANDE AVE	KATHURA, AKHIL & RITU 357 LA GRANDE AVE FANWOOD, NJ 07023
91 19	353 LA GRANDE AVE	RODRIGUE, ERIC & NEDA 353 LA GRANDE AVE FANWOOD, NJ 07023
92 5	32 LAUREL PL	SEBRANNA, PAUL & BENTIA 32 LAUREL PL FANWOOD, NJ 07023
92 6	36 LAUREL PLACE	MC GINLEY, BARBARA & MICHAEL ALLEN 36 LAUREL PLACE FANWOOD, NJ 07023
92 7	40 LAUREL PL	ESTRADA, ELKE & MARIA 40 LAUREL PL FANWOOD, NJ 07023
92 8	44 LAUREL PL	MCHAMARA, BARBARA 44 LAUREL PL FANWOOD, NJ 07023
93 1	44 LOCUST AVE	MARINELLO, RALPH A 44 LOCUST AVE FANWOOD, NJ 07023
93 2	405 SOUTH AVE	MORRIS, GARY E & HOLLY S 405 SOUTH AVE FANWOOD, NJ 07023
93 3	48 LOCUST AVE	CARD, ANTHONY & ANDREA 48 LOCUST AVE FANWOOD, NJ 07023

### OWNER

SHEELAN'S REAL ESTATE LLC  
200 SOUTH AVENUE  
FANWOOD, NJ 07023

### APPLICANT

NB HOME IMPROVEMENTS, LLC  
1227 MORRIS AVENUE  
UNION, NJ 07085

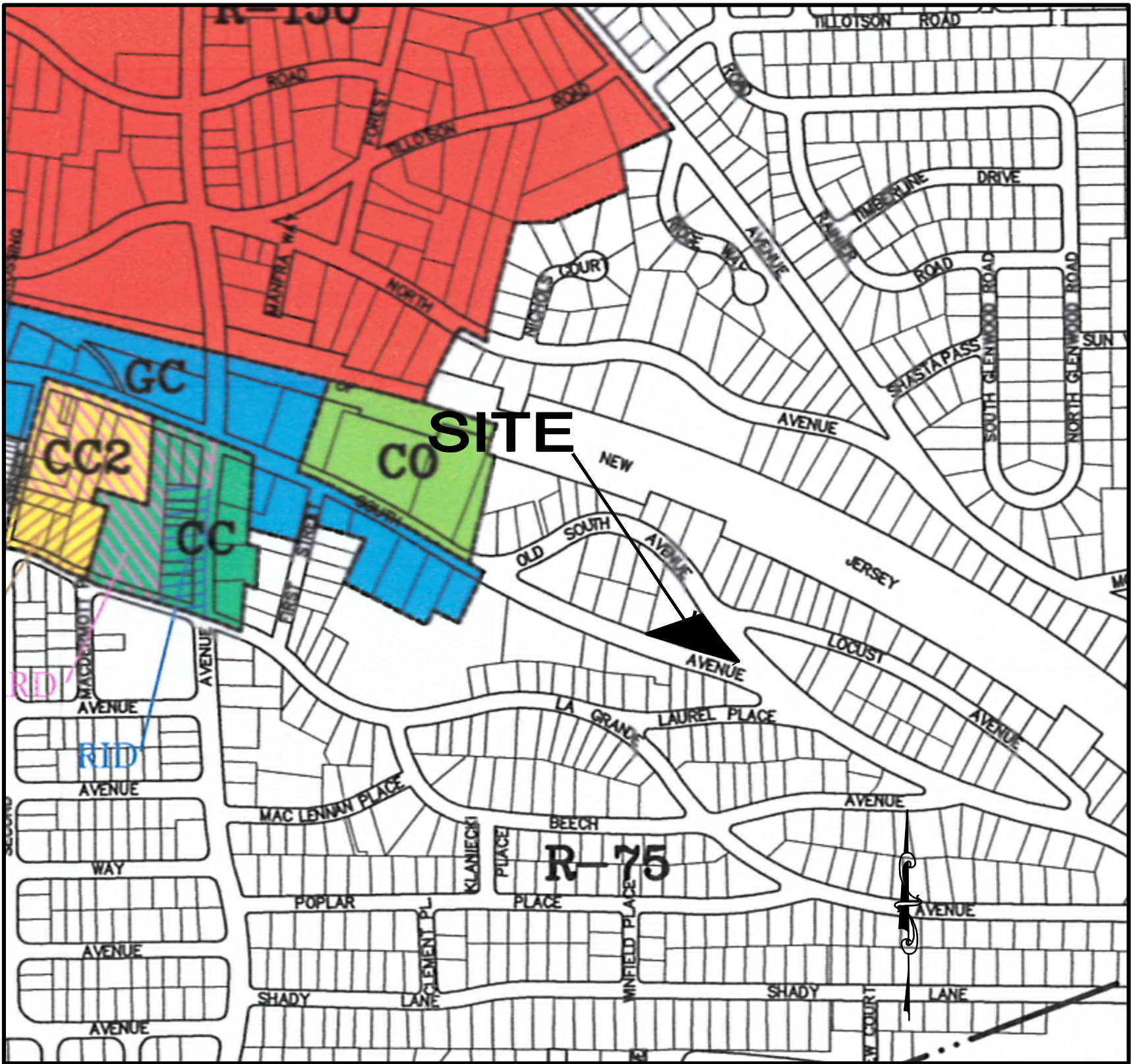
### CERTIFICATION OF APPROVAL

APPROVED BY THE PLANNING BOARD  
TOWN OF FANWOOD

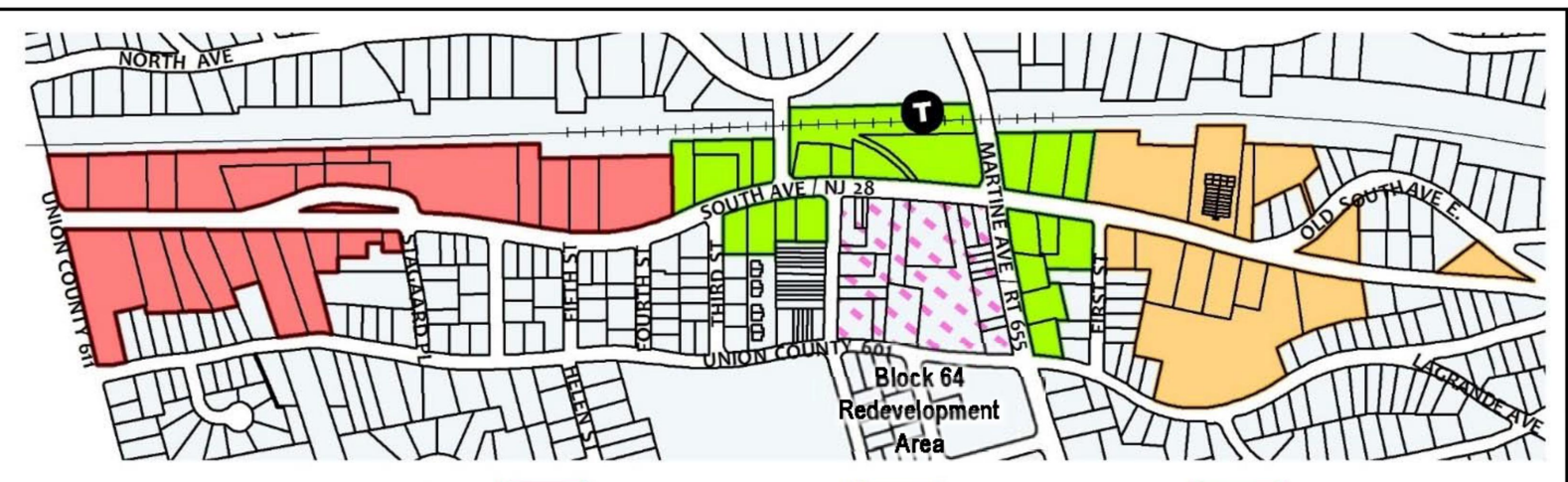
CHAIRMAN DATE

SECRETARY DATE

ENGINEER DATE



TOWN OF FANWOOD ZONING MAP  
N.T.S.



TOWN OF FANWOOD COMMERCIAL CORRIDOR (CC) REDEVELOPMENT ZONE  
N.T.S.

### SHEET INDEX

SHEET No.	DESCRIPTION	PREPARED	LAST REVISED
1	COVER SHEET	01/27/25	
2	EXISTING CONDITIONS & DEMOLITION PLAN	01/27/25	
3	LAYOUT & DIMENSIONING PLAN	01/27/25	
3A	VEHICLE TURNING TEMPLATE PLAN	01/27/25	
4	GRADING, UTILITY & LIGHTING PLAN	01/27/25	
5	LANDSCAPING & LIGHTING PLAN	01/27/25	
6	SOIL EROSION & SEDIMENT CONTROL PLAN	01/27/25	
7	CONSTRUCTION DETAILS-1	01/27/25	
8	CONSTRUCTION DETAILS-2	01/27/25	

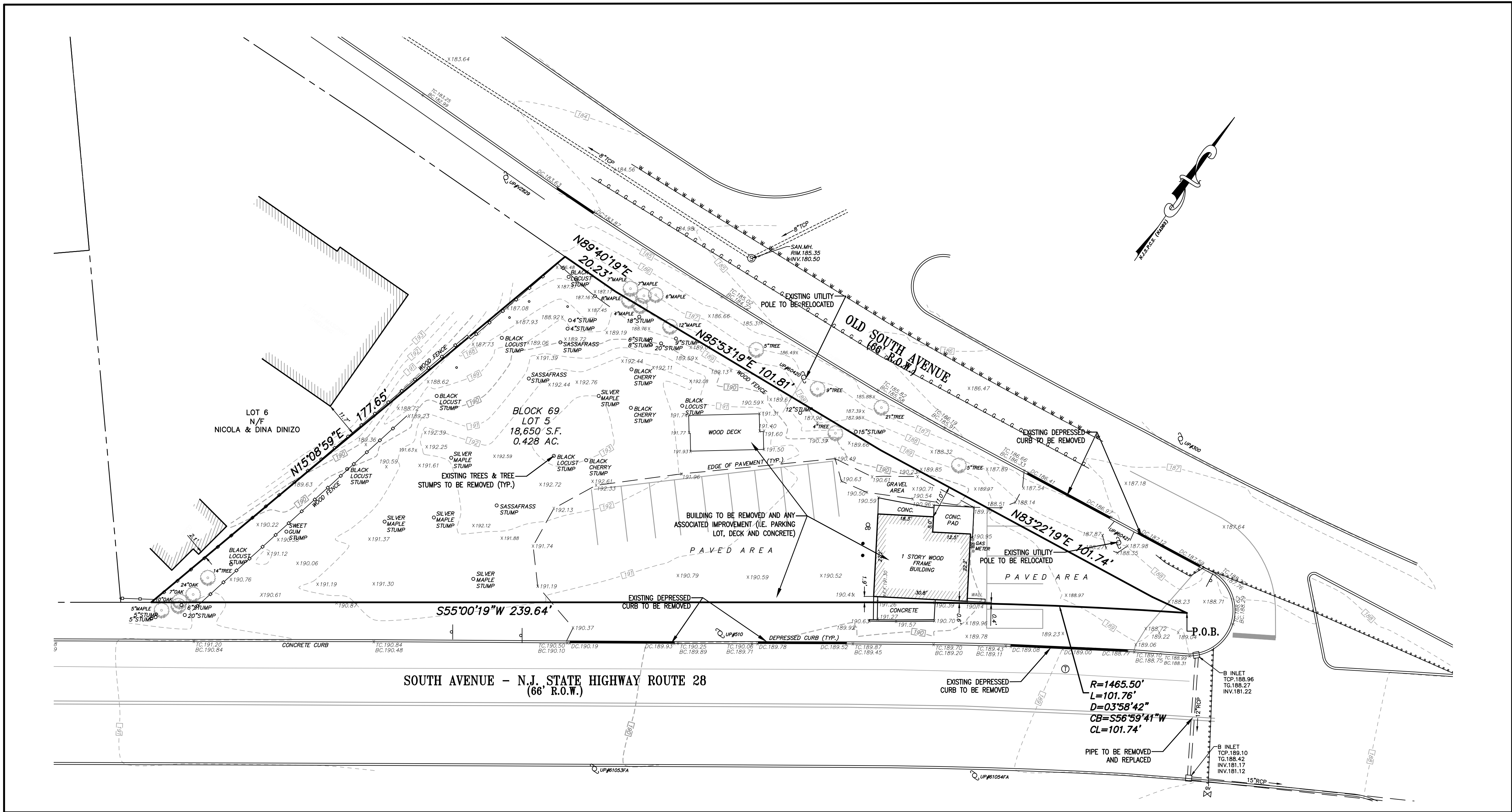


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CRANFORD, N.J. 07016  
Phone (908) 276-2715 Fax (908) 709-1738  
Email: info@hcieg.net

PRELIMINARY & FINAL PLAN  
**COVER SHEET**  
NO. 383 SOUTH AVENUE  
LOT 5, BLOCK 69  
TOWN OF FANWOOD UNION COUNTY NEW JERSEY  
SCALE: AS-SHOWN DATE: 01/27/25 DESIGNED BY: V.E.V. DRAWN BY: C.C. WORK FILE: 2023112\_COVER

**VICTOR E. VINEGRA**  
PROFESSIONAL ENGINEER & LAND SURVEYOR  
NEW JERSEY LICENSE No. 34460  
PROJECT No: 2023112





EXISTING CONDITIONS & DEMOLITION PLAN  
SCALE: 1"=20'

DESCRIPTION:-

BEGING KNOWN AND DESIGNATED AS LOT 5 IN BLOCK 69  
ON THE BOROUGH OF FANWOOD TAX ASSESSMENT MAP  
BEING MORE COMMONLY KNOWN AS 383 SOUTH AVENUE  
BOROUGH OF FANWOOD, UNION COUNTY, NEW JERSEY

NOTES:-

1. REFERENCES WERE MADE TO DEED BOOK 6206, PAGE 178.
2. AT THE REQUEST OF THE OWNERS, PROPERTY CORNERS WERE NOT SET AT THIS TIME.
3. DIMENSIONS AS SHOWN ARE NOT INTENDED FOR THE CONSTRUCTION OF FENCES OR PERMANENT STRUCTURES.
4. OFFSETS SHOWN ARE MEASURED FROM THE FRAME OF THE STRUCTURE PERPENDICULAR TO THE PROPERTY LINE, UNLESS OTHERWISE NOTED.
- CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED.

DEMOLITION NOTES:-

1. WORK TO BE IN ACCORDANCE WITH ALL LOCAL AND STATE RULES AND REGULATIONS AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
2. PROTECT AT ALL TIMES ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS FROM DAMAGE, DUST AND DEBRIS. PROVIDE FOR THE SAFETY OF PEDESTRIANS AT ALL TIMES.
3. ALL UNDERGROUND PIPING TO BE REMOVED SHALL BE CAPPED AT THE PROPERTY LINE. EXISTING ON-SITE UNDERGROUND UTILITIES TO BE ABANDONED AND SLURRY FILLED IN PLACE. CONTRACTOR SHALL CUT AND CAP ALL CONNECTIONS AT THE PROPERTY LINE.
4. THE USE OF EXPLOSIVES IS PROHIBITED WITHOUT THE REQUIRED LOCAL AND STATE PERMITS.
5. THE LOCATION OF ALL UNDERGROUND UTILITIES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE TO BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION ACTIVITIES. ANY DISCREPANCIES BETWEEN PLAN AND FIELD INFORMATION ARE TO BE REPORTED IMMEDIATELY TO HARBOR CONSULTANTS.
6. THE DISRUPTION OF EXISTING UTILITY SERVICES SHALL BE AVOIDED TO THE GREATEST EXTENT POSSIBLE. ANY REQUIRED DISRUPTION OF SERVICES SHALL BE COORDINATED IN ADVANCE WITH THE RESPECTIVE AUTHORITY AND AFFECTED USERS SHALL BE ADEQUATELY NOTIFIED.
7. ALL CONSTRUCTION DEBRIS AND REFUSE SHALL BE DISPOSED OF OFF-SITE IN AN APPROPRIATE MANNER.
8. ANY DAMAGE TO THE PUBLIC RIGHT OF WAY MUST BE REPAIRED/INSTALLED TO EQUAL STANDARDS.
9. THE CONTRACTOR SHALL INVESTIGATE THE EXISTING TIE IN CONNECTIONS FOR WATER AND SEWER SERVICE TO THE BUILDING AND EXTEND AS REQUIRED.

GENERAL NOTES:-

1. THE PREMISES SHOWN HEREON WERE SURVEYED WITHOUT THE BENEFIT OF A TITLE SEARCH AND IS SUBJECT TO SUCH FACTS AS A CURRENT TITLE SEARCH MAY DISCLOSE. THE PROPERTY ALSO MAY BE SUBJECT TO THE FOLLOWING:  
A.) RIGHTS OF CLAIMS OF PARTIES IN POSSESSION SHOWN BY THE PUBLIC RECORD.  
B.) RIGHTS OF CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORD.  
C.) EASEMENTS OR CLAIMS OF EASEMENTS, SHOWN BY THE PUBLIC RECORD.  
D.) EASEMENTS OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORD.
2. NO DETERMINATIONS HAVE BEEN MADE REGARDING UNDERGROUND UTILITIES WHICH MAY EXIST, UNLESS AS SHOWN.
3. NO DETERMINATIONS HAVE BEEN MADE REGARDING HAZARDOUS MATERIAL CONDITIONS.
4. NO DETERMINATIONS HAVE BEEN MADE REGARDING WETLANDS LOCATION.
5. PROPERTY IS SITUATED IN FLOOD ZONE X (BASE FLOOD ELEVATIONS DETERMINED) PER A PLAN ENTITLED "FIRM" FLOOD INSURANCE RATE MAP, FOR THE BOROUGH OF FANWOOD COMMUNITY/PANEL No. 340463 0023 I, MAP No. 34039C0029F EFFECTIVE DATE SEPTEMBER 20th, 2006.
6. PLANIMETRIC & TOPOGRAPHIC INFORMATION SHOWN HEREON WAS FIELD VERIFIED BY PAULUS, SOKOLOWSKI AND SARTOR, L.L.C. DURING DECEMBER, 2021.
7. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS.
8. TOPOGRAPHIC INFORMATION SHOWN HEREON HAVE BEEN DRAWN IN ACCORDANCE WITH FIELD SURVEY PERFORMED BY PAULUS SOKOLOWSKI & SARTOR, L.L.C. FEBRUARY 24, 2022.

