GULLS VIEW APARTMENTS

BLOCK 80 LOT 1.02

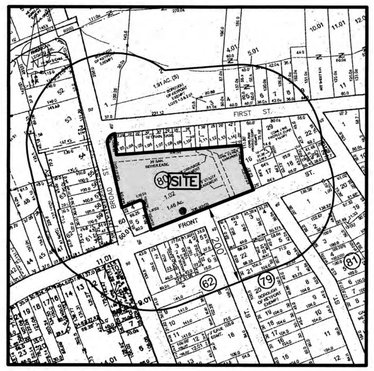
BOROUGH OF KEYPORT MONMOUTH COUNTY NEW JERSEY



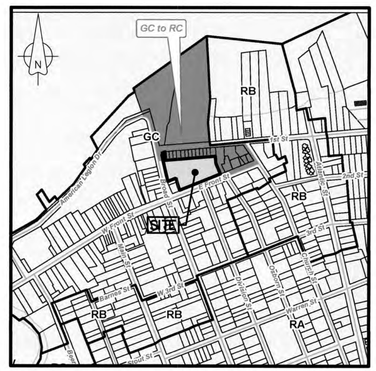
ROAD MAP
1"=1,000'±



U.S.G.S. MAP
1"=2,000'±



TAX MAP
1"=200'±



ZONING MAP
1"=500'±

SITE PLAN OF GULL VIEW APARTMENTS

BLOCK 80 LOT 1.02 ZONE GC

DATE APRIL 6, 2021 SCALE AS SHOWN ON PLANS

APPLICANT KEYPORT PROFESSIONAL PLAZA, LLC

ADDRESS 525 MILLTOWN ROAD SUITE 402
NORTH BRUNSWICK, NJ 08902

I CONSENT TO THE FILING OF THIS SITE PLAN WITH THE PLANNING BOARD

(OWNER) (DATE)

I HEREBY CERTIFY THAT I HAVE PREPARED THE SITE PLAN AND THAT ALL DIMENSIONS AND INFORMATION THEREON DEPICTED IS CORRECT.

GREGORY S. OMAN, PROFESSIONAL ENGINEER NJPE#43441
(NAME) (TITLE & LICENSE)

I HAVE REVIEWED THIS SITE PLAN AND CERTIFY THAT IT MEETS ALL CODES AND ORDINANCES UNDER THAT JURISDICTION

(DATE) (MUNICIPAL ENGINEER)

APPROVED BY PLANNING BOARD:

PRELIMINARY

FINAL

(CHAIRMAN) (DATE)

200' OWNERS LIST

BLOCK	LOT	NAME & ADDRESS
21.01	49, 50.01, 51.01, 51.02	Borough of Keyport 70 West Front Street Keyport, NJ 07735
21.01	52	6 Broad Street, LLC Tom Bartley - PO Box 202 Marlboro, NJ 07746
21.01	53	10-16 Broad Street, LLC 48 Bayberry Drive Holmdel, NJ 07733
21.01	54	L I H Inc. 24-26 Broad Street Keyport, NJ 07735
21.01	55	Saturnino & Anna Caban 291 Broad Street Keyport, NJ 07735
21.01	56	Uptown Keyport Hotel, LLC 32 Broad Street Keyport, NJ 07735
21.01	57	34 Broad Street LLC % Detour Gallery 24 Clay Street Red Bank, NJ 07701
21.01	58	Brothers United in Christ, Inc. P.O. Box 174 Keyport, NJ 07735
21.01	59	40 Broad Street, LLC 688 Shrewsbury Avenue Tinton Falls, NJ 07701
21.01	60	Ann B. Boyce 74 Elizabeth Street Keyport, NJ 07735
21.01	60.01	1-3-5 Front St LLC 43 West Front Street Keyport, NJ 07735
21.01	61	Michael Management Realty LLC 7&9 West Front Street Keyport, NJ 07735
21.01	62	Delio, Inc. c/o C. Berkowitz\ 11 W. Front Street Keyport, NJ 07735
61	9.01	Ramnarayan Management LLC 9 Inverness Drive Edison, NJ 08820
61	10	2 West Front, LLC % Detour Gallery 24 Clay Street Red Bank, NJ 07701
61	11.01, 12	6-10 West Front Street, LLC 24 Clay Street Red Bank, NJ 07701
62	1, 6	First Union/ Wachovia Corp. Real Est. PO Box 2609 Carlsbad, CA 92018
62	2	Keyport Properties Inc. 6 East Front Street Keyport, NJ 07735
62	3	Diocese of NJ - Church Prop. Trustees 808 West State street Trenton, NJ 08618
62	4, 5	Dennis J. & Sherry L Halas 8 Camden Street Parlin, NJ 08859
62	8, 9	Carriage Funeral Holdings, Tax Dept. 3040 Post Oak Blvd., Ste. 300 Houston, TX 77056
79	1, 2, 22	Planet Food 420 Florence Avenue Long Branch, NJ 07740
79	3, 22.01	Fat & Quen Min Leong 98 Luppatatong Ave. Keyport, NJ 07735
79	4, 5	Gim Foo & Laure M Q Eng 98 Luppatatong Avenue Keyport, NJ 07735
79	6	Clyde T. & Cheryl Darnell 18 Osborn Street Keyport, NJ 07735
79	21	CEM Autobody, LLC 7 Division Street Keyport, NJ 07735
80	1.02	Keyport Professional Plaza, LLC 525 Milltown Rd., Ste. 402 North Brunswick, NJ 08902
80	1.03	Thomas G. Barley 2 First Street Keyport, NJ 07735
80	1.04	Vincent & Theresa Kyne 4 Fist Street Keyport, NJ 07735
80	1.05	Tres Slater Property, LLC 80 Bethany Road, St. 10 Hazlet, NJ 07730
70	1.06	John B. & Jan M. Clough 8 First Street Keyport, NJ 07735
80	1.07	Arthur & Nancy Femenella 10 First Street Keyport, NJ 07735
80	1.08	Joanne Clark 12 First Street Keyport, NJ 07735
80	1.09	Todd & Natsuko Buurstra 14 First Street Keyport, NJ 07735
80	1.10	Brian D. Sara I Gilroy 16 Frist Street Keyport, NJ 07735
80	1.11	Scott J. & Meral E. Pontier 18 First Street Keyport, NJ 07735
80	1.12	Linda L. Mann 20 Frist Street Keyport, NJ 07735
80	1.13	Stephanie Dipietro 72 MarshallConcourse Cliffwood Beach, NJ 07735
80	1.14	Allen E Milewski & Nuray Aykin P.O. Box 170 Keyport, NJ 07735
80	4	Mansion House Realty, LLC 76 So. Adelaide Ave., Ste 10 Highland Park, NJ 08904
80	5	Maral Corporation 20 South Third Ave. Highland Park, NJ 08904
80	16, 29	Consolidated Fire Protection Corp. 34 First S. POB 331 Keyport, NJ 07735
80	17	Scott & Loretta Poling-Young 43 E. Front Street Keyport, NJ 07735
80	18	Terry B. & Theresa A. Musson 51 E. Front Street Keyport, NJ 07735
80	19	Modell Partners, LLC 731 Holmdel Road Holmdel, NJ 07733
80	20	James & Andrew Investments, LLC 15 Harvard Avenue Maplewood, NJ 07040
80	21	Frank Liegel 68 Woodland Drive Cliffwood Beach, NJ 07735
80	22	Keyport Parking Lot, LLC 105 Luppatatong Avenue Keyport, NJ 07735
81	1	Mr. Green Tea Ice Cream Company Corp. 42 East Front Street Keyport, NJ 07735
81	2	Kathleen Mignoli & Jennifer Hammond 82 Kings Road Little Silver, NJ 07739
81	20	Timothy Cross 524 Prospect Avenue Little Silver, NJ 07739
94	1, 1.01, 2, 2.01, 3	Borough of Keyport 70 West Front Street Keyport, NJ 07735
94	4, 4.01	Robert J. & Linda M. Corbett 30 First Street Keyport, NJ 07735
94	5, 5.01	Vincent Mangione 37 First Street Keyport, NJ 07735
94	6, 7	Michael & Ann Marie Reedy 42 First Street Keyport, NJ 07735
94	8	Michael S. Lane 51 First Street Keyport, NJ 07735
94	9	Marci Smith & Michael Raymond Scarano 4409 Highway 516 Matawan, NJ 07747

Bell Atlantic/ Verizon
1095 Ave of the Americas - Room 3137
New York, NY 10036

JCP&L Real Estate Department
P.O. Box 1911
Morristown, NJ 07962

New Jersey Natural Gas Company
1415 Wyckoff Road
Wall, NJ 07719

Cablevision
275 Centennial Avenue - CN 6805
Piscataway, NJ 08855-6805

Borough of Keyport
Water/ Sewer Dept.
70 West Front Street
Keyport, NJ 07735
Attn: Scott Hicks

Monmouth County Dept. Of Transportation
Route 79 & Daniels Way
Freehold, NJ 07728

Monmouth County Planning Board
Hall of Records Annex
1 East Main Street
Freehold, NJ 07728

DRAWINGS PREPARED BY MENLO ENGINEERING

SHEET #	DWG. #	TITLE
SHEET 1	CV–1	COVER SHEET
SHEET 2	EC–1	EXISTING CONDITIONS PLAN
SHEET 3	OP–1	OVERALL PLAN
SHEET 4	GE–1	GEOMETRY PLAN
SHEET 5	GU–1	GRADING & UTILITY PLAN
SHEET 6	LL–1	LIGHTING & LANDSCAPE PLAN
SHEET 7	SE–1	SOIL EROSION & SEDIMENT CONTROL PLAN
SHEET 8	SED–1	SOIL EROSION & SEDIMENT CONTROL DETAILS–1
SHEET 9	SED–2	SOIL EROSION & SEDIMENT CONTROL DETAILS–2
SHEET 10	DE–1	CONSTRUCTION DETAILS–1
SHEET 11	DE–2	CONSTRUCTION DETAILS–2
SHEET 12	DE–3	CONSTRUCTION DETAILS–3
SHEET 13	DE–4	CONSTRUCTION DETAILS–4
SHEET 14	CS–1	CONSTRUCTION STAGING PLAN

menlo engineering associates
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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET # 9
1.45 ACRES

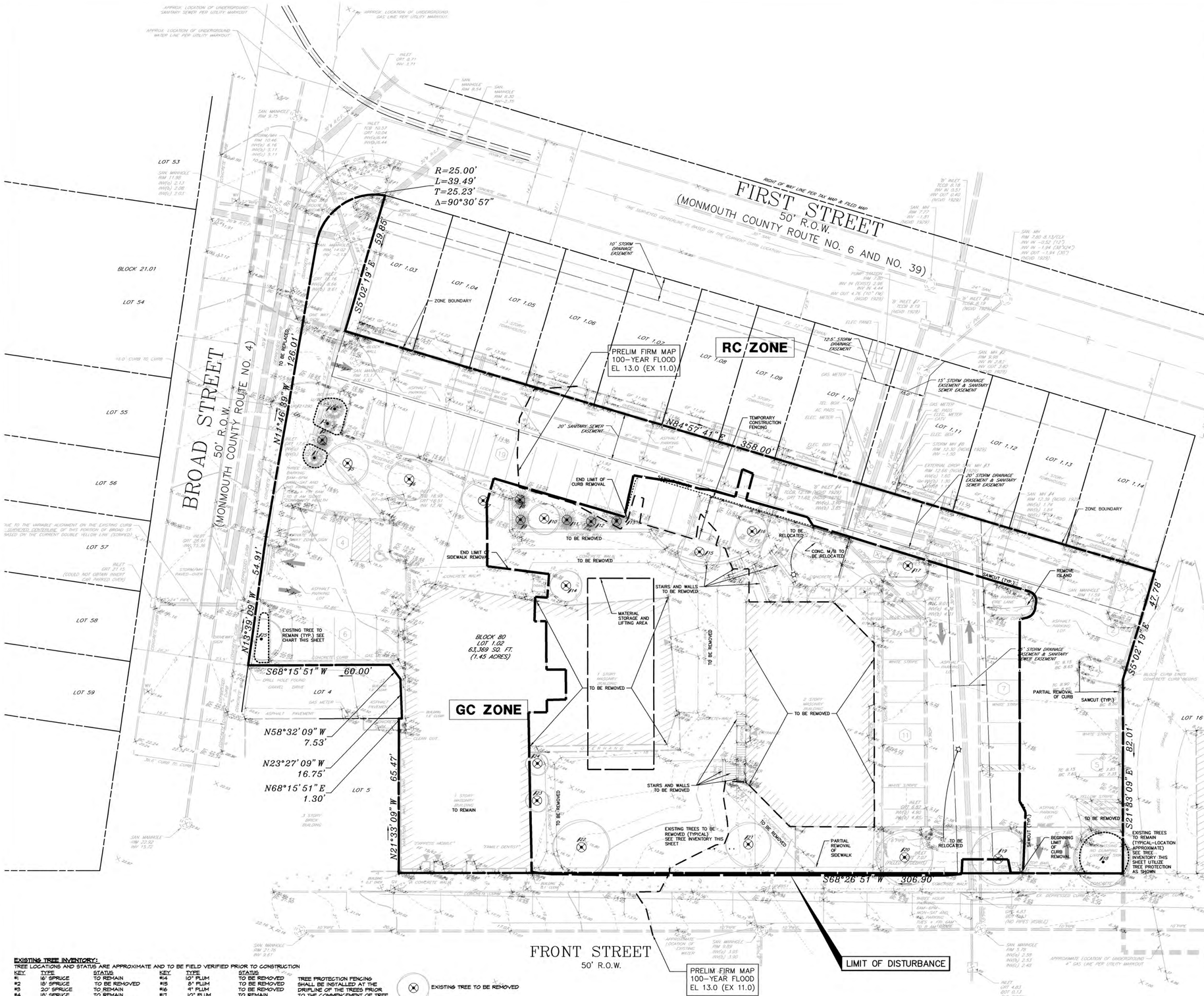
PROJECT #	SCALE	DRAWING #
2017.080.02	---	CV-1

DRAWN BY - PJ
DESIGNED BY - MM
APPROVED BY - GSO

COVER SHEET

DATE OF ISSUE
MAY 28, 2021
REVISED THROUGH
SEPTEMBER 12, 2022

1



DEMOLITION NOTES

1) THE CONTRACTOR IS TO COORDINATE THE REMOVAL / ABANDONMENT OF ALL UTILITIES WITH THE RESPECTIVE UTILITY COMPANIES.

2) CONTRACTOR TO HIRE CONSULTANT TO INSPECT ALL EXISTING UTILITIES THAT ARE TO REMAIN. FINDINGS ARE TO BE SUBMITTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION OR ORDERING SO THAT A DETERMINATION CAN BE MADE AS TO THE CONDITION OF THE EXISTING LINES. ANY UTILITIES THAT ARE IN MARGINAL CONDITION WILL NEED TO BE REPLACED.

3) ALL EXISTING RETAINING WALLS THAT ARE TO REMAIN ARE TO BE INSPECTED BY THE SOILS ENGINEER. FINDINGS ARE TO BE SUBMITTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION OR ORDERING SO THAT A DETERMINATION CAN BE MADE AS TO WHETHER THE WALLS SHOULD BE REPLACED.

4) ALL TEST PITS LOCATING THE EXISTING UTILITIES ARE TO BE COMPLETED PRIOR TO CONSTRUCTION OR ORDERING.

5) CONTRACTOR TO HAVE ALL UTILITIES FIELD MARKED AND THEN LOCATED BY THE SURVEYOR. ALL LOCATIONS ARE TO BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION OR ORDERING. FOR ADDITIONAL INFORMATION REFER TO GENERAL NOTE #2.

6) ALL DEMOLITION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE TOWNSHIP, COUNTY & STATE AND/OR OTHER GOVERNING BODIES STANDARDS.

7) DURING DEMOLITION, ANY HAZARDOUS MATERIAL, SUCH AS ASBESTOS, SHALL BE REMOVED AND REMEDIATED IN ACCORDANCE WITH THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP) STANDARDS AND ALL OTHER APPLICABLE STANDARDS.

8) THE REMOVAL AND/OR ABANDONMENT OF ANY SUBSURFACE STRUCTURES, INCLUDING STORAGE TANKS, MANHOLES AND PIPES, SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.

9) THE CONTRACTOR SHALL PROVIDE THE TOWN WITH WEIGHT RECEIPTS FOR ALL RECYCLED DEMOLITION MATERIALS FOR THE TOWNSHIP'S TONNAGE GRANT APPLICATION TO THE NJDEP.

10) HAULING ROUTES AND DISPOSAL SITES FOR THE DISPOSAL OF THE DEMOLISHED MATERIAL SHALL BE PROVIDED TO THE TOWNSHIP PRIOR TO DEMOLITION.

11) TEMPORARY CONSTRUCTION FENCING TO BE INSTALLED WITHOUT INTERFERING WITH THE DRIVEWAY /EASEMENT BETWEEN THE TOWNHOUSE UNITS.

UTILITY DEMOLITION KEY:

- DENOTES UTILITIES TO BE REMOVED
- DENOTES UTILITIES TO BE ABANDONED
- DENOTES TEST PIT AREA

REFERENCES

1) PLAN ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY FOR BLOCK 80 LOT 1.02" PREPARED BY CONTROL LAYOUTS, INC.; JOB# 870-17; DATED OCTOBER 2, 2017.

2) BOROUGH OF KEYPORT TAX MAP SHEET #9.

3) PLAN ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY FOR BLOCK 80 LOT 1.02" PREPARED BY CONTROL LAYOUTS, INC.; JOB# 870-17; DATED OCTOBER 2, 2017 AND REVISED JUNE 12, 2018.

4) FEMA FLOOD INSURANCE RATE MAP; PANEL 29 OF 457; DATED SEPTEMBER 25, 2009.

5) FEMA FLOOD INSURANCE RATE MAP; PANEL 29 OF 457; REVISED PRELIMINARY DATED JANUARY 30, 2015.

EXISTING TREE INVENTORY:

TREE LOCATIONS AND STATUS ARE APPROXIMATE AND TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION

KEY	TYPE	STATUS
#1	16" SPRUCE	TO REMAIN
#2	18" SPRUCE	TO BE REMOVED
#3	20" SPRUCE	TO REMAIN
#4	18" SPRUCE	TO REMAIN
#5	8" MAPLE	TO BE REMOVED
#6	9" MAPLE	TO BE REMOVED
#7	7" MAPLE	TO BE REMOVED
#8	15" SPRUCE	TO BE REMOVED
#9	12" SPRUCE	TO BE REMOVED
#10	8" PLUM	TO BE REMOVED
#11	9" SPRUCE	TO BE REMOVED
#12	10"SPRUCE	TO BE REMOVED
#13	9" SPRUCE	TO BE REMOVED
#14	10" PLUM	TO BE REMOVED
#15	8" PLUM	TO BE REMOVED
#16	9" PLUM	TO BE REMOVED
#17	10" PLUM	TO REMAIN
#18	15" MAPLE	TO REMAIN
#19	9" MAPLE	TO REMAIN
#20	10" MAPLE	TO REMAIN
#21	16" MAPLE	TO BE REMOVED
#22	18" LOCUST	TO BE REMOVED
#23	6" MAPLE	TO BE REMOVED
#24	5" MYRTLE	TO BE REMOVED
#25	15" MAPLE	TO REMAIN

TREE PROTECTION FENCING SHALL BE INSTALLED AT THE DRIPLINE OF THE TREES PRIOR TO THE COMMENCEMENT OF TREE REMOVAL ON SITE AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION

ALL TREES NOTED BEHIND THE TREE PROTECTION FENCING TO BE PRESERVED AND PROTECTED DURING CONSTRUCTION

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN

HORIZONTAL DATUM : NAD83

GRAPHIC SCALE

0 20 40
10 30

SCALE: 1"=20'

REVISIONS

1) TWP / COUNTY COMMENTS	10/26/18
2) TWP COMMENTS	04/22/19
3) ARCH REVISIONS	12/18/19
4) OWNER REVS	06/16/21

THIS DRAWING IS FOR PERMIT PURPOSES ONLY - NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.

☐ CHKD BY:_____ DATE:_____

1-800-272-1000 OR 811
STOP CALL BEFORE YOU DIG

THE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080.01	1" = 20'	EC-1

DRAWN BY . . . NT
DESIGNED BY . . . MW
APPROVED BY . . . GSO

EXISTING CONDITIONS & DEMOLITION PLAN

THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...

