

BOROUGH OF HIGHLANDS LAND USE BOARD SPECIAL MEETING

22 Snug Harbor Avenue, Highlands NJ 07732 Thursday, December 18, 2025 at 7:00 PM

AGENDA

Please be advised that the agenda as shown may be subject to change. This meeting is a quasi-judicial proceeding. Any questions or comments must be limited to issues that are relevant to what the board may legally consider in reaching a decision and decorum appropriate to a judicial hearing must be maintained at all times.

CALL TO ORDER: The chair reserves the right to change the order of the agenda.

PLEDGE OF ALLEGIANCE

OPEN PUBLIC MEETING STATEMENT: This Special Meeting of the Land Use Board of the Borough of Highlands is called pursuant to the provisions of the Open Public Meetings Law. Notice has been transmitted to the Asbury Park Press, Two River Times, and by posting at the Borough of Highlands Municipal Building and website and filing with the Borough Clerk all on November 3, 2025. Formal Action will be taken.

ROLL CALL

OPEN FOR PUBLIC COMMENTS: General Questions or Comments not pertaining to Applications

HEARINGS ON NEW BUSINESS

LUB25-06: Highlands Landing Corp. – 326 Shore Dr., B100 L27

ADJOURNMENT

Board Policy: • All meetings shall adjourn no later than 10:00 P.M. unless a majority of the quorum present at said hour vote to continue the meeting to a later hour. • No new hearing shall commence after 9:15 P.M. unless the Chairperson shall rule otherwise. • The Chair may limit repetitive comments or irrelevant testimony and may limit the time or number of questions or comments from any one citizen to ensure an orderly meeting and allow adequate time for members of the public to be heard.



Borough of Hollands, NJ 07732
(732) 872-1224
www.highlandsnj.gov

LAND USE BOARD APPLICATION

FOR OFFICIAL USE			
Date Rec'd: <u>05/06/2025</u> Application #: <u>L</u>	.UB25-06 Fee: <u>ck#800258 - \$850.00</u>		
Escrow:ck#35875 - \$2,850.00	Acct#T-03-56-856-805-101		
1. APPLICANT	2. OWNER		
Name: _Highlands Landing Corporation, c/o Jack Bevins	Name: Highlands Landing Corporation, c/o Jack Bevins		
Address: 2 First Avenue	Address: 2 First Avenue		
City: Atlantic Highlands State: NJ Zip: 07716	City: Atlantic Highlands State: NJ Zip: 07716		
Phone: (732) 872-2628 x 1986	Phone: (732) 872-2628 x 1986		
Email: jack.bevins@seastreak.com	Email:jack.bevins@seastreak.com		
Relation to property: Operator and Owner			
3. TYPE OF APPLICATION (Check all that apply)			
☐ Minor Subdivision	□ Appeal – Zoning Denial date		
 Major Subdivision – Preliminary 	□ Appeal – Land Use Decision date		
 Major Subdivision – Final 	□ Informal Concept Plan Review		
□ Minor Site Plan	□ Extension of Approval		
M Major Site Plan – Preliminary	☐ Revision/Resubmission of Prior Application		
□ Major Site Plan – Final	□ Other		
メ Variance			
风 Use Variance			
4. PROPERTY INFORMATION			
Block Lot(s) Ad	dress: 326 Shore Drive, Highlands, NJ 07732		
Lot size 7.66 acres # of Existing Lots 1	# of Proposed Lots <u>1</u>		
Zone WC-2 Are there existing Deed Restriction:	s or Easements? No X Yes – Please attach copies		
Has the property been subdivided?	ves. when?		
· · · · · · · · · · · · · · · · · · ·	tach copies of approved map or approved resolution		
Property taxes paid through	Sewer paid through		
5. ATTORNEY (A corporation, LLC, Limited Partnership, or	S-Corp must be represented by a NJ attorney)		
Name: Salvatore Alfieri, Esq., Partner			
Address: Cleary, Giacobbe, Alfieri, Jacobs LLC 955 State F	Route 34, Suite 200, Matawan, NJ 07747		
Phone: (732) 583-7474 x117 Em	nail. salfieri@cgajlaw.com		



Borough of H Item 1. 151 Navesink Ave. Highlands, NJ 07732 (732) 872-1224 www.highlandsnj.gov

b. APPLICAN	1'S OTHER PROFESSIONAL(S) – Enginee	er, Planner, Architect, etc.		
Name: <u>Najaria</u>	n Associates, Inc. c/o Brad Thompson P.E	Name:		
Address: One	Industrial Way West, Bldg D, Suite H			
Eatontown, N.	I 07724			
Phone:732-	389-0220	Phone:		
Email: <u>bradt</u>	@najarian.com			
7. LAND USE				
	HISTORY –Describe in detail, nature of pri ions for this site (attach copy of resolutior			e
The site is the	upland portion of the Seastreak ferry facil	ity, including the existing park	ing lot for ferry patrons and publi	c use.
The northwest	ern portion of the property includes a beac	ch area. The entire site is ava	ilable for public access, including	j the
beach where a	a fee is charged during the summer seasor	n to cover maintenance cost.	During the summer, the Sandbox	,
beach bar and	associated amenties including a stage, fle	exible seating and beach volle	yball courts is operated on the be	 each
	s in the parking lot. The parking lot is avai for many years, prior to Seastreak's acquis		<u></u>	
subdivided; 2)	PLAN –Describe in detail, proposed use for sell lot only; 3) construct house(s) for sale type of goods/services; 8) fire lane. Attach	; 4) how trash will be dispose	d; 5) landscaping; 6) hours of	
The proposed	I project involves modifications to the park	ing lot to improve drainage, tr	affic flow, and pedestrian safety.	
Landscaping	and lighting also are proposed. The proje	ect includes striping of parking	spaces, designation of sidewalk	 S,
repaving, drai	nage improvements and signage. A 2-row	v car lift for valet use also is p	roposed. The operation includes	an
overflow park	ing lot at Block 101, Lot 12.01. The applic	atoin including continued ope	ration of the beach, including the	
	ch bar during the summer seasonalong with			
and 10am-11	pm weekends from May through October	when the features are remove	ed.	
C. ADDITIONA	L INFORMATION:	Existing	Proposed	
Residential:	How many dwelling units?	N/A	N/A	
Nesidelitiai.	How many bedrooms in each unit?	N/A	N/A	
	How many on-site parking spaces?	N/A	N/A	
Commercial:	How many commercial uses on site?	2	2	
	How many on-site parking spaces?	957	804	



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8. VARIANCE REQUESTS Complete section(s) related to the relief being requested.

	Req'd	Exist.	Prop'd			
Minimum Lot Requirements						
Lot Area						
Frontage						
Lot Depth						
Minimum Yard Requirements						
Front Yard Setback						
2 nd Front Yard Setback						
Rear Yard Setback						
Side Yard Setback, right						
Side Yard Setback, left						
Building Height						

	Req'd	Exist.	Prop'd
Accessory Structures			
Fence/Wall Height			
Garage/Shed Height			
Garage/Shed Area			
Pool Setback			
Parking Requirements			
On-site Parking Spaces	1,863	957	804
Other (please add)			

9.	OTHER RELIEF REQUESTED Please specify relief(s) and explain below.
	The project includes seasonal operation of the Sandbox beach bar from May through October. This is a second use or
	the site in addition to the ferry use. A restaurant is an allowed use in the zone.

Item 1.



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10. NOTARIZED SIGNATURE OF APPLICANT

Is the Applicant a limited liability corporation?

Is the Applicant a partnership?

I certify that the foregoing statements and the materials submitted are true. I further certify that I am the individual Applicant, or that I am an Officer of the Applicant authorized to sign the application for the business organization. Additionally, I certify that the survey or plans submitted with this application shows and discloses the premises in its entirety, and I further certify that no buildings, fences, or other facilities have been constructed, installed, or otherwise located on the premises after the date of the survey with the exception of the structures shown.

SWORN & SUBSCRIBED to before me this		1 1
28+H day of APALL 2025 (year)	Signature Signature	7 /28/25 Date
(notary)	TITE	, N = 1/ =
JEFFREY K. UHRIG NOTARY PUBLIC OF NEW JERSEY Commission # 50143035 (Seal)	Print Full Name	
My Commission Expires 11/10/2025		- M 6 / 3 M
11. NOTARIZED CONSENT OF OWNER		
application and approval of the plans submitted here connection with this application as deemed necessar must be attached authorizing the application and off	y by the municipal agency (if owned by a	
SWORN & SUBSCRIBED to before me this	a ales	4/28/25
SWORN & SUBSCRIBED to before me this 28 ^{†H} day of APAIL 20 25 (year)	Signature	4/2%/25 Date
28 ^{+H} day of APUL 20 25 (year)	Signature James Barker	
28 [†] H day of <u>APNIL</u> 20 <u>25</u> (year)		
JEFFREY K. UHRIG (notary) NOTARY PUBLIC OF NEW JERSEY Commission # 50143035 (Seal)	James Barker Print Full Name	
JEFFREY K. UHRIG NOTARY PUBLIC OF NEW JERSEY Commission # 50143035 My Commission Expires 11/10/2025 Seal)	James Barker Print Full Name	
JEFFREY K. UHRIG NOTARY PUBLIC OF NEW JERSEY Commission # 50143035 My Commission Expires 11/10/2025 12A. DISCLOSURE STATEMENT Circle all that apply	James Barker Print Full Name y. Ver the following questions:	
JEFFREY K. UHRIG NOTARY PUBLIC OF NEW JERSEY Commission # 50143035 My Commission Expires 11/10/2025 12A. DISCLOSURE STATEMENT Circle all that apply Pursuant to N.J.S.A. 40:55D-48.1 & 48.2, please answ	Tames Barker Print Full Name y. Ver the following questions: ix (6) or more lots? Yes	Date
JEFFREY K. UHRIG NOTARY PUBLIC OF NEW JERSEY Commission # 50143035 My Commission Expires 11/10/2025 12A. DISCLOSURE STATEMENT Circle all that apply Pursuant to N.J.S.A. 40:55D-48.1 & 48.2, please answ Is this application to subdivide a parcel of land into significant control of the subdivide and subdivide an	Tames Barker Print Full Name y. Ver the following questions: ix (6) or more lots? Yes 25 or more units? Yes	Date No

If you circled **YES** to any of the above, please complete the following Ownership Discloser Statement (use additional sheets if necessary).

No

No



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12B. BUSINESS ORGANIZATION OWNERSHIP DISCLOSURE STATEMENT

listed below are the names and addresses of all obusiness organization:	owners of 10% or more of the stock/interest	in the above referenced
NAME	ADDRESS	
Seastreak, LLC (owns 100% of HLC)	2 First Ave., Atlantic Highlands, NJ 07716	
		1
Q.		
		i i
If a corporation or a partnership owns 10% or martnership, that corporation or partnership shall a stock or 10% or greater interest in the partnership shall dresses of the non-corporate stockholders and stablished have been listed.	list the names and address of its stockholde ship, and this requirement shall be followed	rs holding 10% or more of until the names and
SWORN & SUBSCRIBED to before me this 29 day of April 2025 (year	(NOV Mydre Signature (Officer/Partner)	4/24/25 Date
(notary	Thomas M. wynre (Sec., UP+GenCa
(Seal) ASHLEY MARIE PULKOWNIK Notary Public State of Ohio My Comm. Expires	JEFFREY K. UHRIG NOTARY PUBLIC OF NEW JERSEY Commission # 50143035	at. The

landuse@fiighlandsnj.gov | 5



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12B. BUSINESS ORGANIZATION OWNERSHIP DISCLOSURE STATEMENT

isted below are the names and addresses of all usiness organization:	owners of 10% or more of the stock/interest* In the above referenced
NAME	ADDRESS
Seastreak Holding Company, LLC	
(owns 100% of SSLLC)	
-100	
	· ·
artnership, that corporation or partnership shal s stock or 10% or greater interest in the partner	nore of the stock of a corporation, or 10% or great interest in a illist the names and address of its stockholders holding 10% or more or ship, and this requirement shall be followed until the names and illindividual partners, exceeding the 10% owner ship criterion
SWORN & SUBSCRIBED to before me this	Thorswhulne 4/24/2
29 day of April 2025 (year	Signature (Officer/Partner) VP+ Gen Cod Date
(DANTING (notary	signature (Officer/Partner) VP+ Gen Cres Secretar
(Seal)	Print Full Name Title

7

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12B. BUSINESS ORGANIZATION OWNERSHIP DISCLOSURE STATEMENT

Name of Corporation, Partnership, LLC, LLP, S-Corp:

Seastreak Holding Company, LLC

Listed below are the names and addresses of all owners of 10% or more of the stock/interest* in the above referenced business organization:

NAME	ADDRESS			
James R. Barker 2002 Dynasty Trust	c/o Dan Johnson, Trustee Cummings & Lockwood, 6 Landmark Square, Stamford CT 06901			
James A. Barker	176 Long Neck Point Rd., Darien, CT 06820			
Karen Barker Marcou	3503 Newark Street, N.W., Washington, D.C. 20016			
Mark W. Barker	345 Wagar Drive, Rocky River, OH 44116			
Edward J. Tregurtha	111 St. John's Road, Ridgefield, CT 06877			
Dorothy T. Croskey	26265 Oak Leaf Trail, Shorewood, MN 55331			
Susan T. Marshall	752 Lincoln Ave., Winnetka, IL 60093			
Tracy T. Child	25 Hampton Lane, Stamford, CT 06903			

^{*}If a corporation or a partnership owns 10% or more of the stock of a corporation, or 10% or great interest in a partnership, that corporation or partnership shall list the names and address of its stockholders holding 10% or more of its stock or 10% or greater interest in the partnership, and this requirement shall be followed until the names and addresses of the non-corporate stockholders and individual partners, exceeding the 10% owner ship criterion established have been listed.

SWORN & SUBSCRIBED to before me this

14 day of April

__ 20<u>_ 25</u>__ (year)

Signature (On

Date

Day hat (notary)

Thomas M. wynne Sec., 47 + Gen.

Print Full Name

Title



ASHLEY MARIE
PULKOWNIK
Notary Public
State of Ohio
My Comm. Expires
June 27, 2027

(Seal)

JEFFREY K. UHRIG NOTARY PUBLIC OF NEW JERSEY Commission # 50143035 My Commission Expires 11/10/2025

landuse@highlandsnj.gov [

Seastreak

35875

Vendor ID	Na	ame		Payment N	lumber	Check Date	Document Number
BOROHLDS01	Bo	orough of Highlands		0048544		4/24/2025	35875
Our Voucher Nur	nber	Date	Amour	nt	Amount Paid	Discount	Net Amount Paid
						e4	
326 SHORE DRIV	Έ	4/24/2025	\$2,850.0	0	\$2,850.00	\$0.00	\$2.850.00

\$2,850.00

\$2,850.00

\$0.00

\$2,850.00



BMO

4/24/2025



BMO Harris Bank N.A. Chicago, Illinois



2-28/710

DATE

AMOUNT

35875

\$2,850.00

PAY TO THE ORDER OF:

Two Thousand Eight Hundred Fifty Dollars and 00 Cents

Borough of Highlands 151 NAVESINK AVE Highlands NJ 07732



AUTHORIZED SIGNATURE

#035875# #071000288#

0046257574

.



April 25, 2025

Courtney Lopez Highlands Zoning Officer 151 Navesink Ave. Highlands, NJ 07732

Re: Seastreak Ferry Terminal- Initial Highlands Zoning Submission 326 Shore Drive

Block 100, Lot 27

Borough of Highlands, Monmouth County, NJ

Our Ref. Job No. 8407

Dear Ms. Lopez:

Enclosed please find our initial submission to your office for review of the Major Site Plan design for the above-mentioned project seeking zoning approval for the repaving of an existing parking lot with two existing variances:

- Eighteen (18) sets of plans entitled, "Seastreak Ferry Terminal Repaving Project ..." prepared by Najarian Associates, dated April 22, 2025.
- Eighteen (18) copies of the survey entitled, "Boundary & Topographic Survey..." prepared by Najarian Associates, dated June 25, 2024.
- Eighteen (18) sets of plans entitled, "Landscaping & Lighting Plans ..." prepared by Quercus Design Studio, LLC, dated March 12, 2025.
- Eighteen (18) stormwater reports entitled, "Stormwater Management Report for a proposed repaving project Seastreak Ferry Terminal ..." prepared by Najarian Associates, dated April, 2025.
- Eighteen (18) copies of the Land Use Board application.
- One (1) completed checklist
- One (1) check in the amount of \$2,850.00 made payable to "Borough of Highlands" to cover the application fee.
- Eighteen (18) copies of the check for the application fee.
- One (1) USB drive containing all above information.

Should you have any questions regarding the above information or enclosed documents, please call our office.

Very truly yours, NAJARIAN ASSOCIATES

Brad Thompson, P.E. Director – Land Development

Y:\8407 - Seastreak Highlands\Documents\Letters Out\2025-04-25 Highlands Submission Letter.docx



For District Use Only	Item 1.
To District Use Omy	

APPLICATION FOR SOIL EROSION AND SEDIMENT CONTROL PLAN CERTIFICATION

The enclosed soil erosion and sediment control plan and supporting information are submitted for certification pursuant to the Soil Erosion and Sediment Control Act, Chapter 251, P.L. 1975 as amended (NJSA 4:24-39 et. seq.) An application for certification of a soil erosion and sediment control plan shall include the items listed on the reverse side of this form.

Name of Project Seastreak Ferry Terminal Repaving Project			Project Location: Municipality Highlands Borough		
Project Street Address 326 Shore Dr., Highlands, NJ			Block 100	Lot 27	
Project Owner(s) Name Highlands Landing Corporation c/o Jack Bevins			Email jack.bevins@seastreak.com	Phone # (732) 872-2628 x 1986 Fax #	
Project Owner(s) Street Address (No P.O. Box Numbers) 2 First Ave.		^{City} Atlantic Highlands	State NJ Zip 07716		
Total Project Area (Acres) 7.66 Total Disturbed Area (Acres) (Acres) Total Soil Restoration Area (Acres) 0		No. Dwelling or other Units	^{Fee} 7960.00		
Plans Prepared by*			Email of plan preparer:	Phone # 732-389-0220	
Najarian Associates			bradt@najarian.com	Fax # 732-389-0220	
Street Address 1 Industrial Way West			^{City} Eatontown	State NJ Zip 07724	
*(Engineering related iten	ns of the Soil Erosion and Sedin	nent Control Plan MUST be prep	pared by or under the direction of and be seal	ed by a Professional Engineer or Architect	

*(Engineering related items of the Soil Erosion and Sediment Control Plan MUST be prepared by or under the direction of and be sealed by a Professional Engineer or Architect licensed in the State of New Jersey, in accordance with NJAC 13:27-6.1 et. seq.)

Agent Responsible During Co	nstruction			Email	
Street Address				***	
City	State	Zip	Phone	Fax#	

The applicant hereby certifies that all soil erosion and sediment control measures are designed in accordance with current Standards for Soil Erosion and Sediment Control In New Jersey and will be installed in accordance with those Standards and the plan as approved by the Soil Conservation District and agrees as follows:

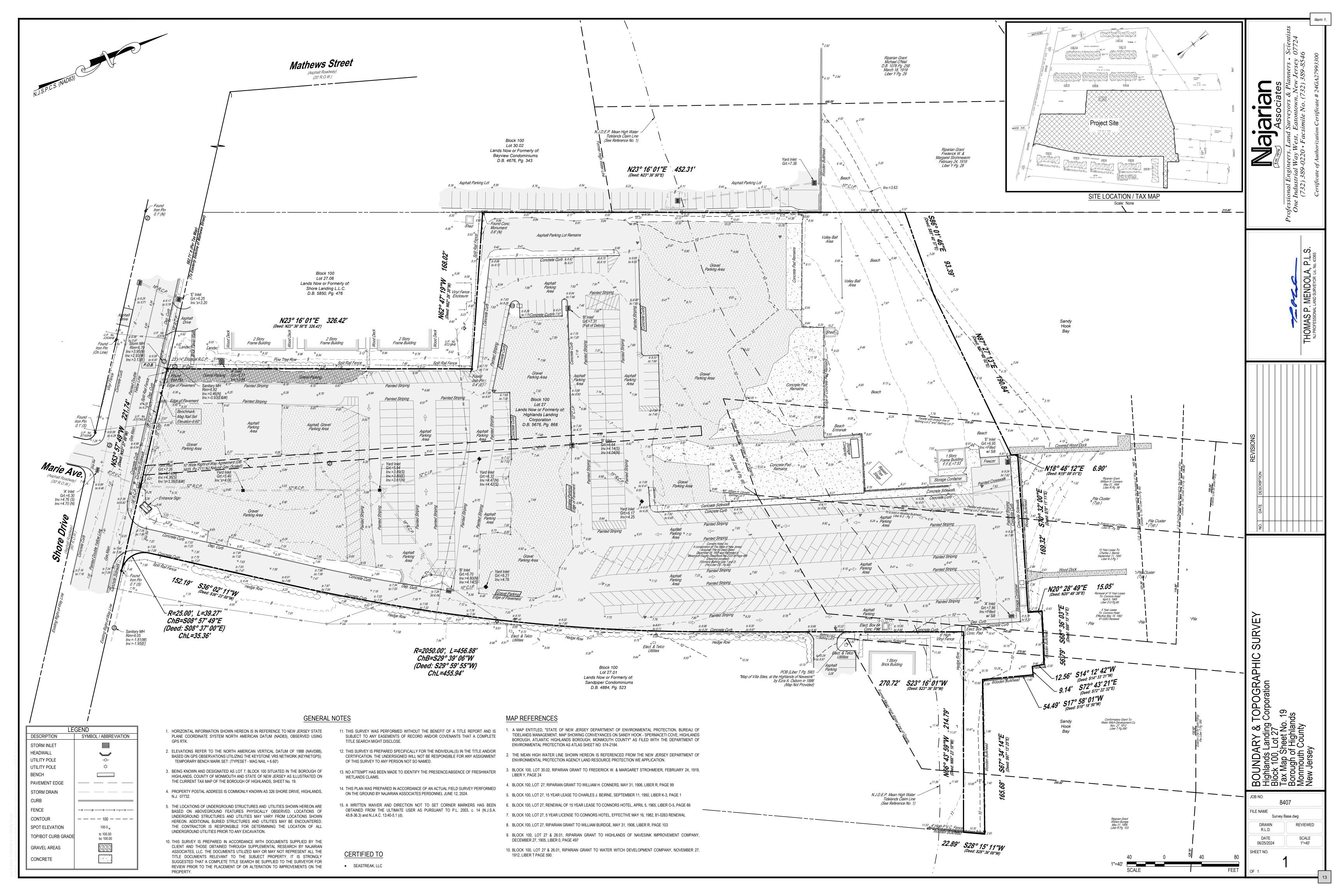
- To notify the District in writing at least 48 hours in advance of any land disturbance activity. Failure to provide such notification may result in additional inspection fees.
- To notify the District upon completion of the Project (Note: No certificate of occupancy can be granted until a report of compliance is issued by the District.
- 3. To maintain a copy of the certified plan on the project site during construction.
- 4. To allow District agents to go upon project lands for inspection.
- That any conveyance of this project or portion thereof prior to its completion will transfer full responsibility for compliance with the certified plan to any subsequent owners.
- To comply with all terms and conditions of this application and certified plan including payment of all fees prescribed by the district fee schedule hereby incorporated by reference.

The applicant hereby acknowledges that structural measures contained in the Soil Erosion and Sediment Control Plan are reviewed for adequacy to reduce offsite soil erosion and sedimentation and not for adequacy of structural design. The applicant shall retain full responsibility for any damages which may result from any construction activity notwithstanding district certification of the subject soil erosion and sediment control plan. It is understood that approval of the plan submitted with this application shall be valid only for the duration of the initial project approval granted by the municipality. All municipal renewals of this project will require submission and approval by the district. In no case shall the approval extend beyond three- and one-half years at which time resubmission and certification will be required. Soil Erosion and Sediment Control Plan certification is limited to the controls specified in the plan. It is not authorization to engage in the proposed land use unless such use has been previously approved by the municipality or other controlling agency. It is further understood that all documents, site plans, design reports etc. submitted to the district shall be made available to the public (upon request) pursuant to the Open Public Records Act, N.J.S.A. 47:1A-1 et seq.

1. Applicant Certification*	4.1	3. Plan determined complete:		
Applicant Name (Print) Jack Bevins	Date 4/24/21	Signature of District Official	Date	
2. Receipt of fce, plan and supporting documents is hereby ackno	wledged:	4. Plan certified, denied or other actions noted above. Special Remarks:		
Signature of District Official	Date	Signature of District Official	Date	

SSCC251 AP10 4/19

^{*}If other than project owner, written authorization of owner must be attached.

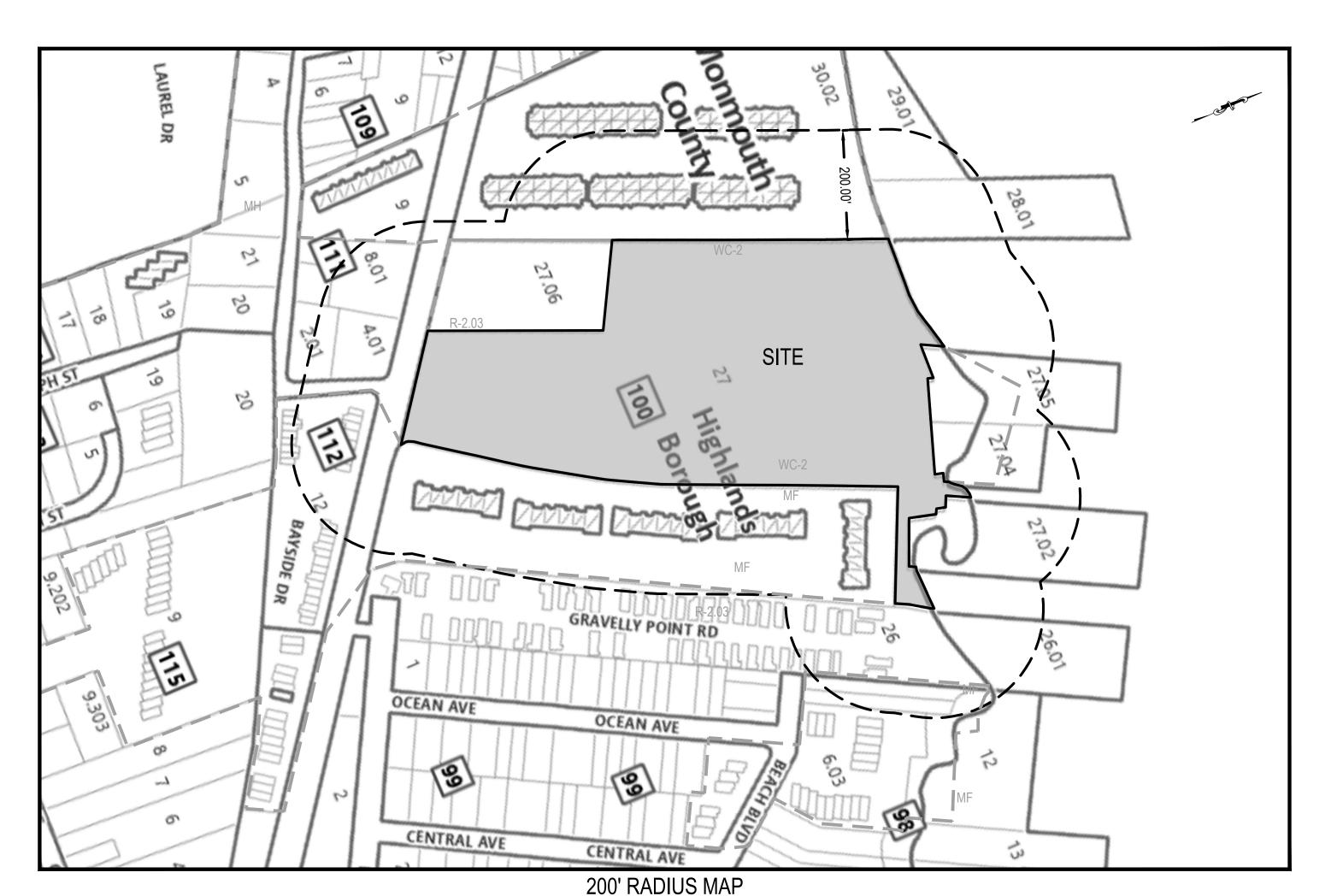


SEASTREAK FERRY TERMINAL REPAVING PROJECT

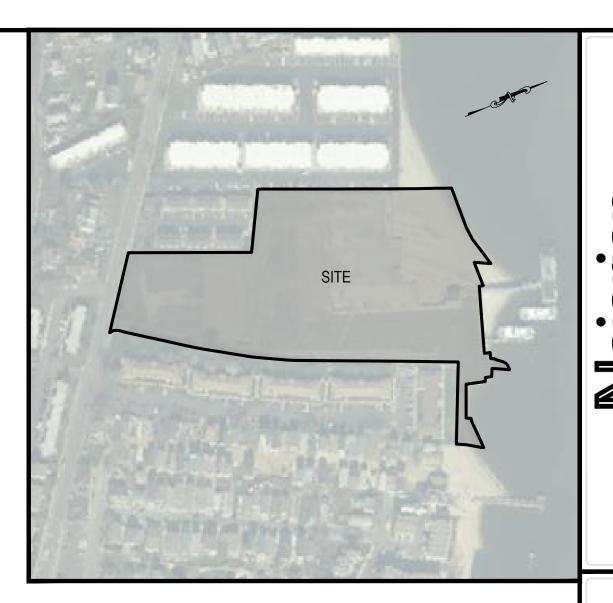
FOR

HIGHLANDS LANDING CORPORATION

MAJOR SITE PLAN BLOCK 100, LOT 27 326 SHORE DRIVE, BOROUGH OF HIGHLANDS MONMOUTH COUNTY, NEW JERSEY; TAX MAP # 19



SCALE: 1" = 150' SOURCE: TAX MAP SHEET # 19 BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NJ



CIVIL DRAWING LIST								
DWG. NO.	DRAWING TITLE	SCALE	LAST REV.					
1	COVER SHEET	AS SHOWN	04/22/25					
2	GENERAL NOTES	AS SHOWN	04/22/25					
3	DEMO PLAN	1" = 40'	04/22/25					
4	OVERALL SITE PLAN	1" = 40'	04/22/25					
5	GRADING, DRAINAGE & UTILITY PLAN	1" = 40'	04/22/25					
6	SOIL EROSION AND SEDIMENT CONTROL PLAN	1" = 40'	04/22/25					
7	SOIL EROSION AND SEDIMENT CONTROL NOTES	1" = 40'	04/22/25					
8	SOIL EROSION AND SEDIMENT CONTROL DETAILS	1" = 40'	04/22/25					
9	DETAIL PLAN	1" = 40'	04/22/25					
1 OF 1	BOUNDARY AND TOPOGRAPHIC SURVEY	1" = 40'	06/25/24					

OWNER AND APPLICANT:

ATLANTIC HIGHLANDS, NJ 07716

APPLICANT: JACK BEVINS ATLANTIC HIGHLANDS, NJ 07716

DATE

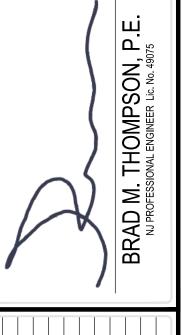
MUNICIPAL APPROVAL BLOCK

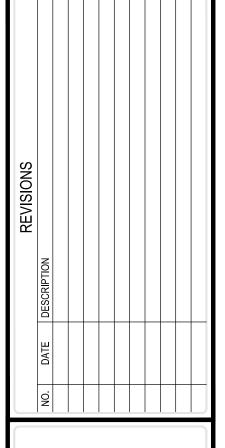
I HEREBY CERTIFY THAT I HAVE CAREFULLY EXAMINED THESE PLANS AND FIND IT CONFORMS WITH ALL MUNICIPAL ORDINANCES AND REQUIREMENTS APPLICABLE THERETO:

DATE	BOROUGH ENGINEER
APPROVED BY THE PLANNI	NG BOARD OF BOROUGH OF HIGHLANDS, MONMOUTH COUNTY
JERSEY THIS DAY	OF

SECRETARY

04/22/25





OWNER AND APPLICANT

HIGHLANDS LANDING CORPORATION 2 FIRST AVE

ATLANTIC HIGHLANDS, NJ 07716

APPLICANT: JACK BEVINS

2 FIRST AVE ATLANTIC HIGHLANDS, NJ 07716

REQUIRED ADDITIONAL APPROVALS

JU	RISDICTIONAL AGENCY	PERMIT NUMBER	PERMIT STATUS
1.	MUNICIPAL PLANNING BOARD	0000-0000	PENDING
2.	MUNICIPAL SOIL MOVEMENT PERMIT	0000-0000	PENDING
3.	SOIL CONSERVATION DISTRICT	0000-0000	PENDING
4.	NJDEP FHA PERMIT	0000-0000	PENDING

REFERENCES

- 1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON WAS OBTAINED FROM A PLAN ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY, HIGHLANDS LANDING CORPORATION, BLOCK 100 LOT 27, TAX MAP SHEET NO. 19 BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NEW JERSEY, PREPARED FOR SEASTREAK LLC." PREPARED BY NAJARIAN ASSOCIATES
- 2. HORIZONTAL DATUM BASED ON NEW JERSEY STATE PLANE COORDINATE SYSTEM NORTH AMERICAN DATUM (NAD83) 3. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM (NAVD88).