DIG SAFELY - NEW JERSEY

CALL BEFORE YOU DIG  
1-800-272-1000  
IT'S THE LAW



Dig Safely

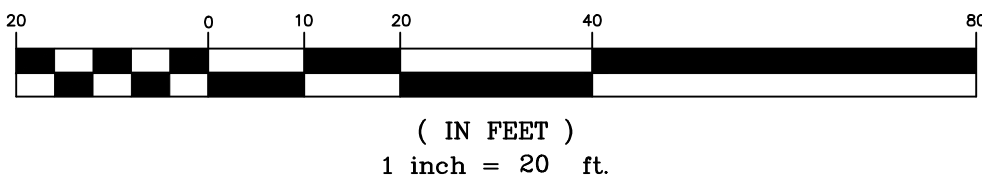
NEW JERSEY ONE CALL  
CONTRACTORS SHALL CALL 1-800-272-1000  
MINIMUM THREE DAYS, MAXIMUM 10 DAYS NOTICE PRIOR TO  
BEGINNING EXCAVATION

LEGEND

- |                      |                       |
|----------------------|-----------------------|
| STREET SIGN          | IRON BAR FOUND        |
| CLEANOUT             | MAILBOX               |
| SANITARY MANHOLE     | STREET TREE           |
| DRAINAGE MANHOLE     | EXIST. SPOT ELEVATION |
| CATCH BASIN          | EXISTING CONTOUR LINE |
| CATCH BASIN          | GAS LINE              |
| SOIL BORING          | WATER LINE            |
| GUY WIRE             | GAS VALVE             |
| UTILITY POLE         | WATER VALVE           |
| P.K. NAIL FOUND      | FIRE HYDRANT          |
| CONC. MONUMENT FOUND | LIGHT POST            |

ELEVATIONS SHOWN ARE BASED  
ON NAVD 88

GRAPHIC SCALE



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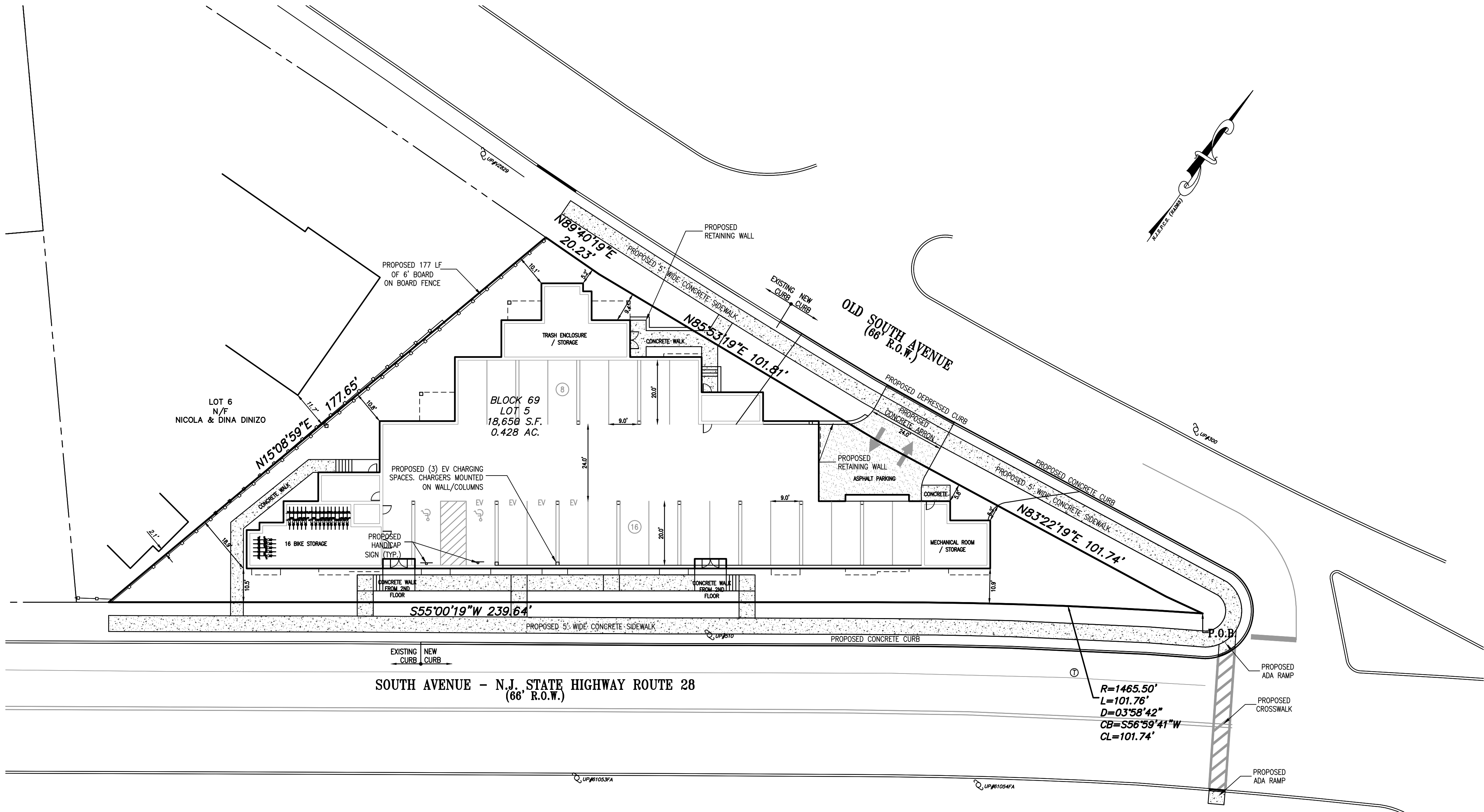
PRELIMINARY & FINAL SITE PLAN  
**EXISTING CONDITIONS & DEMOLITION PLAN**  
NO. 383 SOUTH AVENUE  
LOT 5, BLOCK 69  
UNION COUNTY NEW JERSEY

TOWN OF FANWOOD  
SCALE: 1"=20'  
DATE: 01/27/25  
DESIGNED BY: V.E.V.  
DRAWN BY: C.C.  
WORK FILE: 2023112 Exist

**VICTOR E. VINEGRA**  
PROFESSIONAL ENGINEER & LAND SURVEYOR  
NEW JERSEY LICENSE No. 34460

CERTIFICATE OF AUTHORIZATION No. 24GA27962100  
PROJECT No. 2023112





LAYOUT & DIMENSIONING PLAN  
SCALE: 1"=20'

SCHEDULE OF BULK ZONING REQUIREMENTS BOROUGH OF FANWOOD, UNION COUNTY, NEW JERSEY COMMERCIAL CORRIDOR (CC) REDEVELOPMENT PLAN-EASTERN DISTRICT				
BULK ITEM	REQUIRED	EXISTING CONDITIONS	PROPOSED CONDITIONS	COMPLY
PERMITTED USE	MIXED USE RESIDENTIAL	RESTAURANT	RESIDENTIAL	YES
LOT AREA	10,000 S.F.	18,650 S.F.	18,650 S.F.	YES
LOT WIDTH	100 FEET	306.59 FEET	306.59 FEET	YES
FRONT PROPERTY LINE COVERAGE (OLD SOUTH AVE)	60%	12.7% (30 FEET/236.2 FEET)	62.3% (147 FEET/235.8 FEET)	YES
FRONT PROPERTY LINE COVERAGE (SOUTH AVE)	60%	9.03% (30.82 FEET/341.4 FEET)	68.2% (233 FEET/341.4 FEET)	YES
MINIMUM FRONT YARD SETBACK (OLD SOUTH AVE)	5.0 FEET	11 FEET	5.2 FEET	YES
MAXIMUM FRONT YARD SETBACK (OLD SOUTH AVE)	30.0 FEET	11 FEET	9.4 FEET	YES
MINIMUM FRONT YARD SETBACK (SOUTH AVE)	10.0 FEET	0.6 FEET	10.5 FEET	YES
MAXIMUM FRONT YARD SETBACK (SOUTH AVE)	20.0 FEET	0.6 FEET	10.9 FEET	YES
MINIMUM SIDE YARD SETBACK	10.0 FEET	131.15 FEET	10.1 FEET	YES
REAR YARD SETBACK	5.0 FEET	N/A	N/A	YES
BUILDING COVERAGE	N/A	776 S.F. (4.2%)	11,167 S.F. (59.9%)	YES
LOT COVERAGE	70%	6,780 S.F. (36.35%)	13,028 S.F. (69.9%)	YES
MINIMUM BUILDING HEIGHT	1.5 STORIES	1 STORY	3 STORIES	YES
MAXIMUM BUILDING HEIGHT (SOUTH AVENUE)	3 STORIES	1 STORY	3 STORIES	YES
	40 FEET	< 40 FEET	34.96 FEET	YES
MAXIMUM BUILDING HEIGHT (CORNER ELEMENT)	3 1/2 STORIES	N/A	3 1/2 STORIES	YES
SOUTH AVENUE	45 FEET	N/A	39.58 FEET	YES
MAXIMUM BUILDING HEIGHT	3 STORIES	1 STORY	3 STORIES	YES
OLD SOUTH AVENUE	40 FEET	< 40 FEET	39.75 FEET	YES
MAXIMUM BUILDING HEIGHT (CORNER ELEMENT)	3 1/2 STORIES	N/A	3 1/2 STORIES	YES
OLD SOUTH AVENUE	45 FEET	N/A	44.33 FEET	YES
MIN GROUND STORY (SOUTH AVENUE)	12 FEET	N/A	12 FEET	YES
MIN GROUND STORY (OLD SOUTH AVENUE)	12 FEET	N/A	12 FEET	YES
MIN UPPER STORY	10 FEET	N/A	10 FEET	YES

PARKING SCHEDULE					
PARKING	ORDINANCE/INDUSTRY STANDARD	REQUIRED	EXISTING	PROPOSED	COMPLY
2 THREE-BEDROOM UNIT	1.5 PARKINGS SPACES/DWELLING	3 SPACES			
10 TWO-BEDROOM UNIT	1.5 PARKINGS SPACES/DWELLING	15 SPACES			
4 ONE-BEDROOM UNIT	1.5 PARKINGS SPACES/DWELLING	6 SPACES			
16 UNITS		24 SPACES	13 SPACES	24 SPACES	YES
EV CHARGING STATION CREDIT	1:1 UP TO 10% OF REQUIRED PARKING	~2 SPACES			
	TOTAL WITH CREDIT	22 SPACES		24 SPACES	YES
EV CHARGING STATION	15% OF PROPOSED PARKING	4 SPACES		4 SPACES	YES

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THE FIRM OR ITS EMPLOYEES OR AGENTS HAVE CONDUCTED A VISUAL GENERAL SURVEY OF THE PROPERTY AND THE ADJACENT AREAS FOR THE PURPOSE OF PREPARING THIS PLAN. THE FIRM DOES NOT WARRANT THE ACCURACY OF THE INFORMATION SHOWN ON THIS PLAN. THE FIRM DOES NOT WARRANT THE ACCURACY OF THE INFORMATION SHOWN ON THIS PLAN.

- LEGEND

STREET SIGN

CLEANOUT

SANITARY MANHOLE

DRAINAGE MANHOLE

CATCH BASIN

CATCH BASIN

SOIL BORING

GUY WIRE

UTILITY POLE

P.K. NAIL FOUND

CONC. MONUMENT FOUND

IRON BAR FOUND

MAILBOX

STREET TREE

EXIST. SPOT ELEVATION

EXISTING CONTOUR LINE

GAS LINE

WATER LINE

GAS VALVE

WATER VALVE

FIRE HYDRANT

LIGHT POST
- ELEVATIONS SHOWN ARE BASED  
ON NAVD 88
- 
- REV.

DATE

DESCRIPTION

CHK'D.

APP'D

HARBOR CONSULTANTS

Engineers & Surveyors

320 NORTH AVENUE EAST

CRANFORD, N.J. 07016

Phone (908) 276-2715 Fax (908) 709-1738

Email: info@hcicg.net

PRELIMINARY & FINAL SITE PLAN

LAYOUT & DIMENSIONING PLAN

NO. 383 SOUTH AVENUE

LOT 5, BLOCK 69

TOWN OF FANWOOD UNION COUNTY NEW JERSEY

VICTOR E. VINEGRA

PROFESSIONAL ENGINEER & LAND SURVEYOR

NEW JERSEY LICENSE No. 34460

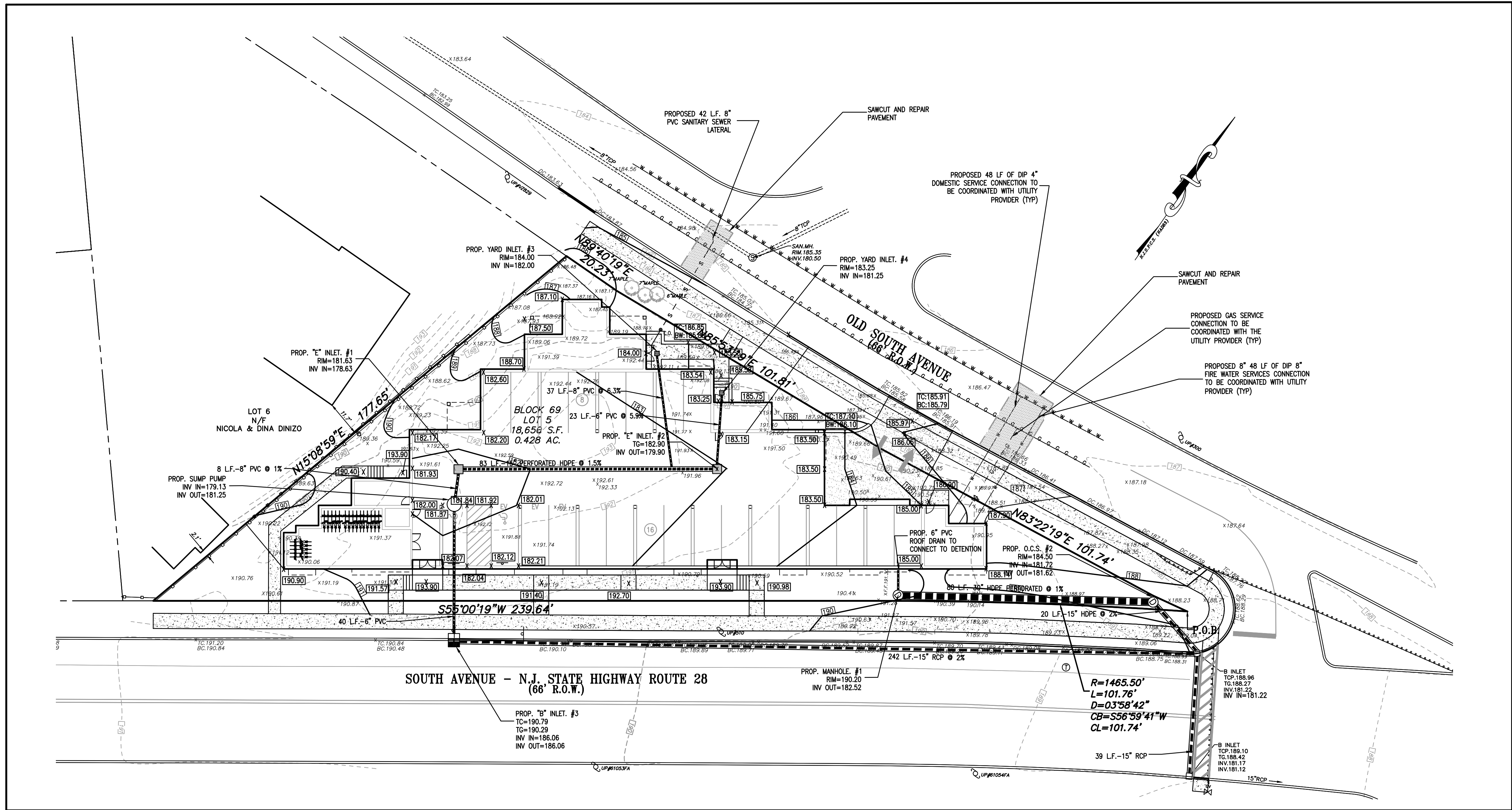
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PROJECT No.