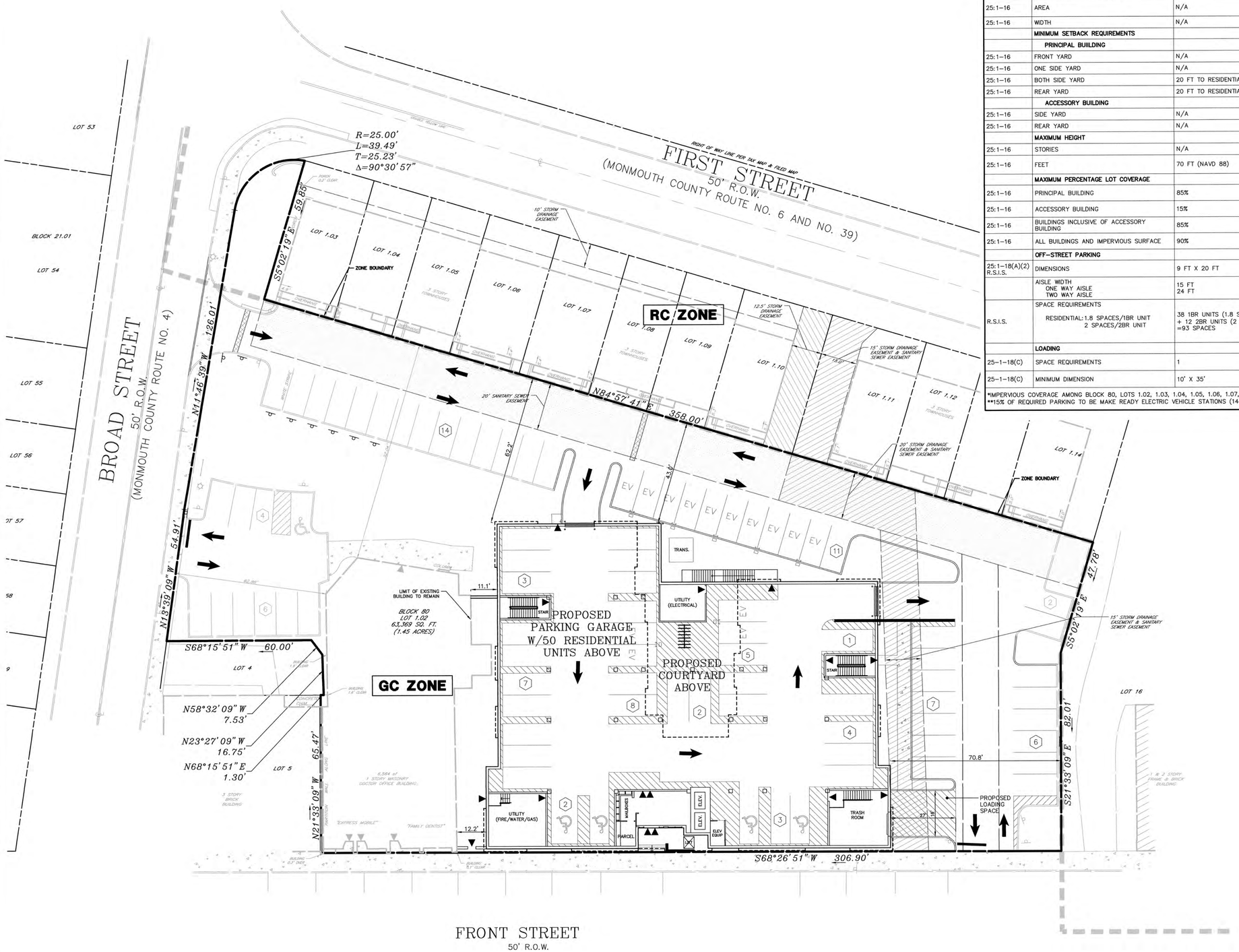
GREGORY S. OMAN
PROFESSIONAL ENGINEER
N.J.P.E.# 43441

DATE OF ISSUE
APRIL 3, 2018

REVISION 4
JUNE 18, 2021

2

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GC ZONE DATA

GENERAL COMMERCIAL DISTRICT

SECTION 25:1-9.1 MIXED USE RESIDENTIAL PERMITTED – NO RESIDENTIAL PERMITTED ON FIRST FLOOR – MUST COMPLY WITH DESIGN STANDARDS 25:1-9.5

SECTION	ITEM	REQUIRED	EXISTING	PROPOSED	CONDITION
	MINIMUM LOT REQUIREMENTS				
25:1-16	AREA	N/A	1.45 ACRES (63,369 SF)	NO CHANGE	N/A
25:1-16	WIDTH	N/A	306.9 FT	NO CHANGE	N/A
	MINIMUM SETBACK REQUIREMENTS				
	PRINCIPAL BUILDING				N/A
25:1-16	FRONT YARD	N/A	0 FT	NO CHANGE	N/A
25:1-16	ONE SIDE YARD	N/A	0 FT	NO CHANGE	N/A
25:1-16	BOTH SIDE YARD	20 FT TO RESIDENTIAL ZONE	105.45 FT	70.8 FT	COMPLIES
25:1-16	REAR YARD	20 FT TO RESIDENTIAL ZONE	51.19 FT	43.0 FT	COMPLIES
	ACCESSORY BUILDING				
25:1-16	SIDE YARD	N/A	N/A	N/A	N/A
25:1-16	REAR YARD	N/A	N/A	N/A	N/A
	MAXIMUM HEIGHT				
25:1-16	STORIES	N/A	2 STORIES	5 STORIES	N/A
25:1-16	FEET	70 FT (NAVD 88)	< 35 FT	70.0 FT (PARAPET)/ 72.0 FT (ELEVATOR)	COMPLIES/ VARIANCE
	MAXIMUM PERCENTAGE LOT COVERAGE				
25:1-16	PRINCIPAL BUILDING	85%	24% (15,015 SF)	35%	COMPLIES
25:1-16	ACCESSORY BUILDING	15%	N/A	N/A	N/A
25:1-16	BUILDINGS INCLUSIVE OF ACCESSORY BUILDING	85%	24% (15,015 SF)	35%	COMPLIES
25:1-16	ALL BUILDINGS AND IMPERVIOUS SURFACE	90%	73% (46,035 SF)	80.0%	COMPLIES
	OFF-STREET PARKING				
25:1-18(A)(2) R.S.I.S.	DIMENSIONS	9 FT X 20 FT	VARIES	9 FT X 20 FT 9 FT X 18 FT	COMPLIES
	AISLE WIDTH ONE WAY AISLE TWO WAY AISLE	15 FT 24 FT	VARIES	15 FT 24 FT	COMPLIES
R.S.I.S.	SPACE REQUIREMENTS RESIDENTIAL: 1.8 SPACES/1BR UNIT 2 SPACES/2BR UNIT	38 1BR UNITS (1.8 SPACES) + 12 2BR UNITS (2 SPACES) =93 SPACES	54 SPACES	35 SPACES GARAGE + 50 OFF-STREET SPACES = 85 SPACES + 9 EV SPACE CREDIT** = 94 SPACES PROVIDED	COMPLIES
	LOADING				
25-1-18(C)	SPACE REQUIREMENTS	1	N/A	0	COMPLIES
25-1-18(C)	MINIMUM DIMENSION	10' X 35'	N/A	19' X 27'	**VARIANCE**

*IMPERVIOUS COVERAGE AMONG BLOCK 80, LOTS 1.02, 1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 1.09, 1.10, 1.11, 1.12, 1.13, 1.14 IS 78%.
**15% OF REQUIRED PARKING TO BE MAKE READY ELECTRIC VEHICLE STATIONS (14 SPACES). EXTRA PARKING SPACE CREDIT GIVEN FOR UP TO 10% (9 SPACES)

HORIZONTAL DATUM : NAD83

GRAPHIC SCALE

0 20 40
10 30

SCALE: 1"=20'

REVISIONS

1) TWP/ COUNTY COMMENTS	10/26/18
2) TWP COMMENTS	04/22/19
3) ARCH REVISIONS	12/18/19
4) OWNER REVS	06/18/21
5) TOWNSHIP REVISIONS	09/12/22

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☐ CHKD BY:_____ DATE:_____

1-800-272-1000 or 811 STOP - CALL BEFORE YOU DIG!

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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080.01	1" = 20'	OP-1

DRAWN BY - . DP
DESIGNED BY - . MM
APPROVED BY - . GSO

OVERALL PLAN

THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...

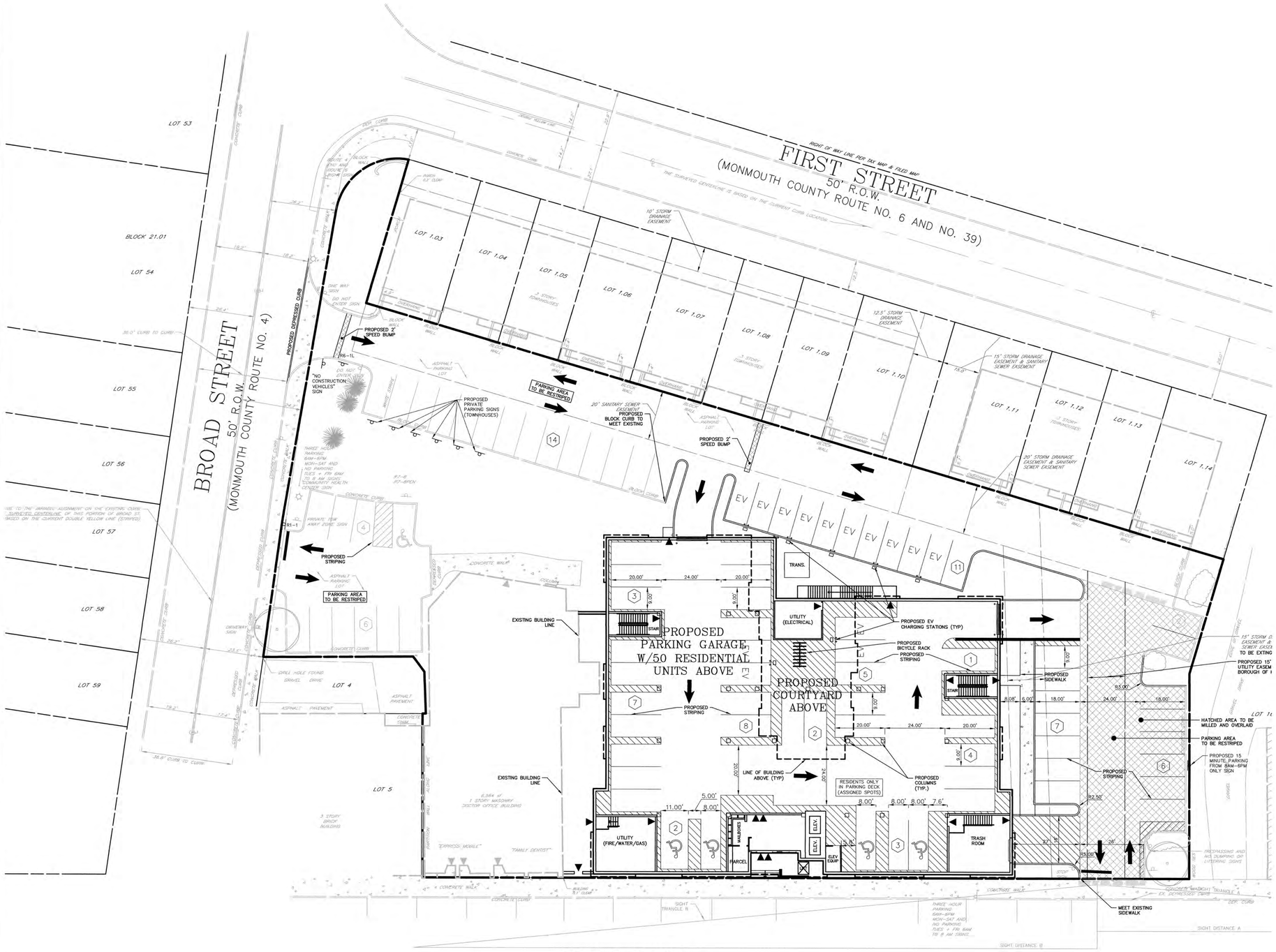
GREGORY S. OMAN
PROFESSIONAL ENGINEER
N.J.P.E.# 43441

DATE OF ISSUE
APRIL 3, 2018

REVISION 5
SEPTEMBER 12, 2022

3

H:\Mac W\2017.080.01-BASE-BEHAR APARTMENTS\2017.080.02-BASE.dwg PLOTTED: 9/12/2022 12:47 PM BY: MARK MARINELLI



GENERAL NOTES

1. SITE IS IN NAD 83 DATUM. ELEVATIONS ARE BASED ON NAVD88.
2. ALL CONSTRUCTION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE TOWNSHIPS, COUNTY, STATE AND/OR ANY OTHER GOVERNING BODIES STANDARDS.
3. THE CONTRACT DRAWINGS INDICATE THE APPROXIMATE LOCATION OF EXISTING SUBSURFACE UTILITIES IN THE VICINITY OF THE PROJECT AND ARE NOT GUARANTEED FOR ACCURACY AND/OR COMPLETENESS. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION (1-800-272-1000). ANY CONFLICTS WITH PROPOSED CONSTRUCTION ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER ARE TO BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL EXISTING UTILITIES EXPOSED DURING CONSTRUCTION ARE TO BE SUPPORTED UNTIL BACKFILL IS IN PLACE. ANY CROSSINGS LESS THAN ONE FOOT CLEAR TO BE SUPPORTED WITH A SADDLE (CONCRETE OR SAND AS NOTED).
4. DESIGN AND INSTALLATION OF ELECTRIC, GAS, TELEPHONE AND CABLE TV TO BE PROVIDED BY RESPECTIVE UTILITY COMPANIES.
5. ALL DRAINAGE TO BE REINFORCED CONCRETE PIPE CLASS III- WALL B UNLESS OTHERWISE NOTED. ALL SANITARY PIPES TO BE SDR-35 PVC PIPE UNLESS OTHERWISE NOTED. ALL WATERLINES TO BE CLASS 52 CEMENT-LINED DUCTILE IRON PIPE UNLESS OTHERWISE NOTED.
6. WATERLINE AND SANITARY SEWER TO BE A MINIMUM OF TEN (10) FEET APART HORIZONTALLY AND EIGHTEEN (18) INCHES VERTICALLY UNLESS OTHERWISE NOTED.
7. WATERLINES TO HAVE A MINIMUM OF FOUR (4) FEET COVER.
8. CONSTRUCTION MATERIALS AND METHODS NOT OTHERWISE SPECIFIED OR SHOWN HEREIN SHALL CONFORM TO NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (THE LATEST EDITION AND AMENDMENTS).
9. FOR SPECIFIC BUILDING DETAILS SEE ARCHITECTURAL DRAWINGS.
10. SITE GRADING AND UTILITY WORK ARE TO BE PERFORMED IN A MANNER TO MINIMIZE DAMAGE TO EXISTING VEGETATION AND TREES. ALL AREAS NOT AFFECTED BY CONSTRUCTION ARE TO REMAIN NATURAL AND UNDISTURBED.
11. ALL EXISTING OR PROJECT GENERATED DEBRIS IS TO BE REMOVED AND PROPERLY DISPOSED ACCORDING TO ALL APPLICABLE REGULATIONS.
12. TOPSOIL THAT HAS BEEN REMOVED FOR THE GRADING OF THE SITE SHALL NOT BE USED AS SPOIL. THE TOPSOIL SHALL BE REDISTRIBUTED ON GREEN AREAS SO AS TO PROVIDE A MINIMUM OF AT LEAST SIX (6) INCHES OF COVER ON THOSE AREAS.
13. SIDE SLOPES TO BE GRADED AT A MAXIMUM OF 3:1.
14. COMPACTION IN FILL AREAS BENEATH ALL PROPOSED UTILITIES AND STRUCTURES SHOULD MEET ALL MANUFACTURES AND TOWNSHIP REQUIREMENTS AND BE EQUAL TO THE MINIMUM 95% MODIFIED PROCTOR DENSITY.
15. NO ON-SITE SOIL TESTING HAS BEEN PERFORMED ON THIS PROJECT BY THE DESIGN ENGINEER. IT SHALL BE THE OWNER AND/OR CONTRACTORS RESPONSIBILITY TO CONDUCT SOIL TESTING TO CONFIRM APPLICABILITY OF PROPOSED IMPROVEMENTS AND CONSTRUCTION TECHNIQUES WITH RESPECT TO SUBSURFACE SOIL AND GROUNDWATER CONDITIONS.
16. ADEQUACY OF WATER SUPPLY SYSTEM FOR FIRE PROTECTION HAS NOT BEEN CONFIRMED WITH RESPECTIVE WATER SUPPLIER OR INSURANCE COMPANY. WATER SUPPLY SYSTEM TO BE REVIEWED AND APPROVED BY THE ARCHITECT AND WATER COMPANY PRIOR TO CONSTRUCTION OR ORDERING.
17. THE APPLICANT SHALL BE RESPONSIBLE FOR THE INSTALLATION OF STREET LIGHTING FACILITIES AS DESIGNED AND INSTALLED BY RESPECTIVE COMPANY, AS APPROVED BY THE PLANNING BOARD, AND IN ACCORDANCE WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS. STREET LIGHTING SHALL BE APPROPRIATELY SHIELDED TO AVOID GLARE INTO NEARBY HOMES. LIGHTING PLANS TO BE SUBMITTED TO BOROUGH FOR APPROVAL.
18. SANITARY SEWER DESIGN (N.J.A.C. 7:14A-23.6(B)4&6.)
    SEWERS CONVEYING SANITARY FLOW, COMBINED SANITARY AND STORM WATER FLOW, OR INDUSTRIAL FLOW SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST TEN (10) FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST EIGHTEEN (18) INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE DEPARTMENT.

    WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST TEN (10) FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED. THE DEPARTMENT MAY ALSO REQUIRE ADDITIONAL STRUCTURAL SUPPORT FOR STORM SEWERS OVER SEWER LINES.
19. REPAIR/REPLACE SECTIONS OF EXISTING CURB AND SIDEWALK THAT ARE IN POOR CONDITION ALONG BOTH FRONT AND BROAD STREETS.
20. ANY EXISTING PAVEMENT, SIDEWALK OR CURB THAT IS IN POOR CONDITION OR IS DAMAGED AS A RESULT OF THE PROPOSED CONSTRUCTION MUST BE REPLACED. ALL NEW SIDEWALKS MUST COMPLY WITH ADA REGULATIONS.
21. TEMPORARY DELIVERIES IN EASTERN PARKING LOT. DELIVERIES CONTROLLED BY OWNER (WEEKENDS OR OFF HOURS).
22. DAMAGED CURB THROUGHOUT THE SITE IS TO BE REPLACED.
23. CONTRACTOR IS TO COORDINATE ACCESS WITH EXISTING RESIDENTS DURING CONSTRUCTION.
24. THERE SHOULD BE NO PILE DRIVING.
25. EXISTING PUMP HOUSE STRUCTURE TO BE DECOMMISSIONED AND ABANDONED BY APPLICANT. PROPOSED PUMPING STATION TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNER AND/OR ITS SUCCESSORS.
27. ALL REFUSE AND RECYCLING TO BE HANDLED INTERNAL TO THE BUILDING. GARBAGE PICK-UP AT SITE TO BE PROVIDED BY A PRIVATE HAULER AT LEAST TWO TIMES A WEEK WITH ADDITIONAL PICK-UPS AS REQUESTED IF NECESSARY. THE HAULER WILL BE RESTRICTED TO ACCESSING THE PROPERTY VIA EAST FRONT STREET AND IT WILL NOT BE PERMITTED TO TRAVEL ACROSS THE ENTIRE PROPERTY SO AS TO AVOID INTERFERENCE WITH THE AREA COVERED BY THE TOWNHOUSE ACCESS EASEMENT.

