Application to the:

New Jersey Department of Environmental Protection Division of Land Resource Protection

> Multi Permit Application for CAFRA Individual Permit and Waterfront Development (In-Water) Individual Permit

For

Atlantic Shores Operation & Maintenance Facility Block 567, Lot 2 Atlantic City, Atlantic County, New Jersey

Prepared for:

Atlantic Shores Offshore Wind Services, LLC 1 Dock 72, Floor 7 Brooklyn, New York 11205

January 2024

Prepared by:



PAULUS, SOKOLOWSKI AND SARTOR, LLC

1450 State Route 34, Wall, New Jersey 07753



January 20, 2024 06646-0001 New Jersey Department of Environmental Protection **Division of Land Resource Protection** 501 East State Street P.O. Box 420, Code 501-02A Education Trenton, New Jersey 08625-0420 Attn: Application Support **Energy Utility** Healthcare RE: Multi-permit Application for a CAFRA Individual Permit and a Public Works Waterfront Development Individual Permit **Atlantic Shores Operation & Maintenance Facility Real Estate 801 North Maryland Avenue** Block 567, Lot 2 Science & Technology City of Atlantic City, Atlantic County, New Jersey

To Whom It May Concern:

On behalf of Atlantic Shores Offshore Wind Services, LLC (Atlantic Shores) (Applicant), Paulus, Sokolowski and Sartor, LLC (PS&S) is pleased to submit this application to the New Jersey Department of Environmental Protection (NJDEP) Division of Land Resource Protection (DLRP) for the following permits:

- CAFRA Individual Permit (CAFRA IP); and
- Waterfront Development Individual Permit (WFD IP).

The Applicant is proposing the construction of an Operations and Maintenance (O&M) Facility at 801 North Maryland Avenue in the City of Atlantic City, Atlantic County, New Jersey (the Project). The O&M Facility will provide warehouse, office, quayside and vessel mooring facilities to support the commissioning, operations and maintenance of Atlantic Shores's portfolio of offshore wind projects. The Project Site is known as tax parcel Block 567, Lot 2. Block 567, Lot 2 is owned by Atlantic Shores and a portion of the Project Site is located waterward of the mean high-water line and is located in the waterbody known as Clam Creek.

Pursuant to the CZM rules (N.J.A.C. 7:7), the CAFRA IP Checklist and the WFD IP Checklist, the documents listed below have been enclosed for your review.

- 1. The completed NJDEP Checklists for CAFRA IP and WFD IP are provided in Attachment A;
 - A completed Property Owner Certification Form executed by the Applicant is provided in Attachment B.

1450 State Route 34 Wall, NJ 07753 2.

t. 848.206.2626



- 3. Verification of public notice and a complete Public Notice form is provided as Attachment C. A complete copy of the application was sent to the Municipal Clerk. Additionally, Attachment C includes evidence that notices regarding this application have been sent to the required municipal and county agencies and property owners within 200 feet of the project site. The list of landowners within 200 feet of the Project Site that has been provided by the City of Atlantic City Tax Assessor is also found in Attachment C. In compliance with N.J.A.C. 7:7-24.5 a newspaper notice was placed in the Press of Atlantic City. Documentation of publication will be provided once it is received from the newspaper.
- 4. An application fee calculation is provided in Attachment D.
- 5. Site Plans and Building Concept Plans of the proposed Project are provided in Attachment E.
- 6. Color photographs of the Project Site are provided in Attachment F.
- 7. An Environmental Report and Statement of Compliance that discuss the Project's compliance with the CZM rules is provided in Attachment G. Project Location Maps, which include the following figures, are also provided in Attachment G:
 - a. Figure 1 USGS Map
 - b. Figure 2 Tax Map
 - c. Figure 3 Street Map
 - d. Figure 4 Wetlands Map
 - e. Figure 5 Coastal Wetlands Map
 - f. Figure 6 FEMA Flod Hazard Map
 - g. Figure 7 Landscape Project Map
 - h. Figure 8 NOAA Navigational Chart
 - i. Figure 9 1995 Aerial Image
 - j. Figure 10 Absecon Inlet Project
 - k. Figure 11 Historic Preservation Map
 - 1. Figure 12 Tidelands Conveyance Map
- 8. In compliance with N.J.A.C. 7:8 a stormwater management report is provided as Attachment H.
- 9. A Habitat Evaluation prepared by DuBois & Associates LLC is provided in Attachment I. Also included in Attachment I are Natural Heritage Program search results issued on April 7, 2023.
- 10. The NJDEP Bureau of Tidelands Management Map Showing Conveyances on Absecon Channel Sheet No. 196-2064 includes the subject site. The subject site is included in areas that the State of New Jersey Granted to the City of Atlantic City on March 15, 1920 for the consideration of \$18,000.00. A portion of the Tidelands Conveyance Sheet No, 196-2064 and a copy of the Tidelands grant (Liber A-1 pg. 16 File 1276) are provided as Attachment J.
- 11. Architectural Project Renderings are provided as Attachment K.
- 12. A Traffic Engineering and Air Quality Analysis prepared by Shropshire Associates, LLC is provided as Attachment L.
- 13. A completed Impervious Cover and Vegetative Cover Calculation Spreadsheet Form is provided in Attachment M.



In addition to the requested CAFRA IP and WFD IP the Applicant is seeking a United States Army Corps of Engineers Section 10 approval and a Section 408 review for proposed in-water work.

We trust that the enclosed application for authorization of a CAFRA IP and a WFD IP meets the submission requirements of the NJDEP.

If you have any questions or require any additional information, please do not hesitate to contact me at (732) 430-7206 or by e-mail at bmcpeak@psands.com.

Very truly yours,

PAULUS, SOKOLOWSKI & SARTOR, LLC

Brian McPeak, P.P., AICP Vice President

cc: Allison Hallock - Atlantic Shores Michele Kropilak – Atlantic Shores Walter Judge – PS&S



LIST OF ATTACHMENTS

	ATTACHMENT A	NJDEP Checklists
	ATTACHMENT B	Property Owner Certification Form
Education	ATTACHMENT C	Verification of Public Notice
Energy Utility	ATTACHMENT D	Application Fee Calculation
Healthcare	ATTACHMENT E	Permit Plans
Public Works	ATTACHMENT F	Site Photographs and Photo Location Map
Real Estate	ATTACHMENT G	Environmental Report, Statement of Compliance and Figures
Science & Technology	ATTACHMENT H	Stormwater Management Report
	ATTACHMENT I	Habitat Evaluation with Natural Heritage Database Results
	ATTACHMENT J	Tidelands Conveyance Information
	ATTACHMENT K	Project Renderings
	ATTACHMENT L	Traffic Engineering and Air Quality Analysis
	ATTACHMENT M	Impervious Cover and Vegetative Cover Calculations

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ATTACHMENT A NJDEP Application Checklists



State of New Jersey Department of Environmental Protection

Revised: October 5, 2021 Website: www.nj.gov/dep/landuse



COASTAL ZONE MANAGEMENT APPLICATION CHECKLIST

CAFRA Individual Permit

CALL NJDEP AT (609) 777-0454 IF YOU HAVE ANY QUESTIONS

All applications for a CAFRA individual permit <u>must</u> be submitted electronically through the submission system at <u>https://njdeponline.com</u>. Follow the registration process and create an account. To apply, select the service "Apply for a Land Use Permit or Authorization."

For more information on submitting an electronic application, visit <u>https://nj.gov/dep/landuse/eservices/lur_auth_permits.html</u>.

CALL NJDEP AT (609) 777-0454 IF YOU HAVE ANY QUESTIONS

- 1. A completed Property Owner Certification form
 - Acceptable file formats include pdf, jpg, and png.
- 2. Public notice:

A completed <u>Public Notice form</u>. All documentation necessary to demonstrate that notice of the application has been provided in accordance with N.J.A.C. 7:7-24 must be attached to the form (see below for details).

• Acceptable file formats include pdf, jpg, and png.

Documentation of public notice is required as follows:

i. Notice to municipal clerk (N.J.A.C. 7:7-24.3(a))

A copy of the entire application, as submitted to the Department, must be provided to the municipal clerk in each municipality in which the site is located. The application consists of a description of the project, the specific permit(s)/authorization(s) being sought, and all items that will be uploaded to the online service, including all required items on this checklist.

• Documentation of compliance with this requirement shall consist of a copy of the certified United States Postal Service white mailing receipt, or other written receipt, for each copy of the application sent.

ii. Notice to governmental entities and property owners (N.J.A.C. 7:7-24.3(b) and (c))

A brief description of the proposed project, a legible copy of the site plan, and the form notice letter described at N.J.A.C. 7:7-24.3(d)1iii must be sent to the following recipients:

- A. The construction official of each municipality in which the site is located;
- B. The environmental commission, or other government agency with similar responsibilities, of each municipality in which the site is located;
- C. The planning board of each municipality in which the site is located;
- D. The planning board of each county in which the site is located;
- E. The local Soil Conservation District if the regulated activity or project will disturb 5,000 square feet or more of land;

- F. The Delaware Coastal Management Program if the activity is within the 12-mile circle with Delaware or is within 200 feet of the 12-mile circle; and
- G. Adjacent property owners:

If the application is for one of the following projects (listed at N.J.A.C 7:7-24.3(c)1-5), notice shall be sent to all owners of real property, including easements, located within 200 feet of any proposed above-ground structure that is part of the proposed development, such as a pumping station, treatment plant, groin, bulkhead, revetment or gabion, or dune walkover:

- A linear project of one-half mile or longer
- A shore protection development, including beach nourishment, beach and dune maintenance, or dune creation of one-half mile or longer
- A public project on a site of 50 acres or more
- An industrial or commercial project on a site of 100 acres or more
- Maintenance dredging of a State navigation channel of one-half mile or longer

For any other project, notice shall be sent to all owners of real property, including easements, located within 200 feet of the site of the proposed regulated activity.

The owners of real property, including easements, shall be those on a list that was certified by the municipality, with a date of certification no more than one year prior to the date the application is submitted.

- Documentation of compliance with this requirement shall consist of:
 - 1. A copy of the certified United States Postal Service white mailing receipt for each public notice that was mailed, or other written receipt;
 - 2. A certified list of all owners of real property, including easements, located within 200 feet of the property boundary of the site (including name, mailing address, lot, and block) prepared by the municipality for each municipality in which the project is located. The date of certification of the list shall be no earlier than one year prior to the date the application is submitted to the Department; and
 - 3. A copy of the form notice letter.
- The form notice letter required under N.J.A.C. 7:7-24.3(d)1iii shall read as follows:

"This letter is to provide you with legal notification that an application for a CAFRA individual permit <<has been/will be>> submitted to the New Jersey Department of Environmental Protection, Division of Land Resource Protection for the development shown on the enclosed plan(s). A brief description of the proposed project follows: <<INSERT DESCRIPTION OF THE PROPOSED PROJECT>>

The complete permit application package can be reviewed at either the municipal clerk's office in the municipality in which the site subject to the application is located, or by appointment at the Department's Trenton Office. Either a 30-day public comment period or public hearing will be held on the application in the future. Individuals may request a public hearing on the application within 15 calendar days of the date of receiving this letter. Requests for a public hearing shall be sent to the Department at the address below and shall state the specific nature of the issues to be raised at the hearing:

> New Jersey Department of Environmental Protection Division of Land Resource Protection P.O. Box 420, Code 501-02A Trenton, New Jersey 08625 Attn: (Municipality in which the property is located) Supervisor"

iii. Newspaper notice (N.J.A.C. 7:7-24.5)

Newspaper notice, in the form of a legal notice or display advertisement in the official newspaper of the municipality(ies) in which the project site is located, or if no official newspaper exists, in a newspaper with general circulation in the municipality(ies), is required to be published **within 10 days of submitting your application.**

- If newspaper notice is published prior to submitting your application, include documentation with the application. If published after the application is submitted, submit documentation to the Department when the notice is published. Documentation of newspaper notice shall consist of:
 - 1. A copy of the published newspaper notice; and
 - 2. The date and name of the newspaper in which notice was published.
- The newspaper notice may be either a legal notice or display advertisement and must read as follows:

"Take notice that an application for a CAFRA individual permit<<has been/will be>> submitted to the New Jersey Department of Environmental Protection, Division of Land Resource Protection for the development described below:

APPLICANT: PROJECT NAME: PROJECT DESCRIPTION: PROJECT STREET ADDRESS: BLOCK: LOT: MUNICIPALITY: COUNTY:

The complete permit application package can be reviewed at either the municipal clerk's office in the municipality in which the site subject to the application is located, or by appointment at the Department's Trenton Office. Either a 30-day public comment period or public hearing will be held on the application in the future. Individuals may request a public hearing on the application within 15 calendar days of the date of this notice. Requests for a public hearing shall be sent to the Department at the address below and shall state the specific nature of the issues to be raised at the hearing:

> New Jersey Department of Environmental Protection Division of Land Resource Protection P.O. Box 420, Code 501-02A 501 East State Street Trenton, New Jersey 08625 Attn: (Municipality in which the property is located) Supervisor"

iv. Notice for projects located in the Pinelands Area

For a project in the Pinelands Area as designated by as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11(a), documentation showing that a copy of the entire application has been provided to the New Jersey Pinelands Commission. The application consists of a description of the project, the specific permit(s)/authorization(s) being sought, and all items that will be uploaded to the online service, including all required items on this checklist.

Note that additional notice is required for the public comment period and, as applicable, public hearing, scheduled by the Department under N.J.A.C. 7:7-26.4 and 26.5, during the Department's review of the application.

3. Application fees:

The appropriate application fee, as specified in N.J.A.C. 7:7-25.1, payable through the online service via credit card or e-check, or to receive a bill, select "Bill Me" on the payment screen. Bills will be sent to the Fee Billing Contact identified in the service and must be paid directly to the Department of Treasury.

4. Site plans:

All site plans must include the scale of the site plans, a north arrow, the name of the person who prepared the plans, date the site plans were prepared, and the applicant's name and the block, lot, and municipality in which the site is located. In addition, the site plans shall include the following information, both on and adjacent to the site:

- i. Existing features such as lot lines, structures, land coverage, and vegetation;
- ii. All proposed regulated activities such as changes in lot lines; the size, location, and details of any proposed structures, roads, or utilities; details of any clearing, grading, filling, and excavation; the location and area of any riparian zone vegetation that will be disturbed; cross-sections of regulated waters or water control structures being analyzed; and the anticipated limits of disturbance;
- iii. Topography:
 - A. Existing and proposed topography where necessary to demonstrate that the proposed regulated activity or project meets the requirements of this chapter. All topography must reference NGVD or include the appropriate conversion factor to NGVD.

iv. Tidelands:

A. The limits of any existing or proposed tidelands instrument;

- v. Soil erosion and sediment control:
 - A. Details of any proposed soil erosion and sediment control measures.
- vi. Water information:
 - A. For all applications, as applicable: The mean high, mean low, and spring high water lines of any tidal waters, water depths, and location of navigation channels.
 - B. Where the regulated activity is the construction of a dock, pier, or mooring area, the site plan must show the location and orientation of the proposed mooring area(s), the water depths at mean low water within the mooring area(s), and cross sections of the dock including the height and width of the structure over the water and crossing wetlands. Except for docks proposed within lagoons, the site plan must also depict water depths at mean low water for a distance of at least 100 feet waterward of the dock. The site plan must include the method, date, and time of all soundings;
 - C. For dredging activities, the area to be dredged, existing and proposed water depths at mean low water, the water depths at mean low water adjacent to the area to be dredged, the amount of material to be dredged, the method of dredging, the location of the dredged material dewatering and placement site, including the municipal block and lot, and the means of containing the dredged material;
- vii. The upper and lower limits of all special areas, as described at N.J.A.C. 7:7-9. For the purposes of this requirement, "upper" refers to the upland or landward limit and "lower" refers to the waterward limit of the special area; and
- viii. The location of any existing or proposed public access to lands and waters subject to public trust rights as set forth at N.J.A.C. 7:7-9.48.
- Acceptable file formats include pdf and zip. Site plans must be certified in accordance with N.J.A.C.
 7:7-23.2(j) and prepared according to the Department's <u>site plan specifications</u> for electronic site plans.
 All plans must be digitally signed and sealed by a New Jersey licensed professional engineer, surveyor,

or architect, as appropriate, pursuant to N.J.A.C. 13:40-7.2 through 7.4, with signatures and seals that meet the requirements of N.J.A.C. 13:40-8.1A. Site plans with electronic signatures, such as scans of site plans with a handwritten signature, will not be accepted.

NOTE: In accordance with N.J.A.C. 7:7-23.3(h), an applicant may elect to prepare his or her own plan if both of the following are true: (1) the applicant proposes an activity in a man-made lagoon, or the applicant proposes the construction of a single-family home or duplex or an accessory development located landward of the mean high water line, such as a patio, garage, or shed on his or her own property for his or her own use, and (2) the proposed regulated activity or project is one for which no survey, topography, or calculations are necessary to demonstrate the requirements of N.J.A.C. 7:7 are met.

- 5. Photographs:
 - i. Color photographs depicting the entire project area; and
 - ii. A photo location map showing the location and direction from which each photograph was taken.
 - Acceptable file formats include pdf, doc, docx, jpg, zip, ppt, and pptx.
- 6. An Environmental Impact Statement (EIS) prepared in accordance with N.J.A.C. 7:7-23.6(b) that:
 - i. Describes in narrative form:
 - A. The proposed development or activity;
 - B. The characteristics of the site and the surrounding region; and
 - C. The location of all proposed regulated activities, potential impacts from the construction process, and, as applicable the operation of the development after completion; and
 - D. Any anticipated impacts of the proposed activity or project, including any monitoring or reporting methods that will be used.
 - For an application for an individual permit for the construction of wind turbines for which, in accordance with the energy facility use rule at N.J.A.C. 7:7-15.4, pre- and/or post-construction monitoring is required, include the proposed monitoring methodology (see Technical Manual for Evaluating Wildlife Impacts of Wind Turbines Requiring Coastal Permits, available at https://www.nj.gov/dep/landuse/guidance.html).
 - ii. Discusses the applicability of the Coastal Zone Management rules to the proposed development, including a detailed statement of compliance with each rule applicable to the type of development proposed. Where the applicant believes a rule otherwise applicable to the type of development proposed does not apply, the applicant shall explain the reasons why the rule does not apply to the applicant's development;
 - iii. Demonstrates that the findings set forth in CAFRA at N.J.S.A. 13:19-10, and at N.J.A.C. 7:7-1.4, which must be addressed in order for the Department to issue the approval, can be made for the proposed development;
 - iv. As necessary based on project-specific and site-specific circumstances, provides support by relevant experts for the assessments, discussions, and statements made in the EIS; includes the qualifications of the persons who prepared each part of the EIS; and provides references and citations to all information, reports, or treatises that are mentioned in the EIS but not contained in the EIS; and
 - v. For an activity or project in the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11(a), incudes a Certificate of Filing, a Certificate of Completeness, or a resolution approving an application for public development, issued by the NJ Pinelands Commission.
 - The EIS should be uploaded under the attachment type "Environmental Report with Site Location Maps." Acceptable file formats include pdf, doc, docx, rtf, and zip.

- 7. Color copies of the following maps:
 - i. The tax map for the property;
 - ii. A copy of the portion of the county road map showing the property location; and
 - iii. A copy of the USGS quad map(s) that include the site, with the site clearly outlined to scale.
 - The required maps should be uploaded with the compliance statement under the attachment type "Environmental Report with Site Location Maps." Acceptable file formats include pdf, doc, docx, rtf, and zip.
- 8. Calculations and analyses:
 - i. If the project is a major development as defined by N.J.A.C. 7:8-1.2, a demonstration of compliance with the requirements of the Stormwater Management Rules, N.J.A.C. 7:8.
 - All calculations or analyses submitted as part of an application must include the certification set forth at N.J.A.C. 7:7-23.2(j). Acceptable file formats include pdf, doc, docx, rtf, and zip unless stormwater calculations are necessary. Stormwater calculations must be digitally signed and sealed by a New Jersey licensed professional engineer in accordance with N.J.A.C. 13:40-8.1A. Stormwater calculations with electronic signatures, such as scans of calculations with a handwritten signature, will not be accepted. Therefore, when calculations are necessary, the acceptable file formats are limited to pdf and zip.
- 9. Natural Heritage Program Letter:

A copy of an NJDEP, Office of Natural Lands Management Natural Heritage Database data request response for endangered or threatened species of flora or fauna, including a Landscape Map report, if available

- Acceptable file formats include pdf, jpg, and png.
- 10. Mitigation:

For an activity that requires mitigation in accordance with N.J.A.C. 7:7, the applicant may submit a mitigation proposal as part of the application for the individual permit. If the applicant does not submit a mitigation proposal with the application, the applicant must submit the mitigation proposal at least 90 calendar days before the start of activities authorized by the permit, in accordance with N.J.A.C. 7:7-17.

- If a mitigation proposal is available at the time of submission, the service will provide an attachment type for "Mitigation Proposal." Alternatively, it may be uploaded separately at a later time through the service "Submit Additional Information for a Land Use Permit or Authorization." Acceptable file formats include pdf, doc, docx, rtf, and zip.
- 11. Additional requirements:
 - i. Conservation restriction applies only if the proposed project is subject to an existing conservation restriction
 - Acceptable file formats include pdf, jpg, and png.
 - ii. Tidelands license application or documentation applies only if the proposed project is below the mean high water line or in an area formerly flowed by the tide. Documentation of compliance with the tidelands requirements may include one of the following:
 - A. Information regarding the existing Tidelands instrument

- B. Information regarding an intended submission to the Bureau of Tidelands Management for a Tidelands instrument
- C. An explanation regarding why a Tidelands instrument is not required for the project
- Acceptable file formats include pdf, doc, docx, rtf, jpg, and png.
- iii. Sewer/water authority letter applies only if the project will require public sewer and or water. The letter should provide details regarding the availability of public water and sewer to service the project, which may include, but is not limited to, the following:
 - A. Information about the required water and/or sewer demand for the project
 - B. The available water and/or sewer capacity of the utility provider
 - C. Information regarding consistency with the applicable Water Quality Management Plan to demonstrate compliance with Section 10 of CAFRA
 - Acceptable file formats include pdf, jpg, and png.
- iv. Written consent from municipality applies only if the project includes a gas pipeline and any section of that pipeline is located within a municipally-owned right-of-way. Written consent shall consist of one of the following:
 - A. Written consent from the municipality in the form of a resolution of the governing body or an ordinance
 - B. A municipal designation of the route pursuant to N.J.S.A. 48:9-25.4
 - C. A Board of Public Utilities designation of route pursuant to N.J.S.A. 48:9-25.4
 - Acceptable file formats include pdf, jpg, and png.
- v. Traffic impact study applies only if the proposed project will have the potential to result in the operation of any roadway in excess of Level of Service (LOS) D
 - Acceptable file formats include pdf, doc, docx, rtf, and zip.
- vi. A completed <u>Impervious Cover and Vegetative Cover Calculations Spreadsheet Form</u> applies only if the proposed project is subject to compliance with the impervious and vegetative cover requirements at N.J.A.C. 7:7-13
 - Acceptable file formats include pdf, xls, and xlsx.



State of New Jersey

Department of Environmental Protection Website: www.nj.gov/dep/landuse

COASTAL ZONE MANAGEMENT APPLICATION CHECKLIST

Waterfront Development and/or Coastal Wetlands Individual Permit

CALL NJDEP AT (609) 777-0454 IF YOU HAVE ANY QUESTIONS

All applications for a Waterfront Development and/or Coastal Wetlands individual permit must be submitted electronically through the submission system at https://nideponline.com. Follow the registration process and create an account. To apply, select the service "Apply for a Land Use Permit or Authorization."

For more information on submitting an electronic application, visit https://nj.gov/dep/landuse/eservices/lur auth permits.html.

CALL NJDEP AT (609) 777-0454 IF YOU HAVE ANY QUESTIONS

- 1. A completed Property Owner Certification form
 - Acceptable file formats include pdf, jpg, and png.

Revised: October 5, 2021

2. Public notice:

A completed Public Notice form. All documentation necessary to demonstrate that notice of the application has been provided in accordance with N.J.A.C. 7:7-24 must be attached to the form (see below for details).

Acceptable file formats include pdf, jpg, and png.

Documentation of public notice is required as follows:

Notice to municipal clerk (N.J.A.C. 7:7-24.3(a)) i.

> A copy of the entire application, as submitted to the Department, must be provided to the municipal clerk in each municipality in which the site is located. The application consists of a description of the project, the specific permit(s)/authorization(s) being sought, and all items that will be uploaded to the online service, including all required items on this checklist.

- Documentation of compliance with this requirement shall consist of a copy of the certified United States Postal Service white mailing receipt, or other written receipt, for each copy of the application sent.
- ii. Notice to governmental entities and property owners (N.J.A.C. 7:7-24.3(b) and (c))

A brief description of the proposed project, a legible copy of the site plan, and the form notice letter described at N.J.A.C. 7:7-24.3(d)1iii must be sent to the following recipients:

- A. The construction official of each municipality in which the site is located;
- B. The environmental commission, or other government agency with similar responsibilities, of each municipality in which the site is located;
- C. The planning board of each municipality in which the site is located;
- D. The planning board of each county in which the site is located;

- E. The local Soil Conservation District if the regulated activity or project will disturb 5,000 square feet or more of land;
- F. The Delaware Coastal Management Program if the activity is within the 12-mile circle with Delaware or is within 200 feet of the 12-mile circle; and
- G. Adjacent property owners:

If the application is for one of the following projects (listed at N.J.A.C 7:7-24.3(c)1-5), notice shall be sent to all owners of real property, including easements, located within 200 feet of any proposed above-ground structure that is part of the proposed development, such as a pumping station, treatment plant, groin, bulkhead, revetment or gabion, or dune walkover:

- A linear project of one-half mile or longer
- A shore protection development, including beach nourishment, beach and dune maintenance, or dune creation of one-half mile or longer
- A public project on a site of 50 acres or more
- An industrial or commercial project on a site of 100 acres or more
- Maintenance dredging of a State navigation channel of one-half mile or longer

For any other project, notice shall be sent to all owners of real property, including easements, located within 200 feet of the site of the proposed regulated activity.

The owners of real property, including easements, shall be those on a list that was certified by the municipality, with a date of certification no more than one year prior to the date the application is submitted.

- Documentation of compliance with this requirement shall consist of:
 - 1. A copy of the certified United States Postal Service white mailing receipt for each public notice that was mailed, or other written receipt;
 - 2. A certified list of all owners of real property, including easements, located within 200 feet of the property boundary of the site (including name, mailing address, lot, and block) prepared by the municipality for each municipality in which the project is located. The date of certification of the list shall be no earlier than one year prior to the date the application is submitted to the Department; and
 - 3. A copy of the form notice letter.
- The form notice letter required under N.J.A.C. 7:7-24.3(d)1iii shall read as follows:

"This letter is to provide you with legal notification that an application for a <<waterfront development/coastal wetlands>> individual permit <<has been/will be>> submitted to the New Jersey Department of Environmental Protection, Division of Land Resource Protection for the development shown on the enclosed plan(s). A brief description of the proposed project follows: <<INSERT DESCRIPTION OF THE PROPOSED PROJECT& PROPOSED CHANGES>>

The complete permit application package can be reviewed at either the municipal clerk's office in the municipality in which the site subject to the application is located, or by appointment at the Department's Trenton Office. The Department of Environmental Protection welcomes comments and any information that you may provide concerning the proposed development and site. Please submit your written comments within 15 calendar days of receiving this letter to:

> New Jersey Department of Environmental Protection Division of Land Resource Protection P.O. Box 420, Code 501-02A Trenton, New Jersey 08625 Attn: (Municipality in which the property is located) Supervisor"

iii. Newspaper notice (N.J.A.C. 7:7-24.5)

Newspaper notice, in the form of a legal notice or display advertisement in the official newspaper of the municipality(ies) in which the project site is located, or if no official newspaper exists, in a newspaper with general circulation in the municipality(ies), is required for the following projects:

- A. A linear project of one-half mile or longer
- B. A shore protection development, including beach nourishment, beach and dune maintenance, or dune creation of one-half mile or longer
- C. A public project on a site of 50 acres or more
- D. An industrial or commercial project on a site of 100 acres or more
- E. Maintenance dredging of a State navigation channel of one-half mile or longer

If your project is not one listed above, newspaper notice is not required.

- Documentation of newspaper notice shall consist of:
 - 1. A copy of the published newspaper notice; and
 - 2. The date and name of the newspaper in which notice was published.
- The newspaper notice may be either a legal notice or display advertisement and must read as follows:

"Take notice that an application for an application for a <<waterfront development/coastal wetlands>> individual permit <<has been/will be>> submitted to the New Jersey Department of Environmental Protection, Division of Land Resource Protection for the development described below:

> APPLICANT: PROJECT NAME: PROJECT & MODIFICATION DESCRIPTION: PROJECT STREET ADDRESS: BLOCK: LOT: MUNICIPALITY: COUNTY:

The complete permit application package can be reviewed at either the municipal clerk's office in the municipality in which the site subject to the application is located, or by appointment at the Department's Trenton Office. The Department of Environmental Protection welcomes comments and any information that you may provide concerning the proposed development and site. Please submit your written comments within 15 calendar days of the date of this notice to:

> New Jersey Department of Environmental Protection Division of Land Resource Protection P.O. Box 420, Code 501-02A 501 East State Street Trenton, New Jersey 08625 Attn: (Municipality in which the property is located) Supervisor"

iv. Notice for projects located in the Pinelands Area

For a project in the Pinelands Area as designated by as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11(a), documentation showing that a copy of the entire application has been provided to the New Jersey Pinelands Commission. The application consists of a description of the project, the specific permit(s)/authorization(s) being sought, and all items that will be uploaded to the online service, including all required items on this checklist.

v. Notice for installation of submarine cables or sand mining activities

An applicant applying for a waterfront development individual permit to install a submarine cable in the ocean, or to perform sand mining in the ocean, must provide documentation showing that a copy of the application form and a copy of the NOAA nautical chart showing the proposed cable route or the limits of the proposed sand mining area submitted to the Department as part of this permit application were sent to the entities listed below. For electronic submissions, the "application form" will consist of a description of the project and the specific permit(s)/authorization(s) being sought.

- A. Garden State Seafood Association;
- B. National Fisheries Institute;
- C. North Atlantic Clam Association;
- D. Rutgers Cooperative Extension;
- E. New Jersey Shellfisheries Council; and
- F. New Jersey Marine Fisheries Council.

3. Application fees:

The appropriate application fee, as specified in N.J.A.C. 7:7-25.1, payable through the online service via credit card or e-check, or to receive a bill, select "Bill Me" on the payment screen. Bills will be sent to the Fee Billing Contact identified in the service and must be paid directly to the Department of Treasury.

4. Site plans:

All site plans must include the scale of the site plans, a north arrow, the name of the person who prepared the plans, date the site plans were prepared, and the applicant's name and the block, lot, and municipality in which the site is located. In addition, the site plans shall include the following information, both on and adjacent to the site, in accordance with N.J.A.C. 7:7-23.4(a)4:

- i. Existing features such as lot lines, structures, land coverage, vegetation, and location of the mapped coastal wetlands line;
- ii. All proposed regulated activities such as changes in lot lines; the size, location, and details of any proposed structures, roads, or utilities; details of any clearing, grading, filling, and excavation; the location and area of any riparian zone vegetation that will be disturbed; cross-sections of regulated waters or water control structures being analyzed; and the anticipated limits of disturbance;
- iii. Topography:
 - A. Existing and proposed topography where necessary to demonstrate that the proposed regulated activity or project meets the requirements of this chapter. All topography must reference NGVD or include the appropriate conversion factor to NGVD.
- iv. Tidelands:
 - A. The limits of any existing or proposed tidelands instrument;
- v. Soil erosion and sediment control:
 - A. Details of any proposed soil erosion and sediment control measures.
- vi. Water information:
 - A. For all applications, as applicable: The mean high, mean low, and spring high water lines of any tidal waters, water depths, and location of navigation channels.
 - B. Where the regulated activity is the construction of a dock, pier, or mooring area, the site plan must show the location and orientation of the proposed mooring area(s), the water depths at mean low water within the mooring area(s), and cross sections of the dock including the height and width of the structure over the water and crossing wetlands. Except for docks proposed within lagoons, the site plan must also depict water depths at mean low water for a distance of

at least 100 feet waterward of the dock. The site plan must include the method, date, and time of all soundings;

- C. For dredging activities, the area to be dredged, existing and proposed water depths at mean low water, the water depths at mean low water adjacent to the area to be dredged, the amount of material to be dredged, the method of dredging, the location of the dredged material dewatering and placement site, including the municipal block and lot, and the means of containing the dredged material;
- vii. The upper and lower limits of all special areas, as described at N.J.A.C. 7:7-9. For the purposes of this requirement, "upper" refers to the upland or landward limit and "lower" refers to the waterward limit of the special area; and
- viii. The location of any existing or proposed public access to lands and waters subject to public trust rights as set forth at N.J.A.C. 7:7-9.48.
- Acceptable file formats include pdf and zip. Site plans must be certified in accordance with N.J.A.C. 7:7-23.2(j) and prepared according to the Department's <u>site plan specifications</u> for electronic site plans. All plans must be digitally signed and sealed by a New Jersey licensed professional engineer, surveyor, or architect, as appropriate, pursuant to N.J.A.C. 13:40-7.2 through 7.4, with signatures and seals that meet the requirements of N.J.A.C. 13:40-8.1A. Site plans with electronic signatures, such as scans of site plans with a handwritten signature, will not be accepted.

NOTE: In accordance with N.J.A.C. 7:7-23.3(h), an applicant may elect to prepare his or her own plan if both of the following are true: (1) the applicant proposes an activity in a man-made lagoon, or the applicant proposes the construction of a single-family home or duplex or an accessory development located landward of the mean high water line, such as a patio, garage, or shed on his or her own property for his or her own use, and (2) the proposed regulated activity or project is one for which no survey, topography, or calculations are necessary to demonstrate the requirements of N.J.A.C. 7:7 are met.

- 5. Photographs:
 - i. Color photographs depicting the entire project area; and
 - ii. A photo location map showing the location and direction from which each photograph was taken.
 - Acceptable file formats include pdf, doc, docx, jpg, zip, ppt, and pptx.
- 6. An Environmental Impact Statement (EIS) prepared in accordance with N.J.A.C. 7:7-23.6(b) that:
 - i. Describes in narrative form:
 - A. The proposed development or activity;
 - B. The characteristics of the site and the surrounding region;
 - C. The location of all proposed regulated activities, potential impacts from the construction process, and, as applicable the operation of the development after completion; and
 - D. Any anticipated impacts of the proposed activity or project, including any monitoring or reporting methods that will be used.
 - For an application for an individual permit for the construction of wind turbines for which, in accordance with the energy facility use rule at N.J.A.C. 7:7-15.4, pre- and/or post-construction monitoring is required, include the proposed monitoring methodology (see Technical Manual for Evaluating Wildlife Impacts of Wind Turbines Requiring Coastal Permits, available at <u>https://www.nj.gov/dep/landuse/guidance.html</u>).
 - ii. Discusses the applicability of the Coastal Zone Management rules to the proposed development, including a detailed statement of compliance with each rule applicable to the type of development proposed. Where the applicant believes a rule otherwise applicable to the type of development

proposed does not apply, the applicant shall explain the reasons why the rule does not apply to the applicant's development;

- iii. As necessary based on project-specific and site-specific circumstances, provides support by relevant experts for the assessments, discussions, and statements made in the EIS; includes the qualifications of the persons who prepared each part of the EIS; and provides references and citations to all information, reports, or treatises that are mentioned in the EIS but not contained in the EIS; and
- iv. For an activity or project in the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11(a), incudes a Certificate of Filing, a Certificate of Completeness, or a resolution approving an application for public development, issued by the NJ Pinelands Commission.
- The EIS should be uploaded under the attachment type "Environmental Report with Site Location Maps." Acceptable file formats include pdf, doc, docx, rtf, and zip.
- 7. Color copies of the following maps:
 - i. The tax map for the property;
 - ii. A copy of the portion of the county road map showing the property location; and
 - iii. A copy of the USGS quad map(s) that include the site, with the site clearly outlined to scale.
 - The required maps should be uploaded with the compliance statement under the attachment type "Environmental Report with Site Location Maps." Acceptable file formats include pdf, doc, docx, rtf, and zip.
- 8. Calculations and analyses:
 - i. If the project is a major development as defined by N.J.A.C. 7:8-1.2, a demonstration of compliance with the requirements of the Stormwater Management Rules, N.J.A.C. 7:8.
 - All calculations or analyses submitted as part of an application must include the certification set forth at N.J.A.C. 7:7-23.2(j). Acceptable file formats include pdf, doc, docx, rtf, and zip unless stormwater calculations are necessary. Stormwater calculations must be digitally signed and sealed by a New Jersey licensed professional engineer.in accordance with N.J.A.C. 13:40-8.1A. Stormwater calculations with electronic signatures, such as scans of calculations with a handwritten signature, will not be accepted. Therefore, when calculations are necessary, the acceptable file formats are limited to pdf and zip.
- 9. Natural Heritage Program Letter:

A copy of an NJDEP, Office of Natural Lands Management Natural Heritage Database data request response for endangered or threatened species of flora or fauna, including a Landscape Map report, if available

- Acceptable file formats include pdf, jpg, and png.
- 10. Mitigation:

For an activity that requires mitigation in accordance with N.J.A.C. 7:7, the applicant may submit a mitigation proposal as part of the application for the individual permit. If the applicant does not submit a mitigation proposal with the application, the applicant must submit the mitigation proposal at least 90 calendar days before the start of activities authorized by the permit, in accordance with N.J.A.C. 7:7-17.

- If a mitigation proposal is available at the time of submission, the service will provide an attachment type for "Mitigation Proposal." Alternatively, it may be uploaded separately at a later time through the service "Submit Additional Information for a Land Use Permit or Authorization." Acceptable file formats include pdf, doc, docx, rtf, and zip.
- 11. Additional requirements:
 - i. Conservation restriction applies only if the proposed project is subject to an existing conservation restriction
 - Acceptable file formats include pdf, jpg, and png.
 - ii. Tidelands license application or documentation applies only if the proposed project is below the mean high water line or in an area formerly flowed by the tide. Documentation of compliance with the tidelands requirements may include one of the following:
 - A. Information regarding the existing Tidelands instrument
 - B. Information regarding an intended submission to the Bureau of Tidelands Management for a Tidelands instrument
 - C. An explanation regarding why a Tidelands instrument is not required for the project
 - Acceptable file formats include pdf, doc, docx, rtf, jpg, and png.
 - iii. Written consent from municipality applies only if the project includes a gas pipeline and any section of that pipeline is located within a municipally-owned right-of-way. Written consent shall consist of one of the following:
 - A. Written consent from the municipality in the form of a resolution of the governing body or an ordinance
 - B. A municipal designation of the route pursuant to N.J.S.A. 48:9-25.4
 - C. A Board of Public Utilities designation of route pursuant to N.J.S.A. 48:9-25.4
 - Acceptable file formats include pdf, jpg, and png.
 - iv. Traffic impact study applies only if the proposed project will have the potential to result in the operation of any roadway in excess of Level of Service (LOS) D
 - Acceptable file formats include pdf, doc, docx, rtf, and zip.
 - v. A completed <u>Impervious Cover and Vegetative Cover Calculations Spreadsheet Form</u> applies only if the proposed project is subject to compliance with the impervious and vegetative cover requirements at N.J.A.C. 7:7-13
 - Acceptable file formats include pdf, xls, and xlsx.
 - vi. Sediment Sampling Results applies only to dredging projects. One of the following is required:
 - A. A copy of an executed <u>Sediment Sampling and Analysis Plan</u> along with:
 - Data summary tables that provide a comparison of the bulk sediment chemistry results to the Department's Soil Remediation Standards and the modified elutriate results to the New Jersey Surface Water Quality Criteria. The summary tables shall highlight all results that exceed applicable criteria; and
 - Sediment sample core profile/logs (full project depth).
 - B. Written confirmation from the Office of Dredging and Sediment Technology (ODST) for any testing exclusions identified at N.J.A.C. 7:7 Appendix G
 - Acceptable file formats include pdf, doc, docx, rtf, and zip.
 - vii. Written consent from property owner applies only to dredging projects where either temporary or final placement of dredge material will be located on a site not owned by the applicant
 - Acceptable file formats include pdf, doc, docx, rtf, jpg, and png.

ATTACHMENT B Property Owner Certification Form



New Jersey Department of Environmental Protection Watershed and Land Management Program

Division of Land Resource Protection

PROPERTY OWNER CERTIFICATION

INSTRUCTIONS: All applicants are required to complete Sections A and B of this form. Applicants who are individual owners of record of the property upon which the activities will occur must also complete Section C.

All other persons who are required to certify to this application in accordance with N.J.A.C. 7:7-23.2(d), N.J.A.C. 7:7A-16.2(d), and N.J.A.C. 7:13-18.2(d) must complete Sections A and C.

Separate forms may be submitted for each signatory, or a single form may be submitted with all required signatures.

SECTION A. SITE INFORMATION (required)

Project Name:

Applicant's Name: _____

Street Address:

Municipality: _____ Zip Code: _____

Blocks and Lots:

SECTION B. SIGNATURE OF APPLICANT

The undersigned applicant hereby certifies that he/she is one of the following: 1) an owner of the site on which the activity is proposed or conducted; 2) an agent designated by the site owner(s) to obtain the permit, verification, or letter of interpretation on the owner's behalf; 3) a representative of a public entity proposing an activity within a right-of-way or easement that is held or controlled by that entity or that will be appropriated by the entity under the power of eminent domain; OR 4) a person with the legal authority to perform the proposed activities.

The undersigned applicant also certifies to the following:

1.	Does the application include any activities within an easement or right-of-way?	🗌 Yes	🗌 No
	If " Yes ," has written consent from all easement or right-of-way holders in accordance with N.J.A.C. 7:7-23.2(g), 7:7A-16.2(g), and 7:13-18.2(g) been attached to this form?	🗌 Yes	🗌 No
2.	Will any part of the project be located within property belonging to the State of New Jersey?	🗌 Yes	🗌 No
3.	Does the application include activities on any property owned by any public agency that would be encumbered by Green Acres?	🗌 Yes	🗌 No
4.	Does this project require a Section 106 (National Register of Historic Places) Determination as part of a federal approval?	🗌 Yes	🗌 No
5.	Are you an LLC or corporation? If ' Yes ", has a copy of the Certificate of Formation been attached to this form?		□ No □ No
Ар	plicant's Name, Title:		
Ар	plicant's Signature:Date:		<u> </u>
Ар	plicant's Name, Title:		
	plicant's Signature:Date:		
Ар	plicant's Name, Title:		
Ар	plicant's Signature:Date:		
Ар	plicant's Name, Title:		
Ар	plicant's Signature:Date:		

SECTION C. PROPERTY OWNER'S CERTIFICATION

All individual owners of record of the property upon which the activities will occur must certify to this application unless the applicant is a corporation, partnership, sole proprietorship, municipality, or state, federal, or other public entity. If the applicant is a corporation, a principal executive officer of at least the level of vice president must certify below. In the case of partnerships and sole proprietorships, a general partner, or the proprietor, respectively, is required to certify, A corporation or LLC must attach a copy of their Certificate of Formation. For a municipality or for a state, federal, or other public entity, the certification must be provided by either a principal executive officer or ranking elected official.

A duly authorized representative may sign this application on behalf of any individual who is required to certify provided that the authorization is made in writing and is submitted as part of this application. Please note that in lieu of a property owner's signature, a legal agreement with the current property owner may be attached to this form. Acceptable legal agreements include, but are not limited to, certificates of eminent domain and certificates of inverse condemnation. Please note that contracts of sale are not considered an acceptable substitute for a property owner's signature.

* If the proposed project or activity is located on or adjacent to any of the following, please contact DEP's Office of Coastal Engineering (OCE) at <u>ocepermitreviews@dep.nj.gov</u>, prior to submitting your application, for written confirmation as to whether the site is or is not subject to an OCE easement:

Coastal beach or dune

- . Atlantic Ocean
- **Delaware Bay** •

- Delaware River (Trenton Makes/US 1 Business bridge to the Delaware Bay) •
- NJ Intracoastal Waterway •
- Any tidal water or inlet thereto •

Following receipt of written confirmation and OCE authorization (if applicable), please upload a copy on the attachment upload page of the online service. Failure to do so may result in a deficient application and/or a delay in the application review.

*For all other easements, include a copy of easement and have easement holder sign form.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment. I hereby grant permission for the conduct of the proposed activities and consent to allow access to the site by representatives or agents of the Department for the purpose of conducting a site inspection(s) of the property in question.

Name of Owner/Easement Holder, Title:	
Signature:	Date:
Specific Block(s) and Lot(s) Owned:	
Name of Owner/Easement Holder, Title:	
Signature:	Date:
Specific Block(s) and Lot(s) Owned:	
Name of Owner/Easement Holder, Title:	
Signature:	Date:
Specific Block(s) and Lot(s) Owned:	
Name of Owner/Easement Holder, Title:	
Signature:	Date:
Specific Block(s) and Lot(s) Owned:	
Name of Owner/Easement Holder, Title:	
Signature:	Date:
Specific Block(s) and Lot(s) Owned:	

ATLANTIC SHORES OFFSHORE WIND SERVICES, LLC

SECRETARY'S CERTIFICATE

June 20, 2023

The undersigned, Julia Pettit, hereby certifies that she is the duly appointed, acting and qualified Secretary of Atlantic Shores Offshore Wind Services, LLC, a Delaware limited liability company (the "<u>Company</u>").

The undersigned hereby certifies on behalf of the Company, solely in her capacity as the Secretary, and not in her personal capacity and without personal liability therefor, as of the date hereof, as follows:

1. Effective as of November 5, 2021, the following persons are duly elected and authorized officers and or authorized representatives of the Company and hold the positions set forth opposite their respective names, and as such are authorized to act on behalf of and bind the Company as "Authorized Signatories":

<u>Name</u> :	<u>Title</u> :
Joris Veldhoven	President
Jennifer Daniels	Vice President
Rain Byars	Vice President
Joris Veldhoven	Treasurer
Julia Pettit	Secretary

IN WITNESS WHEREOF, the undersigned has executed this Secretary's Certificate as of the date and year first written above.

By:	DocuSigned by: Dulin Pettit
Name	Julia Petti
Title:	Secretary

From:	DEP OCE Permit Reviews [DEP] <ocepermitreviews@dep.nj.gov></ocepermitreviews@dep.nj.gov>
Sent:	Thursday, August 10, 2023 12:30 PM
То:	Darlene Silva
Cc:	VonBriel, Robert [DEP]; Keiser, Julia [DEP]; Staffieri, Kelley [DEP]
Subject:	RE: Block 567 Lots 1 and 2 City of Atlantic City (06646.0001)

Darlene,

OCE does not hold an easement on the subject property.

Thank you for reaching out.

Glenn

From: Darlene Silva <dsilva@psands.com>
Sent: Thursday, August 10, 2023 8:18 AM
To: DEP OCE Permit Reviews [DEP] <OCEpermitreviews@dep.nj.gov>
Subject: [EXTERNAL] Block 567 Lots 1 and 2 City of Atlantic City (06646.0001)

Good Morning,

Pursuant to the Division of Land Resource Protection, Property Owner Certification Form, I am reaching out for written confirmation as to whether the subject site, Block 567 Lots 1 and 2 in the City of Atlantic City is or is not subject to an OCE easement.

Thank you,

Darlene Silva

Sr. Project Scientist, Ecological and Permitting



Website | Instagram | LinkedIn

This e-mail message and any attached files are confidential and are intended solely for the use of the addressee(s) named above. This communication may contain privileged or confidential information. If you are not the intended recipient or person responsible for delivering this confidential communication to the intended recipient, you have received this communication in error, and any review, use, dissemination, forwarding, printing, copying or other distribution of this e-mail message and any attached files is strictly prohibited. If you have received this confidential communication in error, please notify the sender immediately by reply e-mail message and permanently destroy all electronic, paper or other versions of this e-mail message and attachments thereto.



INST # 2022010460
RECD 03/10/2022 VOL 15185
RCPT # 1653637 RECD BY MK (7 PGS)
CON \$3,500,000.00 RTF \$39,825.00
JOSEPH J. GIRALD, COUNTY CLERK
ATLANTIC COUNTY, NJ

	Return Name and Address
5901 MAIN ST MAYS LANDING, NJ 08330	Title America Agency Corp 185 W. White Horse Pike, Berlin, NJ 08009 Voice: 856-767-8573 * Fax: 856-767-1156 Agent File Number: RKK-1006

Atlantic County Document Summary Sheet

· . .

						Officia	al Use Only	
Submitting Company			Title America Agency Corp					
Document Date (mm/de	12/20/2021							
Document Type			DEED					
No. of Pages of the Original Signed Document								
(including the cover she	et)		8	a T				
Consideration Amount ((If applicabl	(e)	\$3,50	0,000	.00	v		
	Name(s)		Irst Nane Middle Initial, Suffix) Name as written)		Address (Optional)			
First Party	Lerman Fa	mily 1984 Ti		rust c		c/o David Lerman		
(Grantor or Mortgagor or Assianor)						1519 Spruce Street, Suite 1000		
(Enter up to five names)					Philadelphia, PA 19102			
			rst Nane Middle Initial, Suffix) Iame as written)		Address (Optional)			
Second Party	Atlantic Sh		re Wind, LLC		1 Dock 72 Way, Floor 7			
(Grantee or Mortgagee or Assignee)					Brook	klyn, NY 11205		
(Enter up to five names)								
	Muni	cipality	Block	Lot		Qualifier	Property Address	
Parcel Information	Atlantic Ci	ty	567	2			801 N. Maryland Avenue	
(Enter up to three entries)								
	Book Type		Book	Beginning Page		Instrument No.	Recorded/File Date	
Reference Information								
(Enter up to three entries)								
DOCUMENT SUMMARY SHI			*DO NOT REMOV				FOR FUTURE REFERENCE.	
	a. leaven a		ALANIN CO	UNIT FILING	RELUND	RE I AIN I MIS PAGE	FUR FUTURE REFERENCE.	

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RECORD & RETURN TO:	
TITLE AMERICA AGENCY CORP.	
185 W. WHITE HORSE PIKE, BERLIN, NJ 08009	
185 W. WHITE HORSE PIKE, BERLIN, NJ 08009 Agent File No. <u>RKK-10000</u>	

After recordation, please send original recorded instrument to:

DEED

من DEC. 20,2021 And I-S This Deed is made effective on <u>December</u> 30 2021 by LERMAN FAMILY 1984 TRUST, a trust organized and existing under the laws of the State of New Jersey ("Grantor"), whose address is c/o David Lerman 1519 Spruce Street Suite 1000 Philadelphia PA 19102 to ATLANTIC

address is c/o David Lerman, 1519 Spruce Street, Suite 1000, Philadelphia, PA 19102 to ATLANTIC SHORES OFFSHORE WIND SERVICES, LLC, a Delaware limited liability company ("Grantee"), whose address is 1 Dock 72 Way, Floor 7, Brooklyn, NY 11205.

1. Transfer of title and ownership. For the sum of THREE MILLION FIVE HUNDRED THOUSAND and no/100 Dollars (\$3,500,000) (US), and other good and valuable consideration, Grantor grants and conveys to Grantee full title to and ownership of the commercial property (the "Property") described below.

2. Tax map reference. BLOCK 567, LOT 2, Tax Maps of Atlantic City, Atlantic County, New Jersey, also known by street address as 801 N. Maryland Avenue, Atlantic City, New Jersey.

3. Property. The Property consists of the land (the "Land") described in <u>Exhibit A</u> attached hereto, together with all buildings, structures, and/or other improvements, if any, owned by Grantor situated on the Land, and all easements and other rights appurtenant to the Land. Grantee has conducted all inspections and investigations that Grantee deems necessary in connection with Grantee's acquisition of the Property, and/or has waived the right to conduct the same. Accordingly, this conveyance is made and accepted, and Grantee takes title to the Property, "AS IS," with all faults, and Grantor makes no warranties or representations of any kind-- express or implied—concerning the condition or value of the Property, including but not limited to warranties as to physical condition, environmental matters, fitness, use, habitability, merchantability, or otherwise. Further, this conveyance is made and accepted subject to all title encumbrances of record, and to all conditions that a current survey of the Property might show.

4. Grantor's Promises. Grantor promises and covenants for the benefit of Grantee, its successors and assigns that Grantor has not done any act togencumber the Property. Grantor's promise is called a "covenant as to grantor's acts" (NJSA 46:4-6).

5. Title Acquired By Grantor. Grantor acquired title by Confirmatory Deed dated August 08, 2021 from Jeanette Lerman-Neubauer and Isaac David Lerman (aka I. David Lerman and David Lerman) as grantors to Lerman Family 1984 Trust as grantee, recorded October 08, 2021 in the Atlantic County Clerk's Office in Instrument No. 2021059515.

6. Other Provisions.

- a. Current real estate taxes and assessments having been prorated, the payment of those taxes and assessments is assumed by Grantee.
 - b. This Deed may be executed in multiple counterparts which, when taken together, shall constitute the original.

[end of page—signatures continue on next page]

Book15185

CFN#2022010460

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Executed to be effective as of the <u>30</u> day of December, 2021.

DAVID LERMAN (aka Isaac David Lerman and I. David Lerman) **Co—Trustee and Beneficiary** Date: 12/27/21

NOTARY:

TATE of NEw of Pennsylvani Gomm County of Philadelphia Courty of CAMOFN

Before, the undersigned Notary, on this date personally appeared DAVID LERMAN (aka Isaac David Lerman and I. David Lerman), whose name is subscribed to the foregoing instrument, and who, being personally known to me and after being by me first duly sworn on oath, stated that he executed the foregoing instrument for the purposes therein expressed, both individually and in the capacity therein stated, and as his individual act and deed and as the act and deed of the above-described Trust.

1

Subscribed and sworn to before me on this $\frac{27}{10}$ day of 3ECFMBER, 2021.

NOTARY Printed Name: **My Commission Expires:**

[SEAL]

Richard Croft
Notary Public of New Jersey
My Commission Expires:
6/23/2023

Book15185 CFN#2022010460

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Executed to be effective as of the <u>30</u> day of December, 2021.

Jeanette lerman-1 enhaner JEANETTE LERMAN-NEUBAUER

Co---Trustee and Beneficiary Date: ____ノンノンタノンノ

NOTARY:

Commonwealth of Pennsylvania County of Philadelphia

Before, the undersigned Notary, on this date personally appeared JEANETTE LERMAN-NEUBAUER, whose name is subscribed to the foregoing instrument, and who, being personally known to me and after being by me first duly sworn on oath, stated that she executed the foregoing instrument for the purposes therein expressed, both individually and in the capacity therein stated, and as her individual act and deed and as the act and deed of the above-described Trust.

Subscribed and sworn to before me on this 20 day of ______ 2021.

NOTARY

Printed Name: Helana

My Commission Expires: September 27, 2022

[SEAL]

Commonwealth of Pennsylvania - Notary Seal HELENE SMITH, Notary Public Philadelphia County My Commission Expires September 27, 2022 Commission Number 1340124

Book15185 CFN#2022010460

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EXHIBIT A LEGAL DESCRIPTION

ALL that certain tract or parcel of land, situated, lying and being in the City of Atlantic, County of Atlantic, State of New Jersey, more particularly described as follows:

TRACT 1

BEGINNING at a point in the Easterly line of Maryland Avenue, 1658.35 feet Northwardly from the Northerly line of Wabash Avenue; and extending thence

(1) Northwardly, along the Easterly line of Maryland Avenue, 350 feet; thence

(2) Eastwardly, parallel with Wabash Avenue, 100 feet; thence

(3) Southwardly, parallel with Maryland Avenue, 350 feet; thence

(4) Westwardly, parallel with Wabash Avenue, 100 feet to the point and place of BEGINNING.

TRACT 2

BEGINNING at a point which is Eastwardly 100 feet from the Easterly line of Maryland Avenue and Northwardly, 2008.35 feet from the Northerly line of Wabash Avenue; and extending thence (1) Eastwardly, parallel with Wabash Avenue, 100 feet; thence

(2) Southwardly, parallel with Maryland Avenue, 250 feet; thence

(3) Westwardly, parallel with Wabash Avenue, 100 feet to a point which is 100 feet Eastwardly of Maryland Avenue; thence

(4) Northwardly, parallel with the Easterly line of Maryland Avenue, 250 feet to the point and place of BEGINNING.

Also known as BLOCK 567, LOT(S) 2, on the Tax Map of the City of Atlantic, County of Atlantic, State of New Jersey, and more commonly known by street address as 801 N. Maryland Avenue, Atlantic City, NJ 08401.

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Page 5 of 7

	RTF-1EE (Rev. 12/09) MUST SUBMIT IN DUPLICATE AFFI	STATE OF NEW JERSEY	USE BY BUYER
и	(Chapter 49 P.I. 19	88 as amended through Chapter 33, P.	
3	STATE OF NEW JERSEY	NO ON THE REVERSE SIDE OF THIS	FOR RECORDER'S USE ONLY
		SS. County Municipal Code Cons	sideration \$
(COUNTY <u>Atlantic</u>	RTF Date	pald by buyer \$
	MUNICIPALITY OF PROPERTY LOCATION	City of Atlantic	
(1) PARTY OR LEGAL REPRESENTATIVE	(See Instructions #3 and #4 on reverse	side) XXX-X2 2 0 4 Last three digits in grantee's Social Security Number
I	Deponent, Julia Pettit	being duly swom	according to law upon his/her oath,
c	(Name) deposes and says that he/she is (Grantee, Legal Representative, Com	the Corporate Officer	in a deed dated <u>12/30/2021</u> transferring anding institution, etc.)
I	real property identified as Block number 567		t number _2 located at
80	N. Maryland Avenue, Atlantic City (Stree	t Address, Town)	and annexed thereto.
	(2) CONSIDERATION \$	3,500,000.00 (See Instructio	ons #1, #5, and #11 on reverse side)
	Entire consideration is in excess of \$1,	000,000:	·
l	PROPERTY CLASSIFICATION CHECKED	OR CIRCLED BELOW IS TAKEN FRO	OM OFFICIAL ASSESSMENT LIST (A PUBLIC RECORD) OF TRANSFER. REFER TO N.J.A.C. 18:12-2.2 ET SEQ.
i	(A) Grantee required to remit the 1% fee, comp	lete (A) by checking off appropriate box o	r boxes below. A - Commercial properties '
	Class 3A - Farm property (Re	gular) and any other real	(If checked, calculation in (E) required below)
	property transferred to same with transfer of Class 3A prop		ative unit (four families or less) (See C. 46:8D-3.) ative units are Class 4C.
	(B) Grantee is <u>not</u> required to remit 1% fee (on below.	e or more of following classes being conv	rayed), complete (B) by checking off appropriate box or boxes
	X Property class, Circle applic	able class or classes:	3B 4B 4C 15 partments;15: Public Property, etc. (N.J.A.C. 18;12-2.2 et seq.)
	Exempt organization determine	ned by federal Internal Revenue Servi	ce/Internal Revenue Code of 1986, 26 U.S.C. s. 501.
	exchanged in merger or acqu	r or acquisition; equalized assessed v Isition. If checked, calculation in (E) re	aluation less than 20% of total value of all assets equired and MUST ATTACH COMPLETED RTF-4.
	(C) When grantee transform properties involve	ng block(s) and lot(s) of two or more cla	see in one deed, one or more subject to the 1% fee (A), with olets (C) by checking off appropriate box or boxes and (D).
			2 3B 4A 4B 4C 15
		Finder -	THE 1% FEE APPLIES OR DOES NOT APPLY
	Total A	ssessed Valuation + Director's Ratio = Ec	qualized Valuation
	Property Class 1 \$	552,000.00 + 88.27 % = \$_	625,354.03
	Property Class \$	+%¤\$_	· · · · · · · · · · · · · · · · · · ·
	Property Class \$	%=\$%	
	Property Class \$	+%=\$	
	(E) REQUIRED EQUALIZED VALUE CALCULA reverse side)	TION FOR ALL CLASS 4A (COMMERCIAL) PROPERTY TRANSACTIONS: (See Instructions #6 and #7 on
	Total Assessed Valuation + I	Director's Ratio = Equalized V	alue
	S+ If Director's Ratio is less than 100% the	% = \$ equalized valuation will be an amoun	t greater than the assessed valuation. If Director's Ratio
	is equal to or exceeds 100%, the assesse	d valuation will be equal to the equali	zed value.
	(3) TOTAL EXEMPTION FROM FEE (Se	e instruction #8 on reverse side) on is fully exempt from the Realty Tu	ransfer Fee Imposed by C. 49, P.L. 1968, as amended
1	through Chapter 33, P.L. 2006, for the fol Property is exempt since the property class	lowing reason(s). Mere reference to e	xemption symbol is insufficient. Explain in detail.
	Troperty is exempt since are property since	ID TT 14 VALUE I BOUNTAL	
	(4) Deponent makes Affidavit of Consid accept the fee submitted herewith pursua	nt to the previsions of Chapter 49. Pu	county clerk or register of deeds to record the deed and 1968, as amended through Chapter 33, P.L. 2006.
	Subscribed and swom to before me GIC this 2.7 day of J & Cember, 20 J	Fink pliabell	ATLANTIC SAINES OF SHOL
	this 3.7 day of december, 20 d.	. Signature of Deponent	WIND GRANTER NAME
		Deponent Address	JAC I DOCK 72 Wry 4 Cook 7 Grantee Address at Time of Sale
	GREG FLINT	Depotent Pastoss	Brockerys, NY 4205
IN LOONLY	MARY PUBLIC-STATE OF UTAH MMISSION EXP. 03/16/2025		Name/Company of Settlement Officer
	COMMISSION NO. 717363	County manadian affining forward one size	refeash DTE 455 to
l	VIET Dias 1.	County recording officers: forward one cop	FOR OFFICIAL USE ONLY
0	497) 2010	STATE OF NJ - DIVISION OF TAXATION PO BOX 251	Instrument Number County Que Number Book Page
		TRENTON, NJ 08895-0251	Deed Dated Date Recorded
			s required by law. It may not be altered or amended without prior
	approval of the Director. For further info	ormation on the Realty Transfer Fee or to pri www.state.nj.us/treasury/taxation/ipt/loc	nt a copy of this Affidavit or any other relevant forms, visit: caltax.shtml.

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GIT/REP-1
(10-21)
(Print or type)

5 8 CA 4

State of New Jersey Nonresident Seller's Tax Declaration

(r mit.or type)		•		
Seller's Information				all of the second
Lerman Family 1984 Trust, by Issac Da	avid Lerman, Trustee			1
Current Street Address				
1519 Spruce Street				
City, Town, Post Office		State		ZIP Code
Philadelphia		PA		19102
Property Information				
Block(s)	Lot(s)		Qualifier	
567	2			
Street Address				
801 N. Maryland Avenue		•		
City, Town, Post Office		State	4	ZIP Code
Atlantic City		NJ	b	08401
Seller's Percentage of Ownership	Total Consideration	Owner's Share of Consid	ieration	Closing Date
100%	3,500,00		3,500,000.00	12/30/2021
Seller's Declaration The undersigned understands that this and that any false statement contained this declaration and, to the best of my k Power of Attorney to represent the selle form is attached.	herein may be punished by fine, nowledge and belief, it is true, co r(s) has been previously recorde	imprisonment, or both. I furthern mect, and complete. By checkin d or is being recorded simultane	nore declare that g this box 🛄 I d	t I have examin certify that the
	LERMAN FAMILY MEY TH	20 T		
12/27/2021	By. Aandlen			
Date	Isan DANSignature (Seller)	Indicate if Power of A	ttorney or Attorn	ey in Fact
Date	Signature (Seller)	Indicate if Power of A	Attorney or Attorn	iey in Fact
	0.4 41-0 - 5-41-	4 4 %		

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ATTACHMENT C Verification of Public Notice

(New Jersey Department of Environmental Pro Land Use Management Program Division of Land Use Regulation PUBLIC NOTICE	otection	
	Ŷ			
SE	ECTION A. SIT	TE INFORMATION		
Ap	plicant's Name	e:		
Μι	unicipality:	County:	Zip Code:	
Blo	ocks and Lots:			
SE	ECTION B. ST	ANDARD NOTICE REQUIREMENTS		
		led at item 6 below, public notice of the application shall be p application and no later than the date the application is subl		s prior
	•	is required for all of the following (<i>check all that apply</i>):		
		od hazard area general permit authorization (except general	l permit 1)	
		od hazard area individual permit	politik ()	
	🗌 A floo	od hazard area verification		
		astal general permit authorization		
		AFRA individual permit		
		n-water waterfront development individual permit		
		pland waterfront development individual permit astal wetlands individual permit		
		eshwater wetlands individual permit		
		eshwater wetlands transition area waiver		
	A fre	shwater wetlands general permit authorization (except gene	eral permit 15)	
	A fre	shwater wetlands general permit 15 (please skip to <u>Section</u>	<u>n C</u>)	
2.		of the entire application been sent to the municipal clerk of ea proposed activity or project is located?		🗌 No
	1	Note: For electronic submissions, the application consists of which must include the lot and block, municipality, and permit(s)/authorization(s) being sought, and all items submission service, including all required items on the checklist(s).	d county, the specific that will be uploaded to the	
		did you attach a copy of the certified United States Postal Se or other written receipt, and a copy of any letter sent with the		🗌 No
3.		notice letter, including a brief description of the proposed ac by of the site plans been sent to the all following applicable a		🗌 No
	• 1	The construction official of each municipality in which the site	e is located	
		The environmental commission, or other government agency of each municipality in which the site is located	/ with similar responsibilities,	
		The planning board of each municipality in which the site is lo The planning board of each county in which the site is locate		
		did you attach <u>both</u> of the following to this form?		🗌 No
	• A	A copy of the certified United States Postal Service white ma		
		<i>w</i> ritten receipt A copy of the notice letter		

4.	Is the application for a coastal permit for an activity within the 12-mile circle with Delaware, as described at N.J.A.C. 7:7-1.2(c), or within 200 feet of the 12-mile circle?	🗌 No
	If " Yes ," have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to the State of Delaware, Department of Natural Resources & Environmental Control, Delaware Coastal Management Program, 89 Kings Highway, Dover, DE 19901?	🗌 No
	If " Yes ," did you attach <u>both</u> of the following to this form?	🗌 No
	 A copy of the certified United States Postal Service white mailing receipt or other written receipt 	
	A copy of the notice letter	
5.	Is the application for a waterfront development individual permit to install a submarine cable in the ocean or to perform sand mining in the ocean?	🗌 No
	If " Yes ," have you submitted a description of the project, the specific permit(s)/authorization(s) being sought, and a copy of the NOAA nautical chart showing the proposed cable route or the limits of the proposed sand mining area to all of the following entities?	🗌 No
	Garden State Seafood Association	
	National Fisheries Institute	
	North Atlantic Clam Association	
	Rutgers Cooperative Extension	
	New Jersey Shellfisheries Council	
	New Jersey Marine Fisheries Council	
6.	Does the application include a CAFRA individual permit?	🗌 No
	If " No ," skip to Question 7.	
	If " Yes ," has newspaper notice, consisting of a legal notice or display advertisement, been published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality?	🗌 No
	I <mark>f "Yes,</mark> " did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form?	🗌 No
	If " No ," did you verify that a newspaper notice, consisting of a legal notice or display advertisement, will be published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality no more than 10 calendar days after the application is submitted to the Department?	🗌 No
	Note: A copy of the published newspaper notice, the date of publication, and the	
	name of the newspaper must be submitted to the Department within this timeframe.	
7.	Does the application include one or more of the activities listed below (other than those proposed in a freshwater wetlands individual permit application)?	🗌 No
	 A delineation of one-half mile or longer of a regulated water 	
	 A mosquito control activity subject to flood hazard general permit 2 	
	A linear project of one-half mile or longer	
	 A shore protection development, including beach nourishment, beach and dune maintenance, or dune creation of one-half mile or longer 	
	A public development on a site of 50 acres or more	
	 An industrial or commercial development on a site of 100 acres or more 	
	 A project to remove sediment or debris from a channel of one-half mile or longer 	
	 Maintenance dredging of a State navigation channel of one-half mile or longer 	
	 A trail or boardwalk of one-half mile or longer subject to a freshwater wetlands general permit or transition area waiver 	

	If you answered " No ," to question 7:		
	Have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to all owners of real property, including easements, located within 200 feet of the property boundary of the site ?	🗌 Yes	🗌 No
	If " Yes ," did you attach <u>all</u> of the following to this form?	🗌 Yes	🗌 No
	 A copy of the certified United States Postal Service white mailing receipt or other written receipt 		
	A copy of the notice letter		
	 A certified list of all owners of real property, including easements, within 200 feet of the property boundary, prepared by the municipality with a date of certification no earlier than one year prior to the date of the application 		
	If you answered "Yes," to question 7, answer questions I. and II. below:		
	I. Have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to all owners of property, including easements, within 200 feet of any proposed above-ground structure?	🗌 Yes	🗌 No
	If " Yes ," did you attach <u>all</u> of the following to this form?	🗌 Yes	🗌 No
	 A copy of the certified United States Postal Service white mailing receipt or other written receipt 		
	A copy of the notice letter		
	 A certified list of all owners of real property, including easements, within 200 feet of the property boundary, prepared by the municipality with a date of certification no earlier than one year prior to the date of the application 		
	II. For all applications, except CAFRA individual permits, has newspaper notice, consisting of a legal notice or display advertisement been published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality?	🗌 Yes	∏ No
	If " Yes ," did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form?		 □ No
8.	Will the proposed activity or project disturb 5,000 square feet of land or more?	🗌 Yes	🗌 No
	If " Yes ," have both a notice letter, including a brief description of the proposed activity or project, and a legible copy of the site plans been sent to the local Soil Conservation District?	🗌 Yes	🗌 No
	If " Yes ," did you attach a copy of the certified United States Postal Service white mailing receipt or other written receipt <u>and</u> a copy of the notice letter to this form?		🗌 No
9.	Is the proposed activity or project located within the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11(a)?	🗌 Yes	🗌 No
	If "Yes," you are also required to complete <u>Section D</u> of this form.		
10.	Does the application include a freshwater wetlands individual permit application?	🗌 Yes	🗌 No
	If " No ," skip to Question 11.		
	If " Yes ," does the proposed project involve more than 10 acres of fill?	🗌 Yes	🗌 No
	If " Yes ," has newspaper notice been published in a newspaper with regional circulation in the region in which the site is located?	Yes	🗌 No
	If " Yes ," did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form?	Yes	🗌 No
	If " No ," has newspaper notice consisting of a legal notice or display advertisement been published in the official newspaper of the municipality in which the site is located or a newspaper of general circulation in the municipality?	🗌 Yes	🗌 No
	If " Yes ," did you attach a copy of the published newspaper notice, the date of publication, and the name of the newspaper to this form?	🗌 Yes	🗌 No

11. Does the application include a flood hazard individual permit based on a hardship exception?	🗌 Yes	🗌 No
If " Yes ," do all notice letters and published newspaper notices attached to this form (under questions 3, 4, 7, and 8 above, as applicable) include a description of the nature of the hardship as well as the citation and subject matter of each requirement for which the hardship exception is being requested?	🗌 Yes	🗌 No
SECTION C. FRESHWATER WETLANDS GENERAL PERMIT 15		
This section only applies to applications that include a freshwater wetlands general permit 15.		
1. Is the applicant a Federal agency conducting activities on Federal land?	🗌 Yes	🗌 No
If "Yes," public notice is not required for this activity.		
 Has a display advertisement describing the proposed activities, at least four column inches in size, been published in a newspaper with local circulation (including the municipality) and in a newspaper with regional circulation (including the county)? 	🗌 Yes	🗌 No
If " Yes ," did you attach a copy of the published newspaper notices, the dates of publication, and the names of the newspapers to this form?	🗌 Yes	🗌 No
SECTION D. PINELANDS		
This section only applies to applications where the proposed activity or project is located within the Pinelands Area as designated under the Pinelands Protection Act at N.J.S.A. 13:18A-11.a.		
1. Does the application include a flood hazard general permit or individual permit?	🗌 Yes	🗌 No
If " Yes ," has a description of the project, including the lot and block, municipality, county, and specific permit(s)/authorization(s) being sought, been sent to the New Jersey Pinelands Commission?	🗌 Yes	🗌 No
If " Yes ," did you attach a copy of the certified United States Postal Service white mailing receipt or other written receipt and a copy of any letter provided with the project description to this form?	🗌 Yes	🗌 No
2. Does the application include a coastal general permit or individual permit?	🗌 Yes	🗌 No
If " Yes ," has a copy of the entire application been sent to the New Jersey Pinelands Commission?	🗌 Yes	🗌 No
<u>Note</u> : For electronic submissions, the application consists of a description of the project, which must include the lot and block, municipality, and county, the specific permit(s)/authorization(s) being sought, and all items that will be uploaded to the submission service, including all required items on the applicable application checklist(s).		
If " Yes ," did you attach a copy of the certified United States Postal Service white mailing receipt or other written receipt and a copy of any letter provided with the application to this form?	🗌 Yes	🗌 No
3. Is the application solely for a freshwater wetlands general permit(s)?	🗌 Yes	🗌 No
If "Yes," do not submit the application to the Department. Submit the application to the New Jersey Pinelands Commission.		





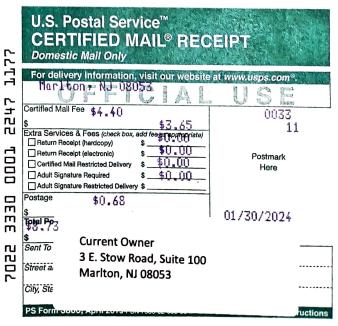
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	Stree 1333 Atlantic Avenue	
~	City, Atlantic City, NJ 08401	
	PSI	astructions

























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DEEE	Postage \$0.68 \$ 20.73 Construction Division of th	01/30/2024 e City of
202	Sen Atlantic City Sire 1301 Bacharach Boulevard City, Atlantic City, NJ 08401	



Certified List of Property Owners within 200 Feet

City of Atlantic City Municipal Authorities

Paula Geletei, Municipal Clerk The City of Atlantic City 1301 Bacharach Blvd. 7th Floor, Suite 704 Atlantic City, NJ 08401

Atlantic City Planning Board Planning & Development Office The City of Atlantic City 1301 Bacharach Blvd. 5th Floor, Suite 506 Atlantic City, NJ 08401

Construction Official The City of Atlantic City 1301 Bacharach Blvd. 1st Floor, Suite 101 Atlantic City, NJ 08401

Environmental Commission The City of Atlantic City 1301 Bacharach Blvd. Atlantic City, NJ 08401

Cape Atlantic Conservation District 6260 Old Harding Highway Mays Landing, New Jersey 08330

Atlantic County

Acting Department Head – Ranae Fehr Atlantic County Department of Regional Planning and Development P.O. Box 719 Route 9 and Dolphin Ave. Northfield, NJ 08225

Atlantic County Planning Advisory Board Department of Regional Planning and Development P.O. Box 719 Route 9 and Dolphin Ave. Northfield, NJ 08225 Suite 506 City Hall Atlantic City, New Jersey 08401-4603 TEL 609.347.5417 *Email:* jhoward@acnj.gov



Jacques A. Howard

April 4, 2023

PS&S Attn: Darlene Silva 1450 NJ-34 Wall Township, NJ 07753

Re: Block 567, Lot 2

Dear Darlene Silva:

Please accept this letter as a response to your recent request to obtain a Certified List of Property Owners Located within 200 feet of the above referenced property and a list of the Utility Companies. Attached to this letter is the official list.

This should satisfy this request. Please do not hesitate to contact this office in the event that you have any questions or require additional information.

Sincerely Yours, The City of Atlantic City

Jacques A. Howard

Jacques A. Howard

Director Department of Planning and Development



Highlighted feature(s)

Subject Property (1)

BLOCK	LOT	QUAL	Location	Owner	Street Addrress	City\State	ZipCode
567	2		801 N MARYLAND AVE	ATLANTIC, SHORES OFFSHORE WIND SERV	1 DOCK 72 WAY FL 7	BROOKLYN, NY	11205
§							

List of adjoining feature(s) that intersect 200 foot buffer from Subject Property.

Adjacent	Prope	rties (5)					
BLOCK	LOT	QUAL	Location	Owner	Street Address	City\State	ZipCode
567	1		701 N MARYLAND AVE	MYERS DOCK, LLC	4371 NORTHLAKE BLVD #369	PALM BEACH GARDENS, FL	33410
567	2		801 N MARYLAND AVE	ATLANTIC, SHORES OFFSHORE WIND SERV	1 DOCK 72 WAY FL 7	BROOKLYN, NY	11205
567	3		600 HURON AVE	STATE OF NEW JERSEY % DEP	P O BOX 439	TRENTON, NJ	08625.6439
589	2		818 N MARYLAND AVE #K	ATL. CITY PRESERVATION % INTERSTATE	3 E STOW ROAD, SUITE 100	MARLTON, NJ	08053
589	4		1140 BRIGANTINE BLVD	CITY OF ATLANTIC CITY	1301 BACHARACH BLVD	ATLANTIC CITY, NJ	08401

City of Atlantic City - Map Buffer Report





THIS IS A LIST OF UTILITY COMPANIES THAT SERVICE THE CITY OF ATLANTIC CITY. PLEASE NOTIFY ALL ENTITIES LISTED AT LEAST TEN (10) DAYS IN ADVANCE OF THE PUBLIC HEARING.