2023112





**GRADING & UTILITY PLAN**  
SCALE: 1"=20'

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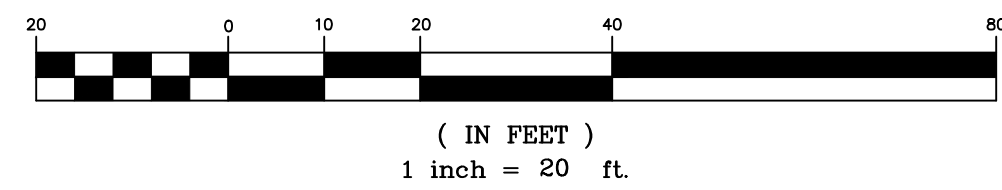
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GRAPHIC SCALE



REV.	DATE	DESCRIPTION	CHK'D.	APP'D

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**GRADING & UTILITY PLAN**  
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LOT 5, BLOCK 69  
TOWN OF FANWOOD UNION COUNTY NEW JERSEY

SCALE: 1"=20' DATE: 01/27/25 DESIGNED BY: V.E.V. DRAWN BY: C.C. WORK FILE: 2023112 Exist

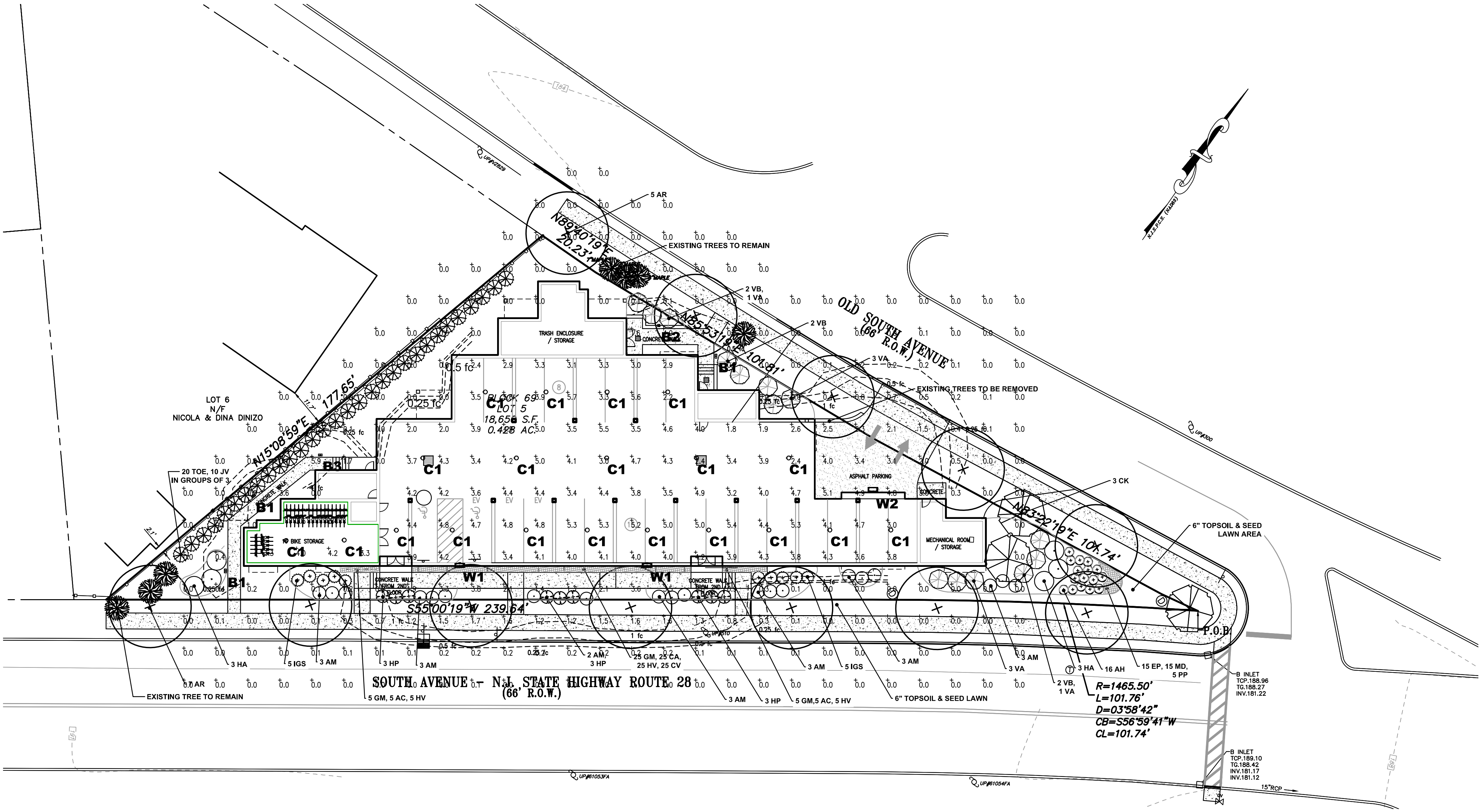
**4**

**VICTOR E. VINEGRA**  
PROFESSIONAL ENGINEER & LAND SURVEYOR  
NEW JERSEY LICENSE No. 34460  
CERTIFICATE OF AUTHORIZATION No. 24GA27962100 PROJECT No. 2023112



PLANTING NOTES

1. CONTRACTOR SHALL INSPECT SITE PRIOR TO BEGINNING PLANTING OPERATIONS AND NOTIFY THE OWNER OF ANY CONDITIONS THAT ARE NOT SUITABLE TO PERFORMING PLANTING OPERATIONS. CONTRACTOR SHALL NOTIFY OWNER'S REP. OR LANDSCAPE ARCHITECT OF ANY CONDITIONS THAT WOULD PREVENT HEALTHY GROWTH OF PLANT MATERIAL.
2. PLANT GROUPINGS & LOCATIONS ARE DIAGRAMMATIC. THE LOCATION OF PLANTS SHALL BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT.
3. ALL PLANTS IN THE SAME PLANTING BED SHALL BE PLANTED AT THE SAME TIME. ANY PLANTS REMAINING UNPLANTED ON THE SITE FOR MORE THAN 24 HRS. SHALL BE PROTECTED AND MAINTAINED INCLUDING BUT NOT LIMITED TO WATER AND SHADE. ANY DAMAGED PLANTS SHALL BE REPLACED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.
4. ALL PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT ISSUE OF "ANSI Z60.1-2014 NURSERY STOCK STANDARDS" OR LATEST EDITION. ALL PLANTS TO BE NURSERY-GROWN UNDER SIMILAR CLIMATIC CONDITIONS AS JOB SITE FOR AT LEAST 2 YEARS. PLANTS SHALL BE DISEASE FREE, VIGOROUS, WITH WELL DEVELOPED ROOT SYSTEMS. TREES SHALL HAVE STRAIGHT TRUNKS, LEADER INTACT, UNDamaged & UNcut.
5. THERE WILL BE NO SUBSTITUTIONS OF PLANT MATERIAL WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL CONTACT AGENCIES FOR UTILITY MARK-OUT PRIOR TO PLANTING.
7. ALL PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT.
8. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE. SPRING PLANTING SEASON SHALL BE MARCH 15 THROUGH MAY 15; FALL PLANTING SEASON SHALL BE OCT. 15 THROUGH DEC 15. PLANTING IS ACCEPTABLE DURING OTHER TIMES IF WEATHER PERMITS, THE GROUND IS NOT FROZEN AND SUPPLEMENTAL WATERING IS PROVIDED (IN SUMMER MONTHS).
9. NO PLANT, OTHER THAN GROUND COVER, MAY BE PLANTED CLOSER THAN TWO FEET TO EXISTING STRUCTURES OR SIDEWALKS.
10. THE FOLLOWING "FALL PLANTING HAZARD" TREE SPECIES SHALL BE PLANTED IN THE SPRING SEASON ONLY:  
CARPINUS  
CORNUS  
ACER RUBRUM  
LIQUIDAMBAR  
QUERCUS (EXCEPT Q. palustris)
11. THE CONTRACTOR SHALL LAYOUT ALL TREES, TREE PITS, SHRUBS, AND SHRUB BEDS PRIOR TO INSTALLATION FOR APPROVAL. FINAL LOCATION OF ALL PLANTS TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT.
12. SOIL TEST SHALL BE PERFORMED AND ADJUSTMENTS TO pH AND AMENDMENTS MADE IN ACCORDANCE WITH RECOMMENDATIONS FROM TESTING LAB (I.E., RUTGERS SOIL TESTING LAB), AT A MINIMUM, TREES PITS & SHRUB BEDS SHALL HAVE COMPOST ADDED TO THE TOPSOIL MIX AT THE RATIO OF 2 PARTS COMPOST TO 7 PARTS TOPSOIL.
13. TOPSOIL FOR PLANTING PITS AND BEDS SHALL BE SANDY LOAM; FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL; CONTAIN 5% ORGANIC MATTER, pH 5.0 TO 7.0 INCLUSIVE. DO NOT PLACE ANY SOIL ON TOP OF ROOT BALL.
14. TREES AND SHRUBS SHALL BE PLANTED SO THAT THE ROOT FLARE IS LEVEL OR SLIGHTLY ABOVE FINISHED GRADE AFTER ALLOWING FOR WATERING & SETTLING. REMOVE EXCESS SOIL FROM TOP OF BALL AS REQUIRED TO EXPOSE ROOT FLARE.
15. PLANTS MUST BE WATERED AS THEY ARE PLANTED. TREES TO BE WATERED WITH 10 GALLONS OF POTABLE WATER WHEN BACKFILLED TO ONE HALF FINISHED HEIGHT. AN ADDITIONAL 10 GALLONS AFTER COMPLETELY BACKFILLED AND MULCHED.
16. CUT AND REMOVE ALL BURLAP & STRING FROM ROOT BALL. REMOVE ENTIRE WIRE BASKET & DISPOSE OF LEGALLY OFF SITE.
17. LOCATE TREE SUPPORT SYSTEM SO THAT IT WILL NOT PULL CROTCH APART. USE ARBOR-TIE, 3/4" FLAT WOVEN POLYPROPYLENE STRAPS. TIE TO STAKES IN A MANNER THAT PERMITS SOME TREE MOVEMENT AND SUPPORTS TREE.
18. UPON COMPLETION OF THE PLANT WARRANTY PERIOD, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING OR REMOVING ALL STAKES, AS WELL AS STAKING MATERIAL. WARRANTY BEGINS AT DATE OF ACCEPTANCE.
19. ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 3" MAX. LAYER OF MULCH. MULCH SHALL NOT COME IN DIRECT CONTACT WITH TREE TRUNKS.
20. IF THERE IS A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE PLANT LIST AND THE PLANTING GRAPHIC, THE GRAPHIC SHALL TAKE PRECEDENCE.
21. IF THE CONTRACTOR DETERMINES THE SUB-GRADE SOIL CONDITIONS ARE DELETERIOUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIAL.
22. MAINTAIN TREES AND GROUND COVER UPON COMPLETION OF PLANTING OPERATIONS AND UNTIL ISSUANCE OF FINAL ACCEPTANCE.
23. PLANTED AREAS SHALL BE WATERED BY THE CONTRACTOR WHEN RAINFALL IS LESS THAN 1" PER WEEK. SHRUBS SHALL RECEIVE 3-5 GALLONS PER PLANT AND TREES 7-10 GALLONS PER INCH OF CALIPER PER WEEK, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.
24. CONTRACTOR SHALL PROVIDE A MINIMUM OF 6" TOPSOIL IN ALL LAWN AREAS. PLANT PERENNIALS AND GROUND COVER IN 8" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS. PLANT BULBS IN NATURALIZED DRIFTS. PLANT SHRUBS AND TREES AS PER PLANT DETAILS.
25. TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL DISTURBANCES, CONSTRUCTION, OR STORAGE OF EQUIPMENT WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT. DECOMPACT ALL AREAS PREVIOUSLY PAVED.
- LAWN AREA MIX (AREAS NOT DESIGNATED FOR OTHER SEED MIXES):  
30% ONYX TURF-TYPE TALL FESCUE  
30% MONTAUK TURF-TYPE TALL FESCUE  
30% SANTA FE TURF-TYPE TALL FESCUE  
10% WASHINGTON KENTUCKY BLUEGRASS  
SEEDING RATE 75-100 LBS./ACRE SEED MULCH SHALL BE STRAW OR HAY, OR WOOD CELLULOSE FIBER, OR SOIL STABILIZATION MATTING.



LANDSCAPING & LIGHTING

SCALE: 1"=20'

LEGEND

- + PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- PROPOSED ORNAMENTAL TREE
- PROPOSED EVERGREEN SHRUB
- PROPOSED DECIDUOUS SHRUB
- PROPOSED GROUND COVER
- PROPOSED PERENNIAL
- PROPOSED VINE

LEGEND

- STREET SIGN
- CLEANOUT
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- CATCH BASIN
- CATCH BASIN
- SOIL BORING
- GUY WIRE
- UTILITY POLE
- P.K. NAIL FOUND
- CONC. MONUMENT FOUND
- IRON BAR FOUND
- MAILBOX
- EXIST. SPOT ELEVATION
- EXISTING CONTOUR LINE
- GAS LINE
- WATER LINE
- GAS VALVE
- WATER VALVE
- FIRE HYDRANT
- LIGHT POST

PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPC	COMMENTS
<b>Shade Trees</b>							
AR	12	Acer Rubrum 'October Glory'	Red Maple	12 1/2"-3" cal. 12'-16" ht.	B&B		Symmetrical, leader intact, branched 7' from grade
<b>Ornamental Trees</b>							
CK	3	Cornus Kousa	Kousa dogwood	8'-10' ht.	B&B		Well established, heavy, symmetrical
<b>Evergreen Trees</b>							
JVT	10	Juniperus virginiana 'Taylor'	Taylor red cedar	6'-7" ht.	B&B		Well established, heavy, symmetrical
TOE	20	Thuja occidentalis 'Smaragd'	Emerald green arborvitae	6'-7" ht.	B&B		Well established, heavy, symmetrical
<b>Shrubs</b>							
AM	20	Aronia melanocarpa 'Low scape mound'	Low Scape chokeberry	24-30"	#3 Can	36" O.C.	Well established, heavy, symmetrical
HA	6	Hydrangea arborescens 'Annabelle'	Annabelle hydrangea	24-30"	#5 Can	60" O.C.	Well established, heavy, symmetrical
HP	9	Hypericum perforatum	St. John's wort	24-30"	#3 Can	36" O.C.	Well established, heavy, symmetrical
IGS	10	Ilex glabra 'Shamrock'	Shamrock inkberry	24-30"	#3 Can	36" O.C.	Well established, heavy, symmetrical
VA	6	Viburnum nudum 'Brandywine'	Brandywine viburnum	30-36"	#7 Can	72" O.C.	Well established, heavy, symmetrical
VB	8	Viburnum acerifolium	Mapleleaf viburnum	30-36"	#7 Can	72" O.C.	Well established, heavy, symmetrical
<b>Groundcover, perennials, grasses</b>							
AH	16	Amsonia hubrichtii	Threadleaf bluestar		#3 Can	36" O.C.	Well established, heavy, symmetrical
AC	10	Aquilegia canadensis	Red columbine	1 qt.	12" O.C.		Vigorous, well established in containers
CA	25	Carex appalachia	Appalachian sedge	1 qt.	12" O.C.		Vigorous, well established in containers
CV	25	Coreopsis verticillata 'Zagreb'	Zagreb tickseed	1 qt.	18" O.C.		Vigorous, well established in containers
EP	15	Echinacea purpureum	Purple coneflower	1 qt.	18" O.C.		Vigorous, well established in containers
GM	35	Geranium maculatum	Hardy geranium	1 qt.	18" O.C.		Vigorous, well established in containers
HV	35	Heuchera villosa	Coral bells	1 qt.	12" O.C.		Vigorous, well established in containers
MD	15	Monarda didyma	Scarlet beebalm	1 qt.	18" O.C.		Vigorous, well established in containers
PP	5	Phlox paniculata 'Sweet Summer Dream'	Pink tall phlox	1 qt.	18" O.C.		Vigorous, well established in containers

TREE REPLACEMENT CHART

SIZE	EXISTING TREE	REQUIRED- 2 1/2"	PROVIDED
8"	MAPLE	1	(12) 2-1/2" CAL.
12"	MAPLE	1	Acer rubrum 'October Glory'
9"	MAPLE	1	
21"	MAPLE	5	

DIVERSIFIED GRP LUMINAIRE SCHEDULE

Qty	Type	Arrangement	Symbol	Manufacturer	Light Fixture Spec	CCT	Lum. Lumens	LLF	Lum. Watts	Arr. Watts	Mounting AFG (FT)
3	B1	Single		BEACON	VPB-24L-10-3K7-2-VOLTS-42-FINISH	3000K	850	0.900	6.6	6.6	3.5
1	B2	Single		BEACON	VPB-24L-10-3K7-3-VOLTS-42-FINISH	3000K	794	0.900	6.6	6.6	3.5
1	B3	Single		BEACON	VPB-24L-10-3K7-4W-VOLTS-42-FINISH	3000K	830	0.900	6.6	6.6	3.5
20	C1	Single		BEACON	SRT1-20-3K7-5QW-VOLTS-FINISH-NXWS-12F-MS8	3000K	2846	0.900	22.6	22.6	10
2	W1	Single		BEACON	VPW2-18L-25-3K7-3-VOLTS-FINISH-NWS12F-MS8	3000K	3212	0.900	22.6	22.6	10
1	W2	Single		BEACON	VPW2-18L-25-3K7-4F-VOLTS-FINISH-NWS12F-MS8	3000K	3222	0.900	22.6	22.6	11

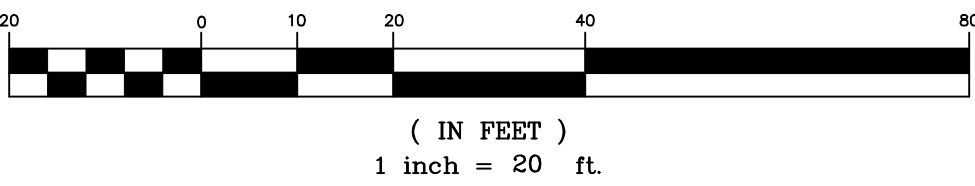
DIVERSIFIED GRP CALCULATON SUMMARY

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING GARAGE	Illuminance	Fc	3.96	5.7	1.8	2.20	3.17

SITE LIGHTING CONTROLS SEQUENCE OF OPERATION IN COMPLIANCE WITH ASHRAE 90.1-2019

- EACH SITE FIXTURE TO BE EQUIPPED WITH NX CONTROLS, WHICH IS A WIRELESS BLUETOOTH MESH CONTROL SYSTEM.
- CONTROL SYSTEM IS TO BE ACCESSIBLE VIA IOS APP FOR PROGRAMMING.
- EACH SITE FIXTURE TO HAVE AN INTEGRAL MOTION AND PHOTO SENSOR MODULE TO PROVIDE MULTI-LEVEL CONTROL BASED ON MOTION AND/OR DAYLIGHT. SENSOR MODULE ALSO TO HAVE BUILT-IN TIME KEEPER FUNCTIONALITY TO ALLOW THE SCHEDULING OF DIMMING EVENTS BASED ON TIME OF DAY.
- ALL SITE LIGHTS TO TURN ON AT DUSK AND OFF AT DAWN.
- LIGHTS TO REMAIN FULL BRIGHTNESS UNIT 12 A.M., AT WHICH TIME THE LIGHTS WILL DIM TO 50% OUTPUT UNTIL DAWN.
- ANY MOTION DETECTED ON SITE AFTER 12 A.M. WILL KICK THE POWER UP TO 100% BRIGHTNESS. AFTER A DURATION OF 15 MINUTES WITH NO MOTION DETECTION, THE LIGHTS WILL RESUME BACK TO THE DIMMED 50% STATE.
- MULTIPLE LIGHT FIXTURES TO BE GROUPED TOGETHER INTO ZONES BASED ON AREA AND TRAFFIC PATTERNS. MOTION DETECTION WILL ACTIVATE THE ENTIRE ZONE, NOT THE INDIVIDUAL FIXTURE, TO ENSURE UNIFORM COVERAGE IN THE AREA.