N W E S

HORIZONTAL DATUM : NAD83

GRAPHIC SCALE

0 20 40
10 30

SCALE: 1"=20'

REVISIONS

1) TWP/ COUNTY COMMENTS	10/26/18
2) TWP COMMENTS	04/22/19
3) ARCH REVISIONS	12/18/19
4) OWNER REVS.	06/18/21
5) TOWNSHIP COMMENTS	09/12/22

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☐ CHKD BY:_____ DATE:_____

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Civil Engineering Consultants
Landscape Architects
Professional Planners
261 Cleveland Avenue
Highland Park, New Jersey 08904
Phone (732) 846-8585
Fax (732) 846-9439
www.menloeng.com
Certificate of Authorization : 24GA27951900

GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080.01	1" = 20'	GE-1

DRAWN BY . . NF
DESIGNED BY . . MM
APPROVED BY . . GSO

GEOMETRY PLAN

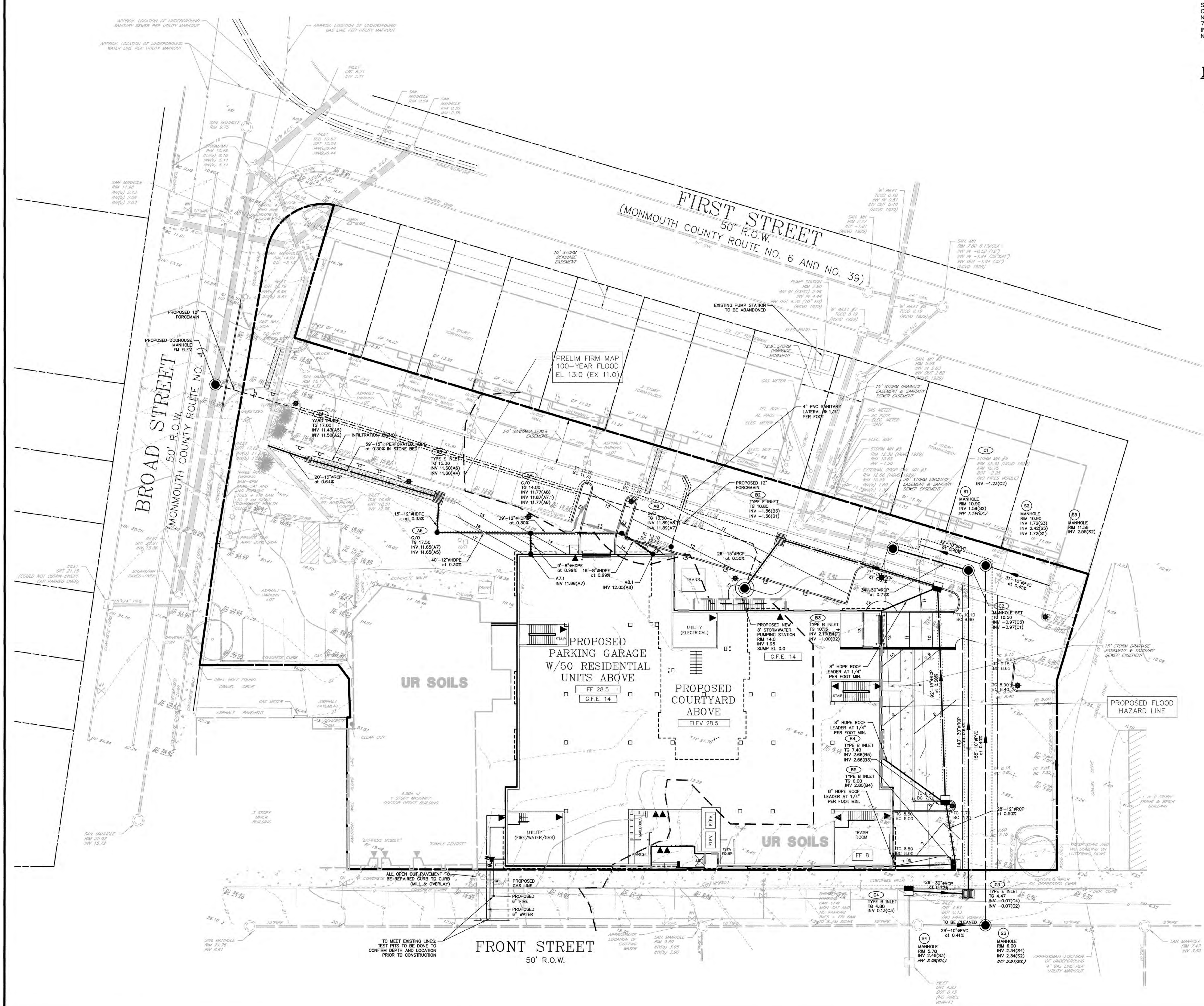
THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...

GREGORY S. OMAN
PROFESSIONAL ENGINEER
NJPE# 43441

DATE OF ISSUE
APRIL 3, 2018
REVISION 5
SEPTEMBER 12, 2022

4

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IMPERVIOUS COVERAGE

SITE IMPROVEMENTS DO NOT CREATE AN ADDITIONAL 0.25 ACRE OF IMPERVIOUS COVERAGE AND DO NOT DISTURB MORE THAN 1.0 ACRE OF LAND. THEREFORE, IT IS NOT CONSIDERED A MAJOR DEVELOPMENT FOR PURPOSE OF APPLICATION OF N.J.A.C. 7.8, THE NJ STORMWATER MANAGEMENT RULE. IMPROVEMENTS CREATE AN INSIGNIFICANT INCREASE OF ON-SITE IMPERVIOUS COVERAGE AND WILL HAVE A NEGLIGIBLE IMPACT ON THE STORMWATER MANAGEMENT SYSTEM.

NOTES:

1. ALL EXISTING CASTINGS TO BE REPLACED WITH TYPE "N" ECO CURB PIECES AND BICYCLE SAFE GRATES.
2. ROOF LEADERS ARE INTERNAL TO STREET.

HORIZONTAL DATUM : NAD83

GRAPHIC SCALE

0 10 20 30 40

SCALE: 1"=20'

REVISIONS	
1) TWP/ COUNTY COMMENTS	10/26/18
2) TWP COMMENTS	04/22/19
3) ARCH REVISIONS	12/18/19
4) OWNER REVS	06/18/21
5) DEP REVS	08/13/21
6) TOWNSHIP COMMENTS	09/12/22

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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080.01	1" = 20'	GU-1

DRAWN BY . NF
DESIGNED BY . MM
APPROVED BY . GSO

GRADING & UTILITY PLAN

THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...

GREGORY S. OMAN
PROFESSIONAL ENGINEER
NJPE# 43441

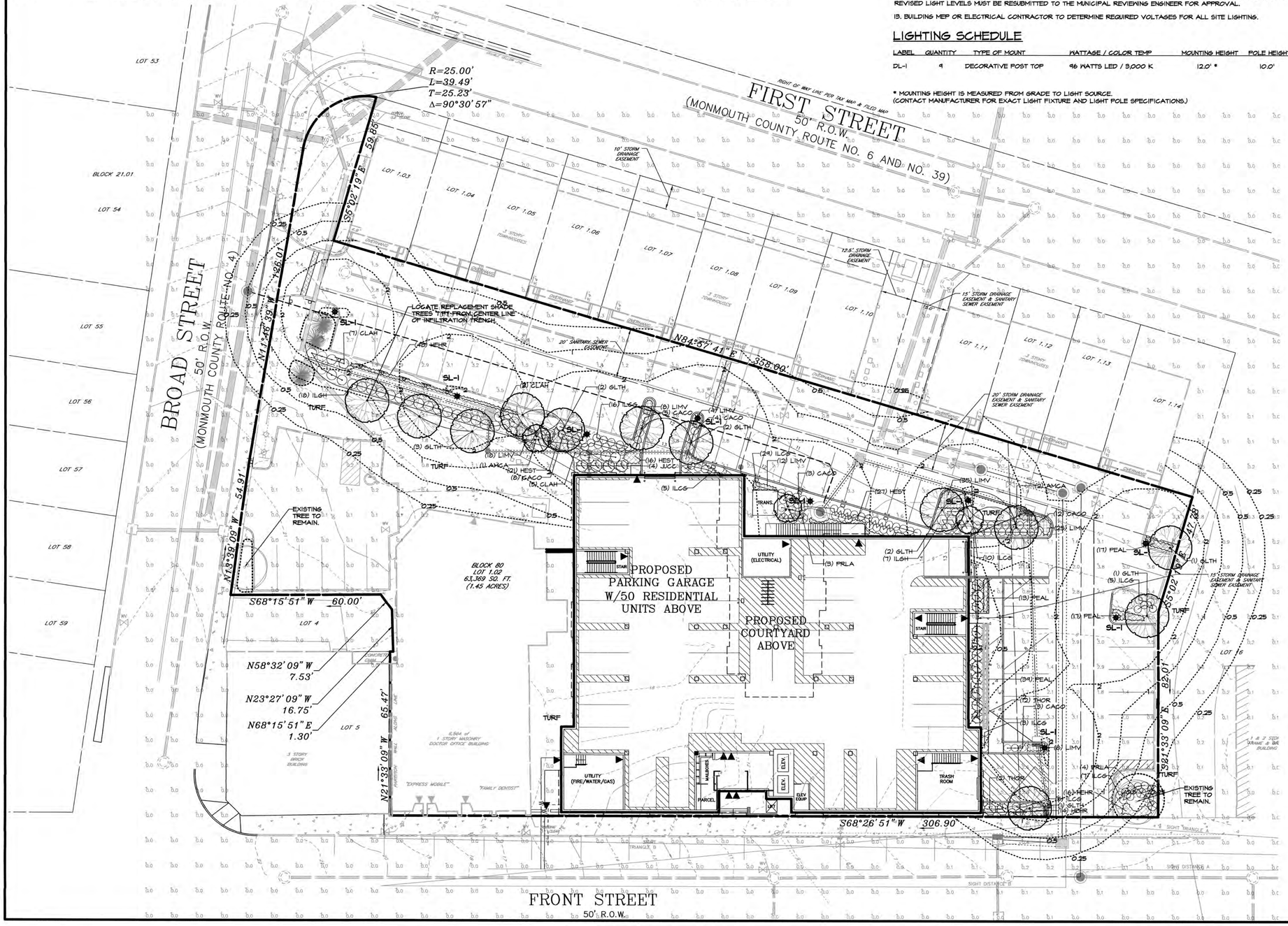
DATE OF ISSUE
APRIL 3, 2018

REVISION 6
SEPTEMBER 12, 2022

H: \Mike M\2017.080.01-BASE-BEHAR APARTMENTS\2017.080.02-BASE.dwg PLOTTED: 9/12/2022 12:43 PM; BY: MIKE MARINELLI

PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	MATURE SPREAD	MATURE HT.	CALIPER	PLANTING HT.	TYPE	REMARKS
GLTH	12	GLEDITSIA TRIACANTHOS VAR. INERMIS 'HALKA'	HALKA THORNLESS HONEY LOCUST	30'	60'	2.5"-3" CAL.	12-14'	B&B	STRAIGHT, SYMMETRICAL, FULL CROWN, HEAD TO 7'
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**MATURE SPREAD**	**MATURE HT.**	**CALIPER**	**PLANTING HT.**	**TYPE**	**REMARKS**
JUCC	4	JUNIPERUS CHINENSIS 'HETZII COLUMNARIS'	HETZI COLUMN JUNIPER	6'	15'		7-8'	B&B	STRAIGHT, SYMMETRICAL, DENSE, LOW BRANCHED
THOR	14	THUJA ORIENTALIS 'ELEGANTISSIMA'	ELEGANTISSIAM ARBORVITAE	5'	12'		6-7'	B&B	STRAIGHT, SYMMETRICAL, DENSE, LOW BRANCHED
FLOWERING TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**MATURE SPREAD**	**MATURE HT.**	**CALIPER**	**PLANTING HT.**	**TYPE**	**REMARKS**
AMCA	3	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	15'	20'	(3) STEM CLUMP	9'-10'	B&B	(3) STEM CLUMP, SYMMETRICAL, LOW BRANCHED
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**WIDTH**	**HEIGHT**	**PLANTING WIDTH**	**PLANTING HT.**	**TYPE**	**REMARKS**
CACO	35	CLETHRA ALNIFOLIA 'COMPACTA'	COMPACT SUMMERSWEET	3'	3'		18-24"	#3 CAN	COMPACT, SYMMETRICAL, WELL FURNISHED,
CLAH	15	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD' SUMMERSWEET	5'	3'		24-30"	#5 CAN	(5) CANES MIN., SYMMETRICAL, DENSE
ILCG	80	ILEX CRENATA 'GREEN LUSTRE'	GREEN LUSTER JAPANESE HOLLY	3'	5'	24-30"		#5 CAN	WELL FURNISHED, DENSE, SYMMETRICAL, SPACE EVENLY
ILGH	25	ILEX GLABRA 'CHAMZIN' TM	NORDIC HOLLY	4'	4'		3-3.5'	#5 CAN	WELL FURNISHED, DENSE, LON BRANCHED, SPACE EVENLY
PRLA	7	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKENS CHERRYLAUREL	3'	6'		2.5-3'	B&B	HEAVY, WELL FURNISHED, DENSE
GROUND COVERS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**MATURE WIDTH**	**MATURE HT.**			
HEHR	78	HEMEROCALLIS HYBRID 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	#2 CAN	1.5'	1.5'			(3) FAN CLUMP, WELL ROOTED
HEST	64	HEMEROCALLIS HYBRID 'STELLA DE ORO'	STELLA DE ORO DAYLILY	#2 CAN	1.5'	1.5'			(3) FAN CLUMP, WELL ROOTED
LIMV	110	LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LILY TURF	#2 CAN	2'	1.5'			(3) FAN CLUMP, WELL ROOTED
PEAL	86	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	#1CAN	1.5'	2'			CLUMP, DENSE, WELL ROOTED



LIGHTING NOTES:

1. A CONCRETE FOOTING BELOW FINISHED GRADE, SHALL BE INSTALLED FOR EACH FIXTURE. SIZE AND DEPTH TO BE DESIGNED BY STRUCTURAL ENGINEER.
2. A MINIMUM OF (0.4) FOOTCANDLES, WITH AN AVERAGE OF (2.04) FOOTCANDLES AND AN AVERAGE TO MINIMUM UNIFORMITY RATIO OF (5.10.1) ARE PROVIDED WITHIN PARKING AREAS AND ACCESS AISLES.
3. PARKING AREA POLES TO BE STEEL, STRAIGHT, ROUND TO MATCH FIXTURE.
4. LIGHT FIXTURES AND POLES TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.
5. PARKING AREA LIGHTING CONTROLS SHALL BE PHOTOCELL ACTIVATED AND TIMER DEACTIVATED DURING HOURS OF OPERATION.
6. LIGHT STANDARDS LOCATED IN PLANTING AREAS AND TURF AREAS SHALL BE A MINIMUM OF 30" OFF PAVEMENT CURB FACE. FOOTINGS WITHIN PARKING AREAS SHALL BE 30" ABOVE ADJACENT PAVEMENT GRADE. ALL FOUNDATIONS SHALL BE CYLINDRICAL. POLE HEIGHTS SHALL BE ADJUSTED FOR APPROPRIATE FOUNDATIONS USED WHILE MAINTAINING LUMINAIRE MOUNTING HEIGHT.
7. ALL CIRCUIT DIAGRAMS AND ELECTRICAL PLANS FOR EXTERIOR LIGHTING TO SERVICE PANEL SHALL BE DESIGNED BY INTERIOR LIGHTING CONTRACTOR/ENGINEER.
8. INSTALLATION OF ALL SITE LIGHTING ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, CODES, AND LAWS.
9. THIS PLAN WAS PRODUCED USING LIGHTING ANALYSIS AGI PROGRAM WITH THE APPROPRIATE PHOTOMETRIC FILES SUPPLIED BY COOPER LIGHTING, PEACHTREE CITY, GA.
10. THE CONTRACTOR SHALL FIELD VERIFY EXISTING OVERHEAD WIRES FOR CLEARANCE REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT/ENGINEER FOR ANY CONFLICTS PRIOR TO ORDERING LIGHTING EQUIPMENT.
11. THE CONTRACT DRAWINGS INDICATE THE APPROXIMATE LOCATION OF EXISTING SUBSURFACE UTILITIES IN THE VICINITY OF THE PROJECT AND ARE NOT GUARANTEED FOR ACCURACY AND/OR COMPLETENESS. CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. (1-800-272-1000). ANY CONFLICTS WITH PROPOSED CONSTRUCTION ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER, AND LANDSCAPE ARCHITECT. ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER SHALL BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL EXISTING UTILITIES EXPOSED DURING CONSTRUCTION ARE TO BE SUPPORTED UNTIL BACKFILL IS IN PLACE.
12. ANY LIGHT FIXTURE SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE ACCOMPANIED BY A POINT BY POINT CALCULATION VERIFYING THE SUBSTITUTED FIXTURES PERFORMANCE AND DEMONSTRATING THAT THE REVISED LIGHT LEVELS MATCH THE APPROVED PLANS. MENLO ENGINEERING WILL NOT PERFORM REVISED LIGHTING CALCULATIONS UNLESS AUTHORIZED BY THE OWNER. THE REVISED LIGHT LEVELS MUST BE RESUBMITTED TO THE MUNICIPAL REVIEWING ENGINEER FOR APPROVAL.
13. BUILDING MEP OR ELECTRICAL CONTRACTOR TO DETERMINE REQUIRED VOLTAGES FOR ALL SITE LIGHTING.

LIGHTING SCHEDULE

LABEL	QUANTITY	TYPE OF MOUNT	WATTAGE / COLOR TEMP	MOUNTING HEIGHT	POLE HEIGHT	DISTRIBUTION	CATALOG NUMBER	POLE CATALOG NUMBER
DL-1	9	DECORATIVE POST TOP	96 WATTS LED / 3,000 K	12.0' *	10.0'	TYPE T5	COOPER - INVUE LIGHTING ARBOR POST TOP ARB-B4-LED-_-T5-BK (OR APPROVED EQUAL)	COOPER - INVUE LIGHT POLE STEEL ROUND STRAIGHT POLE SRX-4-A-10-S-BK-_-1 (OR APPROVED EQUAL)

* MOUNTING HEIGHT IS MEASURED FROM GRADE TO LIGHT SOURCE.
(CONTACT MANUFACTURER FOR EXACT LIGHT FIXTURE AND LIGHT POLE SPECIFICATIONS.)

GENERAL LANDSCAPE NOTES:

1. NO SUBSTITUTIONS IN THE PLANT LIST IS TO BE MADE UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT AND APPROVED BY THE OWNER AND THE TOWNSHIP.
2. ALL DISTURBED AND PERMANENT TURF AREAS SHALL BE SEEDED WITH A GENERAL PURPOSE MIXTURE SIMILAR TO THE FOLLOWING; SCS SEED MIX #14 (TALL TURF FESCUE, KENTUCKY BLUEGRASS, PERENNIAL RYEGRASS) OR APPROVED EQUAL. SEE SCS DETAIL SHEETS FOR SEEDING SPECIFICATIONS.
3. ALL PLANTING BEDS TO BE MULCHED WITH (3) INCH MINIMUM MULCH (SEE PLANTING NOTE #20). MULCH VOLCANOES (MOUNDS) AROUND TREES ARE PROHIBITED.
4. TOPSOIL PROTECTION: NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. ALL TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGRADED SURFACES SO AS TO PROVIDE AN EVEN COVER AND SHALL BE STABILIZED BY SEEDING OR PLANTING. ALL REGRADED TURF AREAS SHALL BE COVERED BY A SIX (6) INCH MINIMUM THICKNESS OF TOPSOIL. IF SUFFICIENT TOPSOIL IS NOT AVAILABLE ON THE SITE, TOPSOIL MEETING OR EXCEEDING THE MINIMUM REQUIREMENTS OF THE NJDOT SPECIFICATIONS, SHALL BE PROVIDED TO RESULT IN A SIX (6) INCH MINIMUM THICKNESS. ANY IMPORTED TOPSOIL OR SUBSOIL SHALL BE NJDEP CERTIFIED FREE OF ANY TOXINS OR HARMFUL CHEMICALS.
5. LAWN AREAS SHALL MAINTAIN A MINIMUM SLOPE OF 2% AND A MAXIMUM OF (3) FEET HORIZONTAL TO (1) FOOT VERTICAL AND COMPACTED AREAS SHALL BE TILLED TO A DEPTH OF EIGHTEEN (18) INCHES.
6. UNACCEPTABLE PLANT MATERIALS: MATERIALS WHICH HAVE DAMAGED OR CROOKED LEADERS, DEFORMED GROWTH HABIT, ABRASIONS OF THE BARK, SUNSCALDS, WINDBURN, DISFIGURING KNOTS, OR FRESH CUTS OF LIMBS OVER 3/4 IN. WHICH HAVE NOT COMPLETELY CALLUSED WILL BE REJECTED. IN ADDITION, TREES HAVING THEIR CENTRAL LEADERS HEADED BACK WILL ALSO BE REJECTED.
7. SHRUB PLANTING ISLANDS, PARKING AREA ISLANDS AND FOUNDATION PLANTING BEDS SHALL RECEIVE A MINIMUM OF (2) FEET OF TOPSOIL MIXTURE MEETING OR EXCEEDING THE MINIMUM NJDOT SPECIFICATIONS.
8. ALL PLANT MATERIALS LOCATED WITHIN SIGHT TRIANGLES SHALL BE MAINTAINED NOT TO EXCEED A MAXIMUM OF (36) INCHES ABOVE PAVEMENT AND TREES SHALL BE LIMBED TO MAINTAIN A MINIMUM CLEARANCE OF (7) FEET ABOVE THE TOP OF CURB OR SIDEWALK FOR SIGHT VISIBILITY.
9. THE CONTRACT DRAWINGS INDICATE THE APPROXIMATE LOCATION OF EXISTING SUBSURFACE UTILITIES IN THE VICINITY OF THE PROJECT AND ARE NOT GUARANTEED FOR ACCURACY AND/OR COMPLETENESS. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. (1-800-272-1000). ANY CONFLICTS WITH PROPOSED CONSTRUCTION ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE LANDSCAPE ARCHITECT. ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER SHALL BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL EXISTING UTILITIES EXPOSED DURING CONSTRUCTION SHALL BE SUPPORTED UNTIL BACKFILL IS IN PLACE.
10. ALL SHADE TREES, EVERGREENS, AND FLOWERING TREES SHALL BE PROVIDED WITH "GATOR BAGS" tm OR EQUAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO ALL PLANTINGS AND LAWN AREAS UNTIL FINAL ACCEPTANCE.