ATLANTIC CITY MUNICIPAL UTILITIES AUTHORITY

Attn: Claude Smith, Deputy Director – (609) 345-3315 P.O. Box 117 401 N. Virginia Avenue Atlantic City, New Jersey 08404-0117 <u>csmith@acmua.org</u>

ATLANTIC CITY SEWERAGE COMPANY

Attn: Dan Kwapinski – (609) 345-0131 1200 Atlantic Avenue Suite 300 Atlantic City, New Jersey 08401 <u>dkwapinski@acsewerage.com</u>

ATLANTIC COUNTY UTILITIES AUTHORITY

Attn: Rick Dovey P.O. Box 996 Pleasantville, New Jersey 08232-0996 (609) 272-6950 rdovey@acua.com

ATLANTIC CITY ELECTRIC

Attn: Mr. Gregory Brubaker, PE (Senior Manager of Strategic Planning) 2542 Fire Road Egg Harbor Township, New Jersey 08234

SOUTH JERSEY GAS COMPANY

Atlantic Division Attn: Briana Dirkes 111 N. Franklin Boulevard Pleasantville, New Jersey 08232-0996 (609) 645-2690 bdirkes@sjindustries.com

Notice to Neighboring Landowners and Municipal Authorities

Notice to Neighboring Landowners and Municipal Authorities

Date: January, 2024	
Application Submitted by:	Atlantic Shores Offshore Wind Services, LLC
Regarding Property at:	Block 567, Lot 2 City of Atlantic City, Atlantic County, New Jersey

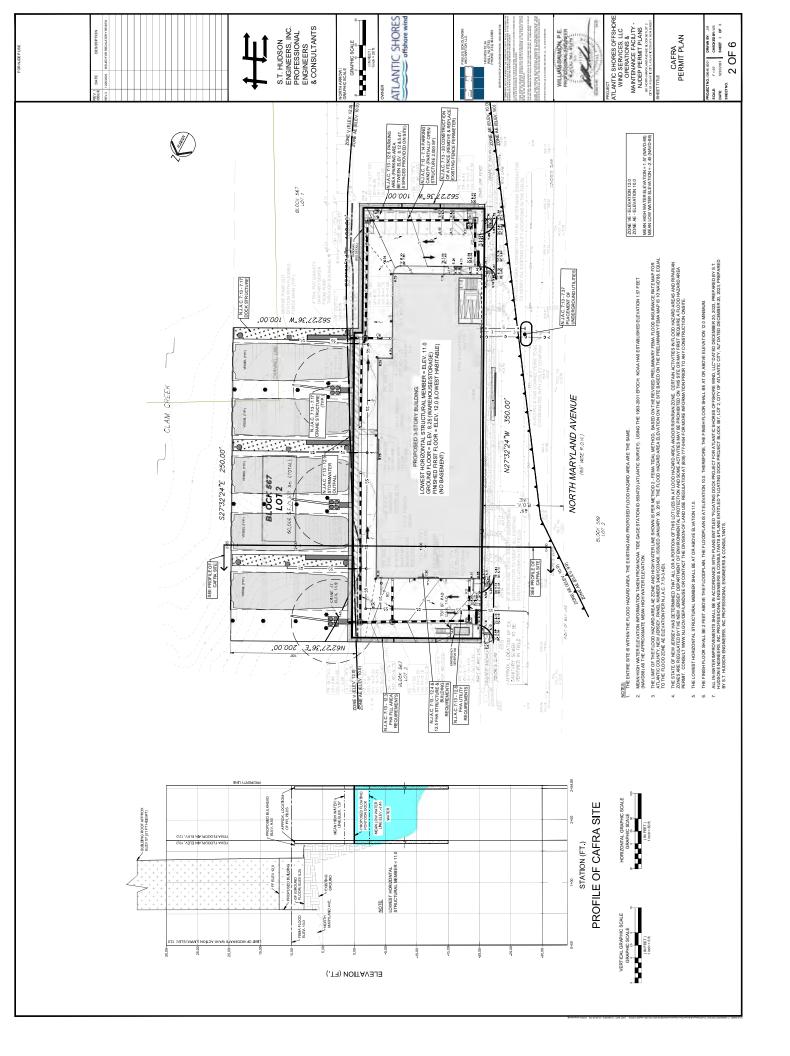
Dear Interested Party:

This letter is to provide you with legal notification that an application for CAFRA and waterfront development individual permits will be submitted to the New Jersey Department of Environmental Protection, Division of Land Resource Protection for the project shown on the enclosed plans. A brief description of the proposed project follows:

The Applicant, Atlantic Shores Offshore Wind Services, LLC, is proposing the construction of an Operations and Maintenance (O&M) Facility at 801 North Maryland Avenue. in the City of Atlantic City, Atlantic County, New Jersey. The O&M Facility will provide warehouse, office, quayside and vessel mooring facilities to support the commissioning, operations and maintenance of Atlantic Shores's portfolio of offshore wind projects. The Project Site is known as tax parcels Block 567, Lot 2. A portion of the Project Site is located waterward of the mean high-water line and is located in the waterbody known as Clam Creek.

The complete permit application package can be reviewed at either the municipal clerk's office in the municipality in which the site subject to the application is located or by appointment at the Department's Trenton Office. The Department of Environmental Protection welcomes comments and any information that you may provide concerning the proposed development and site. Please submit your written comments within 15 calendar days of receiving this letter to:

New Jersey Department of Environmental Protection Division of Land Resource Protection P.O. Box 420, Code 501-02A Trenton, New Jersey 08625 Attn: City of Atlantic City Supervisor



Newspaper Notice

Take notice that an application for a CAFRA and Waterfront Development Individual Permits has been submitted to the New Jersey Department of Environmental Protection, Division of Land Resource Protection for the development described below:

APPLICANT: Atlantic Shores Offshore Wind Services, LLC

1 Dock 72, Floor 7

Brooklyn, New York 11205

PROJECT NAME: O&M Facility

PROJECT DESCRIPTION: The Applicant, Atlantic Shores Offshore Wind Services, LLC, is proposing the construction of an Operations and Maintenance O&M Facility at 801 North Maryland Avenue in the City of Atlantic City, Atlantic County, New Jersey. The O&M Facility will provide warehouse, office, quayside and vessel mooring facilities to support the commissioning, operations and maintenance of Atlantic Shores's portfolio of offshore wind projects. The Project Site is known as tax parcels Block 567, Lot 2. A portion of the Project Site is located waterward of the mean high water line and is located in the waterbody known as Clam Creek.

PROJECT STREET ADDRESS: 801 North Maryland Avenue **BLOCK:** 567 LOT: 2 **MUNICIPALITY:** City of Atlantic City **COUNTY:** Atlantic County

The complete permit application package can be reviewed at the municipal clerk's office in the municipality in which the site subject to the application is located or by appointment at the Department's Trenton Office. Either a 30-day public comment period or public hearing will be held on the application in the future. Individuals may request a public hearing on the application within 15 calendar days of the date of this notice. Requests for a public hearing shall be sent to the Department at the address below and shall state the specific nature of the issues to be raised at the hearing:

New Jersey Department of Environmental Protection Division of Land Resource Protection P.O. Box 420, Code 501-02A Trenton, New Jersey 08625 Attn: City of Atlantic City Supervisor Phone: 609-777-0454

Municipal Clerk Transmittal



January ____, 2024 Via FedEx Ms. Paula Geletei Municipal Clerk City of Atlantic City 1301 Bacharach Blvd 7th Floor, Suite 704 Education Atlantic City, NJ 08401 **Energy Utility RE:** Multi-permit Application for a CAFRA Individual Permit and Waterfront Development Individual Permit Healthcare Atlantic Shores Offshore Wind Services, LLC Operations & Maintenance Facility **Public Works** Block 567, Lot 2 City of Atlantic City, Atlantic County, New Jersey **Real Estate** Dear Ms. Geletei: Science & Technology

This letter is to provide you with legal notification that an application has been submitted to the New Jersey Department of Environmental Protection, Division of Land Resource Protection for CAFRA and waterfront development individual permits. A description of all regulated activities is provided in the enclosed copy of the application. In accordance with the public notification requirements, we are required to file a complete copy of the application with your office.

If you have any questions regarding the application, please do not hesitate to contact me at (732) 430-7206 or bmcpeak@psands.com.

Very truly yours, Paulus, Sokolowski & Sartor, LLC

Brian McPeak, P.P., AICP Vice President

cc: NJDEP

1450 State Route 34 Wall, NJ 07753

t. 848.206.2626

www.psands.com

ATTACHMENT D Application Fee Calculation

Fee Calculation New Jersey Department of Environmental Protection Division of Land Resource Protection

Application Review Fee Calculation:

- CAFRA Individual Permit
 - CAFRA individual permit for a commercial, industrial, or public development
 \$3,000.00 per acre of the site (or fraction thereof)
 - \$3,000.00 x 1 (Area of Project Site above the MHWL: 0.85 acres)
 - Fee: \$3,000.00
- Waterfront Development Individual Permit
 - Waterfront development individual permit for any other development located waterward of the mean high water line: \$3,000.00 per acre of water area impacted (or a fraction thereof)
 - \$3,000.00 x 1 (Area of Project Site below the MHWL: 0.527 acres of water area impacted)
 - Fee: \$3,000.00

Total Application Fee = \$6,000.00

ATTACHMENT E Permit Plans

XISTING	LEGEND	PROPOSED		LAN NOTES/REFERENCES:
	PROPERTY LINE IRON PIPE/IRON PIN		1.	THE PURPOSE OF THESE PLANS ARE TO SUPPORT AN NJDEP MULTI-PERMIT APPLICATION FOR THE FOLLOWING PERMITS:
	CURB			I. CAFRA INDIVIDUAL PERMIT
	DEPRESSED/FLUSH CURB			ii.WATERFRONT DEVELOPMENT IN-WATER INDIVIDUAL PERMIT
	SIDEWALK	a and a a	2.	PERMIT PLAN BASE INFORMATION TAKEN FROM SITE PLANS ENTITLED "ATLANTIC SHORES OFFSHORE WIND SERVICES, LLC
	PAVERS			OPERATIONS & MAINTENANCE FACILITY - PRELIMINARY & FINAL SITE PLANS" DATED 12/20/2023, PREPARED BY PAULUS, SOKOLOWSKI, &
	LIGHT POLE SIGN	<u> </u>	2	SARTOR, LLC. FOR FLOATING PONTOON DOCK, CRANE PLATFORM, AND VESSEL
	TREE		З.	PLANS & DETAILS, REFER TO PLANS ENTITLED "FLOATING DOCK PROJECT FOR ATLANTIC SHORES OFFSHORE WIND, LLC" DATED
PLANE PLANE	RAIL	000		DECEMBER 20, 2023, PREPARED BY S.T. HUDSON ENGINEERS, INC PROFESSIONAL ENGINEERS & CONSULTANTS & PLANS ENTITLED
X	FENCE	x		"FLOATING DOCK PROJECT BLOCK 567, LOT 2, CITY OF ATLANTIC CITY, NJ" DATED DECEMBER 20, 2023, PREPARED BY S.T. HUDSON
-5	CONTOUR MAJOR	5		ENGINEERS, INC PROFESSIONAL ENGINEERS & CONSULTANTS.
-6	CONTOUR MINOR	6	4.	BOUNDARY & TOPOGRAPHIC INFORMATION SHOWN IS BASED ON SURVEY ENTITLED, "ALTA/NSPS LAND SURVEY BLOCK 567 LOT 2,
× 6.1	SPOT ELEVATION FLOODPLAIN	× 6.1		CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NJ", DATED 06/30/2021, PREPARED BY PAULUS, SOKOLOWSKI AND SARTOR, LLC.
	LIMIT OF MODERATE WAVE	ACTION	5.	HORIZONTAL CONTROL IS BASED ON DEED BOOK 3096, PAGE 47 (LOT 2). VERTICAL CONTROL IS BASED ON NAVD88, PER PLANS ENTITLED,
·	MEAN LOW WATER LINE			"ALTA/NSPS LAND SURVEY BLOCK 567 LOT 2 , CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NJ", DATED 06/30/2021, PREPARED BY
	MEAN HIGH WATER LINE			PAULUS, SOKOLOWSKI AND SARTOR, LLC.
W	WATER LINE	w	6.	FOR BUILDING DESIGN AND LAYOUT, REFER TO ARCHITECTURAL PLANS ENTITLED "ATLANTIC SHORES OFFSHORE WIND -
	WATER VALVE	, ,		ARCHITECTURAL SITE PLAN" PREPARED BY PS&S LLC, DATED OCTOBER 27, 2023, LAST REVISED DECEMBER 20, 2023.
жу Хуро	FIRE HYDRANT		7.	WETLANDS: NO WETLAND DELINEATION HAS BEEN PERFORMED FOR THE SITE.
~ _Y ∾	UNDERGROUND ELECTRIC		8.	EXCEPT WHERE SPECIFICALLY NOTED, EXISTING FEATURES ARE
	ELECTRIC	—— Е ——		SHOWN IN HALF TONE AND PROPOSED FEATURES ARE SHOWN IN FULL TONE.
J.	UTILITY POLE		9.	THE LIMIT OF THE FLOOD HAZARD AREA AE ZONE (COASTAL A ZONE) AND HIGH WATER LINE SHOWN IS PER METHOD 2 - FEMA TIDAL
E	ELECTRIC MANHOLE			METHOD, BASED ON THE REVISED PRELIMINARY FEMA FLOOD INSURANCE RATE MAP FOR ATLANTIC COUNTY, NEW JERSEY, PANEL
	GAS	G		NUMBER 34001C03436, ISSUED JANUARY 30, 2015. THE FLOOD HAZARD AREA ELEVATION ON THE SITE BASED ON THE
	SANITARY SEWER	SS		PRELIMINARY FEMA MAP IS 10' NAVD'88, EQUAL TO THE FLOOD ZONE AE ELEVATION PER N.J.A.C. 7:13-3.4(D).
	STORM		10	. HORIZONTAL DATUM REFERS TO NJ STATE PLAN COORDINATE
			11	SYSTEM NAD-83. VERTICAL DATUM REFERS TO NAVD-88. . STATE PLANE COORDINATES FOR APPROXIMATE CENTROID OF SITE
	INLET		40	IS N 512282 E 197418.
	MANHOLE		12	. THIS PLAN IS FOR PERMITTING PURPOSES ONLY, AND SHALL NOT BE UTILIZED FOR CONSTRUCTION UNLESS IT IS SPECIFICALLY LABELED
(MV)	MONITORING WELL	_		
$\sqrt{}$	STEEL BULKHEAD			
) ()	DOCK	* * * * * * *		
	VESSEL			
	SOIL COMPACTION			
	TESTING LOCATION	$\mathbf{\nabla}$		
	SOIL COMPACTION TESTING AREA			
	CONSTRUCTION	5X		
	ENTRANCE / STONE TRACKING PAD			
	TEMPORARY			
	TOPSOIL STOCKPILE			
-	ELEVATION 12.0 ELEVATION 10.0			
MEAN HIGH	WATER ELEVATION = 1.	.57 (NAVD-88)		
	WATER ELEVATION = -2			
<u>NOTES:</u> 1 MEAN H				FROM NOAA TIDE GAGE STATION ID 8534720
(ATLAN	TIC SURVEY). USING 1	THE 1983-2001 EPOC	CH.	NOAA HAS ESTABLISHED ELEVATION 1.57
FEET (N	IAVD88) AS THE APPROX	KIMATE MEAN HIGH V	NAT	ER ELEVATION.
				EPARATELY PER PERMIT PLANS ENTITLED BULKHEAD REPLACEMENT PROJECT - NJDEP
PERMIT	PLAN" DATED 12/20/202	23, PREPARED BY PA	ULL	JS, SOKOLOWSKI, AND SARTOR, LLC, PLANS
				K 567, LOT 2, CITY OF ATLANTIC CITY, NJ" IUDSON ENGINEERS. INC PROFESSIONAL
		•		BULKHEAD REPLACEMENT PROJECT FOR EMBER 20, 2023, PREPARED BY S.T. HUDSON
	ERS. INC PROFESSION	-		
				NT TO PLANS ENTITLED "ATLANTIC SHORES
	DRE WIND SERVICES, 12/20/2023, PREPARED E			CEMENT PROJECT - NJDEP PERMIT PLAN" KI, AND SARTOR, LLC.
				BY OTHERS (NJDEP PERMIT 0102-20-0001.1
4. DREDG		WILL BE FERFORME		ST OTHERS (NJDEF FERMIT 0102-20-0001:1
	ER COMPLIANCE: POPOSED SITE IMPROVE	MENTS RESULTING	יים א	STURBANCE AREA OF 0.91 ACRES AND NEW
IMPER√	IOUS COVERAGE OF 0	.798 ACRES. PRIOR	ТО	DEVELOPMENT IMPROVEMENTS INCLUDED
				RES OF MOTOR VEHICLE SURFACE. D 1 ACRE OF DISTURBANCE, 0.25 ACRES OF
REGUL	ATED IMPERVIOUS SUF	RFACE, OR 0.25 ACF	RES	OF NEW MOTOR VEHICLE SURFACE, THE JIREMENTS OF A "MAJOR DEVELOPMENT"
	ANT TO N.J.A.C. 7:8 RUL			
CAFRA NOT		_	_	
-	7 CAFRA URBAN CENTE 18 VEGETATIVE COVE			LOWANCE ORESTED AREA & URBAN CENTER = 0%
PROPO 3. CZM PE	SED TREE PLANTINGS			

	ii.WATERFRONT DEVELOPMENT IN-WATER INDIVIDUAL PERMIT
2.	PERMIT PLAN BASE INFORMATION TAKEN FROM SITE PLANS ENTITLED "ATLANTIC SHORES OFFSHORE WIND SERVICES, LLC OPERATIONS & MAINTENANCE FACILITY - PRELIMINARY & FINAL SITE PLANS" DATED 12/20/2023, PREPARED BY PAULUS, SOKOLOWSKI, & SARTOR, LLC.
3.	FOR FLOATING PONTOON DOCK, CRANE PLATFORM, AND VESSEL PLANS & DETAILS, REFER TO PLANS ENTITLED "FLOATING DOCK PROJECT FOR ATLANTIC SHORES OFFSHORE WIND, LLC" DATED DECEMBER 20, 2023, PREPARED BY S.T. HUDSON ENGINEERS, INC PROFESSIONAL ENGINEERS & CONSULTANTS & PLANS ENTITLED "FLOATING DOCK PROJECT BLOCK 567, LOT 2, CITY OF ATLANTIC CITY, NJ" DATED DECEMBER 20, 2023, PREPARED BY S.T. HUDSON ENGINEERS, INC PROFESSIONAL ENGINEERS & CONSULTANTS.
4.	BOUNDARY & TOPOGRAPHIC INFORMATION SHOWN IS BASED ON SURVEY ENTITLED, "ALTA/NSPS LAND SURVEY BLOCK 567 LOT 2 , CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NJ", DATED 06/30/2021, PREPARED BY PAULUS, SOKOLOWSKI AND SARTOR, LLC.
5.	HORIZONTAL CONTROL IS BASED ON DEED BOOK 3096, PAGE 47 (LOT 2). VERTICAL CONTROL IS BASED ON NAVD88, PER PLANS ENTITLED, "ALTA/NSPS LAND SURVEY BLOCK 567 LOT 2 , CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NJ", DATED 06/30/2021, PREPARED BY PAULUS, SOKOLOWSKI AND SARTOR, LLC.
6.	FOR BUILDING DESIGN AND LAYOUT, REFER TO ARCHITECTURAL PLANS ENTITLED "ATLANTIC SHORES OFFSHORE WIND - ARCHITECTURAL SITE PLAN" PREPARED BY PS&S LLC, DATED OCTOBER 27, 2023, LAST REVISED DECEMBER 20, 2023.
7.	WETLANDS: NO WETLAND DELINEATION HAS BEEN PERFORMED FOR THE SITE.
8.	EXCEPT WHERE SPECIFICALLY NOTED, EXISTING FEATURES ARE SHOWN IN HALF TONE AND PROPOSED FEATURES ARE SHOWN IN FULL TONE.
9.	THE LIMIT OF THE FLOOD HAZARD AREA AE ZONE (COASTAL A ZONE) AND HIGH WATER LINE SHOWN IS PER METHOD 2 - FEMA TIDAL METHOD, BASED ON THE REVISED PRELIMINARY FEMA FLOOD INSURANCE RATE MAP FOR ATLANTIC COUNTY, NEW JERSEY, PANEL NUMBER 34001C03436, ISSUED JANUARY 30, 2015. THE FLOOD HAZARD AREA ELEVATION ON THE SITE BASED ON THE PRELIMINARY FEMA MAP IS 10' NAVD'88, EQUAL TO THE FLOOD ZONE AE ELEVATION PER N.J.A.C. 7:13-3.4(D).
10.	HORIZONTAL DATUM REFERS TO NJ STATE PLAN COORDINATE SYSTEM NAD-83. VERTICAL DATUM REFERS TO NAVD-88.
11.	STATE PLANE COORDINATES FOR APPROXIMATE CENTROID OF SITE IS N 512282 E 197418.
12.	THIS PLAN IS FOR PERMITTING PURPOSES ONLY, AND SHALL NOT BE

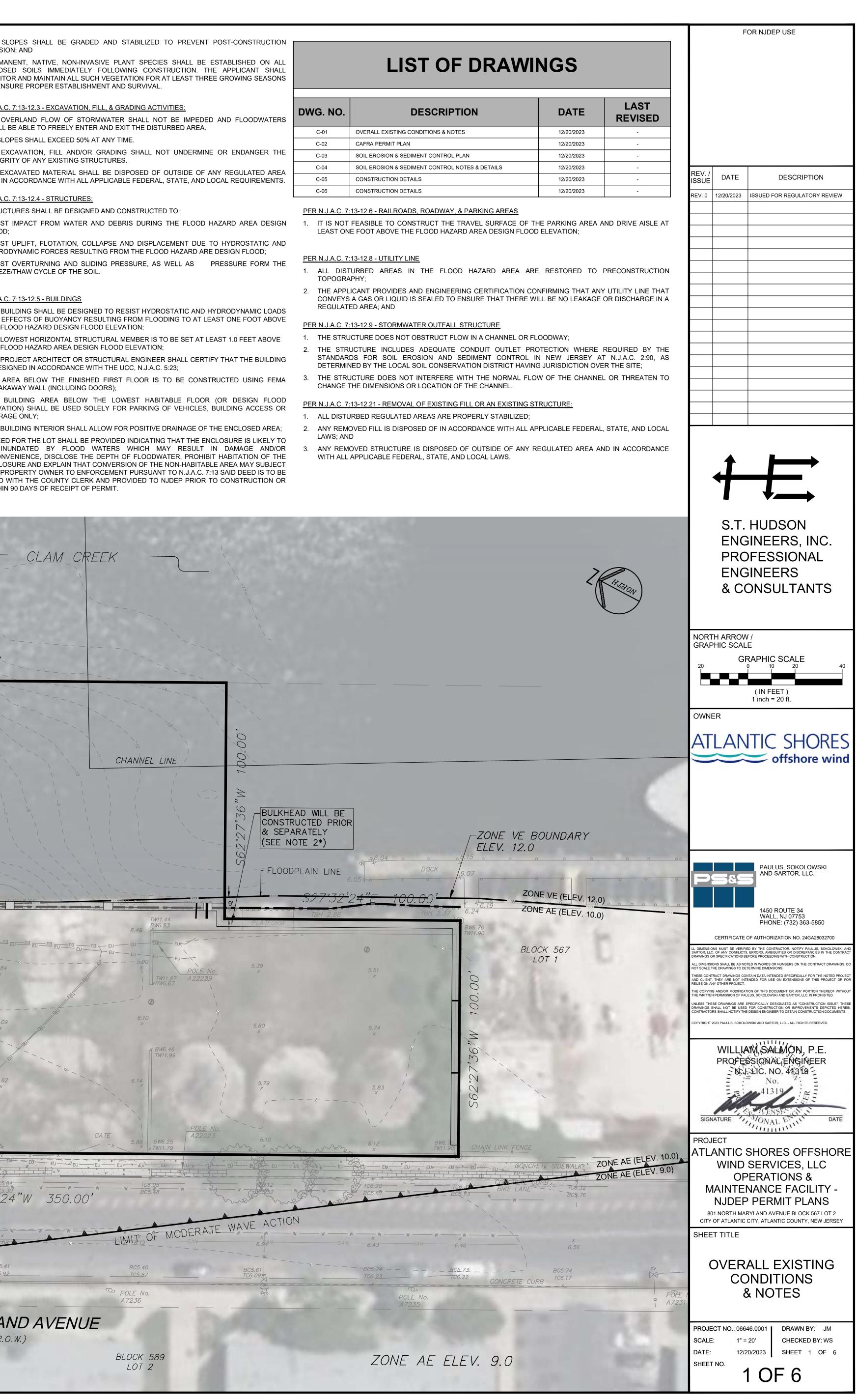
- ROM NOAA TIDE GAGE STATION ID 8534720 JOAA HAS ESTABLISHED ELEVATION 1.57 R ELEVATION.
- ARATELY PER PERMIT PLANS ENTITLED LKHEAD REPLACEMENT PROJECT - NJDEP , SOKOLOWSKI, AND SARTOR, LLC, PLANS 567, LOT 2, CITY OF ATLANTIC CITY, NJ" JDSON ENGINEERS. INC PROFESSIONAL ULKHEAD REPLACEMENT PROJECT FOR MBER 20, 2023, PREPARED BY S.T. HUDSON TANTS.
- TO PLANS ENTITLED "ATLANTIC SHORES EMENT PROJECT - NJDEP PERMIT PLAN" , AND SARTOR, LLC.
- OTHERS (NJDEP PERMIT 0102-20-0001.
- FURBANCE AREA OF 0.91 ACRES AND NEW EVELOPMENT IMPROVEMENTS INCLUDED ES OF MOTOR VEHICLE SURFACE.
- 1 ACRE OF DISTURBANCE, 0.25 ACRES OF OF NEW MOTOR VEHICLE SURFACE, THE REMENTS OF A "MAJOR DEVELOPMENT"
- OWANCE
- RESTED AREA & URBAN CENTER = 0%
- A. COASTAL GP-5 FOR ACTIVITY LANDWARD OF THE MEAN HIGH WATER LINE; B. WATERFRONT DEVELOPMENT IP FOR ACTIVITY WATERWARD OF THE MEAN HIGH WATER LINE

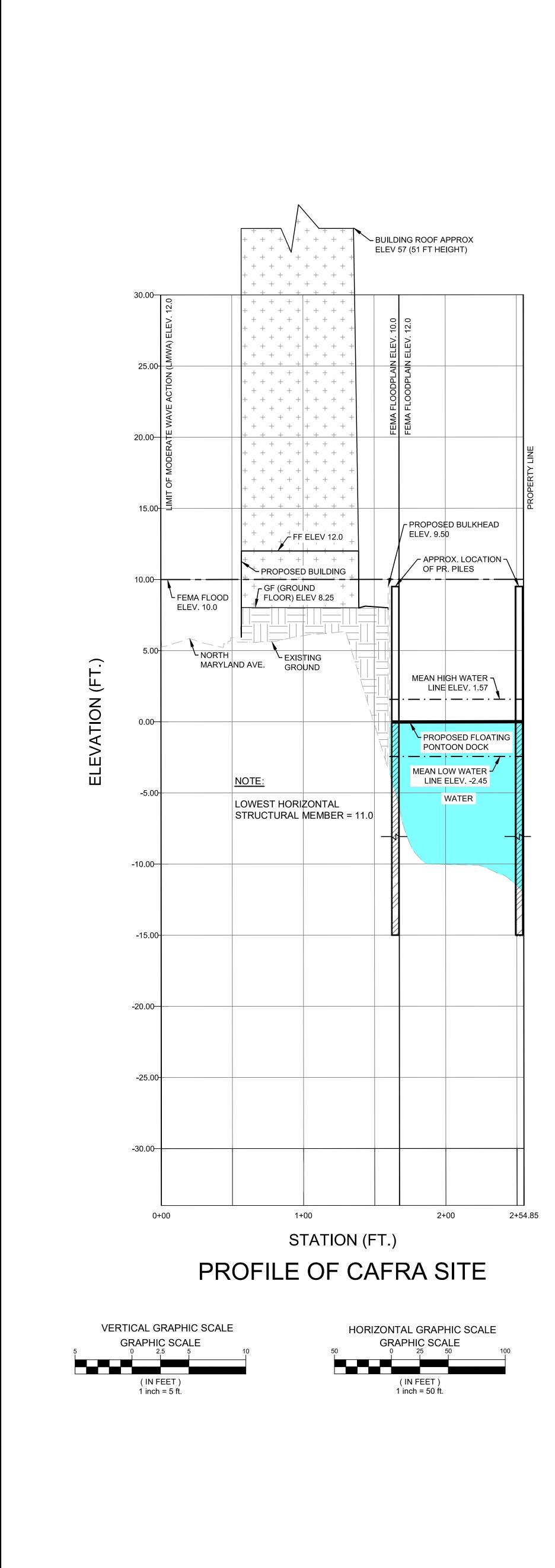
"ISSUED FOR CONSTRUCTION". 3. A SOIL EROSION AND SEDIMENT CONTROL PERMIT MUST BE OBTAINED ALL SLOPES SHALL BE GRADED AND STABILIZED TO PREVENT POST-CONSTRUCTION PRIOR TO CONSTRUCTION, FROM THE CAPE ATLANTIC SOIL 13. EXISTING SITE IMPERVIOUS COVERAGE IS 0.85 AC (37,026 SF). EROSION; AND TOTAL PROPOSED IMPERVIOUS COVERAGE IS 0.798 AC (34,798 SF). CONSERVATION DISTRICT. LIST OF DRAWINGS 4. PERMANENT, NATIVE, NON-INVASIVE PLANT SPECIES SHALL BE ESTABLISHED ON ALL 14. AS SHOWN ON ATLAS SHEET NO. 196-2064 "MAP SHOWING 4. THE PROPOSED CONSTRUCTION ACTIVITIES ARE NOT ANTICIPATED TO EXPOSED SOILS IMMEDIATELY FOLLOWING CONSTRUCTION. THE APPLICANT SHALL ADVERSELY IMPACT ANY PROPERTIES NOT OWNED BY THE CONVEYANCE ON ABSECON CHANNEL" PREPARED BY THE NJDEP MONITOR AND MAINTAIN ALL SUCH VEGETATION FOR AT LEAST THREE GROWING SEASONS BUREAU OF TIDELANDS MANAGEMENT, THE STATE OF NEW JERSEY APPLICANTS (OWNERS OF LOTS 1 AND 2) TO ENSURE PROPER ESTABLISHMENT AND SURVIVAL. GRANTED TIDELANDS INCLUDING THOSE ON THE SUBJECT SITE TO ANY EXCAVATION, FILL OR GRADING ACTIVITIES SHALL NOT IMPEDE THE CITY OF ATLANTIC CITY ON 3/15/1920, LIBER A-1, PG 16, FOR THE THE OVERLAND FLOW OF FLOODWATERS. CONSIDERATION OF \$18,000.00, FILE: 1276. PER N.J.A.C. 7:13-12.3 - EXCAVATION, FILL, & GRADING ACTIVITIES: 6. SOLID WASTE AND RECYCLABLE MATERIALS SHALL NOT BE STORED IN 15. THE STATE OF NEW JERSEY HAS DETERMINED THAT ALL OR A 1. ALL OVERLAND FLOW OF STORMWATER SHALL NOT BE IMPEDED AND FLOODWATERS REGULATED AREAS, INTERNAL PROPOSED. PORTION OF THIS LOT LIES IN A FLOOD HAZARD AREA AND/OR SHALL BE ABLE TO FREELY ENTER AND EXIT THE DISTURBED AREA. RIPARIAN ZONE. CERTAIN ACTIVITIES IN FLOOD HAZARD AREAS AND THE SUBJECT PROPERTY IS LOCATED WITHIN A NEW JERSEY DEPARTMENT 2. NO SLOPES SHALL EXCEED 50% AT ANY TIME. RIPARIAN ZONES ARE REGULATED BY THE NEW JERSEY OF ENVIRONMENTAL PROTECTION FLOOD HAZARD AREA AND IS SUBJECT TO DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME APPROVAL UNDER THE FOLLOWING FLOOD HAZARD AREA AND IS SUBJECT TO A ALL EXCAVATION, FILL AND/OR GRADING SHALL NOT UNDERMINE OR ENDANGER THE ACTIVITIES MAY BE PROHIBITED ON THIS SITE OR MAY FIRST INTEGRITY OF ANY EXISTING STRUCTURES. AND INDIVIDUAL PERMITS* REQUIRE A FLOOD HAZARD AREA PERMIT. CONSULT 4. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF OUTSIDE OF ANY REGULATED AREA WWW.NJ.GOV/DEP/LANDUSE OR CONTACT THE DIVISION OF LAND AND IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS. USE REGULATION AT (609) 777-0454 FOR MORE INFORMATION PRIOR N.J.A.C. 7:13-7.4 - REMOVAL OF FILL OR STRUCTURES (PBR) TO ANY CONSTRUCTION ONSITE. N.J.A.C. 7:13-7.14 - CONSTRUCTION OF AN OPEN STRUCTURE - PARKING PER N.J.A.C. 7:13-12.4 - STRUCTURES: 16. THE MEAN HIGH WATER LINE IS 1.57 FEET (NAVD-88). THE MEAN LOW CANOPY (PBR) WATER LINE IS -2.45 FEET (NAVD-88) N.J.A.C. 7:13-7.17 -CONSTRUCTION OF A DOCK OR PIER (PBR) PER N.J.A.C. 7:13-12.6 - RAILROADS, ROADWAY, & PARKING AREAS ALL STRUCTURES SHALL BE DESIGNED AND CONSTRUCTED TO: N.J.A.C. 7:13-7.20 - CONSTRUCTION OF A FENCE (PBR) 17. PROJECT IS NOT A MAJOR DEVELOPMENT. LESS THAN ONE (1) ACRE 1. RESIST IMPACT FROM WATER AND DEBRIS DURING THE FLOOD HAZARD AREA DESIGN 1. IT IS NOT FEASIBLE TO CONSTRUCT THE TRAVEL SURFACE OF THE PARKING AREA AND DRIVE AISLE AT N.J.A.C. 7:13-7.24 - CONSTRUCTION OF A TANK (PBR) LEAST ONE FOOT ABOVE THE FLOOD HAZARD AREA DESIGN FLOOD ELEVATION; FLOOD; IS DISTURBED AND LESS THAN $\frac{1}{4}$ ACRE OF REGULATED IMPERVIOUS N.J.A.C. 7:13-7.37 - CONSTRUCTION OF UTILITIES BELOW PAVEMENT (PBR) N.J.A.C. 7:13-7.48 - TEMPORARY STORAGE OF UNSECURED CONSTRUCTION 2. RESIST UPLIFT, FLOTATION, COLLAPSE AND DISPLACEMENT DUE TO HYDROSTATIC AND COVERAGE/MOTOR VEHICLE SURFACE. 18. ALL EXISTING SITE COMPONENTS/REMAINS TO BE DEMOLISHED AND MATERIAL (PBR) HYDRODYNAMIC FORCES RESULTING FROM THE FLOOD HAZARD ARE DESIGN FLOOD; REMOVED. THIS WORK IS TO BE PERFORMED AS PART OF A N.J.A.C. 7:13-7.50 - STORAGE OF UNSECURED MATERIAL (PBR) PER N.J.A.C. 7:13-12.8 - UTILITY LINE 3. RESIST OVERTURNING AND SLIDING PRESSURE, AS WELL AS PRESSURE FORM THE SEPARATE APPLICATION FOR THE PROPOSED BULKHEAD FREEZE/THAW CYCLE OF THE SOIL REPLACEMENT PROJECT. TOPOGRAPHY; N.J.A.C. 7:13-12.1 - REQUIREMENTS FOR ALL REGULATED ACTIVITIES 19. BULKHEAD WILL BE CONSTRUCTED PRIOR AND SEPARATELY PER N.J.A.C. 7:13-12.3 - REQUIREMENTS FOR EXCAVATION, FILL AND GRADING PERMIT PLANS ENTITLED "ATLANTIC SHORES OFFSHORE WIND ACTIVITIES PER N.J.A.C. 7:13-12.5 - BUILDINGS SERVICES, LLC BULKHEAD REPLACEMENT PROJECT - NJDEP PERMIT N.J.A.C. 7:13-12.4 - REQUIREMENTS FOR A STRUCTURE REGULATED AREA; AND 1. THE BUILDING SHALL BE DESIGNED TO RESIST HYDROSTATIC AND HYDRODYNAMIC LOADS PLAN" DATED 12/20/2023. PREPARED BY PAULUS. SOKOLOWSKI, AND SARTOR, LLC, PLANS ENTITLED "BULKHEAD REPLACEMENT PROJECT N.J.A.C. 7:13-12.5 - REQUIREMENTS FOR A BUILDING AND EFFECTS OF BUOYANCY RESULTING FROM FLOODING TO AT LEAST ONE FOOT ABOVE PER N.J.A.C. 7:13-12.9 - STORMWATER OUTFALL STRUCTURE BLOCK 567, LOT 2, CITY OF ATLANTIC CITY, NJ" DATED DECEMBER 20, N.J.A.C. 7:13-12.6 - REQUIREMENTS FOR A RAILROAD, ROADWAY, AND THE FLOOD HAZARD DESIGN FLOOD ELEVATION; 2023, PREPARED BY S.T. HUDSON ENGINEERS. INC PROFESSIONAL PARKING AREA THE STRUCTURE DOES NOT OBSTRUCT FLOW IN A CHANNEL OR FLOODWAY; 2. THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS TO BE SET AT LEAST 1.0 FEET ABOVE ENGINEERS & CONSULTANTS, & PLANS ENTITLED "BULKHEAD N.J.A.C. 7:13-12.8 - REQUIREMENTS FOR A UTILITY LINE THE FLOOD HAZARD AREA DESIGN FLOOD ELEVATION; REPLACEMENT PROJECT FOR ATLANTIC SHORES OFFSHORE WIND, N.J.A.C. 7:13-12.9 - REQUIREMENTS FOR A STORMWATER OUTFALL 3. THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER SHALL CERTIFY THAT THE BUILDING LLC" DATED DECEMBER 20, 2023, PREPARED BY S.T. HUDSON STRUCTURE DETERMINED BY THE LOCAL SOIL CONSERVATION DISTRICT HAVING JURISDICTION OVER THE SITE; IS DESIGNED IN ACCORDANCE WITH THE UCC. N.J.A.C. 5:23: ENGINEERS. INC PROFESSIONAL ENGINEERS & CONSULTANTS. N.J.A.C. 7:13-12.21- REQUIREMENTS FOR THE REMOVAL OF EXISTING FILL OR AN EXISTING STRUCTURE 4. THE AREA BELOW THE FINISHED FIRST FLOOR IS TO BE CONSTRUCTED USING FEMA 20. THE LOWEST HORIZONTAL STRUCTURAL MEMBER SHALL BE ABOVE CHANGE THE DIMENSIONS OR LOCATION OF THE CHANNEL. ELEVATION 11.0. BREAKAWAY WALL (INCLUDING DOORS); 21. THE FINISH FLOOR SHALL BE 2 FEET ABOVE THE FLOODPLAIN. THE THE FOLLOWING INDIVIDUAL PERMIT CONDITIONS SHALL BE ADHERED TO IN 5. THE BUILDING AREA BELOW THE LOWEST HABITABLE FLOOR (OR DESIGN FLOOD PER N.J.A.C. 7:13-12.21 - REMOVAL OF EXISTING FILL OR AN EXISTING STRUCTURE: FLOODPLAIN IS AT ELEVATION 10.0. THEREFORE, THE FINISH FLOOR THE DESIGN AND CONSTRUCTION OF PROPOSED FACILITIES: ELEVATION) SHALL BE USED SOLELY FOR PARKING OF VEHICLES, BUILDING ACCESS OR SHALL BE AT OR ABOVE ELEVATION 12.0 (MINIMUM). ALL DISTURBED REGULATED AREAS ARE PROPERLY STABILIZED; STORAGE ONLY; PER N.J.A.C. 7:13-12.1 - REGULATED ACTIVITIES: 6. THE BUILDING INTERIOR SHALL ALLOW FOR POSITIVE DRAINAGE OF THE ENCLOSED AREA; FLOOD HAZARD AREA GENERAL NOTES LAWS; AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AROUND THE 7. A DEED FOR THE LOT SHALL BE PROVIDED INDICATING THAT THE ENCLOSURE IS LIKELY TO 1. ALL DESIGN AND CONSTRUCTION SHALL BE IN STRICT BE INUNDATED BY FLOOD WATERS WHICH MAY RESULT IN DAMAGE AND/OR PROPOSED CONSTRUCTION SUFFICIENT TO PREVENT SEDIMENT FROM CONFORMANCE WITH N.J.A.C. 7:13, N.J.A.C. 5:23, AND A.S.C.E. 24-14. ENTERING ANY RIPARIAN ZONE OR CHANNEL OUTSIDE THE INCONVENIENCE, DISCLOSE THE DEPTH OF FLOODWATER, PROHIBIT HABITATION OF THE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS. CONSTRUCTION AREA; ENCLOSURE AND EXPLAIN THAT CONVERSION OF THE NON-HABITABLE AREA MAY SUBJECT 2. PROPOSED STRUCTURES (COMPONENTS) ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF 2. IF CONSTRUCTION IS PROPOSED IN A CHANNEL, SEDIMENT CONTROL THE PROPERTY OWNER TO ENFORCEMENT PURSUANT TO N.J.A.C. 7:13 SAID DEED IS TO BE FILED WITH THE COUNTY CLERK AND PROVIDED TO NJDEP PRIOR TO CONSTRUCTION OF FEDERAL FLOOD REDUCTION STANDARDS, 44 C.F.R. PART 60 AND MEASURES, SUCH AS COFFER DAMS, SHALL BE INSTALLED AROUND THE WITHIN 90 DAYS OF RECEIPT OF PERMIT.

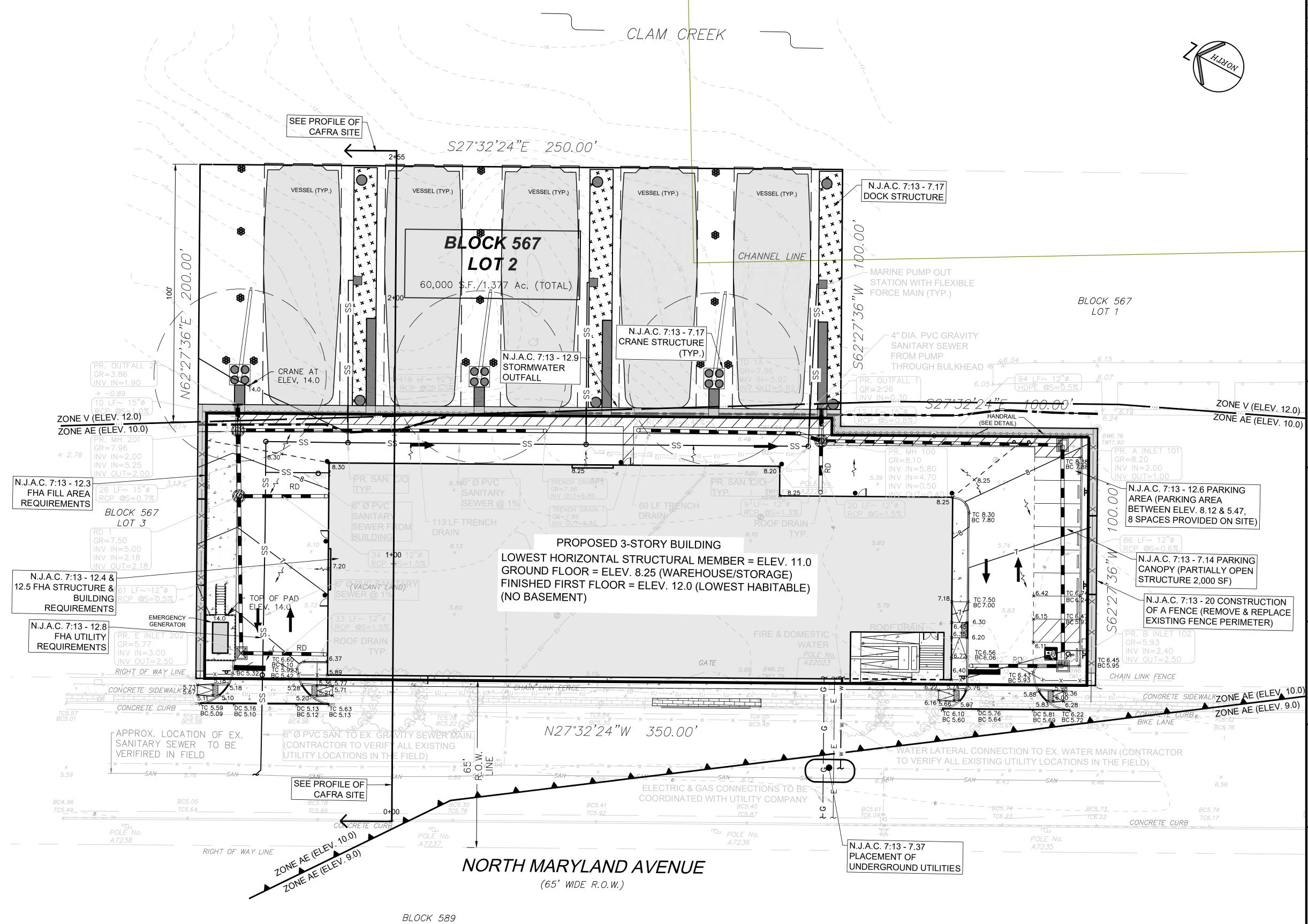
FEMA'S TECHNICAL BULLETINS. ACTIVITY SUFFICIENT TO PREVENT FLOWING WATER FROM COMING IN CONTACT WITH CONSTRUCTION FOR THE DURATION OF THE PROJECT WHERE FEASIBLE;

CLAM CREEK S27°32'24"E _ 250.00' **BLOCK 567** LOT 2 60,000 S.F./1.377 Ac. (TOTAL) FLOODPLAIN TIE MEAN LOW ZONE VE (ELEV. 12.0). WATER LINE ZONE VE (ELEV. 12.0) ZONE AE (ELEV. 10.0) MEAN HIGH WATER LINE EXISTING BULKHEADS BLOCK 567 ZONE AE (ELEV. 10.0) LOT 3 RIGHT OF WAY LINE - w ____ w ____ w ___ w RIGHT OF WAY LINE NORTH MARYLAND AVENUE (65' WIDE R.O.W.)

DWG. NO.	DESCRIPTION	DATE	LAST REVISED
C-01	OVERALL EXISTING CONDITIONS & NOTES	12/20/2023	-
C-02	CAFRA PERMIT PLAN	12/20/2023	-
C-03	SOIL EROSION & SEDIMENT CONTROL PLAN	12/20/2023	-
C-04	SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS	12/20/2023	-
C-05	CONSTRUCTION DETAILS	12/20/2023	-
C-06	CONSTRUCTION DETAILS	12/20/2023	-





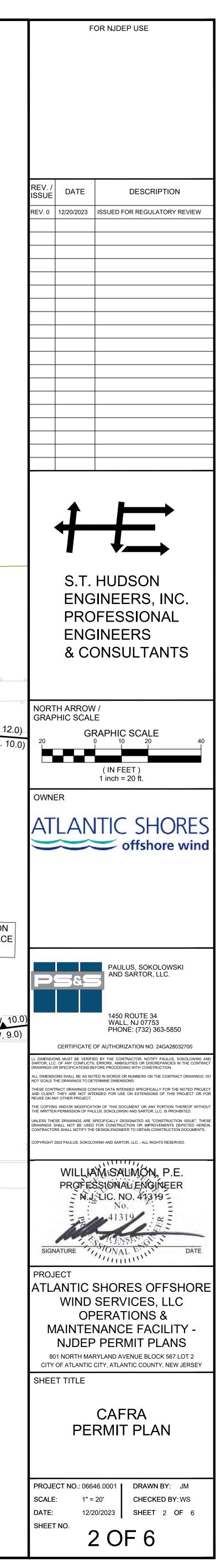


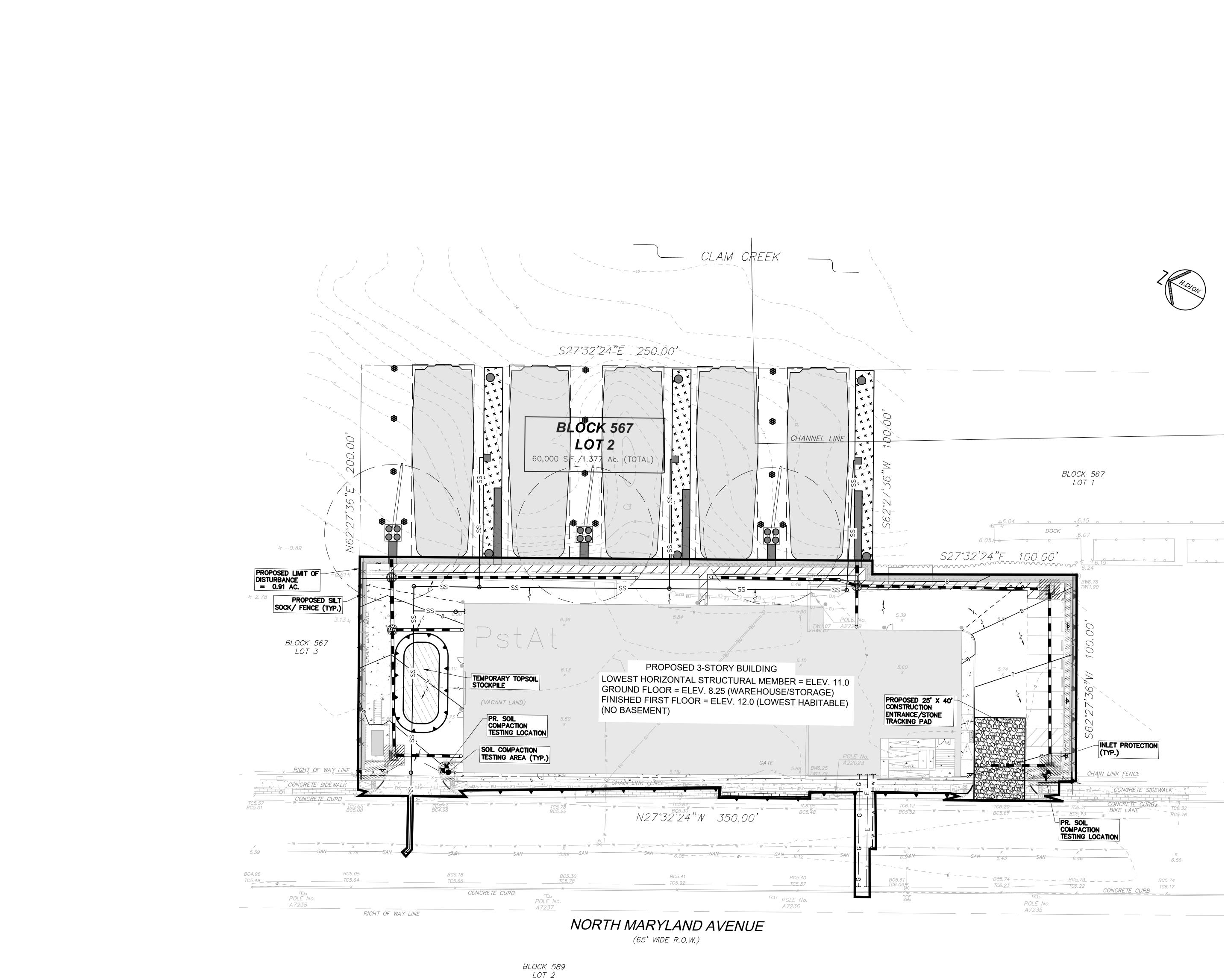
<u>NOTES:</u> 1. THE ENTIRE SITE IS WITHIN THE FLOOD HAZARD AREA. THE EXISTING AND PROPOSED FLOOD HAZARD AREA ARE THE SAME. 2. MEAN HIGH WATER ELEVATION INFORMATION TAKEN FROM NOAA TIDE GAGE STATION ID 8534720 (ATLANTIC SURVEY). USING THE 1983-2001 EPOCH. NOAA HAS ESTABLISHED ELEVATION 1.57 FEET (NAVD88) AS THE APPROXIMATE MEAN HIGH WATER ELEVATION.

LOT 2

- 3. THE LIMIT OF THE FLOOD HAZARD AREA AE ZONE AND HIGH WATER LINE SHOWN IS PER METHOD 2 FEMA TIDAL METHOD, BASED ON THE REVISED PRELIMINARY FEMA FLOOD INSURANCE RATE MAP FOR ATLANTIC COUNTY, NEW JERSEY, PANEL NUMBER 34001C03436, ISSUED JANUARY 30, 2015. THE FLOOD HAZARD AREA ELEVATION ON THE SITE BASED ON THE PRELIMINARY FEMA MAP IS 10' NAVD'88, EQUAL TO THE FLOOD ZONE AE ELEVATION PER N.J.A.C. 7:13-3.4(D).
- 4. THE STATE OF NEW JERSEY HAS DETERMINED THAT ALL OR A PORTION OF THIS LOT LIES IN A FLOOD HAZARD AREA AND/OR RIPARIAN ZONE. CERTAIN ACTIVITIES IN FLOOD HAZARD AREAS AND RIPARIAN ZONES ARE REGULATED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME ACTIVITIES MAY BE PROHIBITED ON THIS SITE OR MAY FIRST REQUIRE A FLOOD HAZARD AREA PERMIT. CONSULT WWW.NJ.GOV/DEP/LANDUSE OR CONTACT THE DIVISION OF LAND USE REGULATION AT (609) 777-0454 FOR MORE INFORMATION PRIOR TO ANY CONSTRUCTION ONSITE.
- 5. THE LOWEST HORIZONTAL STRUCTURAL MEMBER SHALL BE AT OR ABOVE ELVATION 11.0.
- 6. THE FINISH FLOOR SHALL BE 2 FEET ABOVE THE FLOODPLAIN. THE FLOODPLAIN IS AT ELEVATION 10.0. THEREFORE, THE FINISH FLOOR SHALL BE AT OR ABOVE ELEVATION 12.0 MINIMUM.
- 7. ALL IN-WATER IMPROVEMENTS SHALL BE IN ACCORDANCE WITH PLANS ENTITLED "FLOATING DOCK PROJECT FOR ATLANTIC SHORES OFFSHORE WIND, LLC" DATED DECEMBER 20, 2023, PREPARED BY S.T. HUDSON ENGINEERS, INC PROFESSIONAL ENGINEERS & CONSULTANTS & PLANS ENTITLED "FLOATING DOCK PROJECT BLOCK 567, LOT 2, CITY OF ATLANTIC CITY, NJ" DATED DECEMBER 20, 2023, PREPARED BY S.T. HUDSON ENGINEERS, INC PROFESSIONAL ENGINEERS & CONSULTANTS.

ZONE VE - ELEVATION 12.0 ZONE AE - ELEVATION 10.0 MEAN HIGH WATER ELEVATION = 1.57 (NAVD-88) MEAN LOW WATER ELEVATION = -2.45 (NAVD-88)







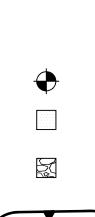
SOURCE: OCEANVILLE & ATLANTIC CITY QUADRANGLES SCALE: 1" = 1000'





LEGEND

SOIL COMPACTION TESTING LOCATION SOIL COMPACTION TESTING AREA CONSTRUCTION ENTRANCE / STONE TRACKING PAD



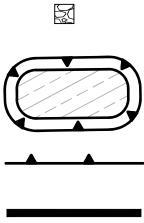
SILT FENCE

TOPSOIL STOCKPILE

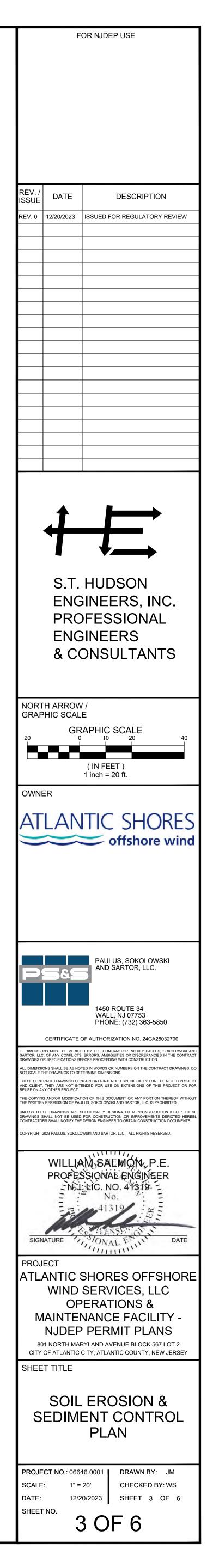
TEMPORARY

LIMIT OF DISTURBANCE

INLET PROTECTION



<u>NOTE:</u> LIMIT OF DISTURBANCE = 0.91 AC MINIMUM NUMBER OF SOIL COMPACTION TESTING LOCATIONS = 2 ENTIRE SITE CONSISTS OF PSTAT SOIL



CAPE ATLANTIC SOIL CONSERVATION NOTES

MINIMUM SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS DURING CONSTRUCTION OF SINGLE FAMILY DWELLINGS AND DUPLEXES, OR LAND GRADING AND DEMOLITION ACTIVITIES LESS THAN 1 ACRE.

- 1. ALL WORK MUST BE DONE IN ACCORDANCE WITH THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY". 7TH EDITION, JANUARY 2014, REVISED JULY 2017 2. CONTACT THE DISTRICT 48 HOURS IN ADVANCE OF THE START OF ANY LAND DISTURBANCE ACTIVITIES.
- REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED, OR TRACKED OFF THE PROJECT SITE. ALL PAVED RIGHTS-OF-WAY ADJACENT TO THE
- PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION. INSTALL CRUSHED STONE PAD(S) TO HELP REDUCE OFF-SITE TRACKING OF SEDIMENT
- 4. CONTROL THE WASHING OR BLOWING OF SEDIMENT OFF THE PROJECT SITE. INSTALL SEDIMENT BARRIERS TO HELP REDUCE OFF-SITE SEDIMENTATION. MEASURES TO CONTROL DUST AND WIND EROSION MUST BE UTILIZED (I.E., WETTING OF THE SITE)
- THE PROPERTY MUST BE GRADED IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION PROBLEMS ON THE PROJECT SITE, OR TO ADJACENT PROPERTIES, AREAS SUBJECT TO SOIL RESTORATION MEASURES MUST COMPLY WITH THE STANDARD FOR LAND GRADING. 3. SITE MUST BE PROPERLY MULCHED FOR NON-GROWING SEASONS USING STRAW MULCH @ 90-115 LBS./1,000 SQ. FT. (3 BALES), PROPERLY
- WHEN REQUIRED, SITE MUST BE SEEDED TO ESTABLISH A TEMPORARY VEGETATIVE COVER. PERENNIAL RYEGRASS @ 1 LB./1,000 SQ. FT. MAY BE
- UTII IZED . PREPARE AREAS TO BE PERMANENTLY VEGETATED BY TOPSOILING (A MINIMUM OF 5" IS REQUIRED), FERTILIZING @ 11LBS./1,000 SQ. FT. OF
- 10-20-10, AND APPLYING LIME @ 90 LBS./1,000 SQ. FT SEED THE SITE TO ESTABLISH A PERMANENT VEGETATIVE COVER UTILIZING A TURF-TYPE TALL FESCUE/PERENNIAL RYEGRASS MIX @ 6-8 LBS/1,000 SQ. FT., OR EQUIVALENT. APPLY STRAW MULCH @ 70-90 LBS./1,000 SQ. FT. (2 BALES), AND PROPERLY ANCHOR OR TACK. SOD, STONE COVER OR MULCHED LANDSCAPE BEDS MAY BE SUBSTITUTED FOR SEEDING TO ESTABLISH A PERMANENT COVER 0. DRIVEWAY MUST BE STABILIZED WITH A PERMANENT MATERIAL SUCH AS ASPHALT, CONCRETE, PAVING BLOCKS, CRUSHED STONE, CRUSHED
- CONCRETE OR DENSE GRADED AGGREGATE.
- 11. ALL SIDEWALKS, DRIVEWAY APRONS, AND CURBING IF REQUIRED BY THE MUNICIPALITY MUST BE COMPLETED. 12 A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT LIPON COMPLETION, REQUESTS FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE 5 WORKING DAYS IN ADVANCE. A REPORT OF COMPLETE COMPLIANCE IS ISSUED WHEN PERMANENT EROSION CONTROLS HAVE BEEN ADDRESSED A REPORT OF CONDITIONAL COMPLIANCE MAY BE ISSUED WHEN THE SEASON OR OTHER CONDITIONS MAY NOT BE SUITABLE FOR ESTABLISHING A PERMANENT VEGETATIVE COVER. A CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED BY A MUNICIPALITY UNLESS THE DISTRICT HAS ISSUED A REPORT OF COMPLIANCE. THIS APPLIES TO BOTH THE COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES
- 3. THE "SOIL COMPACTION MITIGATION VERIFICATION FORM" MUST BE SUBMITTED TO THE DISTRICT PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE WHEN YOUR SOIL EROSION AND SEDIMENT CONTROL PLAN DENOTES AREAS OF THE SITE THAT ARE SUBJECT TO SOIL COMPACTION MITIGATION (TESTING, AND/OR REMEDIATION).
- 14. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE BECAUSE OF CONSTRUCTION OF THE PROJECT.
- 15. THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY
- 16. ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET (WHERE APPLICABLE) OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH A SEDIMENT BARRIER
- 17. THE FOLLOWING "SEQUENCE OF CONSTRUCTION" MUST BE FOLLOWED:
- 1. INSTALLATION OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES. 2. CONSTRUCTION OF DWELLING (WHERE APPLICABLE). 3. INSTALLATION OF DRAINAGE MEASURES (WHERE APPLICABLE)
- 4. IMPLEMENTATION OF SOIL RESTORATION MEASURES (WHERE APPLICABLE). 5. INSTALLATION OF A PERMANENT COVER.
- 6. REMOVAL OF SOIL EROSION AND SEDIMENT CONTROL MEASURES 7. RECEIVE CERTIFICATE OF COMPLIANCE FROM CAPE ATLANTIC CONSERVATION DISTRICT.

DUST CONTRO

DEFINITION THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

PURPOSE TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCED ON-SITE AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY

CONDITION WHERE PRACTICE APPLIES THIS PRACTICE IS APPLICABLE TO AREA 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.

SEDIMENT 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.

<u>PLANNING CRITERIA</u> THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, PG. 5-1. MULCHES

SEE STANDARD FOR: TEMPORARY VEGETATIVE COVER, PG. 7-1, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, VEGETATIVE COVER PG. 4-1, AND PERMANENT STABILIZATION WITH SOD, PG. 6-1.

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

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 USED TO CONTROL AIR CURRENTS AND SOIL BLOWING SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED CALCIUM CHLORIDE 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

STONE COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

Т	ABLE 16-1: 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
POLYARYLAMIDE (PAM) SPRAY ON	USED AS AN ADDITI	MANUFACTURER'S INSTRUVE TO SEDIMENT BASINS T	O FLOCCULATE AND
POLYARYLAMIDE (PAM) DRY SPREAD	PRECIPITATE SUSPENDE	D COLLOIDS. SEE SEDIMEN 26-1.	NT BASIN STANDARD, PG.
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

CONSTRUCTION SEQUENCE

CONTACT THE CAPE ATLANTIC SOIL CONSERVATION DISTRICT AT (609) 625-3144 A MINIMUM OF 72 HOURS PRIOR TO ANY SOIL DISTURBANCE TO ARRANGE A PRECONSTRUCTION MEETING.

- THE ORIGINAL CAPE ATLANTIC SOIL CONSERVATION DISTRICT CERTIFICATION AND PLANS MUST BE AVAILABLE AT THE SITE AT ALL TIMES.
- INSTALL SOIL EROSION AND SEDIMENT CONTROL MEASURES IE:SEDIMENT FENCE, INLET PROTECTION, TOPSOIL STOCKPILE, CONSTRUCTION ENTRANCE, STAGING AREA. DISTURB ONLY THE MINIMUM AREA NEEDED TO INSTALL ALL MEASURES
- 4. DEMOLISH EXISTING PAVEMENT AND STRUCTURES ON SITE.
- 5. INSTALL UTILITIES INCLUDING STORMWATER MANAGEMENT FACILITIES.
- 6. INSTALL BASE ASPHALT PAVEMENT AND CURBS. 7. CONSTRUCT BUILDING.
- 8. CONSTRUCT FINISH ASPHALT PAVEMENT AND SIDEWALKS.
- 9. GRADE, TOPSOIL, FERTILIZE AND SEED IN ACCORDANCE WITH PERMANENT SEEDING STANDARDS ALL DISTURBED

10. REMOVE SOIL EROSION CONTROL MEASURES.

11. CONTACT CAPE ATLANTIC SOIL CONSERVATION DISTRICT FOR FINAL INSPECTION. 12. RECEIVE CERTIFICATE OF COMPLIANCE FROM CAPE ATLANTIC SOIL CONSERVATION DISTRICT.

NOTE: SEQUENCE OF CONSTRUCTION IS APPROXIMATE AND IS SUBJECT TO WEATHER CONDITIONS, LABOR AND MATERIAL AVAILABILITY

		PERMANENT
l.	SEEI A. B.	D PREPARATION. UNIFORMLY APPLY GROUND LIMESTONE ACCORDING TO SOIL TEST RECOMMENT SOIL SAMPLE MAILERS ARE AVAILABLE (HTTP://NJAES.RUTGERS.EDU/COUNTY/). OR 11 POUNDS PER 1,000 SQUARE FEET UNLESS A SOIL TEST INDICATES OTHERW NOT INCORPORATED, APPLY ONE-HALF REPEAT ANOTHER ONE-HALF RATE APP SEEDING. WORK LIME AND FERTILIZER INTO THE TO SPRING TOOTH HARROW, OR OTHER SL SHOULD BE ON THE GENERAL CONTOL PREPARED.
2.		DING DING TABLE FOR ZONE 6B
_AWI	A. N ARE	SEEDING SHALL BE PERFORMED BETWEE AS:
		GRASS TYPE
	HAI	RD FESCUE
	CHI	EWINGS FESCUE
	STF	RONG CREEPING RED FESCUE
	PEF	RENNIAL RYE GRASS
NOC	DED	AREAS:
		GRASS TYPE
	TAL	L FESCUE
	STF	RONG CREEPING RED FESCUE
	PEF	RENNIAL RYE GRASS
	FLA	TPEA
	В.	CONVENTIONAL SEEDING IS PERFORMED SEEDER, DROP SEEDER, DRILL OR C CULTIPACKED SEEDINGS, SEED SHALL

WEEK TO WEEK

0 1

1 2

2 4

7 11

11 13

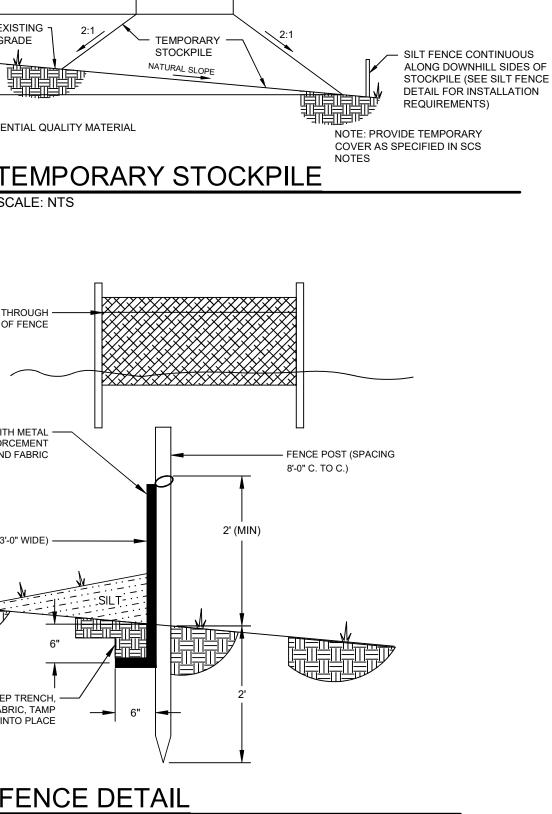
24 25

- -

23 24

- INCH DEEPER ON COARSE-TEXTURED SOIL.
- BE MAXIMIZED.
- REDUCED SEED GERMINATION AND GROWTH. 3. MULCHING
- ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

THIS PLAN IS VALID FOR SOIL EROSION AND SEDIMENT CONTROL MEASURES ONLY

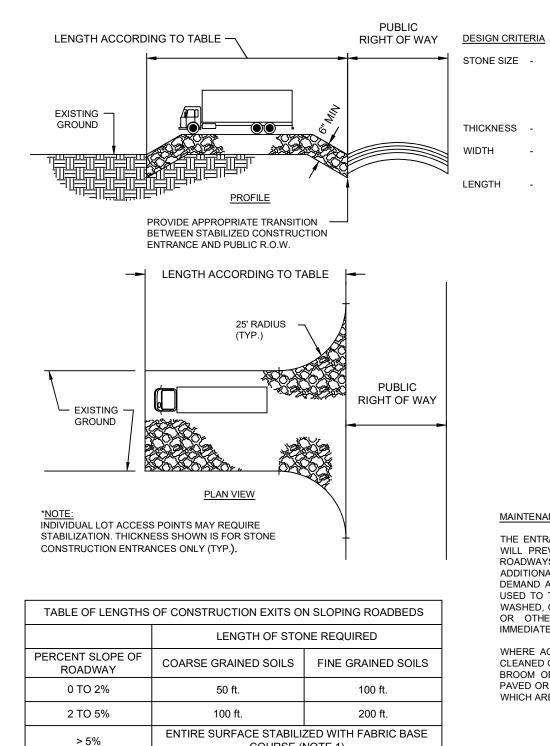


FXISTING

MAX HEIGHT: GRADE

CHECK SCD

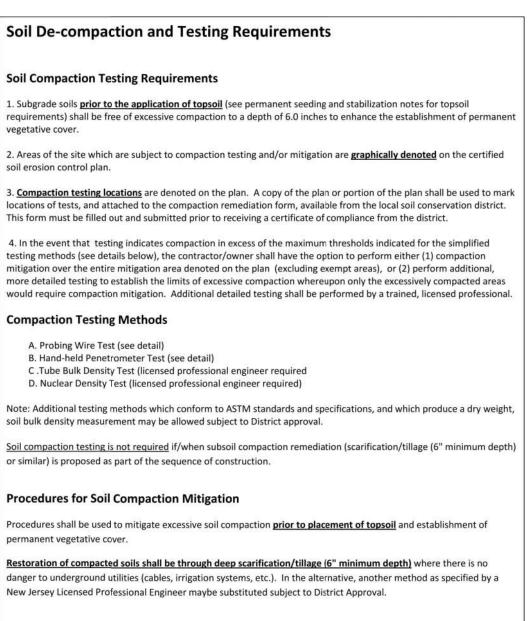
REQUIREMENTS



1. AS PRESCRIBED BY LOCAL ORDINACE OR OTHER GOVERNING AUTHORITY

STABILIZED CONSTRUCTION ACCESS

COURSE (NOTE 1)



SEEDING SPECIFICATIONS

AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, DATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION E FORM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICES FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN VISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND PLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER OPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, UITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION UR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS

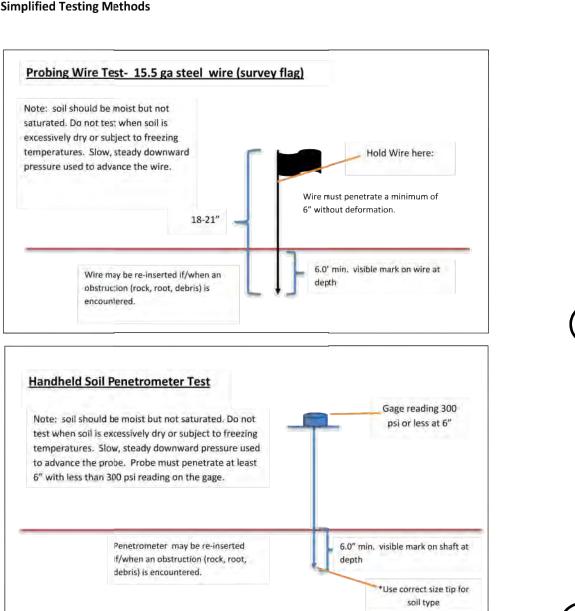
EN MARCH 1 AND APRIL 30 OR AUGUST 15 AND OCTOBER 15.

RATE	
3 LBS/1000 SF OR 130 LBS/ACRE	
1 LBS/1000 SF OR 45 LBS/ACRE	
1 LBS/1000 SF OR 45 LBS/ACRE	
.25 LBS/1000 SF OR 10 LBS/ACRE	

RATE	
.7 LBS/1000 SF OR 30 LBS/ACRE	
.7 LBS/1000 SF OR 30 LBS/ACRE	
.7 LBS/1000 SF OR 30 LBS/ACRE	
.6 LBS/1000 SF OR 25 LBS/ACRE	

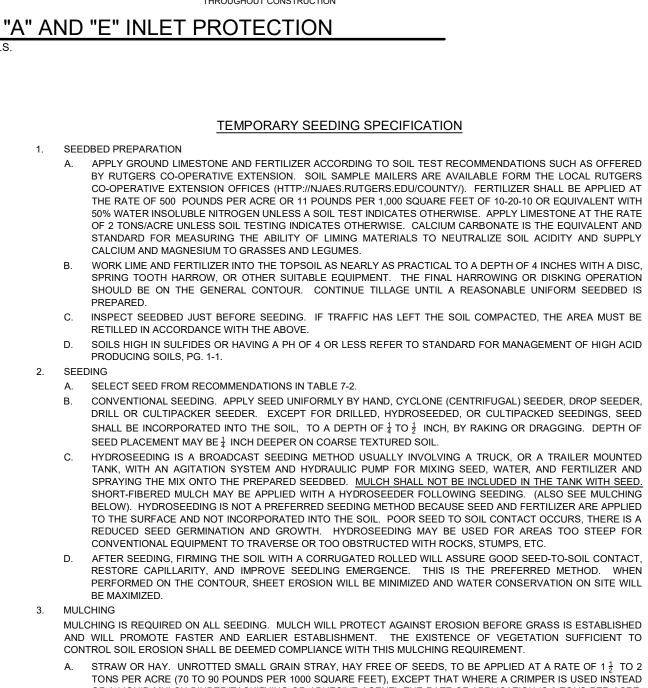
D BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED, OR BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF $\frac{1}{4}$ TO $\frac{1}{2}$ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE $\frac{1}{4}$ C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLED 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 D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR A TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER, AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE 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 CONTACT OCCURS, THERE IS A

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 STRAY, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF 1 ½ TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1000 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 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 SECTION AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

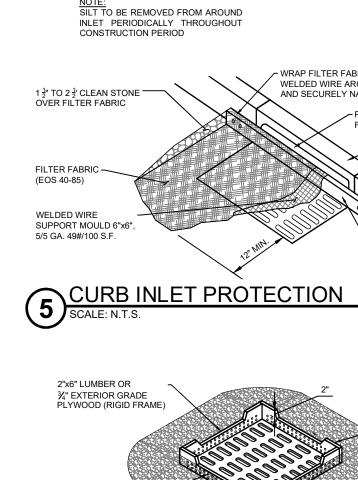


ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS. 1 PEG AND TWINE DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

- 2. MULCH NETTINGS STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. 3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS
- LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED. 4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY, OR STRAW MULCH. a. APPLICATION SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
- b. USE ONE OF THE FOLLOWING: (1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURF GRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE
- (2) SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND, FOLLOWING APPLICATION OF MULCH, DRYING AND CURING, SHALL NO LONGER BY SOLUBLE OR DISPERSIBLE IN WATER. BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL THE 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 FIBER 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 ERIODS IN THE SPRING AND FALL.
- C. PELLETIZED MULCH COMPRESESD AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLUMERS, 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 POUNDS PER 1000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED. OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

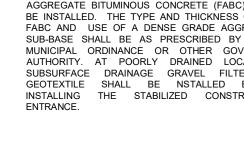


STEEPNESS OF SLOPES, AND COSTS



1%" TO 2%" CLEAN STONE

AROUND ENTIRE PERIMETER



STONE SIZE

MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES JSED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO ROADWAYS (PUBLIC OR PRIVATE OR OTHER IMPERVIOUS SURFACES MUST BE REMOVED IMMEDIATEL WHERE ACCUMULATION OF DUST/SEDIMENT IS INADEQUATELY

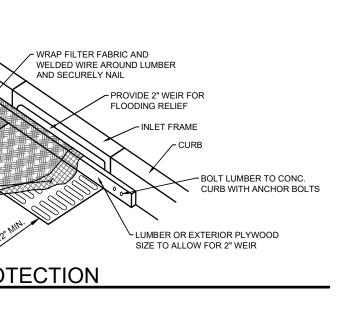
CLEANED OR REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER WILL BE REQUIRED TO CLEAN PAVED OR IMPERVIOUS SURFACES. ALL OTHER ACCESS POINTS WHICH ARE NOT STABILIZED SHALL BE BLOCKED OFF.