GRAPHIC SCALE



ELEVATIONS SHOWN ARE BASED ON NAVD 88



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Phone (908) 276-2715 Fax (908) 709-1738  
Email: info@hcicg.net

PRELIMINARY & FINAL SITE PLAN  
**LANDSCAPING & LIGHTING PLAN**

NO. 383 SOUTH AVENUE

LOT 5, BLOCK 69

TOWN OF FANWOOD

UNION COUNTY

NEW JERSEY

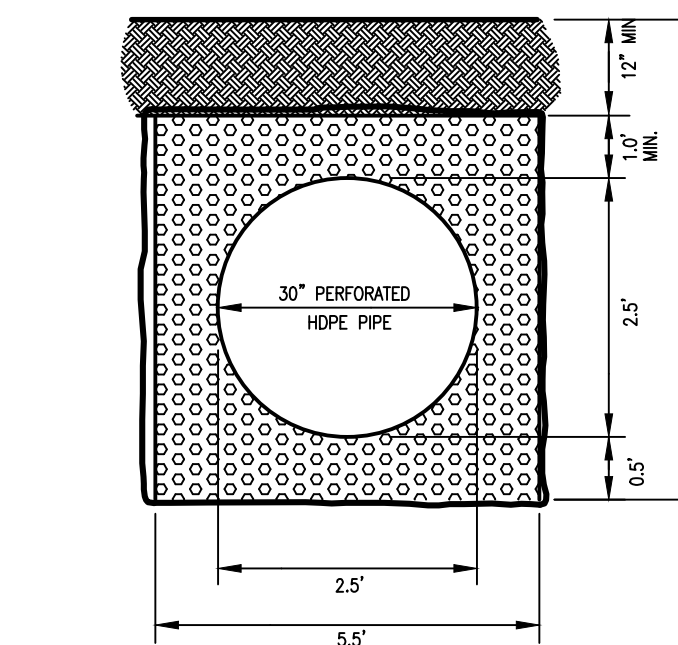
SCALE: 1"=20'	DATE: 01/27/25	DESIGNED BY: V.E.V.	DRAWN BY: C.C.	WORK FILE: 2023112 L&L	CERTIFICATE OF AUTHORIZATION No.: 24GA27962100	PROJECT No.: 2023112
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**VICTOR E. VINEGRA**  
PROFESSIONAL ENGINEER & LAND SURVEYOR  
NEW JERSEY LICENSE No. 34460

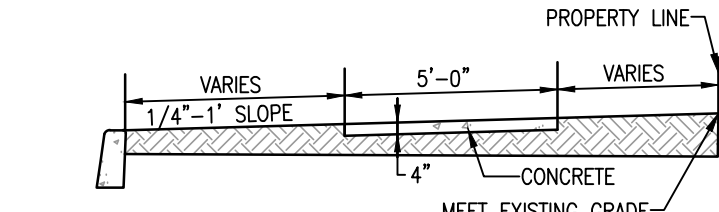
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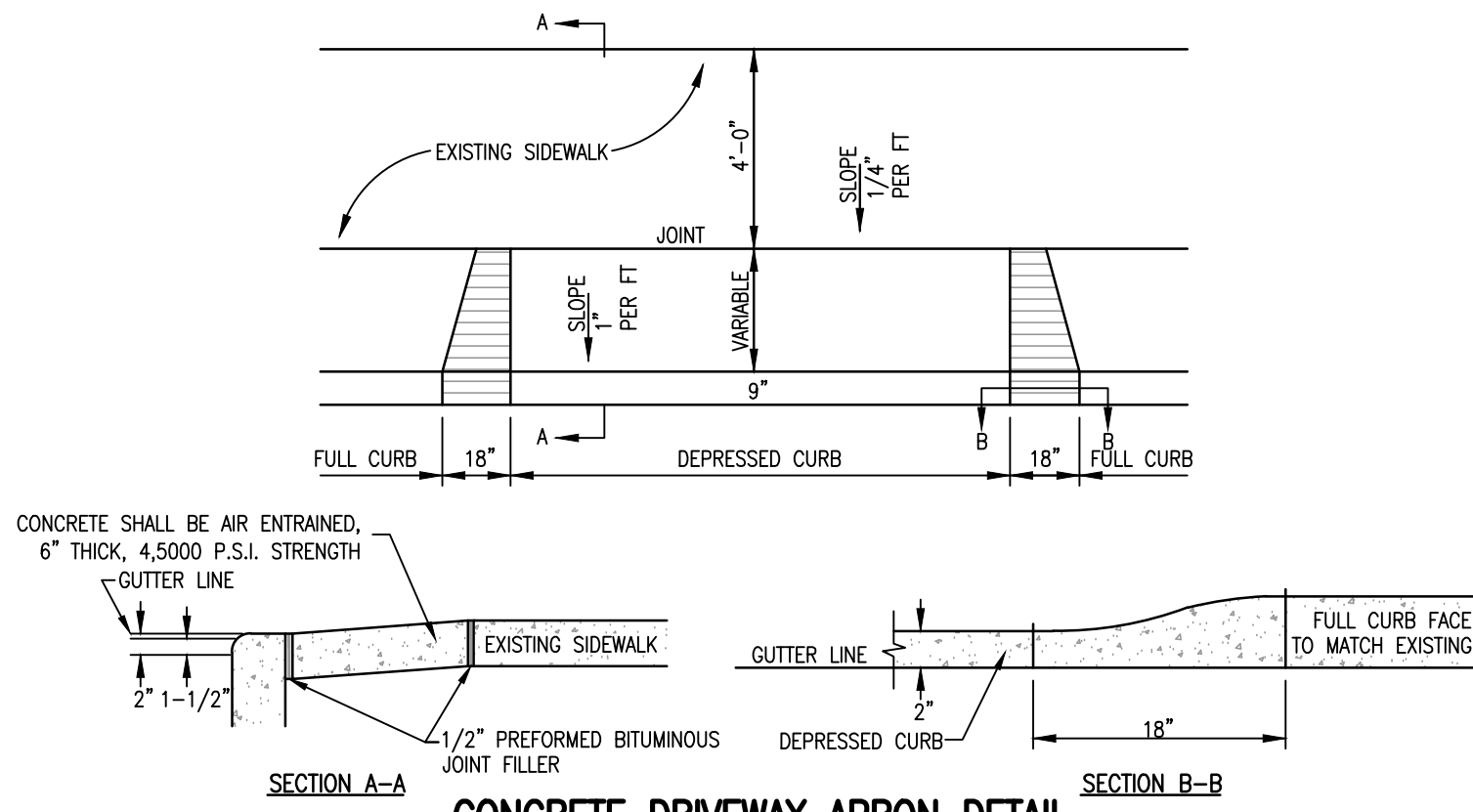


**30" PERFORATED HDPE DETENTION BED**  
N.T.S.

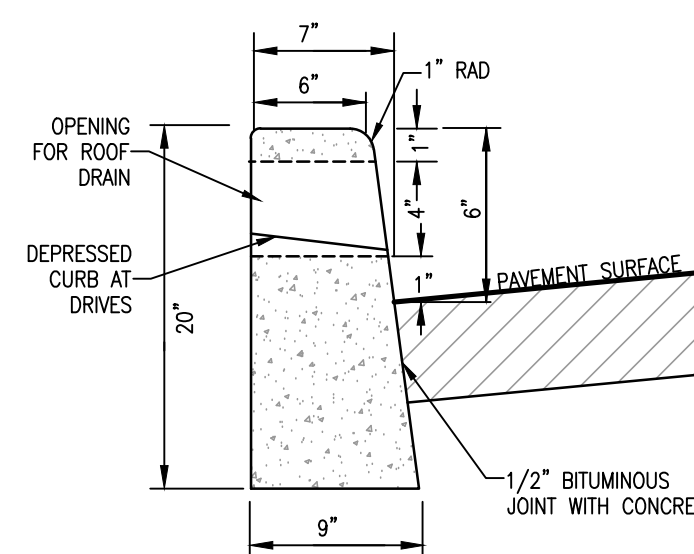


- NOTES:
1. SUBGRADE SHALL BE WELL DRAINED AND COMPACTED TO A FIRM SURFACE WITH A UNIFORM BEARING LOAD.
  2. WHERE SIDEWALK IS TO BE BUILT NEXT TO AN ADJACENT UNPAVED STREET, FINISHED GRADES MUST BE OBTAINED FROM THE CITY ENGINEER.
  3. ALL FORMS FOR SIDEWALK CONSTRUCTION SHALL BE APPROVED BY THE CITY ENGINEER.
  4. CONCRETE SHALL BE AIR-ENTRAINED 4,000 P.S.I. STRENGTH ACCORDING TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION FOR 2007 AND SUPPLEMENTARY SPECIFICATIONS.
  5. THE SIDEWALK SHALL BE FOUR (4) INCHES THICK AND SHALL BE FINISHED WITH A WOOD FLOAT FOLLOWED BY BRUSHING WITH A WET SOFT HAIR BRUSH. (6" THICK AT DRIVEWAYS)
  6. A FULL DEPTH TRANSVERSE EXPANSION JOINT IS TO BE CUT EVERY 12 LINEAR FEET. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2 INCH THICK, WHICH SHALL BE FLUSH WITH THE TOP. A FALSE TRANSVERSE JOINT IS TO BE CUT EVERY 4 LINEAR FEET.
  7. WHERE SIDEWALK ADJACENT TO CURB OR OTHER STRUCTURE, A 1/2" PREFORMED JOINT FILLER SHALL BE INSTALLED.
  8. CONCRETE CURB AND GUTTER TO BE CURED AS PER NEW JERSEY STATE D.O.T. STANDARD SPECIFICATIONS 2007 SECTION 606.03.23H.

**CONCRETE SIDEWALK DETAIL**  
N.T.S.

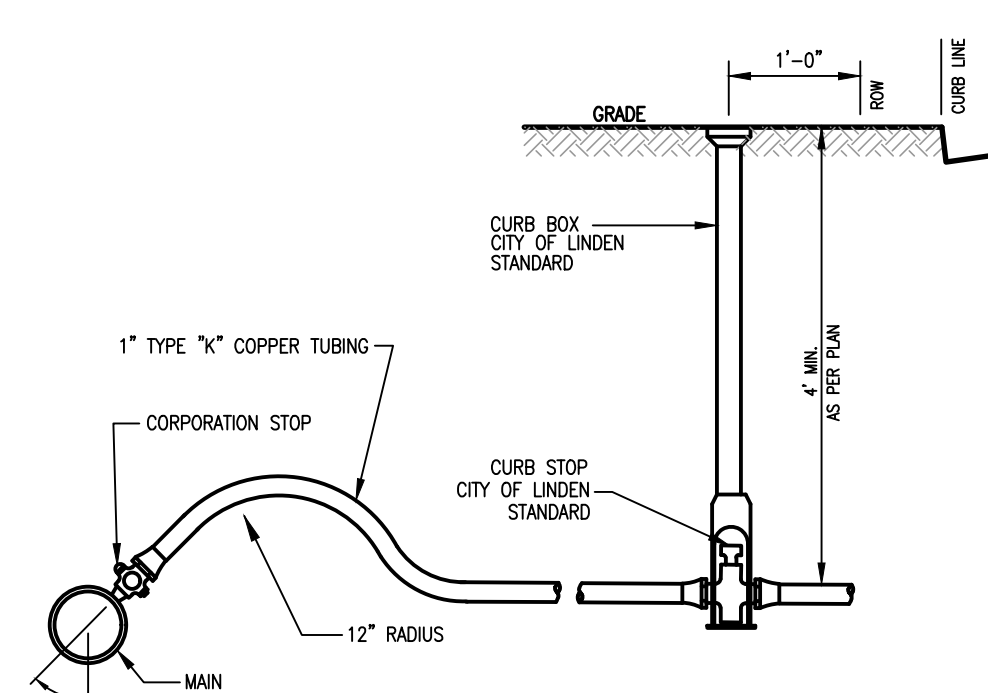


**CONCRETE DRIVEWAY APRON DETAIL**  
N.T.S.

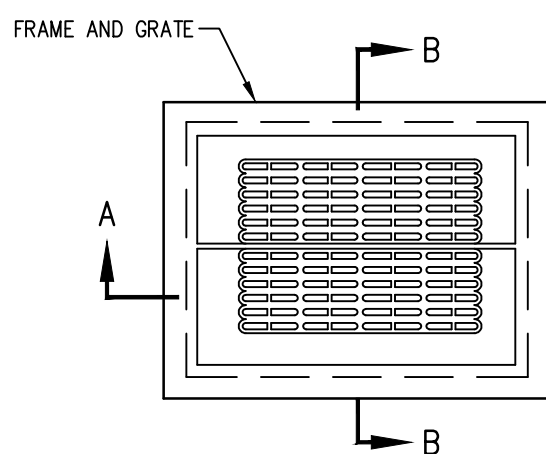


**VERTICAL CONCRETE CURB DETAIL**  
N.T.S.

- NOTES:
1. SUBGRADE SHALL BE WELL DRAINED AND COMPACTED TO A FIRM SURFACE WITH A UNIFORM BEARING LOAD.
  2. ALL FORMS FOR CURB AND GUTTER CONSTRUCTION SHALL BE APPROVED BY THE CITY ENGINEER.
  3. CONCRETE SHALL BE AIR-ENTRAINED 4,000 P.S.I. STRENGTH ACCORDING TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION FOR 2007 AND SUPPLEMENTARY SPECIFICATIONS.
  4. A FULL DEPTH TRANSVERSE EXPANSION JOINT IS TO BE CUT EVERY 10 FEET. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2 INCH THICK, WHICH SHALL BE FLUSH WITH THE TOP AND FACE.
  5. WHERE NECESSARY CONCRETE CURB SHALL HAVE A 4" ROUND TRANSVERSE OPENING TO ACCEPT ROOF DRAINS. OPENING MAY BE MADE BY THE INSERTION OF A CLOSED CONTAINER DURING CONSTRUCTION.
  6. CONCRETE CURB AND GUTTER TO BE CURED AS PER NEW JERSEY STATE D.O.T. STANDARD SPECIFICATIONS 2001 SECTION 501.17 PAGE 500-28.



**DOMESTIC WATER SERVICE CONNECTION**  
N.T.S.

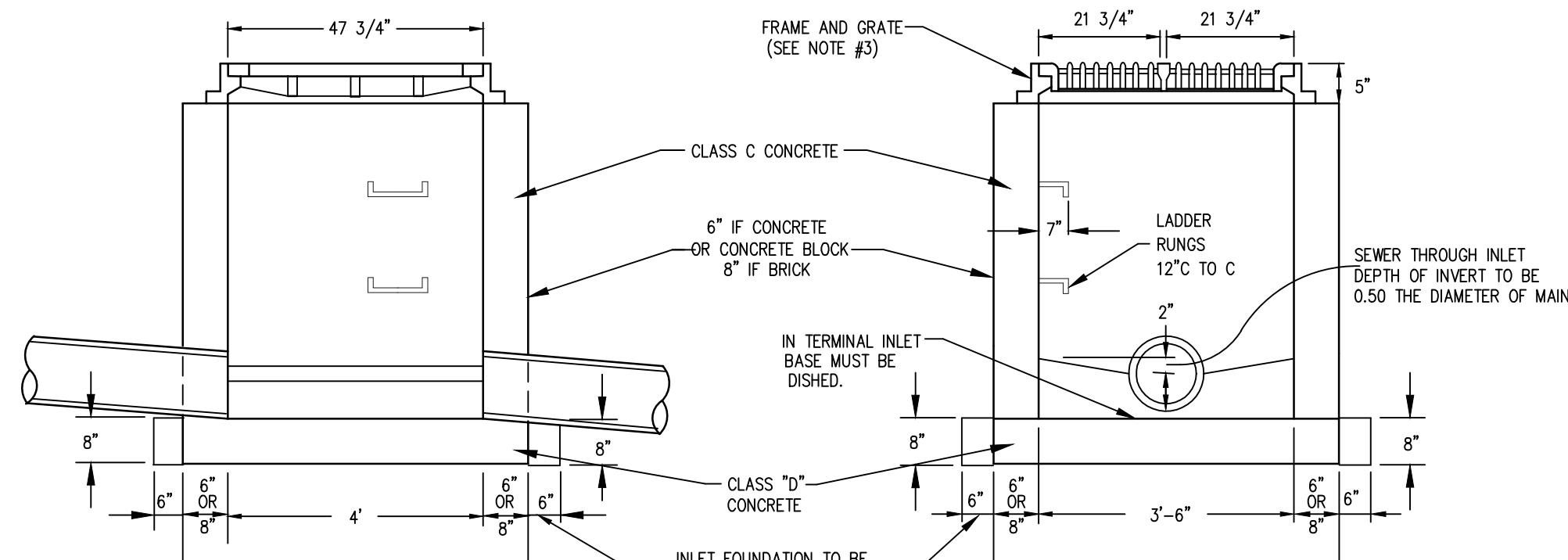


**TYPE "E" INLET NOTES:**

1. INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. BOTTOMS SHALL BE DISHED AND SLOPED TOWARDS THE OUTLET PIPE AT A RATE OF GRADE OF 2 INCHES PER FOOT.
- THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR.
3. HEAVY DUTY INLET FRAME AND BICYCLE TYPE GRATE TO BE CAMPBELL FOUNDRY PATTERN NO. 3425 OR APPROVED EQUAL.

**GENERAL INLET NOTES:**

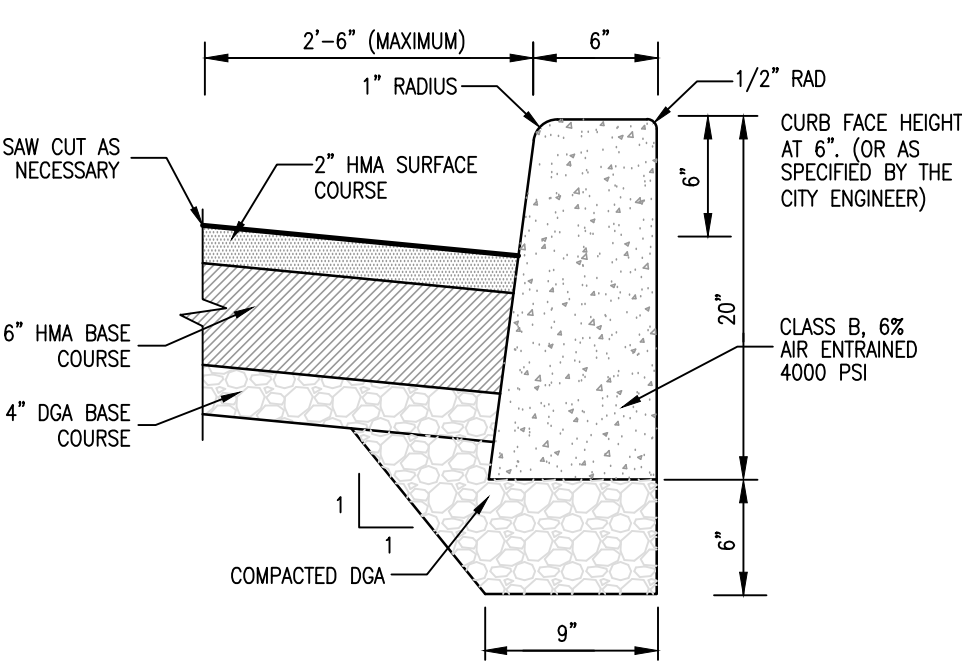
1. FOOTER TO BE N.J.D.O.T. CLASS "D" CONC.
2. INVERT TO BE CLASS "C" CONCRETE.
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
4. PROVIDE 7/8" DIA. ALUMINUM LADDER RUNGS, 12" O.C.
5. ALL PRECAST STRUCTURES TO RECEIVE BITUMASTIC TAR COAT OUTSIDE ONLY.
6. ALL STORM SEWER PIPE SHALL HAVE A 6" STONE BEDDING TO 1/2 DIAMETER OF PIPE.