HORIZONTAL DATUM : NAD83

GRAPHIC SCALE
0 20 40
10 30
SCALE: 1"=20'

REVISIONS

1) TWP/ COUNTY COMMENTS	10/26/18
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MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080.02	1" = 20'	LL-1

DRAWN BY LKH
DESIGNED BY LKH
APPROVED BY KRG

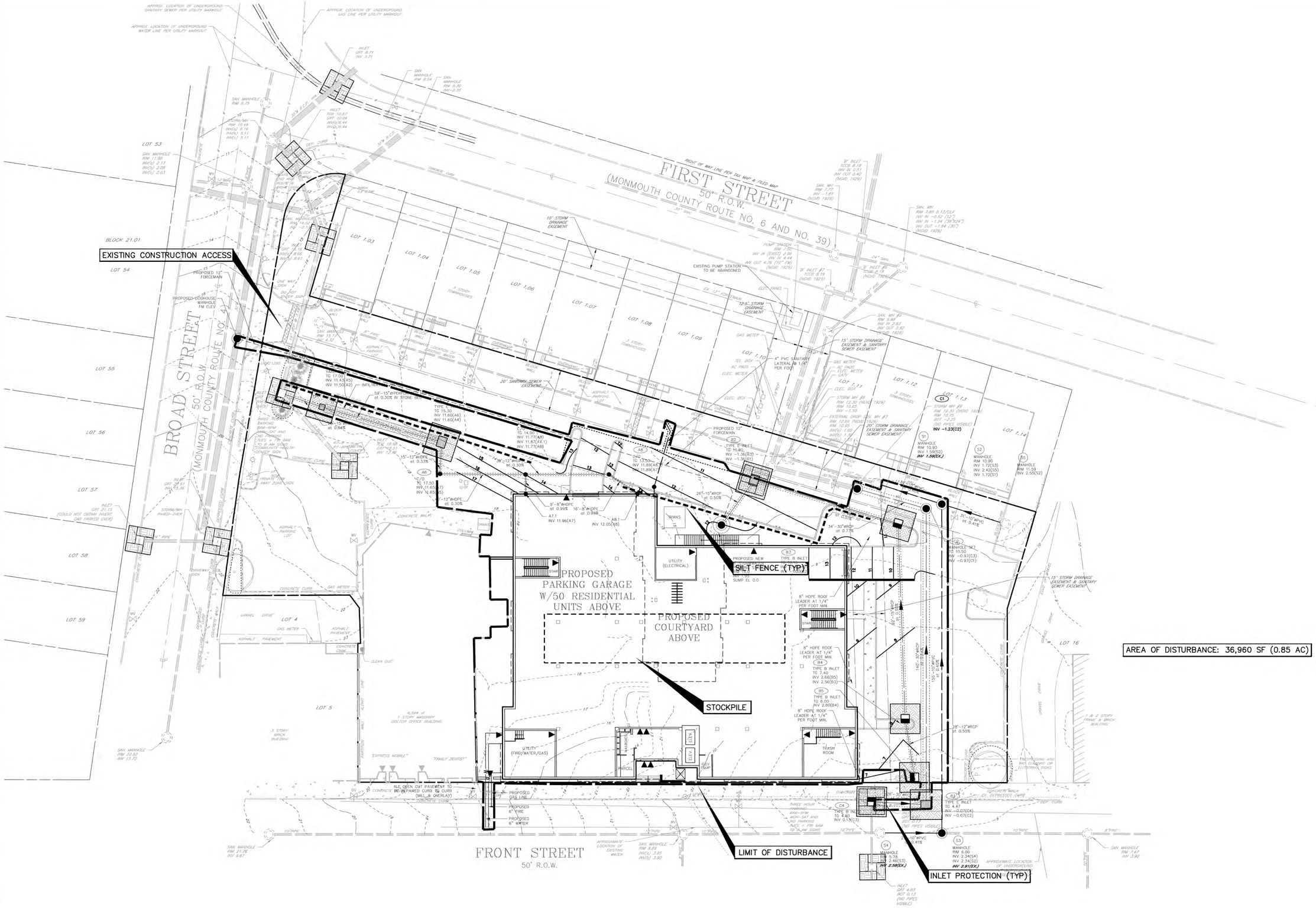
LANDSCAPE & LIGHTING PLAN

THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...
KENNETH R. GRISEWOOD
LANDSCAPE ARCHITECT
NJ LICENSE #AS000071

DATE OF ISSUE
APRIL 3, 2018
REVISION 4
SEPTEMBER 12, 2022

6

C:\ENG\2017.080.02-BASE\2017.080.02-LA.dwg PLOTTED: 9/12/2022 12:55 PM, BY: LANA HENRIKSEN


EXISTING CONSTRUCTION ACCESS
BROAD STREET
(MONMOUTH COUNTY ROUTE NO. 6 AND NO. 39)
50' R.O.W.
FIRST STREET
50' R.O.W.
(MONMOUTH COUNTY ROUTE NO. 6 AND NO. 39)
FRONT STREET
50' R.O.W.
PROPOSED PARKING GARAGE W/50 RESIDENTIAL UNITS ABOVE
PROPOSED COURTYARD ABOVE
SILT FENCE (TYP.)
STOCKPILE
LIMIT OF DISTURBANCE
INLET PROTECTION (TYP.)
AREA OF DISTURBANCE: 36,960 SF (0.85 AC)
BLOCK 21.01
LOT 53
LOT 54
LOT 55
LOT 56
LOT 57
LOT 58
LOT 59
LOT 4
LOT 5
LOT 1.03
LOT 1.04
LOT 1.05
LOT 1.06
LOT 1.07
LOT 1.08
LOT 1.09
LOT 1.10
LOT 1.11
LOT 1.12
LOT 1.13
LOT 1.14
LOT 16
10" STORM DRAINAGE EASEMENT
20' SANITARY SEWER EASEMENT
12.5' STORM DRAINAGE EASEMENT
15' STORM DRAINAGE EASEMENT & SANITARY SEWER EASEMENT
20' STORM DRAINAGE EASEMENT & SANITARY SEWER EASEMENT
EXISTING PUMP STATION TO BE ABANDONED
PROPOSED 12" FORCEMAIN
PROPOSED DOGHOUSE MANHOLE FM ELEV
4" PVC SANITARY LATERAL @ 1/4" PER FOOT
PROPOSED GAS LINE
PROPOSED 6" FIRE
PROPOSED 6" WATER
ALL OPEN CUT PAVEMENT TO BE REPAIRED CURB TO CURB (MILL & OVERLAY)
APPROX. LOCATION OF UNDERGROUND SANITARY SEWER PER UTILITY MARKOUT
APPROX. LOCATION OF UNDERGROUND WATER LINE PER UTILITY MARKOUT
APPROX. LOCATION OF UNDERGROUND GAS LINE PER UTILITY MARKOUT
RIGHT OF WAY LINE PER TAX MAP & FILED MAP
EXISTING CONCRETE CURB
EXISTING ASPHALT PAVEMENT
EXISTING CONCRETE WALK
EXISTING BUILDING
EXISTING UTILITY POLE
EXISTING GAS METER
EXISTING ELECTRIC METER
EXISTING TEL BOX
EXISTING AC PADS
EXISTING ELEC. BOX
EXISTING GAS VALVE
EXISTING WATER VALVE
EXISTING SIGN
EXISTING TREE
EXISTING CURB INLET
EXISTING SAN. MANHOLE
EXISTING STORM MH
EXISTING STORM INLET
EXISTING SAN. MH
EXISTING 8" INLET
EXISTING 9" INLET
EXISTING PUMP STATION
EXISTING ELEC. PANEL
EXISTING GAS METER
EXISTING STORM MH #8
EXISTING STORM MH #7
EXISTING STORM MH #3
EXISTING 24" SAN.
EXISTING 15" STORM
EXISTING 12" STORM
EXISTING 10" STORM
EXISTING 8" PIPE
EXISTING 6" PIPE
EXISTING 4" PIPE
EXISTING 2" PIPE
EXISTING 1" PIPE
EXISTING 1" WATER
EXISTING 1" GAS
EXISTING 1" ELEC.
EXISTING 1" TEL
EXISTING 1" CATV
EXISTING 1" AC
EXISTING 1" FIRE
EXISTING 1" IRRIGATION
EXISTING 1" DOMESTIC
EXISTING 1" SANITARY
EXISTING 1" STORM

STANDARD FOR PERMANENT VEGETATIVE COVER

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 STANDARD 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 5 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 DIVERSIONS, 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 SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). 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 LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL ARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

   C. HIGH ACID PRODUCING SOIL: 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 REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR 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 WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE 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 SEEDED 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 LIVE 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 65OF. SEE TABLE 4–3, MIXTURES 8–20. 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 CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDING, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE–TEXTURED SOIL.

   C. AFTER SEEDING, FIRMING 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 OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1–1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS 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 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 TO 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 OR MORE ROUND TURNS.

      2. MULCH NETTINGS – STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

      3. CRIMPER (MULCH ANCHORING COULTER TOOL) – A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT 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 TRAVERSABLE 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 REMAINDER 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 CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC 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.

         NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

   B. WOOD–FIBER OR PAPER–FIBER MULCH – SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 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 SLOPES 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, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED 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 WEED–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 AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

5. 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.

6. 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 OF TOPDRESSING IS MANDATORY. 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 AMELIORATED.

7. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION

   THE QUALITY OF PERMANENT VEGETATION RESTS 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 IS REQUESTED PRIOR TO 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 COVERAGE (OF THE SEEDED SPECIES) AND MOWED ONCE. NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED.

CONSTRUCTION SEQUENCE

CONSTRUCTION COMMENCEMENT DATE: _____

1. INSTALLATION OF SILT FENCE ALONG LIMIT OF DISTURBANCE LINE AT SECTION DELINEATED ON "SOIL EROSION CONTROL PLANS" – _ DAY(S)
   INSTALLATION OF STONE AT CONSTRUCTION ENTRANCES – _ DAY(S)
2. CLEARING AND GRUBBING – _ DAY(S)
3. ROUGH GRADING AND TEMPORARY SEEDING – INSTALLATION OF DETENTION FACILITIES – _ WEEK(S)
4. INSTALLATION OF UTILITIES AND FOUNDATIONS WITH EROSION CONTROL DEVICES (RIP–RAP OUTFALL, TEMPORARY SEEDING, INLET PROTECTION AND TEMPORARY STABILIZATION). – _ WEEK(S)
5. CURBING – _ WEEK(S)
6. PAVEMENT SUB–BASE – _ WEEK(S)
7. FINISHED GRADING AND LIGHTING – _ WEEK(S)
8. FINAL PAVEMENT – _ WEEK(S)
9. LANDSCAPING WITH PERMANENT SEEDING – _ WEEK(S)

   NOTE: AS C.O.'S FOR INDIVIDUAL BUILDING ARE APPLIED FOR, ALL SITE WORK AROUND THE BUILDING TO BE COMPLETED (No. 10 SUBJECT TO WEATHER CONDITIONS AND TO BE COMPLETED WITHIN 6 MONTHS).

THE ABOVE SCHEDULE SUBJECT TO WEATHER CONDITIONS AND MATERIAL AVAILABILITY.

STANDARD FOR TEMPORARY VEGETATIVE COVER

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, PG. 19–1.

   B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

   C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.)

2. SEEDBED PREPARATION

   A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. 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. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.

   B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH 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. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.

   D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1–1.

3. SEEDING

   A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7–2.

   B. CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

   C. 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. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.

   D. AFTER SEEDING, FIRMING 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.

4. MULCHING

   MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE 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 OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1–1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

      APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE 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 TO 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 OR MORE ROUND TURNS.

      2. MULCH NETTINGS – STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

      3. CRIMPER (MULCH ANCHORING COULTER TOOL) – A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT 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 TRAVERSABLE 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 REMAINDER 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 CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC 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.

         NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

   B. WOOD–FIBER OR PAPER–FIBER MULCH – SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 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 SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

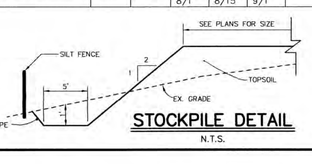
   C. PELLETIZED MULCH – COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO–POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S 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 WEED–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 AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

TABLE 7–2

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH.

SEED SELECTIONS	SEEDING RATE 1 (pounds)		OPTIMUM SEEDING DATE 2 Based on Plant Hardiness Zone 3			OPTIMUM SEED DEPTH 4 (inches)
	Per Acre	Per 1000 Sq. Ft.	ZONE 5b, 6a	ZONE 6b	ZONE 7a, b	
COOL SEASON GRASSES						
1. PERENNIAL RYEGRASS	100	1.0	3/15–6/1 8/1–9/15	3/1–5/15 8/15–10/1	2/15–5/1 8/15–10/15	0.5
2. SPRING OATS	86	2.0	3/15–6/1 8/1–9/15	3/1–5/15 8/15–10/1	2/15–5/1 8/15–10/15	1.0
3. WINTER BARLEY	96	2.2	8/1–9/15	8/15–10/1	8/15–10/15	1.0
4. ANNUAL RYEGRASS	100	1.0	3/15–6/1 8/1–9/15	3/15–6/1 8/1–9/15	2/15–5/1 8/15–10/15	0.5
5. WINTER CEREAL RYE	112	2.8	8/1–11/1	8/15–11/15	8/15–12/15	1.0
WARM SEASON GRASSES						
6. PEARL MILLET	20	0.5	6/1–8/1	5/15–8/15	5/1–9/1	1.0
7. MILLET (GERMAN OR HUNGARIAN)	30	0.7	6/1–8/1	5/15–8/15	5/1–9/1	1.0

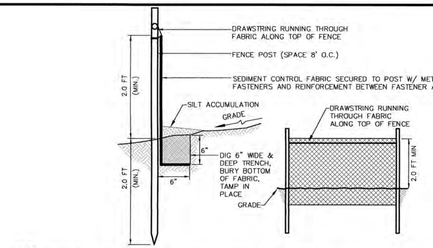


STOCKPILE DETAIL

N.T.S.

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY–EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. 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.
4. N.J.S.A 4:24–39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT–BY–LOT OR SECTION–BY–SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 ½ TONS PER



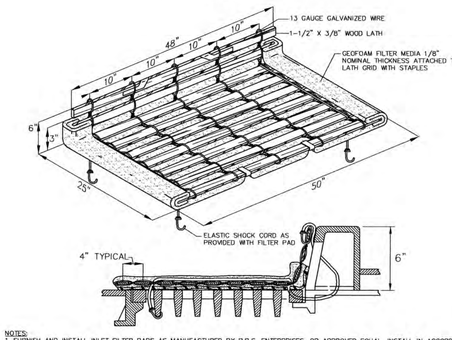
NOTES:
1) FENCE POSTS SHALL BE SPACE 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST TWO (2) FEET INTO THE GROUND AND EXTEND AT LEAST TWO (2) FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1½ INCHES.

2) A METAL FENCE WITH 6-INCH OR SMALLER OPENINGS AND AT LEAST TWO (2) FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEO-TEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.

3) A GEO-TEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6-INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST TWO (2) FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEO-TEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH

SILT FENCE

N.T.S.



NOTES:
1. FURNISH AND INSTALL INLET FILTER PADS AS MANUFACTURED BY R.B.S. ENTERPRISES, OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. PAD SHALL CONSIST OF 3/8" NORMAL THICKNESS GEOFOAM FILTER MEDIA ATTACHED TO FRAMEWORK. FRAMEWORK SHALL BE COMPRISED ON 1-1/2" x 3/8" x 48" WOOD LATH ON 4" CENTERS FOR A 5 WIRE GRID. FOAM SHALL BE ATTACHED TO LATH GRID WITH STAPLES. PAD SHALL BE ATTACHED TO GRATE WITH THE ELASTIC SHOCK CORD AND HOOKS.

2. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

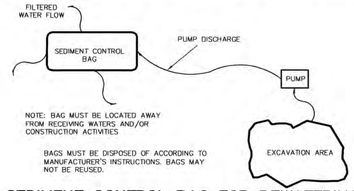
INLET PROTECTION DETAIL

N.T.S.

1. SILT CONTROL BAGS ARE CONTAINERS THROUGH WHICH SEDIMENT LADEN WATER IS PUMPED TO TRAP AND RETAIN THE SEDIMENT. A SILT CONTROL BAG IS TO BE USED ON SITES WERE EXCAVATIONS ARE DEEP, AND SPACES IS LIMITED AND WHERE DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO STREAM AND STORM DRAINAGE SYSTEM IS TO BE AVOIDED.

2. CONTAINERS (BAGS) SHALL BE LOCATED FOR EASE OF CLEAN-OUT AND DISPOSAL OF THE TRAPPED SEDIMENT AND TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES AND PEDESTRIAN TRAFFIC. BAGS SHALL NOT BE PLACED DIRECTLY INTO RECEIVING WATERS.

3. SEDIMENT CONTROL BAGS MUST BE LOCATED AWAY FROM RECEIVING WATERS AND DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS.



SEDIMENT CONTROL BAG FOR DEWATERING

N.T.S.

SEEDING RATES

SEEDBED PREPARATION: FERTILIZER (10-10-10) 500 LB/AC
LIMESTONE 6,000 LB/AC

TEMPORARY SEEDING (NOT FOR ACIDIC SOILS HAVING A PH OF 4 OR LESS)

SEED MIX: PERENNIAL RYEGRASS 200 LB/AC

PERMANENT SEEDING (NOT FOR ACIDIC SOILS HAVING A PH OF 4 OR LESS)

SEEDING DATES:
(OPTIMAL) ZONE 5b,6a (8/1-10/1); ZONE 6b (8/15-10/15); ZONE 7a,7b (8/15-10/30)
(SEE TABLE 4-2 OF THE SCS STANDARDS FOR ADDITIONAL PLANTING DATES)

SCS SEED MIX #14	TURF-TYPE TALL FESCUE (3 CULTIVAR BLEND)	350 LB/AC
	KENTUCKY BLUEGRASS (BLEND)	30 LB/AC
	PERENNIAL RYEGRASS (BLEND)	30 LB/AC

MULCHING:
UNROTTED SALT HAY OR APPROVED EQUAL 1 1/2 to 2 TONS/AC

MULCH ANCHORING:
HYDROMULCH OR APPROVED EQUAL (USE RATES AS RECOMMENDED BY MANUFACTURER)

NOTES:
1) FOR ADDITIONAL REQUIREMENTS REFER TO THE SCS STANDARD FOR PERMANENT VEGETATIVE COVER.
2) THE FERTILIZER AND LIMESTONE RATES REPRESENT THE UNTESTED SCS REQUIRED RATES. FINAL RATES SUBJECT TO SOIL FERTILITY, pH ANALYSIS AND LAB RECOMMENDATIONS.

CONDITION OF ACCEPTANCE:
1) NO EROSION SHALL EXIST.
2) BARE OR THIN SPOTS IN EXCESS OF 5 PERCENT OF ANY AREA WILL NOT BE ACCEPTABLE.
3) ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATED COVER (OF THE SEEDED SPECIES) AND MOWED ONCE.