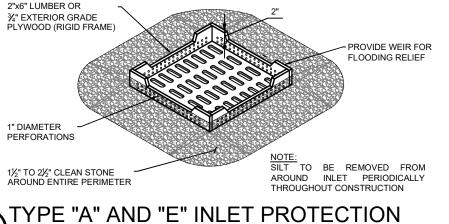
							SI	ILT
E ASTM C-33, SIZE No. 2 (2 1/2 TO 1 1/2") OR 3 (2 TO USE CLEAN CRUSHED ANGULAR STONE. CRUSHED NCRETE OF SIMILAR SIZE MAY BE SUBSTITUTED T WILL REQUIRE MORE FREQUENT UPGRADING	SECTION VIEW	<u>Table 2</u>	Recomments	nded spacing	and diamet	er require-	1.	
D MAINTENANCE.			Maximum sock in ft (slope length (m)	above com	post filter		
T LESS THAN SIX (6) INCHES.			Diameter	of compost f	ilter sock re	quired		
T LESS THAN FULL WIDTH OF POINTS OF INGRESS EGRESS.	FLOW	Slope %	8-inch (200-mm)	12-inch (300-mm)	18-inch (450-mm)	24-inch (600-mm)	2.	
FEET MINIMUM WHERE THE SOILS ARE COURSE AINED (SANDS OR GRAVEL) OR 100 FEET MINIMUM		2 (or less)	300 (90)	375 (110)	500 (150)	650 (200)		
HERE SOILS ARE FINE GRAINED (CLAYS OR SILTS), CEPT WHERE TRAVELED LENGTH IS LESS THAN 50		5	200 (60)	250 (75)	275 (85)	325 (100)	3.	
100 FEET RESPECTIVELY. THESE LENGTHS MAY BE		10	100 (30)	125 (35)	150 (45)	200 (60)		
REASED WHERE FIELD CONDITIONS DICTATE. ORMWATER FROM UP-SLOPE AREAS SHALL BE		15	70 (20)	85 (25)	100 (30)	160 (50)		
/ERTED AWAY FROM THE STABILIZED PAD (SEE TANDARDS FOR SOIL EROSION AND SEDIMENT	INSTALLATION	20	50 (15)	65 (20)	70 (20)	130 (40)		
NTROL IN NJ" FOR DIVERSIONS, PG. 15-1). WHERE	\wedge	25	40 (12)	50 (15)	55 (16)	100 (30)		
/ERSION IS NOT POSSIBLE, THE LENGTH OF THE ABILIZED PAD SHALL BE AS SHOWN IN TABLE		30	30 (9)	40 (12)	45 (13)	65 (20)	4.	
LOW. WHERE THE SLOPE OF THE ACCESS ROAD CEEDS 5%, A STABILIZED BASE COURSE OF FINE		35	30 (9)	40 (12)	45 (13)	55 (18)		
GREGATE BITUMINOUS CONCRETE (FABC) SHALL		40	30 (9)	40 (12)	45 (13)	50 (15)	5.	•
INSTALLED. THE TYPE AND THICKNESS OF THE BC AND USE OF A DENSE GRADE AGGREGATE	↓ AREA TO BE ▼ PROTECTED	45	20 (6)	25 (8)	30 (9)	40 (12)		
B-BASE SHALL BE AS PRESCRIBED BY LOCAL INICIPAL ORDINANCE OR OTHER GOVERNING THORITY. AT POORLY DRAINED LOCATIONS,		50	20 (6)	25 (8)	30 (9)	35 (10)	6.	
BSURFACE DRAINAGE GRAVEL FILTER OR OTEXTILE SHALL BE NSTALLED BEFORE STALLING THE STABILIZED CONSTRUCTION TRANCE.		ring, the co	ompost filte	on enclosure er sock shou ot be filled b	ild be place	d on level		
-	DISCHARGE TO SEDIMENT TRAPPING DEVICE AS NEEDED	its volumet	tric capacit	y. Compost lumetric de	filter socks	may be		

ASILT SOCK DETAIL

(INSTALLATION NOTES: TO INSTALLATION. CLEAR ALL

- FRUCTIONS INCLUDING ROCKS CLODS AND RIS GREATER THAN ONE INCH THAT MAY RFERE WITH PROPER AND COMPLETE UND CONTACT AND FUNCTION OF FILTER
- TUBULAR CASING UNIFORMLY WITH SAND ERIAL TO DESIRED LENGTH SUCH THAT LOGS OT DEFORM.
- ALL SILT SOCKS PERPENDICULAR TO THE DIRECTIONS AND PARALLEL TO CONTOUR THE BEGINNING AND END OF THE LLATION POINTING SLIGHTLY UP THE SLOPE TING A "J" SHAPE. THE LOWER END SHALL SEDIMENT TRAPPING DEVICE INSTALLED OR LE OUTFALL FOR CLEAN WATER.
- UNTRENCHED INSTALLATION, ENSURE IPLETE GROUND CONTACT. MORE THAN ONE SILT SOCK IS NEEDED,
- RLAP ENDS A MINIMUM OF 12 INCHES. OVE ACCUMULATED SEDIMENT TO MAINTAIN TIVE FLOW ALONG THE LENGTH OF THE SILT UNDERMINING OR SCOUR MUST BE
- AIRED IMMEDIATELY. IF UNDERMINING OF URING CONTINUES ANOTHER METHOD OF ER HANDLING SHOULD BE CONSIDERED, SILT S WHICH ARE DAMAGED, TORN, RIPPED OR IPRESSED OUT OF SHAPE NEED TO BE AIRED OR REPLACED.
- SOCK SHALL BE A MINIMUM OF 6" DIAMETER AS SPECIFIED BY THE SOIL CONSERVATION



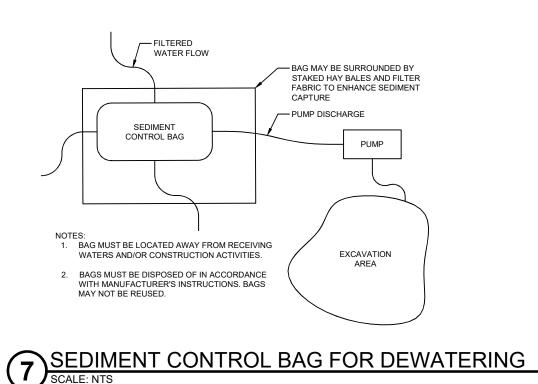


TEMPORARY SEEDING SPECIFICATION

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FORM THE LOCAL RUTGERS CO-OPERATIVE 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 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES. B. WORK LIME AND FERTILIZER INTO THE 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 C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE. D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID

A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7-2. B. CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED, OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF $\frac{1}{4}$ TO $\frac{1}{2}$ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1 INCH DEEPER ON COARSE TEXTURED SOIL C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR A TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER, AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE MULCHING BELOW). 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, THERE IS A REDUCED SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC. D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLED WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN

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 FROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT. A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAY, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF $1\frac{1}{2}$ TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1000 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 SECTION 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,



1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS. 2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. 3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW. ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED. 4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY, OR STRAW MULCH a. APPLICATION SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE. b. USE ONE OF THE FOLLOWING

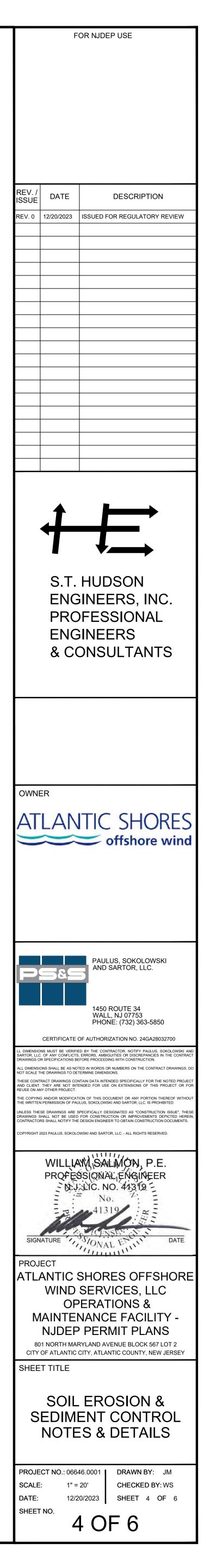
(1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS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

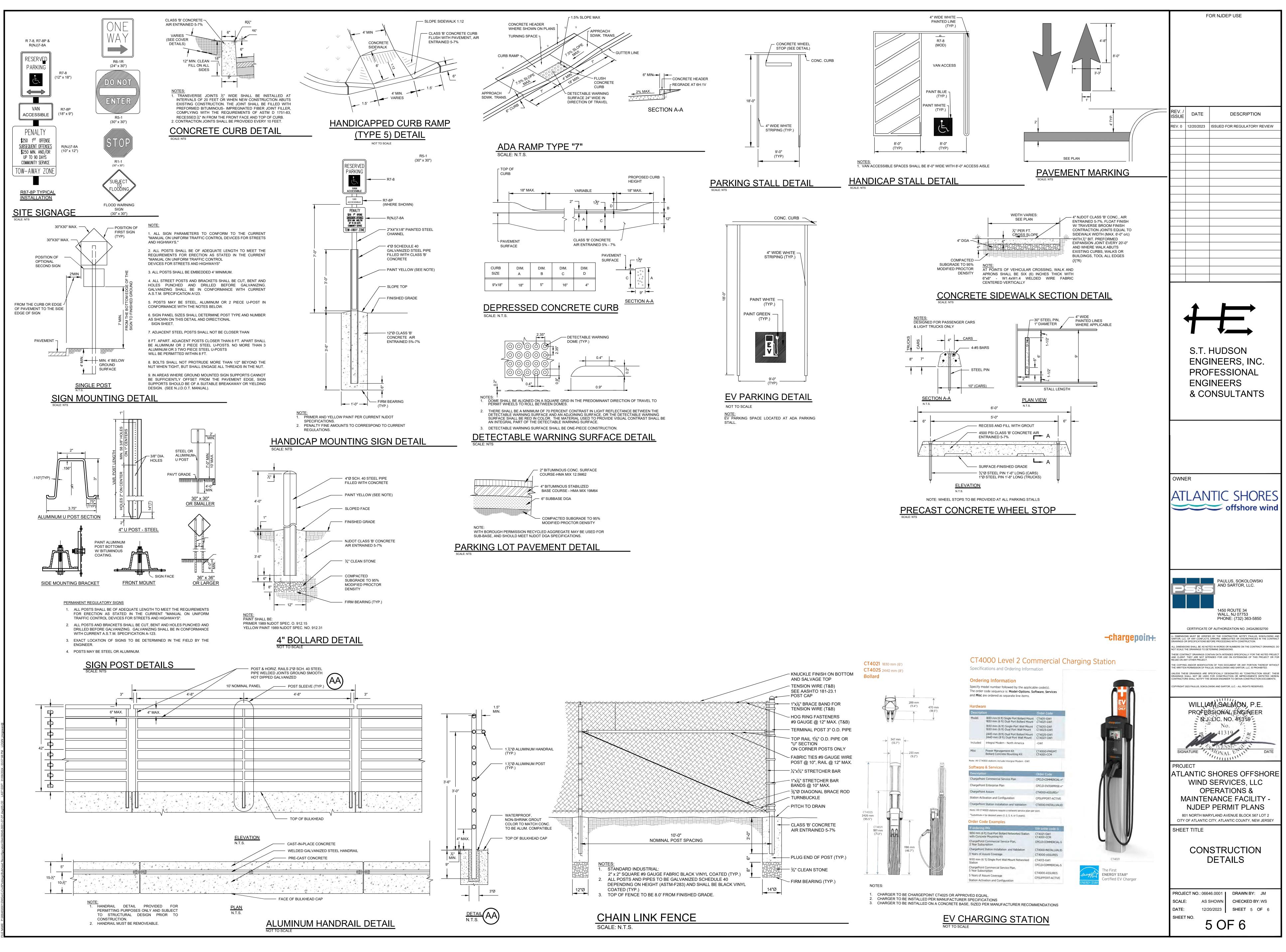
RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS. B. WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBER OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. <u>MULCH SHALL NOT</u> <u>BE MIXED IN THE TANK WITH SEED.</u> USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN THE SPRING AND FALL PELLETIZED MULCH - COMPRESESD AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT. WHICH MAY CONTAIN CO-POLUMERS, 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

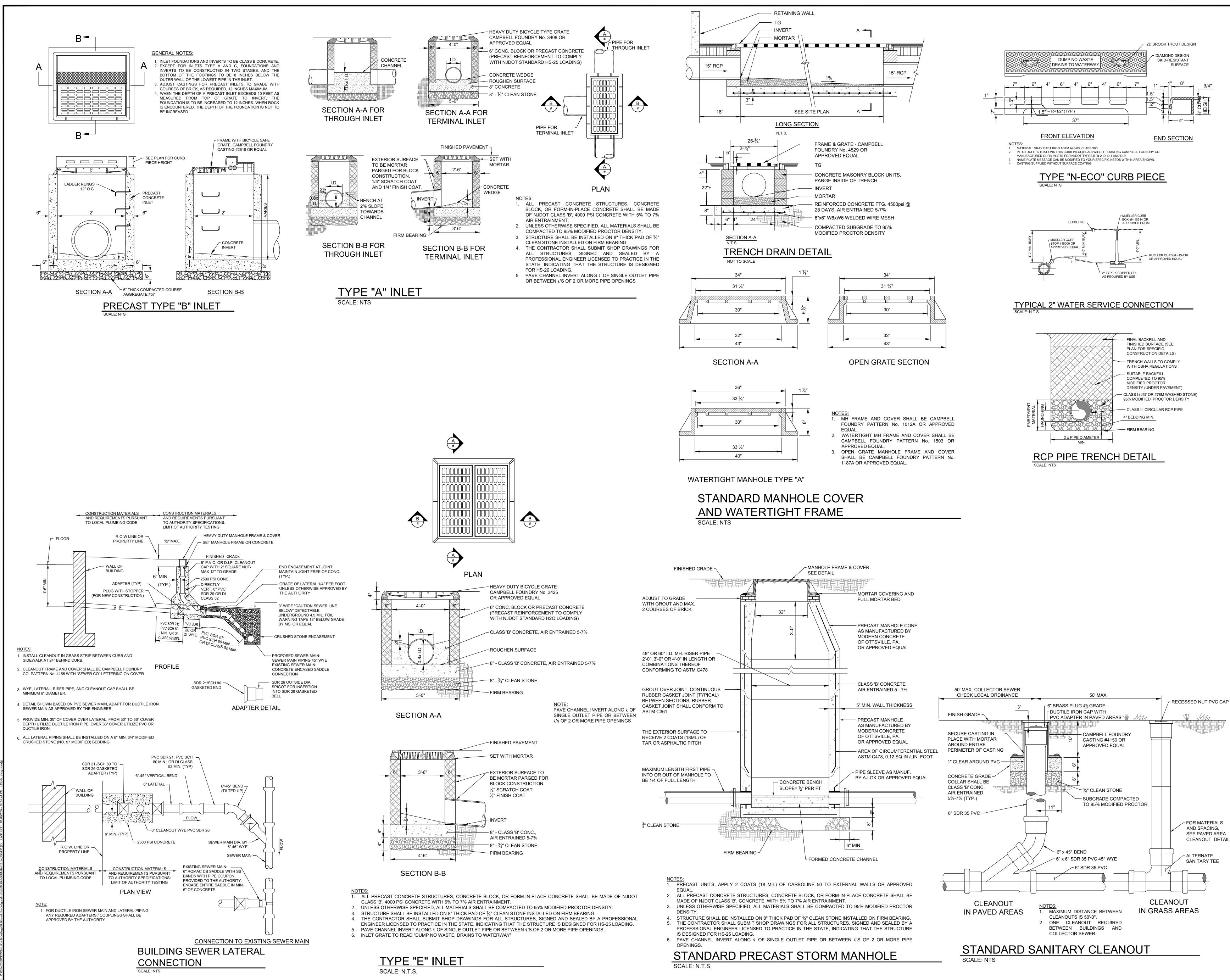
RATE OF 60-75 POUNDS PER 1000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE. TABLE 7-2

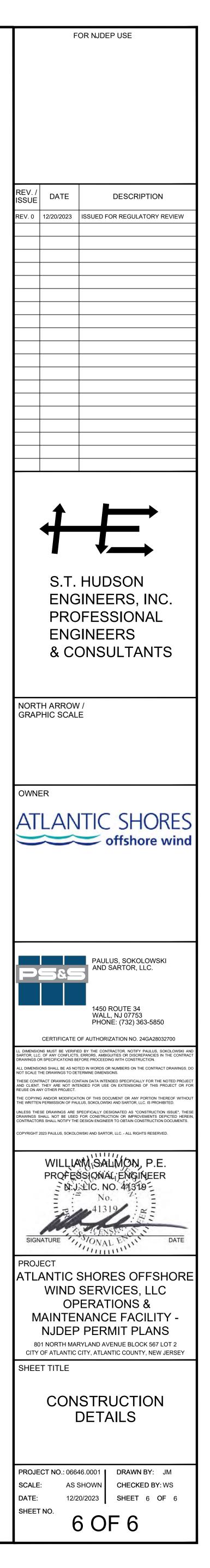
SEED SELECTIONS	SEEDING	G RATE ⁽¹⁾		M SEEDING		
	(POU	NDS)		DINESS ZC		DEPTH ⁽⁴⁾
	PER	PER	ZONE	ZONE	ZONE	(INCHES)
	ACRE	1000 SF	5b, 6a	6b	7a, 7b	(- /
COOL SEASON GRASSES						
1. PERENNIAL RYEGRASS	100	1.0	3/15-6/1	3/1-5/15	2/15-5/1	0.5
			8/1-9/15		8/15-10/15	
2. SPRING OATS	86	2.0	3/15-6/1	3/1-5/15	2/15-5/1	1.0
			8/1-9/15	8/15-10/1	8/15-10/15	
3. WINTER BARLEY	96	2.2	8/1-9/15	8/15-10/1	8/15-10/15	1.0
4. ANNUAL RYEGRASS	100	1.0	3/15-6/1	3/15-6/1	2/15-5/1	0.5
			8/1-9/15	8/1-9/15	8/15-10/15	
5. WINTER CEREAL RYE	112	2.8	8/1-11/1	8/1-11/15	8/1-12/15	1.0
WARM SEASON GRASSES						
6. PEARL MILLET	20	0.5	6/1-8/1	5/15-8/15	5/1-9/1	1.0
7. MILLET (GERMAN OR HUNGARIAN)	30	0.7	6/1-8/1	5/15-8/15	5/1-9/1	1.0
(1) SEEDING RATE FOR WARM SEASON G PURE LINE SEED (PLS) AS DETERMINEE SEASON GRASSES. (2) MAY BE PLANTED THROUGHOUT SUMM	BY A GERM	INATION TES	ST RESULT. N	IO ADJUSTME	NT IS REQUIR	ED FOR COOL

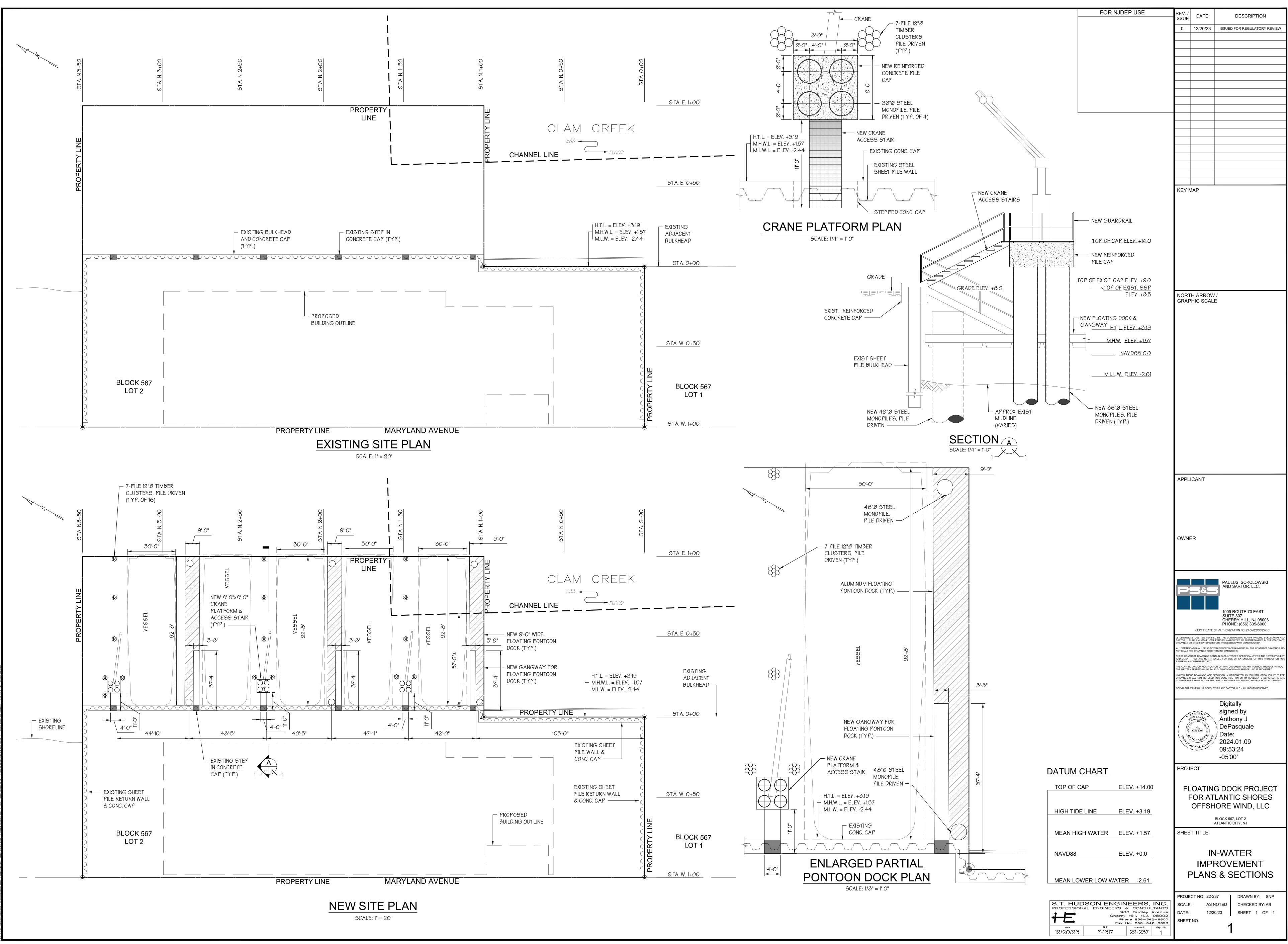
(3) PLANT HARDINESS ZONE (SEE FIGURE 7-1, PG. 7-4) OF "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY 2014. (4) TWICE THE DEPTH FOR SANDY SOILS





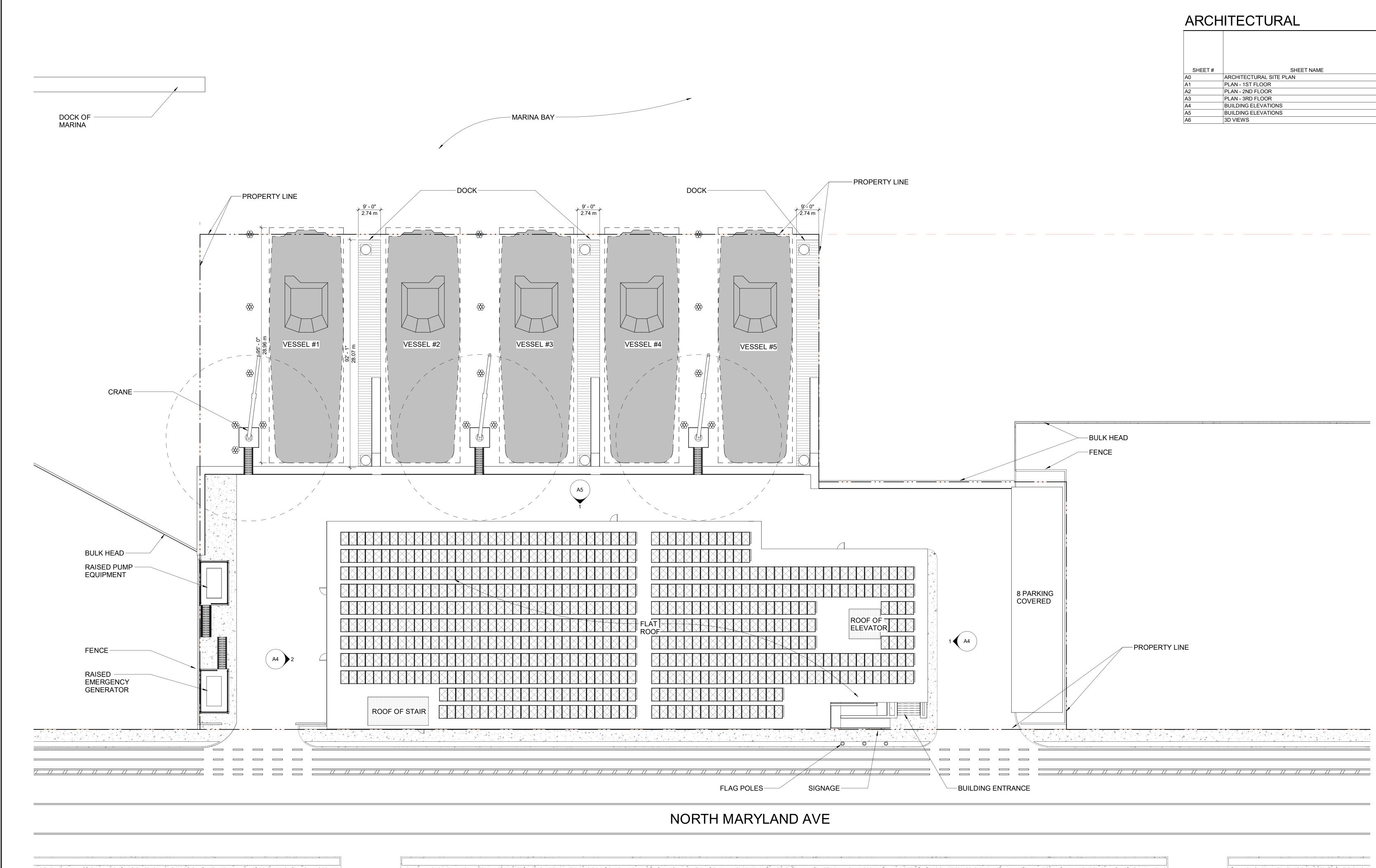






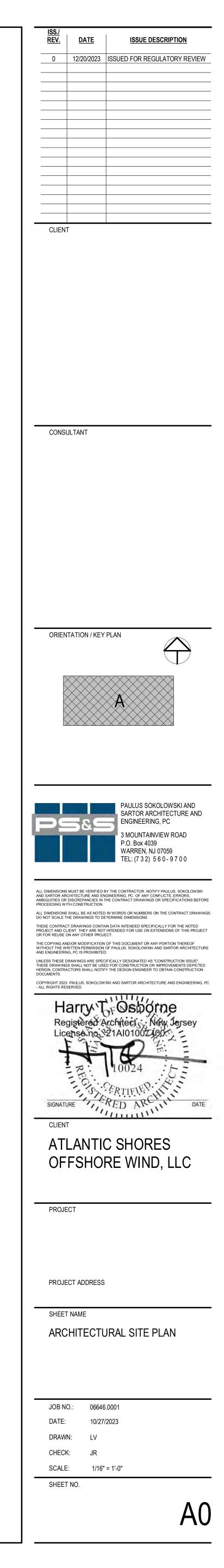


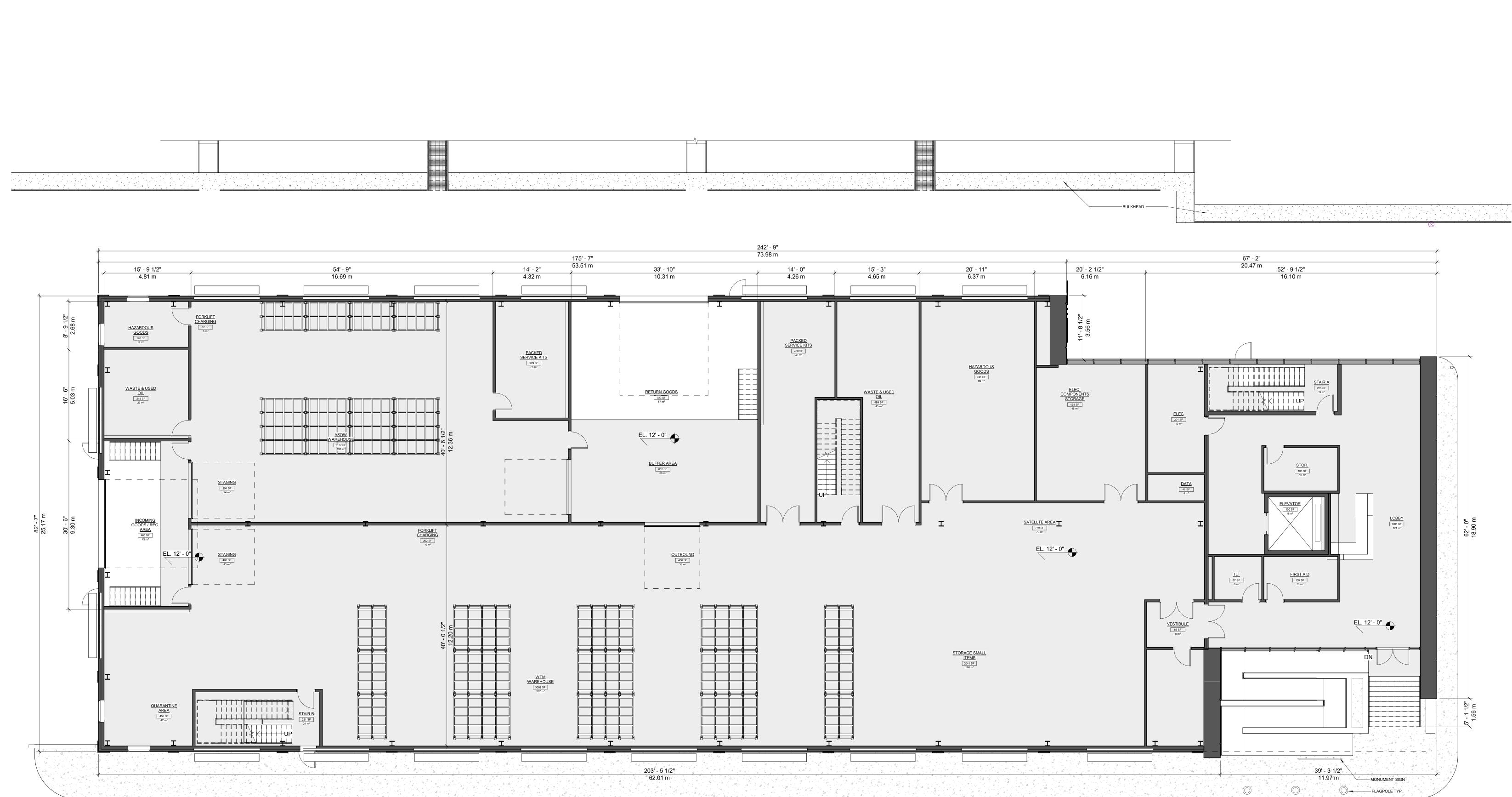




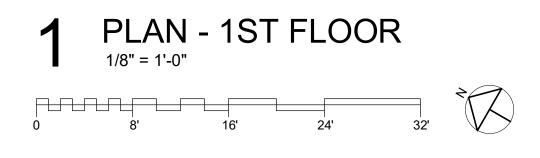


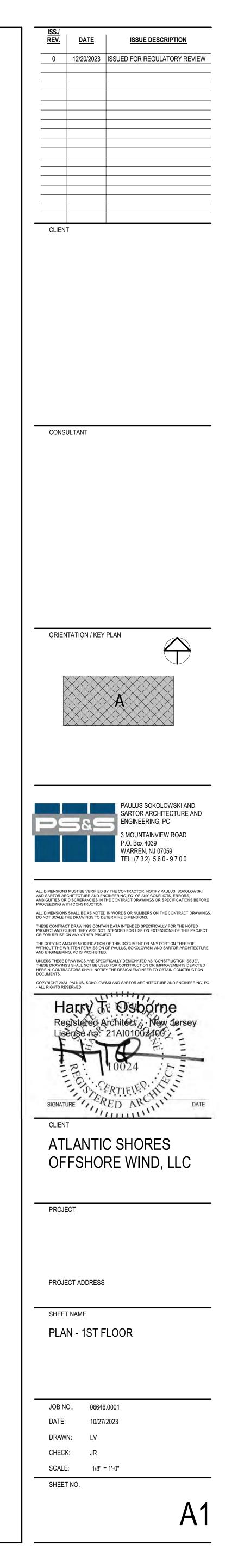
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SHEET #	SHEET NAME	12/
A0	ARCHITECTURAL SITE PLAN	•
A1	PLAN - 1ST FLOOR	•
A2	PLAN - 2ND FLOOR	•
A3	PLAN - 3RD FLOOR	•
A4	BUILDING ELEVATIONS	•
A5	BUILDING ELEVATIONS	•
A6	3D VIEWS	•

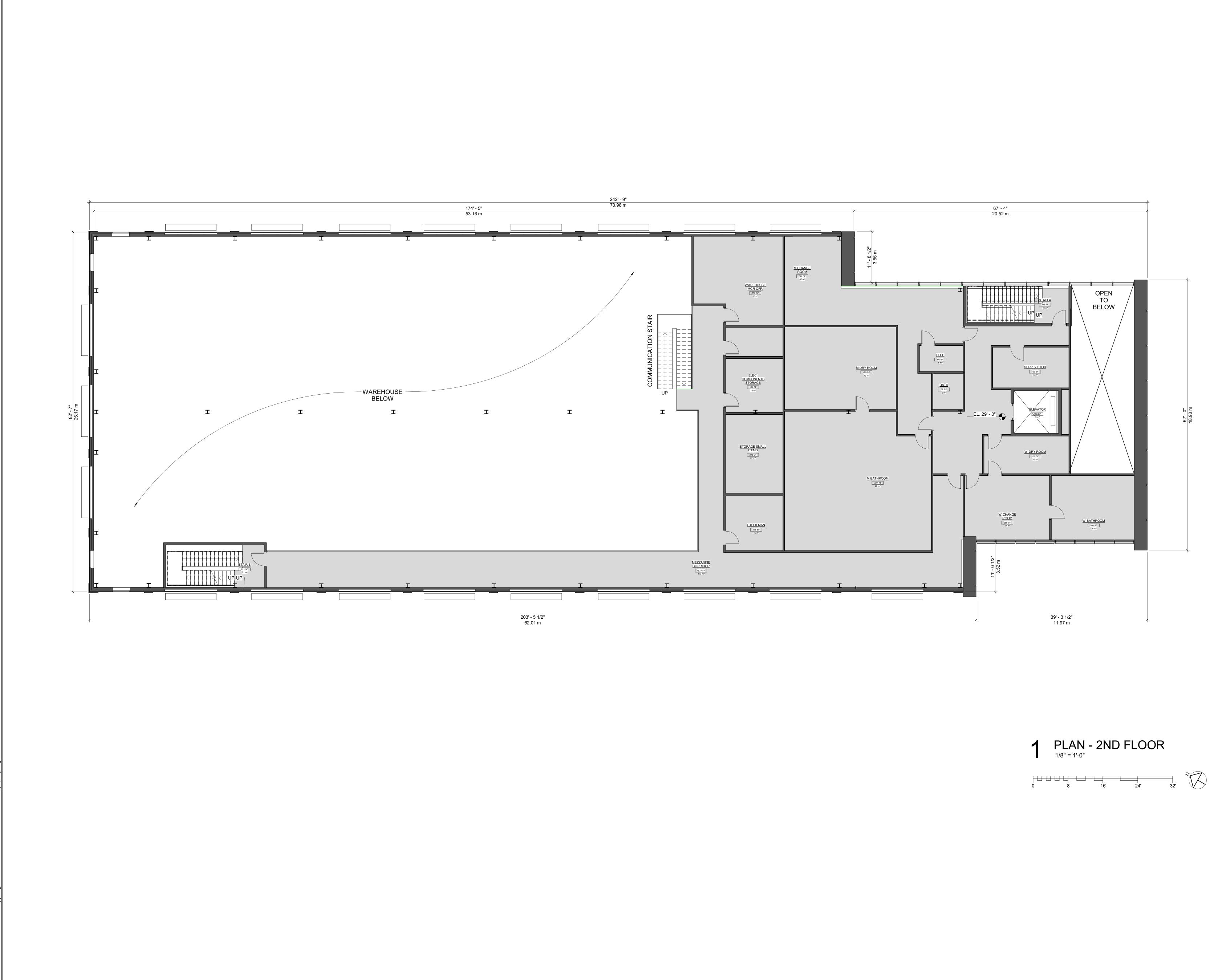










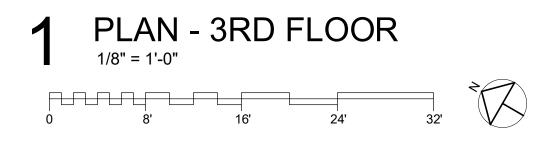


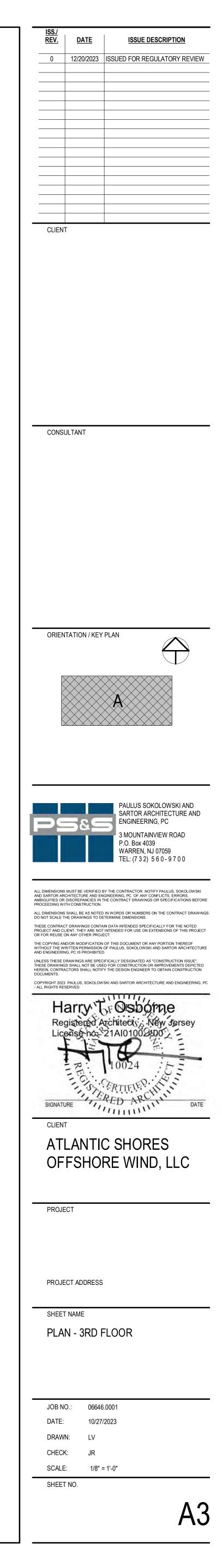
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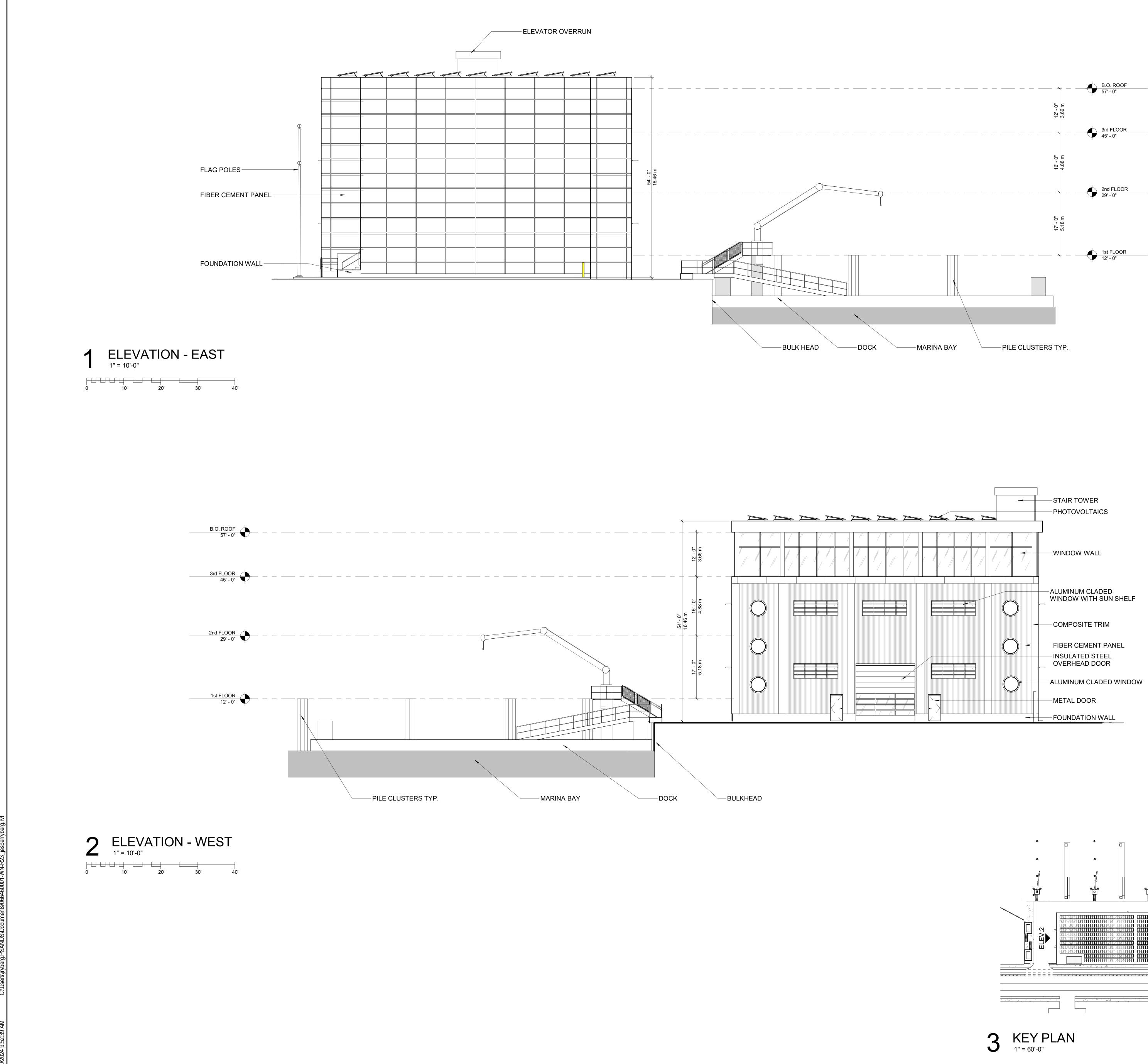
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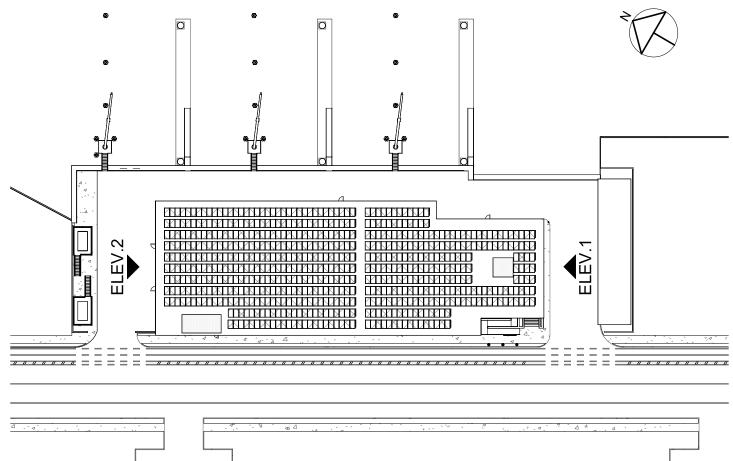


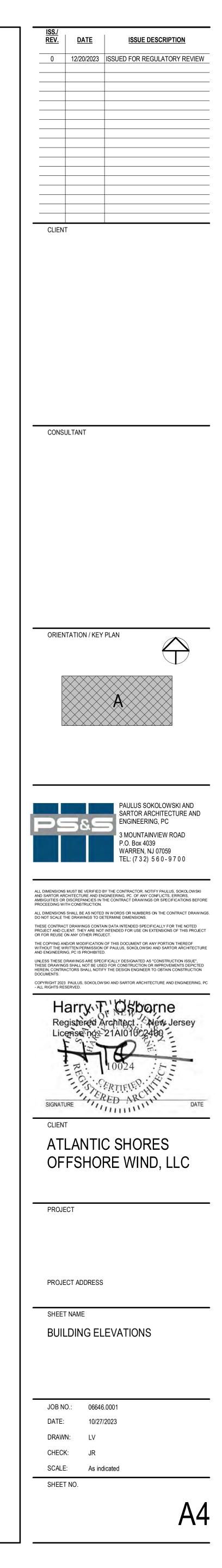


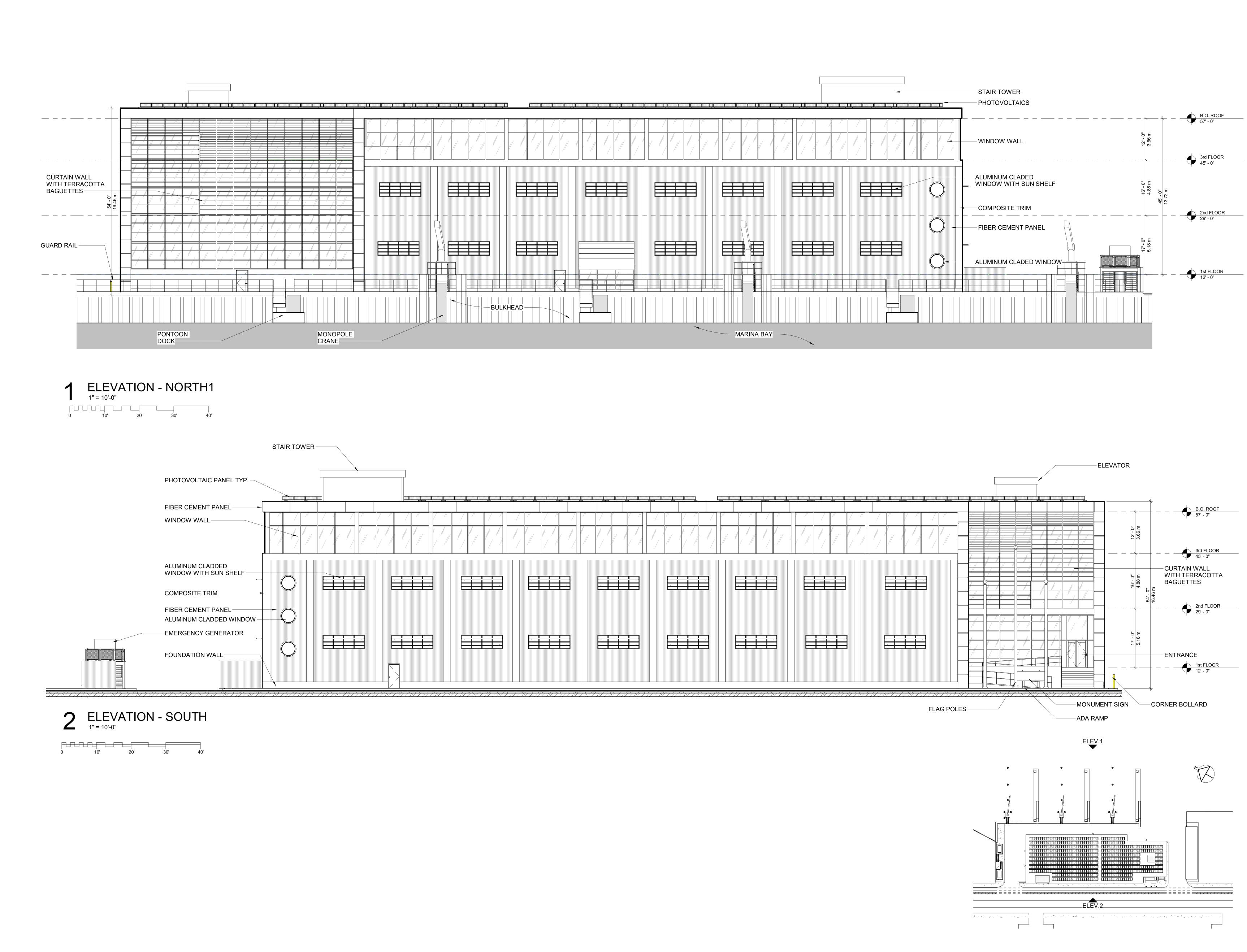




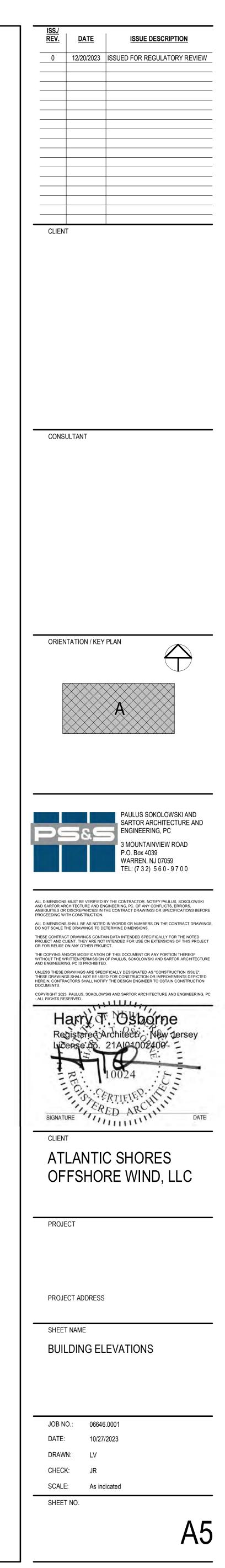


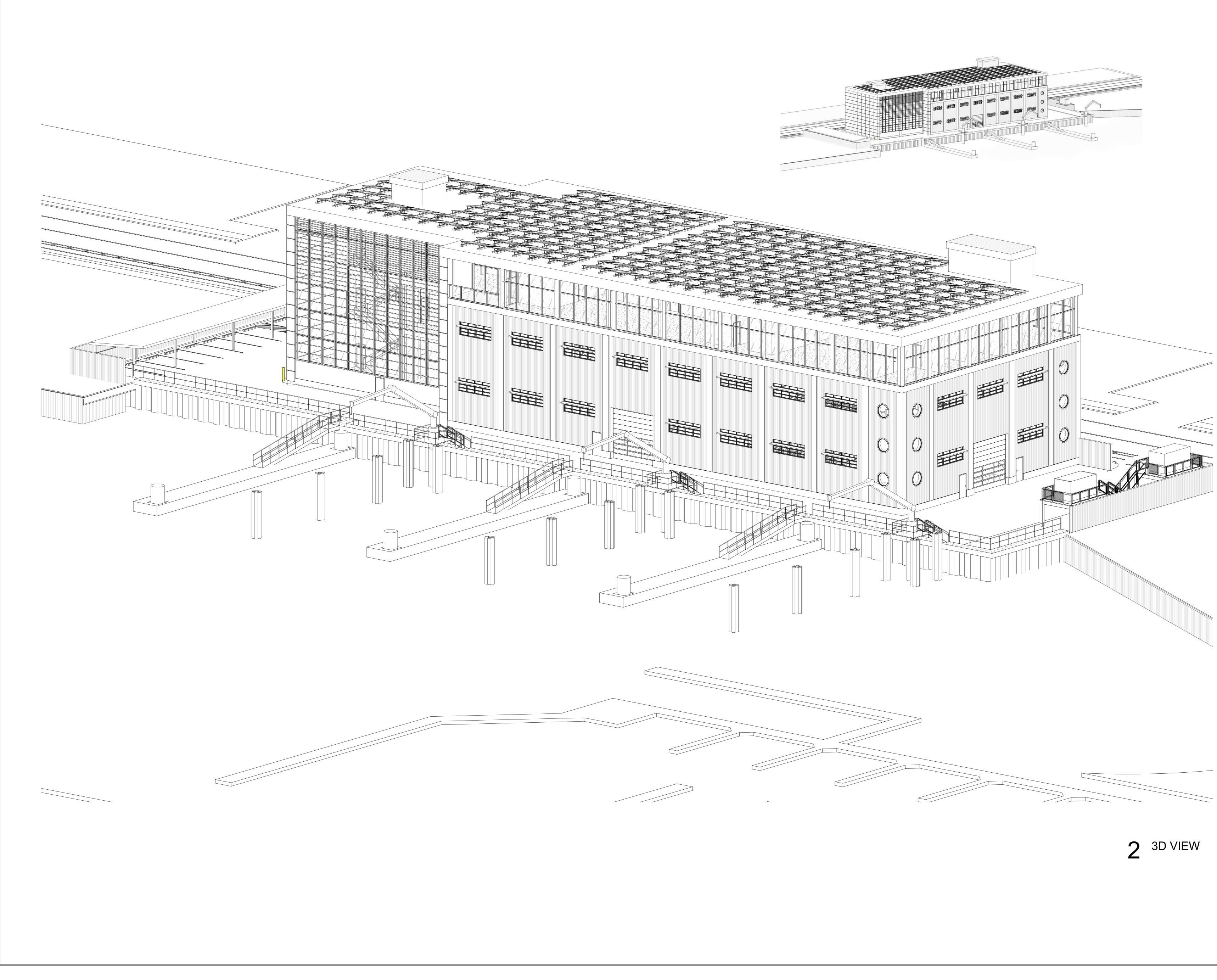


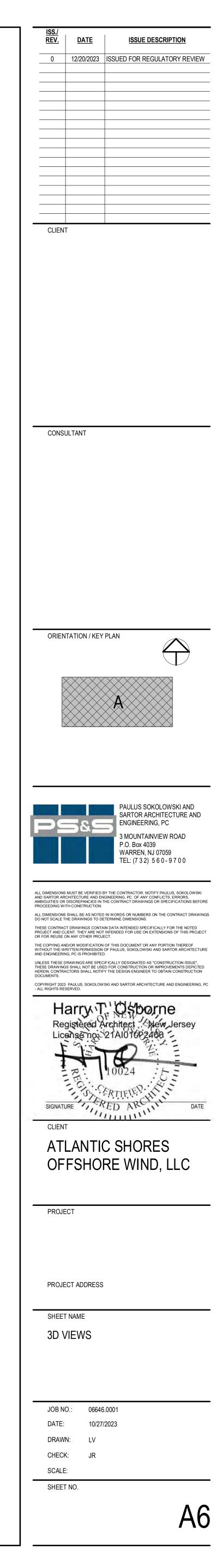




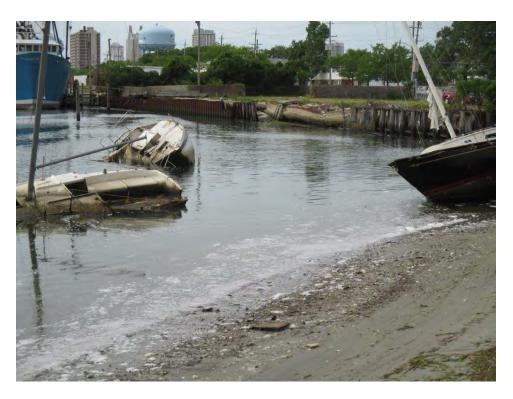
**KEY PLAN** 1" = 60'-0"







ATTACHMENT F
Site Photographs and Photo Location Map



Photograph 1 – General view of existing bulkhead, as viewed from beach area north of the site.



Photograph 2 – View of western portion of Site, looking south.



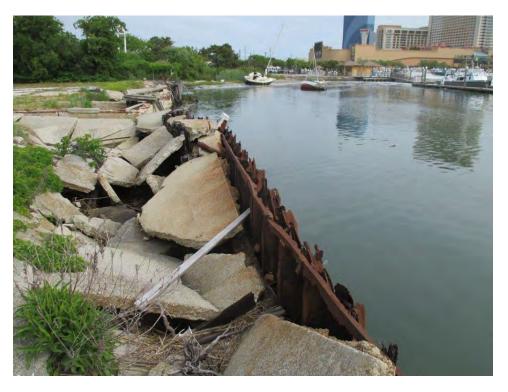
Photograph 3 - View looking south along the adjacent sidewalk and roadway



Photograph 4 - View of northeastern portion of the Site



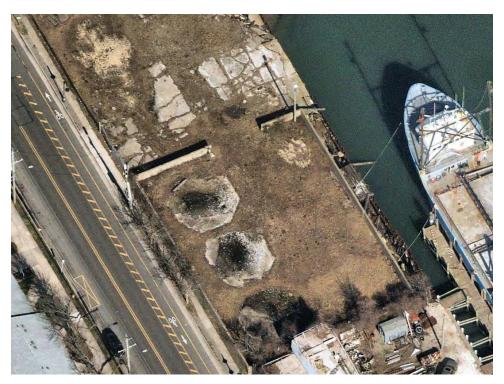
Photograph 5 – Example of former building foundation and general debris adjacent to North end of existing bulkhead.



Photograph 6- View of existing bulkhead, looking North.



Photograph 7- View of former bulk storage area in the southern portion of Site



Photograph 8- View from former bulk storage area of site looking north



#### Legend

Note:

Photo Location Site Location

3 MOUNTAINVIEW ROAD WARREN, NEW JERSEY 07059 PHONE: (732) 560-9700

# PHOTO LOCATION MAP Block 567, Lot 2

City of Atlantic City Atlantic County, New Jersey

Sources:	Drawn By: DO/DM	Scale: 1" = 100'	Project No. 06646.0001
NearMap Imagery, 2/24/2023 Esri, StreetMap USA, 2012	Chk'd By: DS	Date: 11/27/2023	Figure No. F

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# ATTACHMENT G

Environmental Report Statement of Compliance and Figures

# **Coastal Zone Management Statement of Compliance**

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# 1.0 **PROJECT DESCRIPTION**

The proposed Atlantic Shores Offshore Wind Operations and Maintenance (O&M) Facility Project (the Project) is a support facility (e.g., warehouse, office, quayside and vessel mooring) for the Atlantic Shores Offshore Wind Services, LLC (Atlantic Shores) portfolio of offshore wind projects. The O&M Facility will also advance the revitalization of the section of Atlantic City's Clam Creek waterfront between Farley State Marina and Delta Basin. The O&M Facility will be a principal base for Atlantic Shores and their wind turbine manufacturers (WTMs) to operate and maintain its portfolio of offshore wind projects. The Project site, designated as Block 567 Lot 2 on the City of Atlantic City Tax Map (see Figure 2), consists of approximately 1.38 acres and is located on Maryland Avenue. The site is located along Atlantic City's maritime waterfront area (Atlantic City Inlet Marina/ Port Area).

At its western boundary, the Project site has roughly 350 feet of frontage along Maryland Avenue. To the north of the Project site is a surface parking lot leased to Golden Nugget by the New Jersey Department of Environmental Protection's (NJDEP) Division of Parks and Forestry and the Senator Frank S. Farley State Marina. A commercial fishing / clamming operation (TMT Marine Terminal) is located east of the Project site on property owned by Myers Dock, LLC. A considerable portion of Lot 2 at the east, roughly 0.58 acres, lies within Clam Creek.

Since at least 1995, the Project site has been vacant. The site is currently partially covered with areas of dilapidated concrete slabs, soil and grassy areas, and concrete wall structures associated with a former industrial/commercial use (bulk marine petroleum storage and/or distribution facility). The site also contains over three hundred feet of severely dilapidated bulkhead, further damaged by Super Storm Sandy, that is in need of replacement. To authorize the demolition of the existing bulkhead and construction of a new bulkhead, Atlantic Shores has separately submitted an application to NJDEP for a Coastal Area Facility Review Act (CAFRA) Individual Permit, a Waterfront Development Individual Permit and a Flood Hazard Area Verification: Federal Emergency Management Agency (FEMA) Method 2. Atlantic Shores Offshore Wind Services, LLC submitted an application to the US Army Corps of Engineers for an Individual Permit for the replacement bulkhead. Both the NJDEP and US Army Corps of Engineers applications were submitted on January 8, 2024. Upon completion of the bulkhead replacement, Atlantic Shores will conduct dredge activities within the Clam Creek portion of Lot 2. Atlantic Shores is not seeking authorization for maintenance dredging under this permit application. The City of Atlantic City was issued a Waterfront Development Permit - In-Water and Water Quality Certificate by the New Jersey Department of Environmental Protection (NJDEP) to the City of Atlantic City (Permit No. 0102-20-0001.1 LUP210001). The City's permit (the Permit) authorizes "the maintenance dredging of approximately 568,129 cubic yards of sediment from the Atlantic City Inlet Marina/Port Area, back bay canals, lagoons, and private boat slips within the navigable waterways of the municipal limits of Atlantic City." Similarly for this dredging activity, the U.S. Army Corps of Engineers (Army Corps) issued Department of the Army Permit No. CENAP-OPR-2021-00573-95. The Army Corps permit authorizes the City of Atlantic City to undertake ten (10) year maintenance dredging of thirteen (13) city waterways, with placement of all resultant dredged material at Dredged Hole #86, Tuckahoe Turf Farm, and Kinsley's Landfill. The City's dredging approvals are intended to be utilized by private boat slip and marina owners and commercial marine/industrial entities with qualified dredging contractors strictly under the oversight of the City. Atlantic Shores will obtain appropriate authority to perform dredging activities under the City's dredging approvals to accommodate construction of the inwater elements of the proposed O&M Facility.

The Project site was used as a bulk marine petroleum storage and/or distribution facility from at least 1931 to the early 1980s. Since the early 1990s, the Project site has been subject to environmental investigations. Following certain investigations, the NJDEP issued No Further Action (NFA) letters for

soil and groundwater at the site. Several Recognized Environmental Conditions (RECs) were identified in a 2021 Phase I Environmental Site Assessment that were not identified or addressed in prior environmental investigations. The responsible party has retained a Licensed Site Remediation Professional (LSRP) to address historic fill and monitoring groundwater as part of conditions of the NFA. The NJDEP is monitoring groundwater contamination for the site with a Classification Exception Area (CEA) (Case No. 90-03-07-1224).

Project location maps are provided herein. Photographs of the existing conditions at the proposed Project site are provided in Attachment F. Architectural renderings of the Project are provided in Attachment K.

The Project will be a water dependent use on a filled water's edge site with direct water access. Located in Atlantic City Inlet Marina/ Port Area, the Project will also have direct water access to a navigation channel of sufficient depth, with minimal dredge and fill requirements, adequate access to road transportation, and adjacent land with sufficient load bearing capacity for structures. These location characteristics will help Atlantic Shores comply with the NJDEP Coastal Zone Management (CZM) Rules N.J.A.C. 7:7. As a support facility for a renewable energy project, the O&M Facility will promote green jobs.

# 2.0 <u>SITE PLAN DESCRIPTION</u>

The proposed O&M Facility site design calls for ingress/egress driveways to North Maryland Avenue situated at the north and south ends of the property. An on-site access road provides circulation around the perimeter of the building to receive goods at the warehouse loading docks on the north and east sides of the building. Deliveries are anticipated to be provided by smaller trucks and the site access road is not designed for tractor trailer movements. On the quayside, the access road area will also serve forklift operations in tandem with fixed crane vessel loading and off-loading. The main O&M Facility pedestrian entrance is located at the southwest corner of the building, fronting North Maryland Avenue for optimal exposure and wayfinding. A limited number of parking stalls, including ADA (Americans with Disabilities Act) parking stalls, is provided proximate to this entrance. Due to the elevation of the building's first floor, the main entrance will have ramps and stairs for access. A secondary work crew entrance will be provided on the building quayside. At the north end of the site, areas are provided for a grey water pumping equipment and an emergency generator.

The proposed topography of the site is sloped in a westerly direction, which mimics the existing site stormwater runoff drainage patterns. Site stormwater runoff collected in inlets located near the driveway aprons will be piped to the east and into Clam Creek via two outfall pipes. The proposed building roof area and the dock access area between the building and the bulkhead, drain via roof drains and scuppers directly into Clam Creek.

# 3.0 **BUILDING DESCRIPTION**

The O&M Facility building will provide warehouse and office space to support Atlantic Shores's portfolio of offshore projects. The proposed O&M Facility is a three-story building with a rough footprint of 20,000 square foot (SF). The building peak occupancy per shift is anticipated to be 84. The building will have a footprint with approximate dimensions of 83 feet x 243 feet. Foundations will consist of steel pipe piles and reinforced concrete pile caps. These in turn will support columns and reinforced concrete grade beams at the perimeter of the building to support the exterior wall system. The building support piles can be installed to address the axial and lateral loads due to tidal influence, as well as wind loads. A Building Program is provided in the table below.

	BUILDING PRO	GRAM	
Floor	Use	Occupant	Area
First	Support	Common	2,775 SF
First	Warehouse	Atlantic Shores	3,098 SF
First	Warehouse	Common	1,868 SF
First	Warehouse	WTM	9,607 SF
		First Subtotal	17,348 SF
Second	Warehouse	Atlantic Shores	564 SF
Second	Social	Common	3,135 SF
Second	Support	Common	2,906 SF
Second	Warehouse	WTM	468 SF
		Second Subtotal	7,072 SF
Third	Office	Atlantic Shores	7,068 SF
Third	Social	Common	1,226 SF
Third	Support	Common	3,008 SF
Third	Office	WTM	5,361 SF
		Third Subtotal	16,663 SF
		Total Building	41,083 SF

The first floor will consist of a pile-supported two-way reinforced concrete slab. This slab will be located at an elevation above the surrounding exterior grade. Pile-supported reinforced concrete exterior ramps and stairs will also be required.

Building superstructure will consist of wide-flange steel columns in bays of approximately 20 feet x 40 feet. A second floor/mezzanine level of approximately 8,000 square feet will consist of a composite floor deck spanning over wide flange steel beams. A third-floor level of approximately 19,300 square feet will consist of a composite floor deck spanning over wide flange steel beams. A roof level will consist of metal roof deck spanning over open-web steel joists spanning between wide flange girders. Steel columns posted up from steel transfer girders will likely be required. The lateral resisting system of the building will be a combination of braced frames consisting of HSS-shape x-bracing and ordinary steel moment frames.

# 4.0 VESSEL MOORING FACILITY DESCRIPTION

The vessel mooring facility on the property within Clam Creek includes three gangways, three floating docks, associated dolphins and three hydraulic cranes to support up to five (5) crew transfer vessels (CTVs) or other type vessels for the maintenance of offshore wind turbines. The width of the floating docks is 9 feet. Floating docks will be aluminum construction and provided with potable water service

and electric service for power and lighting. Two hydraulic cranes on pile-supported mono-masts are located in the water adjacent to the quayside to enable loading/offloading operations of four vessels.

The location of the proposed facility is detailed on the Figures herein. The complete set of Project drawings and renderings is provided in the Project Drawings (Attachment E).

# 5.0 LAND DEVELOPMENT APPROVALS

Construction of the Project is expected to require the following land development approvals from State, County, and Municipal agencies with regulatory review authority over the Project site:

- NJDEP CAFRA IP and Waterfront Development IP (this application);
- NJDEP Construction Activity Stormwater General Permit (5G3);
- NJDEP General Air Permits for Minor Facility Commercial Fuel Burning Equipment;
- US Army Corps of Engineers Section 10 Permit and Section 408 Review;
- Atlantic County Planning Board Approval;
- Cape Atlantic Soil Conservation District Soil Erosion and Sediment Control Plan Certification;
- City of Atlantic City- Approval of a Redevelopment Plan, and
- City of Atlantic City Preliminary and Final Site Plan Approval, and Local Construction Applications.

### 6.0 <u>STATEMENT OF COMPLIANCE WITH THE COASTAL ZONE MANAGEMENT</u> <u>RULES AND ENVIRONMENTAL IMPACT STATEMENT</u>

In order to guide development and resource management within the State's coastal area, substantive policies have been identified and promulgated by the New Jersey Department of Environmental Protection (NJDEP). The policies have been codified as the Coastal Zone Management Rules (referenced herein as the CZM Rules). Decisions on the use of coastal resources are made through a three-step process utilizing CZM Location Rules (Subchapters 9 through 14), Use Rules (Subchapter 15) and Resource Rules (Subchapter 16). Depending upon the proposed use, project design, location, and surrounding region, different specific CZM Rules in each of the three steps may be applicable in the coastal decision-making process. The CZM Rules address a wide range of land and water types (locations), present and potential land and water uses, and natural, cultural, social, and economic resources to address all Location Rules, Use Rules, and Resource Rules. Rather, the applicable policies are expected to vary from project to project.

The proposed Project has been designed within the framework of the CZM Rules. The CZM Rules which are applicable to the proposed development are listed and have been addressed within this section. The following Statement of Compliance with the CZM Rules details Project compliance with State coastal policies and Project design in accordance with accepted environmental planning practices. The Statement of Compliance section includes a presentation of the relevant CZM Rules; a description of the existing conditions relative to each Rule; a discussion of the anticipated impacts imposed by the proposed development; and a statement of project compliance with the applicable CZM Rules. The Project compliance analysis finds that the Project has been designed in an environmentally sensitive manner in full compliance with the Rules on Coastal Zone Management.

The CZM Rules potentially applicable to the Project are listed in Table 1. In addition to the CZM Rules addressed in Section 6.0, the compliance analysis (Section 7.0) addresses the findings required at N.J.S.A. 13:19-10a. through g. for review of CAFRA applications by the NJDEP Commissioner.

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# 7:7-9.2 Shellfish Habitat

<u>Requirement:</u> (a) (a) Shellfish habitat is defined as an estuarine bay or river bottom which currently supports or has a history of production for hard clams (Mercenaria mercenaria), soft clams (Mya

arenaria), eastern oysters (Crassostrea virginica), bay scallops (Argopecten irradians), or blue mussels (Mytilus edulis), or otherwise listed below in this section. A shellfish habitat area is defined as an area which meets one or more of the following criteria:

The area has a current shellfish density equal to or greater than 0.20 shellfish per square foot;
 The area has a history of natural shellfish production according to data available to the New Jersey Bureau of Shellfisheries, or is depicted as having high or moderate commercial value in the Distribution of Shellfish Resources in Relation to the New Jersey Intracoastal Waterway (U.S. Department of the Interior, 1963) and/or "Inventory of New Jersey's Estuarine Shellfish Resources" (Division of Fish, Game and Wildlife, Bureau of Shellfisheries, 1983-present);
 The area is designated by the State of New Jersey as a shellfish culture area as authorized by N.J.S.A. 50:1 et seq. Shellfish culture areas include estuarine areas presently leased by the State for shellfish aquaculture activities or hard clam relay, transplant and transfer as well as those areas suitable for future shellfish aquaculture development; or
 The area is designated as productive at N.J.A.C. 7:25-24, Leasing of Atlantic and Delaware Bay Bottom for Aquaculture.

<u>Compliance:</u> In support of this application, a Habitat Evaluation for the site was prepared by DuBois & Associates (Attachment I; Section 4.1). The evaluation concluded that shellfish habitat suitability is poor due to the historic land use and contamination issues. The open waters of Clam Creek are classified as "Prohibited" shellfish waters by NJDEP and therefore shellfish harvest in Clam Creek is not allowed under any conditions. The City of Atlantic City's dredge project (authorized by NJDEP and the Army Corps), which includes the in-water portion of Lot 2, will precede construction of the subject activity. As the existing waters are classified as "Prohibited", the O&M Facility project is not anticipated to adversely impact the shellfish growing water classification or contaminate shellfish habitat. The proposed project is in compliance with this requirement.

# 7:7-9.4 Prime Fishing Area

<u>Requirement:</u> (a) Prime fishing areas include tidal water areas and water's edge areas which have a demonstrable history of supporting a significant local intensity of recreational or commercial fishing activity. These areas include all coastal jetties, groins, public fishing piers or docks, and artificial reefs. Prime fishing areas also include features such as rock outcroppings, sand ridges or lumps, rough bottoms, aggregates such as cobblestones, coral, shell and tubeworms, slough areas and offshore canyons. Prime fishing areas also include areas identified in "New Jersey's Recreational and Commercial Fishing Grounds of Raritan Bay, Sandy Hook Bay and Delaware Bay and The Shellfish Resources of Raritan Bay and Sandy Hook Bay" Figley and McCloy (1988) and those areas identified on the map titled, "New Jersey's Specific Sport Ocean Fishing Grounds." This map is available through the Coastal Management Program's website at www.state.nj.gov/dep/cmp.

(b) Standards relevant to prime fishing areas are as follows: 1. Permissible uses of prime fishing areas include recreational and commercial finfishing and shellfishing, as presently regulated by the Department's Division of Fish and Wildlife, scuba diving and other water related recreational activities. 2. Prohibited uses include sand or gravel submarine mining which would alter existing bathymetry to a significant degree so as to reduce the high fishery productivity of these areas. Disposal of domestic or industrial wastes must meet applicable State and Federal effluent limitations and water quality standards.

<u>Compliance:</u> The Project is located on Clam Creek in Atlantic City. According to the Prime Fishing Grounds data layer on N-GeoWeb, Clam Creek is not a prime fishing area. Therefore, the Project is not anticipated to cause an adverse impact to prime fishing area.

# 7:7-9.5 Finfish Migratory Pathways

<u>Requirement:</u> (a) Finfish migratory pathways are waterways (rivers, streams, creeks, bays and inlets) which can be determined to serve as passageways for diadromous fish to or from seasonal spawning areas, including juvenile anadromous fish which migrate in autumn and those listed by H.E. Zich (1977) "New Jersey Anadromous Fish Inventory" NJDEP Miscellaneous Report No. 41, and including those portions of the Hudson and Delaware Rivers within the coastal zone boundary. 1. Species of concern include: alewife or river herring (Alosa pseudoharengus), blueback herring (Alosa aestivalis), American shad (Alosa sapidissima), striped bass (Morone saxatilis), Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus), Shortnose sturgeon (Acipenser brevirostrum) and American eel (Anguilla rostrata)

(b) Development, such as dams, dikes, spillways, channelization, tide gates and intake pipes, which creates a physical barrier to the movement of fish along finfish migratory pathways is prohibited, unless acceptable mitigating measures such as fish ladders, erosion control, or oxygenation are used.

(c) Development which lowers water quality to such an extent as to interfere with the movement of fish along finfish migratory pathways or to violate State and Delaware River Basin Commission water quality standards is prohibited.

1. Mitigating measures are required for any development which would result in: lowering dissolved oxygen levels, releasing toxic chemicals, raising ambient water temperature, impinging or suffocating fish, entrainment of fish eggs, larvae or juveniles, causing siltation, or raising turbidity levels during migration periods.

(d) Water's edge development which incorporates migration access structures, such as functioning fish ladders, will be conditionally acceptable, provided that the Department's Division of Fish and Wildlife approves the design of the access structure. As of January, 1994, the Department's Division of Fish and Wildlife is evaluating anadromous fish spawning areas for potential enhancement work. This may include building of fish ladders, removal of obstructions, stocking, and other means. A development proposal shall be consistent with these Department efforts.

<u>Compliance</u>: The Project is located on Clam Creek in Atlantic City. The in-water work associated with the O&M Facility includes installation of dolphin piles for mooring floating docks and vessels and installation of cranes for loading the vessels. The proposed in-water improvements will not create a physical barrier that prohibits the movement of finfish along migratory pathways. The Project is in compliance with this requirement.

# 7:7-9.6 Submerged Aquatic Vegetation

<u>Requirement:</u> (a) A submerged vegetation habitat special area consists of water areas supporting or documented as previously supporting rooted, submerged vascular plants such as widgeon grass (Ruppia maritima), sago pondweed (Potamogeton pectinatus), horned pondweed (Zannichellia palustris), and eelgrass (Zostera marina). In New Jersey, submerged vegetation is most prevalent in the shallow portions of the Navesink, Shrewsbury, Manasquan, and Metedeconk Rivers, and in Barnegat, Manahawkin, and Little Egg Harbor Bays. Other submerged vegetation species in lesser quantities include, but are not limited to, the following: water weed (Elodea nuttalli), Eriocaulon parkeri, Liaeopsis chinesis, Naja flexilis, Nuphar variegatum, Potamogeton crispus, Potamogeton epihydrus, Potamogeton perfoliatus, Potamogeton pusillus, Scirpus subterminalis, and Vallisneria americana. Detailed maps of the distribution of the above species for New Jersey, and a method for delineation, are available from the Department in the New Jersey Submerged Aquatic Vegetation Distribution Atlas (Final Report), February, 1980, conducted by Earth Satellite Corporation and also on "Eelgrass Inventory" maps

prepared by the Division of Fish and Wildlife, Bureau of Shellfisheries, 1983. If the Department is presented with clear and convincing evidence that a part of its mapped habitat lacks the physical characteristics necessary for supporting or continuing to support the documented submerged vegetation species, such a site would be excluded from the habitat definition.

6. Construction of a single noncommercial dock or pier provided that:

*i.* There are no practicable or feasible alternatives to avoid impacts to submerged vegetation habitat at the site;

*ii.* The width of the structure will not exceed four feet, except for that portion of the structure adjacent to the mooring area, where the width and length may not exceed six and 20 feet, respectively;

*iii.* The pier shall have no more than two designated slips. No boats may be moored at a nondesignated pier/dock area;

iv. No more than one pier shall be placed for every building lot and each building lot shall have a forty foot or greater frontage on the water. Where more than one lot has been assembled for the purpose of building, only one pier will be allowed;

v. No dredging shall be performed in conjunction with the use of the dock or pier;

vi. A minimum water depth of four feet at mean low water must be present in the area where the boats will be moored; and

vii. There is no alternative mooring area at the site that would have less impact on the submerged aquatic vegetation;

<u>Compliance</u>: As part of the Habitat Evaluation prepared by DuBois & Associates to support this application, submerged vegetation habitat was analyzed (Attachment I; Section 4.2). Based on a review of historic imagery (NETR Online 2022), in the 1920s the site historically supported salt marsh and natural meanders of the Clam Creek. The natural geomorphology of Clam Creek may have been historically suitable to support submerged aquatic vegetation (SAV). In the 1930s, however, the salt marsh and meanders of Clam Creek were filled, with the remainder of Clam Creek excavated to the deepwater conditions that exist today. Due to the historic excavation of native sediments, historic in-water industrial use of the site, and deep-water conditions, the site does not contain suitable habitat for SAV.

It should be noted that the City of Atlantic City has received authorization to dredge in Clam Creek and the surrounding areas. Based in part on the City's permit, it is assumed that the proposed in-water improvements associated with the O&M Facility will not result in an adverse impact to submerged vegetation habitat as areas adjacent to the Project site are anticipated to be dredged pursuant to the City's permit.

# 7:7-9.7 <u>Navigational Channels</u>

<u>Requirement:</u> (a) Navigation channels are tidal water areas including the Atlantic Ocean, inlets, bays, rivers and tidal guts with sufficient depth to provide safe navigation. Navigation channels include all areas between the top of the channel slopes on either side. These navigation channels are often marked with buoys or stakes. Major navigation channels are shown on NOAA/National Ocean Service Charts.)

(b) Standards relevant to navigation channels are as follows:

1. Development which would cause terrestrial soil and shoreline erosion and siltation in navigation channels shall utilize appropriate mitigation measures;

2. Development which would result in loss of navigability is prohibited;

3. Any construction which would extend into a navigation channel is prohibited;

4. The placement of structures within 50 feet of any authorized navigation channel is discouraged, unless it can be demonstrated that the proposed structure will not hinder navigation;

5. Maintenance dredging, as defined in N.J.A.C. 7:7-12.6, of navigation channels to provide for safe navigation is conditionally acceptable, provided the dredging operation and the management of the dredged material meet the requirements of N.J.A.C. 7:7-12.6 and Appendix G; and

6. New dredging, as defined in N.J.A.C. 7:7-12.7, to expand the depth, length, and/or width of a previously authorized navigational channel to provide for safe navigation is conditionally acceptable provided the dredging operation and the management of the dredged material meet the requirements of N.J.A.C. 7:7-12.7 and Appendix G.

<u>Compliance:</u> According to the National Oceanic and Atmospheric Administration's (NOAA) Office of Coast Survey Electronic Navigational Charts (ENC) Viewer, there is no marked navigational channel in Clam Creek. The nearest buoy on the chart is located at the confluence of Clam Creek and Absecon Inlet.

However, it is noted that there is a Federally sponsored project (Absecon Inlet) which includes an entrance channel from Absecon Inlet into Clam Creek and turning basin (Figure 10). Review and authorization by the US Army Corps of Engineers is also required prior to construction of the proposed mooring facilities for the O&M facility.

The proposed docks and moored vessels are not anticipated to adversely impact vessel traffic traveling through Clam Creek to Absecon Inlet. Additionally, Senator Frank S. Farley State Marina will remain accessible to recreation vessels. The Project is not anticipated to adversely impact navigational channels and is in compliance with N.J.A.C. 7:7-9.7.

# 7:7-9.10 <u>Marina Moorings</u>

<u>Requirement:</u> (a) Marina moorings are areas of water that provide mooring, docking and boat maneuvering room as well as access to land and navigational channels for five or more recreational boats.

(b) Non-water dependent development in a marina mooring area is prohibited. (c) Any use that would detract from existing or proposed recreational boating use in marina mooring areas is discouraged.
(d) Rationale: Continued operation of marinas is encouraged since they benefit the State by attracting tourists and associated revenues and by providing recreational opportunities to the estimated 25 percent of residents that go boating in the bays and coastal waters of the State (1977 Eagleton Institute Poll).

<u>Compliance</u>: The Project site is located adjacent to the Senator Frank S. Farley State Marina which is north of the Project site. Other smaller marina moorings are located within Clam Creek but these mooring areas are not proximate to the Project site. As noted above, the vessel mooring features and vessel operations of the proposed O&M Facility are not anticipated to adversely impact navigation. Adverse impacts to marina mooring areas within Clam Creek are also not anticipated.

# 7:7-9.11 <u>Ports</u>

<u>Requirement:</u> (a) Ports are water areas having, or lying immediately adjacent to, concentrations of shoreside marine terminals and transfer facilities for the movement of waterborne cargo (including fluids), and including facilities for loading, unloading, and temporary storage.

1. Port locations in New Jersey include, among others, Newark, Elizabeth, Bayonne, Jersey City, Weehawken, Hoboken, Woodbridge, Perth Amboy, Camden, Gloucester City, Paulsboro and Salem.

2. Standards for a docking facility or concentration of docks for a single industrial or manufacturing facility are found at N.J.A.C. 7:7-12.4, Docks and piers for cargo and commercial fisheries.

(b) Any use which would preempt or interfere with port uses of this water area is prohibited.

(c) Shellfish aquaculture and dumping of solid waste or semi-solid waste is prohibited.

(*d*) Boat ramps for recreational boating are conditionally acceptable provided the ramp complies with all special area rules at N.J.A.C. 7:7-9 and provided it does not interfere with the port use.

(e) Docks and piers for cargo movements are encouraged.

<u>Compliance:</u> The Project site is located within an area, the Atlantic City Inlet Marina/ Port Area, that contains port uses and associated facilities that support maritime commerce. In Clam Creek and Delta Basin there are commercial fishing operations as well as fishing charter operators. The Project site was once used as a bulk marine petroleum product storage and/ or distribution facility with a marine loading / unloading capacity to receive petroleum products for distribution.