NATURAL GAS PURVEYOR

UTILITY PURVEYORS

HIGHLANDS MUNICIPAL COURT 1415 WYCKOFF 151 NAVESINK AVE WALL, NJ, 07719 HIGHLANDS, NJ, 07732

MUNICIPAL WATER DEPARTMENT

NJ AMERICAN WATER - COASTAL NORTH 1 WATER STREET CAMDEN, NJ, 08102

USE OF PLANS NOTES

- 1. UNLESS THESE DRAWINGS ARE SPECIFICALLY DESIGNATED AS "CONSTRUCTION ISSUE." THESE DRAWINGS OR THE IMPROVEMENTS DEPICTED HEREON SHALL NOT BE USED FOR CONSTRUCTION. CONTRACTORS MUST NOTIFY THE ENGINEER OF RECORD TO OBTAIN CONSTRUCTION DOCUMENTS
- 2. ALL DIMENSIONS MUST BE VERIFIED BY THE CONTRACTOR, NOTIFY THE ENGINEER OF RECORD OF ANY CONFLICTS, ERRORS. AMBIGUITIES OR DISCREPANCIES IN THE DRAWINGS OR SPECIFICATIONS BEFORE STARTING CONSTRUCTION 3. ALL DIMENSIONS SHALL BE AS NOTED IN WORDS OR NUMBERS ON THE DRAWINGS. DO NOT SCALE THE DRAWINGS TO
- 4. THESE DRAWINGS CONTAIN DATA INTENDED SPECIFICALLY FOR THE NOTED PROJECT AND CLIENT. THEY ARE NOT INTENDED FOR USE ON EXTENSIONS OF THIS PROJECT OF FOR REUSE ON ANY OTHER PROJECT 5. THE COPYING AND/OR MODIFICATION OF THIS DOCUMENT OR ANY OTHER PORTION THEREOF WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER OF RECORD IS PROHIBITED.
- 6. INFORMATION FOR DESIGN LAYOUT IS CONTAINED SOLELY IN THE WRITTEN DIMENSIONS, BEARINGS, AND ANGLES CONTAINED ON THE DRAWINGS. 7. THE DIMENSIONAL INFORMATION IS NOT WARRANTED NOR SHOULD IT BE CONSIDERED AS COMPLETE FOR EVERY ASPECT OF
- THE LAYOUT. THE STANDARD OF CARE REQUIRES THAT A LICENSED SURVEYOR CHECK THE DIMENSIONAL DATA CONSISTENCY AND MAKE SURVEY CALCULATIONS WHICH ARE CUSTOMARY FOR CONSTRUCTION LAYOUT. 8 THE GRAPHICAL INFORMATION CONTAINED IN FLECTRONIC FILES IS INTENDED AS DRAWING DATA ONLY IT IS NOT INTENDED
- TO SERVE AS SURVEY LAYOUT DATA 9. ALL SITE UTILITIES TO BE INSTALLED BY THE SITE CONTRACTOR TO A POINT FIVE FEET FROM THE STRUCTURE IN ACCORDANCE WITH INDUSTRY STANDARDS UNLESS SPECIFICALLY SHOWN OTHERWISE. SITE CONTRACTOR TO COORDINATE
- WITH BUILDING TRADES CONTRACTOR TO ENSURE COORDINATION OF UTILITY CONNECTION LOCATIONS. REPORT ANY DISCREPANCIES TO THE ENGINEER OF RECORD 10. ALL DIMENSIONAL INFORMATION SHOWN HEREON INDICATING BUILDINGS IS BASED UPON FACE OF BUILDING. ALL ROADWAY
- DIMENSIONS ARE TO INSIDE FACE OF CURBING.

DEMOLITION NOTES

IN A WAY TO PROMOTE POSITIVE DRAINAGE

- 1. THE CONTRACTOR MUST PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME. 2. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION ONLY REGARDING ITEMS TO BE DEMOLISHED OR REMOVED FROM THE SITE. THE CONTRACTOR MUST ALSO REVIEW THE OTHER CONSTRUCTION DOCUMENTS AND INCLUDE IN
- DEMOLITION ACTIVITIES ALL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW IMPROVEMENTS. 3. PRIOR TO THE START OF ANY DEMOLITION THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND KEEPING A COPY OF ALL PERMITS ON SITE FOR REVIEW BY THE ENGINEER OR RECORD OR ANY OTHER JURISDICTIONAL AGENCY REPRESENTATIVE THROUGHOUT THE DURATION OF THE PROJECT AND DEMOLITION WORK.
- 4. THE CONTRACTOR MUST NOTIFY THE OFFICE OF THE MUNICIPAL ENGINEER AND THE LOCAL SOIL CONSERVATION DISTRICT 72 HOURS PRIOR TO THE START OF DEMOLITION OR THE CONSTRUCTION OF ANY IMPROVEMENTS UNDER ITS JURISDICTION 5. ALL SOIL EROSION CONTROL MEASURES AND DRAINAGE STRUCTURES MUST BE INSTALLED PRIOR TO THE START OF ANY
- DEMOLITION ACTIVITIES OR SITE DISTURBANCE. 6. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE NEW JERSEY 811 ONE CALL SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES PRIOR TO THE BEGINNING OF DEMOLITION. THE CONTRACTOR IS

RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST

- TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. 7. THE CONTRACTOR MUST PROTECT AND MAINTAIN ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING DEMOLISHED OR REMOVED DURING DEMOLITION.
- 8. THE CONTRACTOR MUST BACKFILL ALL EXCAVATIONS RESULTING FROM THE DEMOLITION OF ON SITE FEATURES. BACKFILL MUST BE PERFORMED WITH APPROVED BACKFILL MATERIALS, AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT PROPOSED IMPROVEMENTS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT OR ON SITE GEOTECHNICAL ENGINEER. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION TO PREVENT WATER FROM ENTERING THE EXCAVATION AND POTENTIALLY CHANGING THE MOISTURE CONTENT OF THE UNDERLYING SOILS. GRADING OF BACKFILL AREAS MUST BE DONE
- 9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY
- 10. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, AND OTHER APPROPRIATE SAFETY ITEMS NEEDED TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME
- 11. THE CONTRACTOR IS RESPONSIBLE FOR THE OFF-SITE DISPOSAL OF ALL DEMOLITION MATERIAL IN A MANNER SATISFACTORY TO THE MUNICIPAL ENGINEER. BURYING OF DEMOLITION MATERIALS WILL NOT BE PERMITTED IN ANY CASE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST
- 12 THE CONTRACTOR MUST MAINTAIN AND PROVIDE A RECORD SET OF PLANS SHOWING THE LOCATION OF EXISTING UTILITIES. THAT ARE CAPPED. ABANDONED IN PLACE, OR RELOCATED DURING THE DEMOLITION PROCESS. THE RECORD DOCUMENT MUST BE PREPARED IN A LEGIBLE FORMAT AND PROVIDED TO THE OWNER AND ENGINEER OR RECORD UPON COMPLETION OF

GENERAL NOTES

- 1. THE OFFICE OF THE MUNICIPAL ENGINEER AND THE LOCAL SOIL CONSERVATION DISTRICT MUST BE NOTIFIED 72 HOURS PRIOR
- TO THE START OF CONSTRUCTION OF ANY IMPROVEMENTS UNDER ITS JURISDICTION. 2. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO THE ENGINEER OF RECORD PRIOR TO THE DATE ON THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY THE ENGINEER OF RECORD IN WRITING IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS. OR IF THE PROPOSED WORK CONFLICTS WITH ANY OF THE EXISTING SITE FEATURES TO REMAIN.
- 3. THE CONTRACTOR MUST NOT SCALE OFF THE DRAWINGS. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, ORDERING OF PARTS AND MATERIALS AND STARTING SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF
- 4. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL OTHER NOTES CONTAINED ON THESE PLANS, AS WELL AS ANY ADDITIONAL INFORMATION CONTAINED IN SPECIFICATIONS OR REPORTS THAT ARE PART OF THE DESIGN DOCUMENTS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLAN SHEETS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL DESIGN DOCUMENTS PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION AND TO CONFIRM WITH THE ENGINEER OF RECORD THAT THE LATEST EDITION OF THE DOCUMENTS ARE BEING USED FOR CONSTRUCTION.
- 5. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS. THE GEOTECHNICAL REPORT. SPECIFICATIONS. AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE CONSTRUCTION DOCUMENTS. IN THE CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENTS OR RECOMMENDATIONS CONTAINED WITHIN EITHER THESE PLANS OR THE GEOTECHNICAL REPORT MUST TAKE PRECEDENCE. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY CONFLICTS BETWEEN THE GEOTECHNICAL REPORT AND THESE PLANS PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED FOR THE PROJECT. THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF THE MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS THAT
- 6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR ORDERING OF MATERIALS IS TO BEGIN UNTIL THE CONTRACTOR HAS CONFIRMED THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS
- 7. THE CONTRACTOR MUST PROVIDE SUCH TEMPORARY DRAINAGE, SOIL EROSION, AND DUST CONTROL MEASURES AS MAY BE DIRECTED BY THE MUNICIPAL ENGINEER OR OTHER JURISDICTIONAL AGENCIES TO SATISFY ENVIRONMENTAL CONCERNS RELATED TO CONSTRUCTION.
- 8. ALL ENVIRONMENTAL WORK TO BE PERFORMED ONSITE MUST BE DONE IN ACCORDANCE WITH NJDEP REGULATIONS AND CONDITIONS SPECIFIED IN ALL ENVIRONMENTAL PERMITS. 9. ALL SOIL EROSION CONTROL MEASURES AND DRAINAGE STRUCTURES MUST BE INSTALLED PRIOR TO THE START OF ANY
- CONSTRUCTION 10. PRIOR TO ANY SITE DISTURBANCE, ALL WETLANDS TRANSITION AREA LIMITS SHALL BE CLEARLY IDENTIFIED IN THE FIELD WITH ORANGE SNOW FENCING BY MIRAFI OR APPROVED EQUAL. SILT FENCE MUST BE LOCATED THREE FEET UPSTREAM OF SNOW FENCING AND DOWNSTREAM OF CLEARING LIMITS. THE CONTRACTOR MUST VERIFY THAT ALL PERMITS REQUIRED BY LOCAL, COUNTY, STATE, FEDERAL, OR OTHER AGENCIES HAVING JURISDICTION ARE IN HAND AND VALID PRIOR TO COMMENCING
- 11. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WITH CONSTRUCTION ACTIVITY OF ONE ACRE OR MORE THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES INCLUDING THOSE OF ALL SUBCONTRACTORS. ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE, ALONG WITH THE OTHER
- 12. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THESE PLAN OR NOT. THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING BUILDINGS, SITE FEATURES, OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, ETC. AND MUST BEAR ALL COSTS ASSOCIATED WITH THE REPAIRS. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE THE DAMAGED PROPERTY TO A CONDITION EQUIVALENT TO OF BETTER THAN THE CONDITIONS PRIOR TO CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS. STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST PROMPTLY DOCUMENT ALL EXISTING
- DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION. 13. THE INSTALLATION OF UTILITIES MUST BE COORDINATED WITH BUILDING IMPROVEMENTS TO TO ASSURE THE WELL-BEING OF LIFE AND PROPERTY DURING CONSTRUCTION. WATER SERVICE IS A CRITICAL NEED AND MUST BE SCHEDULED ACCORDINGLY. WATER SUPPLY AND HYDRANT CONNECTIONS ARE TO BE ESTABLISHED AS A PRIORITY DURING INITIAL SITE DEVELOPMENT TO ASSURE ADEQUATE WATER FOR FIRE PROTECTION DURING ALL PHASES OF CONSTRUCTION.
- 14. SIGHT TRIANGLE EASEMENTS ARE SUBJECT TO GRADING, PLANTING AND CONSTRUCTION AS DESCRIBED IN THE MUNICIPAL LAND USE ORDINANCE. SIGHT TRIANGLE EASEMENTS SHALL BE SUBJECT TO THE REQUIREMENTS ESTABLISHED IN THE LAND USE DEVELOPMENT AND REGULATIONS OF THE MUNICIPALITY. 15. IT IS NOT THE INTENT OF THESE PLANS TO PROVIDE REINFORCING STEEL AND CONCRETE DESIGNS FOR ANY PRE-CAST OR POURED IN PLACE CONCRETE STRUCTURES, OTHER THAN THE REINFORCING STEEL AND CONCRETE DESIGNS SPECIFICALLY
- NOTED ON THESE PLANS. ANY REINFORCING STEEL AND CONCRETE DESIGN MUST BE SUPPLIED BY THE PRE-CASTING MANUFACTURER OR A REPUTABLE STRUCTURAL ENGINEER CONTRACTED BY THE CONTRACTOR. 16. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND
- CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME 17. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY
- ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE. 18. THE CONTRACTOR MUST INSTALL ALL STRUCTURES AND MATERIALS IN STRICT COMPLIANCE WITH THE MANUFACTURER'S STANDARDS AND SPECIFICATIONS. IF THE CONTRACTOR FAILS TO DO SO, THEY AGREE TO BEAR ALL COSTS ASSOCIATED WITH
- THE REPAIRS OR SOLUTIONS REQUIRED TO REMEDY ANY ISSUES THAT ARISE DURING OR AFTER CONSTRUCTION. 19. ALL CONSTRUCTION SHOWN HEREON MUST CONFORM TO RSIS, MUNICIPAL, AND COUNTY STANDARDS, CONSTRUCTION DETAILS, AND SPECIFICATIONS APPLICABLE TO THE DEVELOPMENT AS WELL AS THE NJDOT ROADWAY STANDARDS, UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN. IN CASE OF CONFLICT, THE MORE RESTRICTIVE SHALL GOVERN. THE CONTRACTOR
- MUST NOTIFY THE ENGINEER OF RECORD OF ANY CONFLICTS PRIOR TO CONSTRUCTION. 20. THESE SITE PLAN DOCUMENTS ARE INTENDED TO SHOW THE SITE RELATED IMPROVEMENTS TO WITHIN FIVE FEET OF PROPOSE STRUCTURES. THE GENERAL CONTRACTOR MUST COORDINATE WITH ALL TRADES, THE ARCHITECT, AND ALL UTILITY COMPANIES, CONNECTIONS BETWEEN THE BUILDING AND SITE IMPROVEMENTS, AND NOTIFY THE ENGINEER OF RECORD
- IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. 21. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT
- BUILDING UTILITY LOCATIONS 22. ALL ROADWAYS ARE TO BE PASSABLE FOR EMERGENCY VEHICLES DURING CONSTRUCTION. ANY ROADWAY CLOSURE OR RELOCATION MUST BE COORDINATED BY THE CONTRACTOR WITH THE LOCAL FIRE DEPARTMENT TO ENSURE ADEQUATE FIRE PROTECTION FOR ALL AREAS AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING WARNING SIGNS, BARRICADES, AND ANY AND ALL SAFETY MEASURES AS MAY BE REQUIRED BY LOCAL CODES, OSHA, AND THE MUTCD.
- 23 AS INDICATED IN THE MUTCH SUFFICIENT CONSTRUCTION WARNING SIGNS ARE TO BE PROVIDED AND MAINTAINED BY CONTRACTOR(S) PERFORMING CONSTRUCTION WORK WITHIN ACTIVE ROADWAYS. SAID SIGNS ARE TO BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND APPROVED BY THE APPROPRIATE MUNICIPAL PERSONNEL. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL CONSTRUCTION SIGNS AT THE END OF THE PROJECT.

24. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN

- ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY. 25 UNI ESS SPECIFICALLY SHOWN HEREIN, THE ENGINEER OF RECORD HAS NOT CONDUCTED INVESTIGATION OR PROVIDED DATA ON THE NATURE OF, OR STRUCTURAL SUITABILITY OF ANY SUBSURFACE MATERIALS. THE CONTRACTOR MUST NOTIFY THE
- ENGINEER OF RECORD OF ANY UNUSUAL SOIL OR ROCK CONDITIONS ENCOUNTERED. ENGINEER OF RECORD IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, AROUND, OR UNDER THE PROPERTY. 26. IN AREAS WHERE FILL FROM THE SITE IS TO BE REUSED. THE FILL SHOULD BE TESTED TO ENSURE FILL MATERIAL IS CERTIFIED. "CLEAN" IN ACCORDANCE WITH THE CURRENT NJDEP STANDARDS TO THE SATISFACTION OF THE MUNICIPAL ENGINEER'S
- OFFICE. BURIED TOPSOIL OR ORGANIC MATERIAL MUST BE REMOVED PRIOR TO FILL OPERATIONS TO ENSURE LONG TERM
- 27. ALL STUMPS AND OTHER TREE PARTS, LITTER, BRUSH, WEEDS, EXCESS OR SCRAP MATERIALS, OR OTHER DEBRIS SHALL BE REMOVED FROM THE SITE. 28. THE EARTHWORK OPERATIONS SHALL BE CONDUCTED UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER
- TO ENSURE ADEQUATE COMPACTION WHILE MAINTAINING, TO THE EXTENT REASONABLE, THE EXISTING HYDROLOGIC SOIL CONDITIONS OF THE SITE 29. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED
- MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR 30. THE CONTRACTOR IS RESPONSIBLE FOR THE OFF-SITE DISPOSAL OF ALL DEMOLITION MATERIAL, MATERIAL ACCUMULATED BY
- CLEARING, GRUBBING AND EXCAVATION SHALL BE DISPOSED OF BY THE DEVELOPER IN A MANNER SATISFACTORY TO THE MUNICIPAL ENGINEER, EXCEPT THAT MATERIALS SUITABLE FOR EMBANKMENT SHALL BE USED FOR THAT PURPOSE, IF NEEDED. BURYING OF ABOVE CITED MATERIALS WILL NOT BE PERMITTED IN ANY CASE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
- 31. THE LIMIT OF CLEARING SHALL BE STAKED IN THE FIELD PRIOR TO ANY DISTURBANCE. 32. ALL WEATHERED CONCRETE FOR CONSTRUCTION MUST BE AT LEAST 4500 PSI.
- 33 SEPARATE CONSTRUCTION PERMITS WILL BE REQUIRED FOR ALL WALLS IN EXCESS OF FOUR FEET IN HEIGHT
- 34. ALL WORK WITHIN THE COUNTY ROAD RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH THE COUNTY STANDARDS.

SITE PLAN NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST REFER TO THE GENERAL NOTES AND FULLY COMPLY WITH THEM AS WELL AS ANY PLAN SPECIFIC NOTES.
- 2. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST INSTALL THE NECESSARY SOIL EROSION CONTROL MEASURES AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH THE APPLICABLE SOIL CONSERVATION DISTRICT'S GUIDELINES.
- 3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL
- ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), ALONG WITH ANY LOCAL MUNICIPAL STANDARDS. 4. THE LOCATIONS OF PROPOSED UTILITY POLES; UTILITY BOXES; OR ELECTRIC, TELECOM, OR NATURAL GAS UTILITIES; AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC ONLY THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING AND COORDINATING PROPOSED UTILITY LOCATIONS WITH THE APPROPRIATE UTILITY PURVEYOR. THE CONTRACTOR MUST COORDINATE THE LOCATION OR RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION
- OVER THE RIGHT-OF-WAY. 5. ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE
- 6. STAKE OUT OF LOCATIONS OF DRAINAGE OR SANITARY SEWER STRUCTURES, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE. 7. ALL WEATHERED CONCRETE MUST BE AIR ENTRAINED AND INCLUDE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28
- DAYS UNLESS OTHERWISE NOTED ON THE PLANS. DETAILS AND/OR GEOTECHNICAL REPORT. 8. THE CONTRACTOR MUST REPAIR OR REPLACE. AT THE CONTRACTOR'S SOLE COST AND EXPENSE. ALL SIDEWALKS. CURBS.

AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.

ADA NOTES

- 1. CONTRACTORS MUST ADHERE TO THE AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES AND THE CURRENT STATE ARCHITECTURAL ACCESS BOARD STANDARDS AND REGULATIONS FOR BARRIER FREE ACCESS FOR ALL ADA FEATURES AND ROUTES SHOWN ON THESE PLANS. ADA FEATURES OFTEN REQUIRE A HIGHER LEVEL OF PRECISION TO MEET THE STRICT GUIDELINES. FINISHED SURFACES OF THE ADA FEATURES AND SITE FEATURES ALONG THE ADA ROUTE FROM PARKING SPACES OR PUBLIC TRANSPORTATION STOPS OR RIGHTS-OF-WAY PEDESTRIAN ACCESS TO POINTS OF ACCESSIBLE BUILDING INGRESS AND EGRESS, MUST COMPLY WITH THE ADA AND ARCHITECTURAL BOARD GUIDELINES AND REQUIREMENTS. THE
- ADA GUIDELINES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING PARAMETERS: ADA PARKING SPACE AND PARKING AISLE SLOPES MUST NOT EXCEED A 1:50 (2%) SLOPE IN ANY DIRECTION
- 3. CURB RAMP SLOPES MUST NOT EXCEED A 1:12 (8.3%) SLOPE FOR A MAXIMUM DISTANCE OF SIX FEET 4. LANDINGS (MINIMUM OF FOUR FEET BY FOUR FEET IN SIZE) MUST BE PROVIDED AT THE TOPS AND BOTTOMS OF CURB RAMPS WITH SLOPES THAT MUST NOT EXCEED A 1:50 (2%) SLOPE IN ANY DIRECTION
- 5. WHERE A CHANGE IN PATH DIRECTION OCCURS, LANDINGS MUST BE FIVE FEET BY FIVE FEET MINIMUM WITH SLOPES THAT MUST NOT EXCEED A 1:50 (2%) SLOPE IN ANY DIRECTION
- THE ADA PATH OF TRAVEL FROM THE POINT OF ADA ARRIVAL TO THE ADA BUILDING ENTRANCE MUST PROVIDE A 36 INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANDS OR RAILINGS CANNOT REDUCE THIS MINIMUM WIDTH). THE SLOPE ALONG THE ADA PATH OF TRAVEL MUST BE NO GREATER THAN 1:20 (5%) IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED A 1:50 (2%) CROSS SLOPE. A MAXIMUM SLOPE OF 1:12 (8.3%) FOR A MAXIMUM RISE OF 30 INCHES CAN BE PROVIDED WHERE NECESSARY AS LONG AS THE RAMP INCLUDES ADA HAND RAILS AND LANDINGS ON EACH END THAT MEET THE LANDING MINIMUMS OUTLINED HEREIN
- 7. ADA LANDINGS MUST HAVE POSITIVE DRAINAGE AND BE CONSTRUCTED TO PREVENT THE GATHERING OF WATER IN THE LANDING OR ALONG THE ADA PATH OF TRAVEL. 8. ADA BUILDING ENTRANCE DOORWAYS MUST HAVE A LANDING IMMEDIATELY ADJACENT TO THEM AT THE EXTERIOR OF THE BUILDING OR STRUCTURE THAT MUST BE FIVE FEET BY FIVE FEET MINIMUM WITH SLOPES THAT MUST NOT EXCEED A 1:50 (2%)
- SLOPE IN ANY DIRECTION 9. WHEN EXISTING ADA SITE FEATURES ARE BEING RECONSTRUCTED OR MODIFIED THE CONTRACTOR MUST VERIFY THE EXISTING ELEVATIONS SHOWN ON THESE PLANS. NOTE THAT TABLE 405.2 OF THE ADA GUIDELINES ALLOWS FOR STEEPER RAMP SLOPES IN VERY RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCIES OR FIELD CONDITIONS THAT ARE DIFFERENT IN ANY WAY FROM WHAT IS SHOWN ON THESE PLANS, IN WRITING, BEFORE STARTING CONSTRUCTION.
- 10. THE CONTRACTOR MUST VERIFY THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY SLOPES ARE OBSERVED THAT DO NOT CONFORM TO THE ADA GUIDELINES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD PRIOR TO POURING CONCRETE. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE ANY FINISHED SURFACES OF ADA FEATURES AND SITE FEATURES ALONG THE ADA ROUTE THAT ARE NOT CONSTRUCTED IN STRICT CONFORMANCE WITH THE ADA GUIDELINES.

GRADING AND EARTHWORK NOTES

- 1. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THE GRADING AND DRAINAGE PLANS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET. IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED. THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER. LICENSED IN THE STATE OF NEW JERSEY, PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. SHOULD ANY OF THE SPECIFICATIONS OR RECOMMENDATIONS CONFLICT WITH THE GRADING PLAN OR SITE DETAILS, THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD IMMEDIATELY.
- 2. THE CONTRACTOR IS REQUIRED TO SECURE ALL REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES. AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE CONTRACTOR STARTING ANY WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT
- ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION TO CONFIRM NO MAJOR CHANGES SINCE THE DATE OF THE SURVEY REFERENCED AS PART OF THIS PLAN SET. IF DISCREPANCIES BETWEEN THE PLANS AND SITE CONDITIONS EXIST. THEN THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD IN WRITING. 4. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITHIN THE IN-SITU SUBGRADE WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT TO THE REQUIRED COMPACTION. A COMPACTION REPORT MUST BE PREPARED VERIFYING THAT ALL FILLED AREAS. SUBGRADE AREAS WITHIN BUILDING FOOTPRINTS, AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND THESE PLANS. MOISTURE CONTENT OF THE SUBGRADE AT THE TIME OF PLACEMENT MUST BE SUBMITTED IN THE COMPACTION REPORT.
- 5. SUBBASE AGGREGATE OR MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER, OR OWNER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND REPLACED WITH APPROVED SUBBASE MATERIAL AND COMPACTED AS DIRECTED BY THE GEOTECHNICAL ENGINEER 6. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS. RULES. STATUTES, LAWS.
- THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES OR CONFLICTS BETWEEN THE GRADING PLAN AND ANY OTHER PLAN SHEET WITHIN THE PLAN SET. GENERALLY, THE INFORMATION ON THE GRADING PLAN WILL SUPERCEDE THE OTHER SHEETS IN THE PLAN SET.

ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE LATEST EDITION OF THE NJDOT SPECIFICATIONS

- THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO PRODUCE TO THE PROPOSED GRADING DESIGN, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS TO THE PROPOSED GRADES SHOWN HEREON
- 9. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY SIX INCHES ABOVE THE FINISHED PAVEMENT GRADE UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE ENGINEER OF RECORD APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLING CURBING. 10. THE CONTRACTOR MUST CONFIRM AND ENSURE THAT, AS CONSTRUCTED, IMPROVEMENTS CREATE THE FOLLOWING MINIMUM
- SLOPES (EXCEPT WHERE ADA REQUIREMENTS LIMIT THEM): 1.0% ON ALL CONCRETE SURFACES, 1.0% ON ASPHALT SURFACES, 2% IN GRASS OR LANDSCAPE AREAS AREAS AND 0.75% SLOPE AGAINST ALL CURBS TO PROVIDE POSITIVE DRAINAGE. 1. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON THE PLANS BOTH TOP AND BOTTOM OF WALL FLEVATIONS REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF WALL AND DO NOT REPRESENT THE ELEVATION OF THE PROPOSED WALL (INCLUDING THE CAP UNIT OR FOOTING). WALL FOOTINGS/FOUNDATION ELEVATIONS WHICH ARE NOT IDENTIFIED HEREIN AND ARE TO BE DETERMINED BY THE CONTRACTOR MUST BE DETERMINED AND SET BASED UPON FINAL STRUCTURAL DESIGN PREPARED BY A STRUCTURAL ENGINEER LICENSED
- IN THE STATE OF NEW JERSEY. THE CONTRACTOR MUST ENSURE THAT THE STRUCTURAL DESIGN FOR ALL WALLS SHOWN HEREON ARE APPROVED BY THE MUNICIPALITY PRIOR TO THE START OF CONSTRUCTION 12. THE CONTRACTOR MUST ENSURE THAT FENCING, GUIDERAIL, UTILITIES, AND OTHER SITE AMENITIES IN THE VICINITY OF THE RETAINING WALL(S), PROPOSED SCHEMATICALLY ON THESE PLANS, ARE MATERIALLY CONSIDERED AND INCORPORATED INTO
- THE RETAINING WALL DESIGN BY THE STRUCTURAL ENGINEER. 13. THE CONTRACTOR MUST ENSURE THAT THERE ARE NO UTILITIES INSTALLED ON THE PASSIVE SIDE OF THE RETAINING WALL NO EXCAVATION MAY BE PERFORMED ON THE PASSIVE SIDE OF THE RETAINING WALL WITHOUT APPROPRIATELY AND SAFELY SUPPORTING THE WALL IN ACCORDANCE WITH THE STANDARD OF CARE AND ALL APPLICABLE RULES, REGULATIONS, CODES,
- 14. A FOUR FOOT TALL FENCE MUST BE PROVIDED ON ALL RETAINING WALLS IN EXCESS OF THIRTY INCHES IN HEIGHT FOR FALL PROTECTION.