STANDARD FOR TOPSOILING

DEFINITION

TOPSOILING ENTAILS THE DISTRIBUTION OF SUITABLE QUALITY SOIL ON AREAS TO BE VEGETATED.

PURPOSE

TO IMPROVE THE SOIL MEDIUM FOR PLANT ESTABLISHMENT AND MAINTENANCE.

WATER QUALITY ENHANCEMENT

GROWTH AND ESTABLISHMENT OF A VIGOROUS VEGETATIVE COVER IS FACILITATED BY TOPSOIL, PREVENTING SOIL LOSS BY WIND AND RAIN OFFSITE AND INTO STREAMS AND OTHER STORMWATER CONVEYANCES.

WHERE APPLICABLE

TOPSOIL SHALL BE USED WHERE SOILS ARE TO BE DISTURBED AND WILL BE REVEGETATED.

METHODS AND MATERIALS

1. MATERIALS

A. TOPSOIL SHOULD BE FRIABLE[1], LOAMY[2], FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.

2. STRIPPING AND STOCKPILING

A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.

B. STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.

C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5.

D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.

F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG.7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.

3. SITE PREPARATION

A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE

B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1.

C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.

D. PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARD FOR LAND GRADING, PG. 19-1.

E. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

4. APPLYING TOPSOIL

A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY).

B. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5.0 INCHES, MINIMUM OF 4 INCHES, FIRMED IN PLACE IS REQUIRED. ALTERNATIVE DEPTHS MAY BE CONSIDERED WHERE SPECIAL REGULATORY AND/OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE SUCH AS ON GOLF COURSES, SPORTS FIELDS, LANDFILL CAPPING, ETC.. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1).

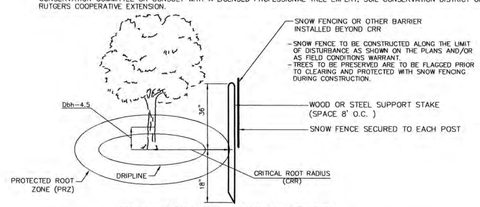
C. PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABLISHED ON AT LEAST 80% OF THE SOILS TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTOR TO INCLUDE SOME OR ALL OF THE FOLLOWING: SUPPLEMENTAL SEEDING, RE-APPLICATION OF LIME AND FERTILIZERS, AND/OR THE ADDITION OF ORGANIC MATTER (I.E. COMPOST) AS A TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR AGRONOMIC PROPERTIES.

[1] FRIABLE MEANS EASILY CRUMBLES IN THE FINGERS, AS DEFINED IN MOST SOILS TEXTS.
[2] LOAMY MEANS TEXTURE GROUPS CONSISTING OF COARSE LOAMY SANDS, SANDY LOAM, FINE AND VERY FINE SANDY LOAM, LOAM, SILT LOAM, CLAY LOAM, SANDY CLAY LOAM AND SILTY CLAY LOAM TEXTURES AND HAVING LESS THAN 35% COARSE FRAGMENTS (PARTICLES LESS THAN 2MM IN SIZE) AS DEFINED IN THE GLOSSARY OF SOIL SCIENCE TERMS, 1996, SOIL SCIENCE SOCIETY OF AMERICA.

CRITERIA FOR PROTECTING REMAINING TREES:

1. GENERAL MECHANICAL DAMAGE - SEE BELOW FOR CORRECT ROOT ZONE CALCULATION AND PLACEMENT OF TREE PROTECTION.
2. BOX TREES WITHIN 25 FEET OF A BUILDING SITE TO PREVENT MECHANICAL INJURY. FENCING OR OTHER BARRIER SHOULD BE INSTALLED BEYOND THE CRITICAL ROOT RADIUS. TREE ROOT SYSTEMS COMMONLY EXTEND WELL BEYOND THE DRIP LINE.
3. BOARDS WILL NOT BE NAILED TO TREES DURING BUILDING OPERATIONS.
4. FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA INSIDE THE PROTECTED ROOT ZONE (PRZ).
5. DAMAGED TRUNKS OR EXPOSED ROOTS SHOULD HAVE DAMAGED BARK REMOVED IMMEDIATELY AND NO PAINT SHALL BE APPLIED. EXPOSED ROOTS SHOULD BE COVERED WITH TOPSOIL IMMEDIATELY AFTER EXCAVATION IS COMPLETE. ROOTS SHALL BE PRUNED TO GIVE A CLEAN, SHARP SURFACE AMENABLE TO HEALING. ROOTS EXPOSED DURING HOT WEATHER SHOULD BE IRRIGATED TO PREVENT PERMANENT TREE INJURY. CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY A PROFESSIONAL FORESTER OR LICENSED TREE EXPERT.

NOTE: FOR MORE SPECIFIC TREE CHARACTERISTICS AND TREE LIMB REMOVAL, SEE THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY PUBLISHED BY THE NEW JERSEY DEPARTMENT OF AGRICULTURE-STATE SOIL CONSERVATION COMMITTEE OR CONSULT WITH A LICENSED PROFESSIONAL TREE EXPERT, SOIL CONSERVATION DISTRICT OR RUTGERS COOPERATIVE EXTENSION.



ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR).

1. MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5 FEET ABOVE GROUND ON THE UPHILL SIDE OF TREE) IN INCHES.
2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET.

DBH X 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.

DBH X 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES

TREE PROTECTION

STANDARD FOR PERMANENT STABILIZATION WITH SOD

DEFINITION

ESTABLISHING PERMANENT VEGETATION USING SOD.

PURPOSE

TO PERMANENTLY STABILIZE TOPSOIL WITH AN IMMEDIATE AESTHETIC COVERING, THUS ASSURING CONSERVATION OF SOIL AND WATER, AND TO ENHANCE THE ENVIRONMENT.

WATER QUALITY ENHANCEMENT

PROVIDES AN IMMEDIATE, PERMANENT VEGETATIVE COVER TO THE SOIL FROM THE IMPACTS OF WIND OR RAIN AND PREVENTS SOIL AND NUTRIENT LOSSES TO STREAMS AND OTHER STORMWATER CONVEYANCES FROM STORMWATER RUNOFF.

WHERE APPLICABLE

ON EXPOSED SOILS THAT HAVE A POTENTIAL FOR CAUSING OFF-SITE ENVIRONMENTAL DAMAGE WHERE AN IMMEDIATE, PERMANENT, VEGETATIVE COVER IS DESIRED. WATER (RAIN OR IRRIGATION) IS REQUIRED FOR SUCCESS; ACCESS TO IRRIGATION IS ESSENTIAL DURING DROUGHT.

METHODS AND MATERIALS

1. HIGH QUALITY CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD.

2. SOD SHOULD BE FREE OF BROADLEAF WEEDS AND UNDESIRABLE COARSE AND FINE WEED GRASSES.

3. SOD SHOULD BE OF UNIFORM THICKNESS, TYPICALLY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING (EXCLUDES TOP GROWTH.).

4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS AND ROLLS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.

5. FOR DROUGHTY SITES, A SOD OF TURF-TYPE TALL FESCUE OR TURF-TYPE TALL FESCUE MIXED WITH KENTUCKY BLUEGRASS IS PREFERRED OVER A 100% KENTUCKY BLUEGRASS SOD. ALTHOUGH NOT WIDELY AVAILABLE, A SOD OF FINE FESCUE IS ALSO ACCEPTABLE FOR DROUGHTY SITES.

6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 24 HOURS OR LESS DURING SUMMER MONTHS.

1. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, INCORPORATION OF ORGANIC MATTER, AND OTHER SOIL PREPARATION PROCEDURES. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.

B. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 6 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES.

SEE THE STANDARD FOR TOPSOILING FOR TOPSOIL AND AMENDMENT REQUIREMENTS.

C. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS

2. SOIL PREPARATION

A. UNIFORMLY APPLY GROUND LIMESTONE, AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET USING 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 ½ THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ½ RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES. TABLE 6-1 IS A GENERAL GUIDELINE FOR LIMESTONE APPLICATION RATES.

B. WORK LIME, AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.

C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO TOPSOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.

D. INSPECT SITE JUST BEFORE SODDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED IN ACCORDANCE WITH THE ABOVE.

3. SOD PLACEMENT

A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS (SEAMS) THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.

C. LIGHTLY ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS AND INVASION OF WEEDS.

D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES BIODEGRADABLE PLASTIC SPIKES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).

E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.

F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL WATER PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 1 INCH. MAINTAIN OPTIMUM WATER FOR AT LEAST TWO WEEKS.

4. TOPDRESSING - SINCE SOIL ORGANIC MATTER AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTIONS 1 AND 2IN THIS STANDARD, A FOLLOW-UP TOPDRESSING IS NOT MANDATORY, EXCEPT WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP, TOPDRESSING SHALL THEN BE APPLIED. TOPDRESS WITH 10-0-10 OR EQUIVALENT AT 400 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 AMELIORATED.

TABLE 6-1

LIMESTONE[1] APPLICATION RATE BY SOIL TEXTURE

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

1. Pulverized dolomitic limestone is preferred for most soils south of the New Brunswick-Trenton line; however, this should be confirmed by soil testing.

FOR CLARIFICATIONS AND ADDITIONAL INFORMATION SEE THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION, JANUARY 2014, REVISED JULY 2017

CONSTRUCTION DETAIL NOTES

1. ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL CONSTRUCTION DETAILS SHALL BE SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.
3. STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.
4. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
5. DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER.
6. RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.).
7. ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE NOTED.

REVISIONS

1) SCS REVS	07/27/18
2) OWNER REVS	06/18/21

THIS DRAWING IS FOR PERMIT PURPOSES ONLY - NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.

☐ CHKD BY:_____ DATE:_____

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Civil Engineering Consultants
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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080	N.T.S.	SED-2

DRAWN BY ..... PJ
DESIGNED BY ..... PJ
APPROVED BY ..... GSO

SOIL EROSION & SEDIMENT CONTROL DETAILS - 2

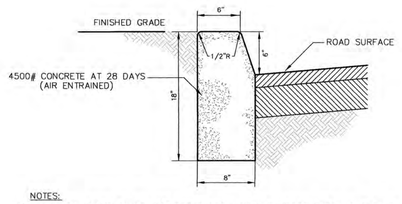
GREGORY S. OMAN
PROFESSIONAL ENGINEER
NJPE# 43441

DATE OF ISSUE
APRIL 3, 2018

REVISION 2
JUNE 18, 2021

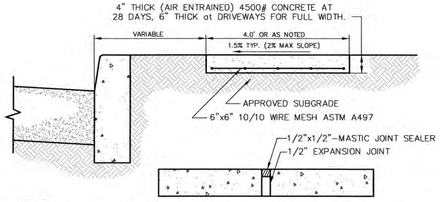
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H:\Mine M\2017.080.01-BASE-BSHAB APARTMENTS\2017.080.02-DETAILS.dwg PLOTTED: 6/22/2021 12:23 PM BY: MIKE MARINELLI



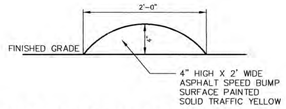
NOTES:
1) EXPANSION JOINTS TO BE 1/2" PREMOLDED, ASPHALT IMPREGNATED, JOINT FILLER MATERIAL, CUT TO FIT CROSS SECTION, RECESSED 1/4" FROM EXPOSED FACES AND ARE TO BE PLACED: IN TRAVERSE JOINTS 20' O.C. MAX; BETWEEN CURB AND CONCRETE SIDEWALK OR PAVEMENT; AT ALL STRUCTURES; AND AT THE END OF EACH WORK DAY.
2) ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

(8"WIDE / 6"REVEAL)
STANDARD CONCRETE CURB (18")
N.T.S.

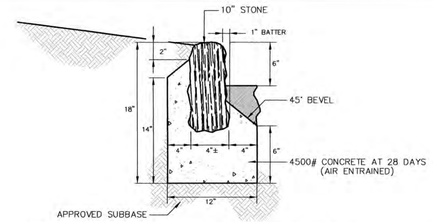


NOTES:
1) EXPANSION JOINTS TO BE LOCATED AT MAXIMUM OF 20' O.C.; AT ALL STRUCTURES; AND WHERE SIDEWALK ABUTS THE CURB.
2) EXPANSION MATERIALS TO BE 1/2" PREMOLDED, ASPHALT IMPREGNATED, JOINT FILLER.
3) TOOLED JOINTS TO BE SPACED EQUAL TO THE SIDEWALK WIDTH (6' MAX).
4) ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK
N.T.S.

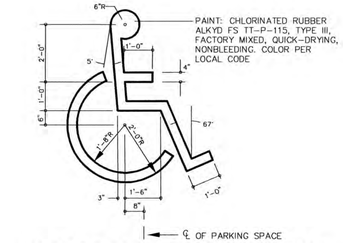


BITUMINOUS SPEED BUMP
N.T.S.



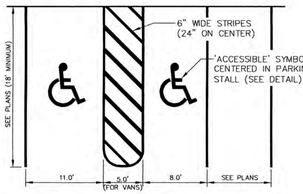
NOTES:
1) JOINTS SHALL BE 1/4"MAX FOR DRESSED BLOCK OR 3/8"MAX FOR QUARRY SPLIT BLOCK. ALL JOINTS ARE TO BE POINTED WITH 1:1 CEMENT SAND MORTAR.
2) ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

(6"REVEAL)
VERTICAL GRANITE BLOCK CURB
N.T.S.

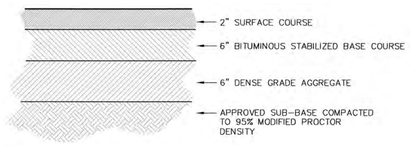


℄ OF PARKING SPACE

ACCESSIBLE PARKING DETAIL
N.T.S.

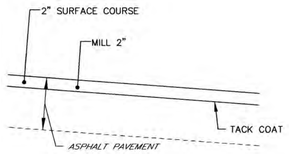


ADA PARKING STALL STRIPING
N.T.S.



NOTES:
1) NOT A DESIGN PAVEMENT, SUBJECT TO ONSITE SOILS TESTING.
2) ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

(4 LAYER)
PAVEMENT SECTION
N.T.S.



MILL & OVERLAY DETAIL
N.T.S.

GENERAL ADA NOTES

1. PEDESTRIAN CURBS
- PEDESTRIAN CURBS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES WHICH CANNOT BE ACCOMMODATED BY FLARES OR GRADING.

2. CROSSWALKS
- FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES.
- SHOULD BE PLACED A MINIMUM DISTANCE OF 4'-0" FROM STOP AND YIELD LINES.
- FOR UN-SIGNALIZED AREAS, CROSSWALKS SHOULD BE PLACED A MINIMUM DISTANCE OF 20'-0" AWAY FROM ON ROAD PARKING ZONES. FOR SIGNALIZED AREAS, CROSSWALKS SHOULD BE PLACED A MINIMUM DISTANCE OF 30'-0" FROM ON ROAD PARKING ZONES.
- PEDESTRIAN CROSSWALKS ARE 6'-0" MINIMUM MEASURED FROM INSIDE THE PAINTED EDGE TO INSIDE PAINTED EDGE AND THE INSIDE LINES MUST BE OUTSIDE THE PROJECTED CURB LINES.
- AVOID USING THE PARALLEL LINE CROSSWALK DESIGN. INSTEAD USE THE LONGITUDINAL LINES AT 6'-0" LONG AND 1'-2" WIDE WITH A SPACING OF 1'-2" APART. SPACING SHOULD BE DESIGNED SO THE PAINTED AREAS AVOID THE WHEEL PATHS.

3. CURB RAMPS
- CONSTRUCT CURB RAMPS WITH A MINIMUM 4'-0" X 4'-0" CLEAR SPACE BEFORE THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK.
- SLOPES THAT EXCEED 8.00%, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
- PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SIDE RAMPS.
- TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
- FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE.
- FOR NEW CONSTRUCTION, ATTEMPT TO KEEP THE CROSS SLOPE AS FLAT AS POSSIBLE. DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESSIBLE ROUTE (MEASURED PERPENDICULAR TO THE DIRECTION OF TRAVEL).
- CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
- CURB RAMP WIDTH IS 4'-0" MINIMUM.
- AVOID CURB RAMP DESIGNS WHERE THE WIDTH OF THE CROSSWALK WILL NEED TO BE GREATER THAN 10'-0" WIDE.
- ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE.
- THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 11.00%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, LANDING OR BLENDED TRANSITION IS NOT TO EXCEED 5.00% AND IT IS NOT NECESSARY TO HAVE THE LENGTH GREATER THAN 15'-0".
- WHEN TWO CROSSWALKS LEAD TO A SINGLE CURB RAMP, THE MAXIMUM RUNNING SLOPE IS 5% WITH A MAXIMUM 2% CROSS SLOPE. THESE TYPES OF RAMPS REQUIRE THE ENGINEERING DEPARTMENT'S APPROVAL AS THEY ARE NOT PREFERRED.

4. DEPRESSED CURBS
- CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).
- CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL LANDINGS BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE. THE VERTICAL ALIGNMENT OF A CURB RAMP, EXCLUDING FLARES, SHALL BE PLANAR. GRADE BREAKS SHALL BE FLUSH AND PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS, LANDINGS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4" MAXIMUM).
- WHEN TWO CROSSWALKS LEAD TO A SINGLE CURB RAMP, THE DEPRESSED CURB MUST EXTEND FROM THE OUTER MOST EDGE OF EACH CROSSWALK.

5. DETECTABLE WARNING SURFACES
- NO SEPARATION BETWEEN DETECTABLE WARNING SURFACES FOR MEDIANS LESS THAN 4'-0" BETWEEN BACK OF CURBS.
- PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.
- ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB WHEN APPROPRIATE.
- DETECTABLE WARNING SURFACES SHALL BE SAFETY RED COLOR, EXCEPT IF THE MUNICIPALITIES HAVE ESTABLISHED AN ALTERNATIVE COLOR SCHEME.
- FOR TWO CROSSWALKS LEADING TO A SINGLE CURB RAMP, THE DETECTABLE WARNING SURFACE MUST BE PLACED ALONG THE ENTIRE DEPRESSED CURB AND THE DOMES MUST BE PLACED IN SUCH A WAY THAT THE DIRECTION OF TRAVEL IS ORIENTED INTO THE CROSSWALK.

6. DRIVEWAYS
- 5.00% MAXIMUM SLOPE FOR THE DRIVEWAY APRON.
- 1 1/2" MAXIMUM VERTICAL CHANGE IN HEIGHT BETWEEN THE ROAD SURFACE AND THE DEPRESSED CURB AT THE DRIVEWAY APRON.

7. JOINTS
- PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
- SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.

8. LANDINGS (AKA TURNING SPACE)
- LANDING AREA, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS, UNLESS AN EXCEPTION IS GRANTED.
- DO NOT EXCEED 2.00% SLOPE IN ALL DIRECTIONS.
- LANDING AREA SHOULD BE 4'-0" X 4'-0" MINIMUM CLEAR SPACE. IF THE TURNING SPACE IS CONSTRAINED ON 2 OR MORE SIDES, IT MUST BE 4'x5' WITH THE 5' LENGTH ALONG THE UNOBSTRUCTED SIDE. FOR TWO CROSSWALKS LEADING TO A SINGLE CURB, THE LANDING AREA MUST HAVE A MINIMUM OF A 5'-0" DEPTH (INCLUDING THE DETECTABLE WARNING SURFACE) ALONG THE DEPRESSED CURB/ROADWAY.
- ENGINEERING DEPARTMENT APPROVAL IS REQUIRED IF LANDING FOR TURNING MANEUVER IS NOT ON THE SIDEWALK, I.E. IF THE LANDING AREA "CLEAR SPACE" IS IN THE ROADWAY.
- 4'x4' LANDINGS ARE REQUIRED AT EVERY ACCESSIBLE PEDESTRIAN SIGNAL/PUSHBUTTON LOCATION.

9. NON-WALK SURFACES
- NON-WALK AREA IS AN OBSTRUCTION OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.

10. PEDESTRIAN PUSHBUTTONS
- THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE. INSTALL PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.
- NEW CONSTRUCTION MUST COMPLY WITH RECOMMENDED LOCATIONS FOR ALTERATION PROJECTS LOCATE PEDESTRIAN PUSHBUTTONS, TO THE MAXIMUM EXTENT FEASIBLE (SEE 2009 MUTCD FIG 4E-3)
- ADJACENT TO A LEVEL NON-SLIP SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS A NON-SLIP WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP
- WITHIN 5'-0" OF THE CROSSWALK EXTENDED
- BETWEEN 1'-6" AND 10'-0" OF THE EDGE OF CURB, SHOULDER OR PAVEMENT
- PARALLEL TO THE CROSSWALK TO BE USED
- MOUNT PEDESTRIAN PUSHBUTTON 42" ABOVE THE SIDEWALK OR FINISHED GRADE TO THE CENTER OF THE PUSHBUTTON AND 10" MAXIMUM LATERALLY FROM LANDING. IN ADDITION, THE PEDESTRIAN PUSHBUTTON MUST ALSO BE 5'-0" MINIMUM DISTANCE FROM THE CURB RAMP AND 2'-0" MINIMUM DISTANCE BETWEEN A CATCH BASIN AND THE PEDESTRIAN PUSHBUTTON.