The proposed O&M Facility is located along the existing developed shoreline and the Project is compatible with port uses. The proposed Project complies with this rule.

# 7:7-9.12 <u>Submerged Infrastructure Routes</u>

<u>Requirement:</u> (a) (a) A submerged infrastructure route is the corridor in which a pipe or cable runs on or below a submerged land surface.

(b) Any activity which would increase the likelihood of infrastructure damage or breakage, or interfere with maintenance operations is prohibited.

<u>Compliance:</u> Utilizing the NOAA ENC Viewer to view navigational charts there are no submerged infrastructure routes located in the water adjacent to the Project site. A copy of a NOAA chart survey is provided as Figure 8. The Project is not anticipated to damage, break, or interfere with any submerged infrastructure routes.

# 7:7-9.15 Intertidal and Subtidal Shallows

<u>*Requirement:*</u> (a) Intertidal and subtidal shallows means all permanently or temporarily submerged areas from the spring high water line to a depth of four feet below mean low water.

(b) Development, filling, new dredging, or other disturbance is discouraged but may be permitted in accordance with (c), (d), (e), (f), (g), and (h) below and with N.J.A.C. 7:7-12.2 through 12.24.

<u>Compliance:</u> The City of Atlantic City has received authorization to dredge in Clam Creek and the surrounding areas (NJDEP Permit No. 0102-20-0001.1 LUP210001 and Department of the Army Permit No. CENAP-OPR-2021-00573-95.). Based in part on the City's permits, it is assumed that the proposed O&M Facility Project will not result in an adverse impact to intertidal and subtidal shallows as areas adjacent to the project site as anticipated to be dredged pursuant to the City's permit. Therefore, the Project is in compliance with this rule.

### 7:7-9.18 Coastal High Hazard Areas

<u>Requirement:</u> (a) Coastal high hazard areas are flood prone areas subject to high velocity waters (V zones) as delineated on FEMA flood mapping, and areas within 25 feet of oceanfront shore protection structures, which are subject to wave run-up and overtopping. The coastal high hazard area extends from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The inland limit of the V zone is defined as the V zone boundary line as designated on FEMA flood mapping or the inland limit of the primary frontal dune, whichever is most landward.

(e) Water dependent development and amusements are conditionally acceptable within coastal high hazard areas provided the development complies with the Federal flood reduction standards at 44 CFR Part 60 and the UCC.

<u>Compliance</u>: The most recent Flood Insurance Rate Map (FIRM) for the site is an Effective FIRM dated January 20, 2015, which indicates the portion of the site waterward of the mean high waterline is located within a VE zone with a base flood elevation of 12. The portion of the site located landward of the mean high waterline is Zone AE with a base flood elevation of 10.

The proposed O&M Facility is a water dependent development and has been designed to comply with Federal flood reduction standards at 44 CFR Part 60 and the UCC therefore it is conditionally acceptable. The Project is in compliance with this rule.

#### 7:7-9.23 Filled Water's Edge

<u>Requirement:</u> (a) Filled water's edge areas are existing filled water, wetland, or upland areas lying between wetlands or water areas, and either (a) I or 2 below, whichever is closer to the water:

*1. The upland limit of fill; or* 

2. The first paved public road or railroad landward of the adjacent water area.

(b) Filled water's edge areas shall be determined through analysis of historic data including United States Department of Agriculture soil surveys, Tidelands maps, or aerial photography. Some existing or former dredged material disposal sites and excavation fill areas are filled water's edge.

(d) On filled water's edge sites with direct water access (that is, those sites without extensive intertidal shallows or wetlands between the upland and navigable water), development shall comply with (d)1 through 3 below unless it is demonstrated that a water dependent use is not feasible on the site in accordance with (e) below. Where it is determined that a water dependent use is not feasible, the site may be developed with a non-water dependent use.

*1. Except as provided below, the waterfront portion of the site shall be:* 

*i. Developed with a water dependent use;* 

*ii. Developed with an at-grade deck provided:* 

(1) The deck is open to the general public;

(2) The use of the deck is water oriented;

(3) The deck is not enclosed; and

(4) A public walkway is provided around the deck landward of the mean high water line at the water's edge; or

*iii. Left undeveloped for future water dependent uses;* 

2. On the remaining non-waterfront portion of the site, provision of additional area devoted to water dependent or water-oriented uses may be required as a special case at locations which offer a particularly appropriate combination of natural features and opportunity for waterborne commerce and recreational boating; and

3. On filled water's edge sites where water dependent and water-oriented uses can coexist with other types of development, a greater mix of land uses may be acceptable or even desirable. In these cases, a reduced waterfront portion, that is, less than that provided by a 100-foot setback, may be acceptable provided that non-water related uses do not adversely affect either access to or use of the waterfront portion of the site.

(g) On filled water's edge sites with an existing or pre-existing water dependent use, that is, one existing at any time since July of 1977, development must comply with the following additional conditions:

*1.* For sites with an existing or pre-existing marina, development that would reduce the area currently or recently devoted to the marina is acceptable if:

*i.* For every two housing units proposed on the filled water's edge the existing number of boat slips in the marina mooring area, as defined at N.J.A.C. 7:7-9.10, is increased by one, and at least 75 percent of the total number of slips (existing and new) remain open to the general public. Removal of upland to create slips is acceptable;

*ii. Marina services are expanded in capacity and upgraded (that is, modernized) to the maximum extent practicable; and* 

*iii.* In-water or off site boat storage capability is demonstrated or upland storage is provided to accommodate at least 75 percent of the marina's boats, as determined by maximum slip capacity, 26 feet in length and longer, and 25 percent of the marina's boats less than 26 feet in length.

2. For sites with an existing or pre-existing water dependent use other than a marina, development that would reduce or adversely affect the area currently or recently devoted to the water dependent use is discouraged.

<u>Compliance:</u> The Atlantic County Soil Survey identifies the Psamments, sulfidic substratum, 0 to 3 percent slopes, frequently flooded (PstAt) soil map unit underlying the landward portion of the site. This is an anthropogenic soil type, indicating fill material.

Filled water's edge areas are existing filled water, wetland, or upland areas lying between wetland or water areas and either the upland limit of fill or the first paved public road or railroad landward of the adjacent water area. Filled water's edge areas are determined through analysis of historic data including United States Department of Agriculture soil surveys, Tidelands maps, or aerial photography. The "waterfront portion" of a filled waters edge site is defined as contiguous area at least equal in size to the area within 100 feet of navigable water, measured from the mean high-water line. On filled water's edge sites with direct water access, development generally must be a water dependent use.

The proposed O&M Facility is a water dependent use, and the proposed use is compatible with Atlantic City's commercial maritime waterfront and therefore the proposed Project complies with this rule.

# 7:7-9.25 Flood Hazard Areas

<u>Requirement:</u> (a) Flood hazard areas are areas subject to flooding from the flood hazard area design flood, as defined by the Department under the Flood Hazard Area Control Act rules at N.J.A.C. 7:13. Flood hazard areas include those areas mapped as such by the Department, areas defined or delineated as an A or a V zone by FEMA, and any unmapped areas subject to flooding by the flood hazard area design flood. Flood hazard areas are subject to either tidal or fluvial flooding and the extent of flood hazard areas shall be determined or calculated in accordance with the procedures at N.J.A.C. 7:13-3.

(b) In a tidal flood hazard area below the mean high water line, this section shall apply only to the following activities: 1. Development of habitable buildings; and 2. Construction of railroads, roadways, bridges and/or culverts.

(c) Dedication of flood hazard areas for purposes of public open space is encouraged.

(d) In an undeveloped portion of a flood hazard area that is within 100 feet of a navigable water body other than the Atlantic Ocean, development is prohibited unless the development is one or two single-family homes or duplexes in accordance with N.J.A.C. 7:7-15.2(e) or is for a water dependent use. For the purposes of this subsection and

(e) In a portion of an undeveloped flood hazard area that is 100 feet or farther from a navigable waterway, development is conditionally acceptable provided the development would not prevent potential water-dependent use in any portion of the flood hazard area within 100 feet of a navigable water body.

(f) Development in flood hazard areas shall conform with the applicable design and construction standards of the following: 1. The Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., and implementing rules at N.J.A.C. 7:13, except in lands regulated under the Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq., pursuant to N.J.S.A. 58:16A-60; 2. The Uniform Construction Code, N.J.A.C. 5:23; and 3. The Federal flood reduction standards, 44 C.F.R. Part 60.

(g) Development in a flood hazard area shall comply with the requirements for impervious cover and vegetative cover under N.J.A.C. 7:7-13.

(h) If endangered and/or threatened wildlife or species habitat is present in the flood hazard area such that the area is also an endangered or threatened wildlife or plant species habitat special area in accordance with N.J.A.C. 7:7-9.36, then the requirements of N.J.A.C. 7:7-9.36, Endangered or threatened wildlife or plant species habitats, shall apply.

(i) For the purposes of this section, if a term is defined in this chapter and in the Flood Hazard Area Control Act rules at N.J.A.C. 7:13, the definition in N.J.A.C. 7:13 shall govern. For any term used in this section that is not defined or otherwise described in this chapter but that is defined or described in the Flood Hazard Area Control Act rules at N.J.A.C. 7:13, the definition or description in N.J.A.C. 7:13 shall apply.

<u>Compliance</u>: The most recent FIRM for the site is an Effective FIRM dated January 20, 2015, which indicates the portion of the site waterward of the mean high waterline is located within a VE zone with a base flood elevation of 12. The portion of the site located landward of the mean high waterline is Zone AE (Coastal A Zone) with a base flood elevation of 10.

The proposed Project requires compliance with the Flood Hazard Area (FHA) Individual Permit (IP) standards under the NJDEP Flood Hazard Area Control Act Rules (FHACA) N.J.A.C. 7:13 – last amended July 17, 2023. The site is located in a tidal flood hazard area and the Project includes in-water and on land structures. While dedication of flood hazard areas for the purposes of public open space is encouraged by the CZM Rules, the site has been historically used to support port operations and historically had 100 percent impervious cover. The site is a suitable location for the proposed O&M Facility, which is a water dependent use.

The plans that demonstrate compliance with the FHACA and the implementing rules (N.J.S.A. 58:16A-50 et seq., N.J.A.C. 7:13), the Uniform Construction Code (N.J.A.C. 5:23), and the Federal flood reduction standards (44 C.F.R. Part 60) are included herewith (see Attachment E). In accordance with N.J.A.C. 7:7-13.17(g), the allowable impervious cover is 100 percent since historically the site was covered by impervious surfaces. The proposed plan includes 100 percent impervious cover.

As detailed in response to N.J.A.C. 7:7-9.36, there is no endangered or threatened wildlife species habitat, present on the site.

The site is influenced by the floodplain associated with a waterbody, tidally influenced by the Atlantic Ocean, that lies within the subject property. The subject property has been identified on FEMA Preliminary Flood Insurance Rate Map (No. 34001C0343G, dated January 30, 2015) for Atlantic County as Zone AE, possessing a 100-year floodplain with a known base flood elevations of 10.0 and 12.0 feet. In accordance with N.J.A.C. 7:13-3.4(d), the flood hazard area design flood elevation is equal to the FEMA 100-year flood elevation. The floodplain determination has been prepared using Method 2 (FEMA tidal method) to determine the limits of the floodplain and floodway and the floodplain elevation and has been submitted under a separate application.

Compliance with the FHACA rules (N.J.A.C. 7:13) is detailed below.

# • N.J.A.C. 7:13-10.3: Conditions applicable to an individual permit

The Applicant will conduct the construction of O&M Facility in compliance with the conditions set forth in the individual permits and the conditions that apply to all permits at N.J.A.C. 7:13-22.2.

# • N.J.A.C. 7:13-11.2: Requirements for a regulated activity in a riparian zone.

The proposed Project is located on New Jersey' barrier island complex and therefore, pursuant to N.J.A.C. 7:13-23(c) 1(ii), a riparian zone does not exist on the site. This requirement is not applicable to the Project.

#### • N.J.A.C. 7:13-11.4: Requirements for a regulated activity in a flood fringe.

The Project site is located in a tidal flood hazard area and therefore, pursuant to N.J.A.C. 7:13-11.4(d)1 the proposed Project is not subject to the flood storage volume displacement limits of N.J.A.C. 7:13-11.4.

# • N.J.A.C. 7:13-11.5: Requirements for a regulated activity in or along a regulated water with fishery resources.

Clam Creek is a tributary to the Absecon Inlet, and ultimately, marine waters of the Atlantic Ocean. Clam Creek is classified as a FW2-NT/SE1 (non-trout/saline estuarine) waterbody by the New Jersey Surface Water Quality Standards (N.J.A.C. 7:9). These waters are generally not suitable for trout because of their physical, chemical or biological characteristics, but are suitable for a wide variety of other fish species. Clam Creek and Absecon Inlet are not listed on Locations of Anadromous American Shad and River Herring During Their Spawning Period in New Jersey's Freshwaters Including Known Migratory Impediments and Fish Ladders Clam Creek does not contain a fishery resource regulated under this requirement; therefore N.J.A.C. 7:13-11.5 is not applicable to the Project.

# • N.J.A.C. 7:13-11.6: Requirements for a regulated activity in or affecting a present or documented habitat for threatened or endangered species

As detailed previously, the Habitat Evaluation prepared by DuBois & Associates analyzed the potential presence of endangered or threatened wildlife and plant species habitat on the subject site (Attachment I). The habitat evaluation was performed to determine any biological regulatory implications or project constraints pursuant to the New Jersey Coastal Zone Management Rules (N.J.A.C. 7:7) and the Federal

Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884). It was concluded that the Project would not result in adverse impacts to present documented habitat of threatened or endangered species.

# • N.J.A.C. 7:13-12.1: applies to all regulated activities.

The proposed O&M Facility is not likely to cause significant or adverse effects on the following:

### 1. Water quality;

Block 567, Lot 2 was formerly utilized as a marine bulk petroleum storage and distribution facility. Block 567, Lot 2 has been subject to environmental investigations since the early 1990s. Following these investigations, NJDEP had issued No Further Action (NFA) letters for the soil and groundwater at the site. However, several Recognized Environmental Conditions (RECs) were identified in the 2021 Phase I ESA that were not identified or addressed in prior environmental investigations. The responsible party has hired a Licensed Site Remediation Professional (LSRP) to address historic fill and other areas on site and has been monitoring the groundwater as part of the conditions of the NFA. The responsible party is in the process of preparing a Request for Closure report for the NJDEP. The NJDEP is monitoring groundwater contamination for the site with a Classification Exception Area (CEA) (Case No. 90-03-07-1224). The proposed O&M Facility will act as an engineering control to cap the property. The proposed in-water features: floating docks and loading cranes may result in minor temporary impacts to the water quality of Clam Creek during construction but Best Management Practices will be utilized to minimize impact. Adverse impacts to water quality are not anticipated as a result of the proposed project.

#### 2. Aquatic biota;

The proposed in-water features: dolphins, floating docks and hydraulic crane foundations may result in minor temporary disturbances to aquatic biota during construction. Temporary impacts will include disruption of sediment and possible siltation of water near the proposed piling location for dolphins and cranes. Significant adverse impacts to aquatic biota are not anticipated.

# 3. Water supply;

The O&M Facility will require potable water. The Atlantic City Municipal Authority (MUA) is the purveyor of water for the site. The Project is not anticipated to have an adverse impact on the water supply.

#### 4. Flooding;

The Project has been designed to be in compliance with the FHACA Rules as detailed in this document. The proposed regulated activities will not cause significant or adverse flooding impacts.

#### 5. Drainage;

Temporary soil erosion measures will be implemented during construction to minimize environmental impacts from sediment, particularly to adjacent properties and the downstream waterbody. Soil erosion measures include silt fence, temporary soil stockpiles, and stabilized stone construction entrance. These measures will better avoid any adverse impacts downstream of the site.

The Project is not anticipated to result in an adverse impact to drainage as the site has historically had a 100 percent impervious cover. According to the NJDEP Stormwater Management Rules N.J.A.C. 7:8-5.6(b)4, since there is no increase in runoff volume or change in timing and since runoff from the project

site will discharge directly to Clam Creek, a tidal waterbody, and will not result in additional flood damage below the point of discharge; no analysis of stormwater quantity is required. The proposed site will have less than a total of 0.25 acres of motor vehicle surface, therefore the project is exempt from the water quality requirements per N.J.A.C. 7:8-5.5(a).

Groundwater recharge design has been based on the requirements of NJDEP Stormwater Management Rules, which require that the deficit of groundwater recharge between the pre- and post-development shall be recharged through Best Management Practices (BMPs). According to the NJDEP Stormwater Management Rules N.J.A.C. 7:8-5.4(a)2ii, the groundwater recharge requirement does not apply to projects within the "urban redevelopment area", which includes previously developed portions of areas delineated on the State Plan Policy Map as Metropolitan Planning Area (PA-1). The project site lies within PA-1, is previously developed, and is therefore exempt from the groundwater recharge requirements of N.J.A.C. 7:8.

#### 6. Channel stability;

There is no flood channel associated with the Project, therefore the Project will not cause significant or adverse effects to channel stability.

7. Threatened and endangered species or their current or documented historic habitats;

A Habitat Evaluation was prepared by DuBois & Associates (Attachment I) and it was concluded that the proposed Project would not result in significant or adverse impacts to threatened and endangered species or their current or documented historic habitats.

### 8. Navigation;

According to the National Oceanic and Atmospheric Administration's (NOAA) Office of Coast Survey Electronic Navigational Charts (ENC) Viewer, there is no marked navigational channel in Clam Creek. The nearest buoy on the chart is located at the confluence of Clam Creek and Absecon Inlet.

However, it is noted that there is a Federally sponsored project (Absecon Inlet) which includes an entrance channel from Absecon Inlet into Clam Creek and turning basin (Figure 10). The United States Army Corps of Engineers (USACE) was contacted and provided the limits of the Federal Channel. The limits of the Federal Channel do overlap with a portion of the Project site. The proposed docks are not anticipated to adversely impact vessel traffic traveling through Clam Creek to Absecon Inlet. Additionally, Senator Frank S. Farley State Marina will remain accessible to recreation vessels. The Project will not adversely impact navigational channels and is in compliance with N.J.A.C. 7:7-9.7.

#### 9. Energy production; and

The site is located within the service areas of Atlantic City Electric Company and South Jersey Gas Company. These utility companies will respectively provide electric and gas to the proposed facility.

The proposed O&M Facility is a required element of Atlantic Shores portfolio of offshore wind projects. The O&M Facility will support the construction and operation of the wind turbines in the Atlantic Ocean. The offshore wind project will result in the production of energy and reduce the dependence on fossil fuels. Adverse impacts to energy production are not anticipated.

#### 10. Fishery resources.

The Project is located on Clam Creek in Atlantic City. According to the Prime Fishing Grounds data layer on NJ-GeoWeb, Clam Creek is not a prime fishing area. Additionally, the proposed in-water improvements, dolphins and docks for mooring vessels and installation of foundations for cranes to be used for loading the vessels, will not create a physical barrier that prohibits the movement of finfish along migratory pathways. The Project is not anticipated to have an adverse impact on fishery resources.

As required at N.J.A.C. 7:13-12.1(c), an approval from the Cape Atlantic Soil Conservation District will be obtained prior to commencing regulated activities.

Pursuant to NJAC 7:13-12.1(f) and (g), the proposed regulated activity is not anticipated to adversely impact property not owned by the Atlantic Shores.

#### • N.J.A.C. 7:13-12.2: applies to any stormwater management activity.

No stormwater management basin is proposed as part of the site improvements. Temporary soil erosion measures will be implemented during construction to minimize environmental impacts from sediment, particularly to adjacent properties and the downstream waterbody. Soil erosion measures include silt fence, temporary soil stockpiles, and stabilized stone construction entrance. These measures will better avoid any adverse impacts downstream of the site.

The Project is not anticipated to result in an adverse impact to drainage as the site has historically had a 100 percent impervious cover. According to the NJDEP Stormwater Management Rules N.J.A.C. 7:8-5.6(b)4, since there is no increase in runoff volume or change in timing and since runoff from the project site will discharge directly to Clam Creek, a tidal waterbody, and will not result in additional flood damage below the point of discharge; no analysis of stormwater quantity is required. The proposed site will have less than a total of 0.25 acres of motor vehicle surface, therefore the project is exempt from the water quality requirements per N.J.A.C. 7:8-5.5(a).

Groundwater recharge design has been based on the requirements of NJDEP Stormwater Management Rules, which requires that the deficit of groundwater recharge between the pre- and post-development shall be recharged through Best Management Practices (BMPs). According to the NJDEP Stormwater Management Rules N.J.A.C. 7:8-5.4(a)2ii, the groundwater recharge requirement does not apply to projects within the "urban redevelopment area", which includes previously developed portions of areas delineated on the State Plan Policy Map as Metropolitan Planning Area (PA-1). The Project site lies within PA-1, is previously developed, and is therefore exempt from the groundwater recharge requirements of N.J.A.C. 7:8.

# • N.J.A.C. 7:13-12.3: applies to any excavation, fill and/or grading proposed in any regulated area.

The proposed site will be graded to allow the overland flow of stormwater and floodwaters to freely enter and exit the disturbed areas. No impoundment of water is proposed for stormwater management. Slopes greater than 50 percent are not proposed as part of the grading and grade changes are minimal in nature so as to avoid impact to adjacent structures. During construction, all excavated material will be disposed of off-site in accordance with local, county and federal requirements.

# • N.J.A.C. 7:13-12.4: applies to any structure proposed in any regulated area.

All structures will be designed to resist impact from water and debris during the flood hazard area design flood. The structures will also be designed to resist uplift, flotation, collapse and displacement due to hydrostatic and hydrodynamic forces resulting from the flood hazard area design flood as well as overturning and sliding pressure, and freeze/thaw cycle of the soil.

The improvements are not located in or adjacent to a flood channel, therefore undermining caused by channel erosion is not an applicable part of the design criteria.

#### • N.J.A.C. 7:13-12.5: applies to any building proposed within a flood hazard area.

The proposed O&M Building will be flood-proofed and designed to resist hydrostatic and hydrodynamic loads and effects of buoyancy resulting from flooding to at least one foot above the flood hazard area design flood elevation, as necessary.

The proposed O&M building is not proposed in a floodway and is adjacent to a lawfully existing bulkhead along a tidal water. Atlantic Shores is proposing to replace the existing bulkhead under a separate application being submitted to NJDEP and the USACE. Therefore, the project is not subject to the setbacks requirements at N.J.A.C. 7:13-12.5(c). Additionally, the building is not proposed in a floodway.

The finished floor of the O&M Facility building has been designed at two (2) feet above the New Jersey Design Flood Elevation (FEMA 100-year floodplain); therefore, it will have an elevation of +12.0. In addition, the lowest structural member will be set one (1) foot above the floodplain elevation of 11.

#### • N.J.A.C. 7:13-12.6: applies to any railroad, roadway and parking area.

The Project site's existing condition as well as the proposed site grade are less than one foot above the flood hazard area flood elevation of 10 feet (the upland portion of the Project) to 12 feet (water portion of the site) within the project limits. The site fronts on North Maryland Avenue, which is below the flood hazard area elevation. The entirety of this portion of Atlantic City lies within the floodplain. Therefore, raising the site and access to the site to be one foot above the flood hazard area elevation represents both prohibitively high construction costs and would require Atlantic Shores to perform significant improvements with likely acquisition of many neighboring lots and within street rights-of-way.

For specific compliance with N.J.A.C. 7:13-12.6(f), see below.

*N.J.A.C.* 7:13-12.6(f) The Department shall issue an individual permit to construct or reconstruct a private roadway or parking area not covered by (e) above, only if one of the following requirements is satisfied:

2. The applicant demonstrates that each building or group of buildings is already served by one or more roadways and/or parking areas having a travel surface at least one foot above the flood hazard area design flood elevation, which is of adequate size and capacity to serve the building or group of buildings, or that it is not feasible to construct the travel surface of each private roadway or parking area at least one foot above the flood hazard area design flood elevation pursuant to (g) below, and instead constructs the travel surface of each private roadway and parking area as close to this elevation as feasible.

Based on the existing conditions and location of the proposed facility site in the City of Atlantic City, situated it is not feasible for the access drive or the parking area to be at least one (1) foot above the flood hazard design elevation. The flood hazard design elevation in this location is +10 (1988 NAVD). The elevation of the existing adjacent street and existing driveway is at approximately elevation +6 feet. Raising the driveway and maintenance parking area would not be feasible relative to surrounding conditions and the roadway network of Atlantic City.

- 1. Demonstrate that strict compliance with the elevation requirements of this section would result in one or more of the following:
  - *i. Prohibitively high construction costs;*

Not applicable since the City of Atlantic City would need to be raised as well as the subject site.

*ii.* Construction costs that are disproportionately high compared with any benefit that would be obtained by strict compliance;

Not applicable since the City of Atlantic City would need to be raised as well as the subject site.

*iii.* A design that necessitates excessive volumes of fill that exceed the flood storage displacement limits at N.J.A.C. 7:13-11.4, for which flood storage cannot feasibly be created in compensation either onsite or offsite; or

Not applicable since the City of Atlantic City would need to be raised as well as the subject site.

*iv.* A design that causes unavoidable and adverse impacts to the environment (such as to the channel, riparian zone, or fishery resources), or which would cause unavoidable and significant increase in flooding;

Not applicable.

2. Demonstrate that every reasonable effort has been taken to situate portions of each proposed railroad, roadway or parking area at least one foot above the flood hazard area design flood elevation so that vehicles can move to higher ground during a flood;

The subject site has been raised where possible and to the maximum extent practicable.

- 3. Demonstrate that no extraordinary risk is posed to any person using each proposed railroad, roadway or parking area that is constructed at an elevation less than one foot above the flood hazard area design flood elevation. This demonstration shall include:
  - i. An analysis of the depth and frequency of floodwaters that will inundate the railroad, roadway or parking area. In no case shall the travel surface of a private roadway or parking area that serves a multi-residence building in a fluvial flood hazard area be situated greater than 12 inches below the flood hazard area design flood elevation;

The roads and parking areas do not serve a multi-residence building in a fluvial flood hazard area. Minimal parking of nine (9) spaces is provided on-site for maintenance and operation of off-shore facilities.

*ii.* The number of people that will be adversely impacted when the railroad, roadway, or parking area is inundated; and

No people will be adversely impacted when the roadways and parking area are inundated.

iii. Measures being proposed to ameliorate the anticipated adverse impacts described in (e)3i and ii above, such as the establishment of evacuation plans for individuals that would be trapped during a flood, provisions for emergency electrical service during an outage, and flood-proofing measures; and

The proposed facility will follow the evacuation plan as established by the City of Atlantic City.

- 4. Provide an adequate number of permanent signs are posted in prominent locations indicating which proposed roadways and parking areas are subject to flooding in the following areas:
  - *i.* The roadway and/or parking area serves a critical building, a multi-residence building or a residential subdivision of two or more single-family home or duplexes; or
  - *ii.* The parking area has 10 spaces or more.

Not applicable since the site provides for less than 10 parking spaces, however, two (2) "Subject to Flooding" signs are provided on the plans (see Permit Plan sheet 2 and detail sheet 5).

• N.J.A.C. 7:13-12.21: applies to any removal of existing fill or an existing structure.

Remnant concrete slabs and other foundations associated with the previous use will be removed as part of a separate bulkhead replacement project at the site. The site improvements for the Project will consist of the excavations for proposed foundations and removal of existing fill as required within the floodplain. All disturbed regulated areas will be properly stabilized. Disturbance and temporary stockpiles during construction will be stabilized in accordance with Soil Erosion and Sediment Control measures. Excavated material and structures to be removed will be disposed of lawfully and in accordance with local Soil Conservation District requirements and all other Federal, State and local laws.

The proposed Project conforms with the applicable design and construction standards. The proposed Project is in compliance with this rule.

# 7:7-9.26 <u>Riparian Zones</u>

<u>Requirement:</u> (a) A riparian zone is the land and vegetation within and adjacent to a regulated water. A riparian zone exists along both sides of every regulated water and includes the regulated water itself, except as provided in (b) below. The extent of a riparian zone is determined in accordance with (c), (d), and (e) below.

- (b) There is no riparian zone within or along the following:
  - 1.The Atlantic Ocean;
  - 2. The barrier island complex;
  - 3. Any lawfully existing manmade lagoon;

4. Any lawfully existing stormwater management basin or wastewater treatment pond;

5. Any segment of a regulated water enclosed within a lawfully existing pipe, culvert or bridge; and

6. Any lawfully existing, manmade open channel that was created to convey stormwater, provided the channel is fully lined with manmade impervious material, such as a concrete low-flow channel within a stormwater basin or a ditch completely lined with concrete or asphalt.

<u>Compliance</u>: A riparian zone exists along every regulated water, except there is no riparian zone along the Atlantic Ocean, the barrier island complex, any lawfully existing manmade lagoon, any lawfully existing stormwater management basin or wastewater treatment pond, any segment of a regulated water enclosed within a lawfully existing pipe, culvert, or bridge, and any lawfully existing, manmade open channel that was created to convey stormwater, provided the channel is fully lined with manmade impervious material, such as a concrete low-flow channel within a stormwater basin or a ditch completely lined with concrete or asphalt. Regulated waters are defined in the Flood Hazard Area Control Act rules at N.J.A.C. 7:13-2.2.

The proposed Project is located on New Jersey's barrier island complex and therefore, pursuant to N.J.A.C. 7:13-23(c) 1(ii), a riparian zone does not exist on the site. This requirement is not applicable to the Project.

# 7:7-9.27 <u>Wetlands</u>

<u>Requirement:</u> Wetlands or wetland means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation. Development of all kinds in all wetlands is generally prohibited.

<u>Compliance:</u> The Project is predominantly located along the shoreline of Clam Creek, however grading activities will occur landward of the mean high water line.

A site visit performed by DuBois & Associates, and review of NJDEP GeoWeb indicated the absence of vegetation or hydrology to support the presence of wetlands and concluded that wetlands are not present on the Project site. The proposed Project will not result in the disturbance of wetlands or transition areas regulated pursuant to the Freshwater Wetland Protection Act (N.J.S.A. 13:9B) or the Wetlands Act of 1970 (N.J.S.A. 13:9A). The Project is in compliance with this requirement.

# 7:7-9.34 Historic and Archaeological Resources

<u>Requirement:</u> (a) Historic and archaeological resources include objects, structures, shipwrecks, buildings, neighborhoods, districts, and man-made or man-modified features of the landscape and seascape, including historic and prehistoric archaeological sites, which either are on or are eligible for inclusion on the New Jersey or National Register of Historic Places.

(b) Development that detracts from, encroaches upon, damages or destroys the value of historic and archaeological resources is discouraged.

<u>Compliance:</u> The site is located along Atlantic City's maritime waterfront area (Atlantic City Inlet Marina/ Port Area). To the north of the Project site is a surface parking lot leased to Golden Nugget by the NJDEP's Division of Parks and Forestry and the Senator Frank S. Farley State Marina. To the east of

the Project site is TMT Marine Terminal, which currently operates a clamming operation. TMT leases the property from owner, Myers Dock, LLC.

Since at least 1995, the Project site has been vacant and is currently partially covered with areas of dilapidated concrete slabs, soil and grassy areas, and concrete wall structures associated with the former industrial/commercial use. The site was previously used as a bulk marine petroleum storage and/or distribution facility from at least 1931 to the early 1980s. Since the early 1990s, the Project site has been subject to environmental investigations and remediation for soil and groundwater at the site. Given the disturbed nature of the site, it is anticipated that the site does not present historic or archaeological resources.

According to a review of NJ-GeoWeb, the site is not located within any national or local historic districts or an archaeological site grid. The closest property determined by the NJ Historic Preservation Office as National Register Eligible is the United States Coast Guard (USCG) Station Atlantic City, located approximately one quarter mile to the northeast of the site. The Atlantic City Beautiful Historic District (determined to be National Register Eligible by NJ Historic Preservation Office) is located approximately one quarter mile to the southeast. The locally established Carson Avenue Boathouses Historic District is located approximately 1,400 feet to the east has not been determined to be Register eligible by the NJ Historic Preservation Office however, the Carson Avenue Boathouses Historic District includes one property (419 Carson Avenue) which has been determined to be National Register Eligible by the NJ Historic Preservation Office.

All of these resources are separated from the Project Area of Potential Affect (APE) by Clam Creek. For the purposes of this study, it was estimated that the visual effect of the proposed Project would extend approximately 2,000 feet in all directions. This preliminary viewshed estimation is based on the low height of the proposed Project in relation to relatively dense urban development surrounding the Project area immediately to the west and south and across Clam Creek to the east. This visual buffer separates the Project from the Atlantic City Beautiful Historic District and makes any effect on the district unlikely. Table 2 contains the identified historic resources within this viewshed buffer.

	TABLE 2		
Address	Cultural Resource Name	Designation Status	Distance to APE (Feet)
Multiple	Atlantic City Beautiful Historic District	NR Eligible	1,280
900 Beach Thorofare	USCG Station Atlantic City	Eligible INDV	1,350
Multiple	Carson Avenue Boathouses Historic District	Not Eligible	1,400

The geomorphology of the subject property and surrounding area is one of heavily constructed terrain and filled land. This suggests the prehistoric archaeological sensitivity of the property is non-existent. The historic archaeological sensitivity is likely to be low, or moderate at the most.

A Historic Preservation Map depicting nearby historic districts and properties, potential viewshed, archaeological site grids, and historic fill is provided in Appendix A, Figure 11.

The proposed O&M Facility is compatible with Atlantic City's commercial maritime waterfront in Clam Creek and is not anticipated to adversely impact historic or archaeological resources.

# 7:7-9.36 Endangered or threatened wildlife or plant species habitats

<u>Requirement:</u> (a) Endangered or threatened wildlife or plant species habitats are terrestrial and aquatic (marine, estuarine or freshwater) areas known to be inhabited on a seasonal or permanent basis by or to be critical at any stage in the life cycle of any wildlife or plant identified as "endangered" or "threatened" species on official Federal or State lists of endangered or threatened species, or under active consideration for State or Federal listing. The definition of endangered or threatened wildlife or plant species habitats includes a sufficient buffer area to ensure continued survival of the population of the species as well as areas that serve an essential role as corridors for movement of endangered or threatened wildlife. Absence of such a buffer area does not preclude an area from being endangered or threatened wildlife or plant species habitat.

<u>Compliance:</u> As part of the Habitat Evaluation prepared by DuBois & Associates to support this application, endangered or threatened wildlife and plant species habitat was analyzed (Attachment I; Section 4.3). The following species were identified on and within the vicinity of the site using NJDEP Landscape Project Version 3.3 map data.

Wildlife Species	State Status	Land Cover Type
Osprey	Threatened	Tidal Rivers, Inland Bays, and Other Tidal Waters
Yellow-crowned Night-heron	Threatened	Foraging
Black-crowned Night-heron	Threatened	Foraging
Peregrine Falcon	Endangered	Nest
Least Tern	Endangered	Foraging
Black Skimmer	Endangered	Foraging

Colonial waterbird (i.e., herons) and seabird (i.e., least tern & black skimmer) nesting colonies, and their suitable breeding habitats, are absent from the site. Redevelopment of the quayside edge has de-minimus in-water impacts that will not adversely impact the quality or quantity of the expansive suitable open-water foraging habitat from the Project vicinity. The site is absent of tall structures that could provide for a suitable peregrine falcon nesting site, and the Project will not prohibit falcons from pursuing aerial hunting in the local area. There are no active osprey nests located on the Project site or within the vicinity; therefore, the Project is not anticipated to have any effect on osprey. The Project would not adversely impact endangered or threatened wildlife species and therefore complies with N.J.A.C. 7:7-9.36.

# 7:7-9.37 <u>Critical Wildlife Habitats</u>

<u>Requirement:</u> (a) Critical wildlife habitats are specific areas known to serve an essential role in maintaining wildlife, particularly in wintering, breeding, and migrating.

- 1. Rookeries for colonial nesting birds, such as herons, egrets, ibis, terns, gulls, and skimmers; stopovers for migratory birds, such as the Cape May Point region; and natural corridors for wildlife movement merit a special management approach through designation as a Special Area.
- 2. Ecotones, or edges between two types of habitats, are a particularly valuable critical wildlife habitat. Many critical wildlife habitats, such as salt marsh water fowl wintering areas, and muskrat habitats, are singled out as water or water's edge areas.

3. Definitions and maps of critical wildlife habitats are currently available only for colonial waterbird habitat in the 1979 Aerial Colony Nesting Waterbird Survey for New Jersey (NJDEP, Division of Fish and Wildlife). Until additional maps are available, sites will be considered on a case-by-case basis by the Division of Fish and Wildlife.

<u>Compliance</u>: As part of the Habitat Evaluation prepared by DuBois & Associates to support this application, critical wildlife habitat was analyzed (Attachment I; Section 4.4). The evaluation concluded that in light of the disturbed/developed nature of the terrestrial portion of the site, there are no vegetation communities or natural areas that would represent critical stopover habitat for migratory birds. Additionally due to the urban landscape, there are no functional greenway corridors that provide for wildlife movements. Wildlife habitats are absent from the site therefore the Project is in compliance with N.J.A.C. 7:7-9.37.

# 7:7-9.38 <u>Public Open Space</u>

<u>Requirement:</u> (a) Public open space constitutes land areas owned or maintained by State, Federal, county and municipal agencies or private groups (such as conservation organizations and homeowner's associations) and used for or dedicated to conservation of natural resources, public recreation, visual or physical public access or, wildlife protection or management. Public open space also includes, but is not limited to, State Forests, State Parks, and State Fish and Wildlife Management Areas, lands held by the New Jersey Natural Lands Trust (N.J.S.A. 13:1B-15.119 et seq.), lands held by the New Jersey Water Supply Authority (N.J.S.A. 58:1B-1 et seq.) and designated Natural Areas (N.J.S.A. 13:1B-15.12a et seq.) within DEP-owned and managed lands.

<u>Compliance</u>: The site has been historically used to support port uses and is a suitable location for future use of this kind. The Project site is not publicly owned and does not contain public open space therefore, no proposed development is located on public open space. The Project is not anticipated to adversely impact public open space.

# 7:7-9.39 Special Hazard Areas

<u>Requirement:</u> (a) Special hazard areas include areas with a known actual or potential hazard to public health, safety, and welfare, or to public or private property, such as the navigable air space around airports and seaplane landing areas, potential evacuation zones, and areas where hazardous substances as defined at N.J.S.A. 58:10-23.11b are used or disposed, including adjacent areas and areas of hazardous material contamination.

(b) Coastal development, especially residential and labor-intensive economic development, within special hazard areas is discouraged. All development within special hazard areas must include appropriate mitigating measures to protect the public health and safety.

(c) Approvals from the Department's Solid and Hazardous Waste Program shall be obtained prior to the commencement of any hazardous substance investigations or cleanup activities at contaminated sites.

<u>Compliance:</u> Block 567, Lot 2 was formerly utilized as a marine bulk petroleum storage and distribution facility. Block 567, Lot 2 has been subject to environmental investigations since the early 1990s. Following these investigations, the NJDEP had issued No Further Action (NFA) letters for the soil and groundwater at the site. However, several Recognized Environmental Conditions (RECs) were identified in the 2021 Phase I ESA that were not identified or addressed in prior environmental investigations. The

responsible party has hired a Licensed Site Remediation Professional (LSRP) to address historic fill and other areas on site and has been monitoring the groundwater as part of the conditions of the NFA. The responsible party is in the process of preparing a Request for Closure report for the NJDEP. The NJDEP is monitoring groundwater contamination for the site with a Classification Exception Area (CEA) (Case No. 90-03-07-1224). The proposed O&M Facility will act as an engineering control to cap the property.

# 7:7-9.41 Special Urban Areas

<u>Requirement:</u> (a) Special urban areas are those municipalities defined in urban aid legislation (N.J.S.A. 52:27D-178) qualified to receive State aid to enable them to maintain and upgrade municipal services and offset local property taxes. Under N.J.S.A. 52:27D-178 et seq., the Department of Community Affairs (DCA) establishes a list of qualifying municipalities each fiscal year. DCA's list of qualifying municipalities may be obtained on request from the Department's Division of Land Use Regulation at the address set forth at N.J.A.C. 7:7-1.6.

(b) Development that will help to restore the economic and social viability of special urban areas is encouraged. Development that would adversely affect the economic well being of these areas is discouraged, when an alternative which is more beneficial to the special urban areas is feasible. Development that would be of economic and social benefit and that serves the needs of local residents and neighborhoods is encouraged.

<u>Compliance</u>: The subject site is located in the City of Atlantic City which is listed on the 2023 Urban Aid List to which this rule would apply. Pursuant to N.J.A.C. 7:7-9.41(b), development that will help to restore the economic and social viability of special urban areas is encouraged.

The proposed Project will add to and diversify the local economy by adding a significant new economy within the City of Atlantic City. The Project will strengthen the City's tax base and result in job creation within the City of Atlantic City. The Project complies with this rule.

# 7:7-9.45 <u>Geodetic Control Reference Marks</u>

<u>Requirement:</u> Geodetic control reference marks are traverse stations and benchmarks established or used by the New Jersey Geodetic Control Survey pursuant to P.L. 1934, C116. They include monuments, disks, points, rivets, and marks. The disturbance of geodetic control reference marks is discouraged....

<u>Compliance</u>: No geodetic control reference marks were observed on the Project site during a field visit performed by PS&S personnel. According to information obtained from National Geodetic Survey Data Explorer (http://www.ngs.noaa.gov/NGSDataExplorer/) the closest geodetic control reference markers are:

PID Number	Station Location	Approximate Distance from the Project Site
DQ8267	Located at the northeast corner of the junction of Maryland Avenue and New Jersey Route 187.	0.15 mile
DQ8304	Located along on the east side of New Jersey Route 187 approximately 0.25-miles north of the intersection with North Carlin Avenue	0.10 mile
JU4333	Located in the grounds of the US Army Corps of Engineers	0.22-mile

Atlantic City Sub Office on the northeast side of the tee
junction of Maryland Avenue and Swell Avenue.

The Project will not disturb a geodetic reference mark.

# 7:7-9.47 <u>Atlantic City</u>

<u>*Requirement:*</u> (a) Atlantic City is those lands within the municipal boundary of the City of Atlantic City. (b)...(l).

<u>Compliance:</u> Atlantic City was established as a Coastal Zone Management special area on February 7, 2000, to encourage redevelopment of Atlantic City and its beach and oceanfront facilities. The Project site is located within the municipal boundary of the City of Atlantic City. However, this section of the rules focuses on development of casino hotels, development at existing ocean piers, construction/expansion of new commercial piers, development within the Boardwalk right-of-way, development within specific public rights-of-way and development of casino intercept parking. The Project is not a casino hotel nor is the site located on the beach, the Boardwalk or within specific public rights-of-way. While none of the provisions of this rule are directly applicable to the proposed Project, the Project will add to and diversify the local economy by adding a significant new economy within the City of Atlantic City without conflicting with the gaming industry or the continued enhancement of the City's tourist-oriented resort economy. Therefore, the proposed Project is in compliance with this rule.

#### 7:7-9.48 Lands and waters subject to public trust rights

<u>Requirement:</u> (a) Lands and waters subject to public trust rights are tidal waterways and their shores, including both lands now or formerly below the mean high water line, and shores above the mean high water line. Tidal waterways and their shores are subject to the Public Trust Doctrine and are held in trust by the State for the benefit of all the people, allowing the public to fully enjoy these lands and waters for a variety of public uses. Public trust rights include public access which is the ability of the public to pass physically and visually to, from and along the ocean shore and other waterfronts subject to public trust rights and to use these lands and waters for activities such as navigation, fishing and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating. Public trust rights also include the right to perpendicular and linear access.

(b) Public access to lands and waters subject to public trust rights shall be provided in accordance with the public access rule, N.J.A.C. 7:7-16.9. Development that does not comply with N.J.A.C. 7:7-16.9, Public access, is discouraged in lands and waters subject to public trust rights.

<u>Compliance</u>: During previous operation of the site as a petroleum product storage and distribution facility there was no public access. The O&M Facility proposes a use (commercial/industrial) as in that there are practical and security concerns regarding public access. Moreover, the site is relatively small and Project improvements, while remaining within the footprint of the previously disturbed bulk petroleum storage operation, occupy the entirety of the site. Pursuant to N.J.A.C. 7:7-16.9 (k)5ii, since the commercial development had no existing public access, no public access is required. The Project complies with this rule as well as with the Public Access Rule (N.J.A.C. 7:7-16.9).

# 7:7-12.4 Docks and piers for cargo and commercial fisheries

<u>Requirement:</u> (a) Docks and piers for cargo and passenger movement and commercial fisheries are structures supported on pilings driven into the bottom substrate or floating on the water surface, used for

loading and unloading passengers or cargo, including fluids, connected to or associated with, a single industrial or manufacturing facility or to commercial fishing facilities.

(b) Docks and piers for cargo and passenger movement and commercial fisheries are conditionally acceptable provided:

1. The width and length of the dock or pier is limited to only what is necessary for the proposed use;

2. The dock or pier will not pose a hazard to navigation. A hazard to navigation includes all potential impediments to navigation, including access to adjacent moorings, water areas and docks and piers; and

3. The associated use of the adjacent land meets all applicable rules of this chapter.

(c) The standards for port uses are found at N.J.A.C. 7:7-15.9. The standards for the construction of a dock or pier composed of fill and retaining structures are found at N.J.A.C. 7:7-12.11.

<u>Compliance:</u> The proposed in-water improvements, including dolphins, floating docks and foundations for cranes, are to support the operation and maintenance of Atlantic Shores' Offshore Wind Project. Atlantic Shores is proposing three (3) docks perpendicular to the bulkhead line. Each of the proposed docks are 10 and 12-feet wide and 95-97 feet long. The limits of the docks are located within the property boundary. The docks are not anticipated to pose a hazard to navigation.

According to the NOAA Office of Coast Survey ENC Viewer, there is no marked navigational channel in Clam Creek. The nearest buoy on the chart is located at the confluence of Clam Creek and Absecon Inlet.

However, it is noted that there is a Federally sponsored project (Absecon Inlet) which includes an entrance channel from Absecon Inlet into Clam Creek and a turning basin (Figure 10). The USACE was contacted and provided the limits of the Federal Channel. The limits of the Federal Channel overlap with the in-water portion of the Project site. The proposed docks are not anticipated to adversely impact vessel traffic traveling through Clam Creek to Absecon Inlet. Additionally, Senator Frank S. Farley State Marina will remain accessible to recreation vessels.

As detailed in this compliance statement, the proposed in water and on land improvements associated with the O&M Facility meet the applicable CZM Rules.

# 7:7-12.12 <u>Mooring</u>

<u>*Requirement:*</u> (a) A boat mooring is a temporary or permanently fixed or floating anchored facility in a water body for the purpose of attaching a boat.

*(b) Temporary or permanent boat mooring areas are conditionally acceptable provided:* 

1. There is a demonstrated need that cannot be satisfied by existing facilities;

2. Adverse environmental impacts are minimized to the maximum extent practicable; and

3. The mooring area is adequately marked and is located so as not to hinder navigation. A

hazard to navigation will apply to all potential impediments to navigation, including access to adjacent moorings, water areas, docks and piers

<u>Compliance</u>: The O&M Facility is proposing moorings for five (5) vessels. The vessels will be used to transport materials and crew members to the Atlantic Shores' portfolio of offshore wind projects. The

materials and crew will be used to support operation and maintenance activities associated with the wind turbines. Due to the specific requirements for quayside features the need cannot be met by existing facilities.

As mentioned previously Block 567, Lot 2 was formerly utilized as a marine bulk petroleum storage and distribution facility. Block 567, Lot 2 has been subject to environmental investigations since the early 1990s. The responsible party is in the process of preparing a Request for Closure report for the NJDEP. The redevelopment of a previously disturbed site minimizes adverse environmental impacts associated with the project.

The proposed mooring area (docks) will be perpendicular to the bulkhead line. The docks will be located within the property boundary and adequately marked. The docks are not anticipated to pose a hazard to navigation.

#### 7:7-13 Requirements for Impervious Cover and Vegetative Cover for General Land Areas and Certain Special Areas; and Impervious Cover Limits and Vegetative Cover Percentages in the CAFRA Area

Requirement: Subchapter 13 of the Coastal Zone Management rules provides a framework within which to assess a development proposal in the CAFRA Zone with regard to acceptable impervious and vegetative coverages required to "Concentrate rather than disperse the pattern of coastal residential, commercial, industrial and resort development, encourage the preservation of open space, and ensure the availability of suitable waterfront areas for water dependent activities." [7:7-1.1 (a)(1)(ii)], which is the second of eight NJDEP coastal policies.

<u>Compliance:</u> In accordance with N.J.A.C. 7:7-13.17(g), the allowable impervious cover is 100 percent since historically the site was entirely covered by impervious surfaces. The applicable 95-97 imagery depicting 100 percent impervious cover on the Project site is provided as Figure 9. Impervious surfaces are proposed over 100 percent of the site to act an engineering control as part of the remediation process being completed on the site. The Project is in compliance with the requirements of this subchapter.

# 7:7-14.2 Basic Location Rule

<u>Requirement:</u> (a) A location may be acceptable for development under N.J.A.C. 7:7-9, 12, 13, and 14, but the Department may reject or conditionally approve the proposed development of the location as reasonably necessary to:

- 1. Promote the public health, safety, and welfare;
- 2. Protect public and private property, wildlife and marine fisheries; and
- 3. Preserve, protect and enhance the natural environment.

<u>Compliance:</u> The proposed O&M Facility Project will advance the revitalization of Atlantic City's Clam Creek waterfront between Farley State Marina and the TMT Marine Terminal. The O&M Facility will be a principal base for Atlantic Shores and the associated WTM(s) to operate and maintain its portfolio of offshore wind projects. The site has been historically used to support port operations and is a suitable location for future use of this kind.

The Project will not adversely impact public health, safety, and welfare; public and private property, wildlife and marine fisheries; or the natural environment. The proposed Project is in compliance with this CZM Rule.

# 7:7-14.3 <u>Secondary Impacts</u>

<u>Requirement:</u> (a) Secondary impacts are the effects of additional development likely to be constructed as a result of the approval of a particular proposal. Secondary impacts can also include traffic increases, increased recreational demand and any other offsite impacts generated by onsite activities which affect the site and surrounding region.

(b) Coastal development that induces further development shall demonstrate, to the maximum extent practicable, that the secondary impacts of the development will satisfy the Coastal Zone Management rules. The Department may restrict coastal development from connecting to an approved infrastructure in order to prevent adverse impacts to the special areas and to protect and preserve coastal resources.

<u>Compliance:</u> No significant adverse secondary impacts will result from the project. The O&M Facility employee parking will be provided at an existing surface parking lot owned by Atlantic Shores Offshore Wind Services, LLC bounded by Belmont Avenue, California Avenue, Pacific Avenue and Boardwalk. This intercept parking lot, known as the California Avenue intercept lot, provides 198 parking stalls available to Atlantic Shores and the Wind Turbine Manufacturer employees. Employees will arrive at the intercept parking lot by various routes depending on location of origin. From the intercept lot, in a staggered schedule, they will be shuttled to the O&M Facility in two, 24-person capacity electric buses operating between 6:00AM and 7:30PM, seven days per week. Using the intercept lot for employee parking and buses to shuttle employees to the O&M Facility will increase passenger vehicle movements on various City roadways and shuttle bus movements along California Avenue, Pacific Avenue and Maryland Avenue. A Traffic Engineering and Air Quality Assessment for the Project is provided in Attachment L. The Assessment concludes that traffic resulting from the Project will cause no changes in the future individual and overall levels of service at the local intersections impacted by the Project. This same conclusion was made for future driveway movements at the O&M Facility driveways and the intercept parking lot driveway. The Project is in compliance with this rule.

# 7:7-15.4 Energy Facility

<u>Requirement:</u> (a) Energy facilities include facilities, plants or operations for the production, conversion, exploration, development, distribution, extraction, processing, or storage of energy or fossil fuels. Energy facilities also include onshore support bases and marine terminals. Energy facilities do not include operations conducted by a retail dealer, such as a gas station, which is considered a commercial development.

<u>Compliance</u>: The O&M Facility will be a principal base for Atlantic Shores and the WTM(s) to operate and maintain its portfolio of offshore wind projects. The Project is, therefore, a water dependent use. The applicable Special Areas N.J.A.C. 7:7-9.1 through 9.40, 9.40 and 9.44 have been addressed previously in this document. Additionally, the Marine Fish and Fisheries rule (N.J.A.C. 7:7-16.2) is discussed below. As demonstrated in those compliance statements, the proposed Project is not anticipated to result in adverse impacts to these areas.

Pursuant to N.J.A.C. 7:7-15.4(c) coastal energy facilities cannot directly or indirectly result in a net loss of employment in the State in a single year. The O&M Facility is not anticipated to result in a net loss of employment in the State. Approximately eighty (80) renewable energy employment opportunities will be created at the O&M Facility. The Project will result in the redevelopment of a site that was previously a marine terminal and subsequently required remediation for soil and groundwater contamination. Additionally, the site is located within the commercial maritime waterfront of Atlantic City and the proposed facility is compatible with the surrounding uses.

The proposed Project is in compliance with this section.

#### 7:7-16.2 <u>Marine Fish and Fisheries</u>

<u>*Requirement:*</u> (a) Marine fish are marine and estuarine animals other than marine mammals and birds. *Marine fisheries means:* 

- 1. One or more stocks of marine fish which can be treated as a unit for the purposes of conservation and management and which are identified on the basis of geographical, scientific, technical, recreational and economic characteristics: and
- 2. The catching, taking or harvesting of marine fish.

(b) Any activity that would adversely impact the natural functioning of marine fish, including the reproductive, spawning and migratory patterns or species abundance or diversity of marine fish, is discouraged. In addition, any activity that would adversely impact any New Jersey based marine fisheries or access thereto is discouraged...

<u>Compliance</u>: The in-water work associated with the O&M Facility includes dolphins and floating docks for mooring vessels and installation of foundations for cranes used to load and unload the vessels. The proposed in-water improvements may cause temporary impacts to marine fish during construction. However, through timing restrictions for in-water work and best management practices, impacts to marine fish will be minimized. The Project is not anticipated to adversely impact the natural function of marine fish. The Project is in compliance with this requirement.

#### 7:7-16.3 <u>Water Quality</u>

<u>Requirement:</u> (b) Coastal development which would violate the Federal Clean Water Act, or State laws, rules and regulations enacted or promulgated pursuant thereto, is prohibited. In accordance with N.J.A.C. 7:15 concerning the Water Quality Management Planning and Implementation process, coastal development that is inconsistent with an approved Water Quality Management (208) Plan under the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., is prohibited.

<u>Compliance:</u> The proposed O&M Facility is located within the Atlantic County Utilities Authority (ACUA) Sewer Service Area (SSA) and is within the service area of the ACUA City Island Plant (NJPDES Permit Number NJ0024473). The Project is in compliance with this requirement.

#### 7:7-16.4 <u>Surface Water Use</u>

<u>Requirement:</u> (b) Coastal development shall demonstrate that the anticipated surface water demand of the facility will not exceed the capacity, including phased planned increases, of the local potable water supply system or reserve capacity, and that construction of the facility will not cause unacceptable surface water disturbances, such as drawdown, bottom scour, or alteration of flow patterns.

1. Coastal development shall conform with all applicable Department and, in the Delaware River Basin, Delaware River Basin Commission requirements for groundwater withdrawal and water diversion rights.

<u>Compliance</u>: The proposed O&M facility will be serviced by ACUA for potable water. The facility will not have a water demand that will exceed the capacity of ACUA's system. The Project is in compliance with this requirement.

#### 7:7-16.5 Groundwater Use

<u>Requirement:</u> (b) Coastal development shall demonstrate, to the maximum extent practicable, that the anticipated groundwater withdrawal demand of the development, alone and in conjunction with other groundwater diversions proposed or existing in the region, will not cause salinity intrusions into the groundwaters of the zone, will not degrade groundwater quality, will not significantly lower the water table or piezometric surface, or significantly decrease the base flow of adjacent water sources. Groundwater withdrawals shall not exceed the aquifer's safe yield.

1. Coastal development shall conform with all applicable Department and, in the Delaware River Basin, Delaware River Basin Commission requirements for groundwater withdrawal and water diversion rights.

Compliance: There is no groundwater use proposed by this Project.

#### 7:7-16.6 <u>Stormwater Management</u>

<u>Requirement:</u> If a project or activity meets the definition of "major development" at N.J.A.C. 7:8-1.2, then the project or activity shall comply with the Stormwater Management rules at N.J.A.C. 7:8.

<u>Compliance:</u> No stormwater management basin is proposed as part of the site improvements as previously indicated. Temporary soil erosion measures will be implemented during construction to minimize environmental impacts from sediment, particularly to adjacent properties and the downstream waterbody. Soil erosion measures include silt fence, temporary soil stockpiles, and stabilized stone construction entrance. These measures will better avoid any adverse impacts downstream of the site.

The Project is not anticipated to result in an adverse impact to drainage as the site has historically had a 100 percent impervious cover. According to the NJDEP Stormwater Management Rules N.J.A.C. 7:8-5.6(b)4, since there is no increase in runoff volume or change in timing and since runoff from the project site will discharge directly to Clam Creek, a tidal waterbody, and will not result in additional flood damage below the point of discharge; no analysis of stormwater quantity is required. The proposed site will have less than a total of 0.25 acres of motor vehicle surface, therefore the project is exempt from the water quality requirements per N.J.A.C. 7:8-5.5(a).

Groundwater recharge design has been based on the requirements of NJDEP Stormwater Management Rules, which requires that the deficit of groundwater recharge between the pre- and post-development shall be recharged through Best Management Practices (BMPs). According to the NJDEP Stormwater Management Rules N.J.A.C. 7:8-5.4(a)2ii, the groundwater recharge requirement does not apply to projects within the "urban redevelopment area", which includes previously developed portions of areas delineated on the State Plan Policy Map as Metropolitan Planning Area (PA-1). The project site lies within PA-1, is previously developed, and is therefore exempt from the groundwater recharge requirements of N.J.A.C. 7:8.

The Project is in compliance with this rule.

#### 7:7-16.7 <u>Vegetation</u>

<u>Requirement:</u> (b) Coastal development shall preserve, to the maximum extent practicable, existing vegetation within a development site. Coastal development shall plant new vegetation, particularly appropriate coastal species, native to New Jersey to the maximum extent practicable.

<u>Compliance:</u> The Project site is currently vacant with minimal vegetation consisting of succession grassland. In accordance with N.J.A.C. 7:7-13.17(g), the allowable impervious cover is 100 percent since historically the site was covered by impervious surfaces. The applicable 95-97 imagery depicting 100 percent impervious cover on the Project site is provided as Figure 9 in this section. Impervious surfaces are proposed over 100 percent of the site to act an engineering control as part of the remediation process being completed on the site. The Project is in compliance with this requirement.

#### 7:7-16.8 <u>Air quality</u>

<u>Requirement:</u> (b) Coastal development shall conform to all applicable State and Federal regulations, standards and guidelines and be consistent with the strategies of New Jersey's State Implementation Plan (SIP). See N.J.A.C. 7:27 and New Jersey SIP for ozone, particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, lead, and visibility.

<u>Compliance:</u> The are no process activities that would result in air emissions at the O&M Facility. The facility will have an emergency generator on site to be used for system operations and HVAC operation in the event of a power outage.

A Traffic Engineering and Air Quality Assessment for the Project is provided in Attachment L. The Air Quality Assessment concludes that pursuant to the levels of service measured in the assessment and current NJDEP protocol, dispersion modeling is not required for any existing and future study intersections and no further improvements are required at the study intersections due to air quality conditions.

#### 7:7-16.9 <u>Public access</u>

<u>Requirement:</u> (a) Public access to the waterfront is the ability of the public to pass physically and visually to, from, and along tidal waterways and their shores and to use such shores, waterfronts and waters for activities such as navigation, fishing, and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating. Public accessways and public access areas include streets, paths, trails, walkways, easements, paper streets, dune walkovers/walkways, piers and other rights-of way. No authorization or approval under this chapter shall be deemed to relinquish public rights of access to and use of lands and waters subject to public trust rights in accordance with N.J.A.C.7:7-9.48. Further, no authorization or approval under this chapter shall be considered a Tidelands approval or shall exempt an applicant from the obligation to obtain a Tidelands approval, if needed.

(b) In addition to the broad coastal goals outlined at N.J.A.C. 7:7-1.1(c), public access shall be provided in a manner designed to achieve the following public access goals:

1. All levels of government in New Jersey shall seek to create and enhance opportunities for public access to tidal waterways and their shores, on a non-discriminatory basis;

2. All existing public access to, and along tidal waterways and their shores shall be maintained to the maximum extent practicable;

3. New development shall provide opportunity for public access to tidal waterways and their shores on or offsite;

*i.* Public access proposed by an applicant may include any one or combination of the following:

(1) A public accessway designed in accordance with (u) below, located parallel to the shoreline with perpendicular access;

(2) A boat ramp, pier, fishing, or other direct access to the waterway;

(3) A waterfront pocket park;

- (4) Public restrooms to accommodate those utilizing public access; and/or
- (5) Additional public parking to accommodate those utilizing public access;

ii. Public access proposed by an applicant shall incorporate, to the maximum extent practicable, fishing access and associated amenities, including parking that accommodates nighttime fishing for a reasonable duration of time, on or adjacent to tidal waterways and their shores. In the case of a beach, fishing access shall not be required in areas designated for swimming during hours designated for swimming.

4. Public access to tidal waterways and their shores shall be provided in such a way that it shall not create conditions that may be reasonably expected to endanger public health or safety, or damage the environment. To that end, public access may be restricted seasonally, hourly, or in scope (for example, access restricted to a portion of the property, or access allowed for fishing but not swimming due to consistent strong currents); and

5. Public access to tidal waterways and their shores shall be provided in such a way that it shall not create a significant homeland security vulnerability, as determined by the Department in consultation with the New Jersey Office of Homeland Security and Preparedness or the United States Department of Homeland Security. Therefore, public access may be prohibited in locations where homeland security concerns are present or where it is not practicable based on the risk of injury from hazardous operations or substantial permanent obstructions, and no measures can be taken to avert these risks.

5. Ports, as defined at N.J.A.C. 7:7-9.11, shall provide both visual and physical access as follows:

i. For existing ports, public access shall be provided as follows:

(1) No public access is required if there is no existing public access onsite. Any existing public access shall be maintained or equivalent onsite public access shall be provided. If it can be demonstrated that continued onsite public access is not practicable based on the risk of injury from proposed hazardous operations, or substantial permanent obstructions, or upon documentation of a threat to public safety due to unique circumstances concerning the subject property, and no measures can be taken to avert these risks, equivalent public access shall be provided offsite on the same waterway and within the same municipality as the development. The Department shall consider factors such as the type of public access available (for example, if linear or visual access is available onsite then linear or visual access should be available at the offsite location), square footage of access area, and environmental impact/benefit when determining whether the proposed offsite public access is equivalent to that which would have been required onsite.

(2) If the applicant demonstrates that offsite public access within the same municipality is not feasible because there are no sites available upon which to provide public access in accordance with (k)5i(1) above, equivalent offsite public access shall be provided on the same waterway within a neighboring municipality where the access is consistent with the neighboring municipality's Municipal Public Access Plan or, if there is no Municipal Public Access Plan, the access is located and designed to be consistent with (b) above.

ii. For new ports, no public access is required.

<u>Compliance</u>: Public access to the waterfront is the ability of the public to pass physically and visually to, from, and along tidal waterways and their shores and to use such shore, waterfronts and waters for activities such as navigation, fishing and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating.

During previous operation of the site as a petroleum product storage and distribution facility, there was no public access. The O&M Facility proposes a similar use (commercial/industrial) as what previously existed. Project improvements will generally remain within the previously disturbed footprint of the bulk petroleum storage operation. Pursuant to N.J.A.C. 7:7-16.9 (k)5ii, since the commercial development had no existing public access, then no public access is required.

Additionally pursuant to N.J.A.C.7:7-16.9(b)5, public access may be prohibited in locations where New Jersey Office of Homeland Security and Preparedness or the United States Department of Homeland Security concerns are present or where it is not practicable based on the risk of injury from hazardous operations or substantial permanent obstructions, and no measures can be taken to avert these risks. As defined in the section 1016(e) of the USA Patriot Act of 2001 (42 U.S.C. 5195c(e)), critical infrastructure are systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters. There are sixteen critical infrastructure sectors one of which is the energy sector.

The proposed Project is a support facility for an electric power generating wind farm, considered critical infrastructure by the United States Department of Homeland Security. The provision of public access through portions of a commercial/industrial, energy-supporting operation would endanger the public health and safety and, potentially, would create significant homeland security vulnerability. The Project complies with this rule.

#### 7:7-16.10 <u>Scenic resources and design</u>

<u>Requirement:</u> (c) New coastal development that is visually compatible with its surroundings in terms of building and site design, and enhances scenic resources is encouraged. New coastal development that is not visually compatible with existing scenic resources in terms of large-scale elements of building and site design is discouraged.

<u>Compliance:</u> The proposed O&M Facility is consistent with CZM rules governing scenic resources and design. As detailed in other sections of this document, the project is located along the shoreline of Clam Creek with Senator Frank S. Farley Marina to the northwest and commercial fishing operations to the southeast. The proposed Project is consistent with the surrounding uses and the O&M Facility building has been designed to be aesthetically pleasing and visually compatible with the new commercial waterfront facilities along Clam Creek. Project Renderings are provided in Attachment K. The Project complies with this rule.

#### 7:7-16.11 Buffers and compatibility of uses

<u>Requirement:</u> (a) Buffers are natural or man-made areas, structures, or objects that serve to separate distinct uses or areas. Compatibility of uses is the ability for uses to exist together without aesthetic or functional conflicts.

(b) Development shall be compatible with adjacent land uses to the maximum extent practicable.

1. Development that is likely to adversely affect adjacent areas, particularly special areas, N.J.A.C. 7:7-9, or residential or recreation uses, is prohibited unless the impact is mitigated by an adequate buffer. The purpose, width, and type of the required buffer shall vary depending upon the type and degree of impact and the type of adjacent area to be affected by the development, and shall be determined on a case-by-case basis.

<u>Compliance:</u> The proposed O&M Facility is consistent with CZM rules governing buffers and compatibility of uses. As mentioned in other sections of this document, the project is located along the shoreline of Clam Creek with Senator Frank S. Farley Marina surface parking lot to the northwest and commercial fishing operations to the southeast. The Project site is currently undeveloped and littered with remnant concrete foundations and 12-inch-thick battered concrete walls extending 5 feet above the finished grade. The proposed Project will rehabilitate and redevelop this vacant site. The O&M Facility building has been designed with an aesthetically pleasing Maryland Avenue façade that belies the first level warehouse function. Project Renderings are provided in Attachment K. This Project complies with N.J.A.C. 7:7-16.11.

#### 7:7-16.12 <u>Traffic</u>

<u>Requirement:</u> (b) Coastal development shall be designed, located and operated in a manner to cause the least possible disturbance to traffic systems.

1. Alternative means of transportation, that is, public and private mass transportation facilities and services, shall be considered and, wherever feasible, incorporated into the design and management of a proposed development, to reduce the number of individual vehicle trips generated as a result of the facility. Examples of alternative means of transportation include: van pooling, staggered working hours and installation of ancillary public transportation facilities such as bus shelters.

Compliance: The O&M Facility will initially employ 80 people with the potential to employ up to 150 as additional projects in Atlantic Shores portfolio come online. The O&M Facility employee parking will be provided at an existing surface parking lot owned by Atlantic Shores bounded by Belmont Avenue, California Avenue, Pacific Avenue and Boardwalk. This intercept parking lot, known as the California Avenue intercept lot, provides 198 parking stalls available to Atlantic Shores and the WTM employees. Employees will arrive at the intercept parking lot by various routes depending on location of origin. From the intercept lot, in a staggered schedule, they will be shuttled to the O&M Facility in two, 24-person capacity electric buses operating between 6:00AM and 7:30PM, seven days per week. Using the intercept lot for employee parking and buses to shuttle employees to the O&M Facility will increase passenger vehicle movements on various City roadways and shuttle bus movements along California Avenue, Pacific Avenue and Maryland Avenue. A Traffic Engineering and Air Quality Assessment for the Project is provided in Attachment L. The Assessment concludes that traffic resulting from the Project will cause no changes in the future individual and overall levels of service at the local intersections impacted by the Project. This same conclusion was made for future driveway movements at the O&M Facility driveways and the intercept parking lot driveway. The Project is in compliance with this rule.

#### 7:7-16.13 <u>Subsurface sewage disposal systems</u>

<u>Requirement:</u> (a) Subsurface sewage disposal system means a system for disposal of sanitary sewage into the ground which is designed and constructed to treat sanitary sewage in a manner that will retain most of the settleable solids in a septic tank and to discharge the liquid effluent to a disposal field.

<u>Compliance</u>: As subsurface sewage disposal system is not proposed as part of this Project therefore this rule is not applicable to the Project.

#### 7:7-16.14 Solid and hazardous waste

<u>Requirement:</u> (b) Coastal development shall conform with all applicable State and Federal regulations, standards and guidelines for the handling and disposal of solid and hazardous wastes, including the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., the Solid Waste Management rules, N.J.A.C. 7:26, the Recycling rules, N.J.A.C. 7:26A, and the Hazardous Waste rules, N.J.A.C. 7:26G.

<u>Compliance:</u> Solid waste generated during construction will be managed by the contractor. Once construction is complete, waste will be removed by a privately hired qualified waste hauler. Accordingly, the proposed Project complies with N.J.A.C. 7:7-16.14.

#### 7.0 <u>STATEMENT REGARDING REQUIRED FINDINGS</u>

The Department shall issue a permit pursuant to the CAFRA Act upon a finding as required by N.J.S.A.

13:19-10 that the development:

1. Conforms with all applicable air, water, and radiation emission and effluent standards and all applicable water quality criteria and air quality standards;

All air, water, and radiation emission and effluent standards will be adhered to. Applicable water quality criteria and air quality will also be adhered to.

2. Prevents air emissions and water effluents in excess of the existing dilution, assimilative, and recovery capacities of the air and water environments at the site and within the surrounding region;

Air emissions from vehicles during construction will be temporary and will not exceed the existing dilution, assimilative and recovery capacity of the environment at the site and surrounding region.

3. Provides for the collection and disposal of litter, recyclable and solid waste in such a manner as to minimize adverse environmental effects and the threat to public health, safety, and welfare;

The proposed Project provided for the collection and disposal of litter, recyclable and waste in a manner that will minimize adverse environmental effects and the threat to public health, safety and welfare.

4. Would result in minimal feasible impairment of the regenerative capacity of water aquifers or other ground or surface water supplies;

The proposed Project is not anticipated to impair the regenerative capacity of water aquifers, other ground or surface water supplies.

5. Would cause minimal feasible interference with the natural functioning of plant, animal, fish, and human life processes at the site and within the region;

The Project complies with all applicable resource policies, rules and regulations as detailed herein. Specifically, the Project has been assessed and found to be in compliance with the applicable Special Areas and Resource CZM Rules.

6. Is located or constructed so as to neither endanger human life or property nor otherwise impair the public health, safety and welfare; and

The proposed Project is located and will be constructed so as not to endanger human life or property nor otherwise impair the public health, safety and welfare.

7. Would result in minimal practicable degradation of unique or irreplaceable land types, historical or archeological areas, and existing public scenic attributes at the site and within the surrounding region.

The Project complies with all applicable resource policies designed to protect important land types, historical and archeological resources and scenic attributes.

8. Provides, pursuant to standards established by rule or regulation adopted pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), on-site public access to the waterfront and adjacent shoreline, or off-site public access to the waterfront and adjacent shoreline if on-site public access is not feasible as determined by the department. Nothing in this subsection shall be construed to abrogate or otherwise affect any public access obligations or requirements of any permit, administrative order, consent decree, or court order in effect prior to the effective date of P.L.2015, c.260.

Pursuant to Public Access Bill 1074, NJDEP has the authority and duty to protect the public's right of access to tidally flowed water and their adjacent shorelines under the public trust doctrine and statutory law. In doing so the NJDEP has the duty to make all tidal waters and their adjacent shorelines available to the public to the greatest extent practicable. Public access includes visual and physical access to, the and the use of, tidal water and adjacent shorelines, sufficient perpendicular access from upland areas to tidal water and adjacent shorelines, and the necessary support amenities to facilitate public access for all, including but not limited to, public parking and restrooms.

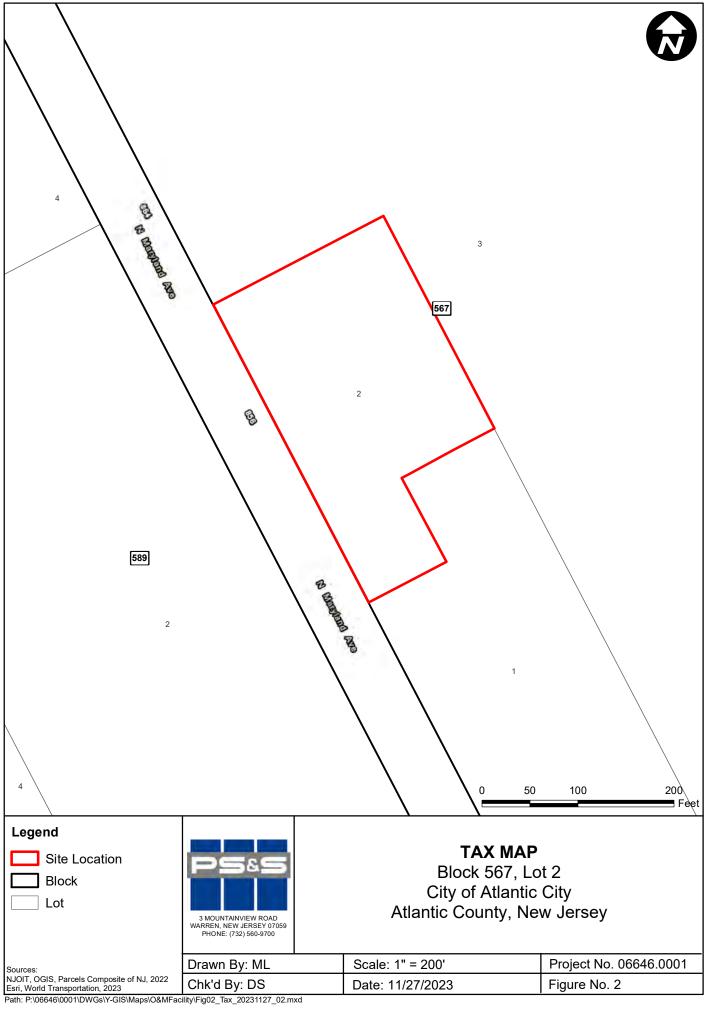
Additionally, pursuant to Public Access Bill 1074, the New Jersey Office of Homeland Security and Preparedness shall adopt rules and regulations to establish a process to designate those facilities that, for homeland security reasons, require exclusion of the public from tidal water or adjacent shorelines at those facilities.

During previous operation of the site as a petroleum product storage and distribution facility there was no public access. The O&M Facility proposes a similar use (commercial/industrial) as what previously existed. Project improvements will generally remain within the footprint of the previously disturbed bulk petroleum storage operation. Pursuant to N.J.A.C. 7:7-16.9 (k)5ii, since the commercial development had no existing public access, then no public access is required.

Additionally pursuant to N.J.A.C.7:7- 16.9(b)5, public access may be prohibited in locations where New Jersey Office of Homeland Security and Preparedness or the United States Department of Homeland Security concerns are present or where it is not practicable based on the risk of injury from hazardous operations or substantial permanent obstructions, and no measures can be taken to avert these risks. The proposed Project site is a support facility to an electric power generating wind farm, potentially considered critical infrastructure by the United States Department of Homeland Security. The provision of public access through portions of a commercial/industrial, energy-supporting operation would endanger the public health and safety and, potentially, would create significant homeland security vulnerability. The Project complies with this rule.



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Legend	Note: There are no mapped wetla view.	ands within the map	100 200 Feet
Note: There are no mapped wetlands within the map view. Sources:	3 MOUNTAINVIEW ROAD WARREN, NEW JERSEY 07059 PHONE: (732) 560-9700	WETLANDS M Block 567, Lo City of Atlantic Atlantic County, Ne	ot 2 City w Jersey
Wetlands, NJDEP 2012 Land use/Land cover Update, 2015 Esri, World Transportation, 2023 NJDEP, High Resolution Orthoimagery, 2020	Drawn By: ML Chk'd By: DS	Scale: 1" = 100' Date: 11/27/2023	Project No. 06646.0001 Figure No. 4
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NJDEP, High Resolution Orthoimagery, 2020 Chk'd By: DS Path: P:\06646\0001\DWGs\Y-GIS\Maps\O&MFacility\Fig04_Wetlands_20231127_02.mxd



Site Location

Upper Wetland Boundary

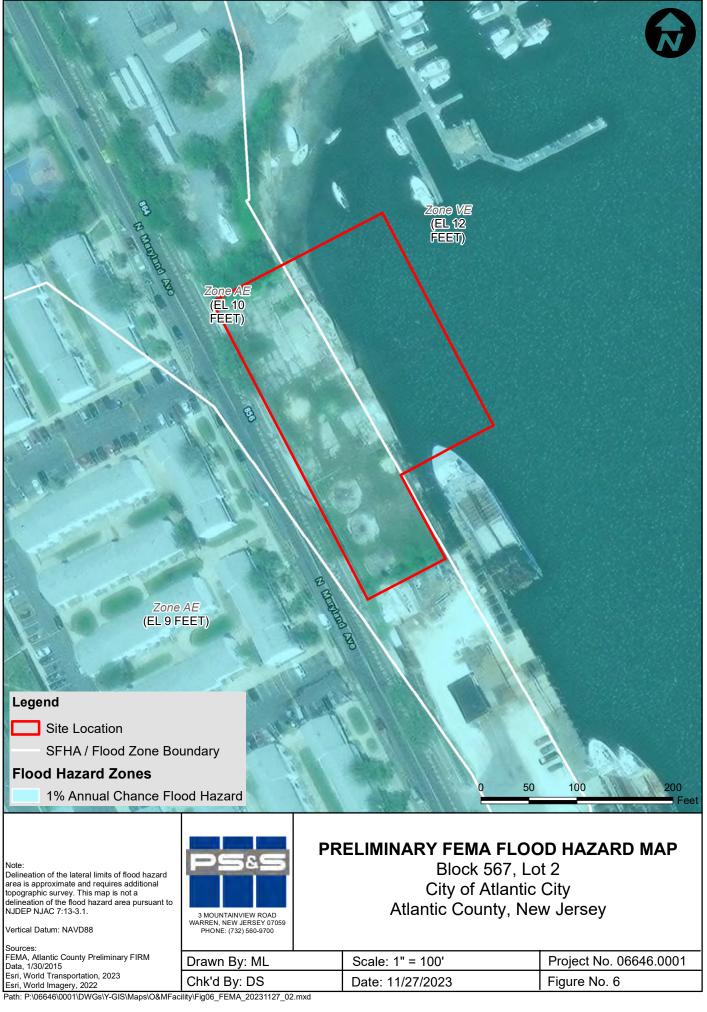


**COASTAL WETLANDS MAP** Block 567, Lot 2 City of Atlantic City Atlantic County, New Jersey

Sources:
NJDEP Upper Wetlands Boundary/Upper
Wetlands Limit for New Jersey, NJDEP, 2002
Esri, World Transportation, 2023

Project No. 06646.0001 Drawn By: ML Scale: 1" = 100' Figure No. 5 Chk'd By: DS Date: 11/27/2023

NJDEP, High Resolution Orthoimagery, 2020 Chk'd By: DS Path: P:\06646\0001\DWGs\Y-GIS\Maps\O&MFacility\Fig05_CoastalWetlands_20231127_02.mxd



Species Based Habitat Within Site Location: Rank 3: Black-Crowned Night Heron, Osprey, Yellow-Crowned Night Heron Rank 4: Peregrine Falcon, Least Tern, Black Skimmer

#### Legend

Note:

threatened species

. endangered species.