**SECTION 'A-A'**

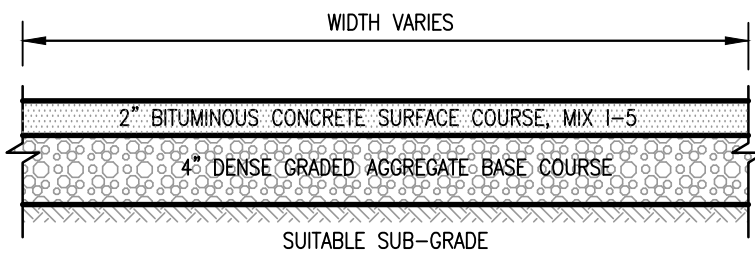
**TYPE "E" INLET**  
N.T.S.

**SECTION 'B-B'**

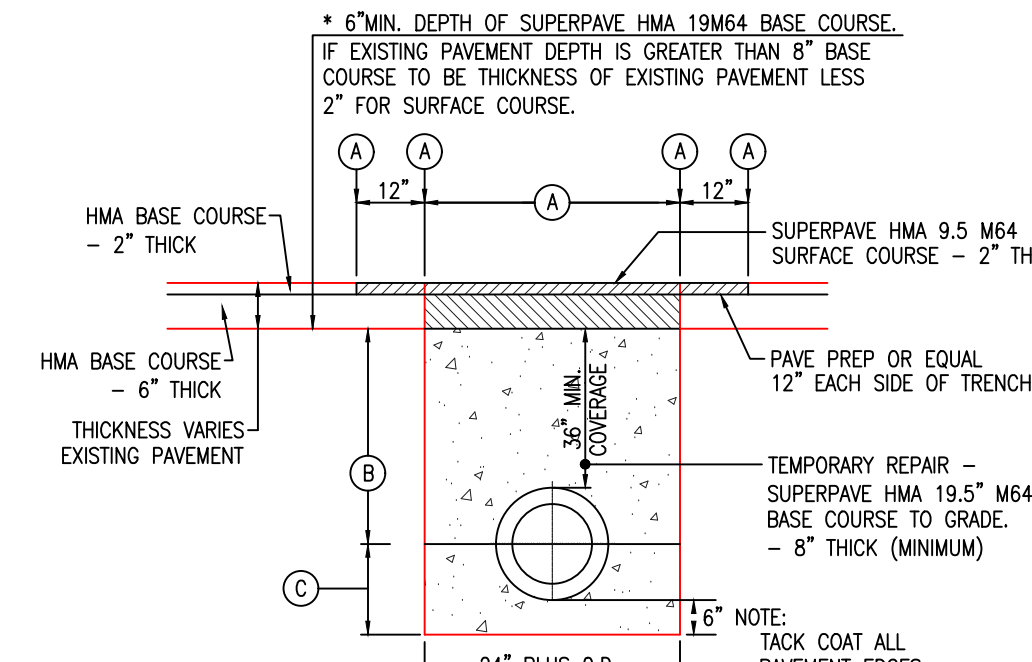


- NOTES:
- HMA SURFACE COURSE - NJDOT HOT MIX ASPHALT 9.5 M64 / 12.5 M 64 SURFACE COURSE, (AS PER ENGINEER'S SPECIFICATIONS)
  - HMA BASE COURSE - NJDOT HOT MIX ASPHALT 19 M64 BASE COURSE. CONSTRUCT IN LAYERS NOT MORE THAN 3" COMPACTED THICKNESS
  - DGA BASE COURSE - NJDOT DENSE GRADED AGGREGATE BASE COURSE 4" THICK. (FORMERLY NJDOT QUARRY PROCESSED STONE)

**TYPICAL ROADWAY EXCAVATION AT CURBS**  
N.T.S.



**DRIVEWAY DETAIL**  
N.T.S.

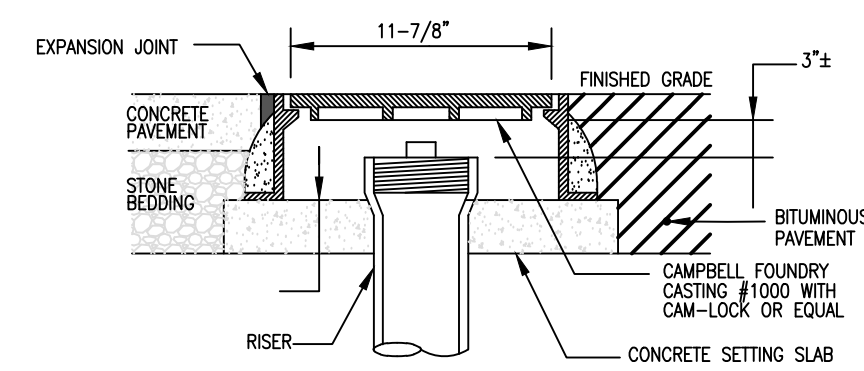


- NOTES:
- (A) EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT TO BE SAW CUT
  - (B) DENSE GRADED AGGREGATE BASE COURSE
  - (C) 3/4" CLEAN STONE, 6" LAYER. USE ONLY IF PIPE SIZE IS 36" OR LARGER OR IF WET CONDITIONS ARE PRESENT

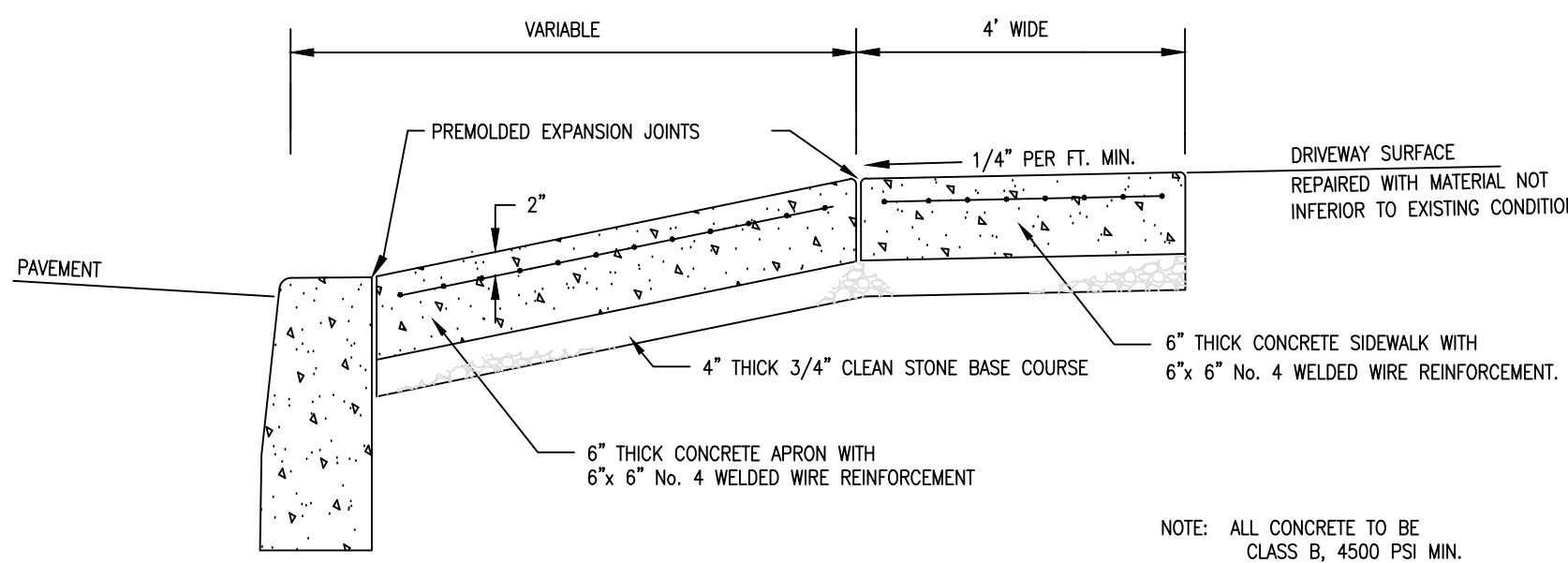
- \* IF EXISTING PAVEMENT IS CONCRETE, RESTORATION MATERIAL FOR BASE COURSE SHALL ALSO BE CONCRETE, OR AS REQUIRED BY THE COUNTY ENGINEER

NOTE: IF EXCAVATION IS WITHIN 2' OF CURB, REMOVE PAVEMENT TO CURB AND REPLACE

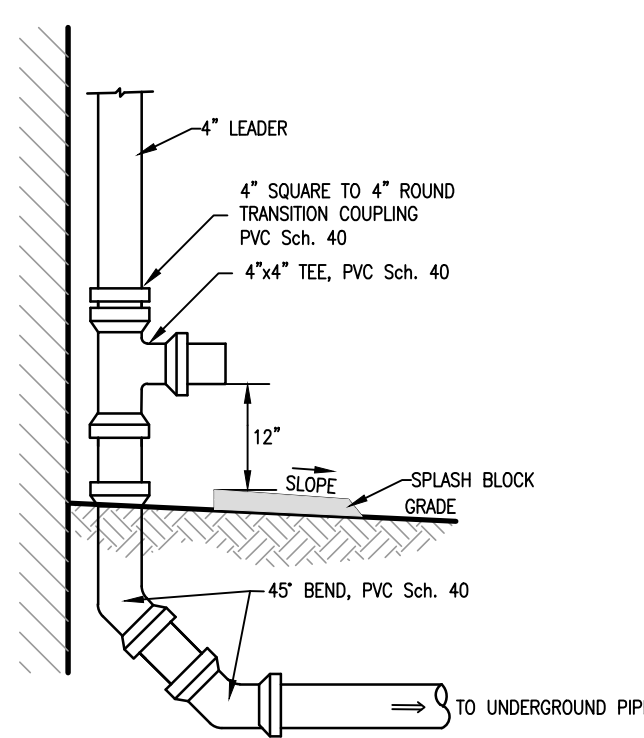
**HOT MIX ASPHALT PAVEMENT TRENCH RESTORATION**  
N.T.S.



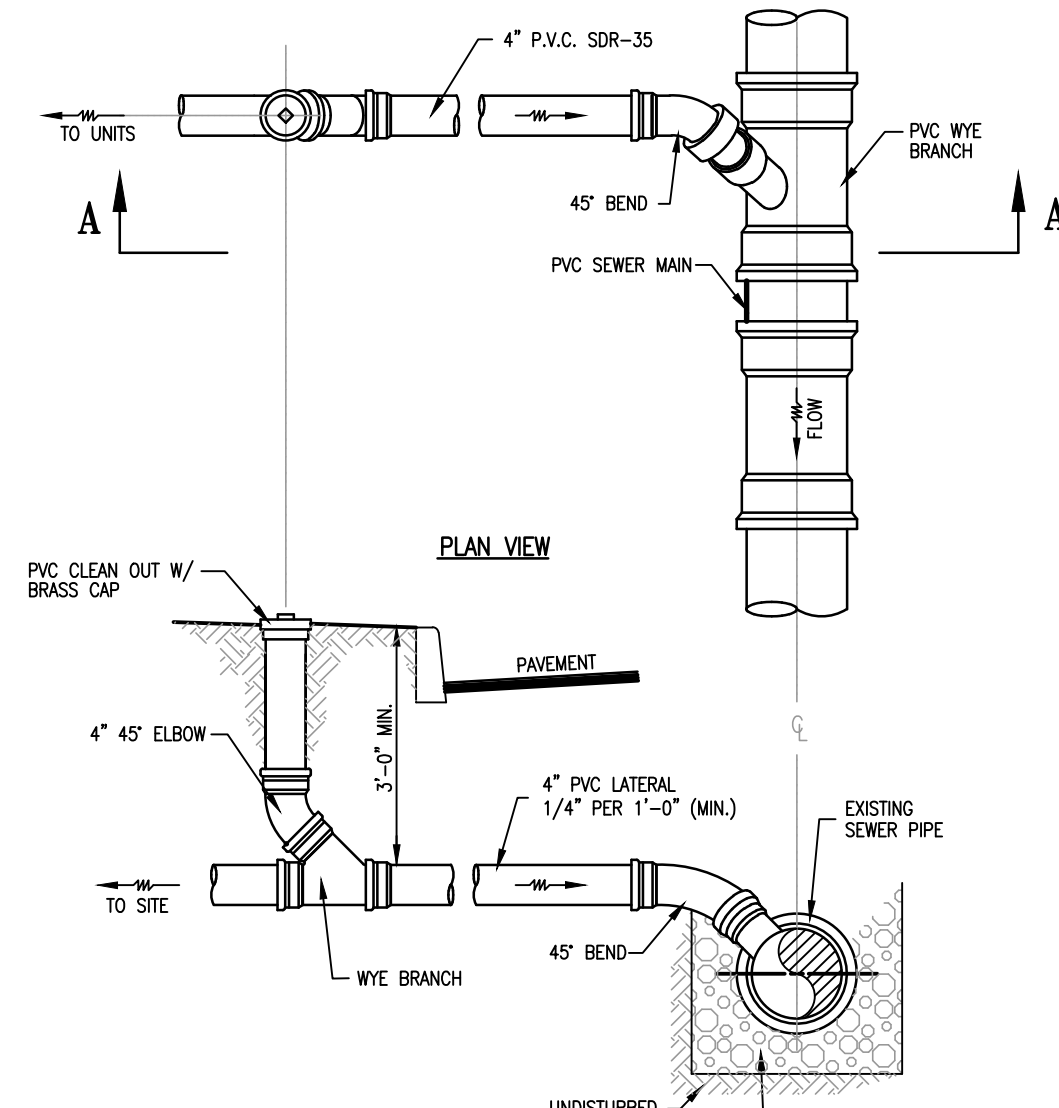
**CLEANOUT RISER COVER DETAIL**  
N.T.S.



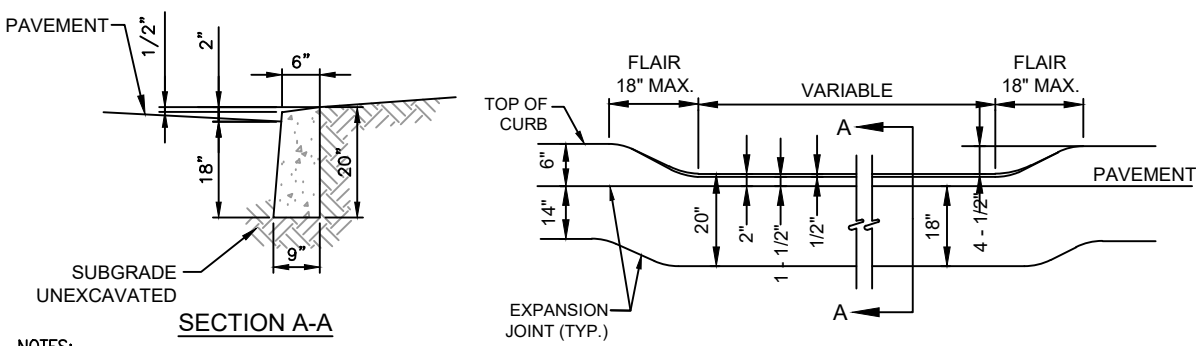
**CONCRETE DRIVEWAY APRON TYPICAL SECTION**  
N.T.S.



**ROOF LEADER SPILL-OFF**  
N.T.S.



**PVC SANITARY SEWER LATERAL AND CLEANOUT**  
N.T.S.



**DEPRESSED CONCRETE CURB AT DRIVEWAY**  
N.T.S.



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Email: info@hcicg.net

PRELIMINARY & FINAL SITE PLAN  
**CONSTRUCTION DETAILS 1**  
No. 383 SOUTH AVENUE  
LOT 5, BLOCK 69  
UNION COUNTY NEW JERSEY

TOWN OF WESTFIELD  
SCALE: 1"=20'  
DATE: 01/27/2025

DESIGNED BY: V.E.V.  
DRAWN BY: C.C.  
WORK FILE: 2023112 Details

CERTIFICATE OF AUTHORIZATION No. PROJECT No. 24GA27962100 2023112

**VICTOR E. VINEGRA**  
PROFESSIONAL ENGINEER & LAND SURVEYOR  
NEW JERSEY LICENSE No. 34460



STANDARD FOR STABILIZATION WITH VEGETATIVE COVER  
(REVISED PER "NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7th EDITION, JULY 2017)

METHODS AND MATERIALS

1. SITE PREPARATION

- A. GRADE, AS NEEDED AND FEASIBLE, TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 3 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIMENSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

2. SEEDBED PREPARATION

- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT, WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- B. WORK LINE AND FERTILIZER INTO THE TOPSOIL AS NEARLY PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. HIGH ACID PRODUCING SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS OF SPECIFIC REQUIREMENTS.

3. SEEDING

- A. SELECT A MIXTURE FROM TABLE 4-3 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITH 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE USED ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.
1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDING AREA AND MOWED ONCE.
2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85°F AND ABOVE. SEE TABLE 4-3 MIXTURES 1 TO 7. PLANTING RATES FOR WARM-SEASON GRASSES SHALL BE THE AMOUNT OF PURE LINE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.
3. COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85°F. MANY GRASSES BECOME ACTIVE AT 65°F. SEE TABLE 4-3 MIXTURES 8 TO 20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL-SEASON GRASSES.
- B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY FROWING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

4. MULCHING

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

- A. STRAW OF HAY, UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRUMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (CRUMPKING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-MULCH SHALL NOT BE USED. MULCH, HAY OR MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWN DUE TO THE PRESENCE OF WEED SEED.