11. SIDE FLARES
- ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE.
- SIDE FLARES 10.00% MAXIMUM SLOPE WHERE THE PEDESTRIAN PATH CROSSES THE CURB RAMP
- SIDE FLARES MUST BE PARALLEL TO THE CURB LINE
- CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE
- GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 (1:3) MAXIMUM. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN ACCESS ROUTE
- SIDE FLARE WIDTH IS TYPICALLY 24" AND A MINIMUM OF 12".

12. SIDEWALKS
- NOTE THE AREA CONSIDERED TO BE THE "PEDESTRIAN ACCESSIBLE ROUTE"
- THE MAXIMUM SIDEWALK CROSS SLOPE IS 2.00% (MEASURED PERPENDICULAR TO THE DIRECTION OF TRAVEL). THE MAXIMUM GRADE IS 5.00%. FOR SIDEWALKS ALONG STREETS; HOWEVER, THE LONGITUDINAL GRADE OF THE SIDEWALK SHOULD BE CONSISTENT WITH THE GRADE OF THE ADJACENT ROADWAY. IF THE 5.00% GRADE IS NOT FEASIBLE DUE TO TOPOGRAPHY AND OTHER PHYSICAL CONSTRAINTS, THE LOWEST PRACTICAL GRADE GREATER THAN 5.00% SHOULD BE USED
- SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.

13. TRAVEL LANES
- THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.

14. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS OR MORE THAN THE STANDARD 6" HEIGHT.

15. CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.

16. PREFERRED AND ALTERNATE TREATMENTS SHOULD NOT BE INTERMIXED WITHIN THE SAME INTERSECTION.

17. ALL HANDICAP RAMPS CONSTRUCTED IN THIS CONTRACT SHALL MEET ACCESSIBILITY REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.

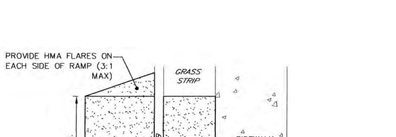
18. THE CONTRACTOR IS REQUIRED TO CONTACT THE TRAFFIC ENGINEERING DEPARTMENT ABOUT THE CONSTRUCTION OF ALL HANDICAP CURB RAMPS AT SIGNALIZED INTERSECTIONS AND VERIFY THE STRIPING PLAN IS IN ACCORDANCE WITH THE MOST RECENT NO PASSING ZONE PLAN.

19. GRADE BREAKS
- GRADE BREAKS AT THE TOP AND BOTTOM OF THE CURB RAMP SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN.
- GRADE BREAKS ARE NOT PERMITTED ON THE SURFACE OF RAMP RUNS OR LANDING AREAS.
- SURFACE SLOPES THAT MEET AT THE GRADE BREAKS SHALL BE FLUSH.

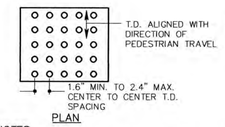
20. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE.

21. ALL VERTICAL SURFACE DISCONTINUITIES SHALL NOT EXCEED 1/4" IN HEIGHT. ANY VERTICAL SURFACE DISCONTINUITY BETWEEN 1/4" AND 1/2" SHALL BE BEVELED AT A SLOPE NO GREATER THAN 50% ACROSS THE ENTIRE DISCONTINUITY.

22. HORIZONTAL OPENINGS IN GRATES AND JOINTS SHALL NOT EXCEED 1/2" IN DIAMETER AND THE GRATES SHALL BE PLACED SO THE LONG DIMENSION IS PERPENDICULAR TO THE DIRECTION OF TRAVEL.

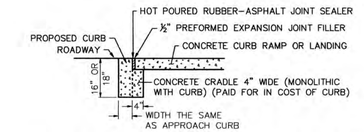


TEMPORARY CURB RAMP (HOT MIX ASPHALT)
N.T.S.

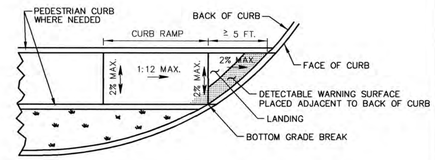


NOTES:
1. DETECTABLE WARNING SURFACE (DWS) SHALL EXTEND FULL WIDTH OF CURB RAMP (EXCLUSIVE OF FLARES) OR FULL WIDTH OF LANDING/TURNING SPACE.
2. DWS SHALL EXTEND 2 FEET MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL.
3. DWS SHOULD BE COLORED AS FOLLOWS:
   a. WITHIN TOWNSHIP/COUNTY RIGHT OF WAY, COLOR SHALL CONTRAST VISUALLY WITH ADJACENT SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT, OR AS PER SPECIFIED REQUIREMENTS.
   b. WITHIN STATE RIGHT OF WAY, USE A SURFACE OR A COATING MATERIAL THAT IS SAFETY RED IN COLOR ACCORDING TO FED-STD-595B COLOR CHIP NO. 31350 AND HAS A 35 BPM MINIMUM SLIP RESISTANCE WHEN TESTED ACCORDING TO ASTM R 303. ENSURE THAT THE FINISHED PRODUCT IS STABILIZED AGAINST UV DEGRADATION AND ADHERES TO THE SUBSTRATE WITHOUT PEELING OR BLISTERING.
4. TYPICALLY, DWS SHALL BE PLACED ADJACENT TO BACK OF CURB. SEE "PLACEMENT OF DETECTABLE WARNING SURFACE ON CURB RADIUS" FOR EXCEPTIONS.

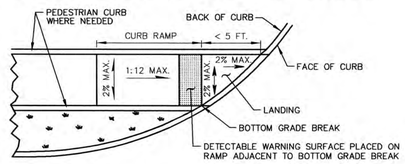
DETECTABLE WARNING SURFACE
N.T.S.



DROPPED CURB AND CRADLE



CONDITION 1
FOR RAMPS INTERSECTING A CURB RADIUS AT A SKEWED ANGLE WHERE AT LEAST ONE END OF BOTTOM GRADE BREAK IS GREATER THAN OR EQUAL TO 5 FEET FROM BACK OF CURB: DETECTABLE WARNING SURFACE SHALL BE PLACED ADJACENT TO BACK OF CURB.



CONDITION 2
FOR RAMPS INTERSECTING A CURB RADIUS AT A SKEWED ANGLE WHERE BOTH ENDS OF BOTTOM GRADE BREAK ARE LESS THAN 5 FEET FROM BACK OF CURB: DETECTABLE WARNING SURFACE SHALL BE PLACED ON THE RAMP ADJACENT TO BOTTOM GRADE BREAK.

PLACEMENT OF DETECTABLE WARNING SURFACE ON CURB RADIUS
N.T.S.

CONSTRUCTION DETAIL NOTES:
1. ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL CONSTRUCTION DETAILS SHALL BE SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.
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6. RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (N.J.S.).
7. ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE NOTED.

REVISIONS

1) TWP COMMENTS	10/26/18
2) TWP COMMENTS	04/22/19
3) OWNER REVS	06/18/21

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☐ CHKD BY:_____ DATE:_____

THE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

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GULLS VIEW APARTMENTS

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MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080	N.T.S.	DE-1

DRAWN BY ..... PJ
DESIGNED BY ..... PJ
APPROVED BY ..... GSO

CONSTRUCTION DETAILS - 1

GREGORY S. OMAN
PROFESSIONAL ENGINEER
NJPE# 43441

DATE OF ISSUE
APRIL 3, 2018

REVISION 3
JUNE 18, 2021

10

H:\Work #\2017.080.01-BASE-BEHAR APARTMENTS\2017.080.02-DETAILS.dwg PLOTTED: 6/22/2021 12:21 PM BY: MIKE MARINELLI



R6–1L
36"x12"



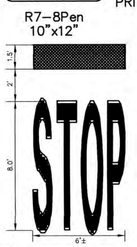
R7–8
12"x18"



R1–1
30"x30"



PRIVATE PARKING SIGN
(TOWNHOMES)
12"x18"

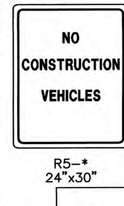


R7–8Pen
10"x12"

NOTE:
FOR PROPORTIONS SEE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS." FHWA

STOP BAR PAVEMENT MARKING

N.T.S.

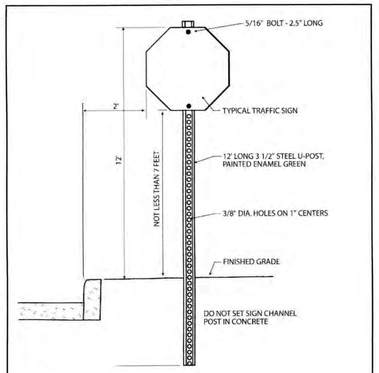


R5–*
24"x30"

NOTE:
FOR PROPORTIONS SEE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS." FHWA

DOUBLE STRAIGHT ARROW DETAIL

N.T.S.



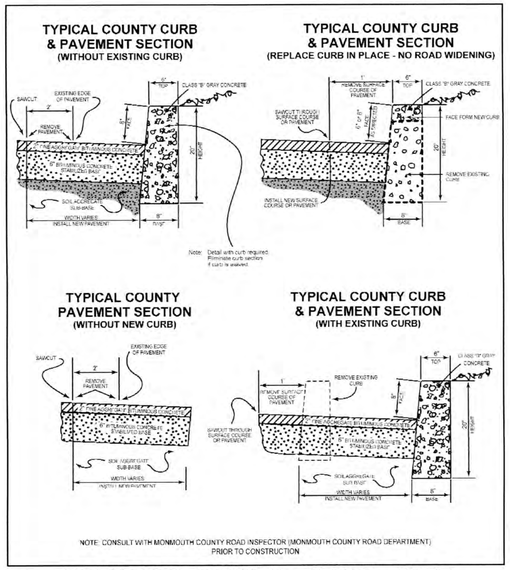
NOTES:

1. ALL REGULATORY AND WARNING SIGNS SHALL BE HIGH INTENSITY REFLECTIVE SHEETING
2. ALL OTHER SIGNS SHALL BE ENGINEER GRADE SHEETING
3. ALL SIGNS AFFECTING COUNTY ROAD TRAFFIC SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION
4. SIGN POSTS SHALL BE 3lbs./ft.

* ILLUSTRATION NOT TO SCALE

MONMOUTH COUNTY TYPICAL SIGN POST DETAIL

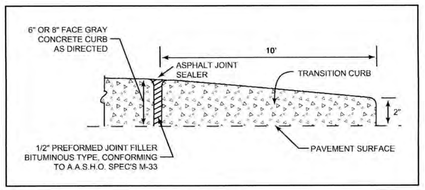
N.T.S.



NOTE: CONSULT WITH MONMOUTH COUNTY ROAD INSPECTOR (MONMOUTH COUNTY ROAD DEPARTMENT) PRIOR TO CONSTRUCTION

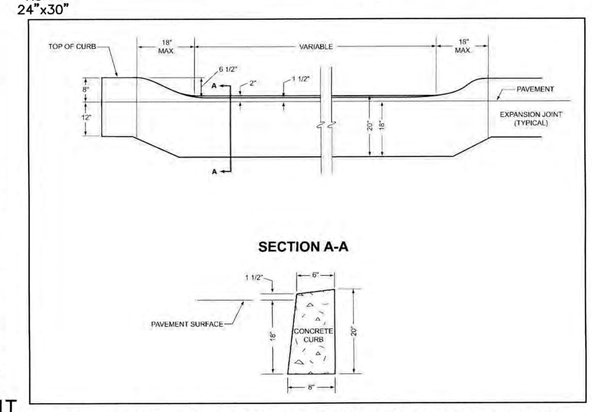
MONMOUTH COUNTY TYPICAL CURB AND PAVEMENT SECTION DETAILS

N.T.S.



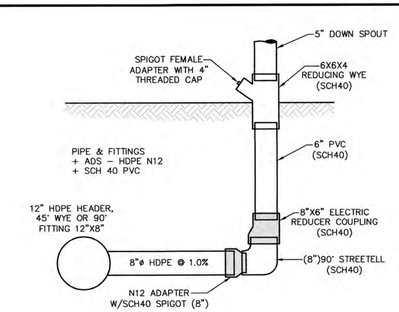
MONMOUTH COUNTY CURB TAPER DETAIL

N.T.S.



MONMOUTH COUNTY DEPRESSED CURB DETAIL

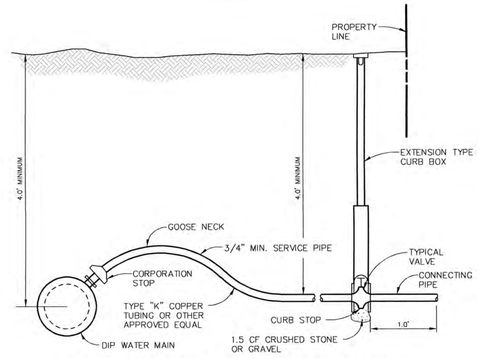
N.T.S.



NOTES:
1) HEADER PIPE – USED INLINE, AT TERMINUS AND BASIN AT ANGLE POINT.
2) ALL PARKING LOT LOCATIONS TO BE H25 LOADING.
3) COVERS – SOLID

ROOF LEADER CONNECTION DETAIL

N.T.S.



HOUSE SERVICE CONNECTION

N.T.S.

INFILTRATION TRENCH

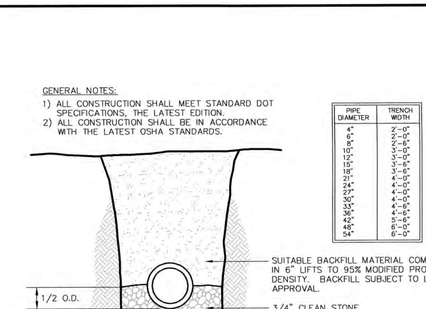
N.T.S.

NOTES:
1) ALL COUPLINGS, PLUGS, CAPS, TEES AND FITTINGS TO BE MADE OF EXTRA STRENGTH CAST IRON, DUCTILE IRON OR PVC, EXCEPT AS INDICATED.
2) CLEANOUTS, AS SHOWN, ARE REQUIRED ON ALL HOUSE CONNECTIONS.
3) BITUMASTIC SEALER, OR APPROVED EQUAL, TO BE USED WITH PLUGS AS REQUIRED.
4) STRAPON SADDLE TO BE USED ON EXISTING MAINS ONLY WHERE A WYE BRANCH LATERAL CONNECTION IS NOT AVAILABLE.

(6" TYPICAL)

LATERAL CONNECTION

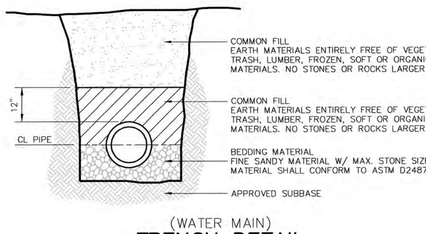
N.T.S.



(STORM SEWER)

TRENCH DETAIL 'A'

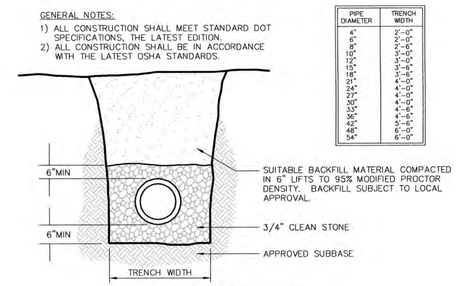
N.T.S.



(WATER MAIN)

TRENCH DETAIL

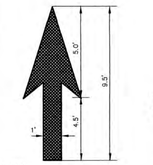
N.T.S.



(SANITARY SEWER)

TRENCH DETAIL 'A'

N.T.S.



NOTE:
FOR PROPORTIONS SEE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS." FHWA

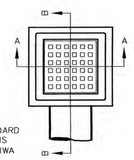
STRAIGHT ARROW DETAIL

N.T.S.

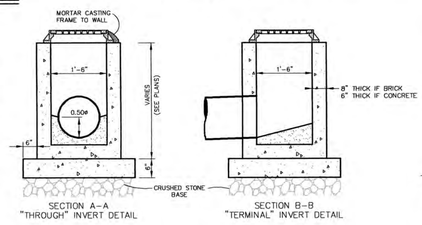


R5–1
30"x30"

NOTE:
THIS DETAIL SHALL BE USED IF YARD INLETS ARE DEEMED NECESSARY DUE TO FIELD CONDITIONS.



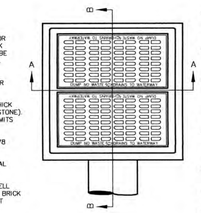
GENERAL NOTES:
1) INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8" THICK IF BRICK AND 6" THICK IF CONCRETE. FOOTING SHALL BE 3500 PSI CONCRETE. WALLS SHALL BE 4000 PSI CONCRETE. INVERT (BENCHING) SHALL BE 2500 PSI CONCRETE.
2) IF WALL CONSTRUCTION IS BRICK OR BLOCK, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER TROWELED TO A SMOOTH FINISH.
3) INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6" THICK BED OF COMPACTED COURSE AGGREGATE SIZE NO. 57 (3/4" CRUSHED STONE). THE COURSE AGGREGATE SHALL EXTEND 6" BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
4) ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ASTM DESIGNATION C478 AND ALL OTHER APPLICABLE STANDARDS.
5) DETAILED SHOP DRAWINGS TO BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO ORDERING.
6) FRAME AND GRATE TO BE NO. 2814 AS MANUFACTURED BY THE CAMPBELL FOUNDRY CO. OR APPROVED EQUAL. ADJUST TO GRADE WITH CONCRETE BRICK (MAX. 12") OR CONCRETE GRADE RING AS REQUIRED. FRAMES TO BE SET IN FULL BED OF STIFF MORTAR.



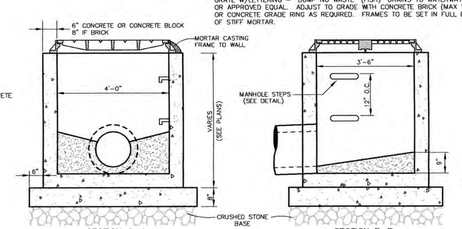
SECTION A–A "THROUGH" INVERT DETAIL
SECTION B–B "TERMINAL" INVERT DETAIL

YARD INLET

N.T.S.



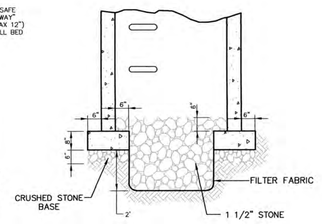
GENERAL NOTES:
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2) IF WALL CONSTRUCTION IS BRICK OR BLOCK, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER TROWELED TO A SMOOTH FINISH.
3) WHEN THE DEPTH OF AN INLET THAT IS NOT PRECAST EXCEEDS 8' AS MEASURED FROM THE GRATE TO THE INVERT, THE WALL THICKNESS BELOW A DEPTH OF 8' SHALL BE INCREASED TO 12" THICK. THE FOUNDATION OVERHANG DIMENSION SHALL BE INCREASED TO 12" AND THE FOUNDATION THICKNESS SHALL BE INCREASED TO 12". MAXIMUM DEPTH FOR NON PRECAST CONSTRUCTION SHALL BE 13'.
4) INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6" THICK BED OF COMPACTED COURSE AGGREGATE SIZE NO.57 (3/4" CRUSHED STONE). THE COURSE AGGREGATE SHALL EXTEND 6" BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
5) ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ASTM DESIGNATION C478 AND ALL OTHER APPLICABLE STANDARDS.
6) DETAILED SHOP DRAWINGS TO BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO ORDERING.
7) FRAME AND GRATE TO BE CAMPBELL FOUNDRY – #3425 – BICYCLE SAFE GRATE W/LETTERING – "DUMP NO WASTE" (FISH) "DRAINS TO WATERWAY" OR APPROVED EQUAL. ADJUST TO GRADE WITH CONCRETE BRICK (MAX 12") OR CONCRETE GRADE RING AS REQUIRED. FRAMES TO BE SET IN FULL BED OF STIFF MORTAR.