Rank 3 - assigned to species-specific patches containing one or more occurrences of State

Rank 4 - assigned to species-specific habitat patches with one or more occurrences of State

STUTIE TRAILET

Species-Based Habitat - Atlantic Coastal

Rank 3 - State Threatened

Rank 4 - State Endangered

Rank 5 - Federal Listed

3 MOUNTAINVIEW ROAD WARREN, NEW JERSEY 07059 PHONE: (732) 560-9700

LANDSCAPE PROJECT MAP

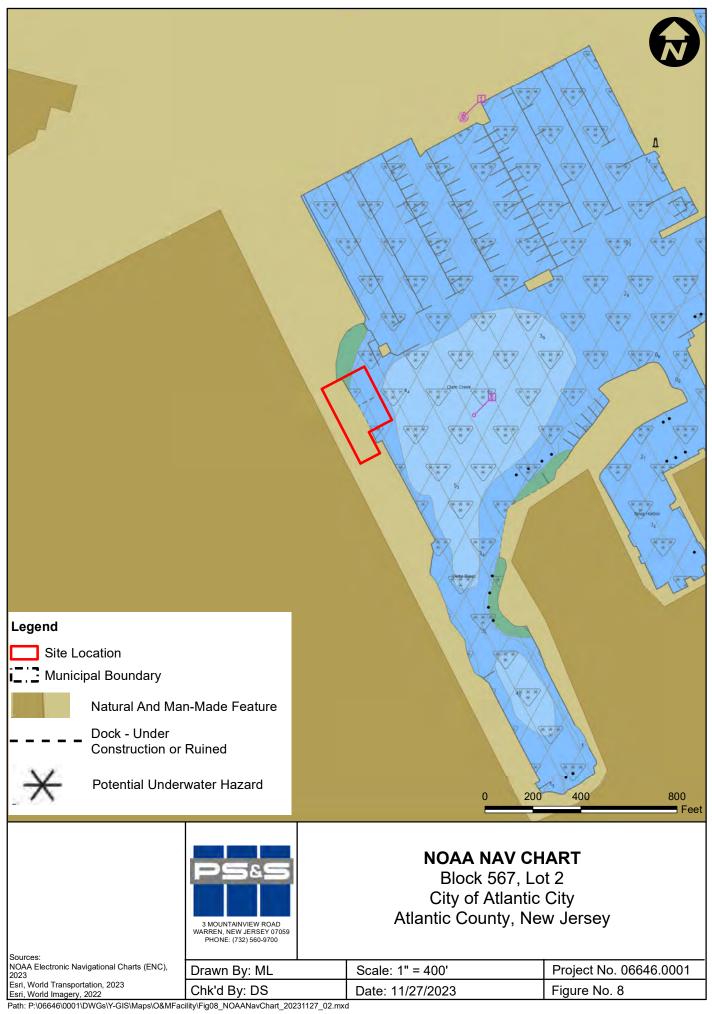
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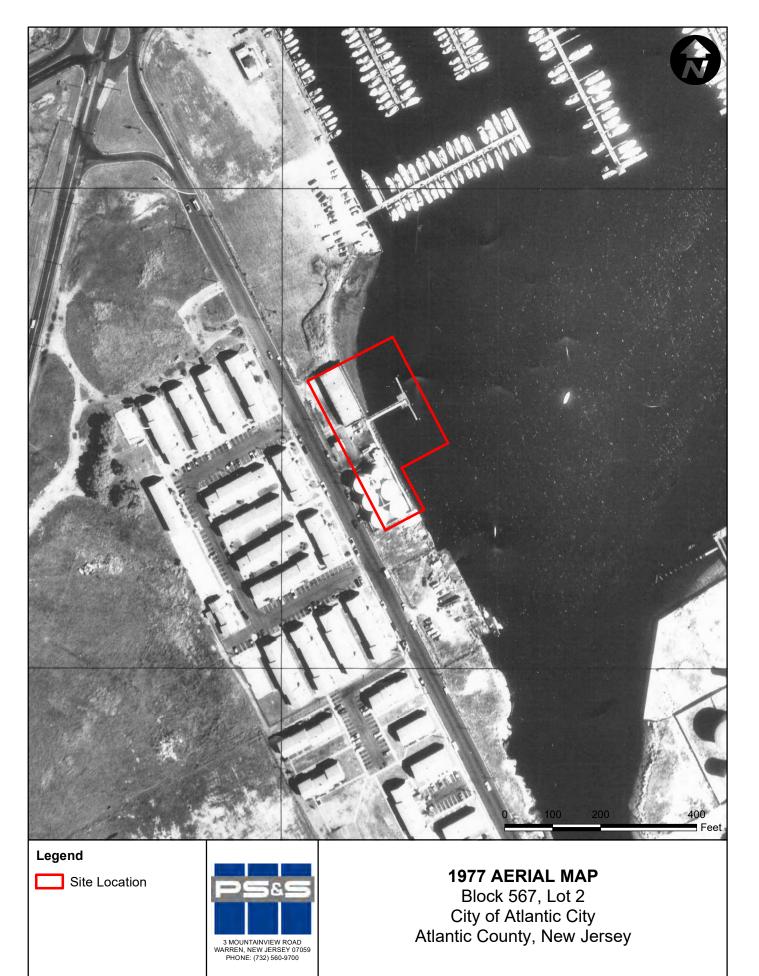
Feet

Block 567, Lot 2 City of Atlantic City Atlantic County, New Jersey

Sources: NJDEP Division of Fish & Wildlife Endangered	PHONE: (732) 560-9700			
Nongame Species Program, NJDEP Landscape Version 3.3, 05/2017	Drawn By: DM	Scale: 1" = 100'	Project No. 06646.0001	
Esri, World Transportation, 2023 NJDEP, High Resolution Orthoimagery, 2020	Chk'd By: DS	Date: 11/27/2023	Figure No. 7	

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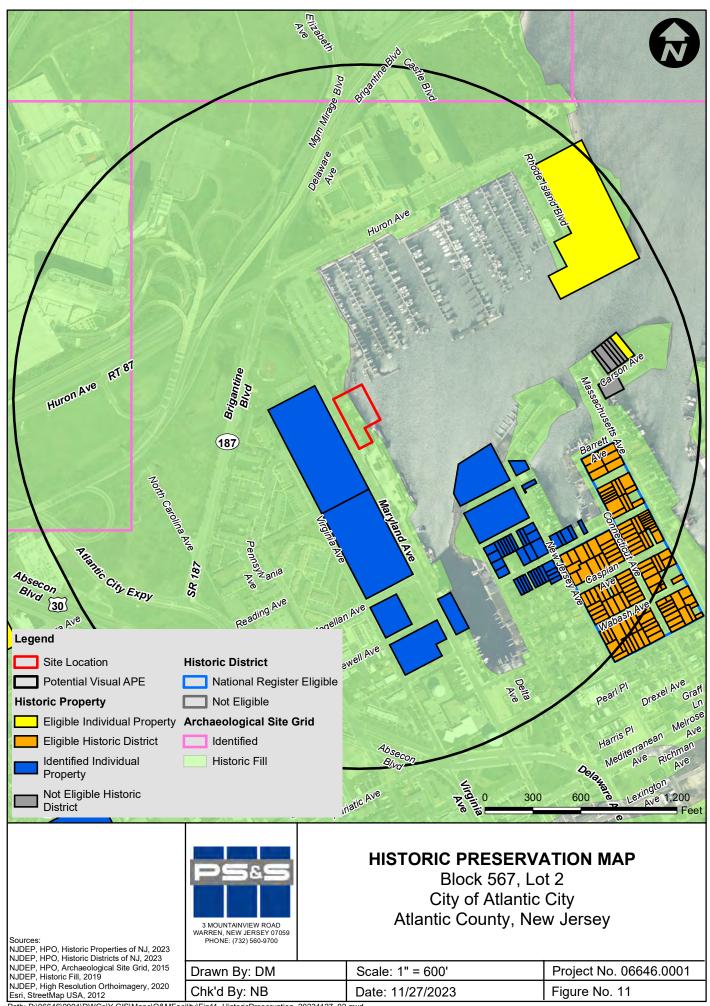




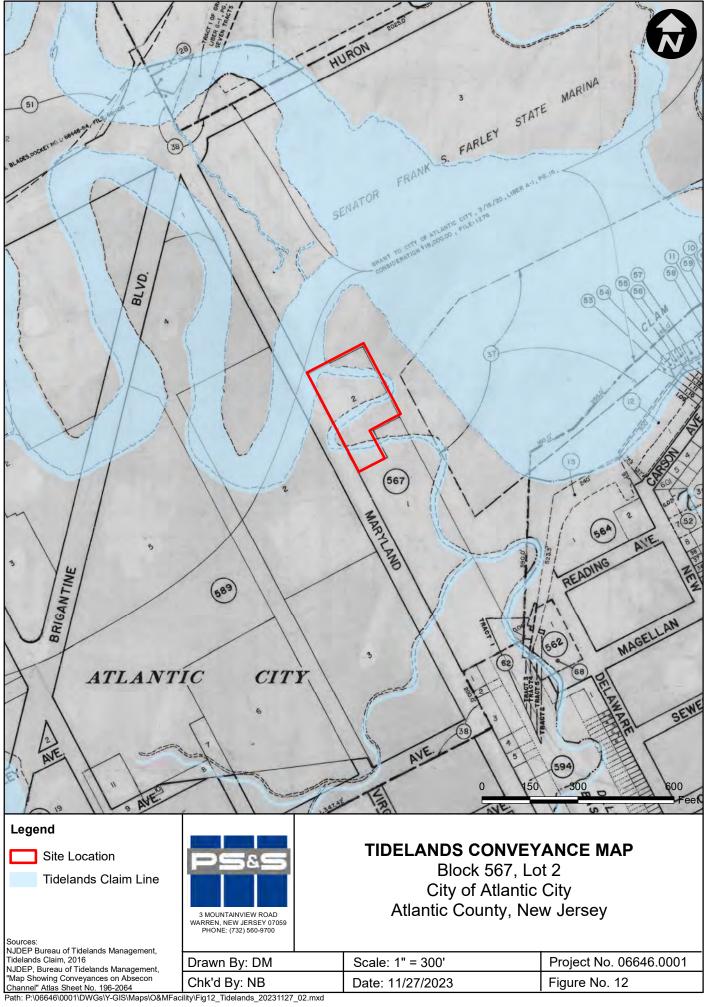
Sources:	Drawn By: ML	Scale: 1" = 200'	Project No. 06646.0001
NJDEP, 1977 Tidelands Aerial, 2023 Esri, StreetMap USA, 2012	Chk'd By: DS	Date: 11/27/2023	Figure No. 9

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# ATTACHMENT H Stormwater Management Report

## STORMWATER MANAGEMENT REPORT

#### FOR

### ATLANTIC SHORES OFFSHORE WIND, LLC BLOCK 567, LOT 2

CITY OF ATLANTIC CITY, ATLANTIC COUNTY, NEW JERSEY

**Prepared by:** 



PAULUS, SOKOLOWSKI AND SARTOR, LLC Consulting Engineers & Environmental Planners 1450 Route 34 Wall, New Jersey 07753



William Salmon, P.E. Professional Engineer New Jersey License No. 41319

December 2023

### **TABLE OF CONTENTS**

1.	INTRODUCTION	. 1
2.	PRE-DEVELOPED CONDITIONS	. 1
3.	PROPOSED SITE CONDITIONS	. 2
4.	RUNOFF QUANTITY, QUALITY AND GROUND WATER RECHARGE	. 2
5.	STORM SEWER CALCULATIONS	. 2
6.	SUMMARY	. 2

	Appendix A
Storm Sewer Calculation	Appendix B
Drainage Area Mapping	Map Pocket

#### 1. <u>INTRODUCTION</u>

The Applicant, Atlantic Shores Offshore Wind, LLC, is proposing to develop a 1.377-acre parcel known as Block 567, Lot 2 in the City of Atlantic City, Atlantic County, New Jersey. A three (3) story storage/maintenance building with offices, vehicle parking lot, floating boat docks and solar canopy are being proposed.

The subject site is situated in the Marine Commercial (MC) Zone of Atlantic City. The parcel is bound by Maryland Avenue right-of-way to the west, the New Jersey State Marina (Block 567, Lot 3) to the north and east and a commercial property (Block 594, Lot 1) to the south. An existing bulkhead, building foundation remnants and pavement areas currently exist on this property. A bulkhead replacement is being proposed on this property in a separate application and is scheduled to be constructed before the work described in this application begins. A NJDEP CAFRA permit will be required for this property.

This stormwater management report is based on the current Stormwater Management Regulations N.J.A.C 7:8, (effective July 2023). The project does not disturb more than 1 acre of land and does not create more than ¹/₄ of new regulated impervious or regulated motor vehicle surface and therefore, is not a major development per N.J.A.C. 7:8.

#### 2. <u>PRE-DEVELOPED CONDITIONS</u>

The total area of the Lot 2 is 1.377 acres. The upland area of Lot 2 (0.850 acres) is paved or contains the remnants of building / slab foundations and the remaining area (0.527 acres) is tidal water. These areas reflect the site after the bulkhead replacement project. Based on historical aerial photographs of the site, the existing property had a vehicle impervious area of approximately 0.29 acres.

The existing onsite topography is relatively flat sloping from elevation 6.5 along the eastern bulkhead area down to elevation 5.0 along the Maryland Avenue right of way. The existing storm water flows along Maryland Avenue towards the north before draining into Clam Creek.

All of the inland areas of the property are underlain by Psammaquents (PstAt) soils, which classified as Type "A/D" Hydrologic Soil Group. The site is known to be contaminated.

#### 3. <u>PROPOSED SITE CONDITIONS</u>

The proposed project consists of the development of a three (3) story storage/maintenance building with offices, vehicle parking lot (with solar canopy), floating boat dock. The proposed topography of the site drains in a westerly direction which mimics the existing drainage patterns and then piped to the east and into Clam Creek via two outfall pipes. The majority of the north and south driveway and parking areas drain to storm inlets near the driveway entrances. The proposed project has a limit of disturbance of approximately 0.910 acres (including offsite driveway connections and utility connections) and a total impervious area of 0.8 acres, which is less than the existing impervious area onsite area of 0.850 acres. As the proposed development does not exceed the 1 acre of disturbance, 0.25 acres of regulated impervious surface, or 0.25 acres of new motor vehicle surface, the project does not meet the threshold requirements of a "Major Development" pursuant to N.J.A.C. 7:8 Rules and Regulations.

#### 4. <u>RUNOFF QUANTITY, QUALITY AND GROUND WATER RECHARGE</u>

Per N.J.A.C. 7:8-5.4, 5.5 & 5.6 stormwater runoff quantity, quality and groundwater recharge controls are not required for this project as the project is not a major development.

#### 5. <u>STORM SEWER CALCULATIONS</u>

The storm sewer piping for the project has been designed to convey the 25 year storm event in accordance with Atlantic City requirements. A Clam Creek tailwater elevation of 3.0 has been utilized for design purposes. Reference Appendix D for pipe calculations.

#### 6. <u>SUMMARY</u>

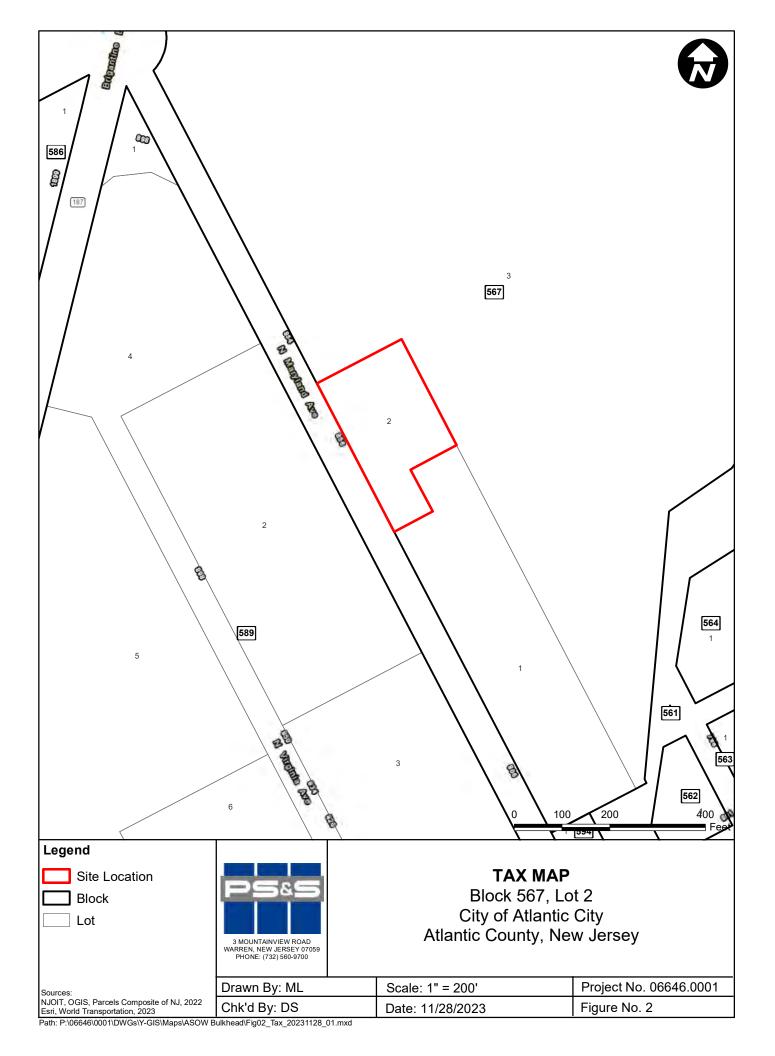
As outlined herein, the project is exempt from the State stormwater regulations but demonstrates compliance with storm sewer calculation requirements of the City of Atlantic City.

## **APPENDIX A**

# **FIGURES**



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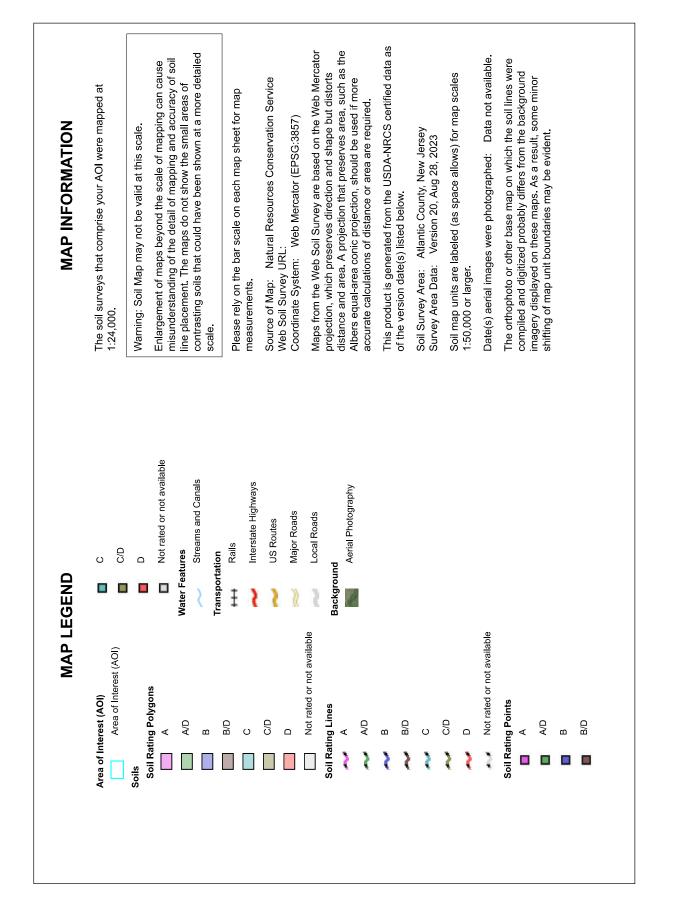




National Cooperative Soil Survey

**Conservation Service** 

Hydrologic Soil Group-Atlantic County, New Jersey





### Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
PstAt	Psammaquents, sulfidic substratum, 0 to 2 percent slopes, frequently flooded	A/D	0.9	63.4%
WATERs	Water, saline		0.5	36.6%
Totals for Area of Intere	st	1.5	100.0%	

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

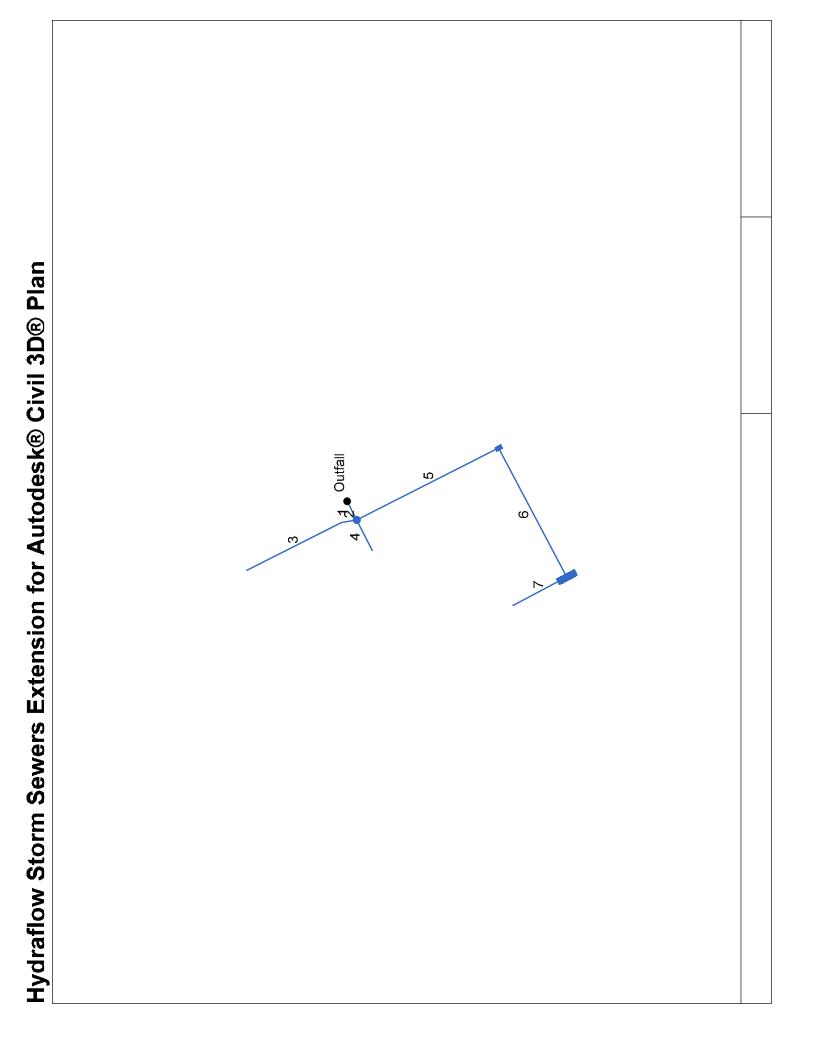
### **Rating Options**

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified Tie-break Rule: Higher



# **APPENDIX B**

# **STORM SEWER CALCULATIONS**



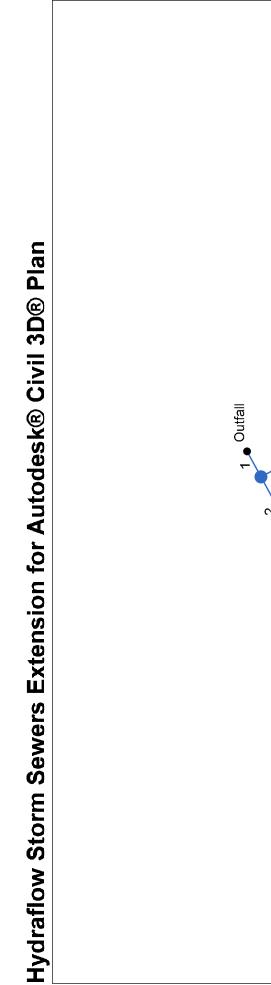
									/2023	
Gnd/Rim El Up	(tj)	8.20	7.96	7.96	8.25	8.20	5.93	6.10	Date: 12/19/2023	
Gnd/Rim El Dn	(ft)	2.43	8.20	7.96	8.20	8.20	8.20	5.93		
Invert Up	(11)	0.40	5.92	6.80	5.00	1.00	2.50	3.50		
Invert Dn	( <del>1</del> 1)	0.30	5.80	5.92	4.70	0.50	2.00	2.40	es: 7	
Line Slope	(%)	0.80	1.31	1.41	1.50	0.53	0.58	3.07	Number of lines: 7	
n-val Pipe		0.012	0.012	0.012	0.012	0.012	0.012	0.012	Num	-
Line Length	(#)	12.440	9.144	62.466	19.991	93.914	85.960	35.781		
Line Rise	(in)	15	12	12	12	12	12	12		
Vel Ave	(ft/s)	2.04	3.20	2.76	3.58	1.82	1.94	1.96		
Capac Full	(cfs)	6.27	4.42	4.58	4.73	2.82	2.94	6.76		
Flow Rate	(cfs)	2.51	0.52	0.56	0.70	1.43	1.48	0.77		
Inlet Time	(min)	0.0	0.0	5.0	5.0	0.0	5.0	5.0		
Runoff Coeff	Û	0.00	00.0	0.98	0.98	00.0	0.98	0.98		
Drng Area	(ac)	0.00	00.0	0.08	0.10	0.00	0.11	0.11		
DnStm Ln No		Outfall	<del>.</del>	7	<del>.</del>	~	5	9		
Line		P-100	TD- 1A	TD- 1	RD- 104	P-101	P-102	RD- 103		
Inlet		PR. MH 100	TD 1A	<b>TRENCH DRAIN 1</b>	CO 104	PR. A INLET 101	PR. B INLET 102	CO 103	Project File: Storm 1.stm	NOTES: ** Critical depth
Line No.		<del></del>	7	ო	4	ς.	Q	7	Projec	NOTE

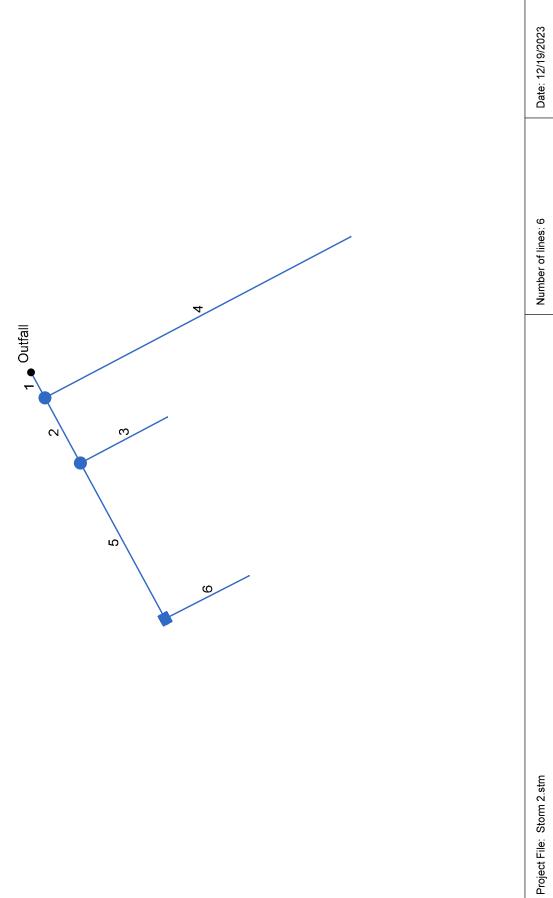
Storm Sewers

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Ę	Hydraulic Grade Line Computations	Jlic (	Grad	le Lii	ne C	<b>H</b> O	put	atio	ns													ш	Page 1
Line	Line Size	σ			Ď	Downstream	E E				Len				Upstream	am				Check		JL coeff	Minor
	(in)	(cfs)	Invert elev (ft)	HGL elev (ft)	Depth / (ft) (	Area V (sqft) ((	Vel V (ft/s) (	Vel E head e (ft) ((	EGL elev (ft)	Sf (%) (	(#) (#)	Invert elev (ft)	HGL elev (ff)	Depth /	Area (sqft)	Vel V (ft/s)	Vel head (ft)	EGL elev (ff)	Sf /	Ave Sf (%)	Enrgy loss (ft)		(tt)
-	15	2.51	0.30	3.00	1.25	1.23	2.04	0.06	3.06	0.129	12.440 0.40	.40	3.02	1.25	1.23	2.04	0.06	3.08	0.129	0.129	0.016	1.00	0.06
7	12	0.52	5.80	6.03	0.23*	0.14	3.77	0.11	6.14	0.000	9.144 5	5.92	6.22	0.30**	0.20	2.63	0.11	6.33	0.000	0.000	n/a	0.35	n/a
ო	12	0.56	5.92	6.22	0:30	0.20	2.83	0.11	6.33	0.000	62.466	6.80	7.11	0.31**	0.21	2.69	0.11	7.22	0.000	0.000	n/a	1.00	0.11
4	12	0.70	4.70	4.96	0.26*	0.16	4.30	0.13	5.09	0.000	19.991 5	5.00	5.35	0.35**	0.24	2.87	0.13	5.48	0.000	0.000	n/a	1.00	0.13
5	12	1.43	0.50	3.08	1.00	0.79	1.82	0.05	3.13	0.138	93.914 1	1.00	3.21	1.00	0.79	1.82	0.05	3.26	0.138	0.138	0.129	1.50	0.08
9	12	1.48	2.00	3.29	1.00	0.79	1.89	0.06	3.34	0.148	85.960 2	2.50	3.40	0.90	0.75	1.99	0.06	3.46	0.130	0.139	0.120	1.50	0.09
2	12	0.77	2.40	3.49	1.00	0.26	0.97	0.01	3.51	0.039	35.781 3	3.50	3.87 j	0.37**	0.26	2.95	0.14	4.00	0.486	0.263	n/a	1.00	n/a
Pro	Project File: Storm 1.stm	Storm 1.st	ţ											N	Number of lines: 7	lines: 7			Run	Run Date: 1	12/19/2023	e	
Ň	Notes: * Crown depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir	'n depth a	ssumed; *	* Critical d	epth.; j-Li	ne conta	ins hyd.	j : dmuj	U U	= ellip b = box	= box			-					-				

Storm Sewers v2021.00





								2023	
Gnd/Rim El Up	(tt)	7.96	7.50	7.16	7.96	5.77	6.38	Date: 12/19/2023	
Gnd/Rim El Dn	(ft)	8.00	7.96	7.50	7.96	7.50	5.77		
Invert Up	(H)	2.00	2.18	5.50	6.80	2.50	3.50		
Invert Dn	(H)	1.90	2.00	5.00	5.25	2.18	3.00	es: 6	
Line Slope	(%)	1.00	0.70	1.47	1.30	0.52	1.54	Number of lines: 6	
n-val Pipe		0.012	0.012	0.012	0.012	0.012	0.012	Numk	
Line Length	(ft)	10.014	25.617	33.922	119.459	61.073	32.555		
Line Rise	(in)	15	15	12	12	12	12		
Vel Ave	(ft/s)	1.80	2.71	3.67	3.00	3.23	3.70		
Capac Full	(cfs)	6.99	5.86	4.68	4.39	2.79	4.78		
Flow Rate	(cfs)	2.17	2.04	0.77	0.42	1.35	0.77		
Inlet Time	(min)	5.0	5.0	5.0	5.0	5.0	5.0		
Runoff Coeff	(C	00.0	0.00	0.98	0.98	0.98	0.98		
Drng Area	(ac)	0.00	00.0	0.11	0.06	0.09	0.11		
DnStm Ln No		Outfall	<del>~</del>	7	<del></del>	2	5		
Line		P-200	P-202a	RD 204	TD -2	P-202	RD 203		
D		PR. MH 201	RD 1	CO 204	TRENCH DRAIN 2	PR. E INLET 202	CO 203	Project File: Storm 2.stm	NOTES: ** Critical depth
Line No.		-	2	с	4	£	9	Project	NOTE(

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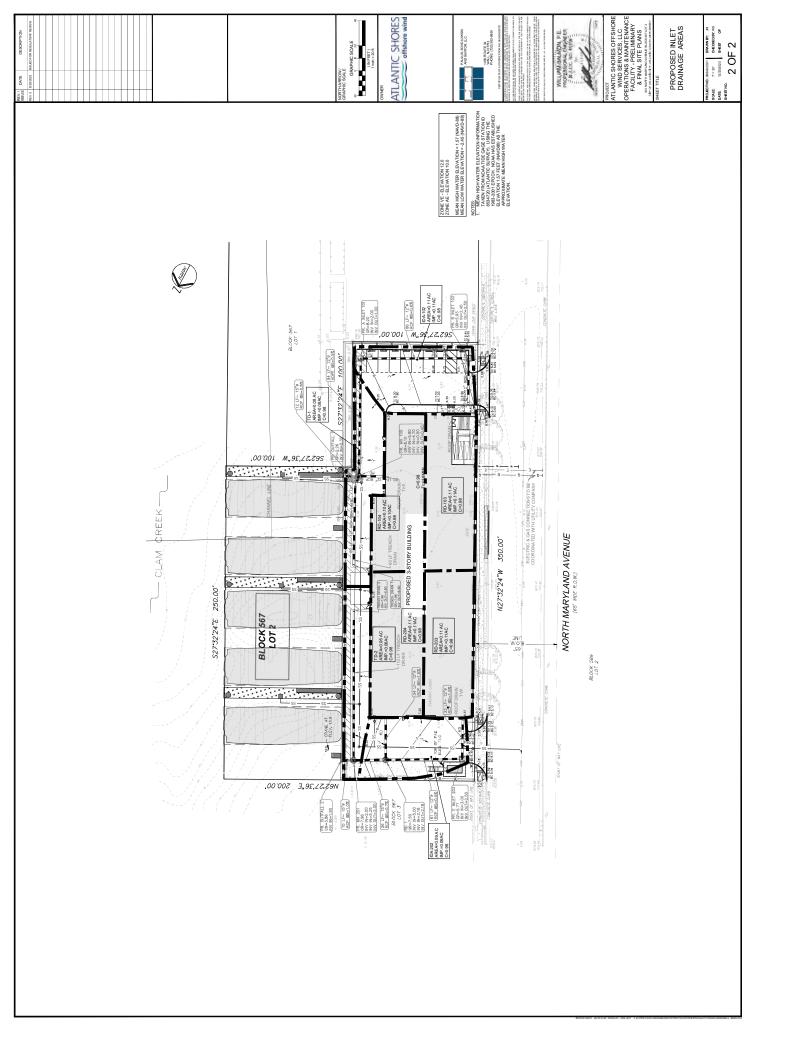
# Page 1

Hydraulic Grade Line Computations

**MAP POCKET** 

DRAINAGE AREA MAPPING





### ATTACHMENT I

Habitat Evaluation with Natural Heritage Database Results

# Habitat Evaluation

Atlantic Shores Operations & Maintenance Facility Block 567, Lot 2 Atlantic City, Atlantic County, New Jersey

Prepared for:

PS&S 1450 NJ-34 Wall Township, NJ 07753

Prepared by:



190 North Main Street Manahawkin, NJ 08050

anthoug di

Anthony Silva, PWS Senior Biologist

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#### 1.0 INTRODUCTION

DuBois & Associates, L.L.C. (DuBois) has conducted a Habitat Evaluation upon and in the vicinity of land designated as Block 567, Lot 2 (the site) located in Atlantic City, Atlantic County, New Jersey. The site is associated with the proposed Atlantic Shores Operations & Maintenance Facility (the project). The project proposes remediation of contamination and the development of office space, a warehouse and quayside facility. The habitat evaluation was performed to determine any regulatory implications or project constraints pursuant to the New Jersey Coastal Zone Management Rules (N.J.A.C. 7:7) and the Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884).

DuBois performed a desktop assessment and a field habitat evaluation along the project area and vicinity on January 12, 2022 to identify any potentially suitable habitat for state- or federal-listed threatened or endangered species of plants or wildlife. Information on the potential occurrence of endangered or threatened wildlife or plant species' habitat from the project area was obtained through consultation with the New Jersey Department of Environmental Protection (NJDEP) Natural Heritage Program; review of NJDEP Landscape Maps of Habitat for Endangered, Threatened and Other Priority Wildlife; and the U.S. Fish and Wildlife Service (USFWS) Information, Planning and Consultation System (IPaC) database. Where applicable, the habitat evaluation incorporated the assessment of hydrology, freshwater wetlands, vegetation assemblages, ecotone areas and surrounding land uses in relation to the habitat requirements of addressed species and the results of such were used to evaluate whether or not the project area provides all the components necessary to potentially support the listed threatened and endangered wildlife or plant species.

The project area is located among the New Jersey waterfront area. This habitat evaluation has been conducted in accordance with the standards set forth within the New Jersey Coastal Zone Management Rules at N.J.A.C. 7:7-11 – *Standards for Conducting and Reporting the Results of an Endangered or Threatened Wildlife or Plant Species Habitat Impact Assessment and/or Endangered or Threatened Wildlife Species Habitat Evaluation*.

#### 2.0 **PROJECT LOCATION**

The site is approximately 1.38-acres in size and designated as Block 567 Lot 2 in the City of Atlantic, Atlantic County, New Jersey. It is physically located at 801 Maryland Avenue, due south of the Golden Nugget Atlantic City and the Borgata Casino Hotel and Spa (refer to *Figure 1: New Jersey Road Map*). The site is located in New Jersey's coastal area and can be found on the Oceanville and Atlantic City U.S. Geological Survey (USGS) Quadrangles with state plane coordinates (NAD83 feet) of E(x) 512,356 and N(y) of 197,442 located at the approximate center of the site (refer to *Figure 2: Oceanview & Atlantic City U.S.G.S Quadrangle Map*). The site is located in the Great Egg Harbor River Watershed Management Area (WMA 15) and the Reeds Bay / Absecon Bay & Tribs watershed and subwatershed (HUC14: 02040302010010).

#### 3.0 PROJECT AREA ECOLOGICAL CHARACTERISTICS

#### 3.1 Existing Land-Use/Land-Cover

Based on review of historic imagery (NETR Online 2022), the site was filled sometime between the 1920's and 1930's. Various industrial infrastructure existed on the site from at least the 1950's to the 1980's. Today, the western half of the site is vacant, currently comprised of dilapidated concrete pads, stone, clam shells, a bulkheaded waterfront in disrepair, damaged chain link fence, trash/wind-blown debris and patches of successional grassland vegetation. Three abandoned 55-gallon drums were observed on the site. A

monitoring well was observed on the site. Estuarine waters associated with the Clam Creek comprise the eastern half of the site. The Clam Creek is subtidal open water.

Surrounding land-use and land-cover is urban, inclusive of apartment housing, industry, roadway networks, parking lots, recreation fields and a marina. The marina and adjacent coastal waters are part of the Senator Frank S. Farley State Marina, owned by the NJDEP. Refer to *Figure 3: Aerial Map* for an aerial depiction of the site and surrounding landscape.

#### 3.2 <u>Geology & Soils</u>

The project area lies in the New Jersey Outer Coastal Plain Physiographic Province. Bedrock geology of this area includes the Belleplain Member, whose lithology is clay at the base, and quartz sand (fine- to medium-grained) at top (NJDEP 2009). The Brownfield Contaminated Site Remediation Act (N.J.S.A. 58:10B-1 et seq.) requires the NJDEP to map regions of the state where large areas of historic fill exist. According to this mapping, the developed portion of the site is comprised of historic fill. Historic fill is non-indigenous material placed on a site in order to raise the topographic elevation (NJDEP 2018). Underneath the historic fill, the native surface geology of the site is defined by salt marsh and estuarine deposits (NJDEP 2009).

The Atlantic County Soil Survey identifies the Psamments, sulfidic substratum, 0 to 3 percent slopes, frequently flooded (PstAt) soil map unit underlying the former developed portion of the site. This is an anthropogenic soil type, indicating fill material.

#### 3.3 <u>Wetlands & Hydrology</u>

NJDEP Geographic Information Systems (GIS) wetland mappings do not depict freshwater wetlands present on the site. The absence of freshwater wetlands was confirmed during the field evaluation. The NJDEP upper limit of coastal wetlands is mapped along the approximate bulkhead. The U.S. Fish & Wildlife Service (USFWS) National Wetland Inventory (NWI) maps the Clam Creek as Estuarine, Subtidal, Unconsolidated Bottom, Excavated deep waters (E1UBLx). The Excavated (x) modifier is used to identify wetland basins or channels that were excavated by humans. Refer to *Figure 4: Agency-Mapped Wetlands/Waters Map* for a depiction of these mapped areas.

The Clam Creek is tributary to the Absecon Inlet, and ultimately, marine waters of the Atlantic Ocean. The Clam Creek is classified as a FW2-NT/SE1 (non-trout/saline estuarine) waterbody by the New Jersey Surface Water Quality Standards (N.J.A.C. 7:9). These waters are generally not suitable for trout because of their physical, chemical or biological characteristics, but are suitable for a wide variety of other fish species.

According to the Federal Emergency Management Agency (FEMA) Preliminary FIRM Panel 34001C0343G, issued 1/30/2015, the land-based portion of the site lies within a special flood hazard area Flood Zone AE, with estimated static Base Flood Elevation (BFE) of 10.0-feet. The water-based portion of the site lies within Flood Zone VE with a BFE of 12.0-feet (FEMA 2022).

#### 3.4 <u>Vegetation Communities</u>

Due to the historically developed and disturbed nature of the site, natural vegetation community types are absent from the project area. The developed portion of the site can be characterized as a "weedy lot", containing miscellaneous grass and herbaceous cover growing in disturbed areas and between crevices of concrete. Bermuda grass (*Cynodon dactylon*) is representative, and saltgrass (*Distichlis spicata*) grows in

small patches along the dilapidated waterfront. Along the perimeter of the site, exotic vegetation including Oriental bittersweet (*Celastrus orbiculatus*), Japanese honeysuckle (*Lonicera japonica*) and English ivy (*Hedera helix*) vines climb atop chain-link fence and adjacent trees. Japanese knotweed (*Fallopia japonica*) is also present.

The field investigation was performed at low tide, and based on available vantage, there was no observation of submerged aquatic vegetation made in the subtidal waterfront. However, rockweed (*Fucus* spp.), a seaweed, was observed growing on concrete slab in the intertidal zone.

#### 4.0 SPECIAL AREAS – NJ COASTAL ZONE MANAGEMENT RULES (N.J.A.C. 7:7-9)

Special areas are areas that are so naturally valuable, important for human use, hazardous, sensitive to impact, or particular in their planning requirements, as to merit focused attention and special management rules. The following Special Water Areas and Coastwide Special Areas are subject of this habitat evaluation for the project:

- N.J.A.C. 7:7-9.2 Shellfish Habitat
- N.J.A.C. 7:7-9.6 Submerged Vegetation Habitat
- N.J.A.C. 7:7-9.36 Endangered or Threatened Wildlife or Plant Species Habitat
- N.J.A.C. 7:7-9.37 Critical Wildlife Habitat
  - 4.1 N.J.A.C. 7:7-9.2 Shellfish Habitat

Shellfish habitat is defined as an estuarine bay or river bottom which currently supports or has a history of production for hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), eastern oysters (*Crassostrea virginica*), bay scallops (*Argopecten irradians*), or blue mussels (*Mytilus edulis*), or otherwise listed in N.J.A.C. 7:7-9.2. The field investigation was performed at low tide, and based on available vantage, there was no direct observation of shellfish inhabiting the immediate subtidal shallows or intertidal zone. The waters of the site were historically excavated by man and used for industry. The existing hardened shoreline includes a dilapidated bulkhead, and concrete ruins are located within the subtidal and intertidal zones. Shellfish habitat suitability is poor from the site's water area due to the historic land-use disturbance and contamination issues, presented below.

According to the digital dataset entitled, "NJDEP Shellfish Classification for New Jersey (NJDEP 2021), the open waters of the Clam Creek are classified as "Prohibited" shellfish waters (refer to *Figure 5: Shellfish Harvest Classification Map*). Classification of the waters is based on the National Shellfish Sanitation Program. Shellfish harvest in "Prohibited" waters are not allowed under any conditions. These regulations are designed to protect public health by preventing the harvest and consumption of contaminated shellfish from New Jersey's waters.

Pursuant to N.J.A.C. 7:7-9.2(c), development which would result in the destruction, condemnation (downgrading of the shellfish growing water classification) or contamination of shellfish habitat is prohibited, unless the proposed development is a dock, pier, or boat mooring, expansion of an existing marina or construction of a new marina in limited infill situations, dredging, living shoreline, or a development required for national security. In addition, the construction of a dock or pier or the one-time replacement or reconstruction of a legally existing functioning bulkhead outshore of the existing bulkhead when located in waters that have been classified as prohibited for the purpose of harvesting shellfish is acceptable in accordance with N.J.A.C. 7:7-9.2(d)2 and (i).

As the existing waters are classified as "Prohibited", the most restrictive of five categories, the development project is unlikely to downgrade the shellfish growing water classification or contaminate shellfish habitat. The site is proposed to be remediated, thereby improving and removing contaminants from the site. Additionally, the development proposes a quayside facility along the waterfront. Pursuant to N.J.A.C. 7:7-9.2(c), this type of development is not prohibited in waters with a Prohibited shellfish classification. Compliance with N.J.A.C. 7:7-9.2 can be made for this project.

#### 4.2 N.J.A.C. 7:7-9.6 – Submerged Vegetation Habitat

A submerged vegetation habitat special area consists of water areas supporting or documented as previously supporting rooted, submerged vascular plants such as widgeon grass (*Ruppia maritima*), sago pondweed (*Potamogeton pectinatus*), horned pondweed (*Zannichellia palustris*), and eelgrass (*Zostera marina*). In New Jersey, submerged vegetation is most prevalent in the shallow portions of the Navesink, Shrewsbury, Manasquan, and Metedeconk Rivers, and in Barnegat, Manahawkin, and Little Egg Harbor Bays.

Detailed maps of the distribution of submerged aquatic vegetation (SAV) in New Jersey for areas documented by the NJDEP as previously and currently supporting regulated SAV are presented on the Divisions website (NJDEP 2021). According to Map 030 entitled, "New Jersey Submersed Aquatic Vegetation Distribution – 1979" for Atlantic City, the site and adjacent estuarine waters are not mapped as SAV habitat (refer to *Figure 6: Submerged Aquatic Vegetation Map*). 1979 is the only mapping year available on the Division's website. The Division's maps do not include undocumented areas that may also support regulated species of SAV or SAV habitat. SAV maps alone may not be sufficient to determine the presence/absence of regulated SAV habitat, so our habitat evaluation addresses suitability of the site's estuarine waters to potentially provide for SAV habitat.

Based on a review of historic imagery (NETR Online 2022), in the 1920's the site historically supported salt marsh and natural meanders of the Clam Creek. The natural geomorphology of Clam Creek would have been suitable to support SAV. In the 1930's, however, the salt marsh and meanders of Clam Creek were filled, with remainder of Clam Creek excavated to deepwater conditions that exists today. In-water development including a shipping pier supported industry on the site from at least the 1950's to the 1990's. Today, the waterfront is dilapidated and crumbling concrete is present in portions of the intertidal and subtidal portions of the site, which supports growth of brown alga (*Fucus* spp.). Due to the historic excavation of native sediments, historic in-water industrial use of the site, and deep-water conditions, the site contains unsuitable habitat for SAV.



1920 imagery showing native salt marsh and meanders of Clam Creek – suitable SAV habitat.



2012 imagery showing fill, development and excavated deep water – unsuitable SAV habitat.

#### 4.3 N.J.A.C. 7:7-9.36 – Endangered or Threatened Wildlife or Plant Species Habitat

An endangered species is a species or subspecies of wildlife whose prospects for survival or recruitment are in jeopardy or are likely within the foreseeable future to become so due to any of the following factors: (1) the destruction, drastic modification, or severe curtailment of its habitat, or (2) its over-utilization for scientific, commercial or sporting purposes, or (3) the effect on it of disease, pollution, or predation, or (4) other natural or manmade factors affecting its prospects of survival or recruitment within the State, or (5) any combination of the foregoing factors. Threatened species are generally defined to be species that may become endangered if conditions surrounding them begin or continue to deteriorate (N.J. Division of Fish and Wildlife 2012). Threatened and endangered wildlife or plant species habitats are terrestrial or aquatic areas known to be inhabited on a seasonal or permanent basis by, or be critical at any stage in the life cycle of, any wildlife or plant identified as an endangered or threatened species (N.J.A.C. 7:7).

#### 4.3.1 Landscape Project Version 3.3 Data

To determine whether any potential threatened or endangered wildlife species habitat exists on the site, DuBois reviewed the NJDEP Landscape Maps of Habitat for Endangered, Threatened and Other Priority Wildlife (*version 3.3*). The Landscape Project was developed by the NJDEP, Division of Fish and Wildlife, Endangered and Non-Game Species Program (DFW ENSP) as a wildlife-habitat mapping program that is used to identify and map critical habitats for endangered, threatened, and special-concern wildlife. The Landscape Project uses documented sightings of listed wildlife and, based on a species-specific model, designates areas of suitable habitat contiguous to the sighting as critical habitat. The NJDEP notes that the Landscape Project maps represent an approximation of the location and extent of documented endangered or threatened species habitat; the maps are rooted in the NJDEP's aerial photography-based land-use/landcover data, and therefore, they do not replace the need for an individual site assessment of any particular property in question.

The Landscape wildlife habitat patches are ranked based on the status of a species record, if present, within or near a polygon. The ranking system applied is as follows:

<u>Rank 3</u>: assigned to species-specific habitat patches with one or more occurrences of State threatened species.

<u>Rank 4</u>: assigned to species-specific patches containing one or more occurrences of State endangered species.

<u>Rank 5</u>: assigned to species-specific habitat patches containing one or more occurrences of wildlife listed as endangered and threatened pursuant to the Federal Endangered Species Act of 1973.

Rank 4 habitat polygons are mapped among the estuarine waters of the site and vicinity (refer to *Figure 7: NJDEP Landscape Project Version 3.3 Map*). Table 1 summarizes the Landscape Project data associated with the site:

Wildlife Species	State Status	Land Cover Type	Feature Label	Last Documented Year
Osprey	Threatened		Nest	2012
Yellow-crowned Night-heron	Threatened		Foraging	1985
Black-crowned Night-heron	Threatened	Tidal Rivers, Inland Bays,	Foraging	2014
Peregrine Falcon	Endangered	and Other Tidal Waters	Nest	1999
Least Tern	Endangered		Foraging	1995
Black Skimmer	Endangered		Foraging	2014

#### 4.3.2 <u>NJDEP Natural Heritage Database Review</u>

DuBois requested a Natural Heritage Database Review from the NJDEP Natural Heritage Program (NHP) to determine the potential presence of any threatened or endangered wildlife or plant species documentation from the site or vicinity. The review letter, dated April 7, 2023, is consistent with the Landscape Project review and also references the species listed in Table 1 (refer to *Appendix B* for a copy of the Natural Heritage Program response).

Natural Heritage Priority Sites are critically important areas in conserving New Jersey's biological diversity, with particular emphasis on rare plant species and ecological communities. There are no state-listed endangered plants and/or Natural Heritage Priority sites documented on the site or vicinity (*Appendix B*).

#### 4.3.3 <u>State-Listed Threatened & Endangered Species Habitat Evaluation</u>

A field evaluation to determine whether suitable habitat to support the state-listed threatened or endangered species of wildlife was performed among the site and vicinity on January 12, 2022 by the biological staff of DuBois. The habitat evaluation methodology included evaluating characteristics of the site in relation to species-specific habitat requirements, which were derived from the life history of each particular species, review of scientific literature and experience of DuBois biologists. As applicable, the habitat evaluation incorporated the assessment of hydrology, coastal wetlands, vegetation assemblages, ecotone areas and surrounding land uses in relation to the habitat requirements of each species. The results of such were used to evaluate whether or not the site provides all the components necessary to support habitat for the referenced species. No documentation of endangered plant species has been identified as associated with the site. The following wildlife species have been identified as possibly associated with the site or vicinity. Descriptions of suitable habitats required by these species are presented followed by species-specific habitat evaluations.

#### 4.3.3.1 Osprey (Pandion haliaetus), State Threatened (breeding population only)

Ospreys are entirely fish-eating birds; therefore, they are associated with bodies of water that support adequate fish populations. Ospreys inhabit coastal rivers, marshes, bays and inlets as well as inland rivers, lakes and reservoirs. Ospreys nest on trees, cliffs, telephone poles and artificial structures within close proximity to fishing areas and have an unobstructed view of the surrounding landscape. Man-made platforms, however, are the preferred nesting structure for Osprey in southern New Jersey. The nests are constructed from sticks and breeding pairs will continue to return to the same nest each season. Territories typically contain poles, snags or other structures near the nest on which the ospreys perch (Liguori 2003).

DuBois reviewed OspreyWatch (Center for Conservation Biology 2022) to determine whether any publicly-documented osprey nests are present from the site or vicinity. Per OspreyWatch, there are no osprey nests documented from the site or vicinity. The closest documented nest is approximately 0.65-miles to the west of the site, west of Harrah's Hotel Casino. As part of the field evaluation, DuBois conducted a visual raptor nest survey to locate potential osprey nests from the site or vicinity. Osprey nests are very conspicuous, and are often constructed on man-made structures or platforms in coastal areas. The results of the survey confirm that there are no osprey nests located from the site or vicinity. Based on the absence of osprey nests from the local area, it is concluded that critical habitat for a breeding population of osprey is absent from the site. Compliance with N.J.A.C. 7:7-9.36 can be made for this species.

#### 4.3.3.2 Yellow-crowned Night-heron (Nyctanassa violacea), State-threatened

The yellow-crowned night-heron is typically associated with marshes, swamps, lakes tidal mudflats, and rocky shores. The yellow-crowned night heron is primarily associated with tidal communities in New Jersey, utilizing areas along tidal waterways that are dominated by *Spartina* (NJDEP 2013). The species will utilize two (2) different ecological areas. In coastal areas this includes mixed heronries within dense areas of bayberry (*Morella* spp.), sumac (*Rhus* spp.), poison ivy (*Toxicodendron radicans*) and greenbriar (*Smilax* spp.) (Bull, 1974), similar to the black-crowned night-heron. In wooded areas the species will nest in swamps or moist to dry woodland in trees including maple (*Acer*) species, oak (*Quercus*) species and cherry (*Prunus*) species. (ibid.). The NJDEP reports that recently yellow-crowned night-herons have increasingly been documented nesting in in close proximity to human activity like parks and residential areas (NJDEP 2013). This species uses a stalk and strike method of feeding, as well as ground gleaning, at night and in the dim light (Ehrlich, et. al, 1988). This species has a variety of prey, but almost exclusively feeds on crustaceans (NJDEP 2013).

NJDEP identifies foraging habitat for yellow-crowned night-heron associated with the coastal waters from the site and vicinity. Coastal waters of the site and vicinity are capable of providing crustaceous prey items for night-herons such as blue crabs (*Callinectes sapidus*); however, other crustaceans such as fiddler crabs (*Uca* spp.) and marsh crabs (*Sesarma reticulatum*) are unlikely to be present at this location due to the absence of marsh habitat. Concrete slabs along the dilapidated, bulkheaded waterfront may provide suitable substrate to hunt for crustaceans or aquatic insects at the intertidal zone and subtidal shallows. As such, suitable, yet marginal-quality foraging habitat is present for yellow-crowned night-heron along the site's waterfront.

NJDEP does not identify any nesting colony documentation of yellow-crowned night-heron associated with the site or vicinity. As part of the field evaluation, DuBois conducted a visual heron nest survey to locate potential heron rookeries from the site or vicinity. Herons are colonial breeders, and nesting colonies typically contain several small stick nests. The results of the survey confirm that there are no heron nests located from the site or vicinity. Tangles of dense vegetation are present along the southern and northern site perimeters; however, vegetation is very limited in extent and not suitable to support a viable breeding population of night-herons from this area. Based on the absence of heron nests and suitable habitat from the local area, it is concluded that critical habitat for a breeding population of yellow-crowned night-heron is absent from the site. Compliance with N.J.A.C. 7:7-9.36 can be made for this species.

## 4.3.3.3 <u>Black-crowned Night-heron (*Nycticorax nycticorax*), State-threatened (breeding population)</u>

Black-crowned night-herons are colonial breeders, choosing to build their nests in heronries or rookeries. This species arrives at the colonies in late March and early April and begins egg-laying late in April (Harbor Herons Subcommittee 2010). In New Jersey, the heronries are typically found in coastal areas, and the

black-crowned night-heron nests are found in shrubs and trees near water or in reed beds near the ground (Walsh et al. 1999). Cover and proximity to foraging habitat seem to be the primary drivers of black-crowned night-heron nest-site selection. They will build nests in a variety of vegetation and cover types including mixed hardwood forests and salt marsh communities. Black-crowned night-herons prefer, but do not limit themselves to, marshes greater than 20 ha in size (Brown and Dinsmore 1986). The preferred feeding habitat of the black-crowned night-heron is along the edges of tidal creeks and ponds, and within marshes and estuaries. They are generalist predators that will feed on fish and crustaceans in coastal marsh systems.

NJDEP identifies foraging habitat for yellow-crowned night-heron associated with the coastal waters from the site and vicinity. Coastal waters of the site and vicinity are capable of providing crustaceous prey items for night-herons such as crabs and fish. Concrete slabs along the dilapidated, bulkheaded waterfront may provide suitable substrate to hunt for prey at the intertidal zone and subtidal shallows. As such, suitable, yet marginal-quality foraging habitat is present for black-crowned night-heron along the site's waterfront.

NJDEP does not identify any nesting colony documentation of black-crowned night-heron associated with the site or vicinity. As part of the field evaluation, DuBois conducted a visual heron nest survey to locate potential heron rookeries from the site or vicinity. Herons are colonial breeders, and nesting colonies typically contain several small stick nests. The results of the survey confirm that there are no heron nests located from the site or vicinity. Tangles of dense vegetation are present along the southern and northern site perimeters; however, vegetation is very limited in extent and not suitable to support a viable breeding population of night-herons from this area. Based on the absence of heron nests and suitable habitat from the local area, it is concluded that critical habitat for a breeding population of black-crowned night-heron is absent from the site. Compliance with N.J.A.C. 7:7-9.36 can be made for this species.

#### 4.3.3.4 Peregrine Falcon (Falco peregrinus), State-endangered

Historically, peregrine falcons nested on the cliffs of the Palisades and the Delaware Water Gap. Today, in New Jersey, peregrines nest atop man-made platforms along the Atlantic coast from Ocean to Cape May counties and on bridges spanning the Delaware and Hudson Rivers. Peregrine falcons also nest atop buildings in cities such as Jersey City, Newark, and Atlantic City. In recent years, peregrine falcons have returned to the cliffs of the Palisades along the Hudson River. Nests are a scrape and may be located on a cliff ledge, rocky outcrop, human provided nest box/platform, or man-made structures such as tall buildings, bridges, etc. where a high perch is available. Superior wing speed makes the peregrine falcon extremely proficient at catching avian prey in flight. In New Jersey, their diet consists primarily of pigeons, songbirds, shorebirds and ducks. Peregrines hunt by soaring high above their prey. Once their target is singled out, they fold their wings and drop headlong toward it. The prey is usually killed by the impact of a mid-air collision (Liguori, 2003).

According to the annual New Jersey Peregrine Falcon Research and Management Program Report (Clark and Wurst 2021), peregrine falcon nests are located at an Atlantic City Water Tower and the Atlantic City Sheraton Hotel. In previous years, nesting was suspected on the nearby Brigantine Bridge (Clark, personal communication). In 2014 and 2020, DuBois had performed peregrine falcon monitoring during electric transmission reliability upgrades at the Brigantine Bridge. Our monitoring did not result in positive detection of nesting falcons at Brigantine Bridge, but did result in the detection of a pair of peregrine falcons routinely roosting atop the Harrah's Hotel Casino and within the "G" sign of the Golden Nugget Hotel Casino. Nesting atop Harrah's was suspected but never confirmed (DuBois, unpublished data). DuBois' observed falcon activity occurs within 0.5-mile of the subject site. The site is located among an urban environment that is suitable to support aerial peregrine falcon hunting and foraging opportunities. There are, however, no tall urban structures or high perches located on-site or in close proximity that would provide for potential peregrine falcon nesting. The site is absent of potential breeding habitat for this species. Compliance with N.J.A.C. 7:7-9.36 can be made for this species.

#### 4.3.3.5 Least Tern (Sterna antillarum), State-endangered

The least tern prefers such habitats as sandy/pebbly beaches along the coast, bays, and sandbars along large rivers and is often found on landfills. Least terns nest in colonies where an unlimed scrape on a sand spit or gravel beach is created. This species is sensitive to disturbance by human recreational use of beaches.

Least tern colonies of a few to several hundred pairs are found primarily along barrier island beaches or mainland beach strands. Bare sandy areas or sparsely vegetated areas of typical beach vegetation just beyond the reach of normal spring tides are preferred. They are also known to nest within disturbed areas such as dredge disposal sites, sand and gravel pits, and gravel rooftops (Jenkins 2003). Their nests are shallow scrapes on open sand, soil, or pebbles, occasionally lined with pebbles or grasses. Foraging occurs in bays, lagoons, estuaries, rivers, and lakes along the coast. Small fish, crustaceans, and insects are preferred foods; they eat small mollusks and marine worms as well. Least terns forage over water, hovering briefly before plunging in to catch tiny prey just below the surface; they sometimes dip to pluck prey from the surface or to catch insects in flight (Audubon Maryland 2012).

Open waters of the Clam Creek are capable of supporting traditional prey items for least tern. The open waters of the site represent suitable foraging habitat for least tern. The terrestrial portion of the site, however, is entirely urban and absent of traditional beach nesting habitat. Potentially critical breeding habitat is not present from the site; therefore, compliance with N.J.A.C. 7:7-9.36 can be made for this species.

#### 4.3.3.6 Black Skimmer (Rynchops niger), State-endangered

Black skimmers are colonial seabirds that nest in groups. They inhabit ocean beaches, saltwater bays, and other tidal waters, such as inlets and estuaries, where they feed on fish and crustaceans. Breeding occurs primarily on sandbars and beaches. They are highly attracted to sand fill of newly dredged areas but abandon these areas when too much vegetation appears. Eggs are laid in a simple scrape on bare sand usually amongst shell fragments and scattered grass clumps. Black skimmers forage in shallow-water tidal creeks, inlets and ponds. Similar coastal and estuarine habitats are used throughout the year (Liguori et al. 2003). Nesting habitat is highly sensitive to human activity.

Open waters of the Clam Creek are capable of supporting traditional prey items for black skimmer. The open waters of the site represent suitable foraging habitat for black skimmer. The terrestrial portion of the site, however, is entirely urban and absent of traditional beach nesting habitat. Potentially critical breeding habitat is not present from the site; therefore, compliance with N.J.A.C. 7:7-9.36 can be made for this species.

#### 4.4 <u>N.J.A.C. 7:7-9.37 – Critical Wildlife Habitats</u>

Critical wildlife habitats are specific areas known to serve an essential role in maintaining wildlife, particularly in wintering, breeding, and migrating. Rookeries for colonial nesting birds, such as herons, egrets, ibis, terns, gulls, and skimmers; stopovers for migratory birds; and natural corridors for wildlife

movement merit a special management approach through designation as a Special Area. Critical Wildlife Habitat sites are generally considered on a case-by-case basis by the NJDEP Division of Fish and Wildlife.

Given the disturbed/developed nature of the terrestrial portion of the site, there are no vegetation communities or natural areas that would represent critical stopover habitat for migratory birds. Given the urban landscape, there are no functional greenway corridors that provide for wildlife movements. According to the Coastal Waterbird Colony Atlas (Erwin and Korschgen 1979), there are no documented rookeries for colonial nesting birds associated with the site. The NJDEP NHP, however, lists nesting colony occurrences of gull-billed tern (*Gelochelidon nilotica*), a species of state-special concern (Rank 2), associated with the project site (refer to *Appendix B* for a copy of the NHP letter). This tern breeds on gravelly or sandy beaches (Cornell University 2019); however, artificial nest sites are known, such as on gravel roofs (National Audubon Society 2022). Disturbed portions of the site contain clam shells, likely dropped by foraging gulls. Despite its urban nature, the site does provide some level of functional wildlife habitat; however, it's our determination that compliance with N.J.A.C. 7:7-9.37 can be made for this project as native wildlife habitats are absent from the site.

#### 5.0 FEDERAL ENDANGERED SPECIES ACT OF 1973

#### 5.1 <u>USFWS IPaC Database Review</u>

DuBois input the bounds of the project area into the USFWS IPaC system to determine whether any federal threatened or endangered species and their critical habitats may be associated with the site. IPaC is a tool to assist project proponents in increasing the compatibility of their activities with the conservation of USFWS Trust Resources. It is meant to assist in the implementation of all activities regardless of whether they will be implemented through sections 7 or 10 of the Federal Endangered Species Act (ESA).

No critical habitats for federal-listed threatened or endangered species are identified within the site. However, USFWS encourages that the following species should be considered in an effects analysis for the Project. Refer to *Appendix C* for the results of the IPaC Trust Resource List.

Common Name	Scientific Name	Taxa	<b>Federal Status</b>
Piping Plover	Charadrius melodus	Bird	Threatened
Red Knot	Calidris canutus rufa	Bird	Threatened
Seabeach Amaranth	Amaranthus pumilus	Plant	Threatened

 Table 2: Federal-Listed Species of Concern Potentially Associated with Site

The USFWS IPaC list (*Appendix C*) provides linkage to Nationwide Conservation Measures that describe measures that can help avoid and minimize impacts to all birds at any location year-round.

#### 5.2 <u>Federal-Listed Threatened Species Habitat Evaluation</u>

A field evaluation to determine whether suitable habitat to support the federal-listed threatened species of plant and wildlife was performed among the site and vicinity on January 12, 2022 by the biological staff of DuBois. The following plant and wildlife species have been identified by IPaC as possibly associated with the site or vicinity. Descriptions of suitable habitats required by these species are presented followed by species-specific habitat evaluations.

#### 5.2.1 <u>Piping Plover (Charadrius melodus)</u>, Federal-threatened

The piping plover is a small shorebird species that is approximately 7 inches long with a wing span of approximately 15 inches. Piping plovers utilize such habitats as mudflats, lakeshores, and sandbars along large rivers but are most often found on sandy or pebbly beaches, where the nest is placed above the high-water mark and seaward of dunes. New Jersey falls within the breeding range for the Atlantic Coast population of the species (USFWS, 1996). The piping plover typically arrives on breeding grounds as early as March, and begin establishing territories in April. Nests are created on coastal beaches in New Jersey, which are situated above the mean high-water line in areas with shells and/or intermittent dune grass, in the foredune areas, blow out areas behind the primary dune, or wash-over areas. Nests are shallow "scrapes" or depressions in the open sand areas. Piping plover broods begin foraging along the wrack line of tidal waters within hours of hatching. Migration from breeding grounds typically occurs between late July and September (USFWS, 1996).

The site is urban and absent of required beach habitat to support nesting by piping plover. Dilapidated bulkhead and concrete along the site's waterfront eliminate any potential for intertidal foraging. Suitable habitat for piping plover is absent from the site. Compliance with the provisions of the ESA can be made for this species.

#### 5.2.2 Red Knot (Calidris canutus rufa), Federal-threatened

The red knot is a robin-sized shorebird species whose overall range is distributed along the entire east and gulf coasts, extending from the Canadian arctic to the southern tip of South America. The Delaware Bay is identified as a critical migratory stopover location due to the concentration of horseshoe crabs. The decline of horseshoe crabs, a key food source, is a significant threatening factor for this species. The red knot must arrive at the Delaware Bay at the same exact time the horseshoe crabs are laying eggs. At this time of arrival in May, the birds will almost double their weight to prepare for the end migration flight to the arctic breeding grounds (Parramore 2014).

The red knot is documented as being one of the last shorebirds to appear in the spring, not arriving in numbers until the middle or end of May in New York (Bull, 1974). The species frequents broad coastal salt meadows and mud flat habitats (ibid). In the Delaware Bay, the red knot frequents horseshoe spawning habitat, which is described as beaches with gentle slopes and minimal wave action (NJDEP, undated). The species may roost on the higher beaches of the Delaware Bay, or the Atlantic side of the Cape May peninsula (ibid.).

The site is urban and absent of required beach, salt marsh or mud flat habitats to support potential foraging by red knot. Dilapidated bulkhead and concrete along the site's waterfront eliminate any potential for horseshoe crab spawning. Suitable habitat for red knot is absent from the site. Compliance with the provisions of the ESA can be made for this species.

#### 5.2.3 <u>Seabeach Amaranth (Amaranthus pumilus)</u>, Federal-threatened

Seabeach amaranth is an annual plant that grows on barrier island beaches along the Atlantic coast (USFWS 2019). It grows on sandy oceanfront beaches, specifically in the sparsely vegetated zone between the mean high-water line and the toe of the primary dune, overwash flats at the end of accreting beaches, and occasionally growing on other areas such as back dunes and dredge spoil disposal sites (USFWS 1996). Seabeach amaranth is intolerant of competition and therefore does not grow in heavily vegetated areas (Marion, undated). The species commonly grows in areas that are also identified as suitable plover, tern and skimmer nesting habitat (Marion, undated; USFWS 1996).

The site is urban and absent of required beach habitat to support occupation by seabeach amaranth. The majority of the terrestrial land-cover is concrete. Where vegetated, typical weedy grasses dominate. Suitable habitat for seabeach amaranth is absent from the site. Compliance with the provisions of the ESA can be made for this species.

#### 6.0 <u>SUMMARY & DISCUSSION</u>

Based on the results of the habitat evaluation, the following is our findings regarding potential regulatory implications and/or project constraints regarding the protection of applicable Special Area and threatened or endangered species' habitats pursuant to the to the New Jersey Coastal Zone Management Rules (N.J.A.C. 7:7) and the Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884).

#### N.J.A.C. 7:7-9.2 – Shellfish Habitat

Compliance with the provisions of this Special Area rule can be made for this project. This habitat evaluation demonstrates that the existing waters on the site are classified as "Prohibited", the most restrictive of five shellfish categories. The development project is unlikely to downgrade the shellfish growing water classification or contaminate shellfish habitat. The site is proposed to be remediated, thereby improving and removing contaminants from the site. Additionally, the development proposes a quayside facility along the waterfront. Pursuant to N.J.A.C. 7:7-9.2(c), this type of development is not prohibited in waters with a Prohibited shellfish classification.

#### N.J.A.C. 7:7-9.6 – Submerged Vegetation Habitat

Compliance with the provisions of this Special Area rule can be made for this project. This habitat evaluation demonstrates that the site and adjacent estuarine waters are not mapped by the NJDEP as SAV habitat. In the 1930's the salt marsh and meanders of Clam Creek were filled, with remainder of Clam Creek excavated to deep-water conditions that exists today. In-water development including a shipping pier supported industry on the site from at least the 1950's to the 1990's. Today, the waterfront is dilapidated and crumbling concrete is present in the subtidal portion of the site. Due to the historic excavation of native sediments, historic in-water industrial use of the site, and deep-water conditions, the site contains unsuitable habitat for SAV.

#### N.J.A.C. 7:7-9.36 - Endangered or Threatened Wildlife or Plant Species Habitat

Compliance with the provisions of this Special Area rule can be made for this project. Colonial waterbird (i.e., herons) and seabird (i.e., least tern & black skimmer) nesting colonies, and their suitable breeding habitats, are absent from the site. Redevelopment of the quayside edge has de-minimus in-water impacts that will not adversely impact the quality or quantity of the expansive suitable open-water foraging habitat from the project vicinity. The site is absent of tall structures that could provide for a suitable peregrine falcon nesting site, and the project will not prohibit falcons from pursuing aerial hunting in the local area. There are no active osprey nests located from the project or vicinity; therefore, the project shall have no effect to a breeding population of this species.

#### N.J.A.C. 7:7-9.37 - Critical Wildlife Habitat

Compliance with the provisions of this Special Area rule can be made for this project. Given the disturbed urban setting it does not contain critical vegetation to provide cover and foraging opportunities for migratory birds. It does not provide and is not part of a functional greenway corridor to support terrestrial

wildlife movements. Per the NJDEP NHP, nesting colony occurrences of gull-billed tern are potentially associated with the site; however, native wildlife habitats are absent.

#### Federal Endangered Species Act of 1973

Compliance with the provisions of the ESA can be made for this project. The three (3) USFWS IPaC-listed threatened species all rely on sandy beach habitat for survival and reproduction. The terrestrial portion of the site is urban and absent of necessary beach habitat. The developed waterfront also does not provide for potential foraging opportunities for the referenced shorebirds.

#### 8.0 <u>CONCLUSION</u>

The proposed Atlantic Shores Operations & Maintenance Facility project was evaluated to determine whether potential New Jersey Coastal Zone Special Area habitats as well as federal-listed threatened or endangered species' habitats may be present on the site. The habitat evaluation was performed to determine any regulatory implications or project constraints pursuant to the New Jersey Coastal Zone Management Rules (N.J.A.C. 7:7) and the Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884).

Four (4) Coastal Zone Special Habitat Areas have been evaluated. Based on site-specific and projectspecific considerations, it is determined that compliance with the provisions of the Shellfish, Submerged Vegetation, Endangered or Threatened Wildlife or Plant Species, and Critical Wildlife Habitats Special Area rules can be made for this project. The project is unlikely to have adverse impacts to these Special Areas. No NJDEP Coastal Zone Management habitat-related regulatory implications are anticipated for this project.

Three (3) federal-listed threatened species have been identified as potentially associated with the site. Based on site-specific considerations, it is determined that compliance with the provisions of the Federal Endangered Species Act of 1973 can be made for this project. The project is unlikely to have adverse impacts to federally-listed threatened or endangered species. No USFWS habitat-related regulatory implications are anticipated for this project.

This report should be provided to the appropriate regulatory agencies for consideration of project area habitat conditions and concurrence of the determinations made herewith.