ORDINANCES LAWS AND STATUTES

- 1. ALL RCP DRAINAGE PIPING SHALL BE CLASS III CIRCULAR REINFORCED CONCRETE PIPE WITH SILT/SOIL TIGHT JOINTS OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON THE PLANS. ALL DIP DRAINAGE PIPING SHALL BE CLASS 52 CIRCULAR DUCTILE IRON PIPE OR APPROVED EQUAL. ALL HDPE DRAINAGE PIPING SHALL BE ADS N-12 HIGH-DENSITY POLYETHYLENE PIPE WITH SOIL TIGHT GASKETS. OR APPROVED EQUAL
- WHEN PERFORATED PIPE IS SPECIFIED ON THE PLANS. IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT/SOIL TIGHT JOINT
- PIPE FOR ROOF DRAIN CONNECTIONS MUST BE PVC SDR 26 OR PVC SCHEDULE 40 UNLESS INDICATED OTHERWISE 4. ALL DRAINAGE PIPE CROSSINGS WITHIN 18 INCHES OR LESS OF A SANITARY SEWER MAIN OR LATERAL MUST HAVE A CONCRETE ENCASEMENT PER THE NIDEP REQUIREMENTS. IF THE DRAINAGE PIPE CROSSES ABOVE THE SANITARY PIPE APPROPRIATE STRUCTURAL SUPPORT MUST BE PROVIDED TO PREVENT THE LOAD OF THE DRAINAGE PIPE AND WATER FROM
- EXCEEDING THE LOADING CAPACITY OF THE SANITARY PIPE . UNLESS OTHERWISE NOTED, THE ROOF DRAINS FROM BUILDING ROOFS MUST DIRECTLY CONNECT TO THE ON-SITE DRAINAGE 6. UNLESS OTHERWISE NOTED, ALL DRAINAGE STRUCTURES MUST BE PRECAST CONCRETE WITH A MINIMUM OF H-25 LOAD
- RATING. ALL DRAINAGE FRAMES, INLET GRATES, AND MANHOLE COVERS MUST BE UNPAINTED AND UNCOATED HEAVY DUTY '. PRECAST CONCRETE MANUFACTURERS MUST CALCULATE THE THE LOAD FOR EACH DRAINAGE STRUCTURE TO CONFIRM THE
- MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY 8. UNLESS OTHERWISE NOTED OR INFERRED BY INVERT ELEVATIONS, PIPE CROWN ELEVATIONS MUST BE MATCHED IN ALL DRAINAGE MANHOLES AND INLETS. 9. ALL DRAINAGE STRUCTURES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE NJDOT SPECIFICATIONS FOR ROAD AND

MINIMUM LOAD RATING CAN BE MET CONSIDERING THE OPENINGS REQUIRED FOR THE PIPE CONNECTIONS. ANY CONFLICTS

- BRIDGE CONSTRUCTION. 10. ALL DRAINAGE INLETS AND MANHOLES SHALL BE SET ON A SIX INCH BED OF 3/4 INCH CLEAN CRUSHED STONE.
- 11. UNLESS OTHERWISE NOTED, ALL DRAINAGE INLET SHALL BE FITTED WITH ADA COMPLIANT BICYCLE SAFE GRATES. 12 TYPE 'N' ECO HEAD GRATES SHALL BE USED ON ALL TYPE 'B' DRAINAGE INLETS.
- 13. REFER TO THE STORMWATER OPERATIONS AND MAINTENANCE MANUAL FOR MAINTENANCE OF ALL STORMWATER BASIN AND BMP STRUCTURES ON THE SITE. 14. UNLESS OTHERWISE NOTED, A MINIMUM OF TWO FEET OF CLEAR SEPARATION MUST BE PROVIDED BETWEEN PARALLEL DRAINAGE PIPES.
- 15. ALL DRAINAGE STRUCTURES MUST BE MAINTAINED AND CLEANED OF DEBRIS ON A REGULAR BASIS DURING CONSTRUCTION. 16. ALL DRAINAGE STRUCTURES MUST BE MAINTAINED IN ACCORDANCE WITH THE OPERATIONS AND MAINTENANCE MANUAL

UTILITY NOTES

- 1. THE LOCATIONS OF ALL EXISTING AND PROPOSED NATURAL GAS, TELECOM, ELECTRIC, AND WATER SERVICES ARE APPROXIMATE AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THE LOCATIONS OF ALL UTILITIES MEET APPROPRIATE SPACE REQUIREMENTS WHEN REVIEWING THE EXISTING SITE CONDITIONS. THE CONTRACTOR MUST COORDINATE WITH THE LOCAL UTILITY COMPANIES PRIOR TO STARTING CONSTRUCTION TO AVOID INTERFERENCE OR CONFLICTS. THE LOCATIONS OF NATURAL GAS, TELECOM, AND ELECTRIC LINES WILL BE DETERMINED BY THE UTILITY PURVEYOR PROVIDING SERVICE. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, CONFLICTS, AND OMISSIONS IN WRITING. TO THE ENGINEER OF RECORD.
- THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE NEW JERSEY 811 ONE CALL SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION. AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED
- WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION. 3. STREETS, SIDEWALKS, DRIVEWAYS, CURBS, AND OTHER FINISHED SURFACES DISTURBED BY THE CONSTRUCTION OF THE
- IMPROVEMENTS SHOWN HEREON MUST BE RESTORED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, COUNTY, THE NJDOT, AND THE SOIL CONSERVATION DISTRICT. 4. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED CROSSINGS OF EXISTING UNDERGROUND UTILITIES BY USING A TEST
- PIT TO CONFIRM THE EXACT DEPTH PRIOR TO COMMENCEMENT OF CONSTRUCTION OF ANY PART OF THE PROPOSED UTILITY 5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR MUST VERIFY ROOF DRAIN
- LOCATIONS AND SIZES PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF RECORD OF ANY CONFLICTS BETWEEN 6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR UTILITY CONNECTION LOCATIONS GREASE TRAP REQUIREMENTS DOOR ACCESS AND EXTERIOR GRADING IMMEDIATELY AROUND THE

BUILDING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION

OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE

7. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATING THE UTILITY SERVICE CONNECTIONS TO PUBLIC UTILITY INFRASTRUCTURE PRIOR TO MAKING ANY CONNECTIONS. WHERE A CONFLICT EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER. THE

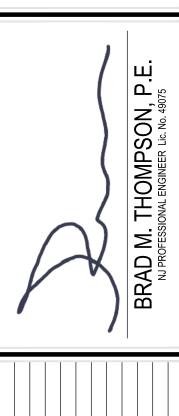
APPROPRIATE UTILITY COMPANIES PRIOR TO BACKFILLING THE TRENCH.

THE COMPLETION OF THE WORK

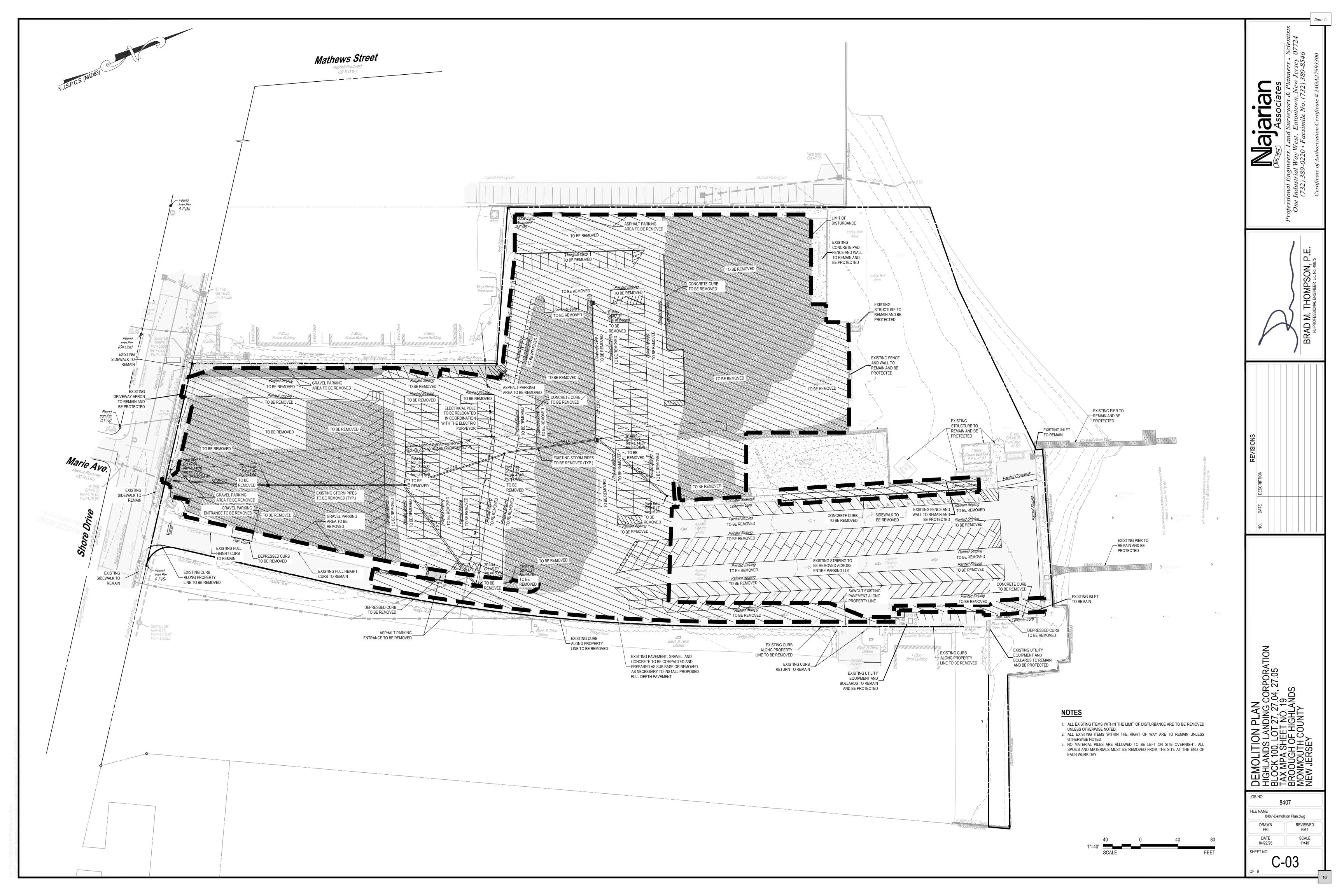
- CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD. IN WRITING, PRIOR TO CONSTRUCTION. B. THE LAYOUT OF COMMON UTILITY TRENCHES AND CONNECTIONS TO BUILDINGS MUST BE VERIFIED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL COMMON UTILITY TRENCH INSPECTION WITH THE
- RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. ENGINEER OF RECORD IS NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS.

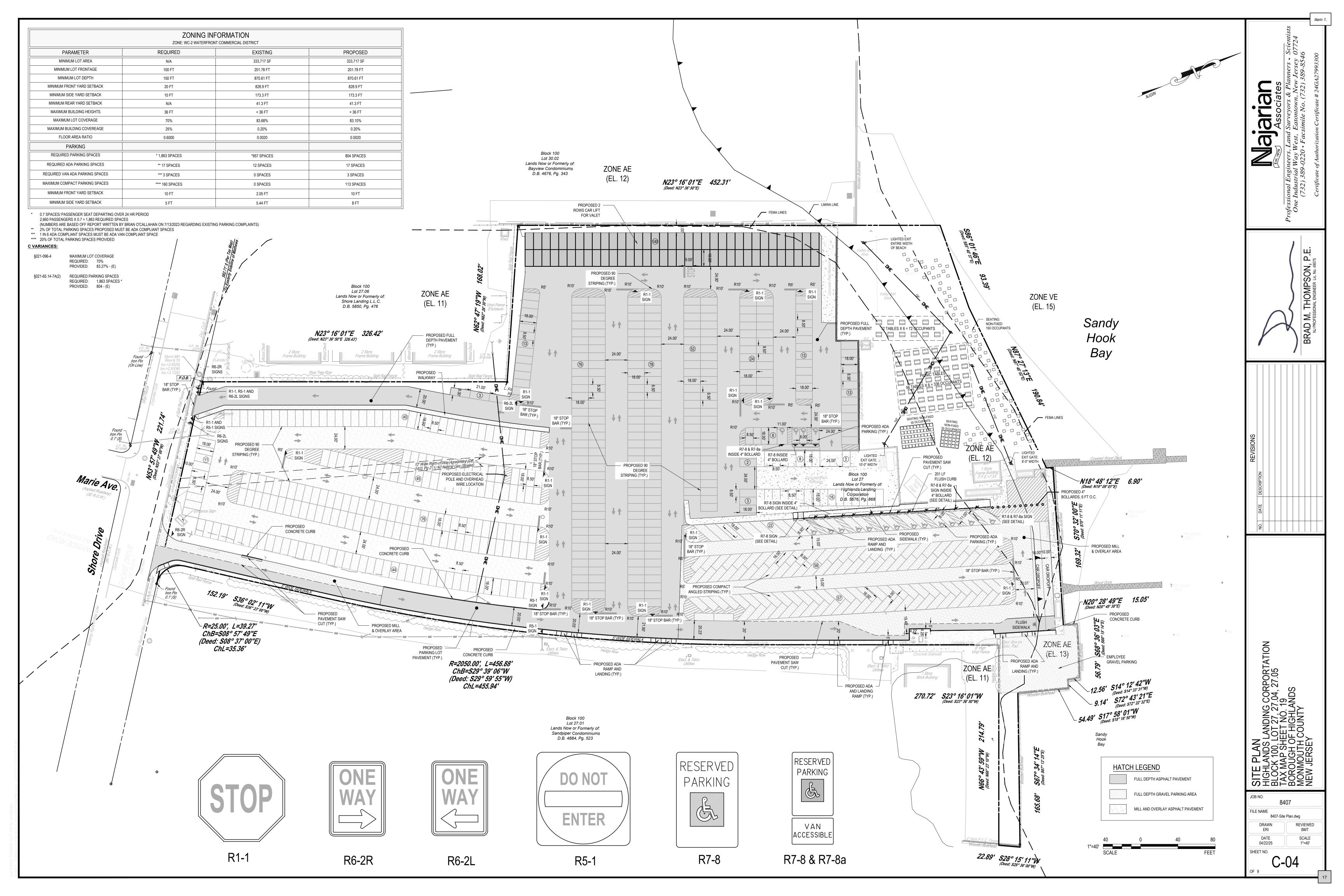
9. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE

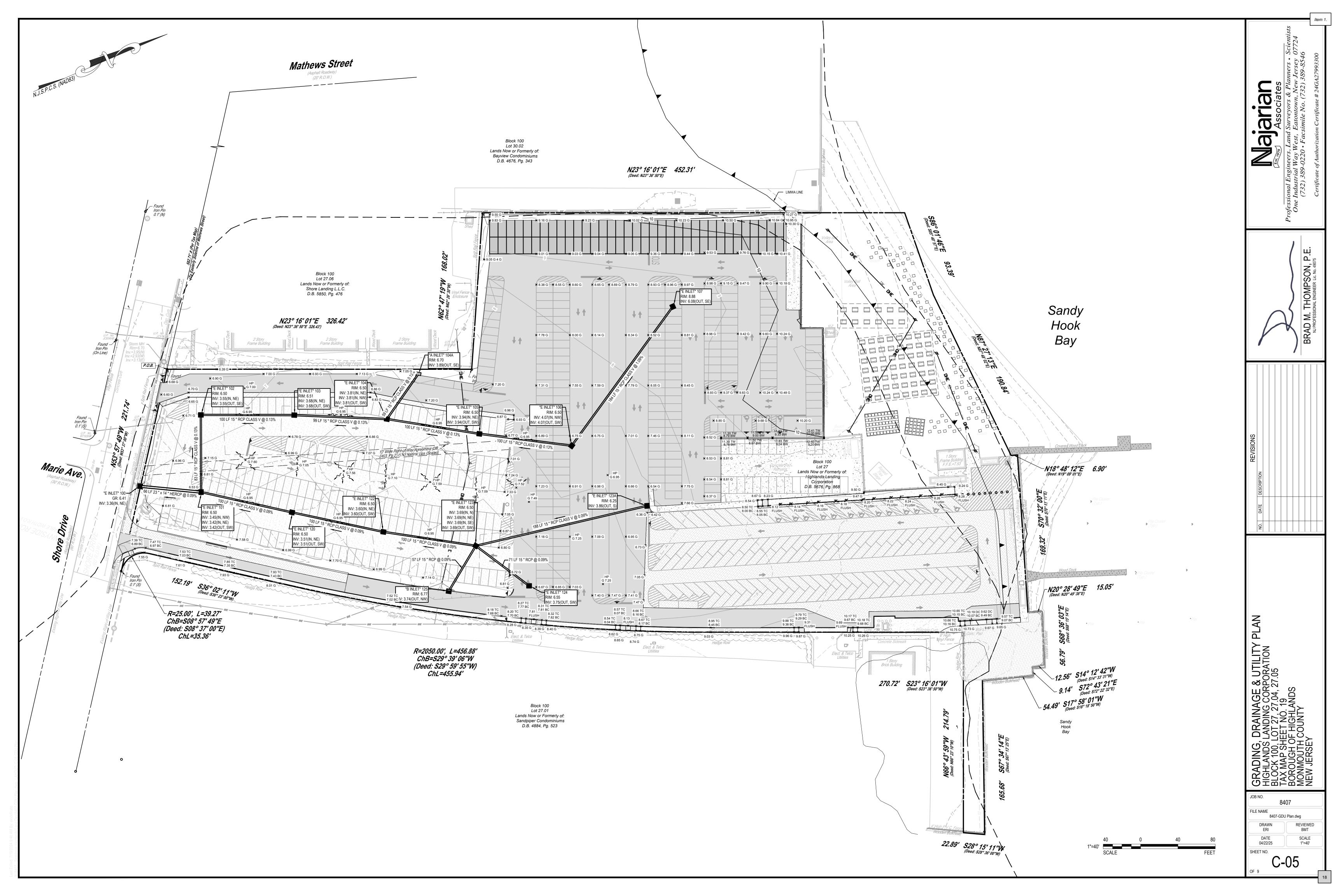
- 10. DURING THE INSTALLATION OF UTILITIES, THE CONTRACTOR MUST MAINTAIN A THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED WITHIN THESE PLANS. THE RECORD MUST BE KEPT ON A CLEAN COPY OF THE APPROPRIATE PLANS. WHICH THE CONTRACTOR MUST PROVIDE TO THE OWNER IMMEDIATELY UPON
- 11. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY, OR NJDOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY HAVING JURISDICTION OVER THE UTILITY
- 12. FINAL LOCATIONS OF PROPOSED UTILITY POLES TO BE RELOCATED TO BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY. UTILITY POLE LOCATIONS DEPICTED ON THESE PLANS ARE SCHEMATIC ONLY. 13. STREET LIGHTS ARE TO BE INSTALLED IN COORDINATION WITH THE UTILITY COMPANY AND MUNICIPAL STANDARDS. SPACING
- AND FIXTURE MANUFACTURER AND MODEL TO BE AS SPECIFIED BY THE MUNICIPAL STANDARDS. 14. THE TOPS OF EXISTING MANHOLES, INLETS, CLEANOUTS, AND VALVES MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS. 15. SANITARY SEWER MAINS MUST BE SEPARATED FROM ALL WATER MAINS BY A MINIMUM OF TEN FEET HORIZONTALLY. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE. THE PIPES MUST BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE NJDEP. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE. THE SEWER MUST BE ENCASED IN CONCRETE. OR CONSTRUCTED OF CLASS 53 DUCTILE IRON PIPE AND APPROPRIATELY LINED. USING MECHANICAL OR SLIP-ON WATERTIGHT JOINTS FOR A DISTANCE OF AT LEAST 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. 16. WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY, UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4 STAKE, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE PLANS AS PART OF THE RECORD DOCUMENTS
- 17. STORM AND SANITARY PIPE LENGTHS INDICATED ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE 18. THE CONTRACTOR MUST NOTIFY, IN WRITING, THE MUNICIPAL ENGINEER AND ENGINEER OF RECORD AT LEAST 72 HOURS PRIOR TO INSTALLATION OF SANITARY SEWER UTILITIES. FAILURE TO HAVE SANITARY SEWER INSTALLATION AND TESTING OBSERVED BY THE DESIGNATED ENGINEER MAY REQUIRE RE-EXCAVATION OF SANITARY SEWER UTILITIES AND RE-TESTING, WHICH WILL BE DONE AT THE CONTRACTOR'S SOLE COST AND EXPENSE
- 19. NATURAL GAS METERS MUST BE PROTECTED BY BOLLARDS AND FENCES IF INSTALLED WITHIN THE EXTERIOR OF THE BUILDING AS REQUIRED BY THE JURISDICTIONAL NATURAL GAS PURVEYOR.

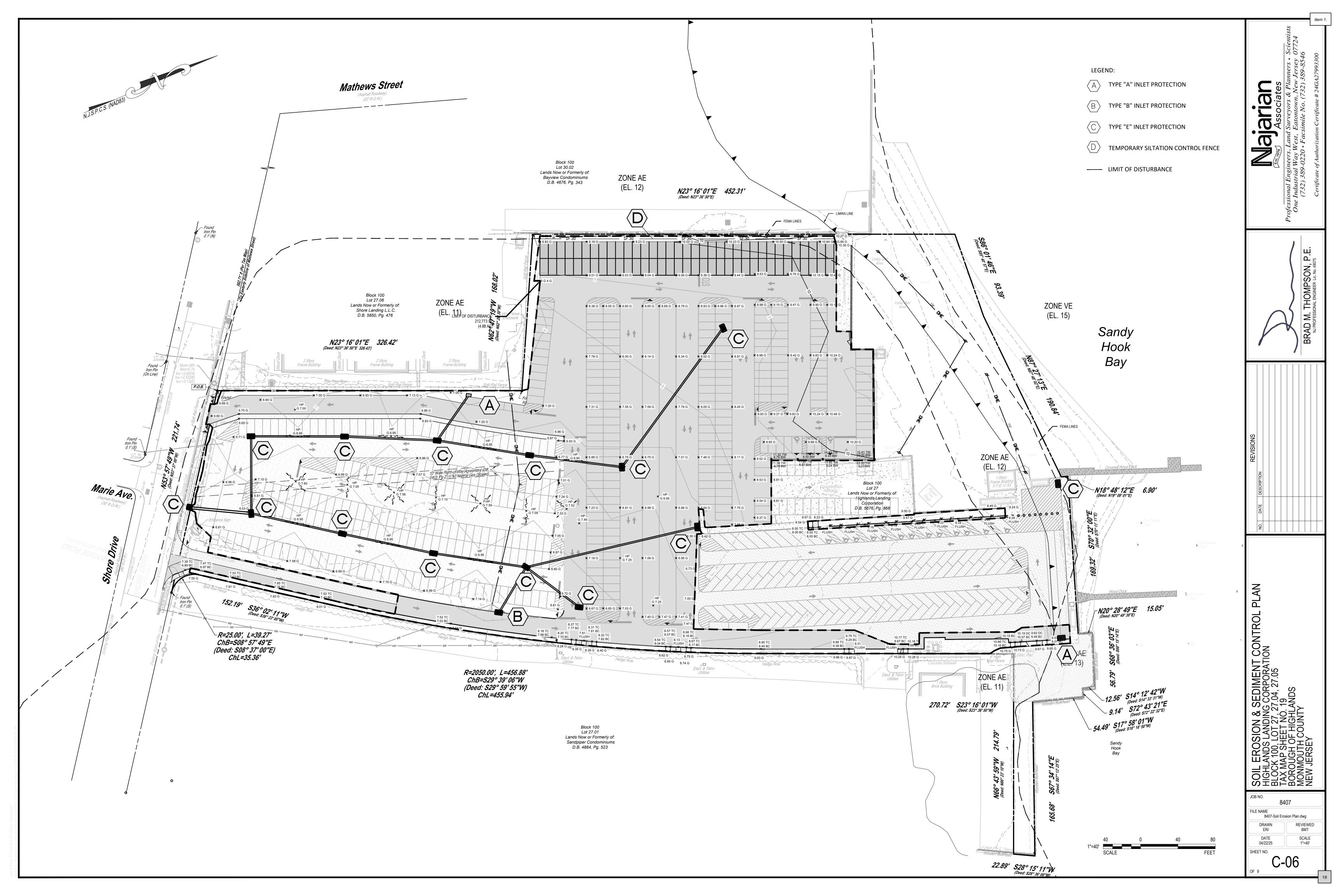


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TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. <u>SITE PREPARATION</u>

- 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." 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
- 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

- 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 10-20-10 OR FOUIVALENT 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
- B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS
- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED 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. <u>SEEDING</u>

A SELECT SEED FROM RECOMMENDATIONS IN TABLE

TEMPORARY VEGETATIVE STABILIZATION GRASSES. SEEDING RATES. DATES AND DEPTH

DATES AND DEL TIT									
		IG RATE os)		JM SEEDIN PLANT HARD	OPTIMUM SEED DEPTH				
SEED SELECTIONS	Per Acre	Per 1000 SF	ZONE 5b,6s	ZONE 6b	ZONE 7a, b	(in)			
COOL SEASON GRASSES									
1. PERENNIAL RYEGRASS	100	1.0000	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	0.5000			
2. SPRING OATS	86	2.0000	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	1.0000			
3.WINTER BARLEY	96	2.2000	8/1-9/15	8/15-10/1	8/15-10/15	1.0000			
4.ANNUAL RYEGRASS	100	1.0000	3/15-6/1 8/1-9/15	3/15-6/1 8/1-9/15	2/15-5/1 8/15-10/15	0.5000			
5.WINTER CEREAL RYE	112	2.8000	8/1-11/1	8/1-11/15	8/1-12/15	1.0000			
		WARM	SEASON GRA	SSES					
6. PEARL MILLET	20	0.5000	6/1-8/1	5/15-8/15	5/1-9/1	1.0000			
7. MILLET (GERMAN OR HUNGARIAN)	30	0.7000	6/1-8/1	5/15-8/15	5/1-9/1	1.0000			

- 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, MUILCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED, SHORT FIBERED. MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION IV MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.
- 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

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

- 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.
- MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- CRIMPER (MULCH ANCHORING 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.
- LIQUID MULCH-BINDERS. MAY BE USED TO ANCHOR HAY OR STRAW MULCH.
- 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:
- 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 WILI FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. 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.
- SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION. MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

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

- 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 PONDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS 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, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIES IN ACCORDANCE WITH THE MANUFACTURERS 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 BEE 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.

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

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
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- 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.

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.
- 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 HARROWING 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.

- 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.
 - 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.
- WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES. GENERALLY 850 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
- COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 850 F. MANY GRASSES BECOME ACTIVE AT 650 F. 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 SEEDINGS. SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED
- 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. SHORTFIBERED 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.

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

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

IRRIGATION (WHERE FEASIBLE)

SPRING AND FALL.

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.

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 COVER (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.

STANDARD FOR LAND GRADING

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE WHERE GRADING TO PLANNED ELEVATIONS IS PRACTICAL AND IT IS DETERMINED THAT GRADING IS NEEDED. GRADING THAT INVOLVES THE DISTURBANCE OF VEGETATION OVER LARGE AREAS SHALL BE AVOIDED. IT MAY BE NECESSARY TO PROVIDE FOR TEMPORARY STABILIZATION OF LARGE AREAS.

WATER QUALITY ENHANCEMENT PROPER GRADING OF DISTURBED SITES WILL PROTECT AGAINST SOIL LOSS FROM EROSION, ENHANCE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER AND HELP TO PROPERLY MANAGE STORMWATER RUNOFF ALL OF WHICH WILL REDUCE OFF SITE

DISCHARGE OF POLLUTANTS. PLANNING CRITERIA

THE GRADING PLAN AND INSTALLATION SHALL BE BASED UPON ADEQUATE TOPOGRAPHIC SURVEYS AND INVESTIGATIONS. THE PLAN IS TO SHOW THE LOCATION, SLOPE, CUT, FILL AND FINISH ELEVATION OF THE SURFACES TO BE GRADED. THE PLAN SHOULD ALSO INCLUDE AUXILIARY PRACTICES FOR SAFE DISPOSAL OF RUNOFF WATER, SLOPE STABILIZATION, EROSION CONTROL AND DRAINAGE. FACILITIES SUCH AS WATERWAYS, DITCHES, DIVERSIONS, GRADE STABILIZATION STRUCTURES, RETAINING WALLS AND SUBSURFACE DRAINS SHOULD BE INCLUDED WHERE NECESSARY

EROSION CONTROL MEASURES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE STANDARD

THE DEVELOPMENT AND ESTABLISHMENT OF THE PLAN SHALL INCLUDE THE FOLLOWING:

- 1. THE CUT FACE OF EARTH EXCAVATIONS AND FILLS SHALL BE NO STEEPER THAN THE SAFE ANGLE OF REPOSE FOR THE MATERIALS ENCOUNTERED AND FLAT ENOUGH FOR PROPER MAINTENANCE.
- 2. THE PERMANENTLY EXPOSED FACES OF EARTH CUTS AND FILLS SHALL BE VEGETATED OR OTHERWISE PROTECTED
- PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
- SUBSURFACE DRAINAGE IS TO BE PROVIDED IN AREAS HAVING A HIGH WATER TABLE, TO INTERCEPT SEEPAGE THAT WOULD ADVERSELY AFFECT SLOPE STABILITY, BUILDING FOUNDATIONS OR CREATE UNDESIRABLE WETNESS. SEE STANDARD FOR SUBSURFACE DRAINAGE, PG. 32-1.
- 5. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
- 6. FILL SHALL NOT BE PLACED ADJACENT TO THE BANK OF A STREAM OR CHANNEL, UNLESS PROVISIONS ARE MADE TO PROTECT THE HYDRAULIC, BIOLOGICAL, AESTHETIC AND OTHER ENVIRONMENTAL FUNCTIONS OF THE STREAM.

SOIL MANAGEMENT AND PREPARATION

OF EXCESSIVE SOIL COMPACTION WHEN APPROPRIATE.

SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER THIS SECTION OF THIS STANDARD ADDRESSES THE POTENTIAL FOR EXCESSIVE SOIL COMPACTION IN LIGHT OF THE INTENDED LAND USE, TESTING FOR EXCESSIVE SOIL COMPACTION WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED AND MITIGATION

DUE TO USE OR SETTING, CERTAIN DISTURBED AREAS WILL NOT REQUIRE COMPACTION REMEDIATION INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

- WITHIN 20 FEET OF BUILDING FOUNDATIONS WITH BASEMENTS, 12 FEET FROM SLAB OR CRAWL SPACE
- WHERE SOILS OR GRAVEL SURFACES WILL BE REQUIRED TO SUPPORT POST-CONSTRUCTION VEHICULAR TRAFFIC LOADS SUCH AS ROADS, PARKING LOTS AND DRIVEWAYS (INCLUDING GRAVEL SURFACES), BICYCLE PATHS OR PEDESTRIAN WALKWAYS (SIDEWALKS ETC)
- AIRPORTS, RAILWAYS OR OTHER TRANSPORTATION FACILITIES
- AREAS REQUIRING INDUSTRY OR GOVERNMENT SPECIFIED SOIL DESIGNS, INCLUDING GOLF COURSES, LANDFILLS, WETLAND RESTORATION, SEPTIC DISPOSAL FIELDS, WET/LINED PONDS, ETC.
- AREAS GOVERNED OR REGULATED BY OTHER LOCAL, STATE OR FEDERAL REGULATIONS WHICH DICTATE SOIL
- BROWNFIELDS (CAPPED USES), URBAN REDEVELOPMENT AREAS, , IN-FILL AREAS, , RECYCLING YARDS, JUNK YARDS, QUARRIES AND
- 7. SLOPES DETERMINED TO BE INAPPROPRIATE FOR SAFE OPERATION OF EQUIPMENT
- PORTIONS OF A SITE WHERE NO HEAVY EQUIPMENT TRAVEL OR OTHER DISTURBANCE HAS TAKEN PLACE
- AREAS RECEIVING TEMPORARY VEGETATIVE STABILIZATION IN ACCORDANCE WITH THE STANDARD.
- 10. WHERE THE AREA AVAILABLE FOR REMEDIATION PRACTICES IS 500 SQUARE FEET OR LESS IN SIZE. 11. LOCATIONS CONTAINING SHALLOW (CLOSE TO THE SURFACE) BEDROCK CONDITIONS.

AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION SHALL BE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN.

SOIL COMPACTION REMEDIATION OR TESTING TO PROVE REMEDIATION IS NOT NECESSARY WILL BE REQUIRED IN AREAS WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED THAT ARE NOT OTHERWISE EXEMPTED ABOVE. TESTING METHOD SHALL BE SELECTED, AND SOIL COMPACTION TESTING SHALL BE PERFORMED BY. THE CONTRACTOR OR OTHER PROJECT OWNER'S REPRESENTATIVE (E.G. ENGINEER). A MINIMUM OF TWO (2) TESTS SHALL BE PERFORMED FOR PROJECTS WITH AN OVERALL LIMIT OF DISTURBANCE OF UP TO ONE (1) ACRE AND AT A RATE OF TWO (2) TESTS PER ACRE OF THE OVERALL LIMIT OF DISTURBANCE FOR LARGER AREAS WHICH SHALL BE EVENLY DISTRIBUTED OVER THE AREA OF DISTURBANCE SUBJECT TO TESTING. TESTS SHALL BE PERFORMED IN AREAS REPRESENTATIVE OF THE CONSTRUCTION ACTIVITY PREVAILING IN THE AREA. IN THE EVENT THIS TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE TESTING METHOD, THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM COMPACTION MITIGATION OVER THE ENTIRE DISTURBED AREA XCLUDING EXEMPT AREAS) OR TO PERFORM ADDITIONAL TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION.

SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

SOIL TEST METHOD OPTIONS PROBING WIRE TEST METHOD

THIS TEST SHALL BE CONDUCTED WITH A FIRM WIRE (15-1/2 GAUGE STEEL WIRE - E.G. SURVEY MARKER FLAG, STRAIGHT WIRE STOCK, ETC.), 18 TO 21 INCHES IN LENGTH, WITH 6" INCHES FROM ONE END VISIBLY MARKED ON THE WIRE. CONDUCT WIRE FLAG TEST BY HOLDING THE WIRE FLAG NEAR THE FLAG END AND PUSH IT VERTICALLY INTO THE SOIL AT SEVERAL DIFFERENT LOCATIONS IN THE FIELD TO THE LESSER OF A 6 INCH DEPTH OR THE DEPTH AT WHICH IT BENDS DUE TO RESISTANCE IN THE SOIL. RECORD THE DEPTH AT WHICH IT BENDS DUE TO RESISTANCE IN THE SOIL. THE WIRE SHOULD PENETRATE WITHOUT BENDING OR DEFORMING AT LEAST 6" INTO THE GROUND BY HAND. WITHOUT THE USE OF TOOLS. IF PENETRATION FAILS AND AN OBSTRUCTION IS SUSPECTED (ROCKS, ROOT, DEBRIS, ETC.) THE TEST CAN BE REPEATED IN THE SAME GENERAL AREA. IF THE TEST IS SUCCESSFUL THE SOIL IS NOT EXCESSIVELY COMPACTED. IF THE WIRE IS DIFFICULT TO INSERT (WIRE BENDS OR DEFORMS PRIOR TO REACHING 6 INCHES IN DEPTH) THE SOIL MAY BE EXCESSIVELY COMPACTED AND COMPACTION MITIGATION OR FURTHER TESTING VIA METHOD 3 OR 4 BELOW IS REQUIRED, THE CHOICE OF WHICH IS AT THE CONTRACTOR/OWNER'S DISCRETION.

2. HANDHELD SOIL PENETROMETER TEST METHOD

THIS TEST SHALL BE CONDUCTED BASED ON THE STANDARD OPERATION PROCEDURE (SOP) #RCE2010-001. PREPARED BY THE RUTGERS COOPERATIVE EXTENSION, IMPLEMENTED JUNE 1, 2010, LAST REVISED FEBRUARY 28, 2011. A RESULT OF LESS THAN OR FOLIAL TO 300 PSI SHALL BE CONSIDERED PASSING. IF THE RESULT IS GREATER THAN 300. PSI THE SOIL MAY BE EXCESSIVELY COMPACTED AND COMPACTION MITIGATION OR FURTHER TESTING VIA METHOD 3 OR 4 BELOW IS REQUIRED, THE CHOICE OF WHICH IS AT THE CONTRACTOR/OWNER'S DISCRETION.

3. TUBE BULK DENSITY TEST METHOD

THIS TEST SHALL BE CERTIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER UTILIZING ONLY UNDISTURBED SAMPLES (RECONSTITUTION OF THE SAMPLE NOT PERMITTED) COLLECTED UTILIZING THE PROCEDURE FOR SOIL BULK DENSITY TESTS AS DESCRIBED IN THE USDA NRCS SOIL QUALITY TEST KIT GUIDE. SECTION 1-4, JULY 2001. WHEN THE TEXTURE OF THE SOIL TO BE TESTED IS A SAND OR LOAMY SAND AND LACK OF SOIL COHESION OR THE PRESENCE OF LARGE AMOUNTS OF COARSE FRAGMENTS, ROOTS OR WORM CHANNELS PREVENT THE TAKING OF UNDISTURBED SAMPLES. THIS TEST SHALL NOT BE USED.

WHERE THE RESULTS OF REPLICATE TESTS DIFFER BY MORE THAN TEN PERCENT (10%), THE SAMPLES SHALL BE

- EXAMINED FOR THE FOLLOWING DEFECTS: i. CRACKS, WORM CHANNELS, LARGE ROOT CHANNELS OR POOR SOIL TUBE CONTACT WITHIN THE SAMPLES;
- ii. LARGE PIECES OF GRAVEL, ROOTS OR OTHER FOREIGN OBJECTS
- iii. SMEARING OR COMPACTION OF THE UPPER OR LOWER SURFACE OF THE SAMPLES IF ANY OF THE DEFECTS DESCRIBED IN 3 (I-III) ABOVE ARE FOUND, THE DEFECTIVE CORE(S) SHALL BE DISCARDED AND THE TEST REPEATED USING A NEW REPLICATE SAMPLE FOR EACH DEFECTIVE REPLICATE SAMPLE. THE BULK DENSITY

(DEFINED AS THE WEIGHT OF DRY SOIL PER VOLUME) RESULTS SHALL BE COMPARED WITH THE MAXIMUM DRY BULK

SHALL BE COMPARED WITH THE MAXIMUM DRY BULK DENSITIES IN TABLE 19-1, A RESULT OF LESS THAN OR EQUAL TO

MAXIMUM BULK DENSITY THE SOIL SHALL BE CONSIDERED EXCESSIVELY COMPACTED AND COMPACTION MITIGATION

THE APPLICABLE MAXIMUM BULK DENSITY SHALL BE CONSIDERED PASSING. IF THE RESULT IS GREATER THAN THE

DENSITIES IN TABLE 19-1. A RESULT OF LESS THAN OR EQUAL TO THE APPLICABLE MAXIMUM BULK DENSITY SHALL BE CONSIDERED PASSING. IF THE RESULT IS GREATER THAN THE MAXIMUM BULK DENSITY THE SOIL SHALL BE CONSIDERED EXCESSIVELY COMPACTED AND COMPACTION MITIGATION IS REQUIRED. NUCLEAR DENSITY TEST METHOD

THIS TEST SHALL BE CERTIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER AND CONDUCTED BY A NUCLEAR GAUGE CERTIFIED INSPECTOR PURSUANT TO ASTM D6938 . THE BULK DENSITY MEASUREMENT RESULTS

SOIL TYPE/TEXTURE BULK DENSITY (G/CC) COARSE, MEDIUM AND FINE SANDS AND LOAMY SANDS VERY FINE SAND AND LOAMY VERY FINE SAND 1.77 SANDY LOAM 1.75 LOAM, SANDY CLAY LOAM 1.70 SANDY CLAY 1.60 SILT, SILT LOAM 1.55 SILTY CLAY LOAM 1.50 SILTY CLAY 1.45

ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT AY BE ALLOWED SUBJECT TO DISTRICT APPROVAL

PROCEDURES FOR SOIL COMPACTION MITIGATION

IE SUBGRADE SOILS ARE DETERMINED TO BE EXCESSIVELY COMPACTED BY TESTING, AS IDENTIFIED ABOVE, PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER. RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.) OR IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER

TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETATIVE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE PLAN.

TOPSOIL IS TO STRIPPED AND STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS REQUIRING TOPSOIL. SEE STANDARD FOR TOPSOILING, PG 8-1.

INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESSIVE SATURATION.

FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE

DETRIMENTAL TO CONSTRUCTING STABLE FILLS. ALL STRUCTURAL FILLS SHALL BE COMPACTED AS DETERMINED BY STRUCTURAL ENGINEERING REQUIREMENTS FOR THEIR

ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION. SEE STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG 4-1.

TREES TO BE RETAINED SHALL BE PROTECTED IF NECESSARY IN ACCORDANCE WITH THE STANDARD FOR TREE PROTECTION DURING CONSTRUCTION, PG. 9-1.

PERMANENT STABILIZATION MIXTURES FOR VARIOUS USES PLANTING MIXTURES BY SOIL DRAINAGE CLASS (SEE TABLE BELOW) **APPLICATION** SOMEWHAT WELL TO **EXCESSIVELY** MODERATELY POORLY TO DRAINED WELL DRAINED POORLY DRAINED RESIDENTIAL/COMMERCIA 10. 12. 15 6, 10, 12, 13, 14, 15 10, 12, 15 LOTS POND AND CHANNEI BANKS, DIKES, BERMS AND 2, 5, 6, 10 5, 6, 7, 8, 9, 15 2, 5, 6, 10 DAMS DRAINAGE DITCHES. 2, 9, 11 2, 7, 9, 11, 12, 17 2, 9, 11 SWALES, DENTION BASINS 11, 12 FILTER STRIPS 11, 12 **GRASSES WATERWAY** 6, 7, 9, 10, 11, 12 2, 9, 11, 12 2, 3, 9, 10, 12 SPILLWAYS RECREATION AREAS, 5, 12, 15, 18 12, 13, 14, 15, 18 ATHLETIC FIELDS SPECIAL PROBLEM SITES STEEP SLOPES AND BANKS 2, 3, 4, 6 2, 3, 5, 7, 8, 9, 10, 15, 18 2. 9. 10. 11. 12 ROADSIDES, BORROW AREAS SAND AND GRAVEL PITS, 1, 2, 3, 4, 5, 6, 8, 15, 20 2, 8 1, 2, 3, 4, 6, 20 SANITARY LANDFILLS DREDGED .ATERIAL 2, 3, 6, 20 2, 3, 6, 11 2.8 SPOILBANKS, BORROW AREAS STREAMBANKS & 2, 8, 20, 21a 2, 8, 19b, 20, 21a, 21b 2, 8, 19a, 21a,b,c,d SHORELINES

2. 7. 18

3.7

SOIL EROSION AND SEDIMENT CONTROL NOTES

- THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- 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.
- 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.
- N.J.S.A 4:24-39 ET. SEQ REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINE 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
- 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 ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE ACCORDING TO THE STANDARD FOR STABILIZATION WITH MULCH ONLY
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH
- MULCH OR A SUITABLE EQUIVALENT. AND A MULCH ANCHOR. IN ACCORDANCE WITH STATE STANDARDS. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS. ROADS. DRIVEWAYS. AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT. THE
- SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED. INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL
- ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC
- RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL
- AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL BE NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT. SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE
- CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SUI FIDES SHALL BE UI TIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRES (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL
- WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM
- BECOMING OPERATIONAL UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE
- SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL
- 16. STOCKPILE AND STAGING LOCATION ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000
- SQUARE FEET IS DISTURBED. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW

STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

PLANTING DATES O=OPTIMAL PLANTING PERIOD A=ACCEPTABLE PLANTING PLANTING RATES PERIOD SEED MIXTURE REMARKS PLANT HARDINESS ZONES ZONE 5b, 6a ZONE 7a, 7b ZONE 6b | LBS / | 3/15- | 6/1- | 8/1- | 3/1- | 5/1- | 8/15- | 2/1- | 5/1- | 8/15- | ⋛ AC. | 1000 SF | 5/31 | 7/31 | 10/1 | 4/30 | 8/14 | 10/15 | 4/30 | 8/14 | 10/30 | WARM SEASON SEED MIXTURES

8, 9, 17

PERMANENT VEGETATIVE MIXTURES, PLANTING RATES AND PLANTING DATES

COLD SEASON SEED MIXTURES

STANDARD FOR DUST CONTROL

ZOYSIAGRASS (SEED

CHEWING FESCUE AND/OR

PERENNIAL RYEGRAS

STRONG CREEPING RED FESCUI

KENTUCKY BLUEGRASS (BLEND)

UTILITY RIGHT-OF-WAY

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTIONS.

WATER QUALITY ENHANCEMENT SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

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

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

TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED. ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED

SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE JSED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY

USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

SEQUENCE OF CONSTRUCTION

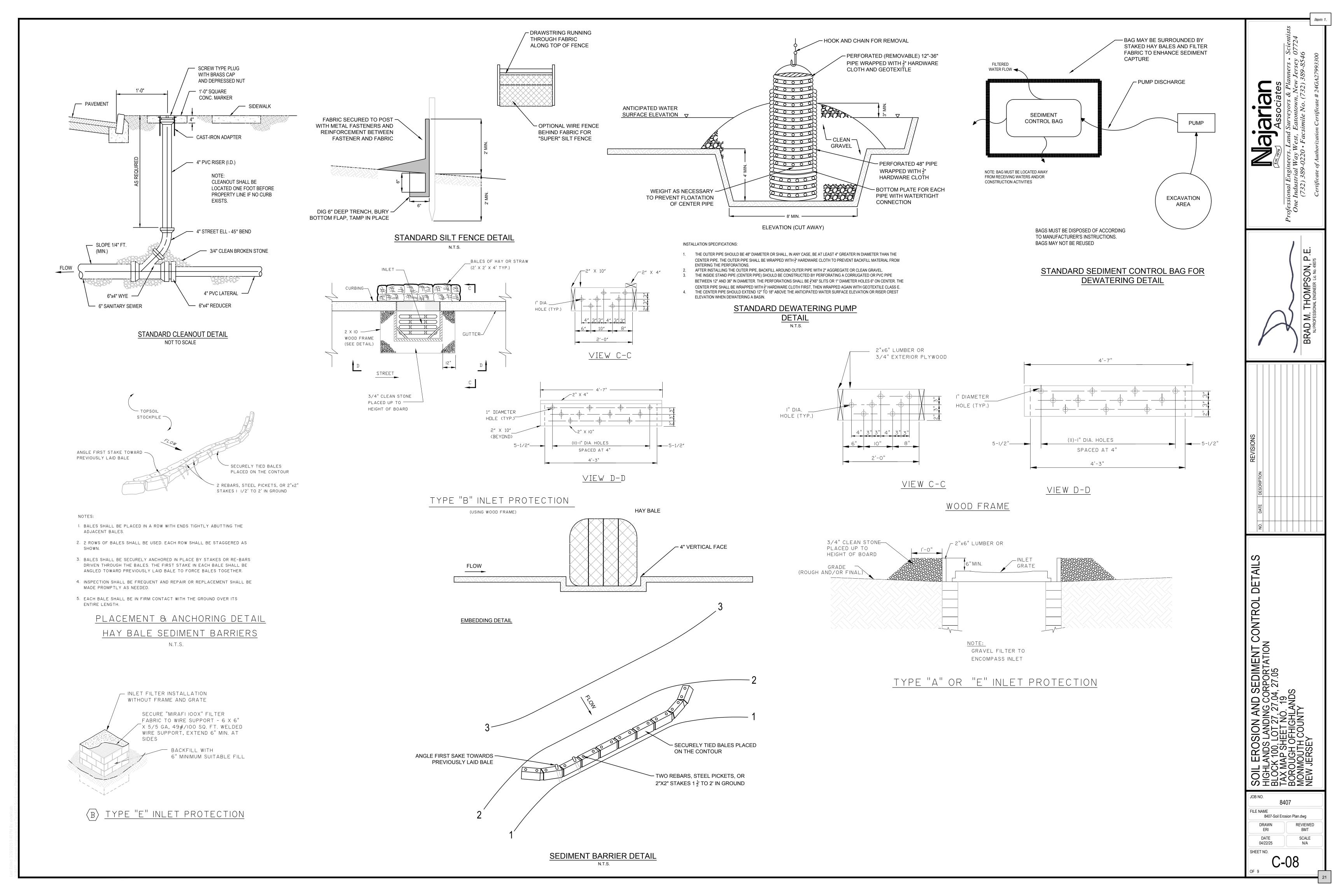
TOLERANCE, ZOYSIA HAS GREATER

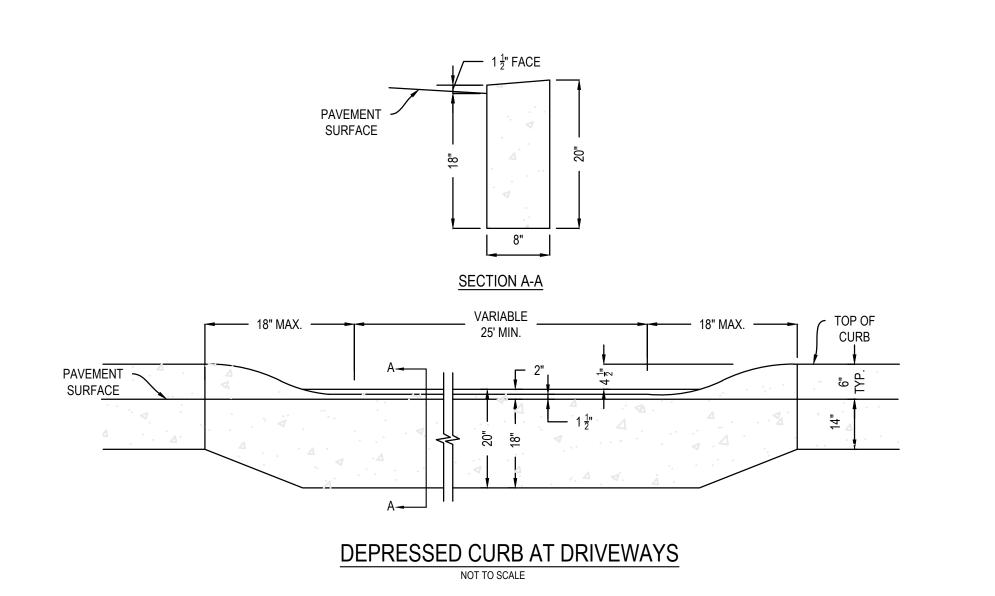
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1 DAY)
- INSTALL PERIMETER SILT FENCE (2 DAY) STRIP AND STOCKPILE TOPSOIL AND STABILIZE (1 WEEK)
- BEGIN ROUGH GRADING (1 WEEK) BEGIN STORM SYSTEM, CURBING, AND ROADWAY SUB-BASE (5 WEEKS) CONSTRUCT REMAINING SEDIMENT CONTROL MEASURES AROUND INLETS (1 WEEKS
- ESTABLISH CURBSIDE SEDIMENT BARRIERS AFTER CURBS AND UTILITIES ARE INSTALLED (5 DAYS) BEGIN FINE GRADING AND ROADWAY PAVING (5 WEEKS) FINISH FINE GRADING AND SODDING (1 WEEKS)
- REMOVE THE SEDIMENT AROUND STONE FILTERS, SILT FENCES, AND HAY BALES (4 DAYS) 11. PERFORM SOIL RESTORATION MEASURES PRIOR TO TOPSOILING FOR PERMANENT STABILIZATION (5 DAYS)

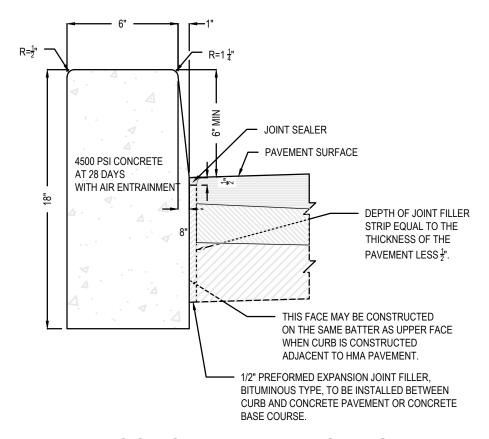
2. CLEAN REMAINING SOIL EROSION CONTROL MEASURES AFTER STABILIZATION AND REMOVE SILT FENCES (5 DAYS) 13. REMOVE SOIL EROSION AND SEDIMENT CONTROL DEVICES WHEN ALL UPSTREAM AREAS ARE STABILIZED (5 DAYS)

8407-Soil Erosion Plan.dwg

JOB NO.







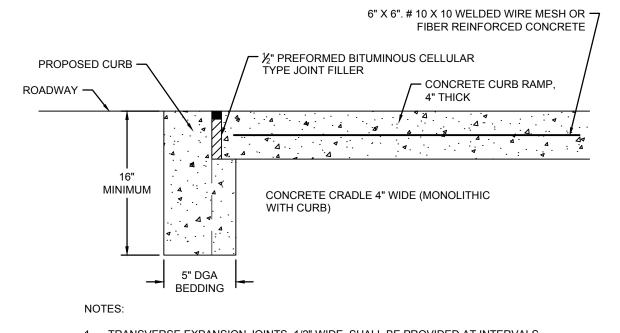
DETAIL - CONCRETE VERTICAL CURB

- 1. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS-IMPREGNATED FIBER JOINT FILLER RECESSED 1/4" FROM THE FRONT FACE AND
- 2. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.

- 6" THICK DGA SUBBASE COURSE

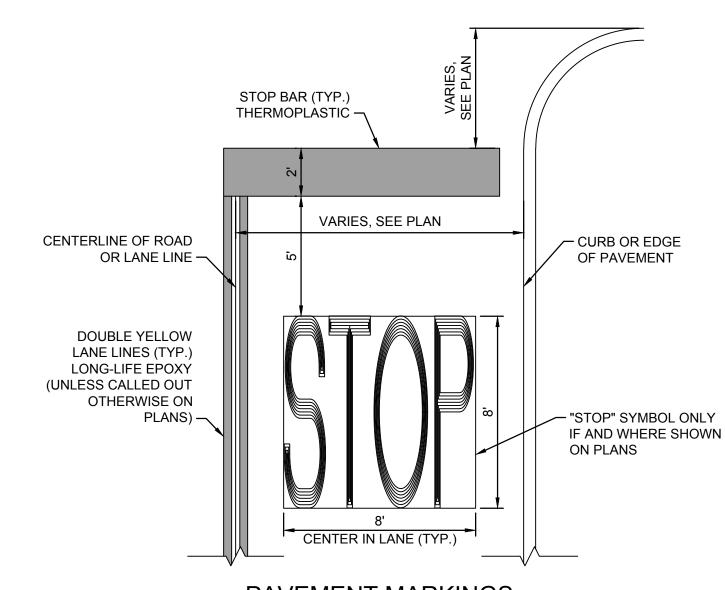
PREVIOUSLY PLACED

NOT TO SCALE



- 1. TRANSVERSE EXPANSION JOINTS, 1/2" WIDE, SHALL BE PROVIDED AT INTERVALS OF NOT MORE THAN 15' AND FILLED WITH PREFORMED BITUMINOUS CELLULAR TYPE JOINT FILLER (AASHTO M33). LONGITUDINAL JOINTS, 1/2" WIDE, SHALL BE PROVIDED BETWEEN CURBS AND ABUTTING SIDEWALKS, AND SHALL BE FILLED WITH PREFORMED BITUMINOUS CELLULAR TYPE JOINT FILLER (AASHTO M33). THE TOP OF ALL JOINT FILLER SHALL BE TRIMMED 1/2" BELOW THE TOP OF THE SIDEWALK AND FILLED WITH JOINT SEALER (SIKAFLEX-1A), OR AN APPROVED
- 2. IN LIEU OF DENSE GRADED (DGA), RECYCLED CONCRETE AGGREGATE (RCA) IS ACCEPTABLE. ALL RCA MUST MEET NJDOT SPECIFICATIONS AND BE CERTIFIED BY AN NJDOT APPROVED PLANT OF ORIGIN. ALL RCA SHIPMENTS MUST BE FREE OF FOREIGN MATERIALS AND CONTAMINANTS.

CONCRETE CRADLE CURB DETAILS FOR ADA RAMPS

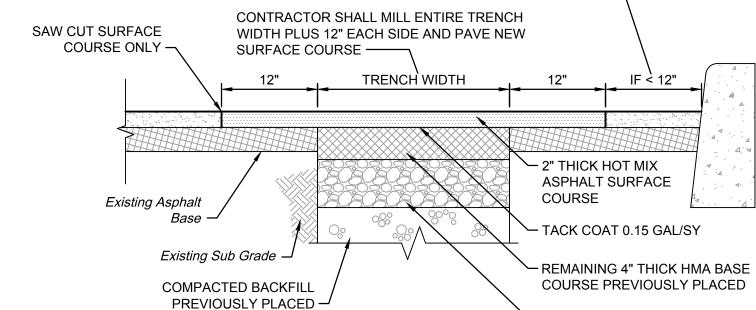


PAVEMENT MARKINGS

NOTE:

- 1. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
- 2. USE TYPICAL DIMENSIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 3. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC. 4. ALL PAVEMENT MARKING WORDS ON THE PAVEMENT SHALL BE 8' HIGH AND FIT WITHIN THE LANE. EXACT WIDTH TO BE DETERMINED BASED ON NUMBER OF LETTERS.

IF FINAL ASPHALT RESTORATION IS WITHIN 12" OF THE CURB OR EDGE OF PAVEMENT, THE PERMITTEE WILL HAVE TO MILL ALL THE WAY OVER TO THAT EDGE AND PAVE IT AS WELL-



NOTE:

2. CONCRETE SHALL BE CLASS "B" PORTLAND CEMENT HAVING A 28-DAY STRENGTH OF 4,000

- CLASS "B" CONCRETE

3. HANDICAP RAMPS SHALL HAVE A LIGHT BROOM FINISH WITH THE STRIATIONS PERPENDICULAR

- CONTRACTION JOINTS

1. PREFORMED BITUMINOUS EXPANSION JOINTS.

1/2" THICK SHALL BE INSTALLED EVERY 20 FEET.

CONTRACTION JOINTS SHALL BE INSTALLED

4'-0"

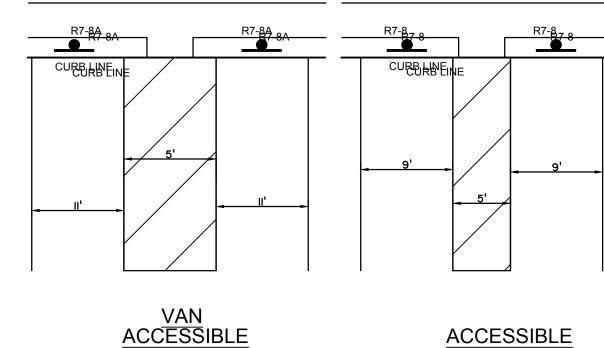
EVERY 4 FEET.

CONCRETE WALK NOT TO SCALE

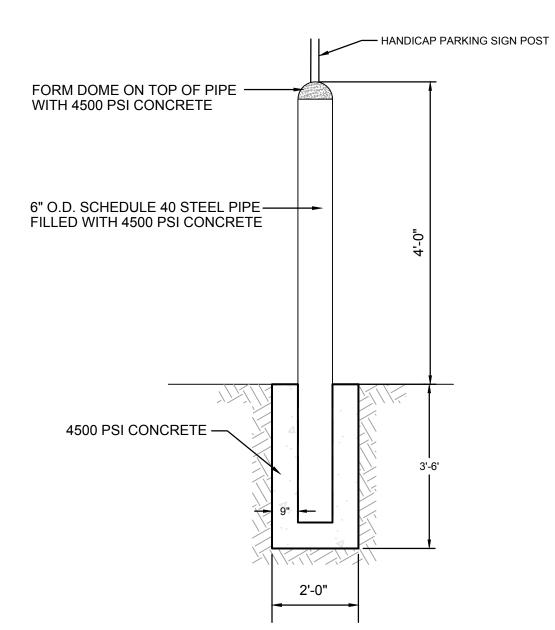
1. ALL MATERIALS SHALL CONFORM TO THE LATEST NJDOT STANDARDS AND SPECIFICATIONS.

NOT TO SCALE

FINAL ASPHALT SURFACE **RESTORATION**



PARKING SPACE **DIMENSIONS**



BOLLARD DETAIL

- 2. PAINT BOLLARD WITH 1 COAT OF PRIMER AND (2) COATS OF SAFETY YELLOW PER SPECS.