- APPLICATION - SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE EACH AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO MORE ROUND TWINE.
2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
3. CRUMPER (MULCH ANCHORING COLLECTOR TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR OUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVELABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.

- (A) APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMANDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
- (B) USE ONE OF THE FOLLOWING:

- (1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER-BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY DURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOXIC EFFECT OR IMPEDE GROWTH OF TURF GRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE. SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
- (2) SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND, FOLLOWING APPLICATION OF MULCH, DRYING AND CURING, SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

- B. WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OF GERMINATION INHIBITING MATERIALS. APPLY AT THE RATE OF 1,000 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPED AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
- C. PELLETIZED MULCH - COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, FERTILIZERS, FERTILIZER AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDING AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS. SEEDED AREAS WHERE NEED-SEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE, APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER OR WETTING AGENT FOLLOWING MULCH APPLICATION ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

- D. IRRIGATION (WHERE FEASIBLE)
- IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

5. TOPDRESSING

- SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A - SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP TOPDRESSING IS REQUIRED. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS MELIORATED.

6. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION

- THE QUALITY OF PERMANENT VEGETATION RESULTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4-3 ARE REQUIRED WHEN A REPORT OF COMPLIANCE 1 IS REQUESTED PRIOR TO THE ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEED SPECIES) AND MOWED ONCE.

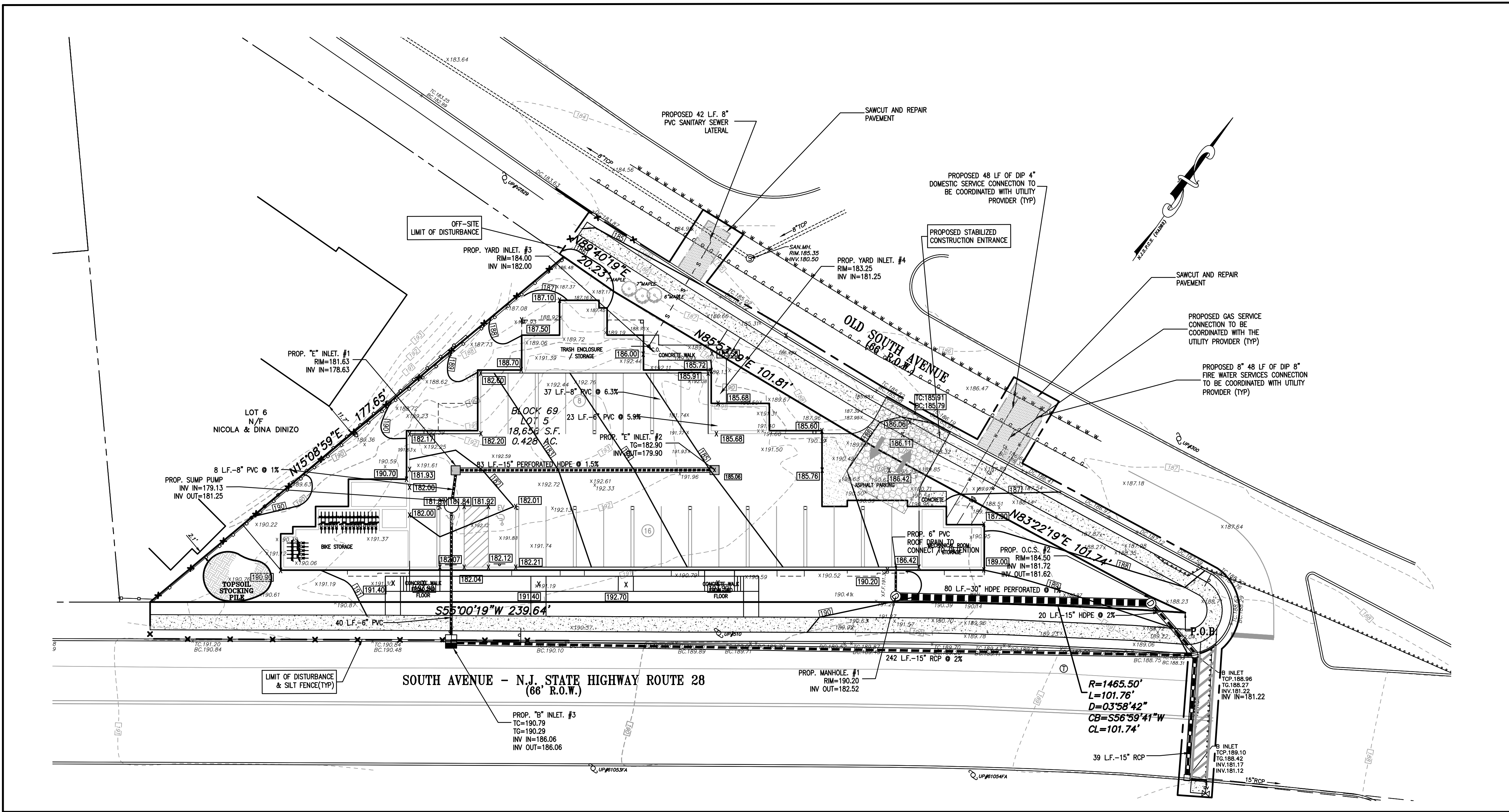
REV.	DATE	DESCRIPTION	CHK'D.	APP'VD



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320 NORTH AVENUE EAST  
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Email: info@hccinc.net

TOWN OF FANWOOD	UNION COUNTY	NEW JERSEY
DATE: 01/27/25	DESIGNED BY: V.E.V.	DRAWN BY: C.C.
SCALE: 1"=20'	WORK FILE: 2023112	SESC
CERTIFICATE OF AUTHORIZATION NO. 246A27962100	PROJECT NO. 2023112	

**VICTOR E. VINEGRA**  
PROFESSIONAL ENGINEER & LAND SURVEYOR  
NEW JERSEY LICENSE NO. 34460



SOIL EROSION & SEDIMENT CONTROL PLAN

SCALE: 1"=20'

TEMPORARY & PERMANENT SEEDING SCHEDULE

(REVISED PER "NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7th EDITION, DECEMBER 2017)

1. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
2. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

3. TEMPORARY SEEDING SHALL CONSIST OF SPRING DATS APPLIED AT A RATE OF 2.0 LBS. PER 1,000 SF OR GRASS RYE APPLIED AT A RATE OF 2.4 LBS. PER 1,000 SF. TEMPORARY SEEDING TO BE MAINTAINED UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH PERMANENT SEEDING. IF ANY SERIOUS EROSION PROBLEM OCCURS, THE ERODED AREAS SHALL BE REPAIRED AND STABILIZED WITH A MULCH AS INDICATED IN NOTE 6.

4. PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL. SITE CONTAINS SOIL HALDEXON-URBAN LAND-HASBROUCK COMPLEX, 0 TO 8 PERCENT SLOPES CLASSIFIED AS "SOMEWHAT POORLY DRAINED" AS PER NJ WEB SOIL SURVEY DATA.

- PLANTING MIXTURE TO BE USED: MIX-16 (RESIDENTIAL/COMMERCIAL USE)  
ROUGH BLUEGRASS @ 90 lb/acre  
STRONG CREEPING RED FESCUE @ 130 lb/acre

- SITE IS LOCATED WITHIN USDA PLANT HARDINESS ZONE 6b. PLANTING DATES:  
ACCEPTABLE DATE: 3/01 TO 4/30  
OPTIMAL DATE: 5/01 TO 8/14 (\*)  
AFTER SEEDING TO ENSURE ESTABLISHMENT BEFORE FREEZING CONDITIONS

- (\*) SUMMER SEEDINGS SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED. MIXES INCLUDING WHITE CLOVER REQUIRE THAT AT LEAST SIX SEEDS OF GROUNDING SEASON REMAIN AFTER SEEDING TO ENSURE ESTABLISHMENT BEFORE FREEZING CONDITIONS

5. PERMANENT SEEDING TO BE APPLIED BY CYCLONE SPREADER OR OTHER APPROVED METHOD, AT A RATE OF 150#/ACRE. SLOPED AREA TO BE COVERED WITH MULCH AS INDICATED IN NOTE 6.

6. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE 10-20-10 APPLIED AT A RATE OF 116/1000 SF OR AS DETERMINED BY SOIL TESTS. LIMESTONE FOR TEMPORARY SEEDING SHALL BE APPLIED AT A RATE OF 900/1000SF. LIMESTONE FOR PERMANENT SEEDING SHALL BE APPLIED AT A RATE OF 1250/1000 SF.

7. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH

8. ALL SEEDED AREAS SHALL BE MULCHED. MULCH SHALL CONSIST OF SMALL GRASS STRAW OR SALT HAY ANCHORED WITH A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

1. SOMERSET-UNION CONSERVATION DISTRICT  
SOMERSET COUNTY 4-H CENTER  
308 MILLTOWN ROAD  
BROCKWAY, NJ 08807  
(908)-526-2701

2. DINCE  
SHEELER'S REAL ESTATE, LLC  
200 SOUTH AVENUE  
FANWOOD, NJ 07023

3. THIS PLAN IS ONLY TO BE USED AS A GUIDE TO THE IMPLEMENTATION OF SOIL EROSION CONTROL MEASURES. IT IS NOT TO BE USED FOR CONSTRUCTION. REFER TO GRADING & UTILITY PLAN AND SUPPLEMENTS THERETO.

4. ALL ROADS AND WALKWAYS WILL BE SWEEPED DAILY THROUGH THE DURATION OF CONSTRUCTION.

5. AREA WITHIN LIMIT OF DISTURBANCE  
29,843 S.F. (0.681 ACRES)

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

3. PERMANENT VEGETATION TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCHING IS REQUIRED ON ALL SEEDING. WHEN HYDROSEEDING, MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED.

4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

5. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABLE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF THE PRELIMINARY GRADING.

6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCES OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY ENHANCEMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES (I.E. SLOPES GREATER THAN 3:1).

8. THE STANDARDS FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A STONE PAD OF 1 1/2" TO 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.

9. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.

10. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATION STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER IT, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.

11. IN THAT N.J.S.A. 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.

12. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

13. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

14. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.

15. MULCHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.

16. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT.

17. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF SOMERSET-UNION SOIL CONSERVATION DISTRICT.

18. HYDRO SEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC. ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS.

SEQUENCE OF CONSTRUCTION OPERATIONS

ACTIVITY	TIME PERIOD
1. Install silt fence.	1 Day
2. Install stabilized construction entrance.	1 Day
3. Demolish existing structures and associated improvements.	1 Week
4. Strip topsoil, stockpile and stabilize.	2 Days
5. Excavate and construct foundation.	2 Month
6. Back fill foundation, rough grade site and apply temporary seeding and or mulch as required.	3 Days
7. Begin building construction.	1 Year
8. Connect underground utilities.	1 Year
9. Install services walkways and pave driveway.	3 Days
10. Finish grading site and apply permanent stabilization measures.	1 Week
11. Remove temporary soil erosion control measures.	1 Day
12. Complete Building and Landscaping.	2 Weeks

THIS PROJECT QUALIFIES FOR THE URBAN REDEVELOPMENT AREA EXEMPTION LISTED WITHIN EXEMPTION 1 ON A DOCUMENT ENTITLED "NEW JERSEY DEPARTMENT OF AGRICULTURE STATE SOIL CONSERVATION COMMITTEE, CHAPTER 251, PL. 1975 AS AMENDED, ENGINEERING POLICIES - TECHNICAL BULLETIN". THIS PROJECT IS WITHIN THE METROPOLITAN PLANNING AREA (PA-1).