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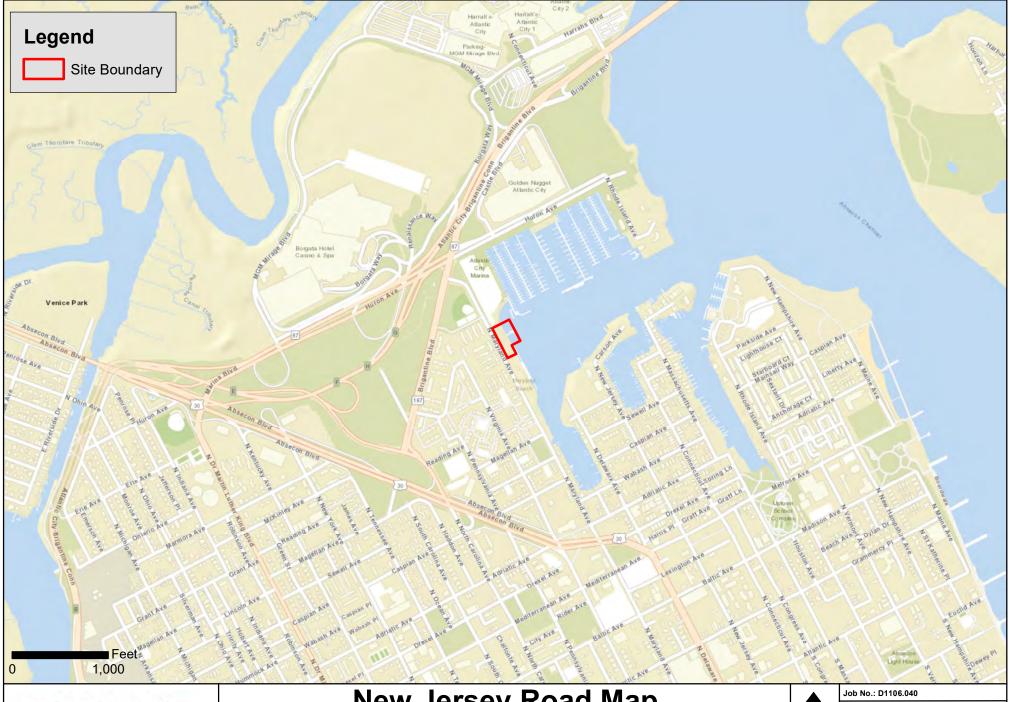
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Figures





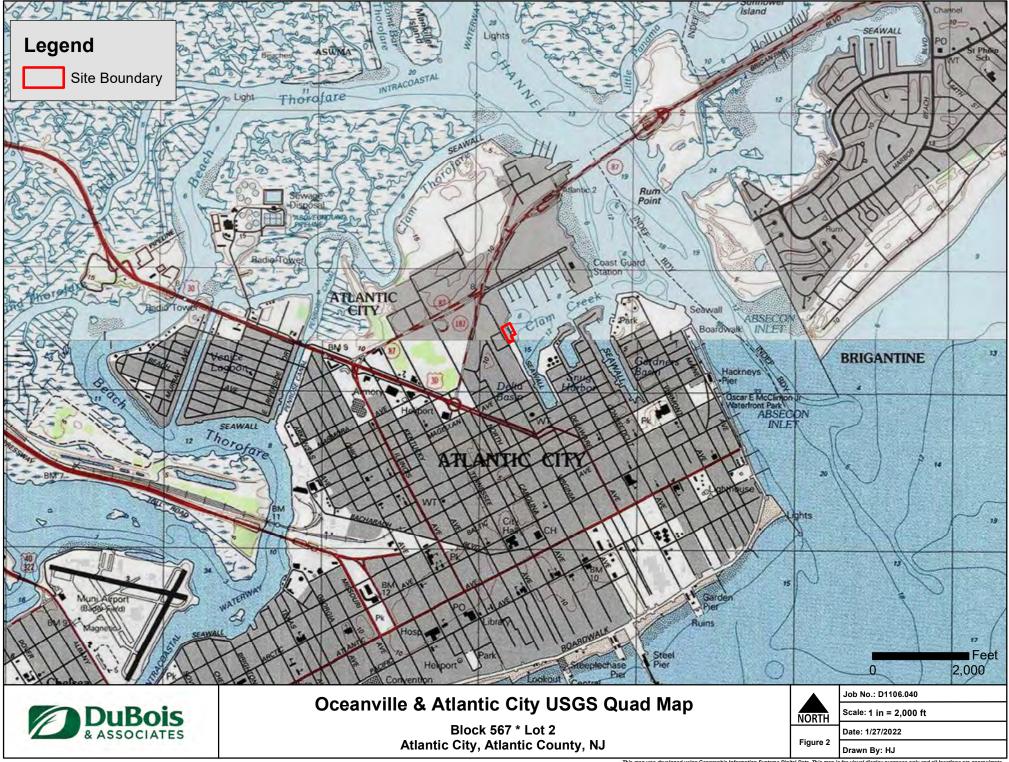
# **New Jersey Road Map**

Block 567 * Lot 2 Atlantic City, Atlantic County, NJ

	Job No.: D1106.040
NORTH	Scale: 1 in = 1,000 ft
	Date: 1/27/2022
Figure 1	Drawn Bv: HJ

Document Path: S:\JOBS NUMBERS\D1106.040\Road.mxd

This map was developed using Geographic Information Systems Digital Data. This map is for visual display purposes only and all locations are approxim

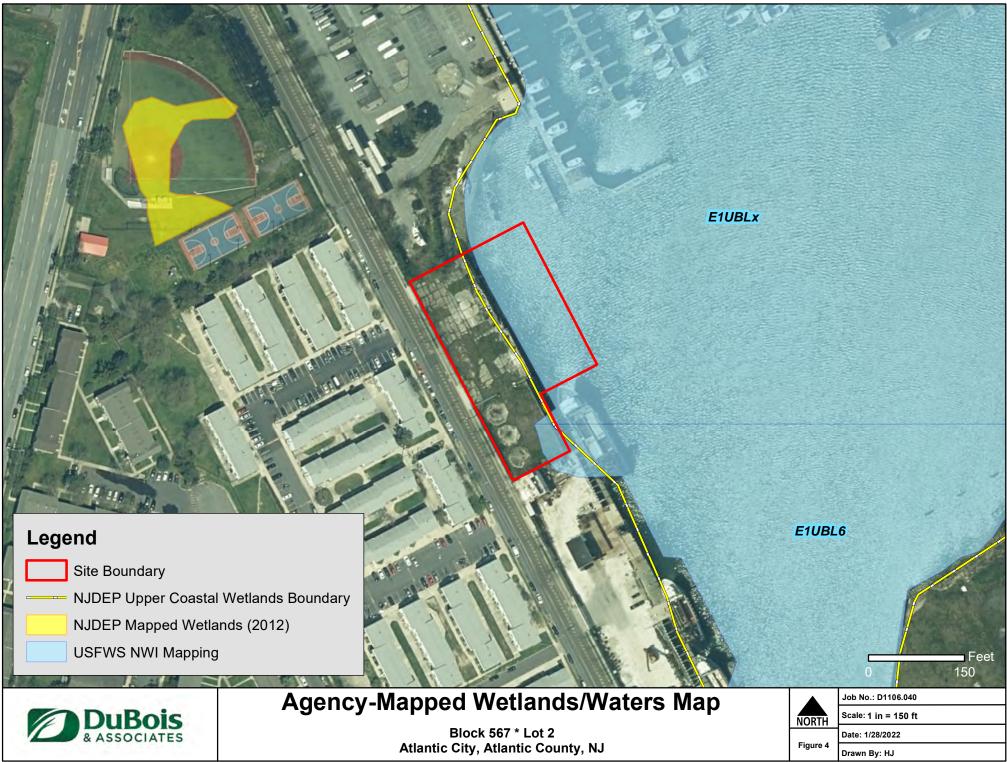


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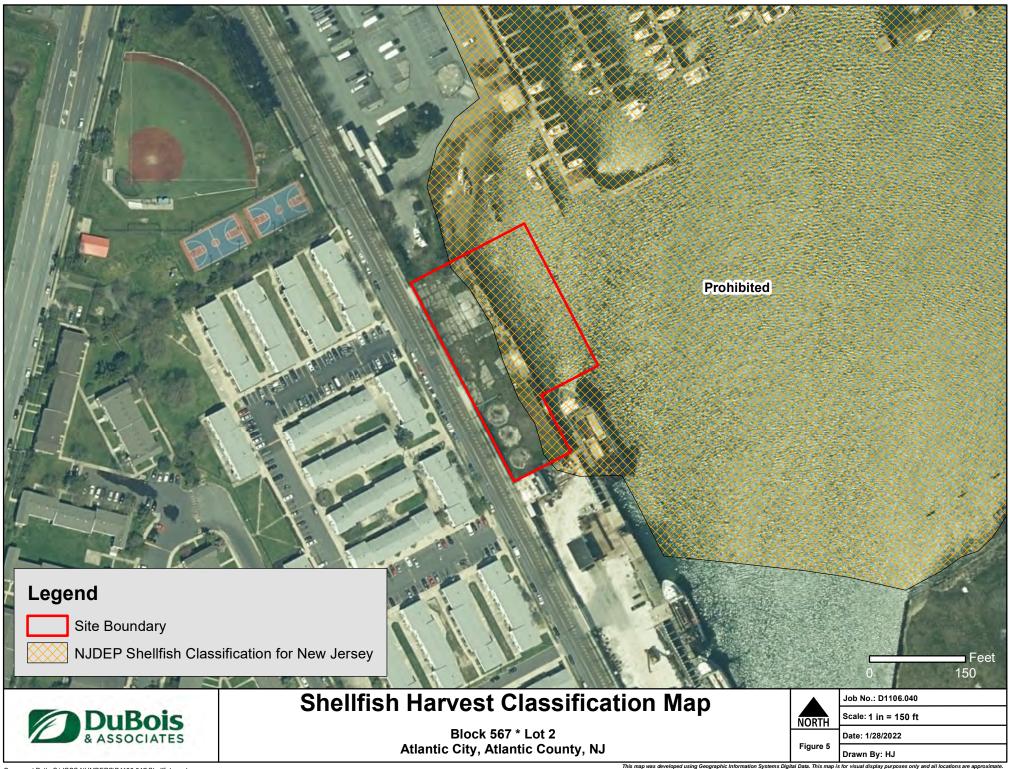


Block 567 * Lot 2 Atlantic City, Atlantic County, NJ

Drawn By: HJ



This map was developed using Geographic Information Systems Digital Data. This map is for visual display purposes only and all locations are approximate.



Document Path: S:\JOBS NUMBERS\D1106.040\Shellfish.mxd

This map produced by:

EARTH SATELLITE CORPORATION 7222 47th Street (Chevy Chase) Washington, D.C.

## NEW JERSEY SUBMERSED AQUATIC VEGETATION DISTRIBUTION - 1979

From 1" = 2000' air photos and low-altitude seaplane reconnaissance flown June-Sept., 1979 by: AEROECO

Reston, Virginia



This map was developed using Geographic Information Systems Digital Data. This map is for visual display purposes only and all locations are approximate.

### Legend



### Atlantic Coastal Landscape Region

#### Wildlife Rank

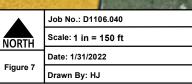
- 3 State Threatened
- 4 State Endangered
- 5 Federal Listed

Mapped Species and Occurrence Type: Osprey Foraging (T) Yellow-crowned Night-heron Foraging (T) Black-crowned Night-heron Foraging (T) Peregrine Falcon Nest (E) Least Tern Foraging (E) Black Skimmer Foraging (E)

NJDEP Landscape Project Map (ver. 3.3)



Block 567 * Lot 2 Atlantic City, Atlantic County, NJ



Feet

# Appendix A Photographs of Project Area





Photo 01: Representative view of disturbed lot showing concrete pad and grass patches, facing south from northern property boundary



Photo 02: Representative view of disturbed lot showing concrete pad and grass patches, facing south toward southern property boundary





Photo 03: Representative view of disturbed lot showing concrete pads, stone and grass patches, facing north toward northern property boundary

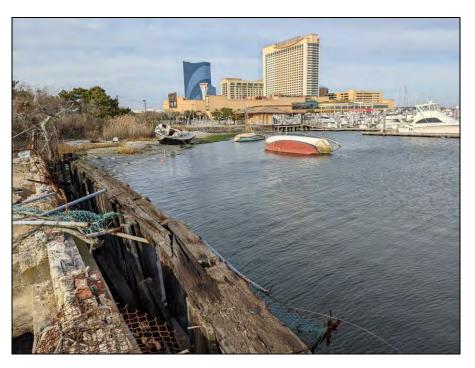


Photo 04: View of dilapidated waterfront showing timber bulkhead and fencing, facing north towards Golden Nugget Hotel Casino and Harrah's Hotel Casino





Photo 05: View of dilapidated waterfront showing concrete rubble, facing south

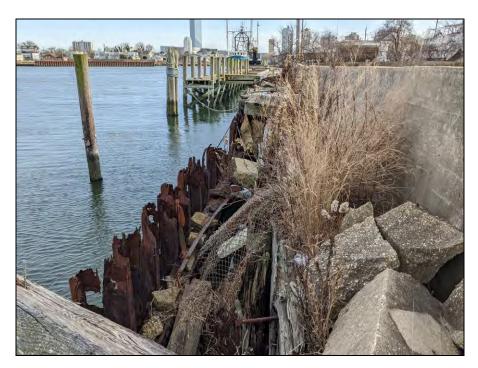


Photo 06: View of dilapidated waterfront showing concrete rubble, fencing, bulkhead and moorings

#### Photographs of Project Area Block 567, Portion of Lot 1 & Lot 2 Atlantic City, Atlantic County, NJ



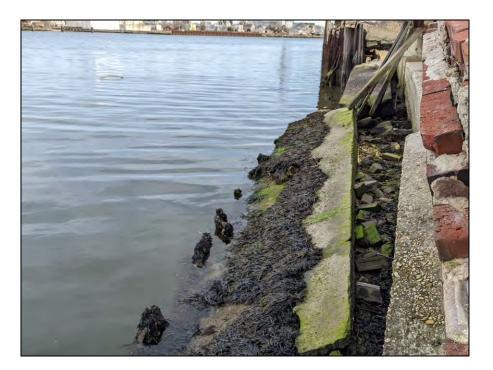


Photo 07: View of intertidal portion of disturbed waterfront showing growth of brown alga (rockweed, *Fucus* spp.). No evidence of Shellfish or SAV habitat present.

# Appendix B NJDEP Natural Heritage Program Correspondence



MAIL CODE 501-04 DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE PARKS, FORESTS & HISTORIC SITES OFFICE OF NATURAL LANDS MANAGEMENT 501 East State Street P.O. Box 420, Mail Code 501-04 Trenton, NJ 08625-0420 Tel. (609) 984-1339 • Fax (609) 984-0427

SHAWN M. LATOURETTE Commissioner

April 7, 2023

Darlene Silva PS&S 3 Mountainview Road Warren, NJ 07059

Re: 801 North Maryland Avenue Block(s) - 567, Lot(s) - 1, 2 Atlantic City, Atlantic County

Dear Darlene Silva:

Thank you for your data request regarding rare species information for the above referenced project site.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.3) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the map(s) submitted with the Natural Heritage Data Request Form into our GIS. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

We have also checked the Landscape Project habitat mapping and Biotics Database for all occurrences of rare wildlife species or wildlife habitat within one mile of the referenced site. Please refer to Table 3 (attached) to determine if any rare wildlife species or wildlife habitat is documented within one mile of the project site. Detailed reports are provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on the project site.

For requests submitted in order to make a riparian zone width determination as part of a Flood Hazard Area Control Act (FHACA) rule application, we report records for all rare plant species and ecological communities tracked by the Natural Heritage Program that may be on, or in the immediate vicinity of, your project site. A subset of these plant species is also covered by the FHACA rules when the records are located within one mile of the project site. One-mile searches for FHACA plant species will only report precisely located occurrences for those wetland plant species identified under the FHACA regulations as being critically dependent on the watercourse. Please refer to Table 3 (attached) to determine if any precisely located rare wetland plant species covered by the FHACA rules have been documented. Detailed reports are

PHILIP D. MURPHY Governor

SHEILA Y. OLIVER Lt. Governor provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on, or in the immediate vicinity of, the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1, 2 and 3 (attached) to determine if any priority sites are located on, in the immediate vicinity, or within one mile of the project site.

A list of rare plant species and ecological communities that have been documented from the county (or counties), referenced above, can be downloaded from https://nj.gov/dep/parksandforests/natural/heritage/database.html. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from https://nj.gov/dep/parksandforests/natural/docs/nhpcodes_2010.pdf.

Beginning May 9, 2017, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.3. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive web application at the following URL, https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7, or contact the

Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html.

Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements (species and/or ecological communities) or their locations. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Robert J. Cartica Administrator

c: NHP File No. 23-3907434-27295

### Table 1: On Site Data Request Search Results (6 Possible Reports)

<u>Report Name</u>	<b>Included</b>	Number of Pages
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

ClassCommon NameScientific NameFeature TypeRankFeature TypeRankFeature TypeRankFeature TypeRankFeature TypeRankFeature TypeRankFeature TypeRankFeature TypeFeature Type			La	Project Site Based on Search of Landscape Project 3.3 Species Based Patches	ased on Se 3 Species 1	arch of 3ased Patches	1		
Black SkimmerRynchops nigerForaging4Black SrimmerNycticorax nycticoraxForaging3Black-crowned Night-Nycticorax nycticoraxForaging3Darspian TemHydroprogne caspiaForaging2Caspian TemHydroprogne caspiaForaging2Common TemSterna hirundoForaging2Glossy IbisPlegadis falcinellusForaging2Gull-billed TernGelochelidon niloticaNesting Colony2Uull-billed TernGelochelidon niloticaNesting Colony2Uull-billed TernSternula antillarumForaging2Cull-billed TernSternula antillarumForaging2Uull-billed TernGelochelidon niloticaNesting2Uull-billed TernSternula antillarumForaging2Cull-billed TernSternula antillarumForaging2Uull-billed TernBeretat caeruleaNesting3Unitle Blue HeronEgretta caeruleaNesting2OspreyPandion haliaetusNesting2Stowy EgretEgretta thulaForaging2Yellow-crowned NightNyctanassa violaceaForaging2Yellow-crowned NightNyctanassa violaceaForaging3Yellow-crowned NightNyctanassa violaceaForaging3Yellow-crowned NightNyctanassa violaceaForaging3Yellow-crowned NightNyctanassa violaceaForagingNetnNyc		Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Rynchops nigerForaging4light-Nycticorax nycticoraxForaging3Hydroprogne caspiaForaging2Sterma hirundoForaging2Sterma hirundoForaging2Plegadis falcinellusForaging2Celochelidon niloticaForaging2Gelochelidon niloticaNesting Colony2Legetta caeruleaForaging3Pandion haliaetusForaging3Pandion haliaetusNesting2Pandion haliaetusForaging3Night-Nyctanassa violaceaForagingNight-Nyctanassa violaceaForagingNight-Nyctanassa violaceaForaging	tves								
light-Nycticorax nycticoraxForaging3Hydroprogne caspiaForaging2Sterna hirundoForaging2Plegadis falcinellusForaging2Gelochelidon niloticaForaging2Gelochelidon niloticaNesting Colony2Gelochelidon niloticaNesting Colony2Gelochelidon niloticaNesting Colony2Plegatis falcinellusForaging2Gelochelidon niloticaNesting Colony2Plegatis falcinellusForaging2Gelochelidon niloticaNesting Colony2Gelochelidon niloticaNesting Colony2Plegatis falcinellusForaging2Plegatis falcinellusForaging2Plegatis falcinellusNesting2Plegatis falcinellusNesting2Plegatis falcinellusForaging2Plegatis falcinellusForaging2Plegatis falcinellusNesting2Plegatis falcinellusForaging2Plegatis falcinellusFor		Black Skimmer	Rynchops niger	Foraging	4	NA	State Endangered	G5	S1B,S1N
Hydroprogne caspiaForaging2Sterna hirundoForaging2Plegadis falcinellusForaging2Gelochelidon niloticaForaging2Gelochelidon niloticaNesting Colony2Sternula antillarumForaging2Pandion haliaetusForaging3Pandion haliaetusNest4Egretta thulaForaging3Bretta thulaForaging2NightNyctanassa violaceaForaging3		Black-crowned Night- heron	Nycticorax nycticorax	Foraging	c	NA	State Threatened	G5	S2B,S3N
Sterna hirundoForaging2Plegadis falcinellusForaging2Gelochelidon niloticaForaging2Gelochelidon niloticaNesting Colony2Gelochelidon niloticaNesting Colony2Sternula antillarumForaging2IEgretta caeruleaForaging3Pandion haliaetusNesting3Pandion haliaetusNesting2Egretta thulaForaging2IEgretta thulaForaging3NightNyctanassa violaceaForaging3		Caspian Tern	Hydroprogne caspia	Foraging	7	NA	Special Concern	G5	S3B,S4N
Plegadis falcinellusForaging2Gelochelidon niloticaForaging2Gelochelidon niloticaNesting Colony2Sternula antillarumForaging4Egretta caeruleaForaging3Pandion haliaetusForaging3Falco peregrinusNest4Egretta thulaForaging2Bandion haliaetusForaging3NightNyctanassa violaceaForaging3		Common Tern	Sterna hirundo	Foraging	2	NA	Special Concern	G5	S3B,S4N
Gelochelidon niloticaForaging2Gelochelidon niloticaNesting Colony2Sternula antillarumForaging4Egretta caeruleaForaging2Pandion haliaetusForaging3Falco peregrinusNest4Egretta thulaForaging2Egretta thulaForaging2NightNyctanassa violaceaForaging3		Glossy Ibis	Plegadis falcinellus	Foraging	2	NA	Special Concern	G5	S3B,S4N
Gelochelidon niloticaNesting Colony2Sternula antillarumForaging4Egretta caeruleaForaging2Pandion haliaetusForaging3Falco peregrinusNest4Egretta thulaForaging2Egretta thulaForaging2NightNyctanassa violaceaForaging		Gull-billed Tern	Gelochelidon nilotica	Foraging	5	NA	Special Concern	G5	S3B,S3N
Sternula antillarumForaging4Egretta caeruleaForaging2Pandion haliaetusForaging3Falco peregrinusNest4Egretta thulaForaging2Egretta thulaForaging2Night-Nyctanassa violaceaForaging		Gull-billed Tern	Gelochelidon nilotica	Nesting Colony	2	NA	Special Concern	G5	S3B,S3N
<ul> <li>Egretta caerulea Foraging 2</li> <li>Pandion haliaetus Foraging 3</li> <li>Falco peregrinus Nest 4</li> <li>Egretta thula Foraging 2</li> <li>Night- Nyctanassa violacea Foraging 3</li> </ul>		Least Tern	Sternula antillarum	Foraging	4	NA	State Endangered	G4	S1B,S1N
Pandion haliaetusForaging3Falco peregrinusNest4Egretta thulaForaging2Egretta tricolorForaging2Night-Nyctanassa violaceaForaging3		Little Blue Heron	Egretta caerulea	Foraging	2	NA	Special Concern	G5	S3B,S3N
Falco peregrinusNest4Egretta thulaForaging2LEgretta tricolorForaging2Night-Nyctanassa violaceaForaging3		Osprey	Pandion haliaetus	Foraging	3	NA	State Threatened	G5	S2B,S4N
Egretta thulaForaging2eronEgretta tricolorForaging2ned Night-Nyctanassa violaceaForaging3		Peregrine Falcon	Falco peregrinus	Nest	4	NA	State Endangered	G4	S1B,S3N
Egretta tricolor Foraging 2 Nyctanassa violacea Foraging 3		Snowy Egret	Egretta thula	Foraging	2	NA	Special Concern	G5	S3B,S4N
Nyctanassa violacea Foraging 3		Tricolored Heron	Egretta tricolor	Foraging	2	NA	Special Concern	G5	S3B,S3N
		Yellow-crowned Night- heron	Nyctanassa violacea	Foraging	3	NA	State Threatened	G5	S2B,S2N

Rare Wildlife Species or Wildlife Habitat on the

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### Table 2: Vicinity Data Request Search Results (6 possible reports)

<u>Report Name</u>	<u>Included</u>	Number of Pages
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites within the Immediate Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	2 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

		Immediat	mediate Vicinity of the Project Site Based on Search Landscape Project 3.3 Species Based Patches	Project Site ] 3 Species B:	Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	f		
Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	American Oystercatcher	Haematopus palliatus Nest	Nest	7	NA	Special Concern	G5	S3B,S3N
	Black Skimmer	Rynchops niger	Foraging	4	NA	State Endangered	G5	S1B,S1N
	Black-crowned Night- Nycticorax heron nycticorax	Nycticorax nycticorax	Foraging	3	NA	State Threatened	G5	S2B,S3N
	Caspian Tern	Hydroprogne caspia	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Cattle Egret	Bubulcus ibis	Foraging	3	NA	State Threatened	G5	S2B,S3N
	Common Tern	Sterna hirundo	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Glossy Ibis	Plegadis falcinellus	Foraging	7	NA	Special Concern	G5	S3B,S4N
	Gull-billed Tern	Gelochelidon nilotica	Foraging	2	NA	Special Concern	G5	S3B,S3N
	Gull-billed Tern	Gelochelidon nilotica	Nesting Colony	2	NA	Special Concern	G5	S3B,S3N
	Least Tern	Sternula antillarum	Foraging	4	NA	State Endangered	G4	S1B,S1N
	Little Blue Heron	Egretta caerulea	Foraging	2	NA	Special Concern	G5	S3B,S3N
	Osprey	Pandion haliaetus	Foraging	3	NA	State Threatened	G5	S2B,S4N
	Peregrine Falcon	Falco peregrinus	Nest	4	NA	State Endangered	G4	S1B,S3N
	Snowy Egret	Egretta thula	Foraging	2	NA	Special Concern	G5	S3B,S4N

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		Rare V Immediat La	Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	ildlife Ha ject Site E <u>Species Ba</u>	bitat Within the Based on Search of Ised Patches			
Class	Common Name	Scientific Name	Feature Type	Rank	Rank Federal Protection Status	State Protection Status	Grank	Srank
	Tricolored Heron	Egretta tricolor	Foraging	2	NA	Special Concern	G5	S3B,S3N
	Yellow-crowned Night-heron	Nyctanassa violacea	Foraging	б	NA	State Threatened	G5	S2B,S2N

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### Table 3: Within 1 Mile for Riparian Zone Width Determination

(6 possible reports)

<u>Report Name</u>	<b>Included</b>	Number of Pages
1. Rare Plant Species Occurrences for Riparian Zone Width Determination (Flood Hazard Area Control Act Rule Appplication) - Within One Mile of the Project Site Based on Search of Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites for Riparian Zone Width Determination - Within One Mile of the Project Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	3 page(s) included
4. Vernal Pool Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

		Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination Within One Mile of the Project Site	s or Wildlife Habitat for Riparian Zon Within One Mile of the Project Site	at for Ripa e of the Pro	rian Zone Width	Determination		
		Based on Se	Based on Search of Landscape Project 3.3 Species Based Patches	Project 3.3	Species Based Pa	itches		
Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	American Oystercatcher	Haematopus palliatus	Nest	7	NA	Special Concern	G5	S3B,S3N
	American Oystercatcher	Haematopus palliatus	Nesting Area	7	NA	Special Concern	G5	S3B,S3N
	American Oystercatcher	Haematopus palliatus	Non-breeding Concentration	2	NA	Special Concern	G5	S3B,S3N
	Black Skimmer	Rynchops niger	Foraging	4	NA	State Endangered	G5	S1B,S1N
	Black-crowned Night-heron	Nycticorax nycticorax	Foraging	e	NA	State Threatened	G5	S2B,S3N
	Black-crowned Night-heron	Nycticorax nycticorax	Nesting Colony	3	NA	State Threatened	G5	S2B,S3N
	Caspian Tern	Hydroprogne caspia	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Cattle Egret	Bubulcus ibis	Foraging	3	NA	State Threatened	G5	S2B,S3N
	Common Tern	Sterna hirundo	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Common Tern	Sterna hirundo	Nesting Colony	7	NA	Special Concern	G5	S3B,S4N
	Glossy Ibis	Plegadis falcinellus	Foraging	7	NA	Special Concern	G5	S3B,S4N
	Glossy Ibis	Plegadis falcinellus	Nesting Colony	5	NA	Special Concern	G5	S3B,S4N

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		Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination Within One Mile of the Project Site	es or Wildlife Habitat for Riparian Zon Within One Mile of the Project Site	oitat for Rip lile of the Pr	arian Zone Width oject Site	Determination		
		Based on So	earch of Landscal	oe Project 3.	Based on Search of Landscape Project 3.3 Species Based Patches	itches		
Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
	Gull-billed Tern	Gelochelidon nilotica	Foraging	2	NA	Special Concern	G5	S3B,S3N
	Gull-billed Tern	Gelochelidon nilotica	Nesting Colony	6	NA	Special Concern	G5	S3B,S3N
	Least Tern	Sternula antillarum	Foraging	4	NA	State Endangered	G4	S1B,S1N
	Least Tern	Sternula antillarum	Nesting Colony	4	NA	State Endangered	G4	S1B,S1N
	Little Blue Heron	Egretta caerulea	Foraging	2	NA	Special Concern	G5	S3B,S3N
	Little Blue Heron	Egretta caerulea	Nesting Colony	7	NA	Special Concern	G5	S3B,S3N
	Osprey	Pandion haliaetus	Foraging	ю	NA	State Threatened	G5	S2B,S4N
	Osprey	Pandion haliaetus	Nest	3	NA	State Threatened	G5	S2B,S4N
	Peregrine Falcon	Falco peregrinus	Nest	4	NA	State Endangered	G4	S1B,S3N
	Piping Plover	Charadrius melodus	Nesting Area	Ś	Federally Listed Threatened	State Endangered	G3	S1B,S1N
	Snowy Egret	Egretta thula	Foraging	7	NA	Special Concern	G5	S3B,S4N
	Snowy Egret	Egretta thula	Nesting Colony	2	NA	Special Concern	G5	S3B,S4N
	Tricolored Heron	Egretta tricolor	Foraging	2	NA	Special Concern	G5	S3B,S3N

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		Rare Wildlife Speci Based on So	Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	at for Rips e of the Pri Project 3	arian Zone Width oject Site 3 Species Based Pa	Determination		
Class	Common Name	Scientific Name	Feature Type	Rank	Rank Federal Protection State Protection Status Status	State Protection Status	Grank	Srank
	Yellow-crowned Night-heron	Nyctanassa violacea	Foraging	ю	NA	State Threatened	G5	S2B,S2N
	Y ellow-crowned Night-heron	Nyctanassa violacea	Nesting Colony	б	NA	State Threatened	G5	S2B,S2N

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Appendix C USFWS IPaC Review

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Atlantic County, New Jersey

Alldino City Marina

## Local office

New Jersey Ecological Services Field Office

**℃** (609) 646-9310**Ⅲ** (609) 646-0352

4 E. Jimmie Leeds Road, Suite 4 Galloway, NJ 08205

http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html

# Endangered species

# This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Birds

1.10		111	in the second
N	Δ	N	1
1.4	1	IV.	

STATUS

Threatened

Piping Plover Charadrius melodus There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/6039

Red Knot Calidris canutus rufa

Threatened

Wherever found There is **proposed** critical habitat for this species. The location of the critical habitat is not available. <u>https://ecos.fws.gov/ecp/species/1864</u>

## **Flowering Plants**

NAME

Seabeach Amaranth Amaranthus pumilus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8549 STATUS

Threatened

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918,
- 2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

 Birds of Conservation Concern <u>http://www.fws.gov/birds/management/managed-species/</u> <u>birds-of-conservation-concern.php</u>

- Measures for avoiding and minimizing impacts to birds <u>http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/</u> <u>conservation-measures.php</u>
- Nationwide conservation measures for birds <u>http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf</u>

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds</u> of <u>Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

BREEDING SEASON (IF A

Breeds elsewhere

#### Black Scoter Melanitta nigra

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Brown Pelican Pelecanus occidentalis

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. Breeds Jan 15 to Sep 30

#### Common Eider Somateria mollissima

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

#### Common Loon gavia immer

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/4464

#### Double-crested Cormorant phalacrocorax auritus

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/3478

#### Long-tailed Duck Clangula hyemalis

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/7238

#### Red-breasted Merganser Mergus serrator

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

#### Red-throated Loon Gavia stellata

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

#### Ring-billed Gull Larus delawarensis

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. Breeds Jun 1 to Sep 30

Breeds Apr 15 to Oct 31

Breeds Apr 20 to Aug 31

Breeds elsewhere

Breeds elsewhere

Breeds elsewhere

Breeds elsewhere

#### Royal Tern Thalasseus maximus

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

#### Surf Scoter Melanitta perspicillata

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

#### White-winged Scoter Melanitta fusca

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

### **Probability of Presence Summary**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

#### Probability of Presence (...)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of

Breeds Apr 15 to Aug 31

Breeds elsewhere

Breeds elsewhere

presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

#### Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

#### Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

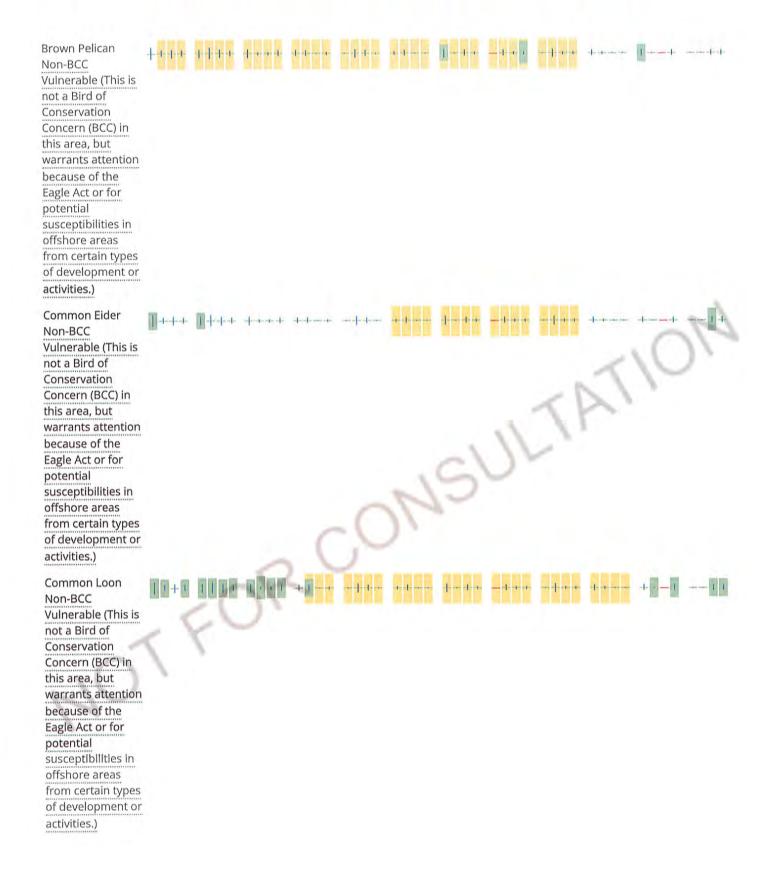
#### No Data (-)

A week is marked as having no data if there were no survey events for that week.

#### **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

				🔳 proba	bility of	presence	e bre	eeding se	eason	survey o	effort -	no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Black Scoter Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)	1			*		an denoration	<b>.</b>	-++++		-		



Double-crested 11++ 1+1+ 1+++ 11 -+-1111 Cormorant Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.) Long-tailed Duck 1111 1111 1 + + Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.) **Red-breasted** 1 1 1 11++ 1 1 11 -last at the -----Merganser Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Red-throated Loon 11 1 - 1----interesting in the second ----Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.) **Ring-billed Gull** TARE THE TARE CO. + 1+--+++ Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.) **Royal Tern** +-1 4 1 4 44 1-1 Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Surf Scoter 11++ ++1+ +++1 +1+++ +++++ +++++ +++++ -++++ -++++ Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.) White-winged -la da marte ------Scoter Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network</u> (<u>AKN</u>). The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

## What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey, banding, and citizen</u> <u>science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

#### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: <u>The Cornell Lab of Ornithology All About Birds Bird Guide</u>, or (if you are unsuccessful in locating the bird of interest there), the <u>Cornell Lab of Ornithology Neotropical Birds</u> <u>guide</u>. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

#### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

#### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS</u> <u>Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf</u> project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam</u> <u>Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

#### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

## Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of</u> Engineers District.

#### WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the <u>NWI map</u> to view wetlands at this location.

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

# Appendix D Statement of Qualifications



#### Education:

B.S. Environmental Studies The Richard Stockton College of New Jersey – 2006

Graduated Magna Cum Laude with Program Distinction

#### Certifications:

Professional Wetland Scientist – Society of Wetland Scientists

USFWS Qualified Bog Turtle Surveyor – NJ, DE, MD, PA

USFWS/PA Game Commission Qualified Bat Surveyor (QBS)

PA DCNR Wild Plant Management Permittee

NJDEP ENSP Recognized Qualified Venomous Snake Monitor

#### Continuing Education:

Western Bat Working Group: Bats and Wind Energy.

Northeast Bat Working Group: Annual Conferences

Bat Acoustic Software Training Workshop

Advanced Bat Acoustics: A Master Class

Bats and Bridges Survey Training hosted by USFWS and NJDEP

N.J. Conservation Foundation & P.P.A: Fundamentals of Pinelands Botany; Pinelands Botany: Practical Applications

Identification of Tidal Wetland Plants. Rutgers

Poaceae: Field Identification of Grasses. Eagle Hill Institute Natural History Seminar

#### Fields of Competence:

Mr. Silva has over 16 years of experience in the fields of biology, ecology, wetland science, soil science and land use regulatory compliance. He conducts various environmental site assessments; rare species habitat evaluations, surveys, and management plans; ecological sampling investigations; mitigation design, permitting, and vegetation monitoring; and environmental/biological construction monitoring.

#### **Professional Experience:**

Mr. Silva is a senior biologist and environmental scientist with the firm of DuBois Environmental Consultants. He is responsible for conducting faunal and floral sampling investigations, natural resource inventories, threatened/endangered species habitat assessments and directed surveys. Mr. Silva is well versed as to the survey and sampling protocols required under the jurisdiction of the USFWS, NJDEP and Pinelands Commission for Threatened and Endangered Species Surveys. He has tracked several northern pine snakes using radio telemetry, providing data pertinent to home range statistics, core-use areas and critical habitat delineation. He is responsible for the maintenance and operation of a variety of ecological trapping arrays, including drift fence-box funnel trap arrays designed to capture threatened and endangered snake species. He also performs numerous raptor nest investigations and breeding vocalization broadcast surveys, conducts amphibian community evaluations and critical wildlife habitat assessments. To date, Mr. Silva has studied for rare faunal and floral species in 5 states, including New Jersey, New York, Pennsylvania, Delaware and Maryland.

Mr. Silva has conducted numerous Phase I habitat assessments, Phase II visual surveys and Phase III trapping surveys for the Federally-threatened bog turtle. He has also assisted in habitat restoration and enhancement projects for the bog turtle through removal and control of invasive vegetation, and is currently recognized by the USFWS as a Qualified Bog Turtle Surveyor in the states of N.J., D.E., M.D. and P.A. Mr. Silva is also responsible for the operation of mist nets designed to capture various bat species, including the Federally-endangered Indiana bat and Federally-threatened Northern long-eared bat. He measures and records pertinent biological data of all collected specimens. Mr. Silva also deploys acoustic hardware and performs subsequent acoustic analysis of bat echolocation calls captured in the field.

In addition to the above responsibilities, Mr. Silva conducts plant surveys within various vegetation communities, which have included numerous species considered rare or listed as protected in various states. Mr. Silva has conducted numerous botanical investigations for rare plant species within the jurisdiction of the New Jersey Pinelands Commission, the New Jersey Department of Environmental Protection, the Pennsylvania Department of Conservation of Natural Resources, and the Maryland Department of Natural Resources. Many projects include botanical surveys along existing transmission line right-of-ways; investigations have led to the delineation and protection of rare plant occurrences while permitting utilities to perform upgrades and maintenance operations within their easements.

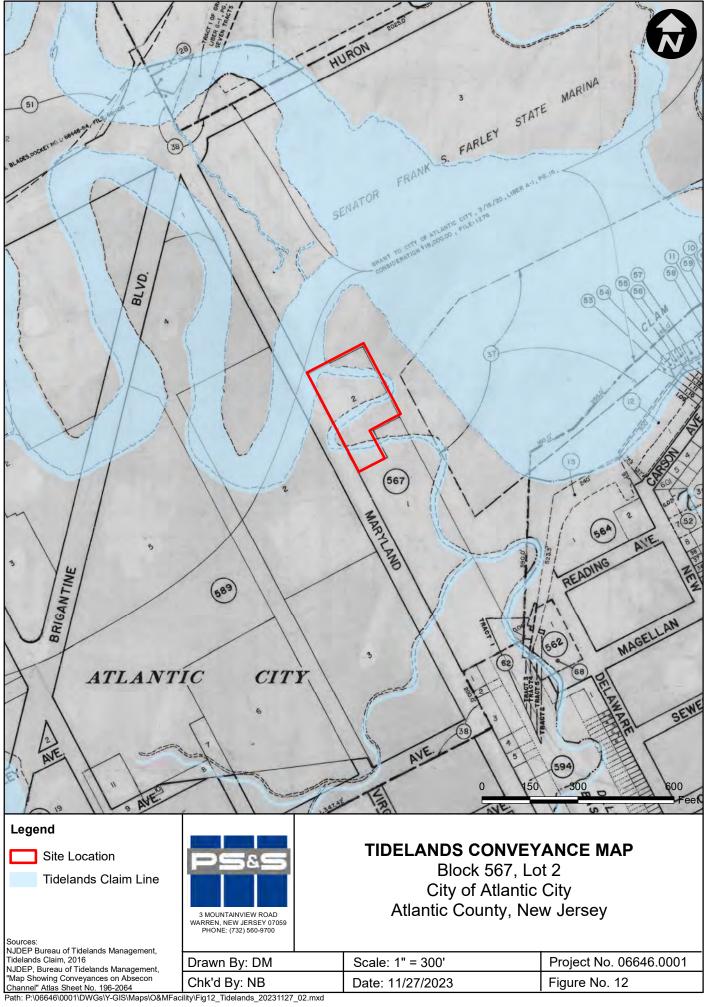
Mr. Silva performs environmental and biological construction monitoring associated with linear project improvements. Environmental oversight ensures the project is conducted in an environmentally responsible manner and in accordance with all applicable SESC standards and best management practices. Biological oversight in and around sensitive habitats ensures that the project does not have any adverse impacts to sensitive habitats or rare faunal and floral species.

Mr. Silva is a certified professional wetland scientist responsible for performing wetland delineations under the jurisdiction of multiple agencies. He follows



Identification of Common interagency evaluation procedures and is well versed in analyzing the technical Carex Using Field Features. indicators of wetland vegetation, hydrology and soils. He authors Freshwater Wetland Eagle Hill Institute Natural Delineation Reports and prepares Freshwater Wetland Letter of Interpretation **History Seminar** applications for submittal to the NJDEP. In addition, he prepares various NJDEP Division of Land Use permitting applications and Environmental Impact Statements for Ecological Risk Assessment: Township approval. Practice and Protocols. Rutgers Mr. Silva performs annual wetland mitigation monitoring to document the **Restoration Ecology. Rutgers** performance of vegetation and other variables at wetland restoration, creation and enhancement sites. He performs wetland mitigation site location searches and Mid-Atlantic Professional Soil mitigation site design which provides clients with a variety of potential mitigation site Scientists Hydric Soils options. Workshops Mr. Silva is very proficient in ESRI ArcMap Geographic Information Systems (GIS) software and GPS technology. Maps are created to present clients with a visual **Pinelands Groundwater Supply** representation of site-specific environmental characteristics in relation to various & Ecosystem Needs; Pinelands projects. Annual Short Courses **Projects of Relevance:** Professional Affiliations: Public utility MAPP Project - Delmarva Peninsula & Chesapeake Western Shore Member: Philadelphia Ecological and environmental work was completed to assist the land acquisition **Botanical Club** process for the Mid-Atlantic Power Pathway (MAPP) Project. Mr. Silva was a lead biologist responsible for documenting the presence or absence of the Federally-Member: NJ Chapter of The endangered Delmarva fox squirrel within forested landscapes within Dorchester Wildlife Society County, Maryland. County-wide photomonitoring surveys provided pertinent information regarding distribution trends and mitigation locations. Rare, threatened Member: New Jersey Division and endangered (RTE) species habitat evaluations and directed RTE plant species of Fish, Game and Wildlife surveys were performed from Calvert County, Maryland east to the Conservation Corps. Maryland/Delaware border. Member: Northeast Partners in Cape May Refuge Migratory Landbird Research Amphibian and Reptile Mr. Silva has conducted fall-migrating landbird research on lands located within the Conservation Cape May National Wildlife Refuge in Cape May County, New Jersey. The objective of the on-going study is to determine the use of stop-over habitats by neotropical Member: Northeast Bat Working Group migrants within the Refuge. Surveys were performed within management units that receive different treatments to enhance shrub habitat quality for migrating birds. Member: Flora of New Jersey Survey methodologies performed include bird abundance area searches, behavioral Project response reaction via mobbing audiotapes, activity budgets to determine utilized habitat and foraging substrates, vegetation density and fruiting analysis within **Career Positions:** management plots. **Trident Environmental** Resource Extraction Indiana Bat Habitat Mitigation Plan Consultants, Toms River, NJ -Mr. Silva authored and developed an Indiana Bat Habitat Mitigation Plan for a mineral Biologist/Environmental quarry in Luzerne County, Pennsylvania. The quarry is located within the area of a Scientist 2005 - 2014 known Indiana bat hibernaculum and the Plan was developed to ensure protection of this endangered species pursuant to the Endangered Species Act of 1973. The DuBois & Associates, LLC, measures within the Plan satisfied USFWS concerns regarding expansion of quarry Manahawkin, NJ operations and Indiana bat protection. Sr. Biologist/Environmental Scientist 2014 - Present

### ATTACHMENT J Tidelands Conveyance Information



### The State of New Iersey:

To all to whom these Presents shall Come, or may Concern, Greeting:

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Whereas, Pursuant to an act of the Legislature of said State, approved April 8th, 1915, entitled "An Act creating a department to be known as the Board of Commerce and Navigation, and vesting therein all the powers and duties now devolved, by law, upon the Board of Riparian Commissioners, the Department of Inland Waterways, the Inspectors of Power Vessels, and the New Jersey Harbor Commission," and other acts and joint resolutions of the Legislature of said State, CITY OF ATLANTIC CITY, a municipal corporation of the State of New Jersey, being the owner of lands fronting on Clam Creek and certain tributaries, South Fork of Clam Creek and certain tributaries, North Fork of Clam Creek and certain tributaries, and Beach Thoroughfare,

#### being-the owner - - of lands fronting on in the City of Atlantic City

in the County of Atlantic

and State of New Jersey, which lie above high water mark and in front of which the lands under water hereinafter described are situated, has applied to the Board of Commerce and Navigation of said State for a grant of the said lands under water, and to have the said Board of Commerce and Navigation fix the boundaries of the said lands under water, and determine the price or compensation to be paid to the said State therefor, and the terms and conditions of said grant:

And Wherras, the said Board of Commerce and Navigation, to wit: J. SPENCER SMITH, RICHARD C. JENKINSON, WILLIAM L. SAUNDERS, W. PARKER RUNYON, WILLIAM T. KIRK, ROBERT F. ENGLE, HARRY B. COOK and HENRY C. BROKING,

having due regard to the interest of navigation and the interests of the State, have agreed to grant the lands under water hereinafter mentioned upon the terms herein set forth, and have determined the sum of

#### EIGHTEEN THOUSAND DOLLARS (\$18,000.00)

as the price or reasonable compensation to be paid to the State for the said lands.

**Now Therefore**, the said State of New Jersey, by the said Board of Commerce and Navigation, the Governor approving, in consideration of the premises, the terms and conditions hereinafter contained, and the said sum of

#### EIGHTEEN THOUSAND DOLLARS (\$18,000.00)

duly paid by the said

#### CITY OF ATLANTIC CITY

to the said State, the receipt whereof is hereby acknowledged, does hereby grant, bargain, sell and convey, subject to the terms, covenants, conditions and limitations herein contained, unto the said

#### CITY OF ATLANTIC CITY

and to it s successors and assigns forever-All those lands situate in the City of Atlantic City, in the County of Atlantic and State of New Jersey, now or formerly flowed by mean high water of Beach Thorofare, Clam Creek and tributaries, North Fork of Clam Creek and tributaries, and South Fork of Clam Creek and tributaries, lying

### within the following described boundaries:

B E G I N N I N G at a point in the westerly line of South Carolina Avenue one hundred (100) feet south of the mean high water line of Clam Thoroughfare, measured along the said westerly line of South Carolina Avenue;

Thence (1) southwardly, along the westerly line of South Carolina Avenue, twenty-eight hundred and twenty (2820) feet, more or less, to the northeasterly line of Lot A of Share One in the division of the Estate of Ryan Adams, deceased, the same being the division line between lands formerly belonging to Robinson Land Company and lands formerly belonging to Edward M. Sweeney and Somers L. Doughty; Thence (2) southeastwardly along said division line, four

hundred sixty-two and ninety-one hundredths (462.91) feet to the southerly line of Magellan Avenue;

Thence (3) eastwardly along said line of Magellan Avenue, thirteen hundred forty-seven and forty-two hundredths (1347.42) feet, to the easterly line of Maryland Avenue;

Thence (4) northwardly along said line of Maryland Avenue, two hundred (200) feet to a point distant seventeen hundred and forty- five (1745) feet northwardly at right angles from Mediterranean Avenue;

Thence (5) eastwardly, parallel with Mediterranean Avenue, two hundred and twenty-five (225) feet;

Thence (6) northwardly, parallel with Maryland Avenue, nine and twenty-six hundredths (9.26) feet;

Thence (7) northeastwardly by a line deflecting 53° 31' northwardly from a line perallel with Mediterranean Avenue, four hundredths of one foot;

Thence (8) northeastwardly, deflecting 60° 14' northwardly from a line parallel with Mediterranean Avenue, five hundred and ninety (590) feet;

Thence (9) eastwardly, parallel with Mediterranean Avenue, one hundred and sixty (160) feet;

Thence (10) northeastwardly, deflecting 20° 53' northwardly from a line parallel with Mediterranean Avenue, two hundred and

-2-

fifty-five (255) feet;

Thence (11) northeastwardly, deflecting 14° 58' northwardly from a line parallel with Mediterranean Avenue, two hundred and eighty-five (285) feet;

Thence (12) northeastwardly, deflecting 6° 30' northwardly from a line perallel with Mediterranean Avenue, nine hundred and forty-five (945) feet;

Thence (13) northeastwardly, deflecting 20° 53' northwardly from a line parallel with Mediterranean Avenue, three hundred and sixty (360) feet;

Thence (14) northwestwardly, deflecting 11° 10' westwardly from a line parallel with Maryland Avenue, two hundred (200) feet;

Thence (15) southwestwardly at right angles to the preceding course, passing at a distance of one hundred and thirty-five (135) feet the mean high water line of Beach Thoroughfare, two hundred and thirty-five (235) feet to a point;

Thence (16) northwestwardly the various courses and distances of a line one hundred (100) feet southwestwardly from the high water line of Beach Thoroughfare to intersect the northerly line of Huren Avenue:

Thence (17) westwardly, parallol with Mediterranean Avenue, following said line of Huron Avenue, the same being thirty-six hundred and seventy (3670) feet northwardly at right angles from Mediterranean Avenue, twenty hundred and twenty-five (2025) feet, more or less, to the easterly line of Maryland Avenue;

Thence (18) northwardly along said line of Maryland Avenue, twenty-five hundred and eighty (2580) feet to a point one hundred (100) feet south of the high water line of Clam Thoroughfare;

Thence (19) southwestwardly, at a distance of one hundred (100) feet southeastwardly of the said high water line of Clam Thoroughfare the various courses and distances thereof, to the place of beginning.

It being expressly agreed and understood that CITY OF ATLANTIC CITY, its successors or assigns, shall not, without prior consent of the State of New Jersey, at any time dig, dredge or remove any material from the area between the tract above described and the mean high

-3-

water line of Clam Thoroughfare and the mean high water line of Beach Thoroughfare.

With the right and privilege, under the covenants and conditions of this grant, to exclude the tide-water from so much of the lands above described as lie under tide-water, by filling in or otherwise improving the same, and to appropriate the lands under water above described to its and their exclusive private uses.

19

With the right and privilege, under the covenants and conditions of this grant, to dig, dredge or remove, for the benefit of navigation, sand, mud or other material from the bed of Clam Creek, in front of the premises hereby granted; and by dredging, to form and maintain a suitable channel for navigation, from the mouth of Clam Creek to the deep waters of Absecon Inlet and Atlantic Ocean; PROVIDED HOWEVER, that all the sand, mud or other material dredged shall be so placed and deposited as to preclude its return to the navigable waters at any point or points outside of the lands hereby granted; PROVIDED ALSO that no immunity shall be claimed hereunder for any damage to any shore owner or owners alleged to result directly or indirectly from said dredging.

PROVIDED, that the State of New Jersey, by its Board of Commerce and Navigation or any other lawful authority, may, from time to time, change the exterior lines for solid filling and piers, and fix the same further from the shore than formerly, even though such action may affect the lands hereby granted, whenever the State may deem it necessary for its interest so to do; and if such exterior lines shall be placed out further from the shore than formerly, then the party or parties claiming under this instrument may, within such period as may be fixed by the State, either through said Board of Commerce and Navigation or any other lawful authority, have the exclusive right to apply for and receive a lease or grant of the additional land under water lying between the present exterior lines above described and the new exterior line or lines that may hereafter be fixed, upon payment of such additional rental or compensation, and upon such terms, as shall be fixed by said Board of Commerce and Navigation or other lawful authority, under any present or future law of

this State; such additional land to be used for solid filling and for piers respectively as directed by the said Board of Commerce and Navigation or their successors, or other lawful authority, under any present or future law of this State.

A N D A L S O P R O V I D E D, that if the said CITY OF ATLANTIC CITY is not the owner of the land adjoining the land under water hereby granted, then and in that event this instrument and conveyance, so far as the same binds the State, and all the covenants herein on the part of the State, shall be void as affecting any part or parts of said land which joins land not owned by the said CITY OF ATLANTIC CITY.

AND ALSO PROVIDED, that if the exterior line for solid filling and the exterior line for piers, or either of said lines. now established. or lines that may be hereafter established, by the Board of Commerce and Navigation or other lawful authority of the State of New Jersey, shall be hereafter changed by the action of the authorities of the United States Government, and the grantee herein or any party claiming hereunder shall suffer demages, the claim or claims therefor must be made against the authorities of the United States Government, and not againet the State of New Jersey.

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging.

TO HAVE AND TO HOLD all and singular the above granted and described lands under water and premises, subject to the terms, conditions and limitations aforesaid, unto the said CITY OF ATLANTIC CITY, and to its siccessors and assigns forever.

- 5-

IN WITHESS WHEREOF, the said Board of Commerce

Note: The words "being the owner of lands front-ing on" in first para-graph on first page stricken out before execution. Victor Gelineau

and Navigation have hereunto respectively set their hands, and these presents have been signed by the Governor, and the Great Seal of the said State has been hereunto affixed and attested by the Secretary of State, this fifteenth day of March in the year nineteen hundred and

twenty.

The Great Seal 9 the State of newferring

Thomas J. Martin Recretary of State

Edward J. Edwards J. Spencer Smith Richard C. Jenknison Harry B. Cook M. Parker Runyon J. Eugli William J. Kirk Witness : Victor Gelineau

21

STATE OF NEW JERSEY, ) 88.: COUNTY OF HUDSON.

BE IT REMEMBERED, That on this 27th day of March nineteen hundred and twenty, before me, the subscriber, a Master in Chancery of New Jersey, personally appeared Victor Gelmean who being by me duly sworn on his oath, saith that he saw J. Spencer Smith Richard b. funkinson, Harry B. book M. Parker Rungs R. J. Eugle and William J. Kirk the within named Board of Commerce and Navigation, sign and deliver the M. Parker Runyon within deed as their voluntary act, and that he, the said lictor Gelencan thereupon subscribed his name as an attesting witness thereto.

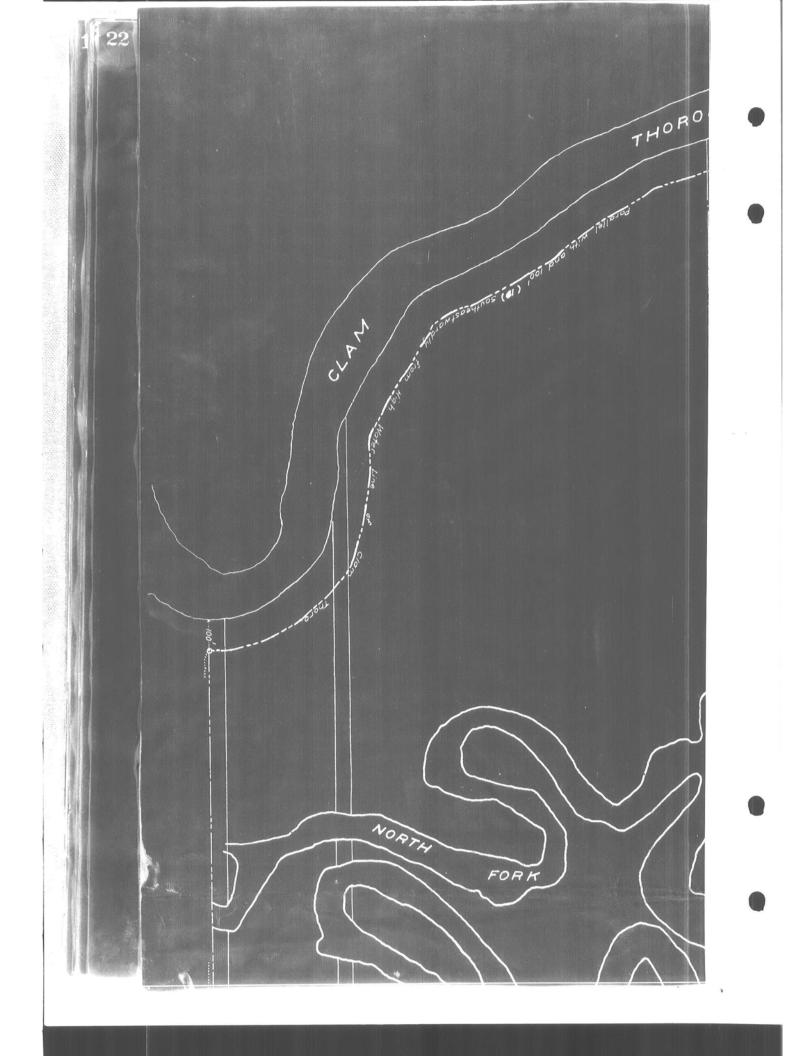
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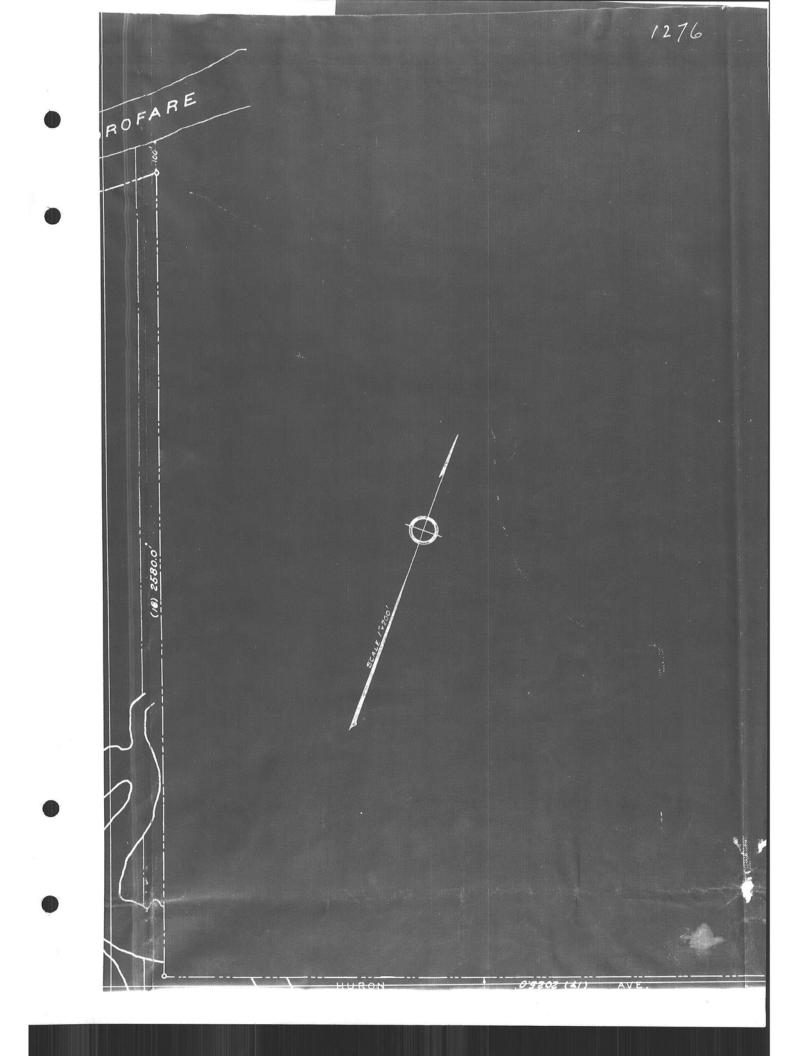
Sworn and subscribed before me. at Jersey City, the day and year aforesaid.

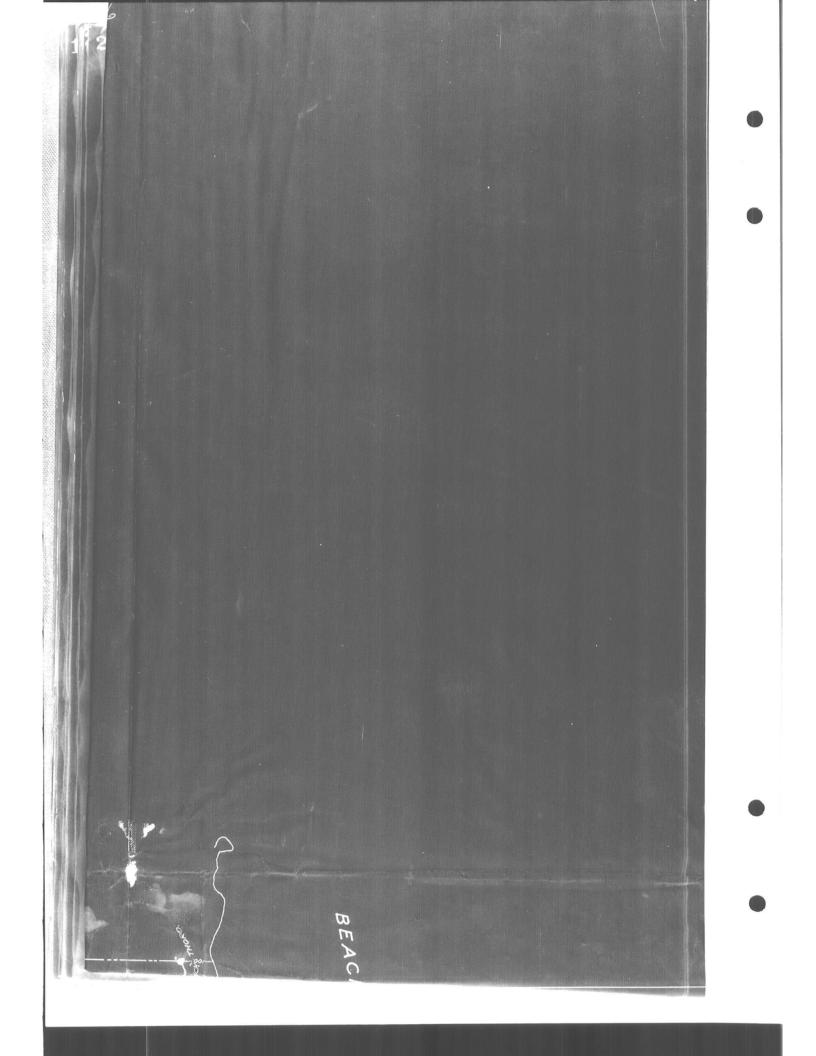
Master in Chancery of New Jersey.

James D. Carpenter Jr.

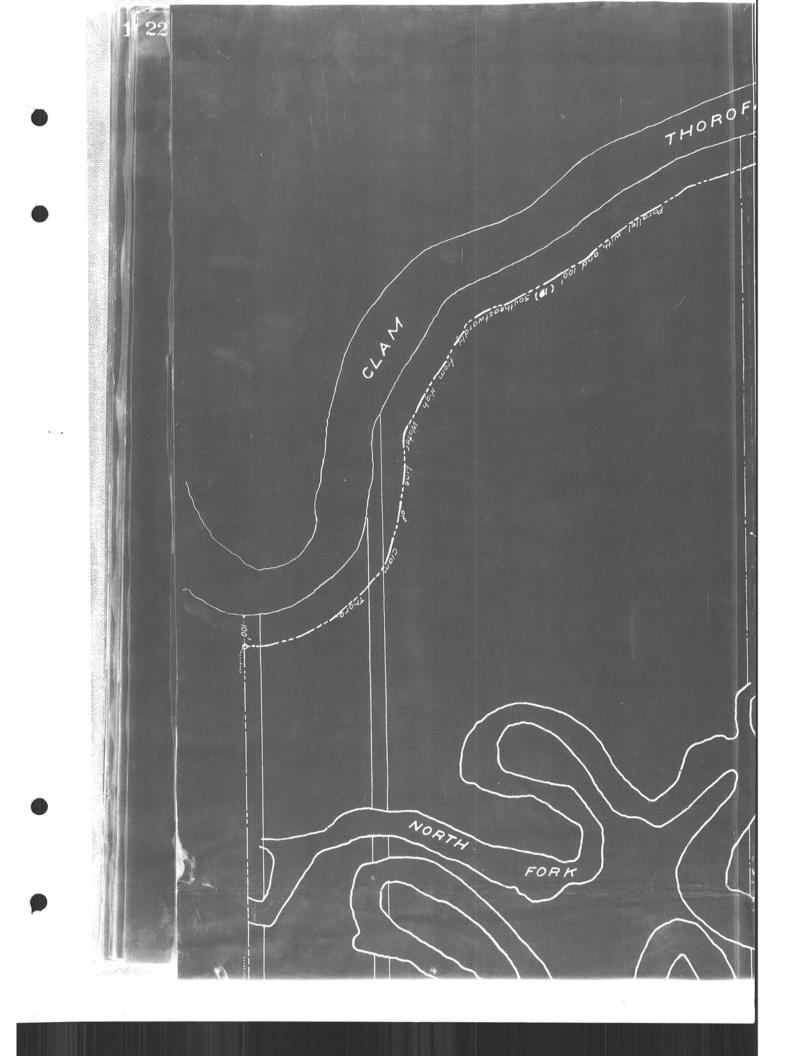
Victor Gelineau

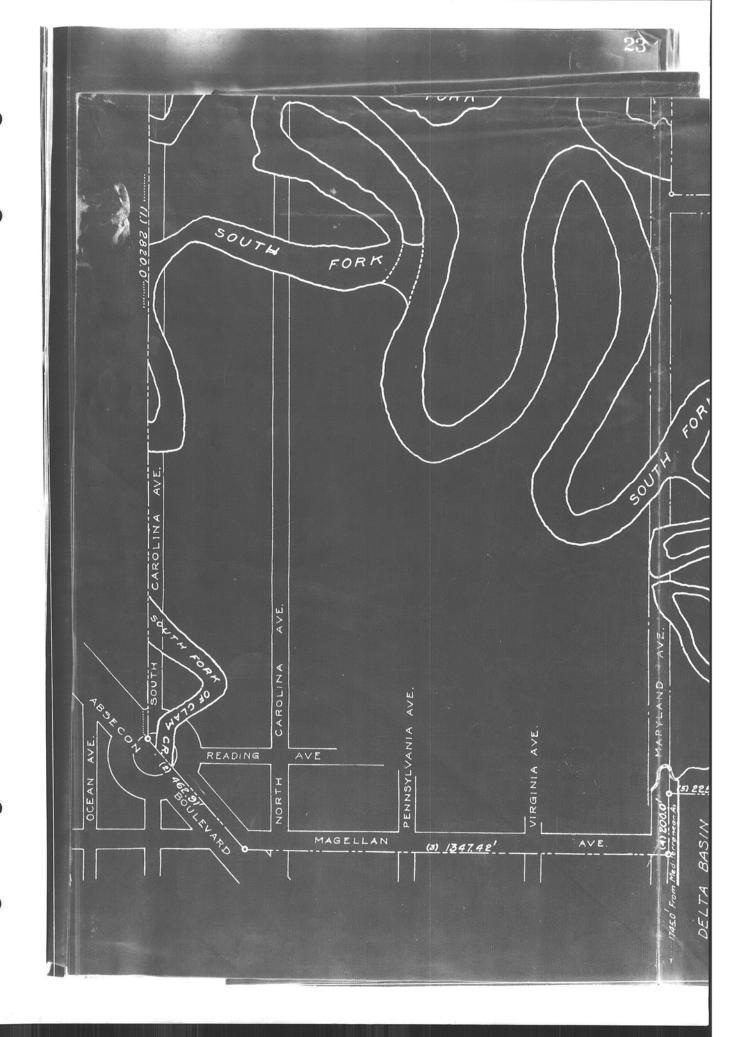


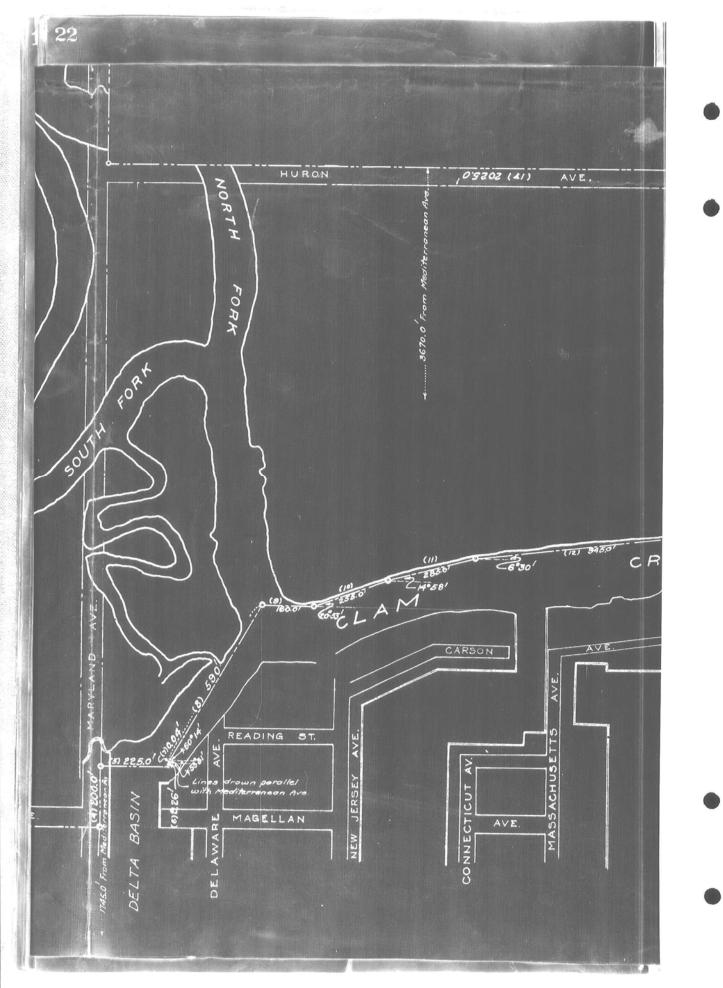


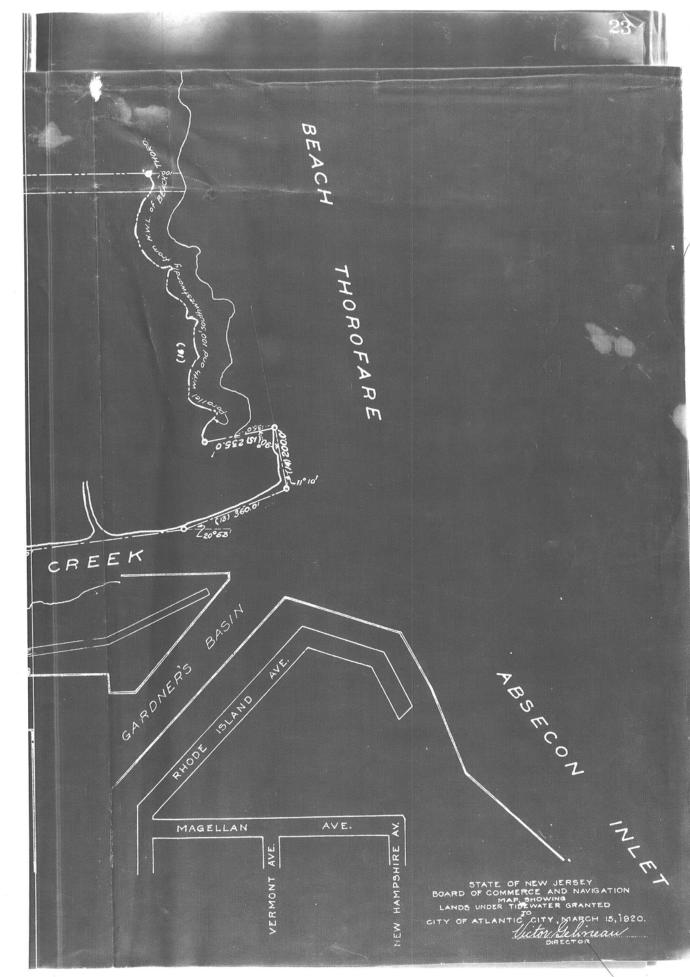












ATTACHMENT K Project Renderings













ATTACHMENT L Traffic Engineering and Air Quality Analysis

# Shropshire Associates LLC

Traffic Engineering, Transportation Planning & Design 277 White Horse Pike, Suite 203, Atco, NJ 08004 P: 609-714-0400 F: 609-714-9944 www.sallc.org SBE Certified

David R. Shropshire, PE, PP A Andrew Feranda, PE, PTOE, CME Randal C. Barranger, PE Nathan B. Mosley, PE. CME

(via email: Wjudge@psands.com)

December 13, 2023

Walter F. Judge, PE, PP, PMP Vice President PS&S Central Monmouth Business Park 1433 Highway 34, Suite A-4 Wall, NJ 07727

Re: Traffic Engineering and Air Quality Analysis Atlantic Shores O&M Facility 801 North Maryland Avenue Block 576, Lot 2 City of Atlantic City, Atlantic County, NJ SA Project No. 23243

Dear Walter:

At your request, Shropshire Associates LLC has prepared the following Traffic Engineering Assessment and Air Quality report to support the Atlantic City and CAFRA applications for the construction of the proposed Atlantic Shores O&M facility to be located along northbound Maryland Avenue, south of its intersection with Brigantine Boulevard, in Atlantic City, Atlantic County, NJ (See Location Map – Figure 1). The proposed development will include a three-story office and maintenance facility with associated parking and circulation.

Based on information provided by the applicant, access is proposed via two (2) new fullmovement site driveways along northbound Maryland Avenue. The proposed facility will provide eight (8) on-site parking spaces as well as employee parking located along eastbound Pacific Avenue between Belmont Avenue and California Avenue. The employee parking lot will contain 198 parking spaces and a shuttle bus service will be provided between the employee parking lot and the facility along Maryland Avenue. At peak times, a maximum of four shuttle bus round trips will be made per hour for employees to access the site. The site will be operational 7 days a week. The purpose of this assessment is to determine the amount of traffic to be generated by the proposed facility and to analyze its impact on the adjacent roadway network.

#### **Existing Conditions**

A field reconnaissance was conducted to determine the features of the adjacent roadways in the study area. A brief description of the roads and intersections within the study area are provided below.

**Pacific Avenue** is a four-lane undivided roadway that is classified as an Urban Minor Arterial and under the jurisdiction of Atlantic City. In the vicinity of the employee parking lot, Pacific Avenue has an approximate cartway width of 40 feet and a posted speed limit of 25 MPH. For the purpose of this study, Pacific Avenue is assumed to extend in a general eastwest direction.

Traffic Impact Studies - Transportation Planning - Access Permitting - Traffic Signal Design - Noise & Air Quality Evaluations - Parking Studies & Design Eminent Domain Consulting - Roadway Improvement Plans - Municipal Traffic Consulting & Reviews - Vehicle Turning Analysis - Safety Evaluations Master Planning - Data Collection - Accident Analysis - Lighting Design - Design Alternatives - Use Variance Analysis - Expert Testimony



**Maryland Avenue** is a two-lane undivided roadway that is classified as an Urban Minor Arterial and is under the jurisdiction of Atlantic City. In the vicinity of the site, Maryland Avenue has an approximate cartway width of 40 feet and a posted speed limit of 25 MPH. For the purpose of this study, Maryland Avenue is assumed to extend in a general north-south direction.

**California Avenue** is a local roadway that is two-lanes and undivided south of its intersection with Pacific Avenue and one lane one-way north of its intersection with Pacific Avenue. In the vicinity of the employee parking lot, California Avenue has an approximate cartway width of 28 feet and a posted speed limit of 25 MPH. For the purpose of this study, California Avenue is assumed to extend in a general north-south direction.

**Belmont Avenue** is a two-lane undivided local roadway. In the vicinity of the employee parking lot, Belmont Avenue has an approximate cartway width of 24 feet and a posted speed limit of 25 MPH. For the purpose of this study, Belmont Avenue is assumed to extend in a general north-south direction.

In the vicinity of the site, the Atlantic Marina Apartments North Driveway and Atlantic Marina Apartments South Driveway are two-lane driveways providing access to the Atlantic Marina Apartments complex. Both driveways have an approximate cartway width of 20 feet. For the purpose of this study, both driveways are assumed to extend in a general east-west direction.

The four-legged **Pacific Avenue/California Avenue** intersection is controlled by a twophase pre-timed traffic signal with a 100-second background cycle length. The eastbound and westbound Pacific Avenue approaches each consist of a shared left-turn/through lane and through/right-turn lane. The northbound California Avenue approach consists of a shared leftturn/through/right-turn lane. It should be noted that California Avenue north of this intersection is a one-way outbound street.

The **Pacific Avenue/Belmont Avenue** intersection is a T-shaped intersection that is stop-controlled along the northbound Belmont Avenue approach. The eastbound Pacific Avenue approach consists of a through lane and a shared through/right-turn lane. The westbound Pacific Avenue approach consists of a through lane and a shared left-turn/through lane. The northbound Belmont Avenue approach consists of a shared left-turn/right-turn lane.

The Maryland Avenue/Atlantic Marina Apartments North Driveway and Maryland Avenue/Atlantic Marina Apartments South Driveway intersections are T-shaped intersections that are stop-controlled along the eastbound Atlantic Marina Apartment Driveway approaches. All approaches to the intersections consist of a single lane for all permitted movements.

# Traffic Counts

To determine the amount of traffic on the adjacent roadway network, manual turning movement counts (MTMC) were conducted at the study intersections on Thursday, November 16th, 2023 during the weekday AM (6:00 AM to 9:00 AM) and weekday PM (4:00 PM to 8:00 PM) peak periods and Saturday, November 18th, 2023 during the Saturday evening (4:00 PM to 8:00 PM) peak period. A summary of the traffic counts can be found in the appendix to this assessment, with the existing PM and Saturday peak hour volumes indicated in Figure 2.

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### **Future Conditions**

The traffic resulting from the proposed facility will not affect the adjacent roadway network until it is fully built-out and occupied, which is anticipated to be by the year 2025. Based on the *Annual Background Growth Table* prepared by NJDOT, a 1.00% annual traffic growth will occur in the vicinity of the site. Therefore, in order to estimate the 2025 No-Build volumes, the 1.00% annual growth was applied to the existing traffic volumes, which are illustrated in Figure 3.

## ITE Trip Generation

As indicated above, the proposal is to construct an Atlantic Shores O&M facility on the site as well as utilize off-site parking for employees via shuttle bus service. Based on information from the project team, the site proposes eight (8) parking spaces at the facility as well as a maximum of four (4) shuttle bus round trips within a peak hour. Therefore, in order to be most conservative, the worst-case scenario of eight (8) staff trips and four (4) shuttle bus round trips were assumed for the proposed site. Table 1 below shows the proposed trip generation during the peak periods at the facility based on the information from the project team.

Table 1 Trip Generation - Atlantic Shores O&M Facility									
llas	Weekday AM Peak			Weekday PM Peak			Saturday PM Peak		
Use	In	Out	Total	In	Out	Total	In	Out	Total
Atlantic Shores O&M Facility	12	4	16	4	12	16	4	12	16

As indicated above, the proposal also includes an employee parking lot along Pacific Avenue that will be serviced by shuttle buses to get employees to the facility on Maryland Avenue. Based on information from the project team, a maximum of 96 employees will be transported within a peak hour from the parking lot to the facility. In order to be conservative, a maximum of 96 employees were assumed to arrive during or depart during the peak hours. Additionally, 10% of the employee trips were assumed to be pick-up/drop-off. Table 2 below shows the proposed trip generation during the peak periods at the employee parking lot based on the information from the project team.

Table 2 Trip Generation – Employee Parking Lot									
	Weekday AM Peak			Weekday PM Peak			Saturday PM Peak		
Use	In	Out	Total	In	Out	Total	In	Out	Total
Employee Parking Lot	100	14	114	14	100	114	14	100	114

It should be noted that both Table 1 and Table 2 are conservative estimates as public transportation, ridesharing and walking were not taken into account.

The site traffic generated by the proposed facility and employee parking lot was distributed to the adjacent roadway network in a manner in which the employees and shuttle



buses are expected to travel. The trip distribution for the employees is illustrated on Figure 4A with the trip distribution for the shuttle buses illustrated on Figure 4B.

The resulting employee, shuttle bus, and total site traffic assignments are illustrated in Figure 5A, 5B, and 5C, respectively. In order to project the 2025 Build traffic conditions, the 2025 No-Build traffic volumes were combined with the total site traffic assignments and are illustrated on Figure 6.

#### **Operational Analysis**

In order to measure the quality of the traffic flow for the adjacent roadways and intersections, capacity analyses for the study intersections have been completed based upon the methods outlined in the *2010 Highway Capacity Manual*. Capacity analysis is a procedure used to estimate the ability of the roadway network to carry traffic. Capacity analyses are performed based on a Level of Service methodology. Level of Service (LOS) is a qualitative measure that characterizes the operational conditions of a roadway or intersection based on the perceptions by motorists and passengers. Levels of Service are defined for each type of facility (i.e. freeways, highways, signalized intersections, unsignalized intersections). These Levels of Service range from LOS A to LOS F, with a LOS A representing the best operating conditions and a LOS F representing the worst operating conditions.