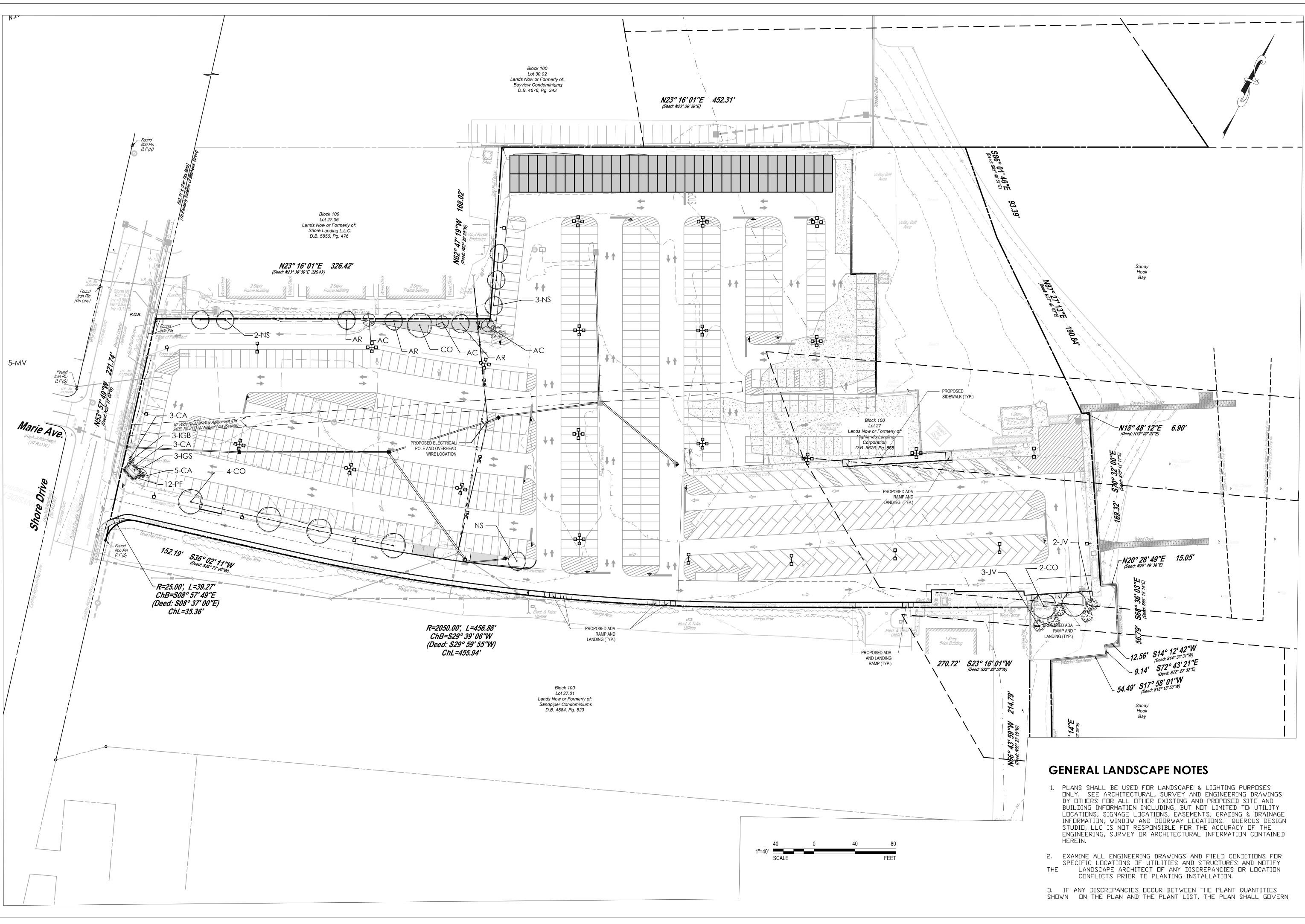
RESERVED PARKING R7-8

FOR HANDICAP PARKING SIGN

1. INSTALL 6" SCHEDULE 40 STEEL PIPE BOLLARD

3. SIGN POST SHALL BE INSERTED IN BOLLARD AND BACKFILLED WITH CONCRETE

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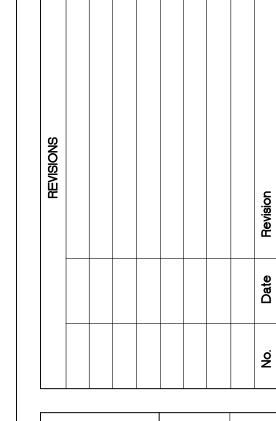






PREPARED FOR:

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Andrea M. Hopkin, LLA

LIGHTING PLANS
IGHLANDS LANDING CORPORATION
SLOCK 100, LOTS 27, 27.04 & 27.05
TAX MAP SHEET NO.19
BOROUGH OF HIGHLANDS

Sheet Title

Landscape

4

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
Decio	suoub	Trees			
AR	3	Acer rubrum 'Bowhall'	Bowhall Red Maple	2" - 2.5" cal.	B&B, Straight Central Leader
CO	7	Celtis occidentalis	Hackberry	2" - 2.5" cal.	B&B, Straight Central Leader
NS	6	Nyssa Sylvatica	Black Gum	2" - 2.5" cal.	B&B, Straight Central Leader
Everg	reen	Trees			
JV	5	Juniperus virginiana	Eastern Red Cedar	8'-10' Ht	B&B, Heavy
Orna	ment	al Trees			
AC	3	Amelanchier canadensis	Serviceberry	10'-12' Ht.	B&B, multi-stemmed
Shrub	os				
IGS	3	llex glabra 'Squeeze Box'	Squeeze Box Inkberry Holly	24"-36" Ht.	#3 Can
IGB	3	llex glabra 'Gem Box'	Gem Box Inkberry Holly	18"-24" Ht.	#2 Can
PF	12	Potentilla fruiticosa 'Goldfinger'	Goldfinger Bush Cinquefoil	18"-24" Ht.	#2 Can
		& Ornamental Grasses			

CA 11 Calamagrostis x acutiflora 'Karl Foerster' Karl Foerster Feather Reed Grass 18' - 24" Ht. #2 Can

1. PRIOR TO PLANTING, VERIFY THE TOP ELEVATION OF THE TRUE ROOT BALL BY UNRAVELING THE BURLAP TO EXPOSE THE TRUNK ROOT FLARE. IF THE ROOT FLARE IS NOT VISIBLE, REMOVE ANY ALIEN SOILS FROM THE TOP OF THE ROOTBALL UNTIL THE ROOT FLARE IS EXPOSED. 2. AT THIS TIME, ANY GIRDLING OR CIRCLING ROOTS SHOULD BE REMOVED. EXCESSIVE GIRDLING OR CIRCLING ROOTS WILL CAUSE THE TREE TO BE REJECTED. 3. IF TOO MUCH SOIL IS REMOVED IN THE FIELD TO EXPOSE THE ROOT FLARE, THE ROOT BALL IS EFFECTIVELY UNDERSIZED AND WILL BE REJECTED. 48" RIGID TREE BARK PROTECTORS SHALL BE INSTALLED AROUND THE TRUNKS OF CANOPY AND UNDERSTORY TREES FOR DEER PROTECTION — SUCH AS 'PLASTIC MESH TREE GUARD BG48 BY AM LEONARD HORTICULTURAL SUPPLY OR APPROVED EQUAL TREE DIAPER PLANT PROTECTION MAT BY ZYNNOVATION LLC OR APPROVED EQUAL. MATS TO BE SIZED, INSTALLED AND RECHARGED PER MANUFACTURER'S RECOMMENDATION. PLACE MATS ON TOP OF SOIL AND BELOW MULCH. MESH PANEL TREE GUARD BY A.M. LEONARD OR APPROVED EQUAL. -SECURE EACH GUARD TO A 5' STAKE. GUARDS TO BE 48" TALL, 15 " DIAMETER HDPE CONSTRUCTION... 4" SHREDDED HARDWOOD MULCH, UNIFORMLY SPREAD, FORMING — A 4" HIGH SAUCER AROUND PERIMETER. KEEP MULCH 4" FROM BASE OF TREE TRUNK. MULCH SHALL NOT BE CONTACT WITH TRUNK FLARE. REMOVE BURLAP, WIRE BASKETS AND ROPE ----FROM TOP 1/3 OF ROOT BALL BACKFILL MIXTURE TO BE SPECIFIED BASED ON SOIL TEST AND -CULTURAL REQUIREMENTS OF PLANT. BACKFILL SHALL BE WATERED 12" AT A TIME WHILE PLANTING

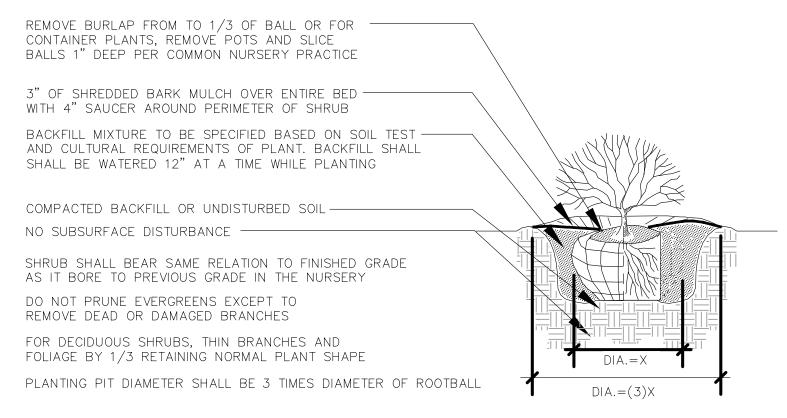
DECIDUOUS TREE PLANTING DETAIL

TREES SHALL ONLY BE PRUNED TO CORRECT STRUCTURAL

ISSUES OR TO REMOVE DEAD BRANCHING.

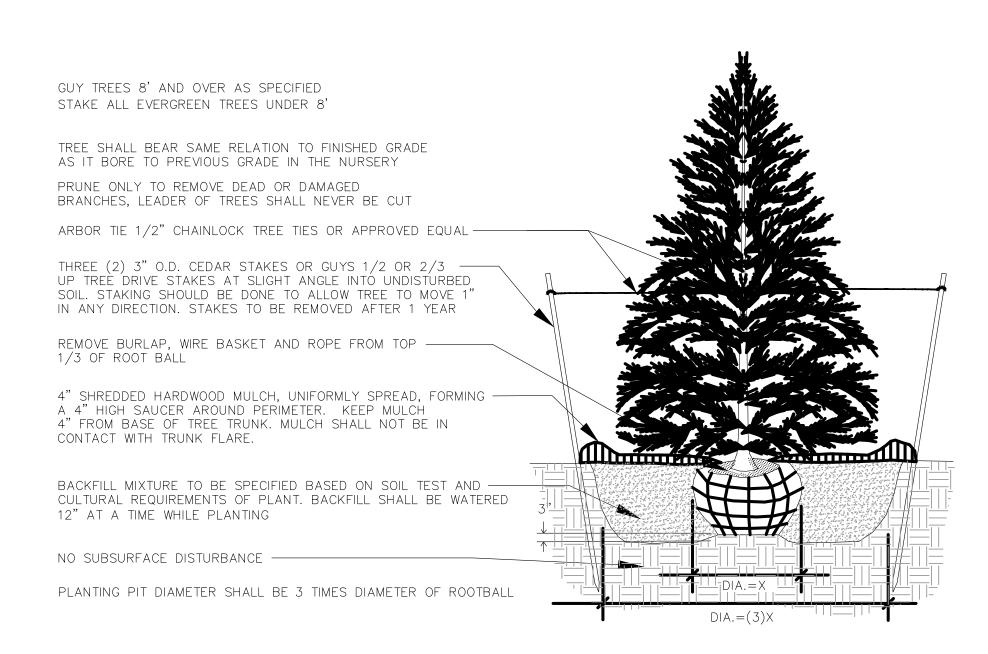
NOT TO SCALE

NO SUBSURFACE DISTURBANCE -



SHRUB PLANTING DETAIL

NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

1. THE LANDSCAPE PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.

PLANTING NOTES

- 2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING LOCATION OF ALL UTILITIES AND IRRIGATION ON SITE PRIOR TO CONSTRUCTION.
- 3. 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 OF ROOTS AND SIZE OF ROOT BALLS SHALL BE IN CONFORMANCE WITH THE MOST RECENT ANSI 760 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 4. THE OWNER AND/OR LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE PRIOR TO INSTALLATION.
- 5. NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES AND VARIETY WITHOUT WRITTEN PERMISSION FROM THE LANDSCAPE ARCHITECT OR TOWNSHIP OFFICIALS. DOCUMENTED PROOF OF PLANT MATERIAL UNAVAILABILITY MUST BE PROVIDED.
- 6. NO SHADE TREE, STREET TREE, ORNAMENTAL FLOWERING TREE OR EVERGREEN TREE SHALL BE PLANTED CLOSER THAN 7 FEET FROM ANY SIDEWALK, DRIVEWAY, CURB OR UTILITY LOCATION UNLESS SPECIFICALLY DIMENSIONED ON THE LANDSCAPE PLAN.
- 7. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7 FT ABOVE GRADE. ALL SHRUBS LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30 INCHES ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES WITHIN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT BRANCH BELOW 8 FEET ABOVE
- 8. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
- 9. ALL PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, WRAPPED AND PLANTED IN CONFORMANCE WITH THE PLANTING DETAILS. TREE SUPPORT SYSTEMS SHALL BE ATTACHED TO THE TREE AT A HEIGHT OF TWO—THIRDS THE HEIGHT OF THE TREE AND SHOULD BE LOCATED SO AS NOT TO SPLIT THE TRUNKS OF MULTI—STEMMED TREES. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE.
- 10. TREE SUPPORT SYSTEMS DIRECTLY CONTACTING THE TREE TRUNK SHALL BE ARBOR TIE BY DEEPROOT OR APPROVED EQUAL. THE SUPPORTS SHOULD ALLOW THE TREE TRUNK TO MOVE AT LEAST ONE INCH IN ANY DIRECTION SO THAT A PROPER TRUNK FLARE MAY FORM. ALL TREE SUPPORT SYSTEMS SHALL BE REMOVED WITHIN ONE YEAR OF INSTALLATION FROM TREES THAT DO NOT REQUIRE OBVIOUS STRAIGHTENING.
- 11. CUT AND REMOVE TWINE, BURLAP AND WIRE BASKET FROM TOP ONE—THIRD OF ROOT BALL. ANY SYNTHETIC ROPE OR FABRIC SHALL BE REMOVED COMPLETELY FROM THE PLANTING PIT AND DISPOSED OF PROPERLY.
- 12. BIODEGRADABLE TREE WRAP SHALL BE USED DURING DELIVERY AND INSTALLATION AND REMOVED AFTER FIRST GROWING SEASON. 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 ROOT BALL ONLY.
- 13. FERTILIZER SHALL NOT BE USED DURING THE FIRST YEAR AFTER
- 14. 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 AND WATER STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN 3 DAYS AFTER DELIVERY.
- 15. IT IS ADVISABLE TO PRUNE APPROXIMATELY \$\frac{1}{3}\$ OF THE GROWTH OF TREES 2 INCH CALIPER AND OVER BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF THE TREES SHALL NEVER BE CUT. LONG SIDE BRANCHES SHOULD BE SHORTENED. DEAD BRANCHES SHOULD PRUNED BACK TO NATURAL TARGETS. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS. PRUNING SHALL BE DONE IN ACCORDANCE TO STANDARD HORTICULTURAL PRACTICE TO PRESERVE THE NATURAL CHARACTER OF THE PLANT.
- 16. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL MIXTURE TO BE SPECIFIED BASED ON SOIL TEST AND CULTURAL REQUIREMENT OF THE PLANT. BACKFILL SHALL BE WATERED 12 INCHES AT A TIME DURING PLANTING.
- 17. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE IN THE NURSERY.
- 18. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS. WATER SHALL BE FREE OF IMPURITIES INJURIOUS TO PLANT MATERIAL.
- 19. 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 THAN ½ INCH DIAMETER, WEEDS, SHAVINGS OR FOREIGN MATERIAL SUCH AS STONES, ETC. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS WITH A COMPACTED DEPTH OF 3 INCHES. NO MULCH SHALL BE PLACED IN CONTACT WITH PLANT STEMS OR TREE TRUNKS.
- 20. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR ONE YEAR AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED BY A PLANT OF SIMILAR SIZE AND SPECIES AT THE EXPENSE OF THE CONTRACTOR. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
- 21. ALL PLANTING DEBRIS (WIRE, TWINE, CONTAINERS, BACKFILL ETC) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. PROPERTY IS TO BE LEFT IN A NEAT AND ORDERLY CONDITION DURING AND AFTER INSTALLATION.
- 22. TREE PROTECTION FENCING TO BE INSTALLED ACCORDING TO DETAILS PRIOR TO ANY LAND DISTURBANCE OR CONSTRUCTION ACTIVITY. FENCING SHALL BE MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETE. SEE DETAIL FOR ADDITIONAL REQUIREMENTS.
- 23. EXISTING TREES TO REMAIN ON SITE TO BE SELECTIVELY THINNED AND PRUNED TO REMOVE DEAD AND/OR DISEASED LIMBS AFTER INSTALLATION OF TREE PROTECTION FENCING. ANY PRUNING SHALL BE DONE BY A PROFESSIONAL FORESTER, ARBORIST OR CERTIFIED TREE EXPERT.
- 24. ALL OPEN AREAS OF THE SITE THAT ARE NOT PAVED, PLANTED OR MULCHED AS PART OF A PLANTING BED SHALL BE TURFED SO AS TO ESTABLISH PERMANENT COVER.

TREE PROTECTION FENCING SHALL BE INSTALLED ALONG THE DRIPLINE OF THE TREE CANOPY OR A MINIMUM OF 12 FEET FROM THE TREE TRUNKS OF CANOPY OR 12 FEET FROM WHICHEVER IS THE GREATER DISTANCE TRFF TRUNK PROTECTIVE FENCING IS TO BE ERECTED PRIOR TO WHICHEVER IS GREATER CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION NO CONSTRUCTION ACTIVITY, STOCKPILING OF SOIL, STORAGE OF DEBRIS, MATERIALS OR EQUIPMENT IS PERMITTED WITHIN THE PROTECTIVE FENCING ALL PROTECTIVE FENCING SHALL BE REMOVED AFTER CONSTUCTION IS COMPLETE. AT THE COMPLETION OF CONSTRUCTION, ANY DAMAGED TREES SHALL BE TARGET PRUNED BY A QUALIFIED PROFESSIONAL TO REMOVE DEAD OR BROKEN LIMBS 4' HIGH ORANGE VINYL SNOW FENCE - 6^{\prime} HIGH POSTS DRIVEN INTO GROUND EVERY $6^{\prime}-0^{\prime\prime}-0$ O.C. AND AT ALL CHANGES OF DIRECTION

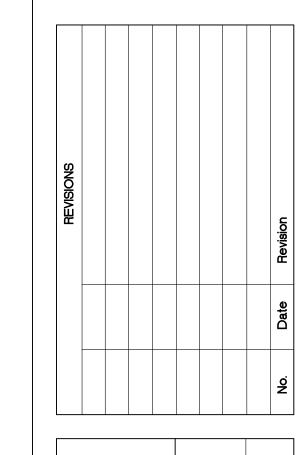
TREE PROTECTION DETAIL

NOT TO SCALE



PREPARED FOR:

Highlands Landing Corporation



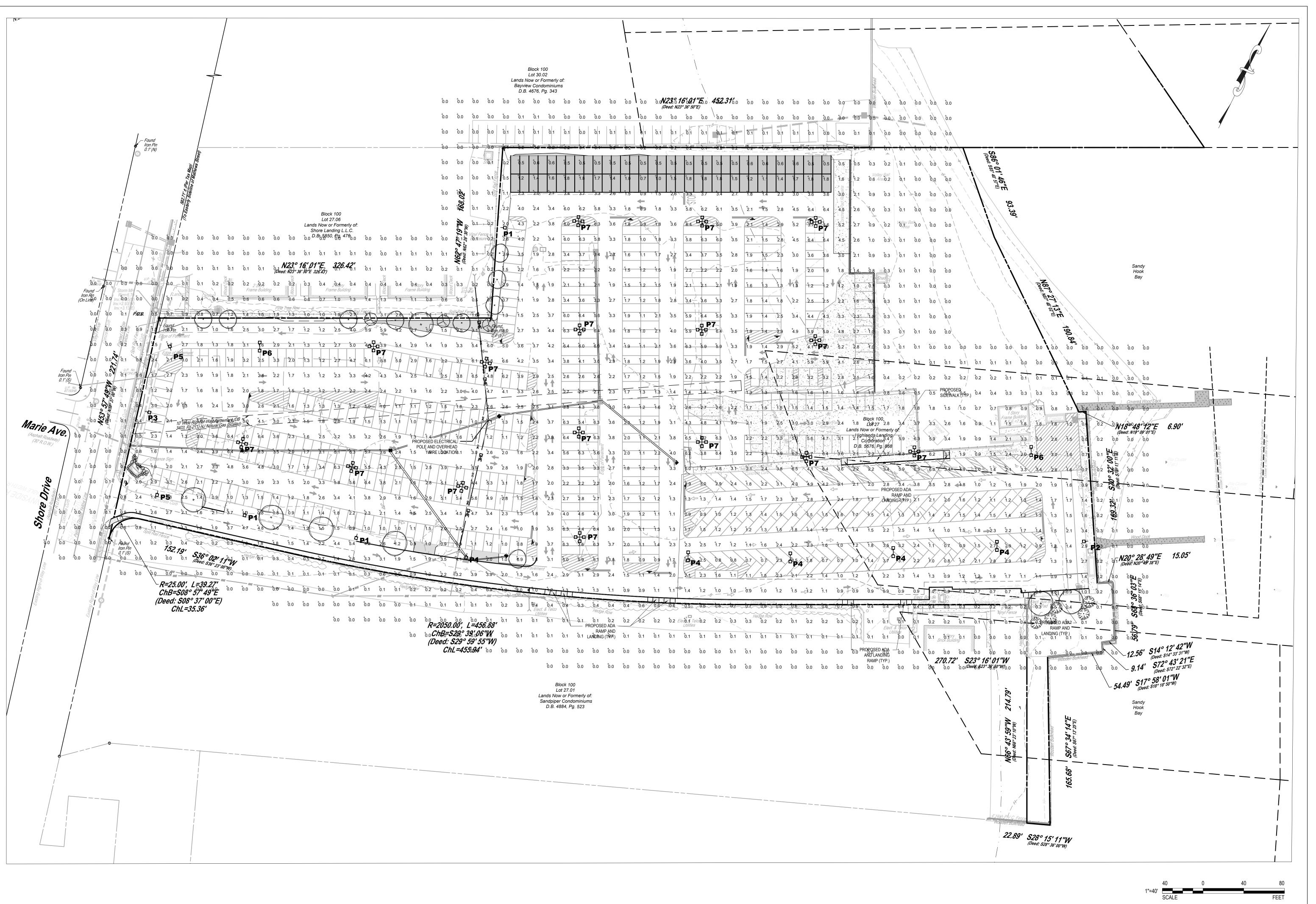
Landscape Architecture
1127 Ivanhoe Path
1127 Ivanhoe Path
Manasquan, NJ 08736
732-704-7996
Andrea M. Hopkin
N. Licensed Landscape Architect AS00084500

HIGHLANDS LANDING CORPORATION
BLOCK 100, LOTS 27, 27.04 & 27.05
TAX MAP SHEET NO.19
BOROUGH OF HIGHLANDS

Landscape
Notes &
Details
Scale
As Shown
Date
3/12/2025
Drwn Chkd
AMH AMH

Project No.

24

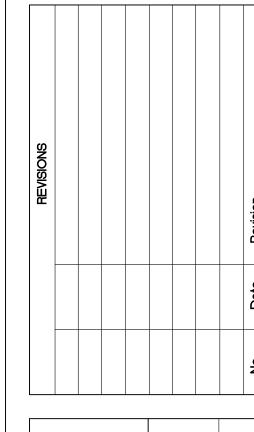






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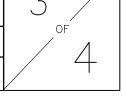
Highlands Landing Corporation



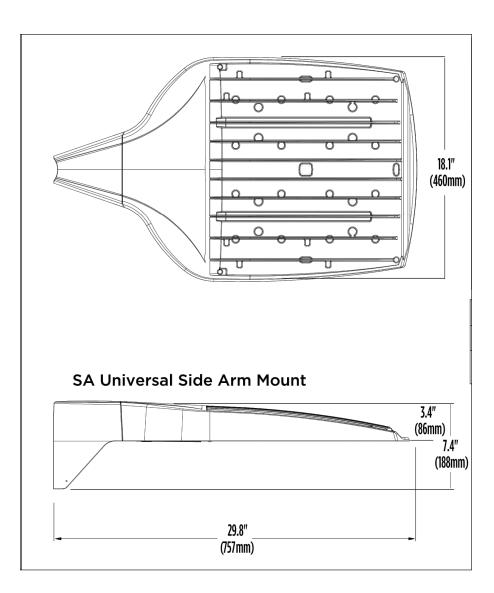
rchitecture noe Path , NJ 08736 1-7996 UCPC -- DESIGN STUDIO

Sheet Title Lighting Plan

3/12/2025 Drwn Chkd Project No.







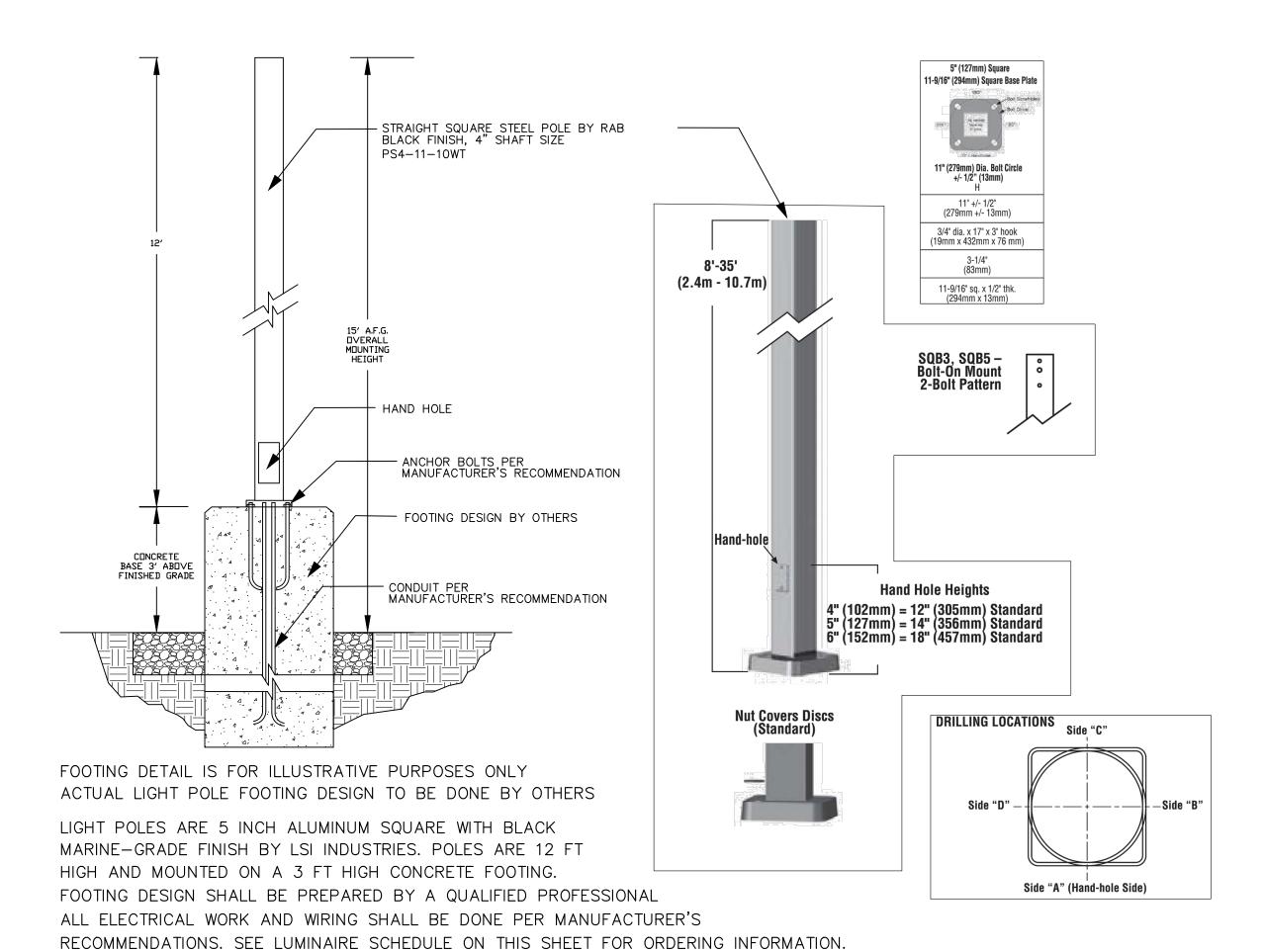
LIGHT FIXTURES ARE V-LOCITY MEDIUM (VALM) OUTDOOR LED AREA LIGHTS BY LSI INDUSTRIES, INC. FIXTURES TO BE BLACK MARINE-GRADE FINISH. SIDE ARM MOUNT. SEE LUMINAIRE SCHEDULE ON THIS SHEET FOR MOUNTING ARRANGEMENTS, LUMENS, DISTRIBUTION TYPES, COLOR TEMPS AND MANUFACTURER'S ORDERING INFORMATION. LIGHTING WILL BE CONTROLLED VIA A TIMING DEVICE. SEE LIGHTING NOTES ON THIS SHEET FOR HOURS OF OPERATION. FIXTURES TO BE MOUNTED 15' A.F.G NO SUBSTITUTIONS WITHOUT WRITTEN CONSENT FROM OWNER.

LIGHT FIXTURE DETAIL

NOT TO SCALE

CALCULATION SUMMARY

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING LOT	Illuminance	Fc	2.52	6.6	0.5	5.04	13.20



LIGHT POLE DETAIL

NO SUBSTITUTIONS WITHOUT WRITTEN CONSENT FROM OWNER.

NOT TO SCALE

LIGHTING NOTES

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

- EACH SITE FIXTURE TO BE EQUIPPED WITH NX CONTROLS, WHICH IS A
- WIRELESS BLUETOOTH MESH CONTROL SYSTEM.
- CONTROL SYSTEM IS TO BE ACCESSIBLE VIA IOS APP FOR PROGRAMMING. NO EXTERNAL GATEWAY OR
- COMPONENTS REQUIRING INTERNET PERMITTED.
- EACH SITE FIXTURE TO HAVE AN INTEGRAL PHOTO SENSOR AND BUILT-IN TIME KEEPER
- TO ALLOW FOR THE SCHEDULING OF DIMMING EVENTS BASED ON TIME OF DAY.
 ALL SITE LIGHTS TO TURN ON A HALF HOUR BEFORE DUSK AND OFF A HALF HOUR AFTER DAWN.
- LIGHTS TO REMAIN FULL BRIGHTNESS UNIT 12 A.M., AT WHICH TIME THE LIGHTS WILL DIM
- TO 50% OUTPUT UNTIL DAWN.

LUMINAIRE SCHEDULE

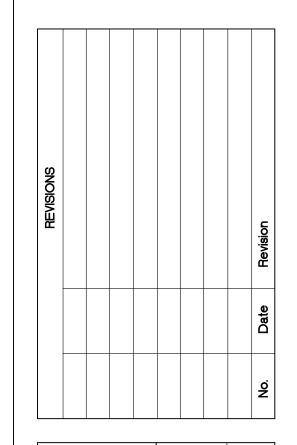
Qty	Туре	Arrangement	Symbol	Manufacturer	Light Fixture Spec	ССТ	Lum. Lumens	LLF	Lum. Watts	Arr. Watts	Pole/Bracket Spec	Mounting AFG (FT)
4	P1	Single		LSI INDUSTRIES	VALM-12L-2-VOLTS-30K8-FINISH BLK(MARINE GRADE)-SA-CR7P-MS8 w/ NXOFM2-1R1D-UNV	3000K	9685	0.900	71	71	5SQB5-A125-12'-S-FINISH BLK(MARINE GRADE)-GA (MOUNTED ON 3' CONCRETE BASE)	15
1	P2	Single	- ₽	LSI INDUSTRIES	VALM-12L-3W-30K8-FINISH BLK(MARINE GRADE)-SA-CR7P-MS8 w/ NXOFM2-1R1D-UNV	3000K	8761	0.900	71	71	5SQB5-A125-12'-S-FINISH BLK(MARINE GRADE)-GA (MOUNTED ON 3' CONCRETE BASE)	15
1	P3	Single	- - - - -	LSI INDUSTRIES	VALM-12L-4W-30K8-FINISH BLK(MARINE GRADE)-SA-CR7P-MS8 w/ NXOFM2-1R1D-UNV	3000K	8057	0.900	71	71	5SQB5-A125-12'-S-FINISH BLK(MARINE GRADE)-GA (MOUNTED ON 3' CONCRETE BASE)	15
4	P4	Back-Back		LSI INDUSTRIES	VALM-12L-4W-30K8-FINISH BLK(MARINE GRADE)-SA-CR7P-MS8 w/ NXOFM2-1R1D-UNV	3000K	8057	0.900	71	142	5SQB5-A125-12'-D180-FINISH BLK(MARINE GRADE)-GA (MOUNTED ON 3' CONCRETE BASE)	15
2	P5	Single	-	LSI INDUSTRIES	VALM-12L-5M-30K8-FINISH BLK(MARINE GRADE)-SA-CR7P-MS8 w/ NXOFM2-1R1D-UNV	3000K	10385	0.900	71	71	5SQB5-A125-12'-S-FINISH BLK(MARINE GRADE)-GA (MOUNTED ON 3' CONCRETE BASE)	15
2	P6	Back-Back		LSI INDUSTRIES	VALM-12L-5QW-30K8-FINISH BLK(MARINE GRADE)-SA-CR7P-MS8 w/ NXOFM2-1R1D-UNV	3000K	9983	0.900	71	142	5SQB5-A125-12'-D180-FINISH BLK(MARINE GRADE)-GA (MOUNTED ON 3' CONCRETE BASE)	15
16	P7	4 @ 90 Degrees	윰	LSI INDUSTRIES	VALM-12L-5QW-30K8-FINISH BLK(MARINE GRADE)-SA-CR7P-MS8 w/ NXOFM2-1R1D-UNV	3000K	9983	0.900	71	284	5SQB5-A125-12'-Q90-FINISH BLK(MARINE GRADE)-GA (MOUNTED ON 3' CONCRETE BASE)	15

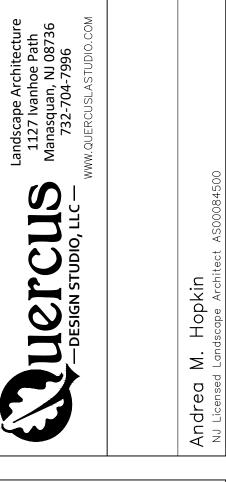
QUERCUS DESIGN STUDIO, LLC



PREPARED FOR:

Highlands Landing Corporation





CHTING PLANS
SHLANDS LANDING CORPORATIC
OCK 100, LOTS 27, 27.04 & 27.0
TAX MAP SHEET NO.19
BOROUGH OF HIGHLANDS

Sheet Title

Lighting

Notes &

Details

Scale

As Shown

Date

3/12/2025

Drwn Chkd

AMH AMH

Project No.