SECTION A–A "THROUGH" INVERT DETAIL
SECTION B–B "TERMINAL" INVERT DETAIL

TYPE "E" INLET

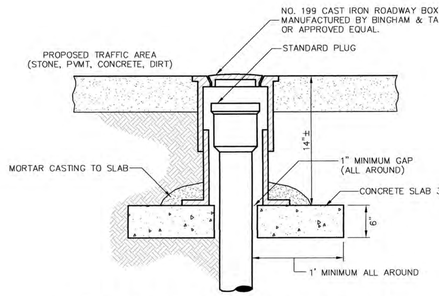
N.T.S.



NOTE: REFER TO OTHER INLET DETAILS FOR CONSTRUCTION SPECIFICATIONS.

BOTTOMLESS INLET

N.T.S.



CLEANOUT (TRAFFIC AREAS)

N.T.S.

CONSTRUCTION DETAIL NOTES

1. ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL CONSTRUCTION DETAILS SHALL BE SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.
3. STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.
4. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
5. DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON–SITE GEOTECHNICAL ENGINEER.
6. RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.).
7. ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE NOTED.

REVISIONS

1) TWP/COUNTY COMMENTS	10/26/18
2) TWP COMMENTS	04/22/19
3) OWNER REVS	06/18/21

THIS DRAWING IS FOR PERMIT PURPOSES ONLY - NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.

☐ CHKD BY:_____ DATE:_____

STOP – CALL BEFORE YOU DIG 1-800-272-1000 OR 811

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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080	N.T.S.	DE-2

DRAWN BY ..... PJ
DESIGNED BY ..... PJ
APPROVED BY ..... GSO

CONSTRUCTION DETAILS – 2

GREGORY S. OMAN
PROFESSIONAL ENGINEER
NJPE# 43441

DATE OF ISSUE
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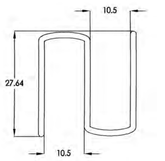
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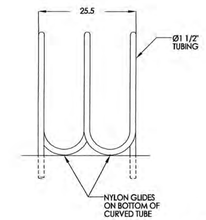
Bike Rack, Embedded

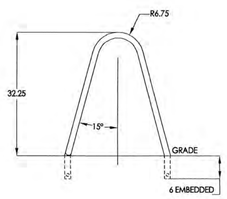
Product Drawing

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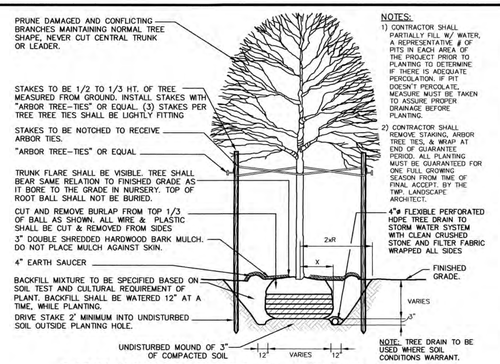


Drawing: FL662-01
Date: 5/26/2010
Dimensions are in Inches
U.S. Patent No.: D529,433

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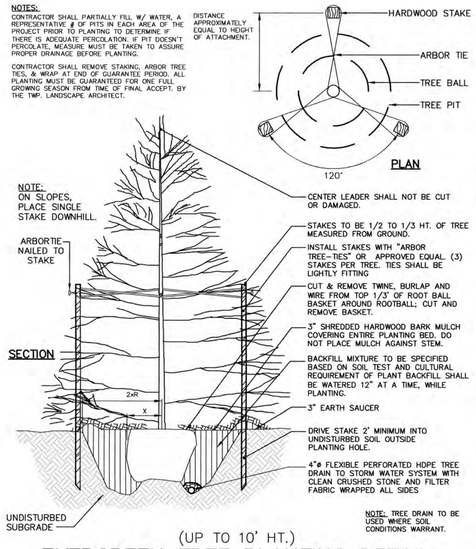
BIKE RACK

N.T.S.



DECIDUOUS TREE PLANTING DETAIL

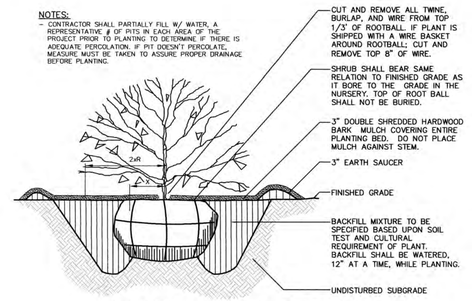
N.T.S.



(UP TO 10' HT.)

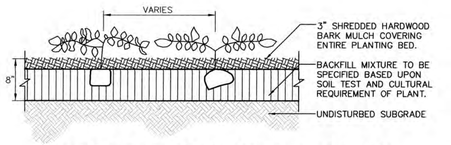
EVERGREEN TREE PLANTING DETAIL

N.T.S.



SHRUB PLANTING DETAIL

N.T.S.



GROUNDCOVER PLANTING DETAIL

N.T.S.

DUAL PUMP SYSTEM:

(2) FLYGHT PUMPS - NP 3202 MT 3~642, 3 PHASE, 35 HP, 230 VOLTS.
- INSTALL MANUAL CONTROLS, PROVIDING SHORT CIRQUIT AND OVERLOAD PROTECTION W/APPROVED HOUSING (TO BE LOCATED IN PROPOSED BUILDING).
- INSTALL AUTOMATIC LEVEL CONTROL #8.408 OR EQUAL.
- CONNECT ELECTRIC TO REMOTE JUNCTION BOX.
- EMERGENCY DISCONNECT TO BE LOCATED IN PROPOSED BUILDING.

ALL FIBERGLASS STRUCTURES TO BE DESIGNED FOR ANTI-FLOTATION. SHOP DRAWINGS TO BE PROVIDED BY CONTRACTOR PRIOR ORDERING

STORM DUAL PUM SYSTEM

N.T.S.

PLANTING NOTES

THE FOLLOWING RECOMMENDED PLANTING PERIODS SHOULD BE ADHERED TO WHENEVER POSSIBLE: 1) BROADLEAF AND CONIFEROUS EVERGREEN TREES, SHRUBS, VINES AND GROUND COVERS SHALL BE PLANTED BETWEEN AUGUST 15th AND SEPTEMBER 15th AND BETWEEN APRIL 15th AND MAY 15th. DECIDUOUS TREES, SHRUBS, VINES, GROUND COVERS AND PERENNIALS SHALL BE PLANTED BETWEEN OCTOBER 15th AND NOVEMBER 15th AND BETWEEN MARCH 15th AND MAY 15th. THESE PLANTING SEASONS MAY BE EXTENDED OR SHORTENED ACCORDING TO PREVAILING WEATHER CONDITIONS, SOIL CONDITIONS, AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE.

2) THE PLANTING OPERATION INCLUDES ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, SHIPPING, INCIDENTALS AND CLEAN-UP BY THE CONTRACTOR FOR THE INSTALLATION OF THE ENTIRE LANDSCAPE PLAN.

3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.

4) THE CONTRACTOR WILL EXAMINE ALL FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINAGE SYSTEMS AND IRRIGATION SYSTEMS AND ADJUST PROPOSED PLANTINGS ACCORDINGLY. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER DEPTH OF TOPSOIL IN ALL AREAS AND THE PROVISION OF POSITIVE DRAINAGE. THE CONTRACTOR SHALL NOTIFY THE CLIENT, ENGINEER, AND/OR LANDSCAPE ARCHITECT OF ANY DETRIMENTAL DRAINAGE HAZARD, INCLUDING BUT NOT LIMITED TO INSUFFICIENT TOPSOIL, ETC. PRIOR TO THE INSTALLATION OF ANY MATERIALS, INCLUDING LAWN AREAS.

5) THE CONTRACTOR WILL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. STATE CONDITION AND SUBMIT A PROPOSAL FOR CORRECTION IF FEASIBLE.

6) PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES. QUALITY AND SIZE OF PLANTS, SPREAD OR ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE MOST RECENT ANSI Z60 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.

7) PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.

8) GUARANTEE OF PLANT GROWTH: ALL PLANTS AND TREES SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE (1) YEAR FOR TREES AND SHRUBS FROM THE DATE OF FINAL ACCEPTANCE OR AS REQUIRED BY TOWNSHIP. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THE ABOVE STATED.

9) INSOFAR AS IT IS PRACTICAL, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.

10) IF PLANT AVAILABILITY IS RESTRICTED, SUBSTITUTIONS MAY BE MADE WITHIN PLANT TYPE TO MAINTAIN SIMILAR GROWTH AND ORNAMENTAL QUALITIES UPON NOTIFICATION AND APPROVAL BY THE LANDSCAPE ARCHITECT.

11) PLANT LOCATIONS SHOWN ARE DIAGRAMMATIC. ALL PLANTS SHOWN SEMI-MATURE SIZE ON PLANS. THE STAKING LAYOUT OF ALL PLANTINGS WILL BE INSPECTED BY THE LANDSCAPE ARCHITECT PRIOR INSTALLATION AS REQUESTED BY OWNER.

12) AREAS DISTURBED BY LANDSCAPE OPERATIONS SHALL BE GRADED TO MATCH EXISTING. TOPSOIL AND SEED OR SOD AS REQUIRED.

13) NO PLANT, EXCEPT GROUND COVERS AND FOUNDATIONS PLANTS SHALL BE PLANTED LESS THAN TWO (2) FEET FROM EXISTING STRUCTURES AND SIDEWALKS.

14) ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACKFILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL FREE OF DRY SOD, STIFF CLAY, LITTER, STONES IN EXCESS OF 1"ø, ETC., SHALL BE USED FOR PLANTING.

15) SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT THE CENTER OF THE PIT.

16) IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER TO TREES MUST NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED. TREES WITH THE CENTRAL LEADER PRUNED WILL BE REJECTED.

17) EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.

18) ALL TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING. ALL TREES SIX (6) INCHES AND OVER IN CALIPER SHALL BE TIED, WHILE SMALLER TREES SHALL BE STAKED. ARBOR TREE TIES AND STAKES SHALL BE INSTALLED AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ARBOR TREE TIES ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

19) THE TRUNKS OF ALL TREES SHALL BE WRAPPED AS SOON AS POSSIBLE AFTER PLANTING ACCORDING TO STANDARD PROCEDURES AND IF REQUIRED BY TOWNSHIP.

20) MULCH FOR PLANTING BEDS SHALL BE DOUBLE SHREDDED HARDWOOD BARK MULCH UNLESS OTHERWISE SPECIFIED ON THE PLANS AND SHALL HAVE NO LEAVES, YOUNG GREEN GROWTH, BRANCHES, TWIGS GREATER IN DIAMETER OF 1/2"ø WEEDS, SHAVINGS OR FOREIGN MATERIAL SUCH AS STONES, ETC. SHALL BE MIXED WITH THE MULCH. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS WITH A COMPACTED DEPTH OF 3". NO MULCH SHALL BE PLACED AGAINST PLANT STEMS.

21) WATER APPLIED TO SEEDED OR SODDED AREAS, PLANTS OR PLANTED AREAS SHALL BE FREE FROM IMPURITIES INJURIOUS TO VEGETATION AND APPLIED AT A RATE OF FIVE GALLONS OF WATER PER SQUARE YARD OF PLANT PIT.

22) FALL PLANTING HAZARDS:
IT IS VERY RISKY TO TRANSPLANT THE FOLLOWING LIST OF TREES BARE ROOT OR B&B IN THE FALL:

PLATANUS ACERIFOLIA	BETULA VARIETIES
PRUNUS-ALL STONE FRUITS	PYRUS-ALL PEARS
CARPINUS VARIETIES	QUERCUS-ALL OAKS
CORNUS FLORIDA & VARS	SALIX-WEEPING VARS
CRATAEGUS VARIETIES	STYRAX JAPONICA
HALESIA	TILIA TOMENTOSA
KOELREUTERIA	ZELKOVA VARIETIES
LIQUIDAMBAR STYRACIFLUA	LIRIODENDRON TULIPIFERA

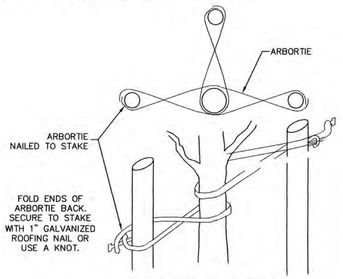
THE CONTRACTOR ASSUMES RESPONSIBILITY FOR PLANT SURVIVAL OF THESE MATERIALS IF MOVED DURING THE FALL SEASON.

23) TREES TO REMAIN ON-SITE TO BE SELECTIVELY THINNED AND PRUNED REMOVING ALL DEAD AND DISEASED LIMBS WHILE PROTECTED BY FENCING DURING CONSTRUCTION (SEE DETAIL). FENCE TO BE MAINTAINED DURING CONSTRUCTION BY CONTRACTOR.

24) THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.

25) ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN ANY SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN ANY SIGHT TRIANGLE SHALL BE PRUNED AS MENTIONED ABOVE.

26) SEE DETAIL DRAWINGS FOR TYPICAL PLANTING DETAILS.



STAKING DETAIL

N.T.S.

CONSTRUCTION DETAIL NOTES

1. ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL CONSTRUCTION DETAILS SHALL BE SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.
3. STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.
4. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
5. DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER.
6. RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.).
7. ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE NOTED.

REVISIONS

1) TWP COMMENTS	04/22/19
2) OWNER REVS	06/18/21

THIS DRAWING IS FOR PERMIT PURPOSES ONLY - NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.

☐ CHKD BY:_____ DATE:_____

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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080	N.T.S.	DE-3

DRAWN BY ..... PJ
DESIGNED BY ..... PJ
APPROVED BY ..... GSO

CONSTRUCTION DETAILS - 3

GREGORY S. OMAN
PROFESSIONAL ENGINEER
NJPE# 43441

DATE OF ISSUE
OCTOBER 26, 2018

REVISION 2
JUNE 18, 2021

12

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DESCRIPTION

The Invue Arbor post top brings architectural style to area/site and pedestrian scale applications. Its dayform appearance brings a desired organic look into the urban environment. WaveStream LED Optics provide a uniform pixelation free image, managing glare while providing high levels of visibility.

Invue

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Two-piece IP66 rated housing is cast from low copper content corrosion resistant aluminum, maintaining strength and precision to sustain long term dayform appearance. ANSI C136.31 testing compliance prevents damage from installation generated vibration. External hardware and casting seams are minimized to enhance appearance.

Optics
Specifically designed for pedestrian applications, WaveStream LED optical waveguide technology produces both symmetric NEMA type V and asymmetric NEMA II, III, IV distributions. The waveguide is manufactured from precision injection molded acrylic resulting in a pixelation free optical image for improved glare control and visual comfort. Luminaire efficacy's measure up to 100 lm/w for 4000K (+/- 275K) CCT at 70 CRI (min), optional 3000K CCT at 80 CRI is also available.

Electrical
LED driver(s) are directly mounted to upper housing thermal pad for optimal thermal performance.

Standard 0-10V dimming drivers and Cooper Lighting Solutions' proprietary surge protection module are designed to withstand 10kV of transient line surge. Drivers operate at 120-277V 50/60Hz with 347V/60Hz or 480V/60Hz operation optional. Suitable for ambient temperature applications as low as -40°C (40°F) to 40°C (104°F). Limited high ambient options allow for 50°C operation.

Controls
The Arbor LED luminaire control options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. The ANSI C136.41 compliant NEMA 7-PIN receptacle enables wireless dimming when used with compatible photocontrol. See control options page for more details.

Mounting
Fitter assembly mounts over 2-3/8" O.D. tenon and is secured via six concealed stainless steel set screws. Design of fitter provides seamless transition to 3" O.D. round pole top. Additional mounting accessories include a single fixture arm mount, twin fixture arm mount and wall mount arm. Additional pole mount accessories mount to a 3" x 4" long tenon for 4" - 5" O.D. poles tops. For existing 2-3/8" tenons an adapter is shipped standard.

Finish
Cooper Lighting Solutions ("CLS") utilizes premium ultra-weatherable TGIC based polyester powder coatings that are specifically formulated to withstand extended outdoor exposure. The powders are formulated exclusively for CLS to serve functionally as well as decorative. Good film appearance combinded with excellent mechanical an exterior exposure qualities display greater than twice as much gloss retention, RAL and custom color matches available. Finish is compliant with ASTM B117 3000hr salt spray standard. Options to meet Buy American Act requirements.

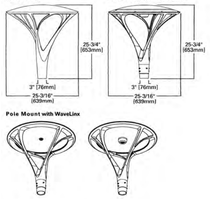
Warranty
Five-year warranty.



ARB ARBOR
POST TOP

DECORATIVE LUMINAIRE

DIMENSIONS



CERTIFICATION DATA

UL/cUL Listed
IEC 60529 IP66 Housing
ASTM B117 Salt Spray Tested
ASTM A2580 Low Copper Alloy
ISO 9001
Dark Sky Approved (3000K CCT and warmer only)
ANSI C136.31 3G Vibration Tested (Post Top)
ANSI C136.31 1.5G Vibration Tested (Twin Mount / Accessory Arm Mount)

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz,
480V/60Hz
40°C Ambient Temperature Rating
As low as -40°C (-40°F) minimum temperature
*See MINIMUM TEMPERATURE table

EPA
Effective Projected Area: (Sq. Ft.) 0.5

Approximate Net Weight:
27 lbs. (16.8 kgs.)

COOPER Lighting Solutions

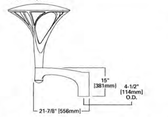
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DECORATIVE SITE LIGHT FIXTURE DETAIL–1

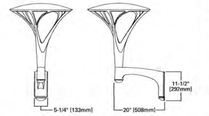
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MOUNTING CONFIGURATIONS (WEIGHT AND EPAS INCLUDES FIXTURE)

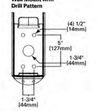
Single Arm Mount (ARSA-XX)
Weight: 56 lbs. [25.49 kgs.]
EPA[1]: 1.7 Sq. Ft.



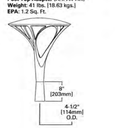
Wall Mount Arm (ARWM-XX)
Weight: 57 lbs. [25.91 kgs.]
EPA[1]: 1.8 Sq. Ft.



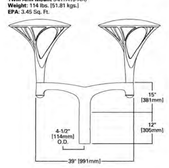
Wall Mount Arm Drill Pattern



Post Top Adapter (ARPA4-XX)
Weight: 41 lbs. [18.63 kgs.]
EPA[1]: 1.2 Sq. Ft.



Twin Arm Mount (ARTA1S-XX)
Weight: 114 lbs. [51.81 kgs.]
EPA[1]: 3.45 Sq. Ft.

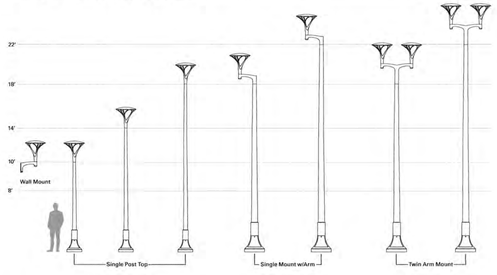


MOUNTING REQUIREMENTS CHART

Tenon O.D. (Inches)		2-3/8" Tenon		
Pole Top O.D. (Inches)	3"	4"	5"
Post Top	Standard	Spacer (Provided) & ARPA4-XX (Order Separately)	Spacer (Provided) & ARPA4-XX (Order Separately)
Single Arm Mount	Spacer (Provided)	Spacer (Provided)	Spacer (Provided)

Tenon O.D. (Inches)	3" Tenon		
Pole Top O.D. (Inches)	4"	5"
Post Top	ARPA4-XX (Order Separately)	ARPA4-XX (Order Separately)
Single Arm Mount	Standard	Standard
Twin Mount	Standard	Standard

POLE CONFIGURATIONS (ARP DECORATIVE POLE SHOWN)



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DECORATIVE SITE LIGHT FIXTURE DETAIL–2

N.T.S.