The Levels of Service for signalized intersections are classified in terms of delay, which is based on the extent of driver discomfort and frustration, fuel consumption and lost travel time. The delay experienced by a motorist consists of many factors that relate to control, geometrics and traffic. Some of these factors include the quality of progression, traffic signal cycle length, the green ratio and the volume-to-capacity ratio. The determination for the Level of Service for an unsignalized intersection is based upon the average control delay associated with each minor movement (i.e. yielding left-turn movements from the major roads and stop-controlled movements from the minor approaches). The Level of Service criteria for signalized and unsignalized intersections is summarized below in Table 3.

Table 3         Level of Service Criteria						
Level of Service	Unsignalized Delay (sec)	Signalized Delay (sec)				
Α	≤ 10	≤ 10				
В	> 10 and ≤ 15	> 10 and ≤ 20				
С	> 15 and ≤ 25	> 20 and ≤ 35				
D	> 25 and ≤ 35	> 35 and ≤ 55				
Ē	> 35 and ≤ 50	> 55 and ≤ 80				
F	> 50	> 80				

In order to assess the traffic impact of the proposed Atlantic Shores O&M facility, the roadway network has been evaluated under the Existing, No-Build and Build conditions using the above-described methodology. A detailed description of the study intersections' operations under the three scenarios is provided below, with the resulting Existing, No-Build and Build Levels of Service illustrated on Figures 7, 8 and 9; respectively. The capacity analysis worksheets are attached for reference.



#### Pacific Avenue and California Avenue Intersection

Under existing conditions, the Pacific Avenue/California Avenue signalized intersection operates at an overall LOS B during both the weekday AM, weekday PM, and Saturday PM peak hours. All individual movements at the intersection operate with a LOS B during the weekday AM, weekday PM, and Saturday PM peak hours.

Under the future 2025 No-Build and Build scenarios, the Pacific Avenue/California Avenue intersection will continue to operate with an overall LOS B during the weekday AM, weekday PM, and Saturday PM peak hours. All individual movements at the intersection will continue to operate at existing levels of service during the weekday AM, weekday PM, and Saturday PM peak hours. The traffic resulting from the proposed Atlantic Shores O&M facility will cause no changes in the future levels of service at this study location.

#### Pacific Avenue and Belmont Avenue Intersection

Under existing conditions, all individual movements at the intersection will operate with a LOS B or better during the weekday AM, weekday PM, and Saturday PM peak hours. Under the future 2025 No-Build and Build scenarios, all individual movements at the intersection will continue to operate with existing levels of service. The traffic resulting from the proposed Atlantic Shores O&M facility will cause no changes in the future levels of service at this study location.

#### Maryland Avenue and Atlantic Marina Apartments Driveways Intersections

Under existing conditions, all individual movements at the intersections will operate with a LOS B or better during the weekday AM, weekday PM, and Saturday PM peak hours. Under the future 2025 No-Build and Build scenarios, all individual movements at the intersections will continue to operate with existing levels of service. The traffic resulting from the proposed Atlantic Shores O&M facility will cause no changes in the future levels of service at these study locations.

#### Maryland Avenue and Site Driveway Intersection

Under the Build conditions, two (2) new stop-controlled full-movement site driveways will be constructed along northbound Maryland Avenue. In order to be conservative, these two site driveways were analyzed as one site driveway with all trips utilizing it. Based on this configuration, all individual movements at the intersection will operate with a LOS B or better during the weekday AM, weekday PM, and Saturday PM peak hours.

#### Pacific Avenue and Parking Lot Driveway Intersection

Under the Build conditions, a stop-controlled Parking Lot Driveway along eastbound Pacific Avenue will be utilized by employees and shuttle buses. Based on this configuration, all individual movements at the intersection will operate with a LOS B or better during the weekday AM, weekday PM, and Saturday PM peak hours.

#### Air Quality Analysis



#### NJDEP Protocol

The New Jersey Department of Environmental Protection (NJDEP) outlines an air quality evaluation protocol in *Air Quality Analysis for Intersections*. NJDEP requires dispersion modeling to demonstrate that the National Ambient Air Quality Standards (NAAQS) for carbon monoxide will not be exceeded due to the additional traffic to be generated by a proposed development. As per N.J.A.C. 7:27-13.5, carbon monoxide concentrations shall not exceed 35 ppm for one-hour average concentrations and 9 ppm for eight-hour average concentrations.

Levels of service (LOS) results are the basis for determining whether or not an intersection requires dispersion modeling. Generally, a LOS A, B or C indicates that vehicle delays at an intersection are not significant enough to generate excessive CO concentrations. At signalized intersections, any movement that functions at a LOS D, E or F requires CO dispersion modeling. For unsignalized intersections, a LOS E or F on the stop-controlled approaches, and a LOS D, E or F for the major street left-turn movement indicates the need for CO dispersion modeling.

#### Data Analysis

The intersections to be analyzed for air quality violations are dependent on the levels of service at each intersection. Based on the levels of service presented in this Traffic Engineering Assessment report and the NJDEP protocol, dispersion modeling is not required for any existing and future study intersections.

#### **Conclusion**

The proposed Atlantic Shores O&M facility development will have a minimal impact on the adjacent roadway network and at the study intersections based on the following findings:

- Based on information from the project team, the Maryland Avenue site will generate a maximum of 16 trips during the weekday AM, weekday PM, and Saturday PM peak hours. The employee parking lot will generate a maximum of 114 trips during the weekday AM, weekday AM, weekday PM, and Saturday PM peak hours. These projections are conservative as walking, ridesharing and public transportation were not taken into consideration.
- The traffic resulting from the proposed Atlantic Shores O&M facility will cause no changes in the future individual and overall levels of service at the Pacific Avenue/California Avenue signalized intersection during both the weekday AM, Weekday PM, and Saturday PM peak hours. Overall, the intersection will continue to function at existing levels of service throughout the 2025 Build scenario.
- The traffic resulting from the proposed Atlantic Shores O&M facility will cause no changes in the future individual levels of service at the Pacific Avenue/Belmont Avenue, Maryland Avenue/Atlantic Marina Apartments North Driveway, and Maryland Avenue/Atlantic Marina Apartments South Driveway intersections. Overall, the intersections will continue to function at existing levels of service throughout the 2025 Build scenario.

SA Project No. 23243 December 13, 2023 Page 7 of 7



- Under the 2025 Build conditions, all individual movements at the Maryland Avenue/Site Driveway and Pacific Avenue/Parking Lot Driveway intersections will operate with a LOS B or better during the weekday AM, weekday PM, and Saturday PM peak hours.
- Per the levels of service in this Traffic Engineering Assessment report and the current NJDEP protocol, dispersion modeling is not required for any existing and future study intersections. Therefore, no further improvements are required at the study intersections due to air quality conditions.

Should you have any questions or require additional information, please contact us.

Sincerely, Shropshire Associates LLC

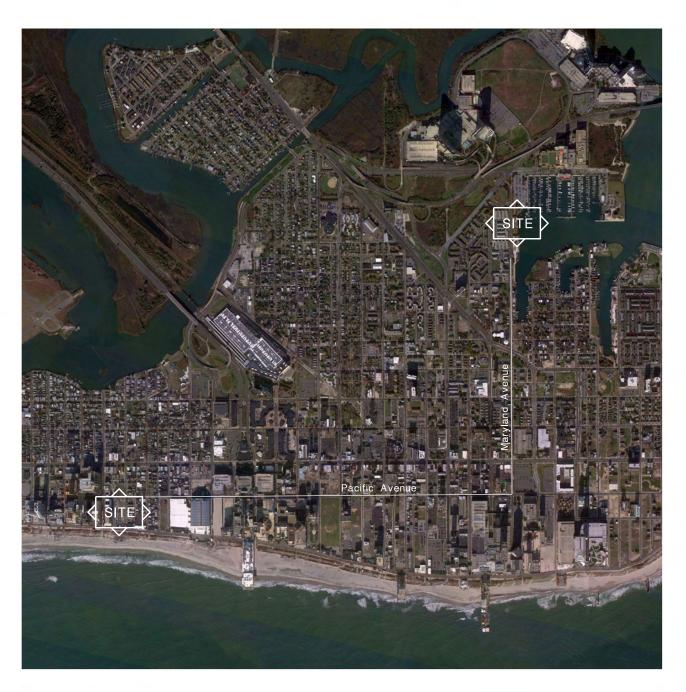
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David R. Shropshire, P.E., P.P Professional Engineer N.J. License No. 33943 *DRS/jab Attachments* 



277 White Horse Pike - Suite 203, Atco, NJ 08004 P: 609.714.0400 F: 609.714.9944 www.sallc.org FIGURE 1 SITE LOCATION MAP

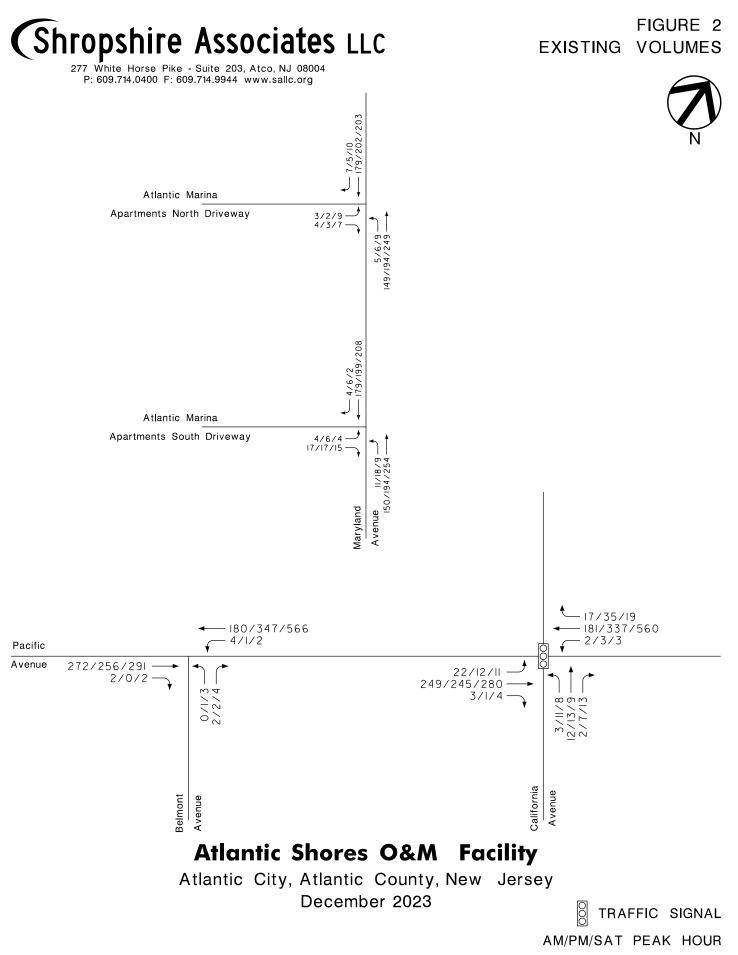


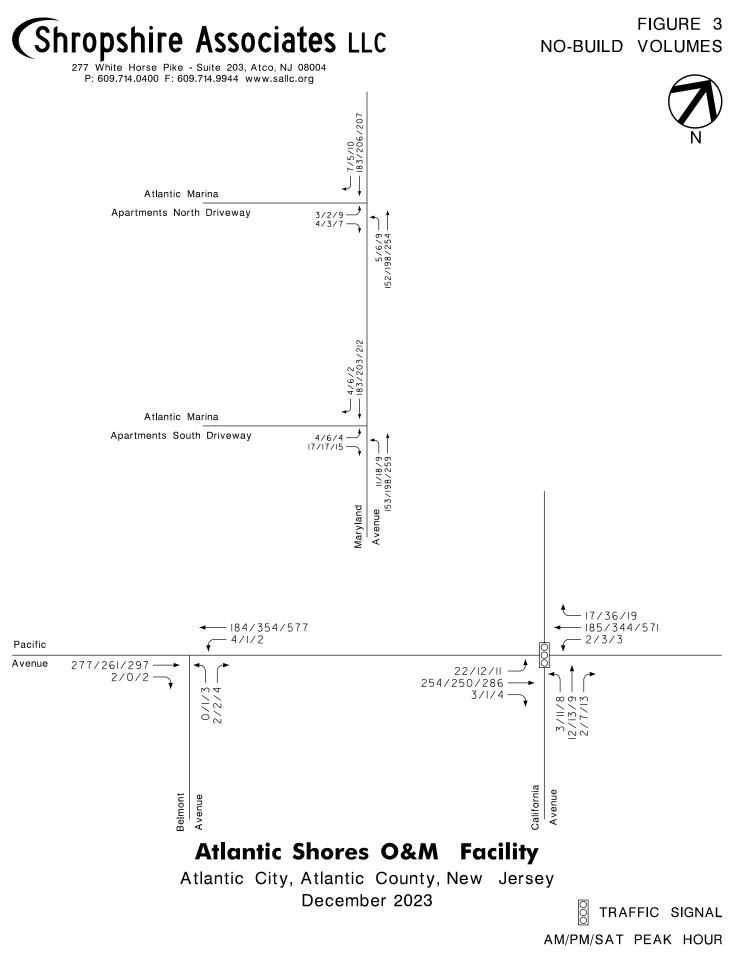


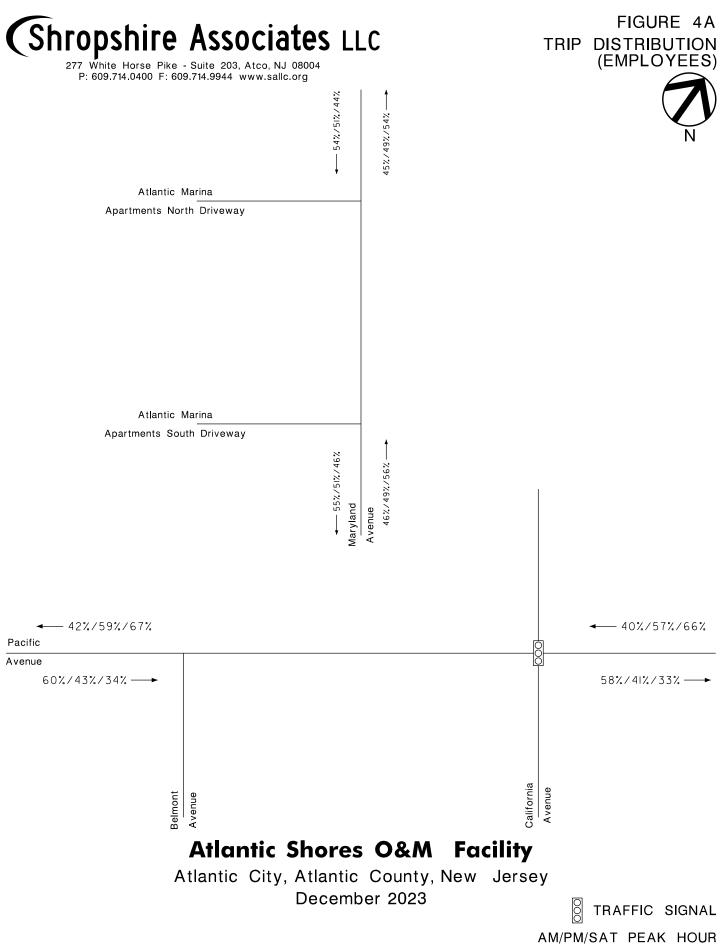
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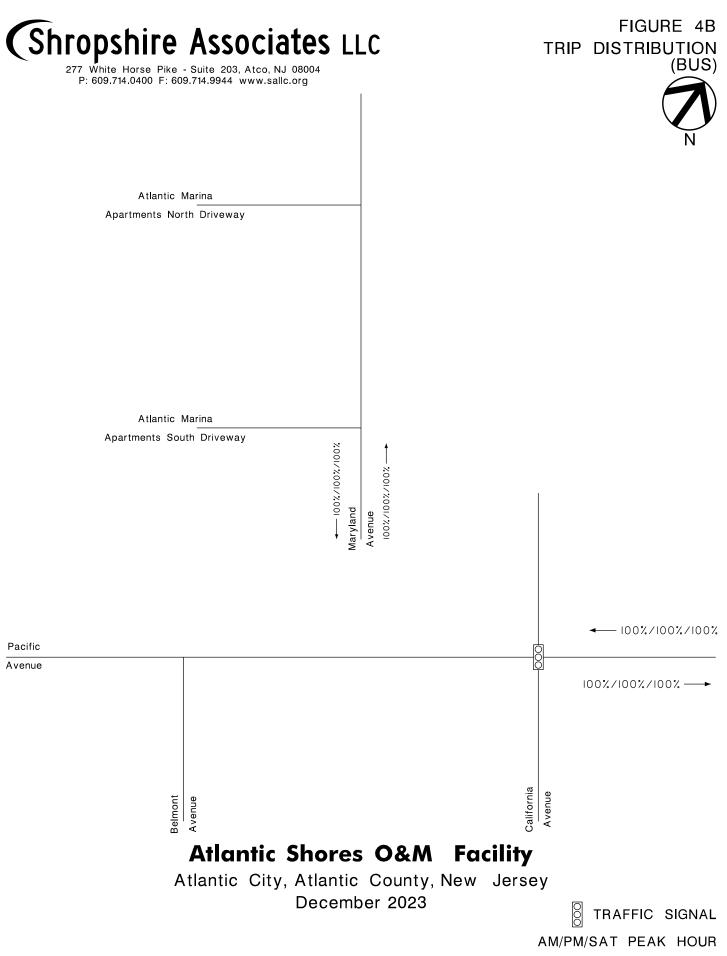
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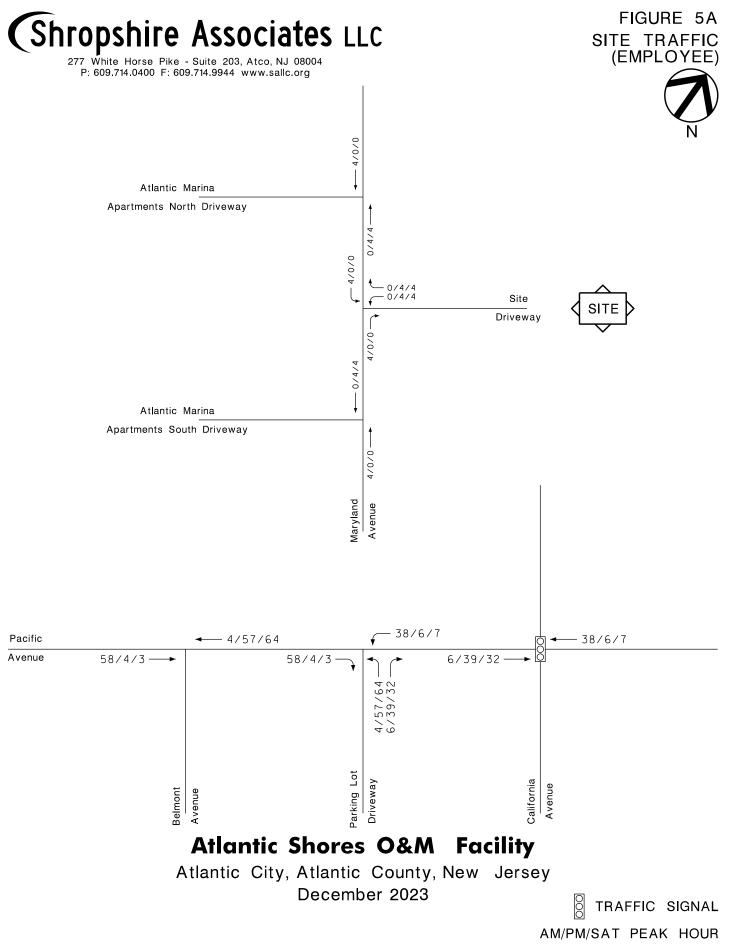
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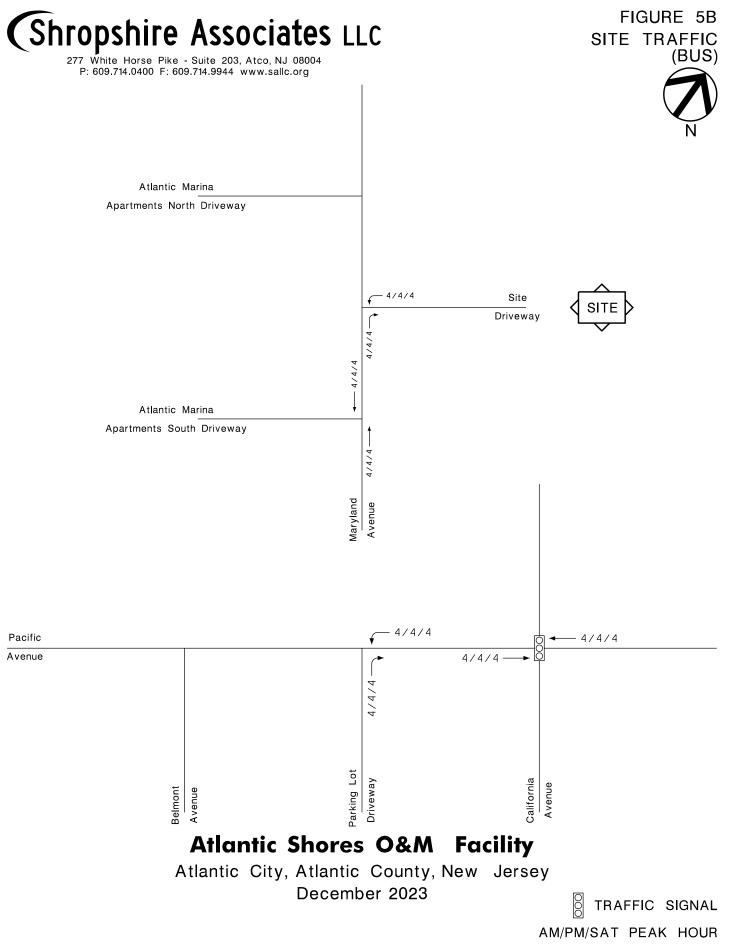


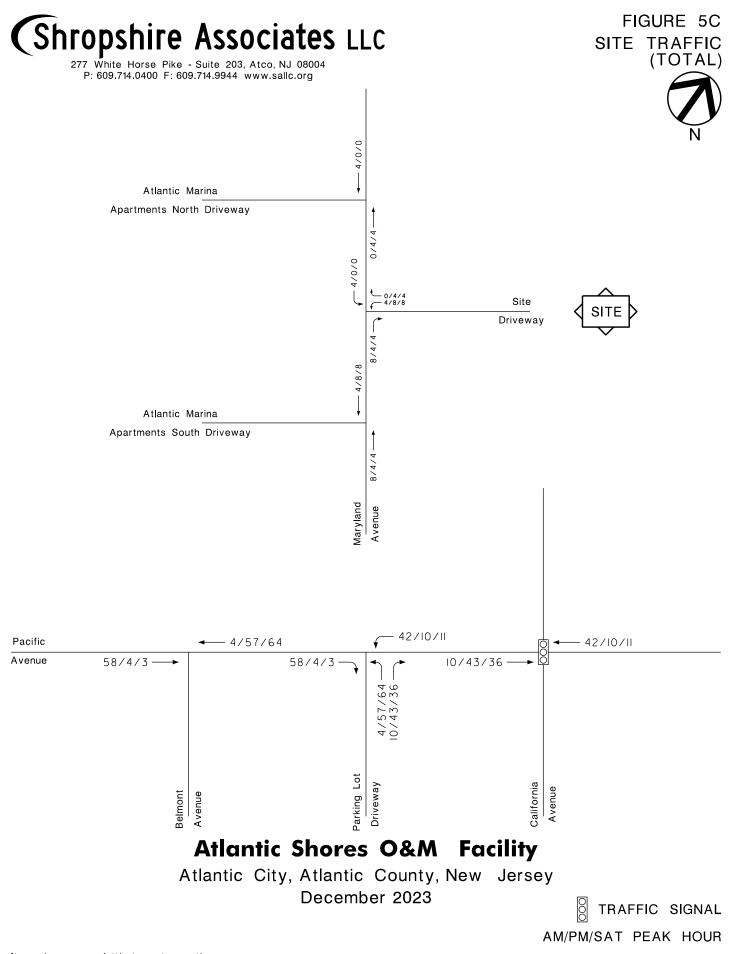


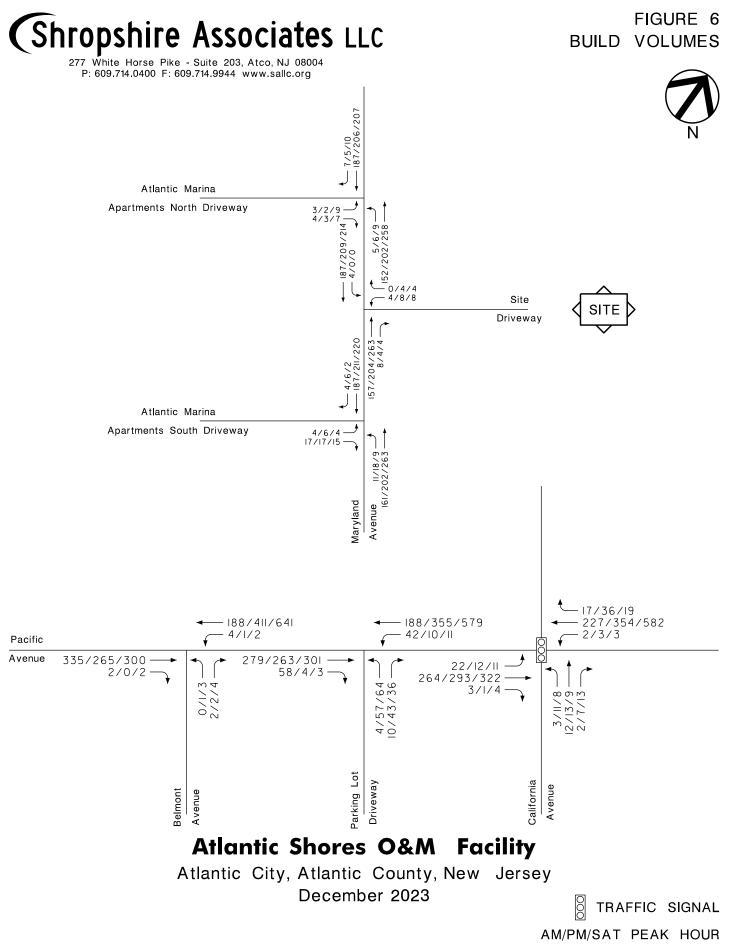


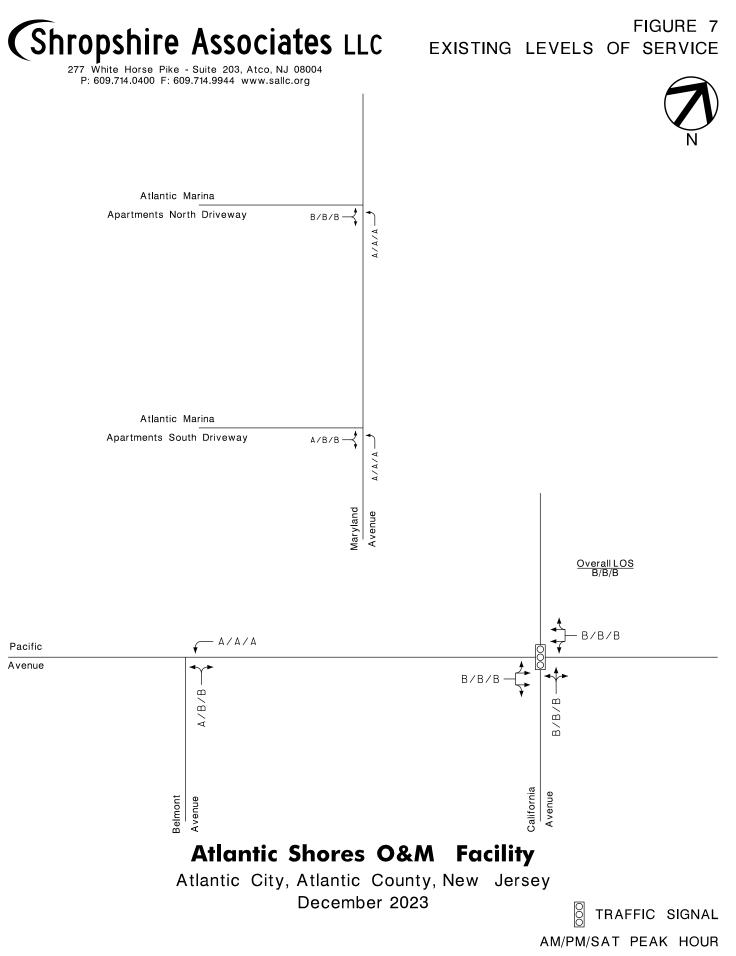






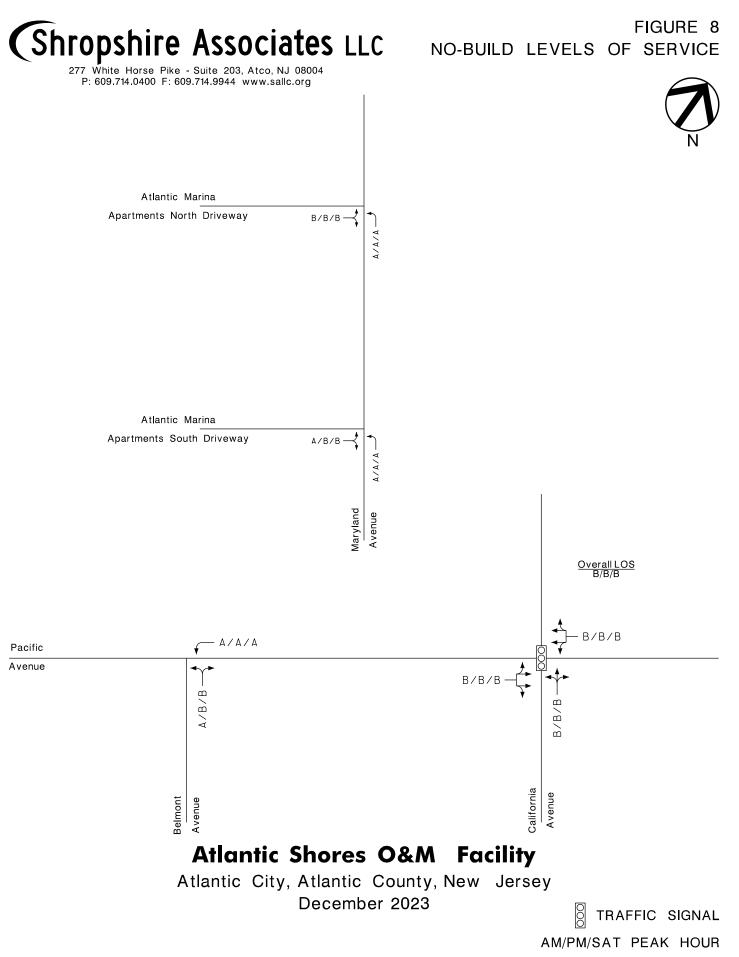






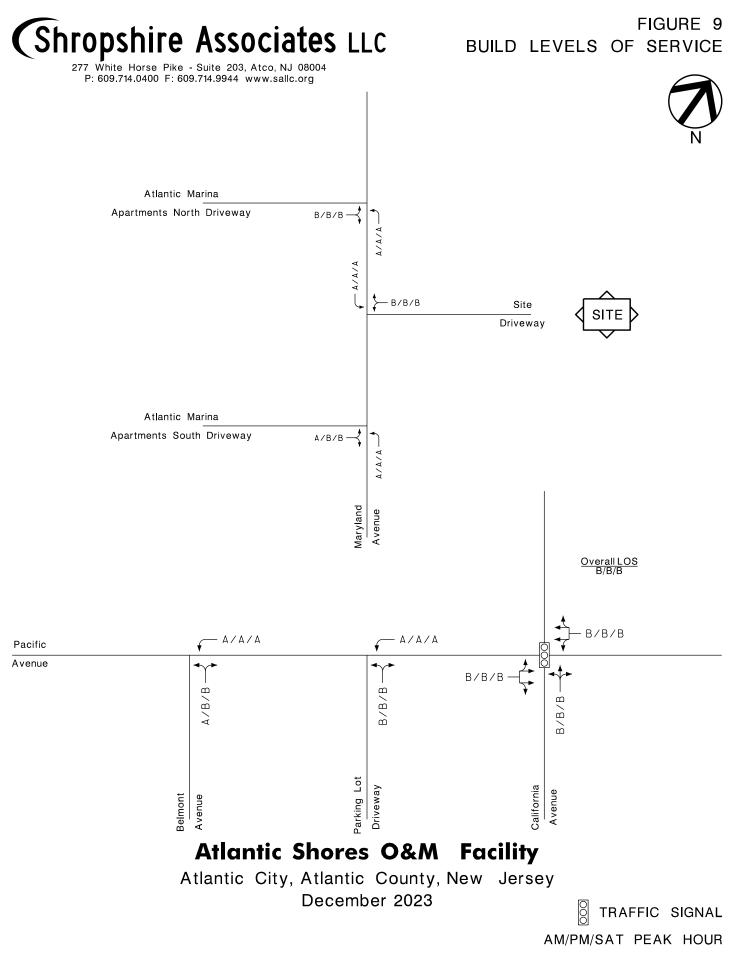
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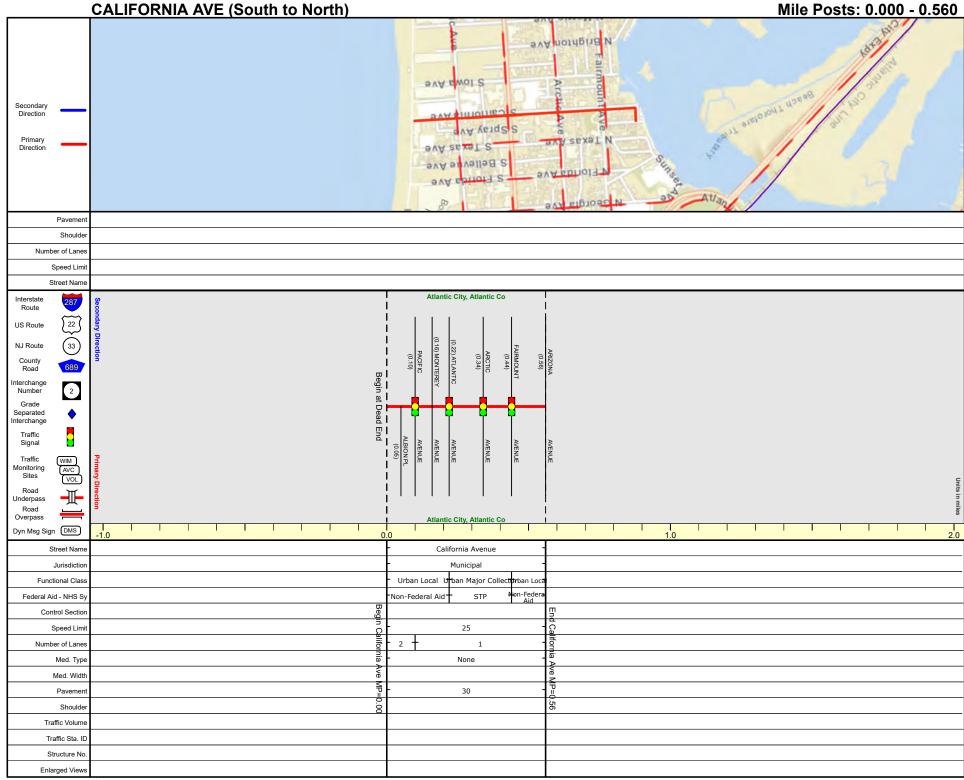
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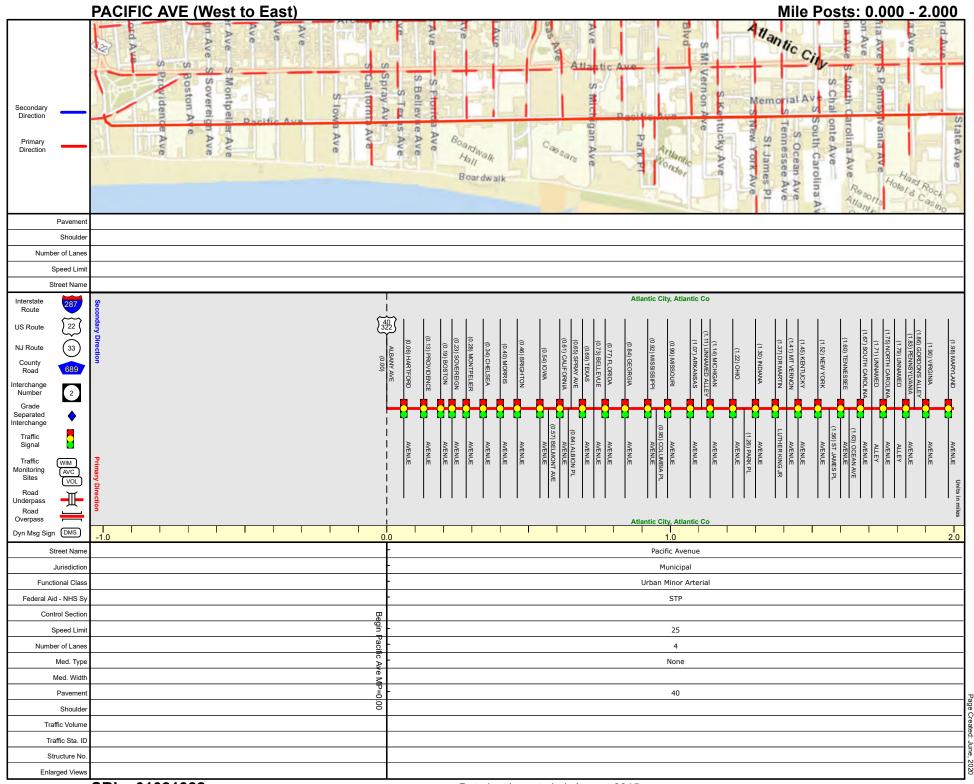
June

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Pavement		
Shoulder		
Number of Lanes		
Speed Limit		
Street Name	Atlantic City, Atlantic Co	
Roule		
US Route 22		
NJ Route 33	BR         WAL         0.800 (0.8         A	
County Road 689	ATLANTIC (0.97) ARCTIC (0.97) ARCTIC (0.97) INEDITERRANE (0.91) ADDITERRANE (0.91) ADDITERRANE (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.91) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92) (0.92	PAOFIC (1.11)
International second	(0.59) (0.92) CLINTON AVE 1077) ARCTIC LEXINGTALTIC CALESTINGTALTIC MEDITERRANEAN (0.51) ADRIATIC AVE (0.51) (0.50)	0
Number 2 Grade		
Separated Interchange		<b>4</b>
Traffic	BC (0.47)	
	AVENUE AVENUE AVENUE (0.47) CASPIAN AVE (0.47) CASPIAN AVE (0.37) BOULENARD	AVENUE
Traffic WIM Monitoring AVC Sites VOI		m I
VOL	₹	Units
Road Underpass Road		
Overpass	Atlantic City, Atlantic Co	
Dyn Msg Sign DMS	-1.0 0.0 1.0	2.0
Street Name	- Maryland Avenue	
Jurisdiction	- Municipal	]
Functional Class Federal Aid - NHS Sy	- Urban Minor Arterial - STP	
Control Section		
Speed Limit		
Number of Lanes		ar - a
Med. Type	d - None	<u> </u>
Med. Width		
Pavement		
Shoulder	8	
Traffic Volume		
Traffic Sta. ID		
Structure No.		
Enlarged Views		

SRI = 01021392___

Date last inventoried: August 2015



SRI = 01021382_

Date last inventoried: August 2015

Atco, NJ 08004

N/S Route: S. California Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Thursday/Clear/SC/D4-2870

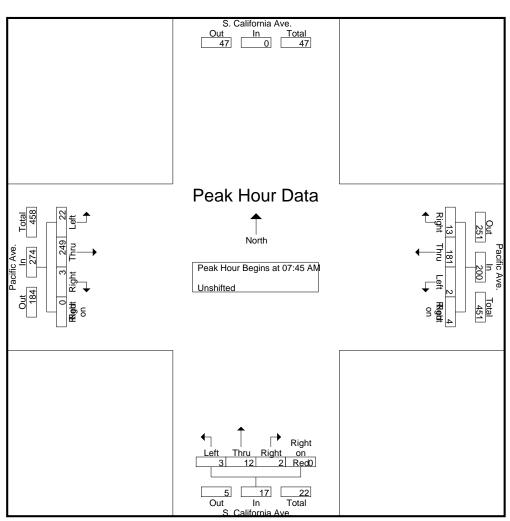
File Name	: 23243001
Site Code	: 23243001
Start Date	: 11/16/2023
Page No	: 1

						Gro	ups Prir	nted- U	nshifte	d						
			cific A					lifornia					acific A			
Ctart Times	District		estbou			Dist		orthbou			Dialet		astbou			Int Tatal
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
06:00 AM	1	17	0	0	18	0	0	0	2	2	0	18	0	0	18	38
06:15 AM	0	18	0	1	19	0	1	1	0	2	0	25	1	0	26	47
06:30 AM	0	15	0	0	15	0	0	0	0	0	0	34	0	0	34	49
06:45 AM	3	29	0	0	32	1	0	3	0	4	0	26	2	0	28	64
Total	4	79	0	1	84	1	1	4	2	8	0	103	3	0	106	198
07:00 AM	0	34	1	0	35	1	0	0	0	1	1	22	2	0	25	61
07:15 AM	3	38	1	0	42	3	3	0	0	6	0	33	1	0	34	82
07:30 AM	4	40	1	0	45	0	0	0	0	0	0	46	5	0	51	96
07:45 AM	2	52	1	0	55	0	2	0	0	2	0	56	10	0	66	123
Total	9	164	4	0	177	4	5	0	0	9	1	157	18	0	176	362
08:00 AM	2	46	1	1	50	0	1	0	0	1	1	66	1	0	68	119
08:15 AM	5	45	0	1	51	1	3	2	0	6	0	69	5	0	74	131
08:30 AM	4	38	0	2	44	1	6	1	0	8	2	58	6	0	66	118
08:45 AM	6	25	0	1	32	3	4	2	1	10	0	44	5	0	49	91
Total	17	154	1	5	177	5	14	5	1	25	3	237	17	0	257	459
*** BREAK ***																
04:00 PM	3	83	3	0	89	2	2	2	0	6	0	48	1	0	49	144
04:15 PM	5	91	2	1	99	1	4	3	1	9	2	48	3	1	54	162
04:30 PM	9	63	0	0	72	0	3	2	1	6	0	50	7	0	57	135
04:45 PM	9	80	1	2	92	1	3	3	0	7	0	55	2	1	58	157
Total	26	317	6	3	352	4	12	10	2	28	2	201	13	2	218	598
05:00 PM	8	114	1	1	124	2	2	4	1	9	0	64	3	0	67	200
05:15 PM	5	80	1	1	87	1	5	2	1	9	0	76	0	0	76	172
05:30 PM	5	78	0	1	84	1	0	0	1	2	0	42	0	0	42	128
05:45 PM	9	63	1	2	75	0	0	0	0	0	0	50	2	0	52	127
Total	27	335	3	5	370	4	7	6	3	20	0	232	5	0	237	627
06:00 PM	4	71	2	0	77	4	1	1	1	7	0	58	2	0	60	144
06:15 PM	6	76	0	0	82	2	2	0	2	6	0	51	3	0	54	142
06:30 PM	3	83	1	0	87	1	4	3	0	8	0	58	2	0	60	155
06:45 PM	4	62	1	1	68	6	2	2	0	10	1	40	1	0	42	120
Total	17	292	4	1	314	13	9	6	3	31	1	207	8	0	216	561
07:00 PM	7	67	0	0	74	3	3	1	0	7	0	46	4	0	50	131
07:15 PM	1	84	0	0	85	1	2	2	3	8	0	44	2	0	46	139
07:30 PM	4	67	0	0	71	4	4	2	3	13	0	41	2	0	43	127
07:45 PM	1	73	1	0	75	3	7	1	0	11	0	48	2	0	50	136
Total	13	291	1	0	305	11	16	6	6	39	0	179	10	0	189	533
Grand Total	113	1632	19	15	1779	42	64	37	17	160	7	1316	74	2	1399	3338
Apprch %	6.4	91.7	1.1	0.8		26.2	40	23.1	10.6		0.5	94.1	5.3	0.1		
Total %	3.4	48.9	0.6	0.4	53.3	1.3	1.9	1.1	0.5	4.8	0.2	39.4	2.2	0.1	41.9	

Atco, NJ 08004

N/S Route: S. California Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Thursday/Clear/SC/D4-2870

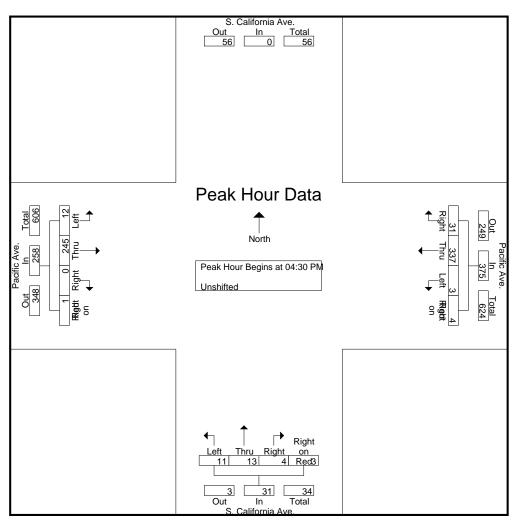
			acific Averation			S. California Ave. Northbound				Pacific Ave. Eastbound						
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for E	ntire Inte	rsection	Begins	at 07:4	5 AM											
07:45 AM	2	52	1	0	55	0	2	0	0	2	0	56	10	0	66	123
08:00 AM	2	46	1	1	50	0	1	0	0	1	1	66	1	0	68	119
08:15 AM	5	45	0	1	51	1	3	2	0	6	0	69	5	0	74	131
08:30 AM	4	38	0	2	44	1	6	1	0	8	2	58	6	0	66	118
Total Volume	13	181	2	4	200	2	12	3	0	17	3	249	22	0	274	491
% App. Total	6.5	90.5	1	2		11.8	70.6	17.6	0		1.1	90.9	8	0		
PHF	.650	.870	.500	.500	.909	.500	.500	.375	.000	.531	.375	.902	.550	.000	.926	.937



Atco, NJ 08004

N/S Route: S. California Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Thursday/Clear/SC/D4-2870

			acific A estbou			S. California Ave. Northbound					Pacific Ave. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																
Peak Hour for E	ntire Inte	ersection	Begins	at 04:30	0 PM											
04:30 PM	9	63	0	0	72	0	3	2	1	6	0	50	7	0	57	135
04:45 PM	9	80	1	2	92	1	3	3	0	7	0	55	2	1	58	157
05:00 PM	8	114	1	1	124	2	2	4	1	9	0	64	3	0	67	200
05:15 PM	5	80	1	1	87	1	5	2	1	9	0	76	0	0	76	172
Total Volume	31	337	3	4	375	4	13	11	3	31	0	245	12	1	258	664
% App. Total	8.3	89.9	0.8	1.1		12.9	41.9	35.5	9.7		0	95	4.7	0.4		
PHF	.861	.739	.750	.500	.756	.500	.650	.688	.750	.861	.000	.806	.429	.250	.849	.830



Atco, NJ 08004

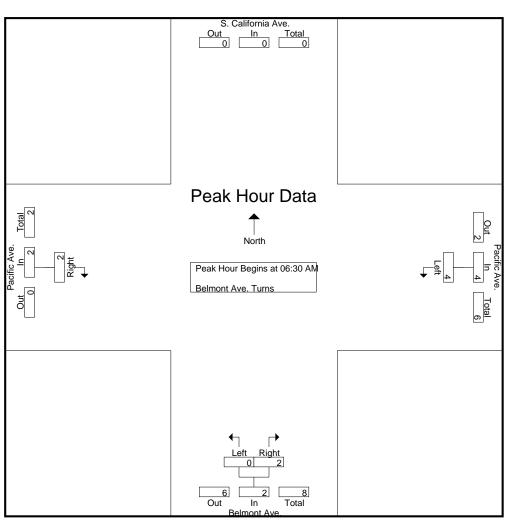
N/S Route: Belmont Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Thursday/Clear/SC/D4-2870

		Grou	ps Printed- B	elmont Ave	. Turns			
	Pacific	Ave.	Be	Imont Ave.		Pacific		
	Westb			orthbound		Eastbo		
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total
*** BREAK ***		1			1		1	
06:30 AM	0	0	1	0	1	1	1	2
06:45 AM	3	3	0	0	0	0	0	<u> </u>
Total	3	3	1	0	1	1	1	5
07:00 AM	0	0	1	0	1	1	1	2
07:15 AM	1	1	0	0	0	0	0	1
07:30 AM	1	1	0	0	0	0	0	1
07:45 AM	1	1	0	0	0	0	0	1
Total	3	3	1	0	1	1	1	5
*** BREAK ***								
08:15 AM	0	0	0	0	0	2	2	2
08:30 AM	0	0	0	1	1	1	1	2
08:45 AM	0	0	1	1	2	0	0	2 2 6
Total	0	0	1	2	3	3	3	6
*** BREAK ***								
04:15 PM	0	0	1	1	2	0	0	2
04:30 PM	0	0	1	0	1	0	0	1
*** BREAK ***								
Total	0	0	2	1	3	0	0	3
05:00 PM	1	1	0	0	0	0	0	1
*** BREAK ***								
Total	1	1	0	0	0	0	0	1
*** BREAK ***								
06:45 PM	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	1	1	1
*** BREAK ***								
07:30 PM	1	1	0	0	0	0	0	1
07:45 PM	2	2	0	0	0	0	0	2
Total	3	3	0	0	0	0	0	3
Grand Total	10	10	5	3	8	6	6	24
Apprch %	100		62.5	37.5		100		
Total %	41.7	41.7	20.8	12.5	33.3	25	25	

Atco, NJ 08004

N/S Route: Belmont Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Thursday/Clear/SC/D4-2870

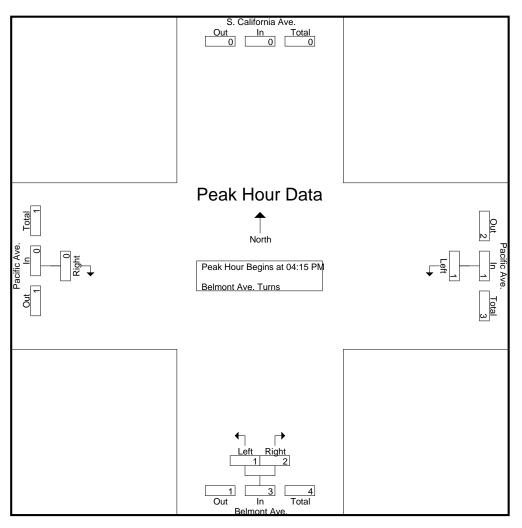
	Pacific Westbo	-		Belmont Ave. Northbound		Pacific Eastb				
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total		
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Inters	ection Begins at	06:30 AM								
06:30 AM	0	0	1	0	1	1	1	2		
06:45 AM	3	3	0	0	0	0	0	3		
07:00 AM	0	0	1	0	1	1	1	2		
07:15 AM	1	1	0	0	0	0	0	1		
Total Volume	4	4	2	0	2	2	2	8		
% App. Total	100		100	0		100				
PHF	.333	.333	.500	.000	.500	.500	.500	.667		



Atco, NJ 08004

N/S Route: Belmont Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Thursday/Clear/SC/D4-2870

		c Ave. bound		Belmont Ave Northbound	-	Pacific Eastb	-				
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total			
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:15 PM											
04:15 PM	0	0	1	1	2	0	0	2			
04:30 PM	0	0	1	0	1	0	0	1			
04:45 PM	0	0	0	0	0	0	0	0			
05:00 PM	1	1	0	0	0	0	0	1			
Total Volume	1	1	2	1	3	0	0	4			
% App. Total	100		66.7	33.3		0					
PHF	.250	.250	.500	.250	.375	.000	.000	.500			



Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Northernmost Apartment Driveway Atlantic City/Atlantic County/NJ Thursday/Clear/EM/T-3101

File Name	: 23243002
Site Code	: 23243002
Start Date	: 11/16/2023
Page No	: 1

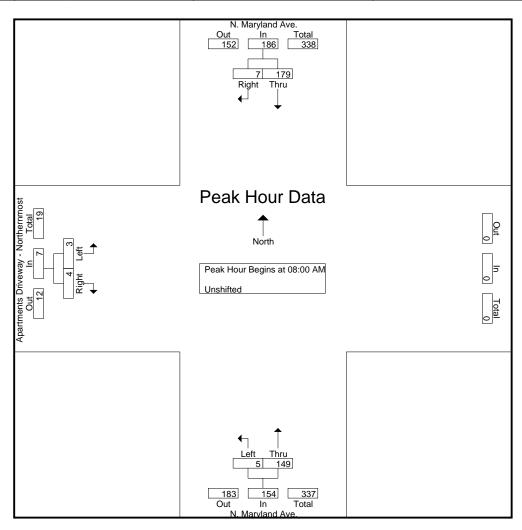
			G	roups Prin	ted- Unshif	ted				
	S	laryland A outhboun	d	N	laryland Av orthbound		Nor Ea	ents Driv thernmo astbound	st	
Start Time	Right	Thru	App. Total	Thru		App. Total	Right	Left	App. Total	Int. Total
06:00 AM	0	17	17	9	0	9	0	0	0	26
06:15 AM	1	19	20	2	0	2	0	1	1	23
06:30 AM	1	34	35	19	0	19	0	0	0	54
06:45 AM	2	42	44	23	0	23	2	1	3	70
Total	4	112	116	53	0	53	2	2	4	173
07:00 AM	2	19	21	16	1	17	0	3	3	41
07:15 AM	2	28	30	23	2	25	1	1	2	57
07:30 AM	0	42	42	19	2	21	2	0	2	65
07:45 AM	0	42	42	22	0	22	2	1	3	67
Total	4	131	135	80	5	85	5	5	10	230
08:00 AM	1	44	45	35	0	35	1	0	1	81
08:15 AM	2	43	45	41	3	44	1	1	2	91
08:30 AM	0	37	37	37	1	38	1	1	2	77
08:45 AM	4	55	59	36	11	37	1	1	2	98
Total	7	179	186	149	5	154	4	3	7	347
*** BREAK ***										
04:00 PM	3	41	44	35	3	38	2	0	2	84
04:15 PM	2	49	51	42	3	45	2	0	2	98
04:30 PM	2	42	44	56	2	58	0	0	0	102
04:45 PM	0	43	43	44	0	44	1	1	2	89
Total	7	175	182	177	8	185	5	1	6	373
05:00 PM	1	68	69	52	1	53	0	1	1	123
05:15 PM	0	52	52	40	1	41	1	2	3	96
05:30 PM	0	49	49	42	2	44	1	2	3	96
05:45 PM	6	37	43	42	2	44	0	2	2	89
Total	7	206	213	176	6	182	2	7	9	404
06:00 PM	3	49	52	41	4	45	1	1	2	99
06:15 PM	2	39	41	51	0	51	0	0	0	92
06:30 PM	3	45	48	33	1	34	0	0	0	82
06:45 PM	1	33	34	40	1	41	1	2	3	78
Total	9	166	175	165	6	171	2	3	5	351
07:00 PM	1	33	34	46	2	48	1	0	1	83
07:15 PM	1	40	41	41	2	43	2	1	3	87
07:30 PM	1	29	30	40	0	40	0	1	1	71
07:45 PM	1	49	50	55	0	55	0	0	0	105
Total	4	151	155	182	4	186	3	2	5	346
Grand Total	42	1120	1162	982	34	1016	23	23	46	2224
Apprch %	3.6	96.4		96.7	3.3		50	50		-
Total %	1.9	50.4	52.2	44.2	1.5	45.7	1	1	2.1	

Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Northernmost Apartment Driveway Atlantic City/Atlantic County/NJ Thursday/Clear/EM/T-3101

: 23243002
: 23243002
: 11/16/2023
: 2

		Maryland A Southbour			Maryland A Northbour		N	Apartments Driveway - Northernmost Eastbound		
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis Fr	om 06:00 AN	1 to 08:45	AM - Peak 1 o	f 1			-			
Peak Hour for Entire In	tersection Be	egins at 08	3:00 AM							
08:00 AM	1	44	45	35	0	35	1	0	1	81
08:15 AM	2	43	45	41	3	44	1	1	2	91
08:30 AM	0	37	37	37	1	38	1	1	2	77
08:45 AM	4	55	59	36	1	37	1	1	2	98
Total Volume	7	179	186	149	5	154	4	3	7	347
% App. Total	3.8	96.2		96.8	3.2		57.1	42.9		
PHF	.438	.814	.788	.909	.417	.875	1.00	.750	.875	.885

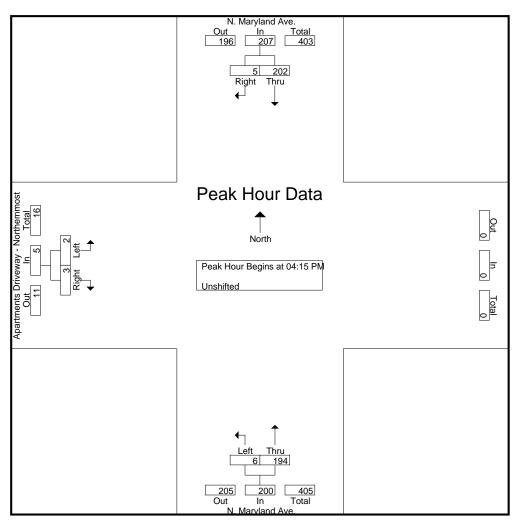


Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Northernmost Apartment Driveway Atlantic City/Atlantic County/NJ Thursday/Clear/EM/T-3101

: 23243002
: 23243002
: 11/16/2023
: 3

	N. Maryland Ave. Southbound				Maryland / Northboun		No	veway - ost d		
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis Fr	om 04:00 PM	l to 07:45 F	PM - Peak 1 o	f 1			-			
Peak Hour for Entire In	tersection Be	egins at 04:	:15 PM							
04:15 PM	2	49	51	42	3	45	2	0	2	98
04:30 PM	2	42	44	56	2	58	0	0	0	102
04:45 PM	0	43	43	44	0	44	1	1	2	89
05:00 PM	1	68	69	52	1	53	0	1	1	123
Total Volume	5	202	207	194	6	200	3	2	5	412
% App. Total	2.4	97.6		97	3		60	40		
PHF	.625	.743	.750	.866	.500	.862	.375	.500	.625	.837



Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Southernmost Apartment Driveway Atlantic City/Atlantic County/NJ Thursday/Clear/EM/T-3101

File Name	: 23243002
Site Code	: 23243002
Start Date	: 11/16/2023
Page No	: 1

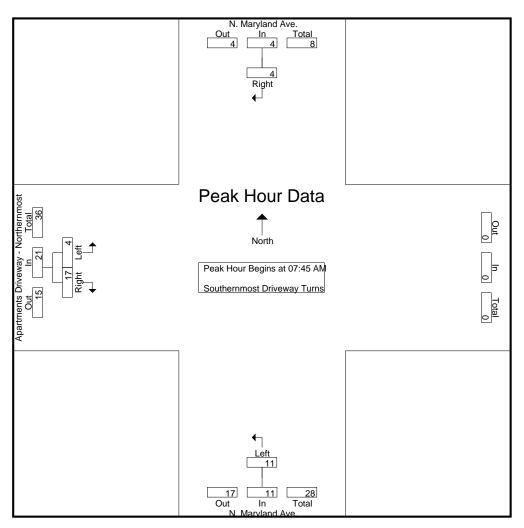
		Groups Pr		ernmost Driv	eway rums			
	N. Maryla	and Ave.	N. Maryla		Apartments D		orthernmost	
	Southb		Northb			Eastbound		
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
*** BREAK ***		1						
06:15 AM	0	0	0	0	1	0	1	1
06:30 AM	0	0	1	1	2	1	3	4
06:45 AM	1	1	0	0	1	0	1	2
Total	1	1	1	1	4	1	5	7
07:00 AM	1	1	1	1	2	2	4	6
07:15 AM	1	1	1	1	3	0	3	5
*** BREAK ***								
07:45 AM	2	2	1	1	3	1	4	7
Total	4	4	3	3	8	3	11	18
08:00 AM	0	0	3	3	8	0	8	11
08:15 AM	1	1	3	3	5	2	7	11
08:30 AM	1	1	4	4	1	1	2	7
08:45 AM	0	0	2	2	1	0	1	3
Total	2	2	12	12	15	3	18	32
*** BREAK ***								
04:00 PM	1	1	3	3	2	0	2	6
04:15 PM	1	1	5	5	8	1	9	15
04:30 PM	1	1	6	6	3	2	5	12
04:45 PM	2	2	1	1	5	2	7	10
Total	5	5	15	15	18	5	23	43
05:00 PM	2	2	6	6	1	1	2	10
05:15 PM	3	3	5	5	2	0	2	10
05:30 PM	2	2	2	2	4	0 0	4	8
05:45 PM	0	0	2	2	0	1	1	3
Total	7	7	15	15	7	2	9	31
06:00 PM	1	1	3	3	4	0	4	8
*** BREAK ***		- 1					. 1	
06:30 PM	0	0	0	0	0	1	1	1
06:45 PM	1	1	2	2	4	0	4	7
Total	2	2	5	5	8	1	9	16
07:00 PM	2	2	7	7	3	0	3	12
07:15 PM	1	1	1	1	3	2	5	7
07:30 PM	0	0	1	1	3	0	3	4
07:45 PM	3	3	3	3	0	4	4	10
Total	6	6	12	12	9	6	15	33
Grand Total	27	27	63	63	69	21	90	180
Apprch %	100		100	-	76.7	23.3		
Total %	15	15	35	35	38.3	11.7	50	

Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Southernmost Apartment Driveway Atlantic City/Atlantic County/NJ Thursday/Clear/EM/T-3101

File Name	: 23243002
Site Code	: 23243002
Start Date	: 11/16/2023
Page No	: 2

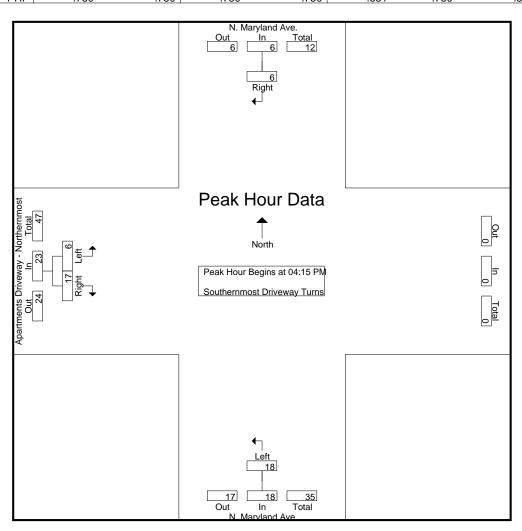
	N. Maryla Southb			land Ave. Ibound	Apartments			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From (	06:00 AM to 08:4	15 AM - Peak	1 of 1					
Peak Hour for Entire Inters	ection Begins at	07:45 AM						
07:45 AM	2	2	1	1	3	1	4	7
08:00 AM	0	0	3	3	8	0	8	11
08:15 AM	1	1	3	3	5	2	7	11
08:30 AM	1	1	4	4	1	1	2	7
Total Volume	4	4	11	11	17	4	21	36
% App. Total	100		100		81	19		
PHF	.500	.500	.688	.688	.531	.500	.656	.818



Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Southernmost Apartment Driveway Atlantic City/Atlantic County/NJ Thursday/Clear/EM/T-3101

	N. Maryla Southb		N. Maryla Northb		Apartments			
Start Time	Right	App. Total		App. Total	Right	Eastbound Left	App. Total	Int. Total
Peak Hour Analysis From (	04:00 PM to 07:4	45 PM - Peak	1 of 1		-			
Peak Hour for Entire Inters	ection Begins at	: 04:15 PM						
04:15 PM	1	1	5	5	8	1	9	15
04:30 PM	1	1	6	6	3	2	5	12
04:45 PM	2	2	1	1	5	2	7	10
05:00 PM	2	2	6	6	1	1	2	10
Total Volume	6	6	18	18	17	6	23	47
% App. Total	100		100		73.9	26.1		
PHF	.750	.750	.750	.750	.531	.750	.639	.783



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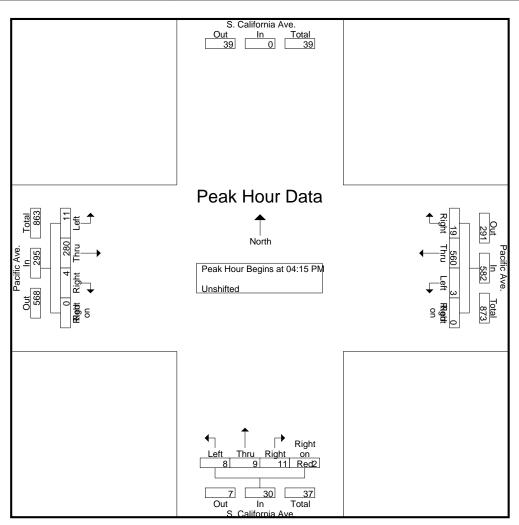
N/S Route: S. California Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Saturday/Clear/SC/D4-2870

Groups Printed- Unshifted																
		Pa	cific A	lve.		S. California Ave.					Pacific Ave.					
		W	estbou	und			No	orthboi	und			E	astbou	Ind		
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
04:00 PM	6	76	0	1	83	0	0	1	0	1	5	97	2	0	104	188
04:15 PM	3	159	0	0	162	3	1	3	0	7	1	72	4	0	77	246
04:30 PM	8	137	1	0	146	1	1	3	2	7	1	77	3	0	81	234
04:45 PM	4	135	2	0	141	5	5	1	0	11	0	63	2	0	65	217
Total	21	507	3	1	532	9	7	8	2	26	7	309	11	0	327	885
05:00 PM	4	129	0	0	133	2	2	1	0	5	2	68	2	0	72	210
05:15 PM	13	145	4	õ	162	0	3	1	Ő	4	ō	72	3	Õ	75	241
05:30 PM	3	134	1	õ	138	2	1	2	1	. 6	1	85	3	Ő	89	233
05:45 PM	8	131	1	Ő	140	0	2	1	2	5	1	58	4	Ő	63	208
Total	28	539	6	0	573	4	8	5	3	20	4	283	12	0	299	892
06:00 PM	8	120	0	0	128	0	4	2	0	6	0	69	3	0	72	206
06:15 PM	4	113	1	0	118	1	2	0	0	3	3	67	1	0	71	192
06:30 PM	4	105	0	0	109	3	1	3	1	8	5	49	3	1	58	175
06:45 PM	3	80	Ő	0 0	83	2	5	2	0	9	1	49	0	O	50	142
Total	19	418	1	0	438	6	12	7	1	26	9	234	7	1	251	715
07:00 PM	2	115	0	0	117	2	8	2	0	12	0	84	3	0	87	216
07:00 PM	6	117	16	0	139	4	2	0	2	8	0	89	1	0	90	210
07:30 PM	5	139	10	0	145	2	8	1	- 1	12	1	75	0	0	30 76	237
07:45 PM	2	98	1	1	143	2	2	2	0	6	1	74	2	0	70	185
Total	15	469	18	1	503	10	20	5	3	38	2	322	6	0	330	871
Grand Total	83	1933	28	2	2046	29	47	25	9	110	22	1148	36	1	1207	3363
Apprch %	4.1	94.5	1.4	0.1	2040	29	42.7	22.7	8.2	110	1.8	95.1	30	0.1	1207	5505
Total %	2.5	94.5 57.5	0.8	0.1	60.8	20.4	42.7	0.7	0.2	3.3	0.7	95.1 34.1	1.1	0.1	35.9	

Atco, NJ 08004

N/S Route: S. California Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Saturday/Clear/SC/D4-2870

	Pacific Ave. Westbound					S. California Ave. Northbound					Pacific Ave. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analy	ysis Fron	n 04:00	1 - Peak 1	of 1												
Peak Hour for E	ntire Inte	rsection	Begins	at 04:1	5 PM											
04:15 PM	3	159	0	0	162	3	1	3	0	7	1	72	4	0	77	246
04:30 PM	8	137	1	0	146	1	1	3	2	7	1	77	3	0	81	234
04:45 PM	4	135	2	0	141	5	5	1	0	11	0	63	2	0	65	217
05:00 PM	4	129	0	0	133	2	2	1	0	5	2	68	2	0	72	210
Total Volume	19	560	3	0	582	11	9	8	2	30	4	280	11	0	295	907
% App. Total	3.3	96.2	0.5	0		36.7	30	26.7	6.7		1.4	94.9	3.7	0		
PHF	.594	.881	.375	.000	.898	.550	.450	.667	.250	.682	.500	.909	.688	.000	.910	.922



Atco, NJ 08004

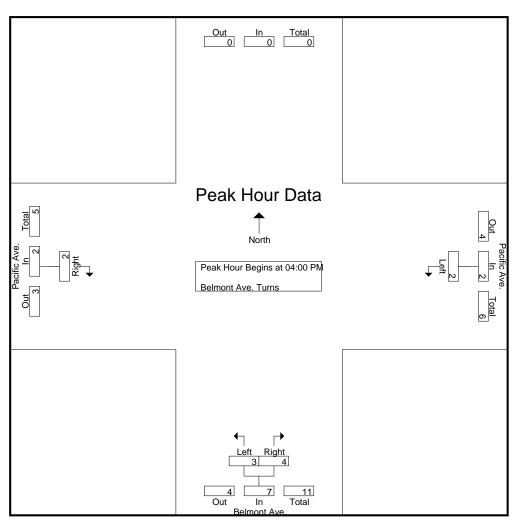
N/S Route: Belmont Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Saturday/Clear/SC/D4-2870

		Grou	ps Printed- B	elmont Ave	. Turns			
	Pacific	Ave.	Be	elmont Ave.		Pacific	Ave.	
	Westb	ound	N	orthbound		Eastbo		
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total
04:00 PM	1	1	0	2	2	0	0	3
*** BREAK ***								
04:30 PM	0	0	4	1	5	1	1	6
04:45 PM	1	1	0	0	0	1	1	2
Total	2	2	4	3	7	2	2	11
*** BREAK ***								
05:15 PM	0	0	0	0	0	1	1	1
*** BREAK ***								
05:45 PM	0	0	1	0	1	0	0	1
Total	0	0	1	0	1	1	1	2
*** BREAK ***								
Grand Total	2	2	5	3	8	3	3	13
Apprch %	100		62.5	37.5		100		
Total %	15.4	15.4	38.5	23.1	61.5	23.1	23.1	

Atco, NJ 08004

N/S Route: Belmont Ave. E/W Route: Pacific Ave. Atlantic City/Atlantic County/NJ Saturday/Clear/SC/D4-2870

	Pacific Westbo			Belmont Ave Northbound	-	Pacific Eastb		
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From (	04:00 PM to 07:4	15 PM - Peak	1 of 1			-		
Peak Hour for Entire Inters	ection Begins at	04:00 PM						
04:00 PM	1	1	0	2	2	0	0	3
04:15 PM	0	0	0	0	0	0	0	0
04:30 PM	0	0	4	1	5	1	1	6
04:45 PM	1	1	0	0	0	1	1	2
Total Volume	2	2	4	3	7	2	2	11
% App. Total	100		57.1	42.9		100		
PHF	.500	.500	.250	.375	.350	.500	.500	.458



Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Northernmost Apartment Driveway Atlantic City/Atlantic County/NJ Saturday/Clear/AA/D4-2585

File Name	: 23243004
Site Code	: 23243004
Start Date	: 11/18/2023
Page No	: 1

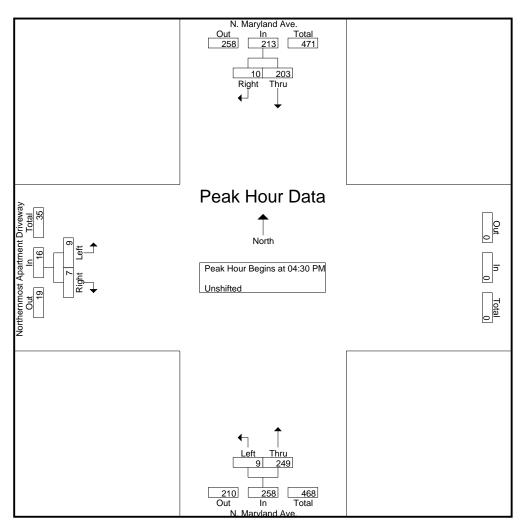
	I	nost Apa riveway stbound	Ea	1	aryland A orthbound		lve. d			
Int. Total	App. Total	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	Start Time
104	2	1	1	56	1	55	46	45	1	04:00 PM
113	4	1	3	54	2	52	55	49	6	04:15 PM
112	2	1	1	68	3	65	42	41	1	04:30 PM
121	4	3	1	66	1	65	51	46	5	04:45 PM
450	12	6	6	244	7	237	194	181	13	Total
125	2	1	1	63	3	60	60	60	0	05:00 PM
129	8	4	4	61	2	59	60	56	4	05:15 PM
110	1	0	1	63	2	61	46	45	1	05:30 PM
122	0	0	0	60	1	59	62	57	5	05:45 PM
486	11	5	6	247	8	239	228	218	10	Total
111	0	0	0	63	0	63	48	46	2	06:00 PM
120	3	0	3	58	1	57	59	55	4	06:15 PM
112	3	0	3	51	1	50	58	57	1	06:30 PM
111	6	3	3	59	3	56	46	42	4	06:45 PM
454	12	3	9	231	5	226	211	200	11	Total
140	3	1	2	84	2	82	53	49	4	07:00 PM
105	1	1	0	58	1	57	46	45	1	07:15 PM
108	0	0	0	57	0	57	51	51	0	07:30 PM
109	0	0	0	68	1	67	41	41	0	07:45 PM
462	4	2	2	267	4	263	191	186	5	Total
1852	39	16	23	989	24	965	824	785	39	Grand Total
		41	59		2.4	97.6		95.3	4.7	Apprch %
	2.1	0.9	1.2	53.4	1.3	52.1	44.5	42.4	2.1	Total %

Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Northernmost Apartment Driveway Atlantic City/Atlantic County/NJ Saturday/Clear/AA/D4-2585

: 23243004
: 23243004
: 11/18/2023
: 2

		laryland outhbour			Maryland A		Northe				
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total	
Peak Hour Analysis Fre	ak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1										
Peak Hour for Entire In	tersection Be	gins at 04	:30 PM								
04:30 PM	1	41	42	65	3	68	1	1	2	112	
04:45 PM	5	46	51	65	1	66	1	3	4	121	
05:00 PM	0	60	60	60	3	63	1	1	2	125	
05:15 PM	4	56	60	59	2	61	4	4	8	129	
Total Volume	10	203	213	249	9	258	7	9	16	487	
% App. Total	4.7	95.3		96.5	3.5		43.8	56.2			
PHF	.500	.846	.888	.958	.750	.949	.438	.563	.500	.944	



Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Southernmost Apartment Driveway Atlantic City/Atlantic County/NJ Saturday/Clear/AA/D4-2585

File Name	: 23243004
Site Code	: 23243004
Start Date	: 11/18/2023
Page No	: 1

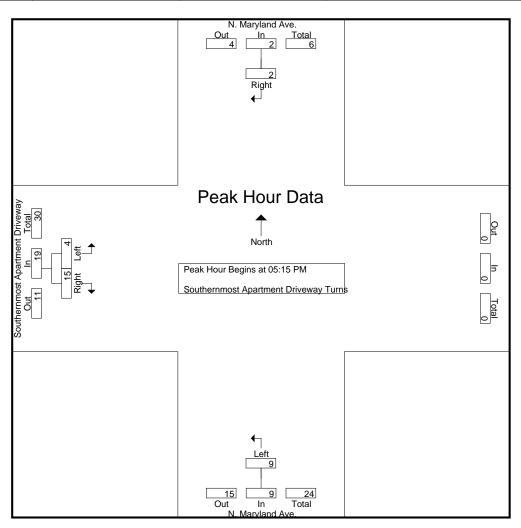
	N. Maryla	and Ave.	N. Maryla	and Ave.	Southernmos			
	Southb	bound	Northb	ound	E			
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total
04:00 PM	0	0	1	1	2	0	2	3
04:15 PM	2	2	0	0	3	1	4	6
04:30 PM	1	1	3	3	2	0	2	6
04:45 PM	0	0	2	2	2	0	2	4
Total	3	3	6	6	9	1	10	19
05:00 PM	1	1	3	3	3	1	4	8
05:15 PM	0	0	3	3	5	1	6	9
05:30 PM	1	1	1	1	4	1	5	7
05:45 PM	1	1	2	2	2	0	2	5
Total	3	3	9	9	14	3	17	29
06:00 PM	0	0	3	3	4	2	6	9
06:15 PM	1	1	1	1	2	0	2	4
06:30 PM	0	0	2	2	1	0	1	3
06:45 PM	0	0	2	2	2	0	2	4
Total	1	1	8	8	9	2	11	20
07:00 PM	1	1	1	1	0	0	0	2
07:15 PM	1	1	2	2	1	2	3	6
07:30 PM	0	0	0	0	1	1	2	2
07:45 PM	0	0	1	1	0	0	0	1
Total	2	2	4	4	2	3	5	11
Grand Total	9	9	27	27	34	9	43	79
Apprch %	100		100		79.1	20.9		
Total %	11.4	11.4	34.2	34.2	43	11.4	54.4	

Atco, NJ 08004

#### N/S Route: N. Maryland Ave. E/W Route: Southernmost Apartment Driveway Atlantic City/Atlantic County/NJ Saturday/Clear/AA/D4-2585

: 23243004
: 23243004
: 11/18/2023
: 2

	N. Maryla Southb			and Ave. bound	Southernm					
Start Time	Right	App. Total	Left	App. Total	Right	Left	App. Total	Int. Total		
Peak Hour Analysis From (	Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1									
Peak Hour for Entire Inters	ection Begins at	05:15 PM								
05:15 PM	0	0	3	3	5	1	6	9		
05:30 PM	1	1	1	1	4	1	5	7		
05:45 PM	1	1	2	2	2	0	2	5		
06:00 PM	0	0	3	3	4	2	6	9		
Total Volume	2	2	9	9	15	4	19	30		
% App. Total	100		100		78.9	21.1				
PHF	.500	.500	.750	.750	.750	.500	.792	.833		



	-	7	4	←	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>†</b> ‡			41	Y	
Traffic Volume (vph)	272	2	4	180	0	2
Future Volume (vph)	272	2	4	180	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.999				0.865	
Flt Protected				0.999		
Satd. Flow (prot)	3536	0	0	3536	1611	0
Flt Permitted				0.999		
Satd. Flow (perm)	3536	0	0	3536	1611	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	194			217	274	
Travel Time (s)	5.3			5.9	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	296	2	4	196	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	298	0	0	200	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
21	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 17.8%			IC	CU Level of	of Service

Analysis Period (min) 15

#### Intersection

Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Vol, veh/h	272	2	4	180	0	2
Future Vol, veh/h	272	2	4	180	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	296	2	4	196	0	2