July 1, 2025

I670 Whitehorse-Hamilton Square Rd. Hamilton, New Jersey 08690 609-586-II41 fax 609-586-II43 www.RobertsEngineeringGroup.com

Nancy Tran Land Use Board Secretary Borough of Highlands Land Use Board 151 Navesink Avenue Highlands, New Jersey 07732

Re: Completeness Review No. 1
Preliminary Major Site Plan

Owner/Applicant: Highlands Landing Corporation/Jack Bevins

Block 100, Lot 27 326 Shore Drive

Borough of Highlands, Monmouth County, New Jersey

Our File No.: HLPB25-06

Dear Ms. Tran:

As requested, we have reviewed the above referenced application in accordance with the Borough of Highlands Zoning and Land Use Regulations.

The Applicant seeks approval for a Preliminary Major Site Plan for modifications to an existing parking lot and an existing seasonal use situated on a 7.66 Ac lot in the WC-2 Waterfront Commercial District.

The site is the upland portion of the Seastreak Ferry facility that includes the existing parking lot for ferry patrons and public access and the beach area in the northwest corner of the property. During the summer, the existing Sandbox beach bar and associated amenities operate on the beach with food trucks in the existing parking lot. The Sandbox is a second use on the lot. The Applicant is seeking Use Variance relief for the continued seasonal operation of the beach, including the Sandbox beach bar during the summer season with food trucks. The parking lot and bar are permitted uses in the WC-2 district.

The modifications include repaving, improved drainage, a reconfigured parking layout and traffic flow, 2 row car lift parking, sidewalks, ADA compliant walks and parking, concrete and gravel areas, traffic flow, signage, pedestrian safety, landscaping and lighting.

Major Site Plan checklist items and comments have been provided below by this office.

We have reviewed the following documents submitted in support of the above referenced application for completeness purposes:

- 1. Copy of the Land Use Board Application received May 6, 2025, and signed April 28, 2025.
- 2. Copy of the Borough of Highlands Zoning Permit Application Checklist.
- 3. Copy of submission letter to Courtney Lopez, Highlands Zoning Officer from Brad Thompson, PE of Najarian Associates dated April 25, 2025.
- 4. Copy of a plan entitled, "Boundary and Topographic Survey, Highlands Landing Corporation, Block 100, Lot 27, Tax Map Sheet No. 19, Borough of Highlands, Monmouth County, New Jersey", prepared by Najarian Associates, signed and dated June 25,2024.
- 5. Copy of a plan entitled, "Seastreak Ferry Terminal, Repaying Project for Highlands Landing Corporation, Major Site Plan, Block 100, Lot 27, 326 Shore Drive, Borough of Highlands,

Page 2 of 9

Monmouth County, New Jersey", prepared by Najarian Associates, dated April 22, 2025, and signed consisting of 9 sheets.

- 6. Copy of a report entitled, "Stormwater Management Report for a Proposed Repaving Project, Seastreak Ferry Terminal, Block 100, Lot 27, 326 Shore Drive, Borough of Highlands, Monmouth County, New Jersey", prepared by Najarian Associates, dated April 2025.
- Copy of an Application for Soil Erosion and Sediment Control Plan Certification, Freehold Soil Conservation District dated April 24, 2025.

We offer the following comments and recommendations for the Land Use Board's consideration:

I. ZONING

- 1. This property is located in the WC-2 Waterfront Commercial District.
- 2. The existing parking lot and bar (Sandbox beach bar-seasonal) are permitted uses.
- 3. A Major Site plan checklist was not provided.
- 4. The Applicant requires two (2) bulk "c" variances for maximum lot coverage and parking. To be entitled to bulk "c" variance relief, the applicant must provide proof to satisfy the positive and negative criteria pursuance to N.J.S.A 40:55D-70c.

We defer to the Borough Planner's letter for additional comments.

5. The Applicant requires Use Variance relief for the second use of the continued seasonal operation of the beach, including the Sandbox beach bar during the summer season with food trucks.

There are two existing storage containers, a shed and a large freezer associated with the beach operation.

We defer to the Borough Planner's letter.

6. The following bulk requirement summary is provided for the Board's reference.

Schedule I – Bulk and Area Requirements									
WC-2 Waterfront Commercial District									
	Required	Existing	Proposed	Variance					
Min. Lot Area (sf)	N/A	333,717	333,717	No					
Lot Frontage/Width (ft)	100	201.78	201.78	No					
Lot Depth (ft)	150	870.61	870.61	No					
Min. Front Yard Setback (ft)	20	828.9	828.9	No					
Min. Side Yard Setback (ft)	10	173.3	173.3	No					
Min. Rear Yard Setback (ft)	N/A	41.3	41.3	No					
Max. Building Height (ft)	36	<36	<36	No					

Completeness Review No. 1 Major Site Plan Applicant: Highlands Landing Corporation Block 100, Lot 27 326 Shore Drive

Borough of Highlands, Monmouth County, New Jersey

Our File No.: HLPB25-06

Page 3 of 9

Max. Lot Coverage (%)	70	83.68*	83.10 (1)	Yes
Max. Building Coverage (%)	25	20	20	No
Parking				
On-Site Parking (spaces)	1,863*	957*	804 (2)	Yes
ADA Parking (spaces)	17	12*	17	No
ADA Van Parking (spaces)	3	0*	3	No
Min. Front Yard Setback	10	2.05*	10	No
Min. Side Yard Setback	5	5.44	8	No

^{*} Existing non-conformity

VARIANCES REQUESTED

1. Max. Lot Coverage (%) § 21-96.4

Max lot coverage is 70% whereas 83.10% is proposed.

2. The number of parking spaces required (1,863) is deficient by 1,059 parking spaces.

The required parking according to § 21-65.14.D.7a(2), Parking Schedule for Nonresidential Uses:

- a. Assembly hall, community building,...eating and drinking establishments:
 - 1 for every 4 seats or 8 per 1,000 square feet of gross floor areas, whichever is larger
- b. Ferry transportation services:
 - 0.7 space for every passenger seat on all departing boats during a regular 24-hour period.
 - 2,660 passenger seats noted by the Applicant.
 - $2,660 \times 0.7 = 1,863 \text{ spaces}$
- c. Public and private beaches, recreational uses:
 - ${\bf 1}$ space for every 250 square feet of beach or recreational area.

The Applicant accounted for the ferry service and not the secondary uses. Please refer to the General Comments regarding parking below.

II. CHECKLIST ITEMS

- 1. Date, name, location of site, name of owner, scale, and reference meridian. Provided.
- 2. Area of the lot and all lot line dimensions and bearings. Provided.

five (75) feet of the property line. Provided.

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- 3. The location of all existing watercourses, wooded areas, easements, rights-of-way, streets, roads, highways, rivers, buildings, structures, and any other feature on the property and within seventy-
 - 4. Location, use and ground floor area of all existing and proposed buildings, with the building setback, sideline, and rear yard distance. **Provided.**
 - 5. Elevations at the corners of all proposed buildings and paved areas and at property corners if new buildings or paved areas are proposed. **Provided.**
 - 6. The location and widths of existing and proposed streets servicing the site plan. Provided.
 - 7. Specifications for and location of proposed surface paving and curbing. Provided.
 - Location of all structures within seventy-five (75) feet of the property. Partially provided and acceptable.
 - Location of off-street parking areas, with dimensions, showing proposed parking and loading spaces, with dimensions, width of proposed access drives and aisles and traffic circulation.
 Provided.
 - 10. Stormwater management and sanitary sewer reports, including proposed storm drainage and sanitary disposal facilities; specifically, the location, type and size of all existing and proposed catch basins, storm drainage facilities, utilities, plus all required design data supporting the adequacy of the existing or proposed facilities to handle future storm flows. Provided.
 - 11. Existing and proposed contours of the property and for seventy-five (75) feet outside the property at one (1) foot intervals when new buildings or parking areas are proposed. Spot elevations for any development in a flood hazard area.

Partially provided and acceptable.

- 12. The location and treatment of proposed entrances and exits to public rights-of-way, including the possible utilization of traffic signals, channelization, acceleration and deceleration lanes, additional widths, and any other devices necessary to traffic safety and/or convenience. **Provided.**
- The location and identification of proposed open space, parks, or other recreation areas.
 Provided.
- 14. The location and design of landscaping, buffer areas and screening areas showing size, species and spacing of trees and plants and treatment of unpaved areas. **Provided.**
- 15. The location of sidewalks, walkways, traffic islands and all other areas proposed to be devoted to pedestrian use. **Provided.**
- 16. The nature and location of public and private utilities, including maintenance and solid waste disposal, recycling and/or storage facilities. **Partially provided. Additional information is required.**
- 17. Specific location and design of traffic control devices, signs, and lighting fixtures. The Board may require of the applicant expert testimony concerning the adequacy of proposed traffic control devices, signs, and lighting fixtures. **Provided.**
- 18. Preliminary architectural plans for the proposed buildings or structures, indicating typical floor plans, elevations, heights and general design or architectural styling. **Not applicable.**

- 19. The present and past status use and contemplated use of the property and all existing buildings on the property. A cleanup plan where such is necessary because of the past or present use of the site. Provided.
- 20. A soil erosion and sediment control plan are required. Said plan shall be submitted to the Soil Conservation District and approval of the application shall be conditioned upon certification of the soil erosion and sediment control plan by the District. **Pending.**
- 21. Soil borings, when required by the Board Engineer. Not required.
- 22. Certification statement for the required municipal signatures, stating:

Application No approved/disapproved by the Borough of Highlands Land Use Board as Major Site Plan on (date). Partially provided. Revise to Land Use Board.	а
Chairman	
Secretary	

- 23. Certification statement for the County Planning Board approval/disapproval, if required. **Not applicable.**
- 24. The Board may require any additional information which is reasonably necessary to ascertain compliance with the provisions of this chapter. **Open.**

III. <u>COMPLETENNESS</u>

Adequate information has been provided to perform a technical review and therefore we recommend the application be deemed COMPLETE.

IV. GENERAL COMMENTS

Plan

- 1. The boundary shown on the key map and the survey are not consistent. Please provide the lot lines for Lots 27.04 and 27.05 on the plan and update.
- Sheets C-01 and C-02 indicate only Lot 27, however subsequent sheets indicate Lots 27.04 and 27.05 as part of the plan set. Please clarify.
- 3. Lot 27.06 (apartments) is noted as R-2.03 on the 200' Radius Map shown on the Cover Sheet; however, the lot is situated in the WC-2 zone according to the zoning map. Lot 30.02 is situated in the MF zone according to the zoning map. Please revise.
- 4. Please indicate the Zone X500 0.2 pct annual change flood hazard area on the plan.
- 5. Please provide the extent of the gas easement and other utilities underlain by the pavement shading on the plans.
- 6. The project site is located in the Coastal Area Facilities Review Act (CAFRA) Zone. The Applicant shall comply with all applicable NJDEP requirements and should confirm any specific restrictions and/or permitting requirements accordingly.

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- 7. Please revise the certification statement according to checklist No. 22.
- 8. We have concern regarding the proposed ADA ramps with landings and the flush sidewalk along the entrance to the existing employee parking area and the existing inlet. More grading information is needed to demonstrate a safe walking area for pedestrians and no flooding.

The existing inlet is not shown on the grading plan. According to the survey the grate has an elevation of 7.86. Whereas there is a proposed bottom of curb elevation of 9.07 close by. Please review.

Please indicate if the employee gravel parking lot is to be removed. The existing depressed curb is noted as being removed, the proposed grades do not indicate driveway access, and proposed landscaping is shown within the existing parking area.

- 9. Please provide the location of disposal dumpster(s) and recycling area. Provide no parking area striping in this area.
- 10. We recommend bike racks be provided based upon current bike usage. Please show on the plan.

Parking

1. The proposed parking count has a deficit of 1,059 spaces from the required 1,863 spaces. The Applicant has indicated that overflow parking is available at an overflow parking lot located at Block 101, Lot 12.01. Please confirm if this location is owned by the applicant. Provide specific information about the number of parking spaces available at the overflow parking lot and ease of access to the overflow parking lot. Indicate whether this overflow parking site is to be considered in the determination of the parking deficiency.

The Applicant is required to provide additional information about the insufficient number of required spaces according to § 21-65.13.E, Commercial Parking Deficiency Variance and Parking Deficiency Fee.

- 2. The parking lot does not include any electric vehicle charging spaces. Please provide the required number of Electric Vehicle Make-Ready parking spaces according to § 21-65A.D.2, Requirements for New Installation of EVSE and Make-Ready Parking Spaces.
- 3. The Applicant has noted that food trucks will be participating during festivals at this location. Please indicate on the plan the area dedicated to the food trucks. Please provide information about if and how the food trucks will decrease the available parking.
- 4. Please indicate if the employee gravel parking is remaining and included in the site improvements. Provide the number of available parking spaces. The proposed landscaping seems to block access to the gravel parking area. Please confirm or revise the landscaping.
- 5. Please provide a parking summary consisting of the number of spaces required for the Ferry transportation services, employees, restaurant, employees (ferry and other), beach and recreational uses and electric vehicles for parking lots. Please provide information regarding the seasonal impact to available spaces. Please explain why the total number of parking spaces has been reduced and how this reduction may impact the facility.
- 6. According to § 21-65.14.D.6, In general, ninety (90) degree parking spaces shall be nine (9) feet wide by eighteen (18) feet long; and parallel parking spaces shall be eight (8) feet wide by twenty-one (21) feet long.

Page 7 of 9

The 90-degree parking is proposed as 8.50' x 18.00'. The Applicant is required to revise the parking space width or seek a design waiver.

- 7. Provide painted crosswalks.
- 8. Please provide information on how servicing the car lift will not impede vehicle access along the two-way drive and the driveway exit.
- 9. The portion of the driveway with the painted 'Stop' will not be very visible without signage. We recommend an R1-1 Stop sign at the end of the opposing aisle, as done at other aisles.
- 10. Please provide a vehicle circulation plan for emergency and commercial vehicles.
- 11. A fire lane is currently located along the common property line of Lot 27 and Lot 27.06. Proposed standard and parallel parking is shown in the same area without fire zone striping. The Fire Chief must review and approve the proposed layout.

Utilities

- A sanitary sewer manhole is shown in the parking lot. Please indicate how the site is serviced for sanitary sewer. Please provide the location of the existing sanitary sewer system along Shore Drive and along Lot 27.06 on the Grading, Drainage & Utility Plan.
- 2. A clean out detail has been provided. If cleanouts are in the parking area, please update the detail to indicate caps for vehicle load and grass areas. Please indicate the cleanout locations.
- Provide horizontal and vertical utility clearances for the proposed storm sewer relative to the sanitary system.

Lighting

1. According to § 21-65.11 Lighting, The light intensity anywhere shall not exceed five-tenths (0.5) footcandle along any property line or three-tenths (0.3) footcandle if a residential property line. Light shields shall be provided, where needed to eliminate light spillover onto adjacent properties.

The lighting intensity is exceeded on adjoining Lot 27.06. Lot 27.06 consists of rental apartments in the WC-2 Waterfront Commercial District. Although the three adjacent buildings are not in a residential zone, we recommend the light intensity be reduced to (0.3) footcandles.

Stormwater Management

 The Applicant is required to demonstrate that the proposed improvements will meet stormwater quantity, quality and recharge requirements per NJDEP in N.J.A.C. 7:8-1.1 for a major development.

The Applicant has demonstrated the site meets stormwater quantity, quality and recharge requirements by reducing the impervious coverage.

Drainage patterns are remaining the same and piping is being improved to reduce flooding to the site and surrounding infrastructure during smaller storms.

The Applicant has designed a piping system to reduce the impact of the 2-yr storm on the site. The site is near a tidal water body and prior to the improvements the system had multiple areas

flooding above six inches on the site. The proposed system continues to flood with only one inlet flooding above six inches.

Please indicate on the plan the location of the inlet that will experience on ground flooding.

2. The report States on Page 8:

Page 8 of 9

"The NJDEP BMP manual chapter 5 and NJAC 7:8 define the stormwater regulations to be used for the proposed site, which requires the demonstration through hydrologic and hydraulic analysis for stormwater leaving the site, post-construction runoff hydrographs for the current and projected 2-, 10-, and 100-year storm events, as defined and determined pursuant to N.J.A.C. 7:8-5.7(c) and NOAA Atlas 14, do not exceed, at any point in time, the pre-construction runoff hydrographs for the same storm events."

However, the POA Tables on Page 10 only show the "Peak" Flow Analysis Reductions, and the Summary Hydrographs for POA1 and POA2 are presented graphically, so it impossible to determine if the proposed flow does not exceed the predevelopment flow, **at any point in time.**

Based on the design, the reduced impervious cover and the similar time of concentrations, the proposed flow is assumed to be acceptable. However, the Applicant must present tabular hydrographs for the 2-, 10- and 100-year storm for Current and Future results as shown in Tables 3.2, 3.3 and 3.4.

- 3. The 'E' and 'A' inlets along the eastern side of the parking lot have been analyzed as POA 2 in the Stormwater Report. Please indicate these inlets on the Grading, Drainage & Utility Plan.
- 4. The 'E' and 'A' inlet along the eastern side of the parking lot are shown as "filled w/ silt" on the Boundary and Topographic Survey. Please provide directions to have the inlets cleaned. Please provide directions to have the inlets inspected and maintained after storms.
- 5. According to the Stormwater Report, the Applicant has noted that Lots 27.04 and 27.05 are owned by the applicant but not included in the application. It is unclear how Lots 27.04 and 27.05 are associated with the site.
- Drainage Piping System Analysis has been provided in the Stormwater Report. Please identify the storm. Please identify the pipe ID section and indicate which pipes and structures will surcharge on a plan in the report.
- 7. Please provide storm sewer profiles.
- 8. The parking count in the narrative is not consistent with the site plan. Please correct.

Construction details

- 1. Please revise the concrete sidewalk detail to a 28-day strength of 4,500 psi.
- 2. Please provide construction details:
 - a. 'A' and 'E' inlets
 - b. Pipe connection
 - c. Trenching
 - d. Gravel section

- e. Car lift
- f. ADA parking signs and the international pavement marking
- g. Crosswalk

V. APPROVALS

Approval of this application will be conditioned upon the Applicant obtaining or providing approved documents for the following:

- 1. Freehold Soil Conservation
- 2. NJDEP FHA
- 3. Coastal Area Facilities Review Act (CAFRA) Zone, if required per NJDEP.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

Carmela Roberts, PE, CME, CPWM Land Use Board Engineer

Count Roberts

cc: Michael Muscillo, Borough Administrator, (mmuscillo@highlandsborough.org)
Dustin F. Glass, Esq., Land Use Board Attorney (dglass@semerarolaw.com)
Steve Winters, Construction Official, Floodplain Administrator (swinters@highlandsborough.org)
Courtney Lopez, Zoning Officer (clopez@highlandsborough.org)
Alicia Jones, Construction Technical Assistant (ajones@highlandsborough.org)
Salvatore Alfierie, Esq., Applicant's Attorney (salfieri@cgajlaw.com)
Brad Thompson, PE, Applicant's Engineer (bradt@najarian.com)
Cameron Corini, PE, CME, CPWM, Roberts Engineering Group, LLC
GS Bachman, EIT, Roberts Engineering Group, LLC

Item 1.

Memorandum



TO: Borough of Highlands Land Use Board

FROM: Susan Gruel, PP

Megan Adam, Associate Planner

RE: 326 Shore Drive

Block 100, Lot 27

Use Variance, Bulk Variances

DATE: July 8, 2025

As requested, we have reviewed the following materials:

Borough of Highlands Land Use Board Application and Checklist, dated April 24, 2025;

- Property Survey of Block 100, Lot 27 in the Borough of Highlands, prepared by Najarian Associates dated June 25, 2024;
- 9-sheet engineering set entitled, "Seastreak Ferry Terminal Repaving Project," prepared by Najarian Associates dated April 22, 2025;
- Landscape and Lighting Plans prepared by Quercus Design Studio, LLC., dated March 12, 2025;
 and
- Stormwater Management Report prepared by Najarian Associates dated April 22, 2025.

Site Description

The subject property is an approximately 7.5-acre lot adjacent to the Sandy Hook Bay, with frontage along Shore Drive to the south, located at 326 Shore Drive. The property is located on Lot 27 of Block 100 in the Borough and includes approximately 221.7 feet of frontage along Shore Drive. The property includes a large parking lot for the Seastreak ferry service and a public beach, which is located in the northwestern section of the property. During the summer months, the Sandbox at Seastreak Beach Bar operates within the beach area, and several food trucks park on the site daily to serve the beachgoers.

The Seastreak ferry terminal is located within the southeastern section of the property. The terminal is serviced by a covered ticketing office and wood deck, which provide access to the ferry.

A fee is required during the summer to enter the Seastreak beach and utilize its amenities, which include the Sandbox Beach Bar, flexible seating, volleyball courts, and live music. The property survey notes that a one-story frame building, storage containers, and freezer also service the beach bar. The provided plans denote that, with the picnic tables provided and non-fixed seating, a total of 643 occupants could utilize the Seastreak beach.





Page 2 of 15



Beyond the beach and ferry terminal is an extensive parking lot (the "main parking lot"), which includes a total of 957 parking spaces. This main parking lot is loosely marked by pavement markings and directional signage, and includes scattered sections of asphalt, gravel, sand, and concrete pads. The beach area is separated from the main parking lot by chain link fencing. This fencing continues along the property's western and eastern borders.

The subject property is located within the WC-2 Waterfront Commercial Zone of the Borough. Directly west of the property, on Lots 30.02 and 27.06 of Block 100 are two-story frame buildings for the Shore Landing Apartments and the Bayview Condominiums, respectfully. Residential multifamily use continues to the east of the subject property on Lot 27.01, which includes the Sandpiper Condominiums. Rows of hedges and wood fencing provide additional separation between these developments and the subject property.

Project Description

The primary improvements proposed for the subject property include repaving, restriping, and reorganizing circulation throughout the main parking lot. Operations of the Seastreak ferry terminal will remain, as will the existing beach use. The Sandbox Beach bar will continue to operate on a seasonal basis.

Demolition

Extensive demolition of the site's existing impervious improvements is proposed. The demolition plan notes that a majority of the site's asphalt, gravel, concrete pads, and striping will be removed. The southwestern section of the parking lot, which includes five (5) rows of angled compact parking spaces, will maintain its general configuration and one-way circulation to the ferry terminal. Site disturbance will not extend into the beach area; further, the existing sheds, frame building, and cooler that service the ferry terminal will remain and be protected. The site's existing inlets, piers, and fencing will also remain.

Proposed Parking/Circulation Improvements

The proposed project involves repaving the main parking lot to improve drainage, flow of traffic, and pedestrian safety. Three (3) different materials will pave the new lot, including full depth asphalt pavement, full depth gravel, and a mill and overlay asphalt pavement. Additional parking lot improvements include restriping of parking spaces, the construction of new curbs, sidewalks, and walkways throughout.

Safety measures, including the bar stops, new directional signage, and pavement markings, will be placed throughout the lot to guide circulation. The project proposes a total of 804 parking spaces throughout the main parking lot, which includes 17 ADA parking spaces, 3 ADA van parking spaces, 113 compact spaces, and 140 spaces within a two-row valet car lift. A minimum driveway width of 24 feet will be maintained





Page 3 of 15



throughout the rows of standard parking spaces, and a width of 15 feet is proposed for the aisles with compact parking spaces. Two (2) car drop-off lanes will also be marked near the ferry terminal.

The proposed operations also include maintaining Block 101, Lot 12.01 (348 Shore Drive) as an overflow parking lot. This lot is located ¼ mile northwest of the subject property, and measures approximately 3 acres in area.

Landscaping and Lighting

A combination of deciduous trees (Bowhall Red Maples), evergreen trees (Eastern Red Cedars), and ornamental trees (Serviceberries) are proposed throughout the subject property where impervious improvements are not present. Additionally, shrubs, perennials, and ornamental grasses will be planted.

New light poles and bollards are proposed throughout the main parking lot, and within the beach area. To accommodate the 16 proposed light poles, new electrical and overhead wires will be laid. The overall mounting height of the light poles is 15 feet. Further, the bollard lights will be placed along walkways and within smaller parking sections. The average illumination throughout the main parking lot is approximately 2.52 footcandles (fc).



Aerial of Subject Property







Page 5 of 15



Zoning

The property is in the WC-2 Waterfront Commercial 2 Zone. The applicant is proposing to operate two principal uses on the site: a parking lot and a public beach. Proposed accessory uses include the Seastreak ferry service and seasonal operation of the Sandbox beach bar. Both accessory uses are permitted within the WC-2 zone. However, public beaches are not permitted within the WC-2 zone. Therefore, the application requires a d(1) use variance.

WC-2 Wa	terfront Commercial 1 Zone	(Chapter 21 Attach	nment 1)
	Ordinance Requirements	Existing	Proposed
Min. Lot Area	-	333,717 SF	No change
Min Lot Frontage/Width	100 feet	221.7 feet	No change
Min. Lot Depth	150 feet	870.6 feet	No change
Min. Front Setback	20 feet	828.9 feet	No change
Min. Side Setback	10 feet / 10 feet	> 10 feet / > 10 feet	No change
Min. Rear Setback	-	41.3 feet	No change
Max. Building Height	36 feet	<36 feet	No change
Max. Building Cover	25%	~0.2%	No change
Max. Impervious Cover	70%	83.7%	83.1% (V)

V = Bulk variance relief required



Page 6 of 15



Of	f-Street Circulation, Parking, and Loading I	Requirements	
	Ordinance Requirements	Existing	Proposed
Minimum Number of Parking Spaces (21- 65.14D)	Ferry transportation Services: 0.7 space for every passenger seat on all departing boats during a regular 24-hour period = 2,660 spaces* x 0.7 = 1,862 spaces + Public and private beaches: 1 for every 250 square feet of beach area= 43,000 square feet of beach** / 250 square feet/beach = 172 spaces + Eating and drinking establishment: 1 for every 4 seats = 408 fixed seats/4 = 102 spaces Total = 2,136 spaces	957 spaces	804 spaces + unclear on offsite lot (V)
On-Site Parking Requirement (21- 84A)	Waterfront Uses and Districts: "In the WC-2 district all required parking shall be provided on site."	Off-site parking provided within overflow lot on Block 101, Lot 12.01 (ENC)	No change (V)
Parking Space Setbacks (21-65.14D)	Parking spaces or access aisles, except entrance or exit drives, shall have a minimum setback of at least one-half (1/2) the required setback for the principal building." Front Setback: 20 feet / 2 = 10 feet Side Setback: 10 feet / 2 = 5 feet	Front Setback: 2 feet Side Setback: 5.4 feet	Front Setback: 10 feet Side Setback: 8 feet
Minimum Parking Space Dimensions (21-65.14D)	Standard spaces: In general, ninety (90) degree parking spaces shall be nine (9) feet wide by eighteen (18) feet long	N/A	18' x 8.5' proposed (W)







Driveway Aisle Width (21-65.14D) Bumper Provisions	90-degrees parking angle: 24 feet 45-degrees parking angle (one-way): 13 feet Parking spaces shall be delineated by a treated wood bumper, at minimum of	N/A Not provided	90-degrees: 24 feet 45-degrees: 15 feet No change
(21-65.14D)	thirty (30) inches above grade.	(ENC)	(W)
	Landscaping Requirements		
	Ordinance Requirements	Existing	Proposed
Minimum Landscaping (21- 65.10)	A minimum of ten (10%) percent of the area of the site not devoted to structures, paving or other required uses shall be landscaped.	Unclear	Unclear – applicant to confirm
	Lighting Requirements		
	Ordinance Requirements	Existing	Proposed
Fixture Height (21-65.11)	No light source, including sign lights, shall exceed a height of fifteen (15) feet	N/A	15 feet
Light Intensity (21-65.11)	The light intensity provided at ground level shall be a minimum of three-tenths (0.3) footcandle anywhere and shall average a minimum of five-tenths (0.5) footcandle over the entire area	N/A	Minimum: 0.5 fc Average: 2.52 fc
	The light intensity anywhere shall not exceed three-tenths (0.3) footcandle along any residential property line.	N/A	> 0.3 fc periodically (V)

^{*}Based on a report by Brian O'Callahan on July 13, 2023

ENC = Existing non-conforming condition

W = Design Waiver required



^{**}Value estimated using the scale of the provided drawings



Variances and Waivers Required

1. The applicant requires d(1) variance relief to permit a public beach within the WC-2 Waterfront Commercial 2 Zone.

Pre-Existing Non-Conforming Conditions

Pre-existing non-conforming conditions include:

Design Standards/Waivers

1. <u>Bumper Provisions (§26-65.14D)</u> – Where bumpers are required for surface parking spaces, no bumpers are proposed.

Newly Created Deviations

C-Variances

- Excessive Impervious Coverage (Chapter 21 Attachment 1) A maximum impervious coverage of 70% is permitted, where 83.1% is proposed.
- 2. <u>Insufficient Onsite Parking Spaces (§21-65.14D)</u> Where a total of 2,136 parking spaces is required, 804 parking spaces are proposed.
- 3. Offsite Parking Requirement (§21-84A) Where offsite parking is not permitted within the WC-2 district, offsite parking is proposed on Block 101, Lot 12.01.
- 4. Excessive Illumination (§21-65.11) Where the light intensity shall not exceed 0.3 fc along any residential property line, greater than 0.3 fc is proposed along the southern and western property lines.

Design Standards/Waivers

1. <u>Insufficient Standard Parking Space Dimensions (§21-65.14D)</u> – Where the minimum required width of a standard parking space is 9 feet, 8.5 feet is proposed.

Planning Comments:

Variance

- This application requires d(1) use variance relief to permit a public beach within the WC-2
 Waterfront Commercial 2 Zone. The applicant shall provide planning testimony to justify the
 requested relief from the Board.
 - a. Positive Criteria That there are "special reasons" for granting the requested variance and that the site is "particularly suitable" for the proposed use, which are often referred to as the "positive criteria."