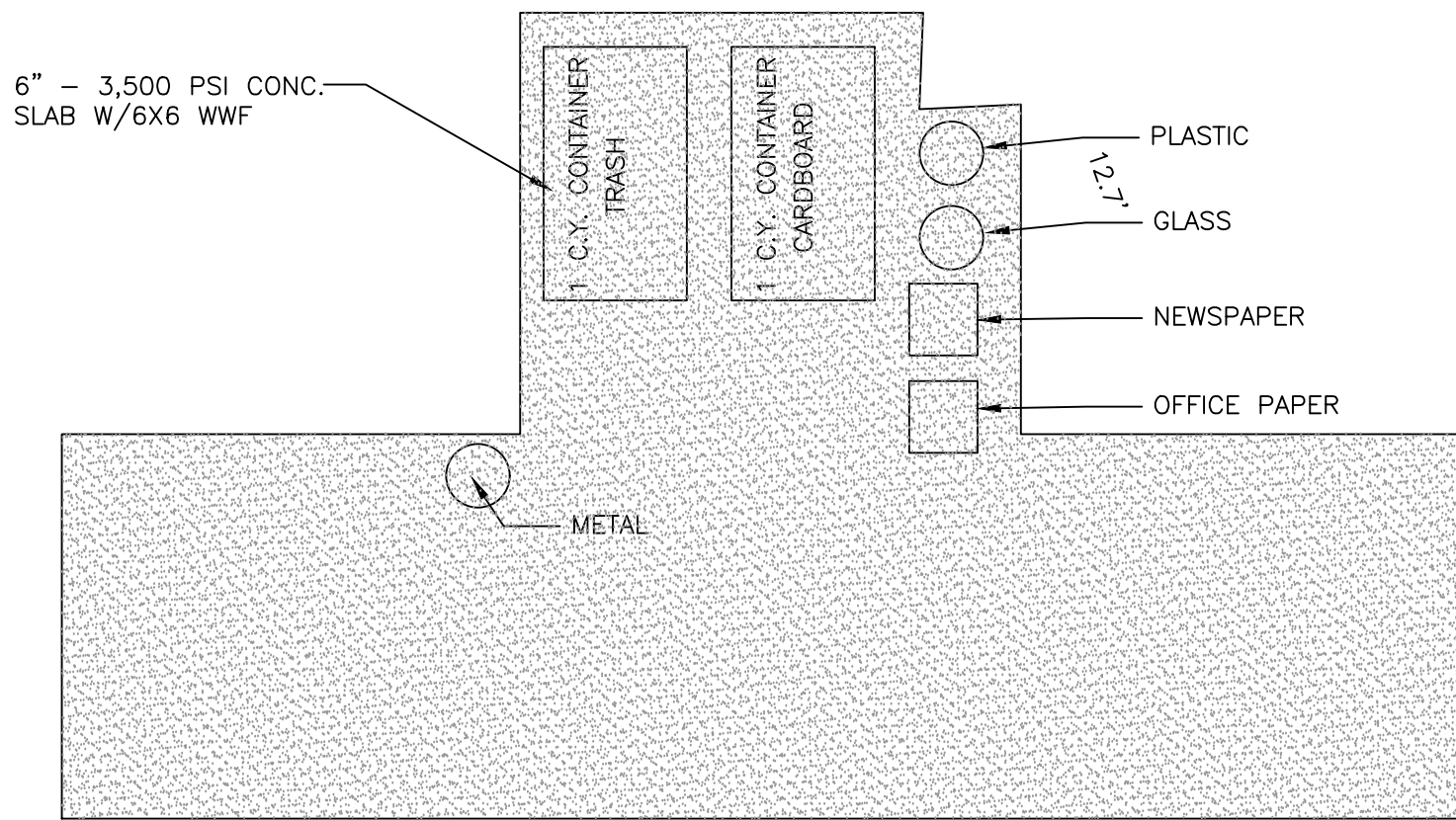
ELEVATIONS SHOWN ARE BASED ON NAVD 88

GRAPHIC SCALE

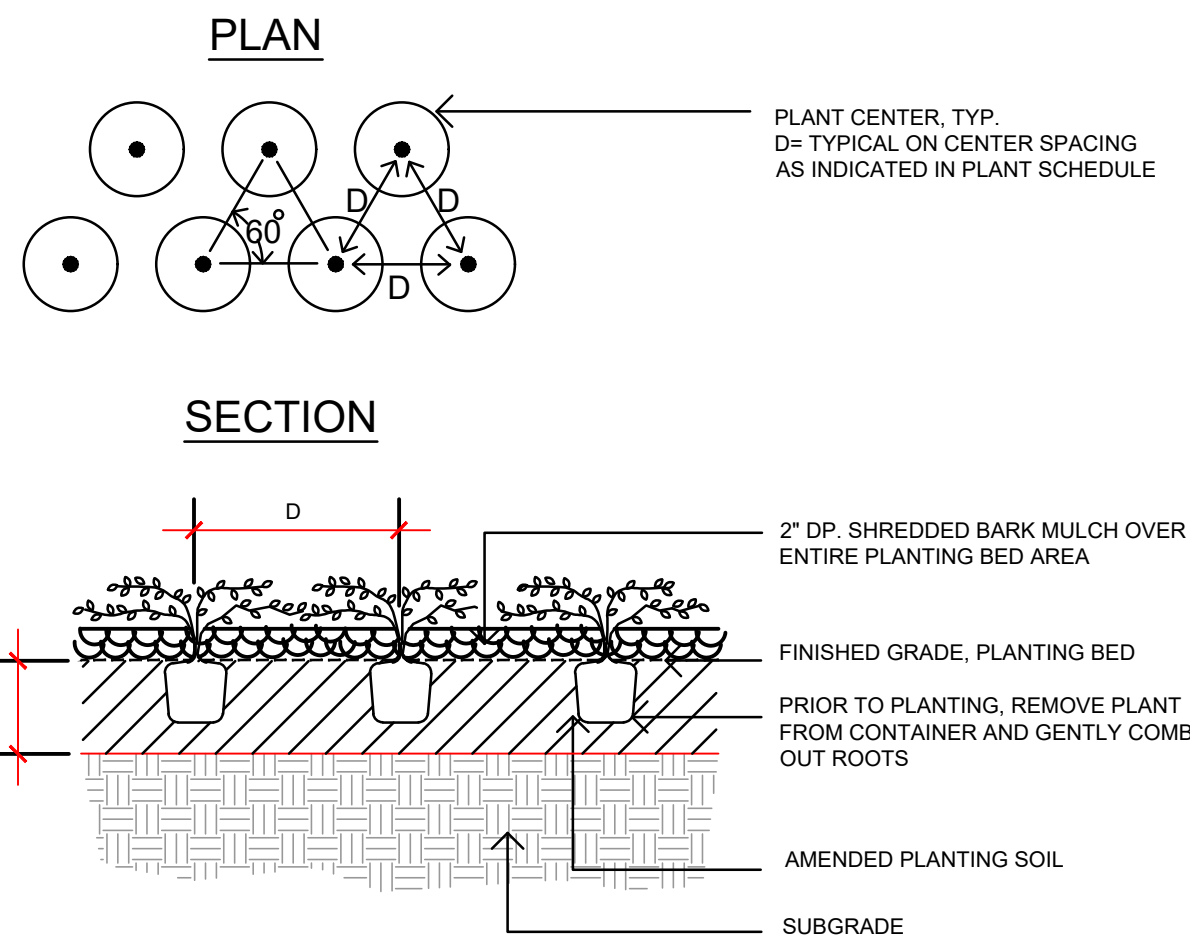


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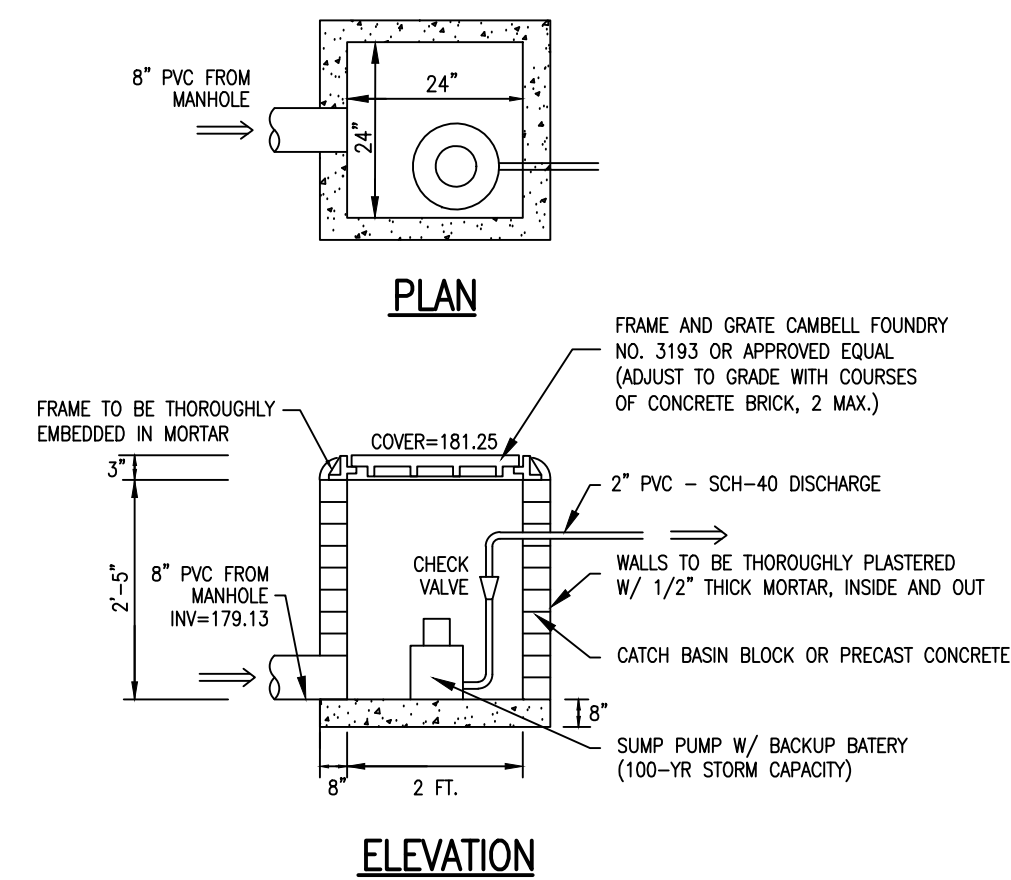




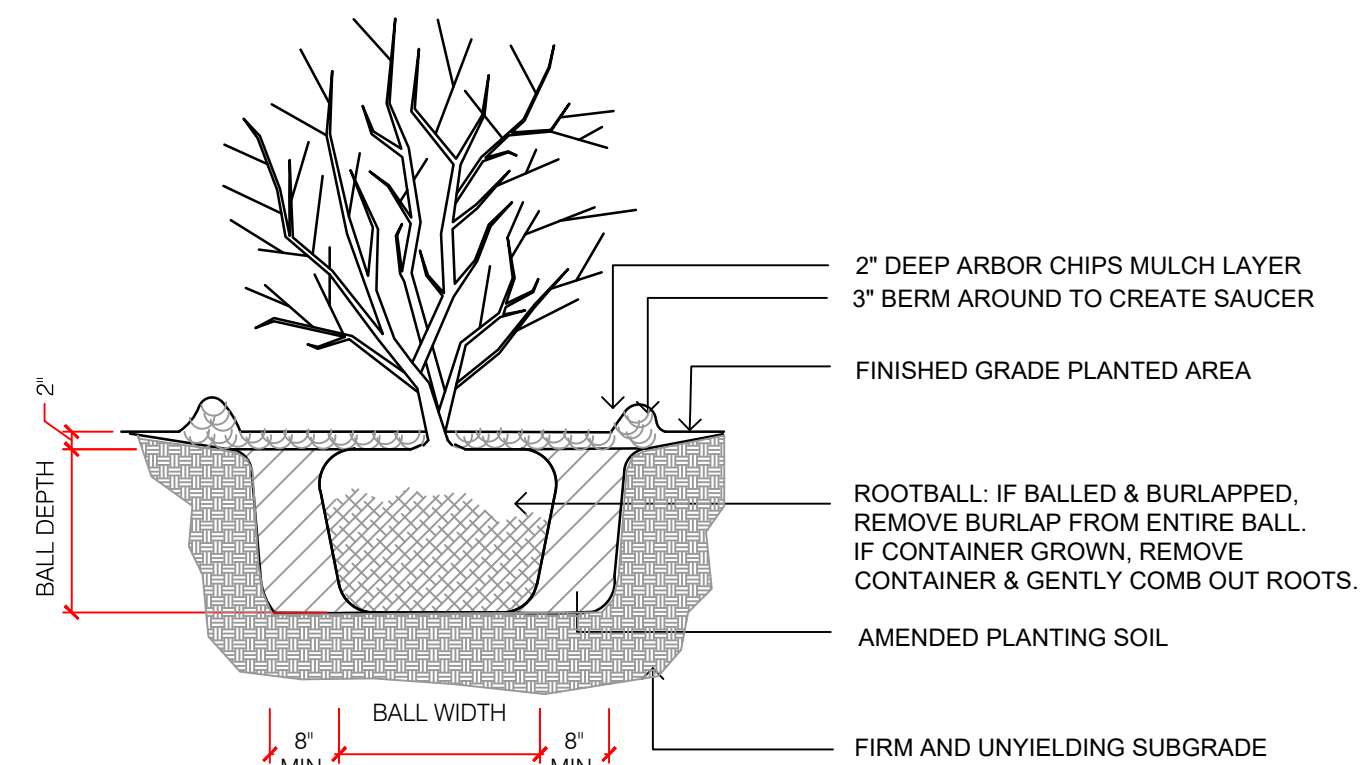
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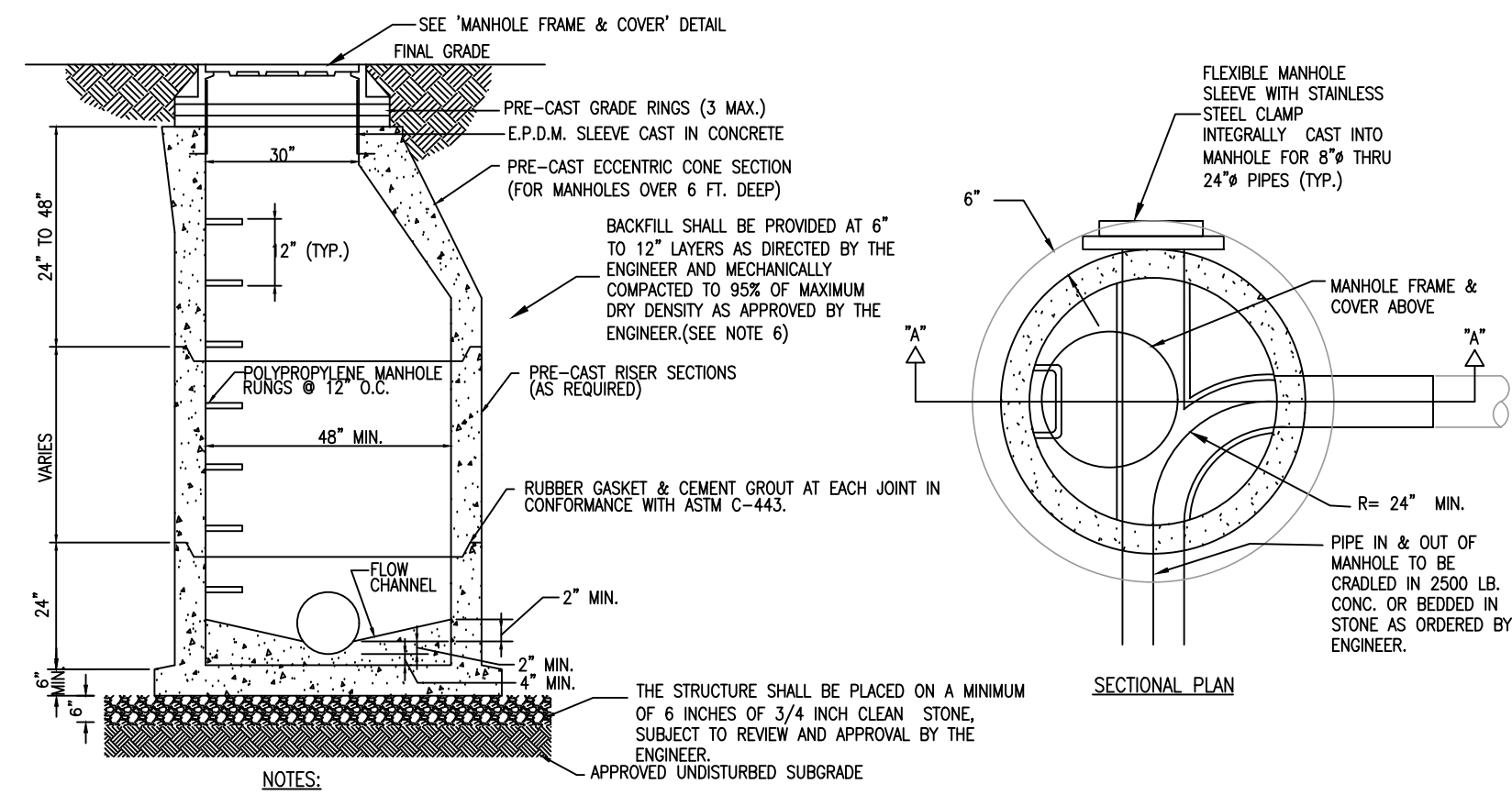
GROUNDCOVER PLANTING  
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SUMP PUMP PIT DETAIL  
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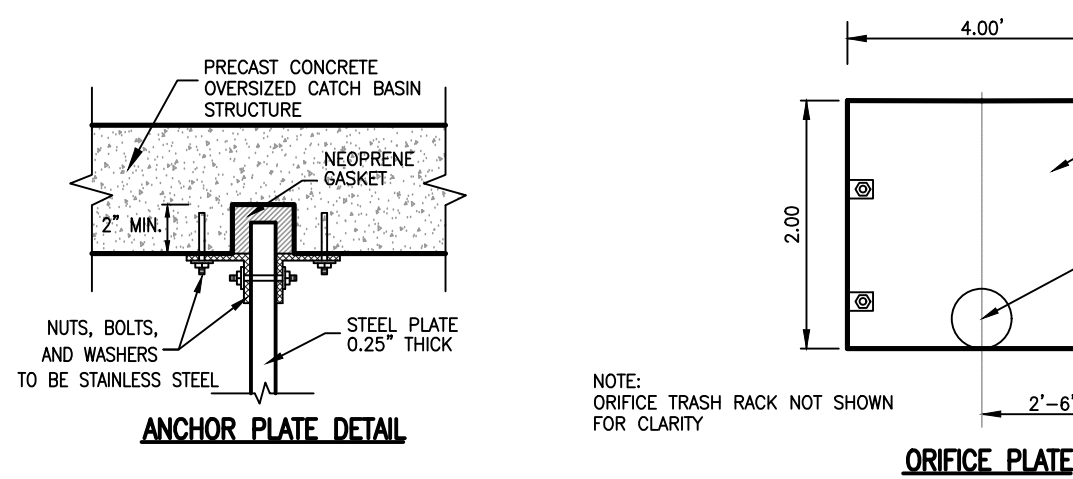


SHRUB PLANTING  
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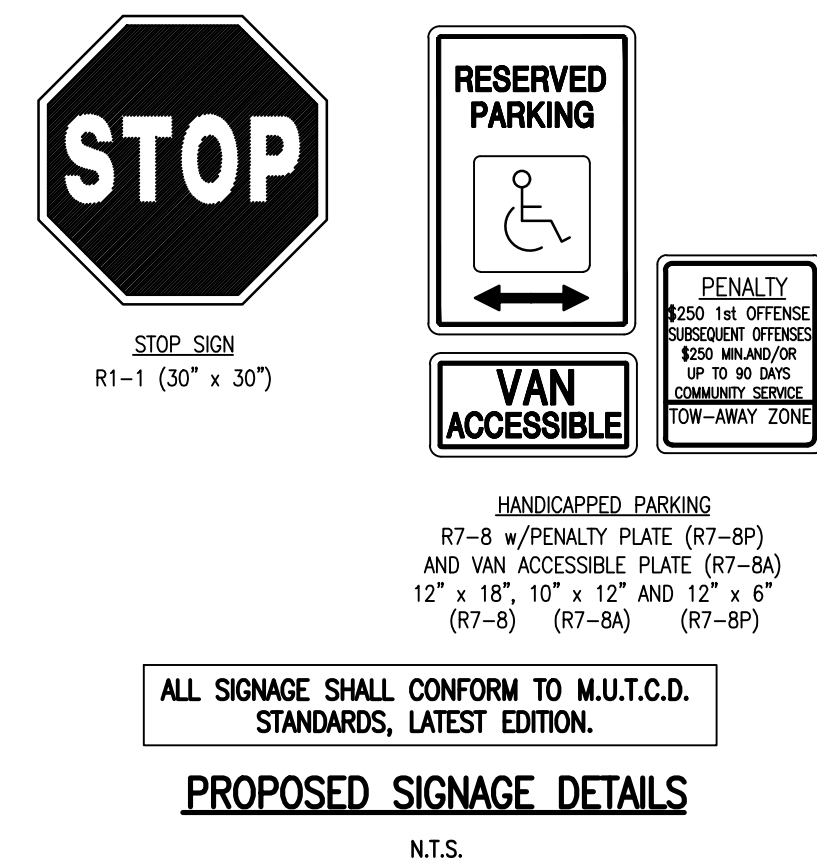
- NOTES:
1. THE STORM MANHOLE CONCRETE STRUCTURE SHALL BE PRECAST CONCRETE TO MEET A MINIMUM OF HS-25 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUT TO PRODUCE A LEAK-PROOF JOINT.
  2. ALL PIPES ENTERING OR LEAVING THE STRUCTURE SHALL BE INSTALLED WITH AN ANTI-LEAK COLLAR.
  3. THE MANHOLE FRAME AND GRATE/COVER SHALL BE FABRICATED TO MEET A MINIMUM OF HS-25 LOADING, UNLESS PRE-APPROVED IN WRITING BY THE ENGINEER, OR UNLESS NOTED ON THE INDIVIDUAL STRUCTURE NOTES.
  4. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
  5. A 2500 PSI MIN. CONCRETE PIPE FLOW CHANNEL SHALL BE INSTALLED IN THE STRUCTURE BOTTOM, AFTER ALL THE PIPES ARE INSTALLED, OR THE FLOW CHANNELS CAN BE PRECAST WITH THE BASE.
  6. SUITABLE EXCAVATED SOIL MAY BE USED AS BACKFILL IN NON-STRUCTURALLY SUPPORTING AREAS OR AS DIRECTED BY THE CITY ENGINEER. AREAS SUPPORTING ANY STRUCTURE SHALL BE BACKFILLED USING DENSE GRADED AGGREGATE OR AS DIRECTED BY THE ENGINEER.

STORM MANHOLE DETAIL  
N.T.S.