ORDERING INFORMATION

Sample Number: ARB-B2-LED-D1-T2-GM

Product Family [1,7]	Lumens [1]	Lamp Type	Voltage	Distribution	Color [7]
ARB=Arbor Post Top **BAA-ARB**=Arbor Post Top Buy American Act Compliant [26]	**B1**=Nominal 2,300 Lumens **B2**=Nominal 4,500 Lumens **B3**=Nominal 8,500 Lumens **B4**=Nominal 9,500 Lumens [4]	**LED**=Solid State Light Emitting Diodes	**D1**=Dimming Driver (120-277V) **347**=347V [4] **480**=480V [1, 4]	**T2**=Type II **T3**=Type III **T4**=Type IV **T5**=Type V	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	Accessories (Order Separately) [19,20]
7030=70 CRI / 3000K CCT [4] **7035**=70 CRI / 3500K CCT [4] **8030**=80 CRI / 3000K CCT [4] **AMS**=Motion Sensor Activation [5] **FAO**=Fusing [1,4,27] **20MSP**=20kV MOV Surge Protective Device **25K**=25kV UL 1449 Fused Surge Protective Device **PC**=Button Type Photocontrol **PER**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PER7**=NEMA 7-PIN Twistlock Photocontrol Receptacle **HA**=50°C High Ambient Temperature [4] **SPB1**=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting [8] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting [8] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting [8] **MS-L08**=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height [16, 17] **MS-L20**=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [16, 17] **MS-L40**=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [16, 17] **MS/DIM-L08**=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [16, 17] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [16, 17] **MS/DIM-L40M**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [16, 17] **ZD**=DALI-enabled 4-PIN Twistlock Receptacle [16, 17, 18, 24, 28] **ZW**=Wireless-enabled 4-PIN Twistlock Receptacle [16, 17, 18, 24, 28] **SWPD4WH**=WaveLinx Wireless Sensor, 7' - 15' Mounting Height, White [16, 17, 18, 24, 28, 29] **SWPD4WH**=WaveLinx Wireless Sensor, 15' - 40' Mounting Height, White [16, 17, 18, 24, 28, 29] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [16, 18] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [16, 18] **SLTD**=Fifth Light Dail Driver [16, 21] **DIM**=0-10V External Dimming Leads [16, 18] **VG**=Tempered Glass Vandal Shield **WPG2**=Wireless Gateway [22] **SPGL2**=FDP-301-L2 (Wattstopper DALI sensor) **SPGL4**=FDP-301-L7 (Wattstopper DALI sensor) **TR**=Tooless hardware **F**=Single Fuse [28]	**ARSA-XX**=Single Pole Mount Arm [20] **ARWM-XX**=Wall Mount Arm **ARTA1S-XX**=Twin Mount Bracket [20] **ARPA4-XX**=Pole Adapter 4" O.D. Pole **ASR-MA**=Accessory Mounting Tool for Occupancy Sensor [31] **SWPD4WH**=Wireless Wireless Sensor, 7' - 15' Mounting Height, White [16, 17, 18, 24, 28] **SWPD5WH**=Wireless Wireless Sensor, 15' - 40' Mounting Height, White [16, 17, 18, 24, 28] **WOLC-7P-10A**=Wireless Outdoor Control Module (7-PIN) [16, 32]

NOTES:
1. Luminaire is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WPS1301EN for additional information.
2. Fixture slipfits over standard 2-3/8" tenon. 3" O.D. tenon when used with a ARPA4-XX 4" O.D. pole adapter.
3. Standard 4000K CCT, nominal 70CRI.
4. B4 only available with Type V distribution.
5. Requires the use of a step down transformer.
6. Not for use with 480V systems that exceed 277V to NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Ground Delta systems).
7. Custom and RAL color matching available upon request. Consult your lighting representative for more information.
8. Sensor recommended mounting height is measured from the bottom of the luminaire housing.
9. Not available with B5 lumen package in Type II, III, or IV distribution.
10. Controls system is not available with photocontrol (PC), photocontrol receptacle (PER or PER7), or controls systems MS, LWR, DIM or SPBx.
11. Not available with HA option.
12. Sensor passive infrared (PIR) may be overly sensitive below -20°C (-4°F).
13. Not for use with WPG2 Wireless Gateway. Gateway is sold separately. Luminaire(s) with MAC-POE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more WaveLinx application information.
14. Not available on B1 or B4 lumen packages.
15. Requires 4-PIN twistlock receptacle (ZD or ZW) option.
16. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE4 in appropriate quantities. See website for application information.
17. Not available with SLTD option.
18. Low voltage control leads brought 18" outside fixture.
19. Replace XX with paint color.
20. ARSA-XX, ARWM-XX, ARTA1S-XX tenon for nominal 4-1/2" O.D. pole top.
21. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
22. Requires 7-PIN NEMA twistlock photocontrol receptacle (PER7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS, ZW, ZD or LWR). Operates on 120-347V input voltages.
23. Smart device with mobile application required to change system defaults. See controls section for details.
24. Coastal construction finish salt spray tested to over 5,000 hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
25. Not available when ordered with any other Buy American Act compliant option. Refer to the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
26. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
27. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose Lumen Package B1. See IES files for photometric performance.
28. Must specify voltage (120V, 277V, or 347V) to fuse for single hot leg.
29. Not available with F option.
30. If ZD or ZW sold, shorting cap will be installed on 4-pin receptacle.

COOPER Lighting Solutions

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DECORATIVE SITE LIGHT FIXTURE DETAIL–3

N.T.S.

Invue

Catalog #		Type
Project		
Comments		Date
Prepared by		



SRX STEEL
ROUND STRAIGHT

FEATURES

- ASTM Grade steel base plate with ASTM A366 base cover
- Hand hole assembly 3" x 5" on 5" and 6" poles, 2" x 4" on 4" poles
- 10'-30' mounting heights
- Drilled or tenon (specify)

DESIGN CONSIDERATIONS - VIBRATIONS AND NON-GROUND MOUNTED INSTALLATIONS

The information contained herein is for general guidance only and is not a replacement for professional judgment. Design considerations for wind-induced vibrations and non-ground mounted installations (e.g., installations on bridges or buildings) are not included in this document. Consult with a professional, and local and federal standards, before ordering to ensure product is appropriate for the intended purpose and installation location. Refer to the Cooper Lighting Solutions Light Pole White Paper for risk factors and design considerations. Learn more.

NOTE: The Limited Warranty for this product specifically excludes fatigue failure or similar damage resulting from vibration, harmonic oscillation or resonance.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Cooper Lighting Solutions or visit www.cooperlighting.com for available options, accessories and ordering information.

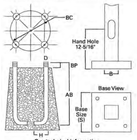
ORDERING INFORMATION

SAMPLE NUMBER: SRX4A20SGMCKG

Product Family	Shaft Size (Inches) [1]	Wall Thickness (Inches)	Mounting Height (Feet)	Base Type	Finish	Mounting Type	Number and Location of Arms	Arm Length (Feet)	Options (Add as Suffix)
SRX=Steel Round Straight	**4**=4" **5**=5" **6**=6"	**A**=0.120" [3] **M**=0.188"	**10**=10' **15**=15' **20**=20' **25**=25' **30**=30'	**S**=Square Steel Base	**AP**=Grey **BK**=Black **BZ**=Bronze **DP**=Dark Platinum **GM**=Graphite Metallic **GN**=Hartford Green **WH**=White	2=2-3/8" O.D. Tenon (4" Long) 3=3-1/2" O.D. Tenon (5" Long) 4=4" O.D. Tenon (6" Long) - Slide/Rite/Epic 5=3" O.D. Tenon (4" Long) - Mesa 6=2-3/8" O.D. Tenon (6" Long) 7=4" O.D. Tenon (10" Long) - Mesa/LSDM2 **A**=Type A Drilling **C**=Type C Drilling **E**=Type E Drilling **F**=Type F Drilling **G**=Type G Drilling **J**=Type J Drilling **K**=Type K Drilling **M**=Type M Drilling **N**=Type N Drilling **S**=Standard Upsweep Arm [7] **X**=None	**1**=Single **2**=2 at 180° **3**=Triple* **4**=4 at 90° **5**=2 at 90° **6**=3 at 90° **7**=2 at 120° **X**=None	**X**=None **2**=2' **3**=2.5' **4**=4' **6**=6' **8**=8'	**A**=1/2" Tapped Hub [4] **B**=3/4" Tapped Hub [4] **C**=Convenience Outlet [4] **G**=Ground Lug **H**=Additional Hand Hole [5] **E**=GFCI Convenience Outlet [4] **V**=Vibration Dampener

NOTES: 1. All shaft sizes nominal. 2. Square poles are 3 at 90°, round poles are 3 at 120°. 3. Tapped Hub is located 5" below the pole top and on the same side of pole as hand hole, unless specified otherwise. 4. Outlet is located 4" above base and on same side of pole as hand hole, unless specified otherwise. Receptacle not included, provision only. 5. Additional hand hole is located 12" below pole top and 90° from standard hand hole location, unless otherwise specified. 6. Available in 4" shaft size only. 7. Arm must be ordered separately.

ANCHORAGE DATA



See technical information.

Pole	Template Number	Bolt Number	Bolt Circle (Inches)	Number of Bolts	Bolt Size (Inches)
SRX4	TMP4	AB1	11.0	4	3/4 x 25 x 3
SRX5	TMP4	AB1	11.0	4	3/4 x 25 x 3
SRX6	TMP5	AB3	12.5	4	1 x 36 x 4

COOPER Lighting Solutions

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DECORATIVE SITE LIGHT POLE DETAIL–1

N.T.S.

Effective Projected Area (At Pole Top)

Mounting Height (Feet)	Catalog Number [1,2]	Wall Thickness (Inches)	Base Square [3] (Inches)	Bolt Circle Diameter (Inches)	Anchor Bolt Projection [3] (Inches)	Shaft Size [3] (Inches)	Anchor Bolt Diameter x Length x Hook (Inches)	Net Weight (Pounds)	Maximum Effective Projected Area (Square Feet) [4]				Max. Fixture Load - Includes Bracket (Pounds)
MH			**S**	**BC**	**BP**	**B**	**D x AB x H**		**80 mph**	**90 mph**	**100 mph**	**110 mph**	
10	SRX4A10S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	73	21.0	16.0	12.7	10.5	100
15	SRX4A15S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	97	11.2	8.3	6.4	5.1	100
20	SRX4A20S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	122	5.8	3.9	2.7	2.0	150
20	SRX5M20S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	216	17.0	13.0	10.4	8.4	150
25	SRX5M25S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	264	11.0	8.5	6.5	5.2	200
30	SRX6M30S	0.188	12-1/2	12-1/2	5	6	1 x 36 x 4	394	14.0	10.7	8.4	6.7	200

Effective Projected Area (Two Feet Above Pole Top)

Mounting Height (Feet)	Catalog Number [1,2]	Wall Thickness (Inches)	Base Square [3] (Inches)	Bolt Circle Diameter (Inches)	Anchor Bolt Projection [3] (Inches)	Shaft Size [3] (Inches)	Anchor Bolt Diameter x Length x Hook (Inches)	Net Weight (Pounds)	Maximum Effective Projected Area (Square Feet) [4]				Max. Fixture Load - Includes Bracket (Pounds)
MH			**S**	**BC**	**BP**	**B**	**D x AB x H**		**80 mph**	**90 mph**	**100 mph**	**110 mph**	
10	SRX4A10S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	73	16.7	13.0	10.4	8.5	100
15	SRX4A15S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	97	9.8	7.2	5.6	4.4	100
20	SRX4A20S	0.120	10-1/2	11	4-1/2	4	3/4 x 25 x 3	122	5.3	3.5	2.4	1.8	150
20	SRX5M20S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	216	15.0	11.7	9.2	7.5	150
25	SRX5M25S	0.188	10-1/2	11	4-1/2	5	3/4 x 25 x 3	264	10.2	7.8	6.0	4.8	200
30	SRX6M30S	0.188	12-1/2	12-1/2	5	6	1 x 36 x 4	394	13.1	10.0	7.8	5.9	200

NOTES:
1. Catalog number includes pole with hardware kit. Anchor bolts not included. Before installing, make sure proper anchor bolts and templates are obtained.
2. Tenon size or machining for rectangular arms must be specified. Hand hole position relative to drill location.
3. Shaft size, base square, anchor bolts and projections may vary slightly. All dimensions nominal.
4. EPAs based on shaft properties with wind normal to flat. EPAs calculated using base wind velocity as indicated plus 30% gust factor.

VIBRATION

Vibrations may cause damage to structures, including poles. Vibrations are unpredictable, and there are many factors and variables that can cause damaging vibrations. Many wind conditions exist that can create damaging vibrations to poles and luminaires, such as constant winds between 10-30 mph. Although all pole types can experience vibration, straight square poles seem to be most prone. Vibration dampers and/or a round tapered design may be used to mitigate damage from vibrations, but there is no guarantee damaging vibrations will be prevented. Vibration dampers are not included with this pole but can be ordered separately. Consult with a professional, and local and federal standards, to ensure this pole is appropriate for the intended purpose and installation location. Refer to Cooper Lighting Solutions' Light Pole White Paper for risk factors and design considerations.

MAINTENANCE

Perform inspections periodically. A prudent inspection schedule would be: one week after installation, one month after installation, yearly after installation, and following any major wind event. During the inspection, check the poles for cracks. If cracks are detected, remedial action is required. Recheck anchor bolt torques and re-tighten according to the recommended torque values. Check for missing covers and pole caps and replace as necessary. Check the pole for corrosion and deterioration of the finish. Should there be corrosion or deterioration, take remedial action to correct.

WARNING: Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to pole white paper WPS1301EN for additional support information. Before ordering, consult with a professional, and local and federal standards, to ensure this pole is appropriate for the intended purpose and installation location. Improper selection voids warranty, and may result in pole failure causing serious injury or property damage. Information regarding total loading capacity can be provided upon request. The pole warranty is void unless poles are used and installed as a complete pole and luminaire combination. This warranty specifically excludes failure as the result of a third party act or omission, misuse, unanticipated uses, fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Cooper Lighting Solutions or visit www.cooperlighting.com for available options, accessories and ordering information.

COOPER Lighting Solutions

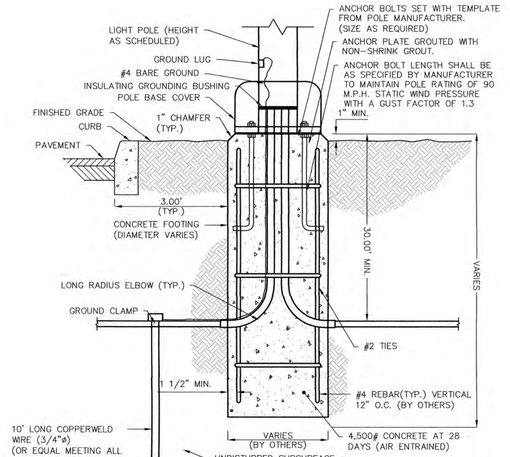
Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

Specifications and dimensions subject to change without notice.

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April 14, 2021 5:05 PM

DECORATIVE SITE LIGHT POLE DETAIL–2

N.T.S.



FLUSH SITE LIGHT POLE FOUNDATION DETAIL (IN GRASSED AREAS)

N.T.S.

CONSTRUCTION DETAIL NOTES

1. ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL CONSTRUCTION DETAILS SHALL BE SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.
3. STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.
4. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
5. DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER.
6. RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.).
7. ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE NOTED.

REVISIONS

THIS DRAWING IS FOR PERMIT PURPOSES ONLY - NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.

☐ CHKD BY:_____ DATE:_____



THE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

menlo engineering associates
Civil Engineering Consultants
Landscape Architects
Professional Planners
261 Cleveland Avenue
Highland Park, New Jersey 08904
Phone (732) 846-8585
Fax (732) 846-9439
www.menloeng.com
Certificate of Authorization : 24GA27951900

GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080	N.T.S.	DE-4

DRAWN BY .....
DESIGNED BY .....
APPROVED BY .....

CONSTRUCTION DETAILS – 4

GREGORY S. OMAN
PROFESSIONAL ENGINEER
N.J.P.E.# 43441

DATE OF ISSUE
SEPTEMBER 12, 2022

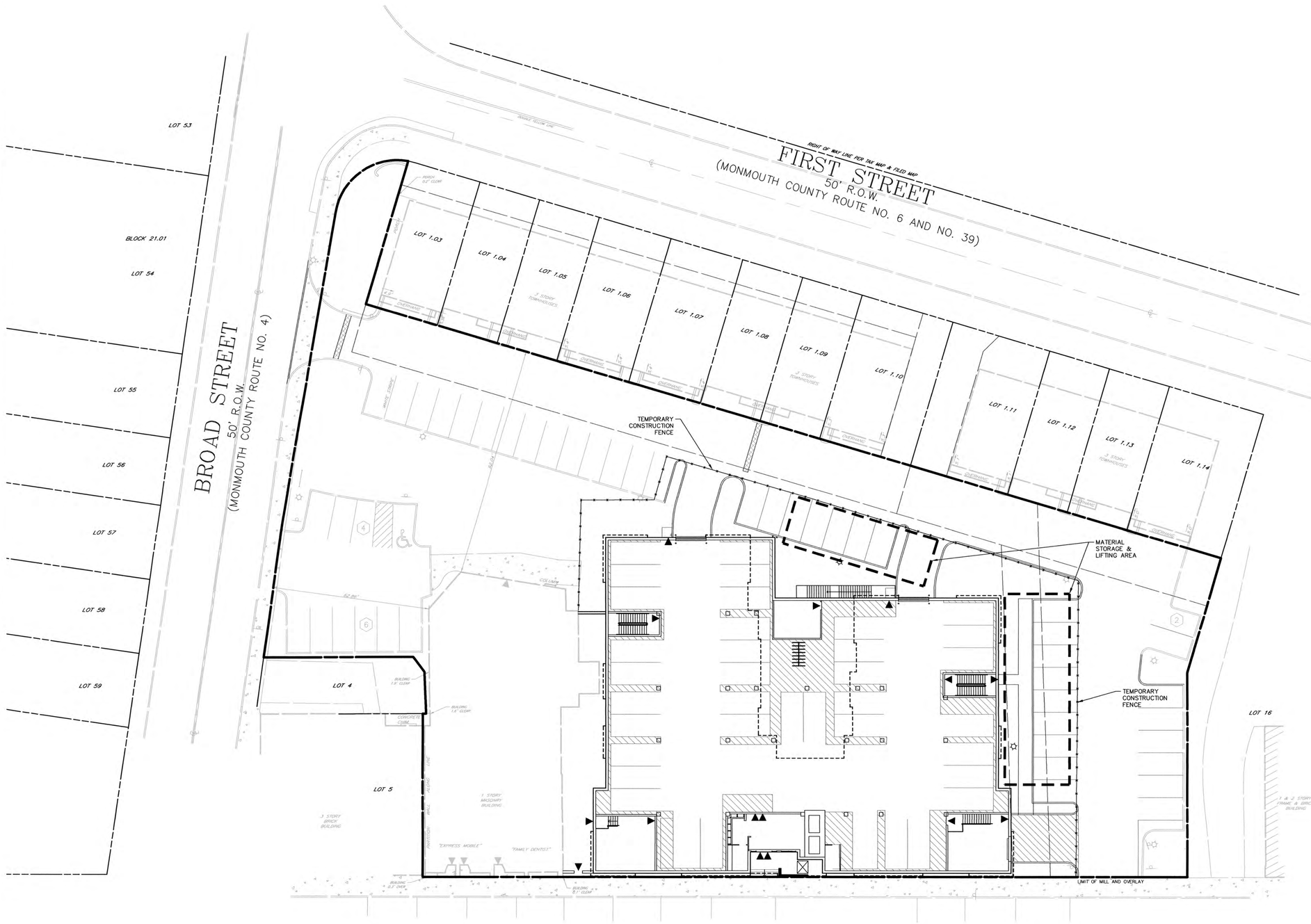
REVISION 1

13

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NOTES

1. NO GATES
2. ACCESS FROM RESIDENTIAL SIDE
3. DRIVEWAY TO REMAIN CLEAR OF EQUIPMENT AND MATERIAL



HORIZONTAL DATUM : NAD83

GRAPHIC SCALE

0 20 40
10 30

SCALE: 1"=20'

REVISIONS

1) ARCH REVISIONS	12/18/19
2) OWNER REVS	06/18/21

THIS DRAWING IS FOR PERMIT PURPOSES ONLY - NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.

☐ CHKD BY:_____ DATE:_____

1-800-272-1000 (NJ) STOP - CALL BEFORE YOU DIG!!

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GULLS VIEW APARTMENTS

BOROUGH OF KEYPORT
MONMOUTH COUNTY
NEW JERSEY

BLOCK 80, LOT 1.02
TAX MAP SHEET #9
1.45 ACRES

PROJECT #	SCALE	DRAWING #
2017.080.01	1" = 20'	CS-1

DRAWN BY . . NF
DESIGNED BY . . MM
APPROVED BY . . GSO

CONSTRUCTION STAGING PLAN

THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...

GREGORY S. OMAN
PROFESSIONAL ENGINEER
NJPE# 43441

DATE OF ISSUE
JANUARY 8, 2019

REVISION 2
JUUNE 18, 2021

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