Page 9 of 15



- i. The "special reasons" testimony shall either demonstrate how the proposed use advances the purposes of zoning, whether there is a hardship that prevents development of the property with a permitted use, or whether the proposed use is inherently beneficial.
- ii. The "particularly suitable" analysis should focus on why this location within the municipality or region is particularly suited to the use despite the zoning, and what unique characteristics of the site make it appropriate for the proposed use rather than a permitted use.
- b. Negative Criteria The applicant's testimony must demonstrate that the requested variance can be granted without substantial detriment to the public good. This analysis should consider impacts on neighboring properties and on the general public welfare. The applicant's testimony must demonstrate that the requested variance will not substantially impair the intent and the purpose of the Borough Master Plan and Zoning ordinance.
- The application requires two (2) design exceptions. The applicant shall provide testimony
 demonstrating that strict compliance with the Ordinance standards is impracticable per the
 standard set forth at N.J.S.A. 40:55D-51.

Conformance with the Borough Master Plan

- The 2016 Master Plan Reexamination Report for the Borough established distinct waterfront zones, including waterfront commercial, residential, and transitional commercial/residential zones. The subject property is located within a waterfront commercial zone, as most of this zone's development consists of restaurants, marinas, and commercial establishments. Unlike waterfront transitional zones, where beaches are permitted, neither public nor private beaches are permitted within waterfront commercial zones.
 - a. The applicant shall provide testimony regarding the implications of deviating from the Reexamination Report's vision, and maintaining both the beach and beach bar uses within a waterfront commercial zone, rather than a waterfront transitional zone.
- Further, within the Master Plan Reexamination, it is explicitly mentioned that parking should be limited to an accessory use within waterfront commercial zones: "due to sensitive location of the waterfront commercial districts, the Borough should ensure parking in these areas is limited to an accessory use" (p.54).
 - a. Parking is maintained as a principal use within Lot 27.
 - The proposed development also includes maintaining the existing overflow parking lot on Block 101, Lot 12.01.





Page 10 of 15



- i. The applicant shall clarify the number of parking spaces within this offsite lot, and speak to its efficiency to accommodate overflow parking.
- ii. No plans for this lot have been provided; is any work proposed within this lot (e.g., repaving, restriping, addition of parking spaces)?
- iii. We note that this property is owned by Sandy Hook Bay Parking, LLC. Has this owner been made aware of the current application for Lot 27?

Dual Use of the Site/Parking Arrangements

- 1. The parking space deficit for the ferry service was significant prior to the current application. Further, less parking spaces (804) are proposed than are currently on the site (957). We note that from a site visit on June 23, 2025, several cars were parked on the grass within the main parking lot.
 - a. The applicant shall provide testimony regarding the ability of site and proposed parking arrangements to meet the needs of both the ferry service, and beachgoers.
- 2. With the newly proposed parking arrangements, where will the food trucks park in the summertime? Will these trucks have designated parking areas or still take up car parking spaces?
- 3. The applicant shall speak to the feasibility of incorporating bumpers for the parking spaces, to eliminate the accumulated waiver.

Lighting

- 1. The lighting plan shall be revised to eliminate all light spillage onto neighboring properties.
- 2. The proposed illumination along the southern and western property lines shall be reduced to not exceed 0.3 fc.
- The applicant shall confirm that all proposed lighting fixtures are downcast and will not create a glare.

Landscaping

 The applicant shall clarify that a minimum of ten (10%) percent of the area not devoted to structures or paving is landscaped, in accordance with §21-65.10. Additional variance relief may be required.

Miscellaneous

- 1. The applicant shall provide testimony regarding parking logistics during the proposed construction; where will vehicles park during the repaving? Will this affect operations of the Seastreak ferry?
- 2. The provided plans do not indicate provisions for trash and recycling.
 - a. Trash and recycling provisions shall be outlined on the drawing set.











- b. The applicant shall provide testimony regarding circulation of a garbage truck throughout the site based on the new arrangements.
- 3. No bicycle parking spaces have been provided on the plans. The plans shall be revised to accommodate bicycle parking spaces, given the nature of the beach and beach bar use.
- 4. The application package notes that deed restrictions exist on the site, but this documentation has not been attached. The applicant shall confirm that any deed restrictions do not affect the proposed operations.

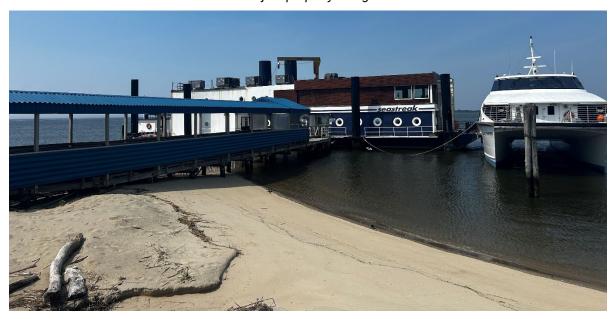




Site Visit Photos (taken June 23, 2025)



View of the subject property along Shore Drive.



Seastreak ferry terminal.









Seastreak Beach.



Operations of the Sandbox at Seastreak Beach (bar and food trucks).







Existing parking arrangements and one-way driveways within the main parking lot.



Combination of gravel, sand, and asphalt within the main parking lot.



Several cars parked on the grass within the main parking lot.



MemorandumPage 15 of 15









Overflow parking lot, located at 348 Shore Drive.



Applicant: Seastreak, LLC

Application: Change of Use for 326 Shore Drive Property: 326 Shore Drive, Highlands, NJ 07732

Block 100, Lot 27

STATEMENT OF OPERATIONS FOR SEASTREAK, LLC dba THE SANDBOX

The Applicant seeks a site plan waiver for a change of use for the beach and existing building located at the above-captioned property for a beach bar. As part of the application, a statement of operation is provided below in reference to the new proposed use.

- 1. **Description of the business**: The applicant intends to use the use the property as a beach bar with open seating, such as picnic tables, Adirondack chairs, etc.
- 2. **Hours and days of operations**: Seasonally: April 1st through October 31st. Monday through Thursday 12:00 PM to 10:00 PM and Friday through Sunday 8:00 AM to 11:00 PM.
- 3. **Number of employees**: The applicant expects to employee approximately 75 people of which 5-20 may be scheduled at any given time.
- 4. What kind of events are held at the venue: Live music and entertainment daily, patrons private celebrations, and a variety of charity events.
- 5. **Scheduling of Events**: Events are scheduled in compliance with the local noise ordinance.
- 6. Number of Guest: There is a maximum capacity of 1500 patrons.
- 7. **Food:** There are 2-6 food trucks/trailers in a centralized, food court area. Each vendor is responsible for their own permits/mercantile licenses and health inspections.
- 8. **Peak time/days/seasons:** The applicant expects Saturdays and Sundays in July and August to be considered peak dates.



Traffic and Transportation Consulting

Kevin P. McDonough (1953-1994) John H. Rea, P.E. Jay S. Troutman, Jr., P.E. Scott T. Kennel

September 3, 2025

Salvatore Alfieri, Esq. Cleary, Giacobbe, Alfieri, Jacobs 955 Route 34 Suite 200 Matawan, NJ 07747

Re: Seastreak Ferry Terminal

Borough of Highlands, Monmouth County

MRA File No. 23-240

Dear Mr. Alfieri:

As requested, McDonough & Rea Associates (MRA) has conducted a traffic/parking analysis of the main parking lots at the *Seastreak* ferry terminal in the Borough of Highlands, Monmouth County, New Jersey. After communication with *Seastreak* management, it was determined that Tuesdays in the summer are typically peak summer days with respect to ferry activity to and from New York City. Presumably, this is because many commuters to New York City work remotely or take time off for long weekends, therefore, reducing ferry trips on Mondays and Fridays. Of the remaining three weekdays, we understand that Tuesdays have had the highest ferry demand. Therefore, our traffic/parking analysis was focused on summer Tuesdays.

TRAFFIC/PARKING STUDY METHODOLOGY

MRA visited the *Seastreak* ferry terminal and the main and auxiliary parking lots for *Seastreak* on Tuesday, August 12, 2025 and Tuesday August 19, 2025. Parking counts were conducted in both the main lot and the auxiliary lot at 2:30 PM. Traffic counts entering and exiting the main parking lot were then conducted from 3:00 PM to 7:00 PM. From the in-and-out traffic counts, the number of remaining parked vehicles could be ascertained on a half-hour basis.

The following *Table* illustrates the number of parked vehicles every half hour at the Main ferry terminal parking lot from 2:30 PM to 7:00 PM on Tuesday, August 19, 2025. It should be noted that parking and traffic counts on Tuesday, August 12, 2025 were lower, therefore, the busier day was utilized for our analysis. Traffic and parking counts from both August 12, 2025 and August 19, 2025 are appended to this letter report.

Please reply to:

^{☐ 1431} Lakewood Road, Suite C, Manasquan, NJ 08736 • (732) 528-7076 • Fax (732) 528-6673 ☐ 105 Elm Street, Lower Level, Westfield, NJ 07090 • (908) 789-7180 • Fax (908) 789-7181



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Salvatore Alfieri, Esq.

-2-

September 3, 2025

TABLE I
PARKING COUNTS – TUESDAY, AUGUST 19, 2025

Time	<u>In</u>	Out	<u>+/-</u>	# of Parked Vehicles
2:30 PM				579
3:00-3:30 PM	10	18	-8	571
3:30-4:00 PM	20	61	-41	530
4:00-4:30 PM	8	12	-4	526
4:30-5:00 PM	43	38	+5	531
5:00-5:30 PM	30	124	-94	437
5:30-6:00 PM	28	107	-79	358
6:00-6:30 PM	34	24	+10	368
6:30-7:00 PM	22	37	-15	353

As can be seen from the foregoing, the number of parked vehicles at the main *Seastreak* parking lot peaked at 2:30 PM and receded until 7:00 PM as ferry customers returned from New York City and retrieved their vehicles from the parking lot and exited the site.

It should also be noted that the auxiliary parking lot at 348 Shore Drive had 40 vehicles parked at 2:30 PM on August 12, 2025 and 39 parked vehicles at 2:30 PM on August 19, 2025.

Parking for the *The Sandbox at Seastreak* is also included in the foregoing parking counts. *The Sandbox at Seastreak* is a waterfront beach setting with picnic tables, food and beverage options as well as live entertainment. Typically, parking associated with *The Sandbox at Seastreak* peaks in the afternoon coincident with peak parking for ferry customers, as well. *The Sandbox at Seastreak* operates as follows:

- > Description of the business: The applicant intends to use the property as a beach bar with open seating, such as picnic tables, Adirondak chairs, etc.
- ➤ Hours and days of operation: Seasonally from April 1st through October 31st, Monday-Thursday, 12:00 PM-10:00 PM and Friday-Sunday, 8:00 AM-11:00 PM.
- > Number of employees: The applicant expects to employ approximately 75 people, 5-20 of which may be scheduled at any given time.
- > What kind of events are held at the venue: Live music and entertainment daily, patrons private celebrations and a variety of charity events.



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Salvatore Alfieri, Esq.

-3-

September 3, 2025

- > Scheduling of events: Events are scheduled in compliance with the local noise ordinance.
- > Food: There are 2-6 food trucks/trailers in a centralized food court area. Each vendor is responsible for their own permits/mercantile licenses and health inspections.
- > Peak time/days/seasons: The applicant expects Saturdays and Sundays in July and August to be considered peak dates.

PARKING ANALYSIS

Based on a letter from Mr. Brian O'Callahan, the Borough of Highlands Zoning Officer, directed to *Seastreak* management, dated July 13, 2023, there are currently a total of 957 parking spaces combined at the main parking lot at 326 Shore Drive and the auxiliary lot at 348 Shore Drive. Peak parking on the summer Tuesdays counted by MRA, occurred at 2:30 PM on August 19, 2025 with a total of 618 parked vehicles between the 2 parking lots. Therefore, the 957-space capacity of the 2 lots was not exceeded and there was a surplus of parking available at all times.

PREVIOUS 2023 PARKING COUNTS

MRA has been involved with the *Seastreak* facility for several years and also conducted parking counts in the summer and fall of 2023. Copies of the 2023 parking counts are also appended to this report. The 2023 parking counts were conducted at various times of the day, including 10:00 AM-2:00 PM in September and October 2023. Peak parking from these counts occurred on Thursday, September 14, 2023 with a total of 669 parked vehicles between the 2 parking lots. This figure is consistent with and slightly higher than the 2025 peak parking count of 618 parked vehicles on August 19, 2025.

CONCLUSIONS

Based on our summer 2025 and summer/fall 2023 parking counts at the *Seastreak* ferry terminal in Highland, New Jersey, MRA can conclude that the 957-space capacity of the main parking lot at 326 Shore Drive and the auxiliary lot at 348 Shore Drive is adequate to serve the combined parking demand for ferry customers going to and from New York City and parking generated by *The Sandbox at Seastreak*.



Traffic and Transportation Consulting

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Salvatore Alfieri, Esq.

-4-

September 3, 2025

We hope the foregoing information is helpful.

Very truly yours,

John H. Rea, PE

Principal

Scott T. Kennel Sr. Associate

cc: Jack Bevins

APPENDIX

Seastreak Ferry Terminal Parking Counts MRA File No. 23-240

Date: Tuesday August 12 & August 19, 2025

											U fi		
		ıst 12, 2025	ust 19, 2025										
Parked Vehicles by Area		Tuesday August 12, 2025	Tuesday August 19, 2025										
Parked Vehi													
	Total	496	618										
	Auxillary	40	39										
	Main Lot	456	579										
	Time	2:30 PM	2:30 PM										

McDonough & Rea Associates 1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076 SEASTREAK PERRY SHORE DRIVER SEASTREAK TERMINAL ACCESS HIGHLANDS BOROUGH, MONMOUTH COUNTY MRA JOB 23-240 TUESDAY PM COUNT

File Name: 23240 8-12 seastreak tue1 Site Code: 00023240 Start Date: 8/12/2025 Page No: 1

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	Start Time	03:00 PM	03:15 PM	03:30 PM	03:45 PM	Total	-	04:00 PM	04-15 DM	M 107.70	04:30 FM	04;45 PM	Total	05:00 PM	05:15 PM	05:30 PM	05:45 PM	Total	06:00 PM	06:15 PM	06:30 PM	06:45 PM	Total	Grand Total	Apprch %

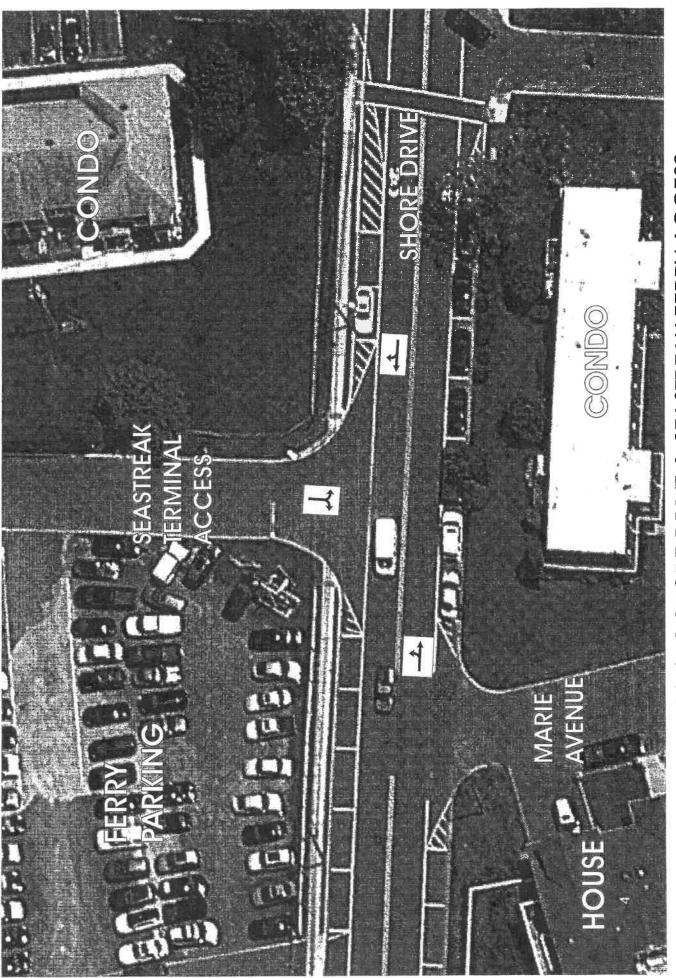
	Int Total	III. 10tal		880	700	700	407			
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Shore Drive	Their	3		117	2 06	. 00	3		20	3
(O)	#4			12	g 67) er	•	05.00 PM	4	>
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Shore Drive Westbound	Right			46	23.7	1	•		17	:
0, _	Thu			148	76.3	36		05:45 PM	44	
ıal	App. Total			339		125				0.678
Seastreak Ferry Terminal Southbound	Right			14	1.4	0			0	
Seastre	Left	- Peak 1 of 1	5:00 PM	325	95.9	125		5:15 PM	125	
	Start Time	From 03:00 PM to 06:45 PM	Intersection 05:00 PM	Volume	Percent	05:15 Volume	Peak Factor	High Int. 05:15 PM	Volume	Peak Factor

McDonough & Rea Associates 1431 Lakewood Road Suite C Manasquan NJ 08736 (732) 528-7076 SEASTREAK FERRY SHORE DRIVE & SEASTREAK TERMINAL ACCESS HIGHLANDS BOROUGH, MONMOUTH COUNTY MRA JOB 23-240 TUESDAY PM COUNT

File Name: 23240 8-19 seastreak tue1 Site Code: 00023240 Start Date: 8/19/2025 Page No:1

Start Time Left Southbound Start Time Left Right 8 3 03:15 PM 6 2 2 03:30 PM 1 0 0 03:45 PM 58 2 7 7 72 7	and App. Total 3 11)			
Left 8 8 5 5 72			Westbound		ш	Eastbound		
5 4 5 8 72 72			Right	App. Total	Left	Thru	App. Total	Int. To
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			ဖ	25		26	26	Ð
			12	38	0	19	19	Ω
			7	33		19	20	11
			29	123	_	79	80	28
04:00 PM 5	0		4	38	0	24	24	9
			4	39	0	27	27	7
	0		16	42	0	14	14	1
04:45 PM 23	0		26	28	,	23	24	10
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05:00 PM 65	69	9 43	15	28		36	38	165
	2 5		13	41		22	22	~
05:30 PM 95	9		13	24	-	33	34	€
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2	8 23		54	203	4	119	123	iii
06:00 PM 12	,-	_	16	42		23	24	1
	0		16	40		24	22	
06:30 PM 16	1		13	35	2	23	52	
			7	31	0	23	23	
Total 58		1 96	52	148	4	93	126	ਲੋ
	19 421		185	651	10	379	389	1461
95.5			28.4		2.6	97.4		
27.5	1.3 28.8		12.7	44.6	0.7	25.9	26.6	

Seast	Seastreak Ferry Terminal Southbound	<u>~</u>		Westbound		1	Eastbound	i	1
١	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Iotal
Peak Hour From 03:00 PM to 06:45 PM - Peak 1 of 1									
N L						•	7	077	573
236	2	243	144	29	211	4	114	0	216
97.1	2.9		68.2	31.8		3.4	96.6		
95	-	96	41	13	54	τ-	33	34	184
						1000			0.777
05:30 PM			04:45 PM		1	05:00 PM	Ċ	C	
92	-	96	32	56	58	.73	S	3,5	
		0.633			0.909			0.770	



MRA JOB 23-240 SHORE DRIVE & SEASTREAK FERRY ACCESS HIGHLANDS BOROUGH, MONMOUTH COUNTY

Seastreak Ferry Terminal Parking Counts MRA File No. 23-240

Date: Sunday September 3, 2023

			in a constant of the constant										
				nted.									
Parked Vehicles by Area				ias can be re									
arked Vehic			AT Seastrea	ks and cabar	ncert.								
	Total	452	The Sandbox	zed food truc	d ticketed co								
	Auxiliary	29	h bar called "	er of speciali	holding a pai								
	Main Lot	393	eastreak operates a beach bar called "The Sandbox AT Seastreak".	ood is supplied by a number of specialized food trucks and cabanas can be rented.	during the count they were holding a paid ticketed concert.								
	Time	3:00 PM	eastreak ope	ilddns si poo	uring the cou								

Seastreak Ferry Terminal Parking Counts MRA File No. 23-240

Date: Thursday September 14, 2023

ss by Area			33														
Parked Vehicles by Area																	
Pa	Total	651	638	645	629	699	648	642	645	642							
	Auxiliary	28	29	30	26	24	24	24	25	24							
	Main Lot	623	609	615	633	645	624	618	620	618							
	Time	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM							

Seastreak Ferry Terminal Parking Counts MRA File No. 23-240

Date: Wednesday October 11, 2023

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							بالما										
Parked Vehicles by Area																	
Parked Vel																	
	Total	439	453	464	449	454	444	437	454	444							
	Auxiliary	21	21	20	18	22	23	22	23	25							
	Main Lot	418	432	444	431	432	421	415	431	419							
	Time	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM							

MRA JOB 23-240 SEASTREAK FERRY - HIGHLANDS BORO, MONMOUTH COUNTY



BOROUGH OF HIGHLANDS COUNTY OF MONMOUTH

Date Issued: August 28, 2025

CERTIFICATION OF 200-FOOT LIST

BLOCK **100** LOT **27**

PROPERTY LOCATION: 326 Shore Dr., Highlands, NJ 07732

BLOCK **101** LOT **12.01**

PROPERTY LOCATION: 348 Shore Dr., Highlands, NJ 07732

TO THE BEST OF MY KNOWLEDGE this is a true and accurate list, as of this date, taken from the most current tax records of the Borough of Highlands, NJ.

The addresses on this list are pertinent to the Borough of Highlands exclusively. If the subject property is within 200 feet of a neighboring municipality, you MUST contact that municipality, to obtain a listing of any properties that may be inclusive in the 200 foot perimeter. THIS LIST IS VALID FOR 90 DAYS.

Nancy Tran, Borough Clerk

8/28/2025 2:49 PM

* If you are located within 200 feet of a State Highway, you **MUST** notify the NJ Department of Transportation:

NJ Dept. of Transportation 1035 Pkwy Avenue PO Box 600 Trenton, NJ 08625

*If you are within 200 feet of a County owned road, you **MUST** notify the Monmouth County Planning Board:

Monmouth County Planning Board Hall of Records Annex 2nd Floor One East Main St. PO Box 1255 Freehold, NJ 07728 You must also notify all utilities located within the 200-foot range of the subject property:

JCP&L

300 Madison Avenue PO Box 1911 Morristown, NJ 07960

NEW JERSEY AMERICAN WATER COMPANY

Attn: Construction Department 661 Shrewsbury Ave Shrewsbury, NJ 07702

COMCAST COMMUNICATIONS OF MONMOUTH COUNTY

Ron Bertrand, Construction Foreman 403 South St Eatontown, NJ 07724

VERIZON COMMUNICATIONS

One Verizon Way Basking Ridge, NJ 07920

TOWNSHIP OF MIDDLETOWN SEWERAGE AUTHORITY

Raymond J. Nierstedt, P.E., Executive Director PO Box 205, 100 Beverly Way Belford, NJ 07718

NEW JERSEY NATURAL GAS COMPANY

Attn: Joan Purcaro PO Box 1464 1415 Wyckoff Road Wall, NJ 07719

MONMOUTH COUNTY BAYSHORE OUTFALL AUTHORITY

Attn: Executive Director 200 Harbor Way PO Box 184 Belford, NJ 07718

Block	Lot	Qualifier	Owner Name	Owner Street1	Owner City, St	Owner Zip
1.01	2		TAYLOR JOHN M & KELLY	284 BAYSIDE DRIVE	ATLANTIC HIGHLANDS	07716
100	30.02		330 SHORE DRIVE	330 SHORE DRIVE	HIGHLANDS, NJ	07732
100	30.02	-C6101	ROUDYK, NAZARII I & NATALIA K	330 SHORE DRIVE G-1	HIGHLANDS, NJ	07732
100	30.02	-C6102	COHEN, IRA & SHARON	330 SHORE DR G2	HIGHLANDS, NJ	07732
100	30.02	-C6103	TESTA,BEIM MICHELE	100 PORTLAND ROAD	HIGHLANDS, NJ	07732
100	30.02	-C6104	MSA AT 330 SHORE DRIVE, LLC	34 SYCAMORE AVENUE	LITTLE SILVER, NJ	07739
100	30.02	-C6105	GLIETZ, JANALYN	330 SHORE DRIVE-#G-5	HIGHLANDS, NJ	07732
100	30.02	-C6106	SMITH, CHONG	207 E. 57TH STREET APT.3B	NEW YORK, NY	10022
100	30.02	-C6107	FOUR HUNDRED SEVENTY SEVEN LARCH AV	471 LARCH AVE	BORGOTA,NJ	07603
100	30.02	-C6108	COHEN, EVELYNE	10-09 ELAINE TERRACE	FAIR LAWN, NJ	07410
100	30.02	-C6201	TRES 103, LLC	3 SOUTH CHERRY LANE	RUMSON, NJ	07760
100	30.02	-C6202	ARNOTT, MORGAN K	330 SHORE DRIVE G-15	HIGHLANDS, NJ	07732
100	30.02	-C6203	RODGERS, STEPHANIE	330 SHORE DRIVE G-14	HIGHLANDS, NJ	07732
100	30.02	-C6204	BLACK, JOHN C & KIM F	25 TOWNSEND DRIVE	MIDDLETOWN, NJ	07748
100	30.02	-C6205	MSA AT 330 SHORE DRIVE G12, LLC	330 SHORE DRIVE G-12	HIGHLANDS, NJ	07732
100	30.02	-C6206	SMITH, JAMES & BARBARA	330 SHORE DRIVE UNIT G-11	HIGHLANDS, NJ	07732
100	30.02	-C6207	COHEN, SHARON W & IRA J.	330 SHORE DRIVE #G-2	HIGHLANDS, NJ	07732
100	30.02	-C6208	DESPIRITO, NICHOLAS	330 SHORE DRIVE G-9	HIGHLANDS, NJ	07732
101	2.01		SERGHIS, ARGIRIS S. & ANDROULA	61 MATTHEW STREET	HIGHLANDS, NJ	07732
101	3.01		BOROUGH OF HIGHLANDS	151 NAVESINK AVENUE	HIGHLANDS, NJ	07732
101	3.02		SERGHIS, ARGIRIS & ANDROULA	60 MATTHEWS STREET	HIGHLANDS, NJ	07732
101	3.03		SERGHIS, ARGIRIS ANDROULA	60 MATTHEWS STREET	HIGHLANDS, NJ	07732
101	3.04		BOROUGH OF HIGHLANDS	151 NAVESINK AVENUE	HIGHLANDS, NJ	07732
101	4		SERGHIS, ARGIRIS & ANDROULA	60 MATTHEW STREET	HIGHLANDS, NJ	07732
101	5		GARBER, RENEE	8B-LOCUST STREET	HIGHLANDS, NJ	07732
101	6		KULHAWY, STANLEY & ROBERTA	336 SHORE DRIVE	HIGHLANDS, NJ	07732
101	7		MUNCK, ROBERT	73 EAST MOUNT AVENUE	ATLANTIC HIGHLANDS, NJ	07716
101	8		INGENITO, AUSTIN D & CHRISTINE P	3530 HENRY HUDSON PARKWAY	BRONX, NY	10463
101	9		SHWOM, RACHAEL	342 SHORE DRIVE	HIGHLANDS, NJ	07732
101	10		DONOVAN, THOMAS F & MICHAEL J	344 SHORE DR	HIGHLANDS, NJ	07732
101	11		SCHIMENEK, CAROL	346 SHORE DRIVE	HIGHLANDS, NJ	07732
101	12.01		SANDY HOOK BAY PARKING LLC	2 FIRST AVENUE	ATLANTIC HIGHLANDS, NJ	07716
101	13		ACERRA, FERDINAND M & JANNETTE	352 SHORE DR	HIGHLANDS, NJ	07732
101	14		RAK 354 HIGHLANDS LLC	200 B HERITAGE HILLS	SOMERS, NY	10589
101	16.01		TYSON, WELDON A JR & MARY JANE	2803 S FAIRWAY DRIVE	MELBOURNE, FL	32901
101	17.01		7 WILLOW STREET, LLC	7 WILLOW ST	HIGHLANDS, NJ	07732
101	18		HOHERCHAK, JOSEPH	3 WILLOW STREET	HIGHLANDS, NJ	07732
101	19		KNEPPLE, LORRAINE & PAUL	1 LOCUST STREET	HIGHLANDS, NJ	07732
101	20		5 LOCUST STREET, LLCLC	47 RECKLESS PLACE	RED BANK, NJ	07701

Block	Lot	Qualifier	Owner Name	Owner Street1	Owner City, St	Owner Zip
101	21		5 LOCUST STREET LLC	P.O. BOX 8037	RED BANK, NJ	07701
101	22		WIECZORECK, WADE	10 LOCUST STREET	HIGHLANDS, NJ	07732
101	23		KURDES, PATRICK & FRANCES	9 LOCUST STREET	HIGHLANDS, NJ	07732
101	27.02	-C1001	TULLIO, MICHELLE M & RODRIGUEZ, IRE	6 HALF MOON COURT	HIGHLANDS, NJ	07732
101	27.02	-C1101	NANO, GJERGJ & EVIA ALIKAJ-	8 HALF MOON COURT	HIGHLANDS, NJ	07732
101	27.03		SANDY HOOK DEVELOPERS, L.L.C.	47 RECKLESS PLACE	RED BANK, NJ	07701
101	34		IANNUZZO, PAUL G & DECORO, NOELLE L	53 MATTHEW STREET	HIGHLANDS, NJ	07732
101	35		LIEBERMAN, ERIC & JENNIFER	55 MATTHEW STREET	HIGHLANDS, NJ	07732
101	36		ACCIAVATTI, ETTORE JOSEPH	59 MATTHEW STREET	HIGHLANDS, NJ	07732
102	1		PLAIA, PETER J	2 LOCUST ST	HIGHLANDS, NJ	07732
102	3.01		6 LOCUST STREET, LLC	47 RECKLESS PLACE	RED BANK, NJ	07701
103	1		KIENA, GARY M	8 KING STREET	HIGHLANDS, NJ	07732
103	3		STEINER, PAUL & LISA	6 ANNETTE AVENUE	HAWTHORNE, NJ	07506
103	4		CAIZZA, JOHN C. & RITA	2 KING STREET	HIGHLANDS, NJ	07732
103	5		PALADUGU, HARISH & MANDAVA, PAVANI	351 SHORE DRIVE	HIGHLANDS, NJ	07732
103	6		MAIER, WILLIAM & GUARINO, DANIELLE	353 SHORE DRIVE	HIGHLANDS, NJ	07732
103	7		HIGHLANDER 355, LLC	355 SHORE DRIVE	HIGHLANDS, NJ	07732
103	8		FLORIT, NICOLE & TRUETT, MICHAEL	357 SHORE DRIVE	HIGHLANDS, NJ	07732
103	9		WILLIAMS, ELLEN	359 SHORE DRIVE	HIGHLANDS, NJ	07732
103	10		CASTELLITO, ANTHONY & TERESA	361 SHORE DRIVE	HIGHLANDS, NJ	07732
103	11		RYAN, DONALD & MARY	363 SHORE DRIVE	HIGHLANDS, NJ	07732
103	12.01		TABER, NEAL MATTHEW	4 FAY ST	HIGHLANDS, NJ	07732
103	15		MAIER, WILLIAM & GUARINO, DANIELLE	353 SHORE DRIVE	HIGHLANDS, NJ	07732
103	16		STEINER, PAUL & LISA	6 ANNETTE AVENUE	HAWTHORNE, NJ	07506
103	21		TARPEY, DONALD & GABRIELLE	365 SHORE DRIVE	HIGHLANDS, NJ	07732
103	22		COUNTY OF MONMOUTH	1 E MAIN ST CC HALLOFRECS	FREEHOLD, NJ	07728
104	7.01		EINHORN, JERROLD	341 SHORE DRIVE	HIGHLANDS, NJ	07732
104	7.02		CRUZ, MARY	1 LAUREL LANE	RUMSON, NJ	07760
104	8.01		SLADE, MICHAEL D & CRISCUOLO, MARY	345 SHORE DRIVE	HIGHLANDS, NJ	07732
104	8.02		347 SHORE DRIVE	347 SHORE DRIVE	HIGHLANDS, NJ	07732