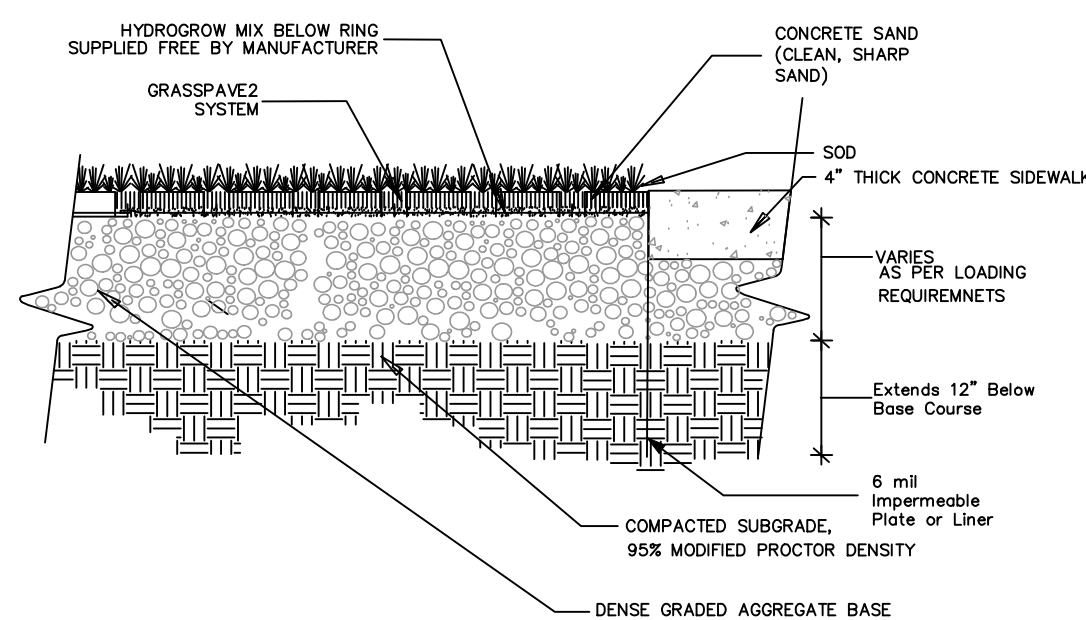


ANCHOR PLATE DETAIL

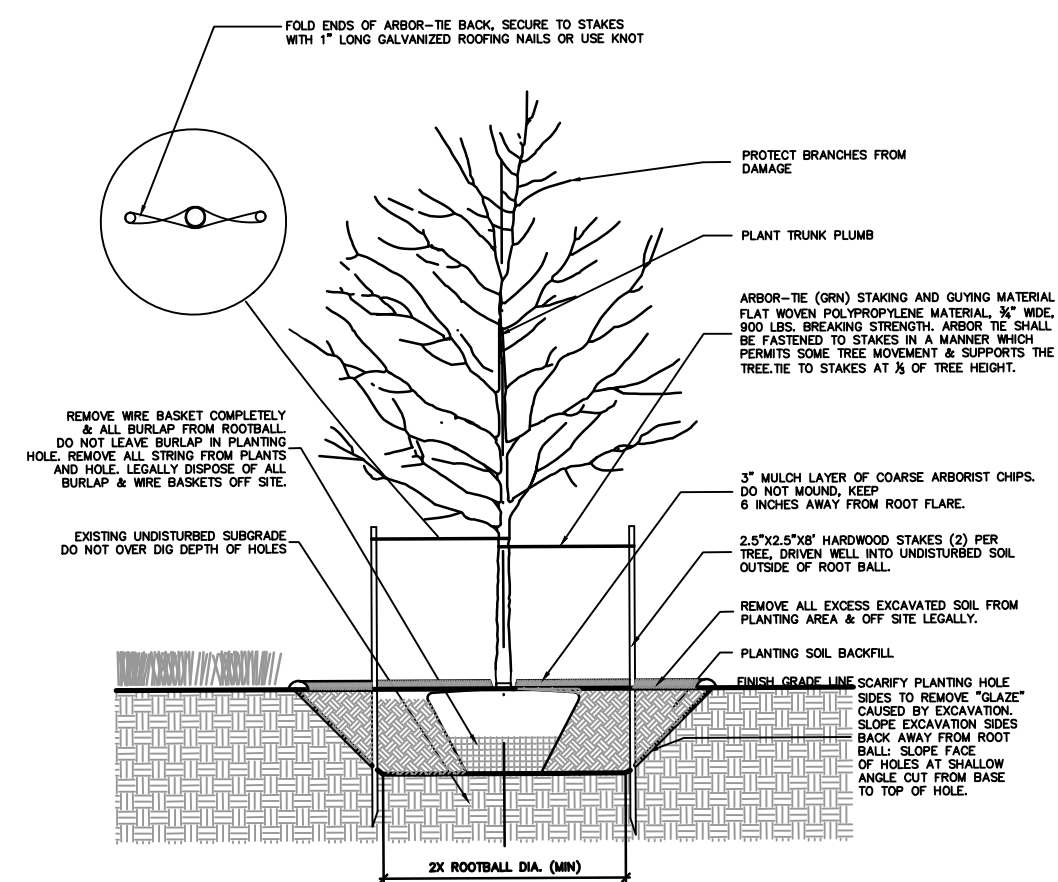
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PROPOSED SIGNAGE DETAILS  
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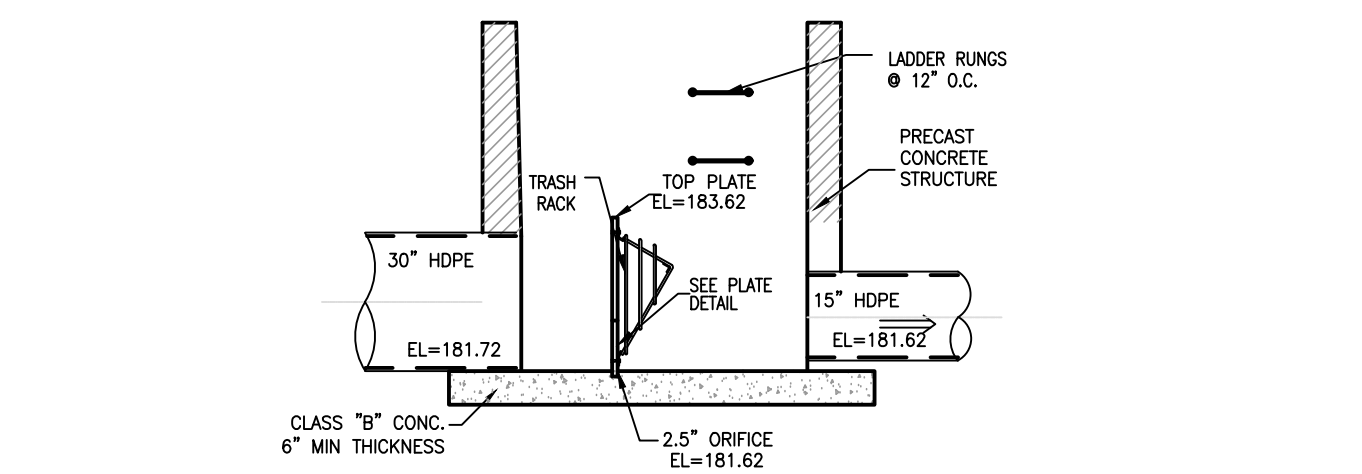


GRASSPAVER AT SIDEWALK EDGE DETAILS  
N.T.S.



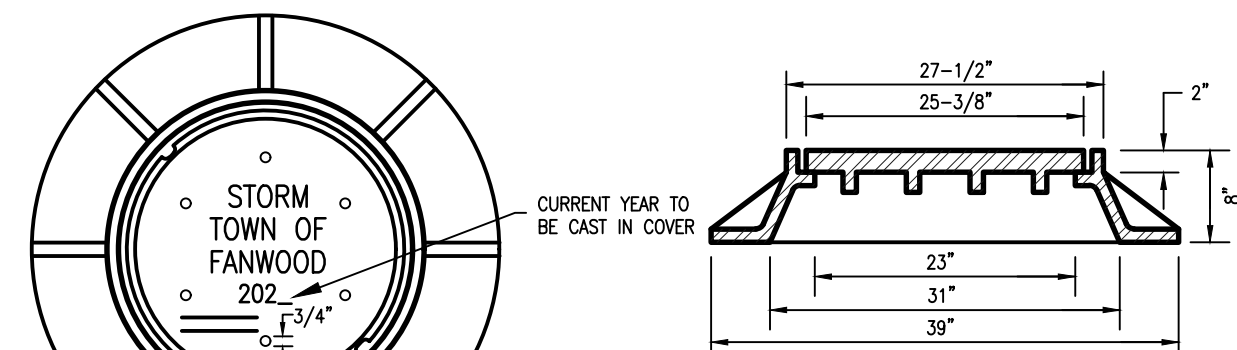
TREE PLANTING DETAIL  
N.T.S.

OUTLET CONTROL STRUCTURE DETAIL  
N.T.S.

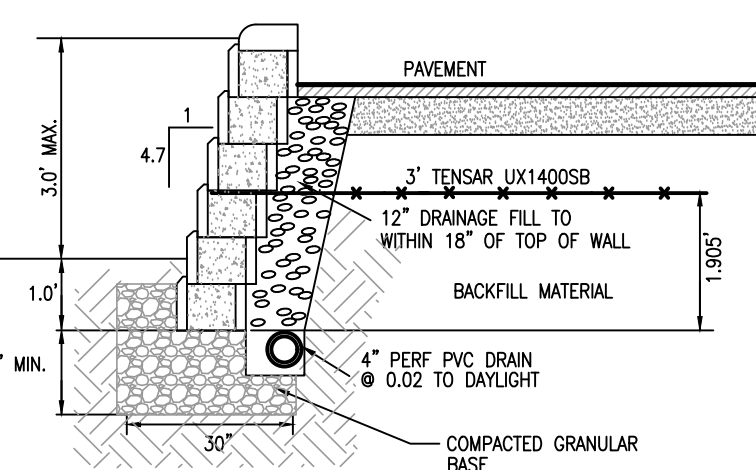


OUTLET CONTROL STRUCTURE DETAIL  
N.T.S.

GRASSPAVER AT SIDEWALK EDGE DETAILS  
N.T.S.

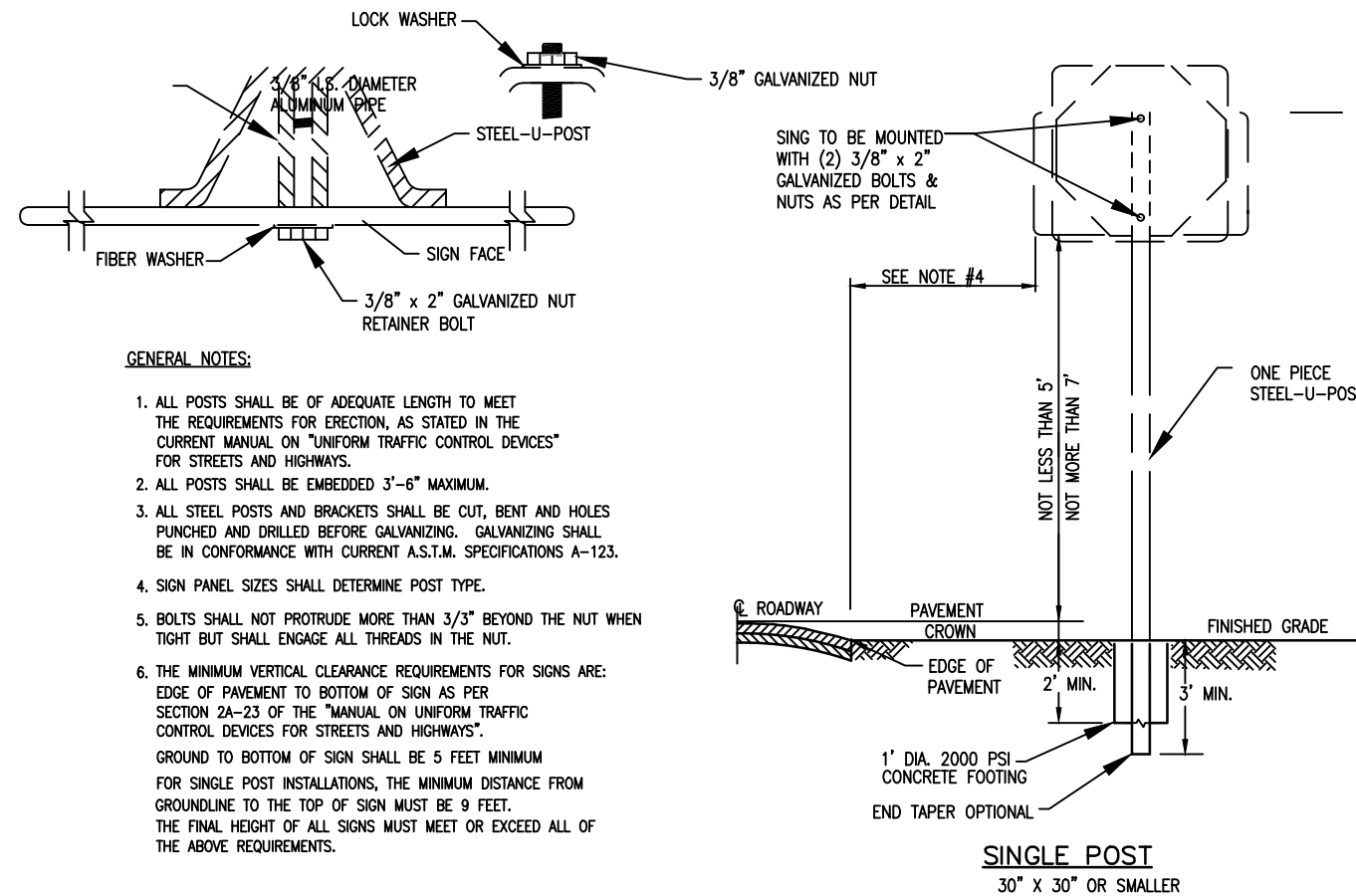


STORM MANHOLE FRAME AND COVER DETAIL  
N.T.S.

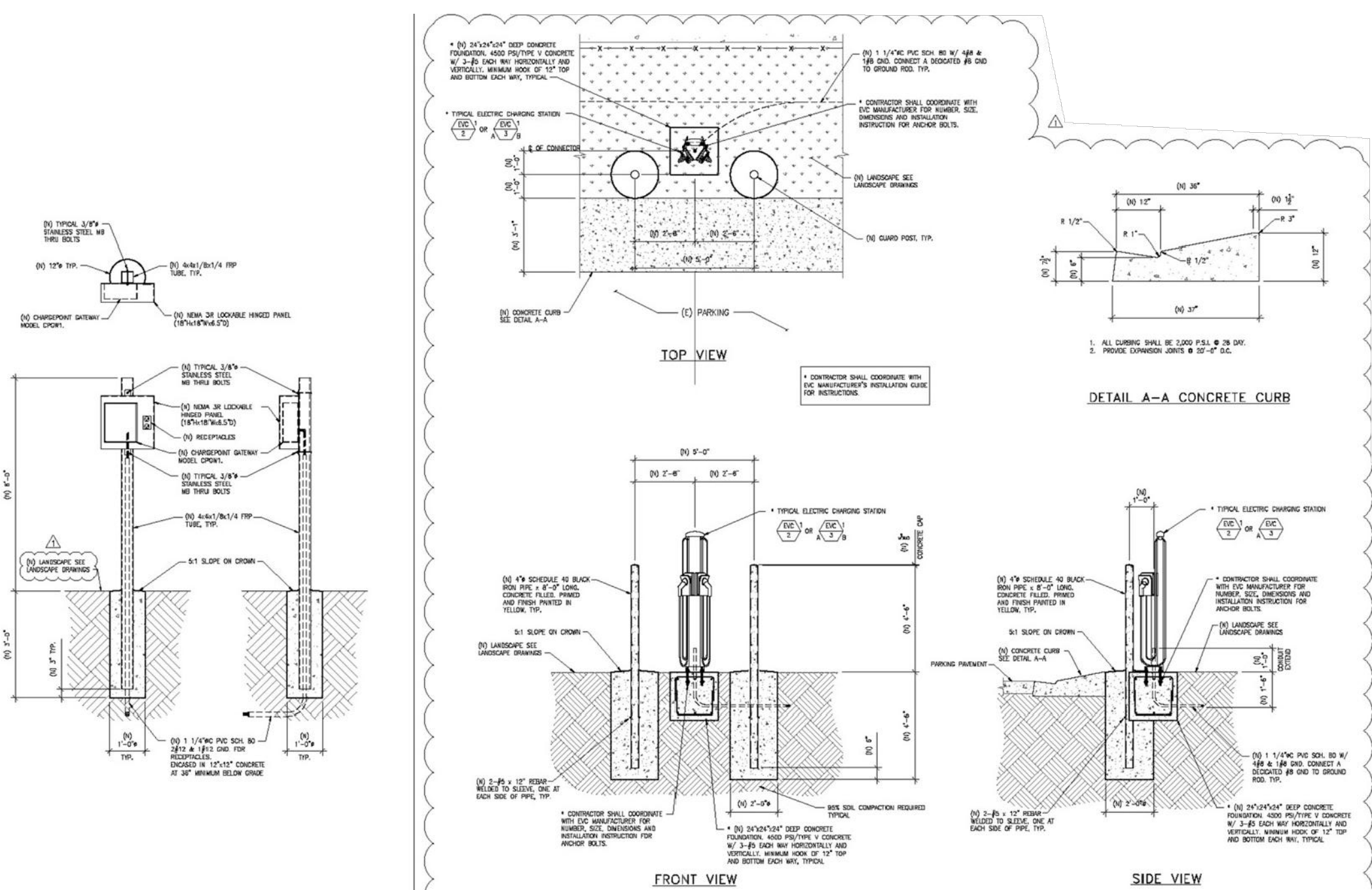


- RETAINING WALL NOTES:
1. DRAINAGE FILL SHALL BE 1/2" - 3/4" WASHED RIVER RUN GRAVEL AND SHALL BE INSTALLED BEHIND THE WALL TO WITHIN 18" OF THE TOP OF THE WALL.
  2. GRANULAR BASE SHALL BE 3/4" CRUSHED GRAVEL, MINIMUM 6" THICK, COMPACTED TO 95% STANDARD PROCTOR.
  3. GEOTECHNICAL ENGINEER SHALL INSPECT AND VERIFY THAT THE FOUNDATION (FOOTING) SOILS ARE OF A SUITABLE BEARING MATERIAL BASED ON THE ASSUMED SOIL PARAMETERS IN THE DESIGN OF THE WALL. SOILS SHALL NOT BE OVER EXCAVATED UNLESS UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER. UNSUITABLE MATERIAL SHALL BE REMOVED ONLY UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER.
  4. CONTRACTOR SHALL FOLLOW ALL APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
  5. COMPACTION TESTS SHALL BE PERFORMED AS THE WALL IS INSTALLED UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. COMPACTION SHALL BE TO 95% STANDARD PROCTOR DENSITY.
  6. BACKFILL MATERIAL SHALL CONSIST OF WELL DRAINED LOAMY SAND, SANDY LOAM, LOAM TO SANDY CLAY LOAM AS SPECIFIED ON THE U.S.A. SYSTEM OF SOIL TEXTURAL CLASSIFICATION. ALL BACKFILL MATERIAL SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
  7. CONTRACTOR SHALL ESTABLISH TURF IMMEDIATELY UPON COMPLETION OF THE WALL.
  8. BENCH CUT ALL EXCAVATED SLOPES.
  9. BASE MATERIALS SHALL BE PLACED UPON UNDISTURBED SOILS.

ALLAN BLOCK RETAINING WALL DETAIL  
N.T.S.



TYPICAL SIGN & MOUNTING DETAIL  
N.T.S.



EV CHARGING STATION DETAIL  
N.T.S.



**Harbor Consultants Inc.**  
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Email: info@hcig.net

PRELIMINARY & FINAL SITE PLAN  
**CONSTRUCTION DETAILS 2**  
383 SOUTH AVENUE  
LOT 5, BLOCK 69  
UNION COUNTY  
NEW JERSEY

**VICTOR E. VINEGRA**  
PROFESSIONAL ENGINEER & LAND SURVEYOR  
NEW JERSEY LICENSE NO. 34460

SCALE:	DATE:	DESIGNED BY:	DRAWN BY:	WORK FILE:	CERTIFICATE OF AUTHORIZATION NO.:	PROJECT NO.:
1"=20'	10/31/2023	V.E.V.	C.C.	2023112 Details	24GA27962100	2023112