Major/Minor	Major1	Ν	/lajor2		Minor1	
Conflicting Flow All	0	0	298	0	403	149
Stage 1	-	0	230	-	297	- 149
Stage 2	-	_		-	106	_
Critical Hdwy	-	-	4.14	-	6.84	6.94
	-	-	4.14			
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1260	-	575	871
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver		-	1260	-	573	871
Mov Cap-2 Maneuver	-	-	-	-	573	-
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	903	-
Approach	EB		WB		NB	
Approach						
HCM Control Delay, s	0		0.2		9.1	
HCM LOS					A	
Minor Lane/Major Mvr	nt N	IBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		871	-	-	1260	-
HCM Lane V/C Ratio		0.002	-	-	0.003	-
HCM Control Delay (s		9.1	-	-	7.9	0
HCM Lane LOS	/	A	-	-	A	Ā
		••				

0

-

0

HCM 95th %tile Q(veh)

#### Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

	٠	<b>→</b>	7	4	+	•	1	t	1	4	Ŧ	~
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		et în			đ þ			4				
Traffic Volume (vph)	22	249	3	2	181	17	3	12	2	0	0	0
Future Volume (vph)	22	249	3	2	181	17	3	12	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.987			0.985				
Flt Protected		0.996						0.992				
Satd. Flow (prot)	0	3518	0	0	3493	0	0	1820	0	0	0	0
Flt Permitted		0.923			0.953			0.992				
Satd. Flow (perm)	0	3260	0	0	3329	0	0	1820	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			15			2				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		217			222			255			238	
Travel Time (s)		5.9			6.1			7.0			6.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	23	265	3	2	193	18	3	13	2	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	291	0	0	213	0	0	18	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0	0 -		0	<b>J</b> •		0	<b>J</b> -		0	<b>J</b> -
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.16			0.12			0.03				
Control Delay		11.3			10.2			20.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.3			10.2			20.0				
LOS		В			В			В				
Approach Delay		11.3			10.2			20.0				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary	,							
Area Type:	Other							
Cycle Length: 100								
Actuated Cycle Length: 100								
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green								
Natural Cycle: 40	Natural Cycle: 40							
Control Type: Pretime	d							
Maximum v/c Ratio: 0	.16							
Intersection Signal De	lay: 11.2	Intersection LOS: B						
Intersection Capacity		ICU Level of Service A						
Analysis Period (min)	15							

Splits and Phases: 5: California Avenue & Pacific Avenue

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्स	Ţ.	
Traffic Volume (vph)	4	17	11	150	179	4
Future Volume (vph)	4	17	11	150	179	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890				0.997	
Flt Protected	0.991			0.997		
Satd. Flow (prot)	1643	0	0	1857	1857	0
Flt Permitted	0.991			0.997		
Satd. Flow (perm)	1643	0	0	1857	1857	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	204			196	295	
Travel Time (s)	5.6			5.3	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	18	12	163	195	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	175	199	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 26.9%			IC	CU Level o	of Service

Analysis Period (min) 15

#### Intersection

Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	4	17	11	150	179	4
Future Vol, veh/h	4	17	11	150	179	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage,	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	18	12	163	195	4

Major/Minor	Minor2		Major1	Ма	ajor2	
Conflicting Flow All	384	197	199	0	· -	0
Stage 1	197	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	619	844	1373	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	613	844	1373	-	-	-
Mov Cap-2 Maneuver	613	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	9.7		0.5		0	

HCM LOS A

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1373	-	787	-	-
HCM Lane V/C Ratio	0.009	-	0.029	-	-
HCM Control Delay (s)	7.6	0	9.7	-	-
HCM Lane LOS	А	А	Α	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्भ	Þ	
Traffic Volume (vph)	3	4	5	149	179	7
Future Volume (vph)	3	4	5	149	179	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.923				0.995	
Flt Protected	0.979			0.998		
Satd. Flow (prot)	1683	0	0	1859	1853	0
FIt Permitted	0.979			0.998		
Satd. Flow (perm)	1683	0	0	1859	1853	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			295	135	
Travel Time (s)	4.5			8.0	3.7	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	3	4	6	167	201	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	173	209	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 21.9%			IC	CU Level o	of Service A

Analysis Period (min) 15

#### Intersection

Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	3	4	5	149	179	7
Future Vol, veh/h	3	4	5	149	179	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	6	167	201	8

Major/Minor	Minor2	I	Major1	Ma	jor2	
Conflicting Flow All	384	205	209	0	-	0
Stage 1	205	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	619	836	1362	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		836	1362	-	-	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Approach	EB		NB		SB	
			0.2		0	
HCM Control Delay, s	B		0.2		U	
HCM LOS	В					

Minor Lane/Major Mvmt	NBL	NBT E	BLn1	SBT	SBR	
Capacity (veh/h)	1362	-	725	-	-	
HCM Lane V/C Ratio	0.004	- (	).011	-	-	
HCM Control Delay (s)	7.7	0	10	-	-	
HCM Lane LOS	А	А	В	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

	<b>→</b>	7	•	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>†</b> ‡			41	Y	
Traffic Volume (vph)	256	0	1	347	1	2
Future Volume (vph)	256	0	1	347	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	3539	0	0	3539	1668	0
Flt Permitted					0.984	
Satd. Flow (perm)	3539	0	0	3539	1668	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	194			217	274	
Travel Time (s)	5.3			5.9	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	278	0	1	377	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	278	0	0	378	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: 0	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 20.3%			IC	CU Level o	of Service

Analysis Period (min) 15

#### Intersection

Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			44	Y	
Traffic Vol, veh/h	256	0	1	347	1	2
Future Vol, veh/h	256	0	1	347	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	278	0	1	377	1	2

Major/Minor M	/lajor1	Ν	/lajor2		Minor1	
Conflicting Flow All	0	0	278	0	469	139
Stage 1	-	0	210	-	278	-
Stage 2	-	-	-	-	191	-
Critical Hdwy		-	4.14	_	6.84	6.94
Critical Hdwy Stg 1	-	-	4.14	-	5.84	0.34
Critical Hdwy Stg 2	-	-	-	-	5.84	-
, ,	-	-	- 2.22	-	3.52	3.32
Follow-up Hdwy		-				3.32 884
Pot Cap-1 Maneuver	-	-	1282	-	523	
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %	-	-	1000	-		00.4
Mov Cap-1 Maneuver	-	-	1282	-	522	884
Mov Cap-2 Maneuver	-	-	-	-	522	-
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	821	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10	
HCM LOS	0		U		B	
					Б	
Minor Lane/Major Mvmt	t N	IBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		718	-	-	1282	-
HCM Lane V/C Ratio		0.005	-	-	0.001	-
HCM Control Delay (s)		10	-	-	7.8	0
HCM Lane LOS		В	-	-	A	A
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HCM 95th %tile Q(veh)

## Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		et în			đ þ			\$				
Traffic Volume (vph)	12	245	1	3	337	35	11	13	7	0	0	0
Future Volume (vph)	12	245	1	3	337	35	11	13	7	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.986			0.971				
Flt Protected		0.998						0.983				
Satd. Flow (prot)	0	3532	0	0	3490	0	0	1778	0	0	0	0
Flt Permitted	•	0.930	•	•	0.953	•	•	0.983	•	•	•	•
Satd. Flow (perm)	0	3291	0	0	3326	0	0	1778	0	0	0	0
Right Turn on Red	Ū	0201	Yes	Ū	0020	Yes	Ū		Yes	Ū	Ŭ	Yes
Satd. Flow (RTOR)			100		17	100		8	100			100
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		217			222			255			238	
Travel Time (s)		5.9			6.1			7.0			6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	14	295	0.00	4	406	42	13	16	8	0.00	0.00	0.00
Shared Lane Traffic (%)	14	295	1	4	400	42	15	10	0	0	0	U
Lane Group Flow (vph)	0	310	0	0	452	0	0	37	0	0	0	0
Enter Blocked Intersection	No	No	No	No	452 No	No	No	No	No	No	No	-
										Left		No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Leit	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane	4.00	4.00	4.00	4.00	4.00	4.00	4 00	4.00	4 00	4.00	4.00	4.00
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4		•	8		•	2				
Permitted Phases	4			8	45.0		2	40.0				
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.17			0.25			0.06				
Control Delay		11.5			11.7			18.4				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.5			11.7			18.4				
LOS		В			В			В				
Approach Delay		11.5			11.7			18.4				
Approach LOS		В			В			В				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 10	00	
Offset: 0 (0%), Referenced	d to phase 2:NBTL and 6:, Start of Gro	een
Natural Cycle: 40		
Control Type: Pretimed		
Maximum v/c Ratio: 0.25		
Intersection Signal Delay:	11.9	Intersection LOS: B
Intersection Capacity Utiliz	zation 28.2%	ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 5: California Avenue & Pacific Avenue

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्स	Þ	
Traffic Volume (vph)	6	17	18	194	199	6
Future Volume (vph)	6	17	18	194	199	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.903				0.996	
Flt Protected	0.986			0.996		
Satd. Flow (prot)	1659	0	0	1855	1855	0
Flt Permitted	0.986			0.996		
Satd. Flow (perm)	1659	0	0	1855	1855	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	204			196	295	
Travel Time (s)	5.6			5.3	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	18	20	211	216	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	231	223	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12	-		0	0	-
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 35.1%			IC	CU Level o	of Service

Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	6	17	18	194	199	6
Future Vol, veh/h	6	17	18	194	199	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	18	20	211	216	7

Major/Minor	Minor2		Major1	Ма	jor2	
Conflicting Flow All	471	220	223	0	-	0
Stage 1	220	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	551	820	1346	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	542	820	1346	-	-	-
Mov Cap-2 Maneuver	542	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.2		0.7		0	

HCM LOS B

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1346	-	723	-	-
HCM Lane V/C Ratio	0.015	-	0.035	-	-
HCM Control Delay (s)	7.7	0	10.2	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ų	ţ,	
Traffic Volume (vph)	2	3	6	194	202	5
Future Volume (vph)	2	3	6	194	202	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.910				0.997	
Flt Protected	0.984			0.999		
Satd. Flow (prot)	1668	0	0	1861	1857	0
Flt Permitted	0.984			0.999		
Satd. Flow (perm)	1668	0	0	1861	1857	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			295	135	
Travel Time (s)	4.5			8.0	3.7	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	2	4	7	231	240	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	238	246	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 25.1%			IC	CU Level o	of Service /

Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	2	3	6	194	202	5
Future Vol, veh/h	2	3	6	194	202	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	4	7	231	240	6

Major/Minor	Minor2		Major1	Ma	or2	
Conflicting Flow All	488	243	246	0	-	0
Stage 1	243	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	539	796	1320	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	796	1320	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.4		0.2		0	

HCM Control Delay, s 10.4 HCM LOS B

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1320	-	667	-	-
HCM Lane V/C Ratio	0.005	-	0.009	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

<b>→</b>	7	•	+	1	1
EBT	EBR	WBL	WBT	NBL	NBR
<b>1</b>			41	Y	
291	2	2	566	3	4
291	2	2	566	3	4
1900	1900	1900	1900	1900	1900
0.95	0.95	0.95	0.95	1.00	1.00
0.999				0.923	
				0.979	
3536	0	0	3539	1683	0
				0.979	
3536	0	0	3539	1683	0
25			25	25	
194			217	274	
5.3			5.9	7.5	
0.92	0.92	0.92	0.92	0.92	0.92
316	2	2	615	3	4
318	0	0	617	7	0
	No		No		No
Left	Right	Left	Left	Left	Right
0			0	12	
0			0	0	
16			16	16	
1.00	1.00	1.00	1.00	1.00	1.00
	9	15		15	9
Free			Free	Stop	
Other					
tion 27.0%			IC	CU Level of	of Service A
	↑↑ 291 291 1900 0.95 0.999 3536 25 194 5.3 0.92 316 318 No Left 0 0 16 1.00 Free	100       1900         291       2         1900       1900         0.95       0.95         0.999       3536       0         3536       0       25         194       5.3       0.92         316       2         318       0         No       No         Left       Right         0       16         1.00       1.00         9       Free	12       2         291       2       2         1900       1900       1900         0.95       0.95       0.95         0.999       3536       0       0         3536       0       0       0         3536       0       0       25         194       5.3       0.92       0.92         316       2       2         318       0       0         No       No       No         Left       Right       Left         0       0       16         1.00       1.00       1.00         9       15         Free       Dther	1         291         2         2         566           291         2         2         566           1900         1900         1900         1900           0.95         0.95         0.95         0.95           0.999         3536         0         0         3539           3536         0         0         3539         25         25           194         217         5.3         5.9         0.92         0.92           0.92         0.92         0.92         0.92         0.92         316         2         2         615           318         0         0         617         No         No         No           10         0         0         0         0         0         0           16         16         16         16         16         16           Uther	1         291         2         2         566         3           291         2         2         566         3           1900         1900         1900         1900         1900           0.95         0.95         0.95         0.95         1.00           0.999         0.923         0.979         3536         0         0         3539         1683           25         25         25         25         25         1683         0.979           3536         0         0         3539         1683         0.979         3536         0.92         0.979           3536         0         0         3539         1683         0.979         3536         0.92         0.979           3536         0         0         3539         1683         0.979         3536         0.92         0.979           318         0         0         617         7         No         No         No           318         0         0         617         7         No         No         No           16         16         16         16         16         16         16

Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Vol, veh/h	291	2	2	566	3	4
Future Vol, veh/h	291	2	2	566	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	316	2	2	615	3	4

Major/Minor	Major1	Ν	/lajor2	1	Minor1	
Conflicting Flow All	0	0	318	0	629	159
Stage 1	-	-	-	-	317	-
Stage 2	-	-	-	-	312	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1239	-		858
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1239	-	413	858
Mov Cap-2 Maneuver	-	-	-	-	413	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	714	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		11.2	
HCM LOS	-		-		В	
Minor Long/Major Mun	at I	NBLn1	EBT	EDD	WBL	WBT
Minor Lane/Major Mvn	IL I			EBR		
Capacity (veh/h) HCM Lane V/C Ratio		587	-	-	1239	-
		0.013 11.2	-	-	0.002 7.9	- 0
HCM Control Delay (s) HCM Lane LOS		II.Z B	-		7.9 A	A
HCM 95th %tile Q(veh	١	0	-	-	A 0	- A
	)	0	-	-	0	-

## Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	• SBT	SBR
Lane Configurations		4th			412	WDIX	NDL	4	NDIX			
Traffic Volume (vph)	11	280	4	3	560	19	8	<b>4</b> 2 9	13	0	0	0
Future Volume (vph)	11	280	4	3	560	19	8	9	13	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	9 1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95		1.00	1.00	1.00	1.00	
	0.95		0.95	0.95		0.95	1.00	0.943	1.00	1.00	1.00	1.00
Frt		0.998 0.998			0.995			0.943				
Fit Protected	0	3525	0	0	3522	0	0	1734	0	0	0	0
Satd. Flow (prot)	0	0.929	U	0	0.954	0	0	0.987	U	U	0	0
Flt Permitted	0		0	0		0	0		0	0	0	0
Satd. Flow (perm)	0	3281	0	0	3360	0	0	1734	0	0	0	0
Right Turn on Red		0	Yes		~	Yes			Yes			Yes
Satd. Flow (RTOR)		2			5			14			05	
Link Speed (mph)		25			25			25			25	_
Link Distance (ft)		217			222			255			238	
Travel Time (s)	0.00	5.9	0.00	0.00	6.1	0.00	0.00	7.0	0.00	0.00	6.5	0.00
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	304	4	3	609	21	9	10	14	0	0	0
Shared Lane Traffic (%)	_		<u>,</u>	•		•	<u>,</u>		<u>^</u>	_	_	
Lane Group Flow (vph)	0	320	0	0	633	0	0	33	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.18			0.34			0.05				
Control Delay		11.5			13.0			15.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.5			13.0			15.0				
LOS		В			В			В				
Approach Delay		11.5			13.0			15.0				
Approach LOS		В			В			В				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 10	00	
Offset: 0 (0%), Reference	ed to phase 2:NBTL and 6:, Start of Gr	een
Natural Cycle: 40		
Control Type: Pretimed		
Maximum v/c Ratio: 0.34		
Intersection Signal Delay:	: 12.6	Intersection LOS: B
Intersection Capacity Utiliz	ization 30.7%	ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 5: California Avenue & Pacific Avenue

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्स	Þ	
Traffic Volume (vph)	4	15	9	254	208	2
Future Volume (vph)	4	15	9	254	208	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.892				0.999	
Flt Protected	0.990			0.998		
Satd. Flow (prot)	1645	0	0	1859	1861	0
Flt Permitted	0.990			0.998		
Satd. Flow (perm)	1645	0	0	1859	1861	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	204			196	295	
Travel Time (s)	5.6			5.3	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	16	10	276	226	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	20	0	0	286	228	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type: (	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 30.6%			IC	CU Level o	of Service

Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	4	15	9	254	208	2
Future Vol, veh/h	4	15	9	254	208	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	16	10	276	226	2

Major/Minor	Minor2	I	Major1	Maj	or2	
Conflicting Flow All	523	227	228	0	-	0
Stage 1	227	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	514	812	1340	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		812	1340	-	-	-
Mov Cap-2 Maneuver	509	-	-	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.1		0.3		0	
HCM LOS	В					

Minor Lane/Major Mvmt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)	1340	-	722	-	-
HCM Lane V/C Ratio	0.007	-	0.029	-	-
HCM Control Delay (s)	7.7	0	10.1	-	-
HCM Lane LOS	А	Α	В	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्च	ţ,	
Traffic Volume (vph)	9	7	9	249	203	10
Future Volume (vph)	9	7	9	249	203	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944				0.993	
Flt Protected	0.971			0.998		
Satd. Flow (prot)	1707	0	0	1859	1850	0
Flt Permitted	0.971			0.998		
Satd. Flow (perm)	1707	0	0	1859	1850	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			295	135	
Travel Time (s)	4.5			8.0	3.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	7	10	265	216	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	275	227	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utiliza	tion 30.4%			IC	CU Level o	of Service A

Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	t,	
Traffic Vol, veh/h	9	7	9	249	203	10
Future Vol, veh/h	9	7	9	249	203	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	7	10	265	216	11

Major/Minor	Minor2	I	Major1	Ма	jor2	
Conflicting Flow All	507	222	227	0	-	0
Stage 1	222	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	525	818	1341	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		818	1341	-	-	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	11		0.3		0	
HCM LOS	В					

Minor Lane/Major Mvmt	NBL	NBT E	EBLn1	SBT	SBR
Capacity (veh/h)	1341	-	619	-	-
HCM Lane V/C Ratio	0.007	-	0.027	-	-
HCM Control Delay (s)	7.7	0	11	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

	<b>→</b>	7	4	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>*</b> 1>			41	Y	
Traffic Volume (vph)	277	2	4	184	0	2
Future Volume (vph)	277	2	4	184	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.999				0.865	
Flt Protected				0.999		
Satd. Flow (prot)	3536	0	0	3536	1611	0
Flt Permitted				0.999		
Satd. Flow (perm)	3536	0	0	3536	1611	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	194			217	274	
Travel Time (s)	5.3			5.9	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	301	2	4	200	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	303	0	0	204	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
<b>31</b>	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 17.9%			IC	CU Level o	of Service /

Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	17-			41	Y	
Traffic Vol, veh/h	277	2	4	184	0	2
Future Vol, veh/h	277	2	4	184	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	301	2	4	200	0	2

Major/Minor M	/lajor1	N	/lajor2	1	Minor1	
Conflicting Flow All	0	0	303	0	410	152
Stage 1	-	-	-	-	302	-
Stage 2	-	-	-	-	108	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1255	-	570	867
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1255	-	568	867
Mov Cap-2 Maneuver	-	-	-	-	568	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	900	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		9.2	
HCM LOS					А	
Minor Lane/Major Mvmt	ł N	IBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		867	-	-	4055	-
HCM Lane V/C Ratio		0.003	-	-	0.003	-
HCM Control Delay (s)		9.2	-	-		0
HCM Lane LOS		А	-	-	А	А
HCM 95th %tile Q(veh)		0			0	

## Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ þ			đ îr			\$				
Traffic Volume (vph)	22	254	3	2	185	17	3	12	2	0	0	0
Future Volume (vph)	22	254	3	2	185	17	3	12	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.00	0.998	0.00	0.00	0.988	0.00	1.00	0.985	1.00		1.00	
Flt Protected		0.996			0.000			0.992				
Satd. Flow (prot)	0	3518	0	0	3497	0	0	1820	0	0	0	0
Flt Permitted	Ū	0.923	v	v	0.953	Ū	v	0.992	v	Ū	Ū	v
Satd. Flow (perm)	0	3260	0	0	3332	0	0	1820	0	0	0	0
Right Turn on Red	0	0200	Yes	Ū	0002	Yes	Ū	1020	Yes	U	U	Yes
Satd. Flow (RTOR)		2	100		15	100		2	100			100
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		217			222			255			238	
Travel Time (s)		5.9			6.1			7.0			6.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	23	270	3	2	197	18	3	13	2	0.54	0.54	0.54
Shared Lane Traffic (%)	20	210	0	2	157	10	0	10	L	U	U	U
Lane Group Flow (vph)	0	296	0	0	217	0	0	18	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	
Median Width(ft)	Leit	0	Night	Leit	0	Right	Leit	0	Right	Leit	0	Right
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		10			10			10			10	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	1.00	1.00	9	1.00	1.00	9	1.00	1.00	9	1.00	1.00	9
Turn Type	Perm	NA	5	Perm	NA	3	Perm	NA	5	15		3
Protected Phases	I CIIII	4			8		I CIIII	2				
Permitted Phases	4	-		8	0		2	L				
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)	2.0	0.0		2.0	0.0		2.0	0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag		5.0			5.0			5.0				
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.55			0.55			0.03				
Control Delay		11.3			10.12			20.0				
Queue Delay		0.0			0.0			20.0				
Total Delay		11.3			10.3			20.0				
LOS		B			10.3 B			20.0 B				
		ы 11.3			ы 10.3			20.0				
Approach Delay		II.3 B			10.3 B			20.0 B				
Approach LOS		D			D			D				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 10	00	
Offset: 0 (0%), Referenced	d to phase 2:NBTL and 6:, Start of Gr	een
Natural Cycle: 40		
Control Type: Pretimed		
Maximum v/c Ratio: 0.17		
Intersection Signal Delay:		Intersection LOS: B
Intersection Capacity Utiliz	zation 30.1%	ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 5: California Avenue & Pacific Avenue

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्च	Þ	
Traffic Volume (vph)	4	17	11	153	183	4
Future Volume (vph)	4	17	11	153	183	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890				0.997	
Flt Protected	0.991			0.997		
Satd. Flow (prot)	1643	0	0	1857	1857	0
Flt Permitted	0.991			0.997		
Satd. Flow (perm)	1643	0	0	1857	1857	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	204			196	295	
Travel Time (s)	5.6			5.3	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	18	12	166	199	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	178	203	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12	Ŭ		0	0	Ŭ
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 27.1%			IC	CU Level o	of Service A

Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	t,	
Traffic Vol, veh/h	4	17	11	153	183	4
Future Vol, veh/h	4	17	11	153	183	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	18	12	166	199	4

Major/Minor	Minor2	I	Major1	Maj	or2	
Conflicting Flow All	391	201	203	0	-	0
Stage 1	201	-	-	-	-	-
Stage 2	190	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	613	840	1369	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	607	840	1369	-	-	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s			0.5		0	
HCM LOS	3.7 A		0.0		0	
	7					

Minor Lane/Major Mvmt	NBL	NBT E	BLn1	SBT	SBR	
Capacity (veh/h)	1369	-	783	-	-	
HCM Lane V/C Ratio	0.009	-	0.029	-	-	
HCM Control Delay (s)	7.7	0	9.7	-	-	
HCM Lane LOS	А	А	А	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्स	Ţ.	
Traffic Volume (vph)	3	4	5	152	183	7
Future Volume (vph)	3	4	5	152	183	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.923				0.995	
Flt Protected	0.979			0.998		
Satd. Flow (prot)	1683	0	0	1859	1853	0
Flt Permitted	0.979			0.998		
Satd. Flow (perm)	1683	0	0	1859	1853	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			295	135	
Travel Time (s)	4.5			8.0	3.7	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	3	4	6	171	206	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	177	214	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 22.0%			IC	CU Level o	of Service

Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	3	4	5	152	183	7
Future Vol, veh/h	3	4	5	152	183	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	6	171	206	8

Major/Minor	Minor2	I	Major1	Maj	or2	
Conflicting Flow All	393	210	214	0	-	0
Stage 1	210	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	611	830	1356	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		830	1356	-	-	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.1		0.2		0	
HCM LOS	В					

Minor Lane/Major Mvmt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)	1356	-	718	-	-
HCM Lane V/C Ratio	0.004	-	0.011	-	-
HCM Control Delay (s)	7.7	0	10.1	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

	<b>→</b>	7	4	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>*</b> T+			41	Y	
Traffic Volume (vph)	261	0	1	354	1	2
Future Volume (vph)	261	0	1	354	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	3539	0	0	3539	1668	0
Flt Permitted					0.984	
Satd. Flow (perm)	3539	0	0	3539	1668	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	194			217	274	
Travel Time (s)	5.3			5.9	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	284	0	1	385	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	0	386	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: (	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	ion 20.5%			IC	CU Level o	of Service

Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			44	Y	
Traffic Vol, veh/h	261	0	1	354	1	2
Future Vol, veh/h	261	0	1	354	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	284	0	1	385	1	2

Major/Minor M	lajor1	Ν	lajor2		Minor1	
Conflicting Flow All	0	0	284	0	479	142
Stage 1	-	_	-	-	284	-
Stage 2	-	-	-	-	195	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1275	-	516	880
Stage 1	-	-	-	-	739	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1275	-	515	880
Mov Cap-2 Maneuver	-	-	-	-	515	-
Stage 1	-	-	-	-	739	-
Stage 2	-	-	-	-	818	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10.1	
HCM LOS	U		U		B	
					U	
Minor Lane/Major Mvmt	N	BLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		712	-	-		-
HCM Lane V/C Ratio	0	0.005	-	-	0.001	-
HCM Control Delay (s)		10.1	-	-	7.8	0
HCM Lane LOS		В	-	-	Α	Α

HCM 95th %tile Q(veh)

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## Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ î þ			đ î þ			\$				
Traffic Volume (vph)	12	250	1	3	344	36	11	13	7	0	0	0
Future Volume (vph)	12	250	1	3	344	36	11	13	7	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.986			0.971				
Flt Protected		0.998						0.983				
Satd. Flow (prot)	0	3532	0	0	3490	0	0	1778	0	0	0	0
Flt Permitted		0.930			0.953			0.983				
Satd. Flow (perm)	0	3291	0	0	3326	0	0	1778	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17			8				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		217			222			255			238	
Travel Time (s)		5.9			6.1			7.0			6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	14	301	1	4	414	43	13	16	8	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	0	0	461	0	0	37	0	0	0	0
Enter Blocked Intersection	No	No	No	No								
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0	Ŭ		0	Ŭ		0	Ŭ		0	Ŭ
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.17			0.25			0.06				
Control Delay		11.5			11.7			18.4				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.5			11.7			18.4				
LOS		В			В			В				
Approach Delay		11.5			11.7			18.4				
Approach LOS		В			В			В				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 1	100	
Offset: 0 (0%), Reference	ed to phase 2:NBTL and 6:, Start of G	Green
Natural Cycle: 40		
Control Type: Pretimed		
Maximum v/c Ratio: 0.25	5	
Intersection Signal Delay	y: 11.9	Intersection LOS: B
Intersection Capacity Uti	lization 28.3%	ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 5: California Avenue & Pacific Avenue

Ø2 (R)	-104	
40 🕫	60 s	
1	Ø8	
	60 s	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			é.	ţ,	
Traffic Volume (vph)	6	17	18	198	203	6
Future Volume (vph)	6	17	18	198	203	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.903				0.996	
Flt Protected	0.986			0.996		
Satd. Flow (prot)	1659	0	0	1855	1855	0
Flt Permitted	0.986			0.996		
Satd. Flow (perm)	1659	0	0	1855	1855	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	204			196	295	
Travel Time (s)	5.6			5.3	8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	18	20	215	221	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	235	228	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12	-		0	0	•
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 35.3%			IC	CU Level o	of Service A

Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	6	17	18	198	203	6
Future Vol, veh/h	6	17	18	198	203	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	18	20	215	221	7

Major/Minor	Minor2	ļ	Major1	Maj	jor2	
Conflicting Flow All	480	225	228	0	-	0
Stage 1	225	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	545	814	1340	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	814	1340	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	798	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s			0.6		0	
HCM LOS	B		0.0		Ū	
	5					

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR	
Capacity (veh/h)	1340	- 717	-	-	
HCM Lane V/C Ratio	0.015	- 0.035	-	-	
HCM Control Delay (s)	7.7	0 10.2	-	-	
HCM Lane LOS	А	A B	-	-	
HCM 95th %tile Q(veh)	0	- 0.1	-	-	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			é.	ţ,	
Traffic Volume (vph)	2	3	6	198	206	5
Future Volume (vph)	2	3	6	198	206	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.910				0.997	
Flt Protected	0.984			0.999		
Satd. Flow (prot)	1668	0	0	1861	1857	0
Flt Permitted	0.984			0.999		
Satd. Flow (perm)	1668	0	0	1861	1857	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			295	135	
Travel Time (s)	4.5			8.0	3.7	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	2	4	7	236	245	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	243	251	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12	-		0	0	-
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 25.3%			IC	CU Level o	of Service A

Int Delay, s/veh 0.2 EBL EBR NBL NBT SBT SBR Movement ¥ 2 Lane Configurations đ Þ 206 Traffic Vol, veh/h 3 6 198 5 Future Vol, veh/h 2 3 6 198 206 5 Conflicting Peds, #/hr 0 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free RT Channelized -None -None -None Storage Length 0 -----Veh in Median Storage, # 0 --0 0 -Grade, % 0 0 0 ---Peak Hour Factor 84 84 84 84 84 84 Heavy Vehicles, % 2 2 2 2 2 2 Mvmt Flow 2 4 7 236 245 6

Major/Minor	Minor2		Major1	Ма	jor2	
Conflicting Flow All	498	248	251	0	-	0
Stage 1	248	-	-	-	-	-
Stage 2	250	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	532	791	1314	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		791	1314	-	-	-
Mov Cap-2 Maneuver	529	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s			0.2		0	
HCM LOS	В				-	

Minor Lane/Major Mvmt	NBL	NBT E	EBLn1	SBT	SBR	
Capacity (veh/h)	1314	-	660	-	-	
HCM Lane V/C Ratio	0.005	-	0.009	-	-	
HCM Control Delay (s)	7.8	0	10.5	-	-	
HCM Lane LOS	А	А	В	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

	-	7	*	-	1	1	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	<b>*†</b>			41	Y		
Traffic Volume (vph)	297	2	2	577	3	4	
Future Volume (vph)	297	2	2	577	3	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00	
Frt	0.999				0.923		
Flt Protected					0.979		
Satd. Flow (prot)	3536	0	0	3539	1683	0	
Flt Permitted					0.979		
Satd. Flow (perm)	3536	0	0	3539	1683	0	
Link Speed (mph)	25			25	25		
Link Distance (ft)	194			217	274		
Travel Time (s)	5.3			5.9	7.5		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	323	2	2	627	3	4	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	325	0	0	629	7	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	12		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type: 0	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	ion 27.3%			IC	CU Level o	of Service	эA

Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	17.			41	Y	
Traffic Vol, veh/h	297	2	2	577	3	4
Future Vol, veh/h	297	2	2	577	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	323	2	2	627	3	4

Major/Minor	Major1	Ν	/lajor2		Minor1	
	-					162
Conflicting Flow All	0	0	325	0	642	163
Stage 1	-	-	-	-	324	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1231	-	407	853
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	710	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1231	-	406	853
Mov Cap-2 Maneuver		-	-	-	406	-
Stage 1	-	_	-	-	705	-
Stage 2	_	_	_	-	709	-
Oldge 2	-	-			105	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		11.3	
HCM LOS					В	
Minor Lane/Major Mvn	nt N	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		580	-	-	1231	-
HCM Lane V/C Ratio		0.013	-	-	0.002	-
HCM Control Delay (s)	)	11.3	-	-	7.9	0
HCM Lane LOS		В	-	-	А	А

0

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HCM 95th %tile Q(veh)

0

## Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		et îp			đ î de			\$				
Traffic Volume (vph)	11	286	4	3	571	19	8	9	13	0	0	0
Future Volume (vph)	11	286	4	3	571	19	8	9	13	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.00	0.998	0.00	0.00	0.995	0.00		0.943				
Flt Protected		0.998			0.000			0.987				
Satd. Flow (prot)	0	3525	0	0	3522	0	0	1734	0	0	0	0
Flt Permitted	v	0.929	Ū	Ū	0.954	v	Ŭ	0.987	v	v	Ŭ	Ŭ
Satd. Flow (perm)	0	3281	0	0	3360	0	0	1734	0	0	0	0
Right Turn on Red	U	0201	Yes	U	0000	Yes	0	1754	Yes	U	U	Yes
Satd. Flow (RTOR)		2	103		5	163		14	163			103
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		217			222			255			238	
( )											230 6.5	
Travel Time (s)	0.00	5.9	0.00	0.00	6.1	0.00	0.00	7.0	0.00	0.00		0.00
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	311	4	3	621	21	9	10	14	0	0	0
Shared Lane Traffic (%)	<u>,</u>		_	<u>,</u>	0.15	<u>^</u>	•		<u>,</u>	<u>,</u>	_	_
Lane Group Flow (vph)	0	327	0	0	645	0	0	33	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.18			0.35			0.05				
Control Delay		11.5			13.1			15.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.5			13.1			15.0				
LOS		B			B			15.0 B				
		в 11.5										
Approach Delay					13.1			15.0 P				
Approach LOS		В			В			В				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 1	100	
Offset: 0 (0%), Reference	ed to phase 2:NBTL and 6:, Start of G	reen
Natural Cycle: 40		
Control Type: Pretimed		
Maximum v/c Ratio: 0.35	5	
Intersection Signal Delay	y: 12.6	Intersection LOS: B
Intersection Capacity Uti	ilization 31.0%	ICU Level of Service A
Analysis Period (min) 15	i	

Splits and Phases: 5: California Avenue & Pacific Avenue

Ø2 (R)	-04	
40 🕫	60 s	
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	60 s	

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EBL	EBR	NBL	NBT	SBT	SBR	
Y			é.	Þ		
4	15	9	259	212	2	
4	15	9	259	212	2	
1900	1900	1900	1900	1900	1900	
1.00	1.00	1.00	1.00	1.00	1.00	
0.892				0.999		
0.990			0.998			
1645	0	0	1859	1861	0	
0.990			0.998			
1645	0	0	1859	1861	0	
25			25	25		
204			196	295		
5.6			5.3	8.0		
0.92	0.92	0.92	0.92	0.92	0.92	
4	16	10	282	230	2	
20	0	0	292	232	0	
No	No	No	No	No	No	
Left	Right	Left	Left	Left	Right	
12			0	0		
0			0	0		
16			16	16		
1.00	1.00	1.00	1.00	1.00	1.00	
15	9	15			9	
Stop			Free	Free		
Other						
ion 30.9%			IC	CU Level o	of Service A	А
	4 4 1900 1.00 0.892 0.990 1645 25 204 5.6 0.92 4 20 No Left 12 0 16 1.00 15 Stop	4       15         4       15         1900       1900         1.00       1.00         0.892       0.990         1645       0         0.990       1645         1645       0         25       204         5.6       0.92         0.92       0         4       16         20       0         No       No         Left       Right         12       0         16	4       15       9         4       15       9         1900       1900       1900         1.00       1.00       1.00         0.892       0.990       0         1645       0       0         0.990       0       0         1645       0       0         25       204       5.6         0.92       0.92       0.92         4       16       10         20       0       0         No       No       No         Left       Right       Left         12       0       1.00         1.00       1.00       1.00         15       9       15         Stop       20       0	Y         4           4         15         9         259           4         15         9         259           1900         1900         1900         1900           1.00         1.00         1.00         1.00           0.892         0.990         0.998           1645         0         0         1859           0.990         0.998         1645         0         1859           0.990         0.998         1645         0         0         1859           25         25         25         25         25         25           204         196         5.6         5.3         0.92         0.92         4         16         10         282           20         0         0         292         No         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.00         1.5         9         15         Stop         Free         Dther         Dther         Dther	4         15         9         259         212           4         15         9         259         212           1900         1900         1900         1900         1900           1.00         1.00         1.00         1.00         1.00           0.892         0.998         0.998         0.999           0.990         0.998         1861         0.999           0.990         0.998         1861         0.999           0.990         0.998         1861         0.999           0.990         0.998         1861         0.999           0.990         0.998         1861         25         25           204         196         295         5.6         5.3         8.0           0.92         0.92         0.92         0.92         0.92         192           20         0         0         282         230         230           20         0         0         292         232         No         No         No           12         0         0         0         0         0         0         0           16         1.00         1.00 <td< td=""><td>4         15         9         259         212         2           4         15         9         259         212         2           1900         1900         1900         1900         1900         1900           1.00         1.00         1.00         1.00         1.00         1.00           0.892         0.998         0.998         0.999         0.999           0.990         0.998         0.998         0.998         0.999           1645         0         0         1859         1861         0           0.990         0.998         1861         0         25         25         25           204         196         295         5.6         5.3         8.0         0.922         0.92         0.92         0.92           4         16         10         282         230         2         2         0           0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0         0         0&lt;</td></td<>	4         15         9         259         212         2           4         15         9         259         212         2           1900         1900         1900         1900         1900         1900           1.00         1.00         1.00         1.00         1.00         1.00           0.892         0.998         0.998         0.999         0.999           0.990         0.998         0.998         0.998         0.999           1645         0         0         1859         1861         0           0.990         0.998         1861         0         25         25         25           204         196         295         5.6         5.3         8.0         0.922         0.92         0.92         0.92           4         16         10         282         230         2         2         0           0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0         0         0<

Int Delay, s/veh 0.5 Movement EBL EBR NBL NBT SBT SBR Y **₽** 212 Lane Configurations đ 4 Traffic Vol, veh/h 15 9 259 2 Future Vol, veh/h 4 15 9 259 212 2 Conflicting Peds, #/hr 0 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free RT Channelized -None -None -None Storage Length 0 -----Veh in Median Storage, # 0 --0 0 -Grade, % 0 0 0 ---Peak Hour Factor 92 92 92 92 92 92 Heavy Vehicles, % 2 2 2 2 2 2 Mvmt Flow 4 16 10 282 230 2

Major/Minor	Minor2		Major1	Ν	/lajor2	
Conflicting Flow All	533	231	232	0	-	0
Stage 1	231	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy		3.318		-	-	-
Pot Cap-1 Maneuver	507	808	1336	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	750	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	502	808	1336	-	-	-
Mov Cap-2 Maneuver		-	-	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	750	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.2		0.3		0	
HCM LOS	В					
Minor Lane/Maior Myr	mt	NBI	NRT	=Bl n1	SBT	SBR

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR	
Capacity (veh/h)	1336	- 716	-	-	
HCM Lane V/C Ratio	0.007	- 0.029	-	-	
HCM Control Delay (s)	7.7	0 10.2	-	-	
HCM Lane LOS	А	A B	-	-	
HCM 95th %tile Q(veh)	0	- 0.1	-	-	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्भ	Þ	
Traffic Volume (vph)	9	7	9	254	207	10
Future Volume (vph)	9	7	9	254	207	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944				0.994	
Flt Protected	0.971			0.998		
Satd. Flow (prot)	1707	0	0	1859	1852	0
Flt Permitted	0.971			0.998		
Satd. Flow (perm)	1707	0	0	1859	1852	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			295	135	
Travel Time (s)	4.5			8.0	3.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	7	10	270	220	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	280	231	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type: (	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 30.6%			IC	CU Level o	of Service /

Int Delay, s/veh 0.5 EBL EBR NBL NBT SBT SBR Movement **1** 207 Lane Configurations Y đ 9 Traffic Vol, veh/h 7 9 254 10 Future Vol, veh/h 9 7 9 254 207 10 Conflicting Peds, #/hr 0 0 0 0 0 0 Sign Control Stop Stop Free Free Free Free RT Channelized None -None -None -Storage Length 0 -----Veh in Median Storage, # 0 --0 0 -Grade, % 0 0 0 ---Peak Hour Factor 94 94 94 94 94 94 Heavy Vehicles, % 2 2 2 2 2 2 Mvmt Flow 10 7 10 270 220 11

Major/Minor	Minor2	I	Major1	Ma	or2	
Conflicting Flow All	516	226	231	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	519	813	1337	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		813	1337	-	-	-
Mov Cap-2 Maneuver		-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s			0.3		0	
HCM LOS	В		0.0		v	
	U					

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1337	-	613	-	-	
HCM Lane V/C Ratio	0.007	-	0.028	-	-	
HCM Control Delay (s)	7.7	0	11	-	-	
HCM Lane LOS	А	А	В	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

	-	7	4	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Volume (vph)	335	2	4	188	0	2
Future Volume (vph)	335	2	4	188	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.999				0.865	
Flt Protected				0.999		
Satd. Flow (prot)	3536	0	0	3536	1611	0
Flt Permitted				0.999		
Satd. Flow (perm)	3536	0	0	3536	1611	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	194			89	274	
Travel Time (s)	5.3			2.4	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	364	2	4	204	0	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	366	0	0	208	2	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
31	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 19.3%			IC	CU Level o	of Service A

Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			44	Y	
Traffic Vol, veh/h	335	2	4	188	0	2
Future Vol, veh/h	335	2	4	188	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	364	2	4	204	0	2

Major/Minor	Major1	Ν	/lajor2	1	Minor1	
Conflicting Flow All	0	0	366	0	475	183
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1189	-	519	828
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	517	828
Mov Cap-2 Maneuver	-	-	-	-	517	-
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	898	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		9.4	
HCM LOS					А	
Minor Lane/Major Mvr	nt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		828			1189	-
HCM Lane V/C Ratio		0.003	-	-	0.004	-
HCM Control Delay (s	)	9.4	-	-	8	0
HCM Lane LOS	/	A	-	-	Ă	A
HCM 95th %tile Q(veh	)	0	-	-	0	-
	/					

## Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

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	158	-	*	4			7	8	r		*	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ î de			đ î de			4				
Traffic Volume (vph)	22	264	3	2	227	17	3	12	2	0	0	0
Future Volume (vph)	22	264	3	2	227	17	3	12	2	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.990			0.985				
Flt Protected		0.996						0.992				
Satd. Flow (prot)	0	3522	0	0	3504	0	0	1820	0	0	0	0
Flt Permitted		0.921			0.954			0.992				
Satd. Flow (perm)	0	3256	0	0	3343	0	0	1820	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			12			2				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		127			222			255			238	
Travel Time (s)		3.5			6.1			7.0			6.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	23	281	3	2	241	18	3	13	2	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	0	261	0	0	18	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.17			0.14			0.03				_
Control Delay		11.4			10.7			20.0				
Queue Delay		0.0			0.0			0.0				_
Total Delay		11.4			10.7			20.0				
LOS		В			В			В				
Approach Delay		11.4			10.7			20.0				
Approach LOS		В			В			В				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length	: 100		
Offset: 0 (0%), Referer	nced to phase 2:NBTL	. and 6:, Start of Green	
Natural Cycle: 40			
Control Type: Pretimed	ł		
Maximum v/c Ratio: 0.	17		
Intersection Signal Del	ay: 11.4	Intersection LOS: B	
Intersection Capacity L	Jtilization 31.6%	ICU Level of Service A	
Analysis Period (min)	15		

Splits and Phases: 5: California Avenue & Pacific Avenue

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40 🕫	60 s	
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	60 s	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्स	Þ	
Traffic Volume (vph)	4	17	11	161	187	4
Future Volume (vph)	4	17	11	161	187	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890				0.997	
Flt Protected	0.991			0.997		
Satd. Flow (prot)	1643	0	0	1857	1857	0
Flt Permitted	0.991			0.997		
Satd. Flow (perm)	1643	0	0	1857	1857	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	204			196	125	
Travel Time (s)	5.6			5.3	3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	18	12	175	203	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	187	207	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 27.5%			IC	CU Level o	of Service /

Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	4	17	11	161	187	4
Future Vol, veh/h	4	17	11	161	187	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	18	12	175	203	4

Major/Minor	Minor2	I	Major1	Ν	/lajor2	
Conflicting Flow All	404	205	207	0	-	0
Stage 1	205	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	603	836	1364	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	597	836	1364	-	-	-
Mov Cap-2 Maneuver	597	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s			0.5		0	
HCM LOS	A		0.0		Ū	
	71					
NA:	1				ODT	000
Minor Lane/Major Mvr	nt	NBL	NRT	EBLn1	SBT	SBR
Capacity (veh/h)		1364	-	777	-	-

Capacity (ven/n)	1364	-	111	-	-
HCM Lane V/C Ratio	0.009	- (	0.029	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	А	А	А	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्स	Þ	
Traffic Volume (vph)	3	4	5	152	187	7
Future Volume (vph)	3	4	5	152	187	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.923				0.995	
Flt Protected	0.979			0.998		
Satd. Flow (prot)	1683	0	0	1859	1853	0
Flt Permitted	0.979			0.998		
Satd. Flow (perm)	1683	0	0	1859	1853	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			170	135	
Travel Time (s)	4.5			4.6	3.7	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	3	4	6	171	210	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	177	218	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization	tion 22.0%			IC	CU Level o	of Service /

Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	3	4	5	152	187	7
Future Vol, veh/h	3	4	5	152	187	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	6	171	210	8

Major/Minor	Minor2		Major1	Maj	or2	
Conflicting Flow All	397	214	218	0	-	0
Stage 1	214	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	608	826	1352	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	605	826	1352	-	-	-
Mov Cap-2 Maneuver	605	-	-	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s			0.2		0	
HCM LOS	В				-	

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1352	-	714	-	-
HCM Lane V/C Ratio	0.004	-	0.011	-	-
HCM Control Delay (s)	7.7	0	10.1	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

	-	7	1	←	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Volume (vph)	279	58	42	188	4	10
Future Volume (vph)	279	58	42	188	4	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.974				0.901	
Flt Protected				0.991	0.987	
Satd. Flow (prot)	3447	0	0	3507	1657	0
FIt Permitted				0.991	0.987	
Satd. Flow (perm)	3447	0	0	3507	1657	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	89			127	239	
Travel Time (s)	2.4			3.5	6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	303	63	46	204	4	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	366	0	0	250	15	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: (	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 29.3%			IC	CU Level o	of Service

Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Vol, veh/h	279	58	42	188	4	10
Future Vol, veh/h	279	58	42	188	4	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	303	63	46	204	4	11

Major/Minor M	lajor1	Ν	/lajor2		Minor1	
Conflicting Flow All	0	0	366	0	529	183
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1189	-	479	828
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	820	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	458	828
Mov Cap-2 Maneuver	-	-	-	-	458	-
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	784	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		10.5	
HCM LOS					В	
Minor Lane/Major Mvmt	N	VBLn1	EBT	EBR	WBL	WBT
	. r					
Capacity (veh/h) HCM Lane V/C Ratio		673 0.023	-	-	1189 0.038	-
		10.5	-	-	0.038 8.1	- 0.1
HCM Control Delay (s) HCM Lane LOS		10.5 B	-		0.1 A	0.1 A
HCM 25th %tile Q(veh)		0.1	-	-	0.1	- A
		0.1	-	-	0.1	-

4	•	Ť	1	5	Ŧ	
WBL	WBR	NBT	NBR	SBL	SBT	
Y		ħ			é.	
4	0	157	8	4	187	
4	0	157	8	4	187	
1900	1900	1900	1900	1900	1900	
1.00	1.00	1.00	1.00	1.00	1.00	
		0.993				
0.950						
1770	0	1850	0	0		
0.950						
	0		0	0		
250					170	
6.8		3.4			4.6	
0.92	0.92		0.92	0.92		
4	0	171	9	4	203	
4	0	180	0	0	207	
No	No	No	No	No	No	
Left	Right	Left	Right	Left	Left	
12		0			0	
0		0			0	
16		16			16	
1.00	1.00	1.00	1.00	1.00	1.00	
15	9		9	15		
Stop		Free			Free	
Other						
ion 23.1%			IC	U Level	of Service /	A
	4 4 1900 1.00 0.950 1770 0.950 1770 25 250 6.8 0.92 4 4 4 No Left 12 0 16 1.00 15 Stop	4       0         4       0         1900       1900         1.00       1.00         0.950       1770         0       0.950         1770       0         25       250         6.8       0.92         0.92       4         4       0         No       No         Left       Right         12       0         16       1.00         15       9         Stop       200	4         0         157           4         0         157           1900         1900         1900           1.00         1.00         1.00           1.00         1.00         1.00           0.950         0.950           1770         0         1850           0.950         125           25         25           250         125           6.8         3.4           0.92         0.92           4         0           71         70           4         0           71         70           71         70           725         25           725         25           725         125           6.8         3.4           0.92         0.92           4         0           70         0           8         0           9         0           12         0           0         0           16         16           15         9           Stop         Free	4         0         157         8           4         0         157         8           1900         1900         1900         1900           1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00           0.950         0         0         0           1770         0         1850         0           0.950         0         0         0           1770         0         1850         0           25         25         25         25           250         125         6.8         3.4           0.92         0.92         0.92         0.92           4         0         180         0           No         No         No         No           4         0         180         0           No         No         No         No           12         0         0         0           0         0         0         1.00         1.00           15         9         9         9         Stop         Free	4         0         157         8         4           4         0         157         8         4           1900         1900         1900         1900         1900           1.00         1.00         1.00         1.00         1.00           1.00         1.00         1.00         1.00         1.00           0.950	4         0         157         8         4         187           4         0         157         8         4         187           1900         1900         1900         1900         1900         1900         1900           1.00         1.00         1.00         1.00         1.00         1.00         1.00           0.950         0.993         0.950         0.999         0.950         0.999           1770         0         1850         0         0         1861           0.950         0.950         0.999         0.999         0.999         0.999           1770         0         1850         0         0         1861           25         25         25         25         25         25           250         125         170         6.8         3.4         4.6         0.92         0.92         0.92         0.92         4         0         171         9         4         203           4         0         180         0         0         207         No         No         No         No         No         No         No         100         1.00         1.00

Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		ţ,			ŧ
Traffic Vol, veh/h	4	0	157	8	4	187
Future Vol, veh/h	4	0	157	8	4	187
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	171	9	4	203

Major/Minor	Minor1	Ν	lajor1	Ν	/lajor2	
Conflicting Flow All	387	176	0	0	180	0
Stage 1	176	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	616	867	-	-	1396	-
Stage 1	855	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	614	867	-	-	1396	-
Mov Cap-2 Maneuver	614	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s			0		0.2	
HCM LOS	10.9 B		0		0.2	
	D					

Minor Lane/Major Mvmt	NBT	NBRWB	BLn1	SBL	SBT	
Capacity (veh/h)	-	-	614	1396	-	
HCM Lane V/C Ratio	-	- 0.	.007	0.003	-	
HCM Control Delay (s)	-	- '	10.9	7.6	0	
HCM Lane LOS	-	-	В	А	А	
HCM 95th %tile Q(veh)	-	-	0	0	-	

	-	7	4	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Volume (vph)	265	0	1	411	1	2
Future Volume (vph)	265	0	1	411	1	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt					0.910	
Flt Protected					0.984	
Satd. Flow (prot)	3539	0	0	3539	1668	0
Flt Permitted					0.984	
Satd. Flow (perm)	3539	0	0	3539	1668	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	194			76	274	
Travel Time (s)	5.3			2.1	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	288	0	1	447	1	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	0	0	448	3	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
21	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 22.1%			IC	CU Level o	of Service

Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Vol, veh/h	265	0	1	411	1	2
Future Vol, veh/h	265	0	1	411	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	288	0	1	447	1	2

Major/Minor	Major1	Ν	Major2		Minor1	
Conflicting Flow All	0	0	288	0	514	144
Stage 1	-	-		-	288	-
Stage 2	-	-	-	-	226	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1271	-	490	877
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	790	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1271	-	490	877
Mov Cap-2 Maneuver	-	-	-	-	490	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	789	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10.2	
HCM LOS					В	
Minor Lane/Major Mvm	at	NBLn1	EBT	EBR	WBL	WBT
	IL	694	EDI		4074	
Capacity (veh/h) HCM Lane V/C Ratio		0.005	-	-	0.001	-
HCM Control Delay (s)	1	10.2	-	-		- 0
HCM Lane LOS		10.2 B	-	-	7.0 A	A
HCM 95th %tile Q(veh	)	0	-	-	0	A
	/	0	-	-	0	

### Lanes, Volumes, Timings 5: California Avenue & Pacific Avenue

	curu		onao									
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ î þ			đ þ			\$				
Traffic Volume (vph)	12	293	1	3	354	36	11	13	7	0	0	0
Future Volume (vph)	12	293	1	3	354	36	11	13	7	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.986			0.971				
Flt Protected		0.998						0.983				
Satd. Flow (prot)	0	3532	0	0	3490	0	0	1778	0	0	0	0
Flt Permitted		0.933			0.953			0.983	-			
Satd. Flow (perm)	0	3302	0	0	3326	0	0	1778	0	0	0	0
Right Turn on Red	-		Yes	-		Yes	-		Yes	-	-	Yes
Satd. Flow (RTOR)					17			8				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		141			222			255			238	
Travel Time (s)		3.8			6.1			7.0			6.5	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	14	353	1	4	427	43	13	16	8	0.00	0	0.00
Shared Lane Traffic (%)		000			121	10	10	10	Ŭ	Ű	Ŭ	Ű
Lane Group Flow (vph)	0	368	0	0	474	0	0	37	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	Lon	0	rtight	Lon	0	rtigitt	Lon	0	rugitt	Lon	0	rtight
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		10			10			10			10	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	1.00	1.00	9	15	1.00	9	15	1.00	9	1.00	1.00	9
Turn Type	Perm	NA	5	Perm	NA	5	Perm	NA	J	10		J
Protected Phases	i onn	4		1 Onn	8		1 Onn	2				
Permitted Phases	4	Т		8	U		2	2				
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)	2.0	0.0		2.0	0.0		2.0	0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag		0.0			0.0			0.0				
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.20			0.26			0.06				
Control Delay		11.8			11.8			18.4				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.8			11.8			18.4				
LOS		B			B			10.4 B				
Approach Delay		11.8			11.8			18.4				
Approach LOS		B			B			10.4 B				
		D			D			D				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary	,		
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Lengt	n: 100		
Offset: 0 (0%), Refere	nced to phase 2:NBTL	and 6:, Start of Green	
Natural Cycle: 40			
Control Type: Pretime	d		
Maximum v/c Ratio: 0	.26		
Intersection Signal De	lay: 12.1	Intersection LOS: B	
Intersection Capacity	Utilization 29.4%	ICU Level of Service A	
Analysis Period (min)	15		

Splits and Phases: 5: California Avenue & Pacific Avenue

Ø2 (R)		
40 🕫	60 s	
	₹Ø8	
	60 s	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्च	ţ,	
Traffic Volume (vph)	6	17	18	202	211	6
Future Volume (vph)	6	17	18	202	211	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.903				0.996	
Flt Protected	0.986			0.996		
Satd. Flow (prot)	1659	0	0	1855	1855	0
Flt Permitted	0.986			0.996		
Satd. Flow (perm)	1659	0	0	1855	1855	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	204			196	116	
Travel Time (s)	5.6			5.3	3.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	18	20	220	229	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	240	236	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 35.5%			IC	CU Level o	of Service

Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	4	
Traffic Vol, veh/h	6	17	18	202	211	6
Future Vol, veh/h	6	17	18	202	211	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	18	20	220	229	7

Major/Minor	Minor2		Major1	Maj	or2	
Conflicting Flow All	493	233	236	0	-	0
Stage 1	233	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	535	806	1331	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		806	1331	-	-	-
Mov Cap-2 Maneuver	526	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.3		0.6		0	
HCM LOS	В					

Minor Lane/Major Mvmt	NBL	NBT E	EBLn1	SBT	SBR
Capacity (veh/h)	1331	-	708	-	-
HCM Lane V/C Ratio	0.015	-	0.035	-	-
HCM Control Delay (s)	7.7	0	10.3	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	Y			र्च	¢Î,		
Traffic Volume (vph)	2	3	6	202	206	5	
Future Volume (vph)	2	3	6	202	206	5	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.910				0.997		
Flt Protected	0.984			0.999			
Satd. Flow (prot)	1668	0	0	1861	1857	0	
Flt Permitted	0.984			0.999			
Satd. Flow (perm)	1668	0	0	1861	1857	0	
Link Speed (mph)	25			25	25		
Link Distance (ft)	165			179	135		
Travel Time (s)	4.5			4.9	3.7		
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	
Adj. Flow (vph)	2	4	7	240	245	6	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	6	0	0	247	251	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Sign Control	Stop			Free	Free		
Intersection Summary							
Area Type:	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	tion 25.5%			IC	U Level o	of Service	А

Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	2	3	6	202	206	5
Future Vol, veh/h	2	3	6	202	206	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	4	7	240	245	6

Major/Minor	Minor2	I	Major1	Ma	jor2	
Conflicting Flow All	502	248	251	0	-	0
Stage 1	248	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	529	791	1314	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	526	791	1314	-	-	-
Mov Cap-2 Maneuver	526	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.5		0.2		0	

HCM LOS B

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1314	-	658	-	-
HCM Lane V/C Ratio	0.005	-	0.009	-	-
HCM Control Delay (s)	7.8	0	10.5	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

	-	7	1	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			44	Y	
Traffic Volume (vph)	263	4	10	355	57	43
Future Volume (vph)	263	4	10	355	57	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.998				0.942	
Flt Protected				0.999	0.972	
Satd. Flow (prot)	3532	0	0	3536	1706	0
Flt Permitted				0.999	0.972	
Satd. Flow (perm)	3532	0	0	3536	1706	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	76			141	251	
Travel Time (s)	2.1			3.8	6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	286	4	11	386	62	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	290	0	0	397	109	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: (	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	ion 29.5%			IC	CU Level o	of Service A

Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			41	Y	
Traffic Vol, veh/h	263	4	10	355	57	43
Future Vol, veh/h	263	4	10	355	57	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	286	4	11	386	62	47

Major/Minor M	ajor1	Ν	/lajor2	1	Minor1	
Conflicting Flow All	0	0	290	0	503	145
Stage 1	-	-	- 200	-	288	-
Stage 2		-	-	-	215	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	- 0.04
Critical Hdwy Stg 2	_	_	_	-	5.84	-
Follow-up Hdwy	-	-	2.22	_	3.52	3.32
Pot Cap-1 Maneuver	_	-	1269	-	498	876
Stage 1	-		1203	-	735	
Stage 2	-	-	-	-	800	-
Platoon blocked, %	-	-	-		000	-
	-	-	1269	-	493	876
Mov Cap-1 Maneuver	-	-	1209	-		
Mov Cap-2 Maneuver	-	-	-	-	493	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	791	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.2	
HCM LOS	Ū		0.2		B	
					5	
Minor Lane/Major Mvmt	N	BLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		607	-	-	1269	-
HCM Lane V/C Ratio		0.179	-	-	0.009	-
HCM Control Delay (s)		12.2	-	-	7.9	0
HCM Lane LOS		В	-	-	А	А

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HCM 95th %tile Q(veh)

	1	•	t	1	5	ţ
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		ħ			ŧ
Traffic Volume (vph)	8	4	204	4	0	209
Future Volume (vph)	8	4	204	4	0	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.958		0.998			
Flt Protected	0.967					
Satd. Flow (prot)	1726	0	1859	0	0	1863
Flt Permitted	0.967					
Satd. Flow (perm)	1726	0	1859	0	0	1863
Link Speed (mph)	25		25			25
Link Distance (ft)	248		116			179
Travel Time (s)	6.8		3.2			4.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	4	222	4	0	227
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	226	0	0	227
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
21	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizati	on 21.0%			IC	U Level o	of Service A

Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		ţ,			ŧ
Traffic Vol, veh/h	8	4	204	4	0	209
Future Vol, veh/h	8	4	204	4	0	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	4	222	4	0	227

Major/Minor	Minor1	Ν	/lajor1	-	Major2	
Conflicting Flow All	451	224	0	0	226	0
Stage 1	224	-	-	-		-
Stage 2	227	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	566	815	-	-	1342	-
Stage 1	813	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	566	815	-	-	1342	-
Mov Cap-2 Maneuver	566	-	-	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	10.8		0		0	
HCM LOS	B		Ū		Ŭ	
	_					
N	-1	NDT		<b>N</b> 4		ODT
Minor Lane/Major Mvm	π	NBT	NBRW	SLN1	SBL	SBT

Capacity (ven/n)	-	- 63	0 1342	-		
HCM Lane V/C Ratio	-	- 0.02	1 -	-		
HCM Control Delay (s)	-	- 10	.8 0	-		
HCM Lane LOS	-	-	B A	-		
HCM 95th %tile Q(veh)	-	- 0	.1 0	-		

	-	7	4	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>†</b> 1+			41	Y	
Traffic Volume (vph)	300	2	2	641	3	4
Future Volume (vph)	300	2	2	641	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.999				0.923	
Flt Protected					0.979	
Satd. Flow (prot)	3536	0	0	3539	1683	0
Flt Permitted					0.979	
Satd. Flow (perm)	3536	0	0	3539	1683	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	194			85	274	
Travel Time (s)	5.3			2.3	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	2	2	697	3	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	328	0	0	699	7	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 29.1%			IC	CU Level o	of Service

Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			44	Y	
Traffic Vol, veh/h	300	2	2	641	3	4
Future Vol, veh/h	300	2	2	641	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	326	2	2	697	3	4

Major/Minor M	lajor1	Ν	/lajor2		Minor1	
Conflicting Flow All	0	0	328	0	680	164
Stage 1	-	-	-	-	327	-
Stage 2	-	-	-	-	353	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1228	-	385	852
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	682	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1228	-	384	852
Mov Cap-2 Maneuver	-	-	-	-	384	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	680	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		11.5	
HCM LOS	U		U		B	
					U	
Minor Lane/Major Mvmt	N	BLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		560	-	-		-
HCM Lane V/C Ratio	(	0.014	-	-	0.002	-
HCM Control Delay (s)		11.5	-	-	7.9	0
HCM Lane LOS		В	-	-	A	А

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HCM 95th %tile Q(veh)

## Lanes, Volumes, Timings <u>5: California Avenue & Pacific Avenue</u>

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		et în			đ î þ			\$				
Traffic Volume (vph)	11	322	4	3	582	19	8	9	13	0	0	0
Future Volume (vph)	11	322	4	3	582	19	8	9	13	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.995			0.943				
Flt Protected		0.998						0.987				
Satd. Flow (prot)	0	3525	0	0	3522	0	0	1734	0	0	0	0
Flt Permitted		0.931			0.954			0.987				
Satd. Flow (perm)	0	3288	0	0	3360	0	0	1734	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			5			14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		133			222			255			238	
Travel Time (s)		3.6			6.1			7.0			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	350	4	3	633	21	9	10	14	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	366	0	0	657	0	0	33	0	0	0	0
Enter Blocked Intersection	No	No	No	No								
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0	Ŭ		0	Ŭ		0	Ŭ		0	Ŭ
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4			8			2					
Minimum Split (s)	23.0	23.0		15.0	15.0		10.0	10.0				
Total Split (s)	60.0	60.0		60.0	60.0		40.0	40.0				
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%				
Maximum Green (s)	55.0	55.0		55.0	55.0		35.0	35.0				
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0				
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		55.0			55.0			35.0				
Actuated g/C Ratio		0.55			0.55			0.35				
v/c Ratio		0.20			0.36			0.05				
Control Delay		11.7			13.2			15.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		11.7			13.2			15.0				
LOS		В			В			В				
Approach Delay		11.7			13.2			15.0				
Approach LOS		В			В			В				

Scenario 1 11:43 am 11/29/2023 Baseline

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 10	0	
Offset: 0 (0%), Referenced	d to phase 2:NBTL and 6:, Start of Gr	reen
Natural Cycle: 40		
Control Type: Pretimed		
Maximum v/c Ratio: 0.36		
Intersection Signal Delay:	12.7	Intersection LOS: B
Intersection Capacity Utiliz	ation 31.3%	ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 5: California Avenue & Pacific Avenue

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	60 <u>≤</u>	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	¥			र्स	Þ		
Traffic Volume (vph)	4	15	9	263	220	2	
Future Volume (vph)	4	15	9	263	220	2	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.892				0.999		
Flt Protected	0.990			0.998			
Satd. Flow (prot)	1645	0	0	1859	1861	0	
Flt Permitted	0.990			0.998			
Satd. Flow (perm)	1645	0	0	1859	1861	0	
Link Speed (mph)	25			25	25		
Link Distance (ft)	204			196	134		
Travel Time (s)	5.6			5.3	3.7		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	4	16	10	286	239	2	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	20	0	0	296	241	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9	15			9	
Sign Control	Stop			Free	Free		
Intersection Summary							
· · · / · ·	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	tion 31.1%			IC	CU Level o	of Service /	А

Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	4	15	9	263	220	2
Future Vol, veh/h	4	15	9	263	220	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage,	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	16	10	286	239	2

Minor2		Major1	Ма	jor2	
546	240	241	0	-	0
240	-	-	-	-	-
306	-	-	-	-	-
6.42	6.22	4.12	-	-	-
5.42	-	-	-	-	-
5.42	-	-	-	-	-
	3.318	2.218	-	-	-
499	799	1326	-	-	-
800	-	-	-	-	-
747	-	-	-	-	-
			-	-	-
	799	1326	-	-	-
r 495	-	-	-	-	-
793	-	-	-	-	-
747	-	-	-	-	-
EB		NB		SB	
B		5.0		Ū	
	546 240 306 6.42 5.42 3.518 499 800 747 r 495 r 495 r 495 r 495 r 495 r 495 s 10.2	546       240         240       -         306       -         6.42       6.22         5.42       -         3.518       3.318         499       799         800       -         747       -         r       495       799         r       495       -         793       -       -         747       -       -         EB       -       -         s       10.2       -	546       240       241         240       -       -         306       -       -         6.42       6.22       4.12         5.42       -       -         3.518       3.318       2.218         499       799       1326         800       -       -         747       -       -         r       495       799       1326         r       495       -       -         793       -       -       -         747       -       -       -         793       -       -       -         EB       NB       s       10.2       0.3	546       240       241       0         240       -       -       -         306       -       -       -         6.42       6.22       4.12       -         5.42       -       -       -         5.42       -       -       -         3.518       3.318       2.218       -         499       799       1326       -         800       -       -       -         747       -       -       -         r       495       799       1326       -         r       495       -       -       -         793       -       -       -       -         747       -       -       -       -         793       -       -       -       -         EB       NB       -       -       -         s       10.2       0.3       -       -	546       240       241       0       -         240       -       -       -       -         306       -       -       -       -         6.42       6.22       4.12       -       -         5.42       -       -       -       -         5.42       -       -       -       -         3.518       3.318       2.218       -       -         499       799       1326       -       -         747       -       -       -       -         r       495       799       1326       -       -         r       495       799       1326       -       -         r       495       -       -       -       -         793       -       -       -       -       -         747       -       -       -       -       -         EB       NB       SB       SB       s       10.2       0.3       0

Minor Lane/Major Mvmt	NBL	NBT E	BLn1	SBT	SBR	
Capacity (veh/h)	1326	-	708	-	-	
HCM Lane V/C Ratio	0.007	-	0.029	-	-	
HCM Control Delay (s)	7.7	0	10.2	-	-	
HCM Lane LOS	А	А	В	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			र्स	¢Î,	
Traffic Volume (vph)	9	7	9	258	207	10
Future Volume (vph)	9	7	9	258	207	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.944				0.994	
Flt Protected	0.971			0.998		
Satd. Flow (prot)	1707	0	0	1859	1852	0
FIt Permitted	0.971			0.998		
Satd. Flow (perm)	1707	0	0	1859	1852	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	165			161	135	
Travel Time (s)	4.5			4.4	3.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	10	7	10	274	220	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	0	0	284	231	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utiliza	tion 30.9%			IC	U Level o	of Service A

Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			ŧ	ţ,	
Traffic Vol, veh/h	9	7	9	258	207	10
Future Vol, veh/h	9	7	9	258	207	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	7	10	274	220	11

Major/Minor	Minor2		Major1	Ma	ajor2	
Conflicting Flow All	520	226	231	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	294	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	516	813	1337	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	511	813	1337	-	-	-
Mov Cap-2 Maneuver	511	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Approach	EB		NB		SB	
LICM Control Dolour o	44.4		0.0		0	

Minor Lane/Major Mvmt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)	1337	-	610	-	-
HCM Lane V/C Ratio	0.007	-	0.028	-	-
HCM Control Delay (s)	7.7	0	11.1	-	-
HCM Lane LOS	А	А	В	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

	-	7	1	+	1	1
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>†</b> ‡			41	Y	
Traffic Volume (vph)	301	3	11	579	64	36
Future Volume (vph)	301	3	11	579	64	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.999				0.952	
Flt Protected				0.999	0.969	
Satd. Flow (prot)	3536	0	0	3536	1718	0
Flt Permitted				0.999	0.969	
Satd. Flow (perm)	3536	0	0	3536	1718	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	85			133	247	
Travel Time (s)	2.3			3.6	6.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	327	3	12	629	70	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	330	0	0	641	109	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilizat	tion 36.2%			IC	CU Level o	of Service /

Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>			44	Y	
Traffic Vol, veh/h	301	3	11	579	64	36
Future Vol, veh/h	301	3	11	579	64	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	,# 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	327	3	12	629	70	39

Major/Minor	Major1	Ν	Major2	N	/linor1		
Conflicting Flow All	0	0	330	0	668	165	;
Stage 1	-	-	-	-	329	-	
Stage 2	-	-	-	-	339	-	
Critical Hdwy	-	-	4.14	-	6.84	6.94	
Critical Hdwy Stg 1	-	-	-	-	5.84	-	
Critical Hdwy Stg 2	-	-	-	-	5.84	-	•
Follow-up Hdwy	-	-	2.22	-	3.52	3.32	2
Pot Cap-1 Maneuver	-	-	1226	-	391	850	)
Stage 1	-	-	-	-	701	-	
Stage 2	-	-	-	-	693	-	•
Platoon blocked, %	-	-		-			
Mov Cap-1 Maneuver		-	1226	-	385	850	)
Mov Cap-2 Maneuver	-	-	-	-	385	-	•
Stage 1	-	-	-	-	701	-	•
Stage 2	-	-	-	-	683	-	•
Approach	EB		WB		NB		
HCM Control Delay, s	0		0.2		14.7		
HCM LOS					В		
Minor Lane/Major Mvn	nt I	NBLn1	EBT	EBR	WBL	WBT	•
Capacity (veh/h)		479	-	-	1226	-	
HCM Lane V/C Ratio		0.227	-	-	0.01	-	
HCM Control Delay (s)	)	14.7	-	-	8	0.1	
HCM Lane LOS		В	-	-	А	А	۱.
HCM 95th %tile Q(veh	1	0.9			0		

$\checkmark \land \uparrow \succ \lor \downarrow$
Lane Group WBL WBR NBT NBR SBL SBT
Lane Configurations 🦞 🕻
Traffic Volume (vph) 8 4 263 4 0 214
Future Volume (vph) 8 4 263 4 0 214
Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900
Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00
Frt 0.958 0.998
Flt Protected 0.967
Satd. Flow (prot) 1726 0 1859 0 0 1863
Flt Permitted 0.967
Satd. Flow (perm) 1726 0 1859 0 0 1863
Link Speed (mph) 25 25 25
Link Distance (ft) 195 134 161
Travel Time (s) 5.3 3.7 4.4
Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92
Adj. Flow (vph) 9 4 286 4 0 233
Shared Lane Traffic (%)
Lane Group Flow (vph) 13 0 290 0 0 233
Enter Blocked Intersection No No No No No No
Lane Alignment Left Right Left Right Left Left
Median Width(ft) 12 0 0
Link Offset(ft) 0 0 0
Crosswalk Width(ft) 16 16 16
Two way Left Turn Lane
Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00
Turning Speed (mph) 15 9 9 15
Sign Control Stop Free Free Free
Intersection Summary
Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 24.1% ICU Level of Service A

Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		ħ			ŧ
Traffic Vol, veh/h	8	4	263	4	0	214
Future Vol, veh/h	8	4	263	4	0	214
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	,# 0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	4	286	4	0	233

Major/Minor	Minor1	Ν	lajor1	Ν	/lajor2	
Conflicting Flow All	521	288	0	0	290	0
Stage 1	288	-	-	-	-	-
Stage 2	233	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	516	751	-	-	1272	-
Stage 1	761	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	516	751	-	-	1272	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	11.4		0		0	

HCM LOS В

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)	-	- 576	1272	-	
HCM Lane V/C Ratio	-	- 0.023	-	-	
HCM Control Delay (s)	-	- 11.4	0	-	
HCM Lane LOS	-	- B	А	-	
HCM 95th %tile Q(veh)	-	- 0.1	0	-	

ATTACHMENT M Impervious Cover and Vegetative Cover Calculations

CAFRA Individual Permit			
Impervious and Vegetative Cover Calculations Subchapter 13 (N.J.A.C. 7:7-13)			
*Please complete the approrpiate fields in the table below. If the project site spans more than one Plai	nning Area	and/or Cente	er
designation, please fill out a separate spreadsheet for each area. Each spreadsheet should be saved an	-		
Upload page in the E-submission service. Values should be entered in square feet where applicable. Pl	ease hit the	"ENTER" ke	y after
entering each value in the cell in order for values to pre-populate in the appropriate cells.			
Site Planning Area (refer to N.J.A.C. 7:7-13.16)			
Site Center Designation (if applicable) (refer to N.J.A.C. 7:7-13.16)			
(If a site is not located in a center, core, or node, the underlying planning area will determine the			
impervious cover limit and required vegetative cover.)			
Applicable Section under N.J.A.C. 7:7-13.17 for Impervious Cover Calculations Below			
For Impervious Calculations In Accordance with N.J.A.C. 7:7-13.17(c)1&2, (d)1, (e)1 and (f)1			
Allowable Impervious Coverage Percentage (Please enter percentage in Column B)	100	1	
Total Site Square Footage		60000	
Total Square Footage of Special Areas on site (refer to N.J.A.C. 7:7-13.3)		22974	
Net Land Area or Total Site Square Footage (refer to 13.17(c)1 to determine if the square footage of			
the net land area or total site square footage should be entered)		37026	
Allowable Impervious Coverage Existing Impervious Coverage		37026 37026	
Existing Impervious Coverage Proposed to be Removed		0	
New Proposed Impervious Coverage		0	
Total Impervious Coverage After Project Construction		37026	
For Impervious Calculations in Accordance with N.J.A.C. 7:7-13.17(c)3, d(2), (e)2 & 3, and (f)2			
Total Site Square Footage		60000	
Total Square Footage of Special Areas on site (refer to N.J.A.C. 7:7-13.3)		22974	
Net Land Area		37026	
Amount of Legally Existing Impervious Cover or the Square Footage Covered by Buildings, Asphalt, or		27026	
Concrete Pavement Legally Existing on Site Existing Impervious Coverage Proposed to be Removed		37026 0	
New Proposed Impervious Coverage		0	
Total Impervious Coverage After Project Construction		37026	
Vegetative Cover Calculations (refer to N.J.A.C. 13.18 for information on how the vegetative cover			
requirements are calculated.) Tree Preservation and/or Tree Planting Requirement			
Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total			
site square footage is used instead of the net land area. Will be the same value entered above for the			
calculation of allowable impervious coverage.)		37026	
Site Forested Acreage (refer to N.J.A.C. 7:7-13.5 for determining forested portions of a site)		0	
Required Tree Preservation Percentage for Forested Portions of the Site (Please enter percentage in		0.1	
	10	0.1	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18)	10	0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation	10	0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation	10	0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage	10	-	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site	10	0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18)	10	0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation		0 0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation		0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation		0 0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation		0 0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation		0 0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage is used instead of the net land area. Will be the same value entered above for the calculation of allowable impervious coverage and required tree preservation and/or planting.)		0 0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage is used instead of the net land area. Will be the same value entered above for the calculation of allowable impervious coverage and required tree preservation and/or planting.) Allowable Square Footage of Impervious Coverage on Site (from impervious calculations above)		0 0 0 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage is used instead of the net land area. Will be the same value entered above for the calculation of allowable impervious coverage and required tree preservation and/or planting.) Allowable Square Footage of Impervious Coverage on Site (from impervious calculations above) Total Square Footage of Required Tree Preservation and/or Tree Planting (from vegetative cover		0 0 0 0 0 0 37026 37026	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage is used instead of the net land area. Will be the same value entered above for the calculation of allowable impervious coverage and required tree preservation and/or planting.) Allowable Square Footage of Impervious Coverage on Site (from impervious calculations above) Total Square Footage of Required Tree Preservation and/or Tree Planting (from vegetative cover calculations above)		0 0 0 0 0 0 0 37026 37026 37026 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage is used instead of the net land area. Will be the same value entered above for the calculation of allowable impervious coverage and required tree preservation and/or planting.) Allowable Square Footage of Impervious Coverage on Site (from impervious calculations above) Total Square Footage of Required Tree Preservation and/or Tree Planting (from vegetative cover calculations above) Required Herb/Shrub Cover Square Footage		0 0 0 0 0 0 37026 37026	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage of Impervious coverage and required tree preservation and/or planting.) Allowable Square Footage of Impervious Coverage on Site (from impervious calculations above) Total Square Footage of Required Tree Preservation and/or Tree Planting (from vegetative cover calculations above) Required Herb/Shrub Cover Square Footage Proposed Herb/Shrub Cover Square Footage		0 0 0 0 0 0 0 37026 37026 37026 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage is used instead of the net land area. Will be the same value entered above for the calculation of allowable impervious coverage and required tree preservation and/or planting.) Allowable Square Footage of Impervious Coverage on Site (from impervious calculations above) Total Square Footage of Required Tree Preservation and/or Tree Planting (from vegetative cover calculations above) Required Herb/Shrub Cover Square Footage *In some situations for sites in which the existing impervious cover or coverage of the site by buildings,		0 0 0 0 0 0 0 37026 37026 37026 0 0	
Column B) (refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Preservation Proposed Square Footage of Tree Preservation Site Unforested Acreage (Will be the square footage of the net land area or total site square footage minus the square footage of the forested acreage of the site.) Required Tree Preservation and/or Tree Planting Percentage for Unforested Portions of the site (Please enter percentage in Column B)(refer to Table I at N.J.A.C. 7:7-13.18) Required Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Proposed Square Footage of Tree Planting and/or Additional Tree Preservation Herb/Shrub Cover Requirement Net Land Area or Total Site Square Footage (refer to N.J.A.C. 13.17(c) for situations in which the total site square footage is used instead of the net land area. Will be the same value entered above for the calculation of allowable impervious coverage and required tree preservation and/or planting.) Allowable Square Footage of Impervious Coverage on Site (from impervious calculations above) Total Square Footage of Required Tree Preservation and/or Tree Planting (from vegetative cover calculations above) Required Herb/Shrub Cover Square Footage *In some situations for sites in which the existing impervious cover or coverage of the site by buildings, asphalt, or concrete is utilized to determine the allowable impervious coverage, the sum of the		0 0 0 0 0 0 0 37026 37026 37026 0 0	
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