Block	Lot	Qualifier	Owner Name	Owner Street1	Owner City, St	Owner Zip
111	2.01		WELLS, GREGORY	246 BAYSIDE DRIVE	HIGHLANDS, NJ	07732
111	4.01		TIERNEY, CHRISTOPHER &MAUGHAN, AVICE	2 MARIE AVENUE	HIGHLANDS, NJ	07732
111	7		LARUE, CHARLES A	248 BAYSIDE DRIVE	HIGHLANDS, NJ	07732
111	8.01		CONNELLY, KEVIN & MICHELLE	327 SHORE DRIVE	HIGHLANDS, NJ	07732
112	12		321-23 SHORE DR	321-23 SHORE DR	HIGHLANDS, NJ	07732
112	12.01		LAMBERTI, WILLIAM	321 SHORE DRIVE- UNIT #1	HIGHLANDS, NJ	07732
112	12.02		MOEDT, KEVIN	321-323 SHORE DR, #2	HIGHLANDS, NJ	07732
112	12.03		BARBAROSSA A, LLC	321-23 SHORE DR UNIT 3	HIGHLANDS, NJ	07732
112	12.04		DURKIN, KASEY LYNN	321-23 SHORE DR 4	HIGHLANDS, NJ	07732
112	12.05		FRANK, MADELINE, TRUSTEE, ETAL	321-23 SHORE DR 5	HIGHLANDS, NJ	07732
112	12.06		YABROUDY, BRIAN A	321-23 SHORE DR 6	HIGHLANDS, NJ	07732
112	12.07		MCVEY, KATHLEEN	321 SHORE DRIVE-UNIT 7	HIGHLANDS, NJ	07732
112	12.08		KEHOE, JENNIFER E	321 SHORE DRIVE UNIT #8	HIGHLANDS,, NJ,	07732
112	12.09		CAFARO, MICHAEL	321-23 SHORE DR 9	HIGHLANDS, NJ	07732
112	12.10		TREIBER, ADAM S	321-323 SHORE DRIVE	HIGHLANDS, NJ	07732
112	12.11		VILLALI, ROSE	322 SHORE DR 11	HIGHLANDS, NJ	07732
112	12.23		MEROLA, ANTOINETTE NICOLE	321-23 SHORE DRIVE-#23	HIGHLANDS, NJ	07732
112	12.24		CHIRICHELLO, CAROLYN A, M.S.	34 NAVESINK DRIVE	MONMOUTH BEACH, NJ	07750
112	12.25		LUBACZEWSKI, ERIK J	321-23 SHORE DR, #25	HIGHLANDS, NJ	07732
112	12.26		GROSSMAN, DAVID, TRUSTEE	110 MARINA BAY COURT	HIGHLANDS, NJ	07732
112	12.27		GLOZZY, KEITH NICHOLAS	321-23 SHORE DR 27	HIGHLANDS, NJ	07732
112	12.28		SKIRKA, KEVIN & KIMBERLY	321-23 SHORE DR #28	HIGHLANDS, NJ	07732
112	12.29		BIG H HOLDINGS LLC	1114 TEXAS PALMYRA HWY	HONESDALE, PA	18431
112	12.30		ARGANO, NICOLO JR	321-23 SHORE DR, UNIT 30	HIGHLANDS, NJ	07732

Block	Lot	Qualifier	Owner Name	Owner Street1	Owner City, St	Owner Zip
98	6.03		BEACH BOULEVARD	BEACH BOULEVARD	HIGHLANDS, NJ	07732
98	10		MARCHETTI, MICHAEL	30 BEACH BOULEVARD	HIGHLANDS, NJ	07732
98	11		MARCHETTI, MICHAEL F & SUZANNE L	30 BEACH BOULEVARD	HIGHLANDS, NJ	07732
98	12		STATE OF NJ RIPARIAN	171 BAY AVE	HIGHLANDS, NJ	07732

Block	Lot	Qualifier	Owner Name	Owner Street1	Owner City, St	Owner Zip
100	26		GRAVELLY POINT ROAD	GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0015	GENTRY, LAURA & CARL	27 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0016	SULLIVAN-OCONNOR, CARRIE A	29 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0018	STRAMKA, THOMAS J & PATRICIA A,ETAL	119 83RD STREET	BROOKLYN, NY	11209
100	26	-C0019	SAVAS, ANDY & ARANSAS	33 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0021	COLLINS, DAVID & ASHLEY	39 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0022	PAIGE, SARA B & SPIEWAK, JASON L	41 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0024	MCGHEE, SUZANNE JAYNE	15 WEST 72ND ST, APT 125	NEW YORK, NY	10023
100	26	-C0026	FREEMAN, JILL & JEANINE	45 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0027	LAFFEY, MICHAEL & ANN	443 SANTIAGO COURT	MAHWAH, NJ	07430
100	26	-C0029	DIMEDIO, CHRISTOPHER S	49 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0031	MARTINEZ, MICHAEL A & GRIFFIN, SAMM	51 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0033	HERNON, ROBERT G & SHERYL A	53 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0034	LOMBARDI, PETER & VICCI	55 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0036	DE NISCO, JOSEPH & ANN	57 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0041	CEFALO, CARLA & BRASWELL, KENNETH	62 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0042	SOMMER, ROBERT C. & BARBARA T.	2045 RYDER STREET	BROOKLYN, NY	11234
100	26	-C0043	ROZZELLE, LAUREN	66 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0044	DOYLE, BRENDEN & PATRICIA	67 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0045	CONROY, MARY ELIZABETH&MATTHEW JOHN	220 KINGSLEY AVENUE	STATEN ISLAND, NY	10314
100	26	-C0046	FITZPATRICK, ANDREW & CHRISTINA	69 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0047	71 GRAVELLY POINT, LLC	71 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0048	BYRNES, JAMES & ANNE & FRISCIA, ANN M	73 GRAVELLY POINT ROAD	HIGHLANDS, NJ	07732
100	26	-C0049	HOUSTON, PAUL	50 BRAE BURN DRIVE	LINCROFT, NJ	07738
100	26	-C0050	STOLLWERCK, D. MIHOK, CHRISTINE	103 CHERRY LANE	WYNNEWOOD, PA	19096
100	26	-C0051	MCQUADE, KATHLEEN A	5 CARSAM STREET	FANWOOD, NJ	07023
100	26.01		GRAVELLY POINT ROAD CO	GRAVELLY POINT ROAD	HIGHLANDS, NJ	00000
100	27		HIGHLANDS LANDING CORPORATION	2 FIRST AVENUE	ATLANTIC HIGHLANDS, NJ	07716
100	27.01		324 SHORE DRIVE	324 SHORE DRIVE	HIGHLANDS, NJ	07732
100	27.01	-C1101	ABRAMS, LEAH, TRUSTEE	324 SHORE DRIVE, UNIT A-1	HIGHLANDS, NJ	07732
100	27.01	-C1102	YERVES, KEVIN R.	324 SHORE DRIVE - #A-3	HIGHLANDS, NJ	07732
100	27.01	-C1103	KALIS, HOWARD E III & SHIRLEY B	919 BRIAR LANE	POTTSTOWN, PA	19464
100	27.01	-C1104	LOWLANDS REALTY, LLC	1201 OCEAN AVENUE #86	SEA BRIGHT, NJ	07760
100	27.01	-C1105	COLYARD, ROBERT JR	324 SHORE DRIVE UNIT A-9	HIGHLANDS, NJ	07732
100	27.01	-C1106	LENCHNER, DANIEL & HAGMAN, KAREN	781 SEGUOIA DRIVE	VALLEY COTTAGE, NY J	10989
100	27.01	-C1201	FABIANO, ANTHONY N JR	324 SHORE DR UN-A2	HIGHLANDS, NJ	07732
100	27.01	-C1202	ABECKER, STEVEN R	324 SHORE DR, A-4	HIGHLANDS, NJ	07732
100	27.01	-C1203	SKYLINE PROPERTY SERVICES,LLC, ETAL	984 US HWY 9 SUITE 5F	PARLIN, NJ	08859

Block	Lot	Qualifier	Owner Name	Owner Street1	Owner City, St	Owner Zip
100	27.01	-C1204	LAPINSKI, RICHARD J SR	PO BOX 795	BAYONNE, NJ	07002
100	27.01	-C1205	TALCOTT, JAMES L.	324 SHORE DRIVE-UNIT A-10	HIGHLANDS, NJ	07732
100	27.01	-C1206	KAMINSKI, NICHOLAS,NICHOLAS J & EMI	324 SHORE DRIVE A-12	HIGHLANDS, NJ	07732
100	27.01	-C2101	LOORI, ALLISON & ONULAK, MARK	324 SHORE DRIVE B-1	HIGHLANDS, NJ	07732
100	27.01	-C2102	LINKIN-WILLIAMS, MARGARET	33 GRAND TOUR	HIGHLANDS, NJ	07732
100	27.01	-C2103	TAYLOR, ROBERT C	324 SHORE DR UN-B5	HIGHLANDS, NJ	07732
100	27.01	-C2104	MACDONALD, NANCY	324 SHORE DRIVE B-7	HIGHLANDS, NJ	07732
100	27.01	-C2105	VITALE, ANTHONY G III & CATHERINE	324 SHORE DRIVE, UNIT B9	HIGHLANDS, NJ	07732
100	27.01	-C2106	BOYLE, CAITLYN MAE	324 SHORE DR UN-B-11	HIGHLANDS, NJ	07732
100	27.01	-C2201	PARISI-GNAZZO, HELENE	90 GOLD STREET APT 8C	NEW YORK, NY	10038
100	27.01	-C2202	THOMAS, ROBERT & NOVAK, CARA	324 SHORE DR UN-B4	HIGHLANDS, NJ	07732
100	27.01	-C2203	DOMAR PROPERTIES LLC	74 MONMOUTH BOULEVARD	OCEANPORT, NJ	07757
100	27.01	-C2204	FIRST & BAY ASSOC LLC	P.O. BOX 207	BELFORD, NJ	07718
100	27.01	-C2205	BRADLEY, GEORGE A JR	324 SHORE DRIVE UNIT-B10	HIGHLANDS, NJ	07732
100	27.01	-C2206	GREENE, CATHLEEN M.	324 SHORE DRIVE-UNIT B-12	HIGHLANDS, NJ	07732
100	27.01	-C3101	KREML, MARY CATHERINE	324 SHORE DR UN-C1	HIGHLANDS, NJ	07732
100	27.01	-C3102	LINKIN-WILLIAMS, MARGARET E	33 GRAND TOUR	HIGHLANDS, NJ	07732
100	27.01	-C3103	BLACK, WILLIAM JAY & FRANK, DEBORAH	316 NAVESINK AVENUE	ATLANTIC HIGHLANDS, NJ	07716
100	27.01	-C3104	TUCKER, JOHN P	324 SHORE DRIVE UNIT C-7	HIGHLANDS, NJ	07732
100	27.01	-C3105	ENGLER, ILIANA M & ROBERT	57 BRIDGEWATERS DR.,#11	OCEANPORT, NJ	07757
100	27.01	-C3106	TERPAK, MICHAEL	324 SHORE DR UN-C11	HIGHLANDS, NJ	07732
100	27.01	-C3201	MAHN, MILEN	324 SHORE DR UN-C2	HIGHLANDS, NJ	07732
100	27.01	-C3202	BRENNAN, BONITA C	3501 WELLINGTON CT UNT207	ROLLING MEADOWS, IL	60008
100	27.01	-C3203	LINKIN-WILLIAMS, MARGARET E	33 GRAND TOUR	HIGHLANDS, NJ	07732
100	27.01	-C3204	DEMAREST, STEVEN D	58 ALPINE DRIVE	WAYNE, NJ	07470
100	27.01	-C3205	LEHNER, SUSAN	324 SHORE DRIVE-#C-10	HIGHLANDS, NJ	07732
100	27.01	-C3206	O'MARA, WILLIAM & LINDA	182 GREEN OAK BLVD	MIDDLETOWN, NJ	07748
100	27.01	-C4101	DEANDREA, CRAIG	324 SHORE DRIVE-#D-1	HIGHLANDS, NJ	07732
100	27.01	-C4102	PANETTIERI, DANIEL & BETTY JANE	324 SHORE DRIVE D-3	HIGHLANDS, N.J.	07732
100	27.01	-C4103	CARITA, VIRGINIA A	324 SHORE DR, UNIT D-5	HIGHLANDS, NJ	07732
100	27.01	-C4104	WELLS, EDWARD W JR	18 OCEAN AVENUE	HIGHLANDS, NJ	07732
100	27.01	-C4105	SCHMEDES, GAIL	324 SHORE DRIVE UNIT D-9	HIGHLANDS, NJ	07732
100	27.01	-C4106	MILLER, GREGORY & NOREEN	324 SHORE DRIVE-UNIT D-11	HIGHLANDS, NJ	07732
100	27.01	-C4201	OSTERLOF, ROBERT & KAITLYN	324 SHORE DR UN-D2	HIGHLANDS, NJ	07732
100	27.01	-C4202	DOSHI, ASHISH & LUZ	83 DAVIS AVENUE	BLOOMFIELD, NJ	07003
100	27.01	-C4203	GINSBERG, DONNA	132 DANIELE DRIVE	OCEAN,NJ	07712
100	27.01	-C4204	QUARATO, MICHAEL J	324 SHORE DR, UNIT-D8	HIGHLANDS, NJ	07732
100	27.01	-C4205	LINKIN-WILLIAMS, MARGARET	33 GRAND TOUR	HIGHLANDS, NJ	07732

Block	Lot	Qualifier	Owner Name	Owner Street1	Owner City, St	Owner Zip
100	27.01	-C4206	HIGHLANDS DEVELOPMENT, LLC	1000 FLORAL AVENUE	UNION, NJ	07083
100	27.01	-C5101	GULLO, STEPHEN V	324 SHORE DRIVE APT E-1	HIGHLANDS, NJ	07732
100	27.01	-C5102	STERZINAR, JOHN & KATHLEEN	2061 NW GOLDEN OAK TRAIL	JENSEN BEACH, FL	34957
100	27.01	-C5103	ALLOCCO, LAURA	324 SHORE DRIVE UNIT E5	HIGHLANDS, NJ	07732
100	27.01	-C5104	ABBOTT, ROBERT & ABBOTT-MAITNER, SUS	324 SHORE DRIVE UNIT E7	HIGHLANDS, NJ	07732
100	27.01	-C5105	BENEDETTI, RICHARD & PATRICIA	241 6TH AVENUE	NEW YORK CITY, NY	10014
100	27.01	-C5106	SCALA, JOANN	129 HUNTER AVE	STATEN ISLAND, NY	10306
100	27.01	-C5201	DIMATTINA, BARTHOLOMEW JOSEPH	324 SHORE DR UN-E2	HIGHLANDS, NJ	07732
100	27.01	-C5202	ONULAK, MARK	324 SHORE DR UN-E4	HIGHLANDS, NJ	07732
100	27.01	-C5203	LOORI, ALLISON & ONULAK, MARK	324 SHORE DRIVE UNIT 6	HIGHLANDS, NJ	07732
100	27.01	-C5204	CONLEY, JEANNE M	324 SHORE DR #E8	HIGHLANDS, NJ	07732
100	27.01	-C5205	GENESIS POINT LLC	275 OAK HILL ROAD	RED BANK, NJ	07701
100	27.01	-C5206	BRENNER, NATALYA & VICTORIA	324 SHORE DRIVE-#E-12	HIGHLANDS, NJ	07732
100	27.02		HIGHLANDS LANDING CORPORATION	2 FIRST AVENUE	ATLANTIC HIGHLANDS, NJ	07716
100	27.04		HIGHLANDS LANDING CORPORATION	2 FIRST AVENUE	ATLANTIC HIGHLANDS, NJ	07716
100	27.05		HIGHLANDS LANDING CORPORATION	2 FIRST AVENUE	ATLANTIC HIGHLANDS, NJ	07716
100	27.06		SHORE LANDING, LLC	301S.LIVINGSTON SUITE-201	LIVINGSTON, NJ	07039
100	30.02		330 SHORE DRIVE	330 SHORE DRIVE	HIGHLANDS, NJ	07732
100	30.02	-C1103	MORTON, ANTONIO & SHUI, YA NIAN	330 SHORE DRIVE A-3	HIGHLANDS, NJ	07732
100	30.02	-C1104	SMITH, WAYNE	316 CROMWELL HILL ROAD	MONROE, NY	10950
100	30.02	-C1105	DIPAOLO, PATRICIA A	330 SHORE DRIVE A-5	HIGHLANDS, NJ	07732
100	30.02	-C1106	MURPHY, GARY C.	330 SHORE DRIVE-#A-6	HIGHLANDS, NJ	07732
100	30.02	-C1107	CERAMI, RENEE A.	330 SHORE DRIVE - #A-19	HIGHLANDS, NJ	07732
100	30.02	-C1108	YOUNG, RUSSELL	330 SHORE DRIVE A-18	HIGHLANDS, NJ	07732
100	30.02	-C1109	STEINFIELD PROPERTIES, LLC	330 SHORE DRIVE A-17	HIGHLANDS, NJ	07732
100	30.02	-C1110	HAFNER, STEVEN & DEBORAH	51 ARCADIA COURT	HARRINGTON PARK, NJ	07640
100	30.02	-C1202	ROTH, DONNA M	330 SHORE DRIVE, A-8	HIGHLANDS, NJ	07732
100	30.02	-C1203	AUFIERO, ANTHONY & CATHLEEN BUCKLEY	415 WEST 55TH ST#3D	NEW YORK, NY	10019
100	30.02	-C1204	CHRISTMAN, EDWARD J & MILLER, SUSAN	4906 CHERYL DRIVE	BETHLEHEM, PA	18017
100	30.02	-C1205	SOLARINO, REGINA	330 SHORE DRIVE, APT A-11	HIGHLANDS, NJ	07732
100	30.02	-C1206	COURTNEY, KRISTEN & JAMES K	330 SHORE DRIVE A-12	HIGHLANDS, NJ	07732
100	30.02	-C1207	STRATASYS LLC	111 CLASSIC WAY	MORGANVILLE, NJ	07751
100	30.02	-C1208	LOUIS, LINDSAY	330 SHORE DRIVE UNIT A-24	HIGHLANDS, NJ	07732
100	30.02	-C1209	Y&Y PROPERTIES, LLC	19 HILLCREST ROAD	HOLMDEL, NJ	07733
100	30.02	-C1210	A22 REALTY, LLC %BONFIGLIO&ASTERITA	618 DOGWOOD TERR.	MIDDLETOWN, NJ	07748
100	30.02	-C2101	DD INVESTORS, LLC	7 CENTRE STREET, UNIT 1311	OCEAN, NJ	07712
100	30.02	-C2102	RISPOLI, DANIEL T.	330 SHORE DRIVE-UNIT #B-2	HIGHLANDS, NJ	07732
100	30.02	-C2103	BAKER, BRETT THOMAS	3 SOUTH STREET	SEA BRIGHT, NJ	07760

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100	30.02	-C2104	KREUDER, VINCENT	330 SHORE DRIVE UNIT B-4	HIGHLANDS, NJ	07732
100	30.02	-C2105	TALLON, ALYSSA	330 SHORE DRIVE UNIT B5	HIGHLANDS, NJ	07732
100	30.02	-C2106	PATTI, SALVATORE THOMAS	330 SHORE DRIVE B-6	HIGHLANDS, NJ	07732
100	30.02	-C2107	LEPTICH, RICHARD	330 SHORE DRIVE-UNIT B-19	HIGHLANDS,, NJ,,,	07732
100	30.02	-C2108	ROMMEL, JOSEPH & CAROL MARIE	330 SHORE DRIVE B-18	HIGHLANDS, NJ	07732
100	30.02	-C2109	ENGEL, KIMBERLY A.	330 SHORE DRIVE - B-17	HIGHLANDS, NJ	07732
100	30.02	-C2110	POMPEO, DANIEL	330 SHORE DRIVE - B-16	HIGHLANDS, NJ	07732
100	30.02	-C2111	RANNERTSHAUSER, WILLIAM	67 PARK AVENUE	RUMSON, NJ	07760
100	30.02	-C2112	MCENANEY, DEBRA & DANIEL	330 SHORE DRIVE B-14	HIGHLANDS, NJ	07732
100	30.02	-C2201	VOGEL, NICOLE LYNNE	330 SHORE DRIVE B-7	HIGHLANDS, NJ	07732
100	30.02	-C2202	AGTHE, THILO C	330 SHORE DRIVE B-8	HIGHLANDS, NJ	07732
100	30.02	-C2203	PERHACS, SARAH E & MARC R	330 SHORE DRIVE B-9	HIGHLANDS, NJ	07732
100	30.02	-C2204	DARDEN, MARTA	330 SHORE DRIVE B-10	HIGHLANDS, NJ	07732
100	30.02	-C2205	NINOMIYA, PATRICIA & RONALD	429 WHITON ROAD	BRANCHBURG, NJ	08853
100	30.02	-C2206	SEMENDZIAYEVA, NATALLIA	330 SHORE DRIVE B-12	HIGHLANDS, NJ	07732
100	30.02	-C2207	KUBINYAK, MARK	330 SHORE DRIVE - B-25	HIGHLANDS, NJ	07732
100	30.02	-C2208	SZEP, PAUL	28 HAWTHORNE AVENUE	BLOOMFIELD, NJ	07003
100	30.02	-C2209	MCCARTHY, KEVIN J & HENAR, ASHLEY A	330 SHORE DRIVE, UNIT B-23	HIGHLANDS, NJ	07732
100	30.02	-C2210	ARGANO, NICOLO JR	310 E.46TH ST. APPT 12-F	NEW YORK , NY	10017
100	30.02	-C2211	EDD JOHN J & LYNN M	180 LOWER LAKEVIEW DRIVE	HAWLEY, PA	18428
100	30.02	-C2212	ANDERLE, CANDICE & SCOTT	330 SHORE DRIVE UNIT B20	HIGHLANDS, NJ	07732
100	30.02	-C3101	WONG, CHEUNG LUT	28 MACHAELA CIRCLE	FAIRFIELD, CT	06824
100	30.02	-C3102	TESCHKE, FREDERICK W	330 SHORE DRIVE - #C-2	HIGHLANDS, NJ	07732
100	30.02	-C3103	HEGNA, NORMAN O.	330 BAY DRIVE UNIT 3C	HIGHLANDS, NJ	07732
100	30.02	-C3104	WAGNER, COLLEEN	330 SHORE DRIVE C-4	HIGHLANDS, NJ	07732
100	30.02	-C3105	KHAZEM, DYAB	330 SHORE DRIVE C-5	HIGHLANDS, NJ	07732
100	30.02	-C3106	BLAUVELT, JOHN & KAVIN, KATHLEEN	330 SHORE DRIVE-UNIT C-6	HIGHLANDS, NJ	07732
100	30.02	-C3107	ELLSWORTH, KIMBERLY SPRIG	330 SHORE DRIVE-#C-19	HIGHLANDS, NJ	07732
100	30.02	-C3108	330 SHORE BOULEVARD C-18, LLC	701-B BRINLEY AVENUE	BRADLEY BEACH, NJ	07720
100	30.02	-C3109	ESOLDI, ALBERT	330 SHORE DRIVE C-17	HIGHLANDS, NJ	07732
100	30.02	-C3110	WONG, CHEUNG LUT	28 MICHAELA CIRCLE	FAIRFIELD, CT	06824
100	30.02	-C3111	SAINI, BHUPINDER & RADHIKA	9 TREEVIEW LANE	CLIFFWOOD, NJ	07721
100	30.02	-C3112	KENLON, JENNIVERE & JUSTIN	200 HARDING ROAD	RED BANK, NJ	07701
100	30.02	-C3201	GLEASON, DANIEL P	330 SHORE DRIVE C-7	HIGHLANDS, NJ	07732
100	30.02	-C3202	TYSK, NICHOLAS	330 SHORE DRIVE - #C-8	HIGHLANDS, NJ	07732
100	30.02	-C3203	GERALDES, PAUL J & ANA C	24 OCEAN AVENUE	HIGHLANDS, NJ	07732
100	30.02	-C3204	SIGMUND, ROBIN	330 SHORE DRIVE C-10	HIGHLANDS, NJ	07732
100	30.02	-C3205	SARTI, CARLA	330 SHORE DRIVE, #C11	HIGHLANDS, NJ	07732

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100	30.02	-C3206	KAVIN, KATHLEEN	330 SHORE DR, APT C-12	HIGHLANDS, NJ	07732
100	30.02	-C3207	BLANKS, JAMES E. & SHERI R.	2907 38TH AVENUE W	BRADENTON, FL	34205
100	30.02	-C3208	DOBIN, ANNA	42-17 DEBRUIN DRIVE	FAIRLAWN, NJ	07410
100	30.02	-C3209	SHARACK, DESTINY L	330 SHORE DRIVE, #23C	HIGHLANDS, NJ	07716
100	30.02	-C3210	ROMANELLI, JOSEPH	330 SHORE DRIVE C-22	HIGHLANDS, NJ	07732
100	30.02	-C3211	CASSITTA, DIANE & MARIO	3 MARGARITA STREET	TOMS RIVER, NJ	08757
100	30.02	-C3212	330 SHORE BOULEVARD C-20, LLC	701-B BRINLEY AVENUE	BRADLEY BEACH, NJ	07720
100	30.02	-C4106	E6 REALTY LLC	618 DOGWOOD TERRACE	MIDDLETOWN, NJ	07748
100	30.02	-C4108	GRECO, VERONICA HOPE & PATRICK	330 SHORE DRIVE E-8	HIGHLANDS, NJ	07732
100	30.02	-C4205	DIMINO, LUCIANO J III	330 SHORE DRIVE UNIT 13E	HIGHLANDS, NJ	07732
100	30.02	-C4206	HINKEL, HARRY IV	330 SHORE DRIVE - E-14	HIGHLANDS, NJ	07732
100	30.02	-C4207	FALJEAN, VICTORIA	330 SHORE DRIVE E-15	HIGHLANDS, NJ	07732
100	30.02	-C4208	MCGEE, JESSICA L	330 SHORE DRIVE E-16	HIGHLANDS, NJ	07732
100	30.02	-C5102	F2 REALTY LLC	55 NORTH BRIDGE AVE STE 6	RED BANK, NJ	07701
100	30.02	-C5104	CROWLEY, MICHAEL J	330 SHORE DRIVE F-4	HIGHLANDS, NJ	07732
100	30.02	-C5106	MSA AT 330 SHORE DRIVE F6, LLC	330 SHORE DRIVE F-6	HIGHLANDS, NJ	07732
100	30.02	-C5201	VALKOS, CODY	330 SHORE DRIVE, F-24	HIGHLANDS, NJ	07732
100	30.02	-C5202	HAMPTON, GEORGE	330 SHORE DRIVE-F-8	HIGHLANDS, NJ	07732
100	30.02	-C5203	FALCO, BARTOLOMEO & ELENA & MATTHEW	330 SHORE DRIVE F-9	HIGHLANDS, NJ	07732
100	30.02	-C5204	LACATENA, LIDA & GIOVANNI &STEPHEN	404 COLUMBIA AVENUE	CLIFFSIDE PARK, NJ	07010
100	30.02	-C5205	CALICCHIO, ALEXA	330 SHORE DRIVE-UNIT F-11	HIGHLANDS, NJ	07732
100	30.02	-C5206	BEHRSIN, MICHAEL & ROXANE	330 SHORE DRIVE UNIT F12	HIGHLANDS, NJ	07732

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111	2.01		WELLS, GREGORY	246 BAYSIDE DRIVE	HIGHLANDS, NJ	07732
111	4.01		TIERNEY, CHRISTOPHER &MAUGHAN, AVICE	2 MARIE AVENUE	HIGHLANDS, NJ	07732
111	7		LARUE, CHARLES A	248 BAYSIDE DRIVE	HIGHLANDS, NJ	07732
111	8.01		CONNELLY, KEVIN & MICHELLE	327 SHORE DRIVE	HIGHLANDS, NJ	07732
112	12		321-23 SHORE DR	321-23 SHORE DR	HIGHLANDS, NJ	07732
112	12.01		LAMBERTI, WILLIAM	321 SHORE DRIVE- UNIT #1	HIGHLANDS, NJ	07732
112	12.02		MOEDT, KEVIN	321-323 SHORE DR, #2	HIGHLANDS, NJ	07732
112	12.03		BARBAROSSA A, LLC	321-23 SHORE DR UNIT 3	HIGHLANDS, NJ	07732
112	12.04		DURKIN, KASEY LYNN	321-23 SHORE DR 4	HIGHLANDS, NJ	07732
112	12.05		FRANK, MADELINE, TRUSTEE, ETAL	321-23 SHORE DR 5	HIGHLANDS, NJ	07732
112	12.06		YABROUDY, BRIAN A	321-23 SHORE DR 6	HIGHLANDS, NJ	07732
112	12.07		MCVEY, KATHLEEN	321 SHORE DRIVE-UNIT 7	HIGHLANDS, NJ	07732
112	12.08		KEHOE, JENNIFER E	321 SHORE DRIVE UNIT #8	HIGHLANDS,, NJ,	07732
112	12.09		CAFARO, MICHAEL	321-23 SHORE DR 9	HIGHLANDS, NJ	07732
112	12.10		TREIBER, ADAM S	321-323 SHORE DRIVE	HIGHLANDS, NJ	07732
112	12.11		VILLALI, ROSE	322 SHORE DR 11	HIGHLANDS, NJ	07732
112	12.23		MEROLA, ANTOINETTE NICOLE	321-23 SHORE DRIVE-#23	HIGHLANDS, NJ	07732
112	12.24		CHIRICHELLO, CAROLYN A, M.S.	34 NAVESINK DRIVE	MONMOUTH BEACH, NJ	07750
112	12.25		LUBACZEWSKI, ERIK J	321-23 SHORE DR, #25	HIGHLANDS, NJ	07732
112	12.26		GROSSMAN, DAVID, TRUSTEE	110 MARINA BAY COURT	HIGHLANDS, NJ	07732
112	12.27		GLOZZY, KEITH NICHOLAS	321-23 SHORE DR 27	HIGHLANDS, NJ	07732
112	12.28		SKIRKA, KEVIN & KIMBERLY	321-23 SHORE DR #28	HIGHLANDS, NJ	07732
112	12.29		BIG H HOLDINGS LLC	1114 TEXAS PALMYRA HWY	HONESDALE, PA	18431
112	12.30		ARGANO, NICOLO JR	321-23 SHORE DR, UNIT 30	HIGHLANDS, NJ	07732