TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS

PROJECT NAME:	**MATRIX 1-84 DISTRIBUTION CENTER- SITE PLAN**
PROJECT NO.:	**22-29**
PROJECT LOCATION:	**SECTION 86, BLOCK 1, LOT 97/ ROUTE 17K**
	SECTION 89, BLOCK 1, LOTS 66 & 69.11
REVIEW DATE:	**15 OCTOBER 2023**
MEETING DATE:	**19 OCTOBER 2023**
PROJECT REPRESENTATIVE:	**LANGAN ENGINEERING**

1. The applicants identified that approximately 160,000 cubic yards of material must be removed from the site. Finish floor elevation for the site were established based on the Airport Overlay District and reviewed by the FAA regarding building heights. This restriction has precluded changes in the site grading based on maximum elevations permitted. The applicants have revised the Grading Plan in order to reduce the amount of fill to be removed on the site. Additional grading was provided along the retaining walls eliminating approximately 160 feet of retaining wall. The revised Grading Plan has increased the area of disturbance to 1.2 acres. This disturbed area will be re-vegetated as grassed lawn.

2. The revised SWPPP is under review by this office.

3. Securities and Inspection Fees are required for Stormwater Management/Erosion and Sediment Control, Landscaping, and Tree Preservation Ordinance compliance, and Clearing and Grading. These securities require approval by the Town Board prior to establishing the Securities and Inspection Fees.

4. A Clearing and Grading Permit has been provided in the latest submission. Any authorization for clearing and the grading of the site requires NYSDOT Access Approval, coverage under the NYSDEC Construction Stormwater Permit, establishment of securities for clearing and grading. Issuance of a Clearing and Grading Permit by the Town of Newburgh Building Department and filing of the Lot Consolidation Plan transferring ownership to the applicant. It is noted that an export of fill material is required. If the location of the fill material is within the Town of Newburgh a separate Clearing and Grading Permit may be required for the disposal site.

5. Status of the NYSDOT review for access utilities and any off-site improvements should be addressed with the Board.

6. Access Easement document for emergency access drive must be approved by the Planning Board Attorney.

7. Provisions to protect the Town water systems from water hammer conditions when fire flow

pumps are running, should be evaluated.

8. Design Report for the sanitary sewer pump station should be submitted identifying all details of the pump station design.

9. Detail for the emergency access road should be revised as access road is to be paved per Planning Board meeting discussions.

10. Parking lot striping should be per Town of Newburgh Standards with double stripe. Typical Detail attached.

11. Orange County Health Department approval for the water main extension is required.

12. A Restraint Joint Pipe Chart should be added to the plans for the water main installation.

13. Water Utilities Plan should be updated to identify the size of the existing main within Route 17K

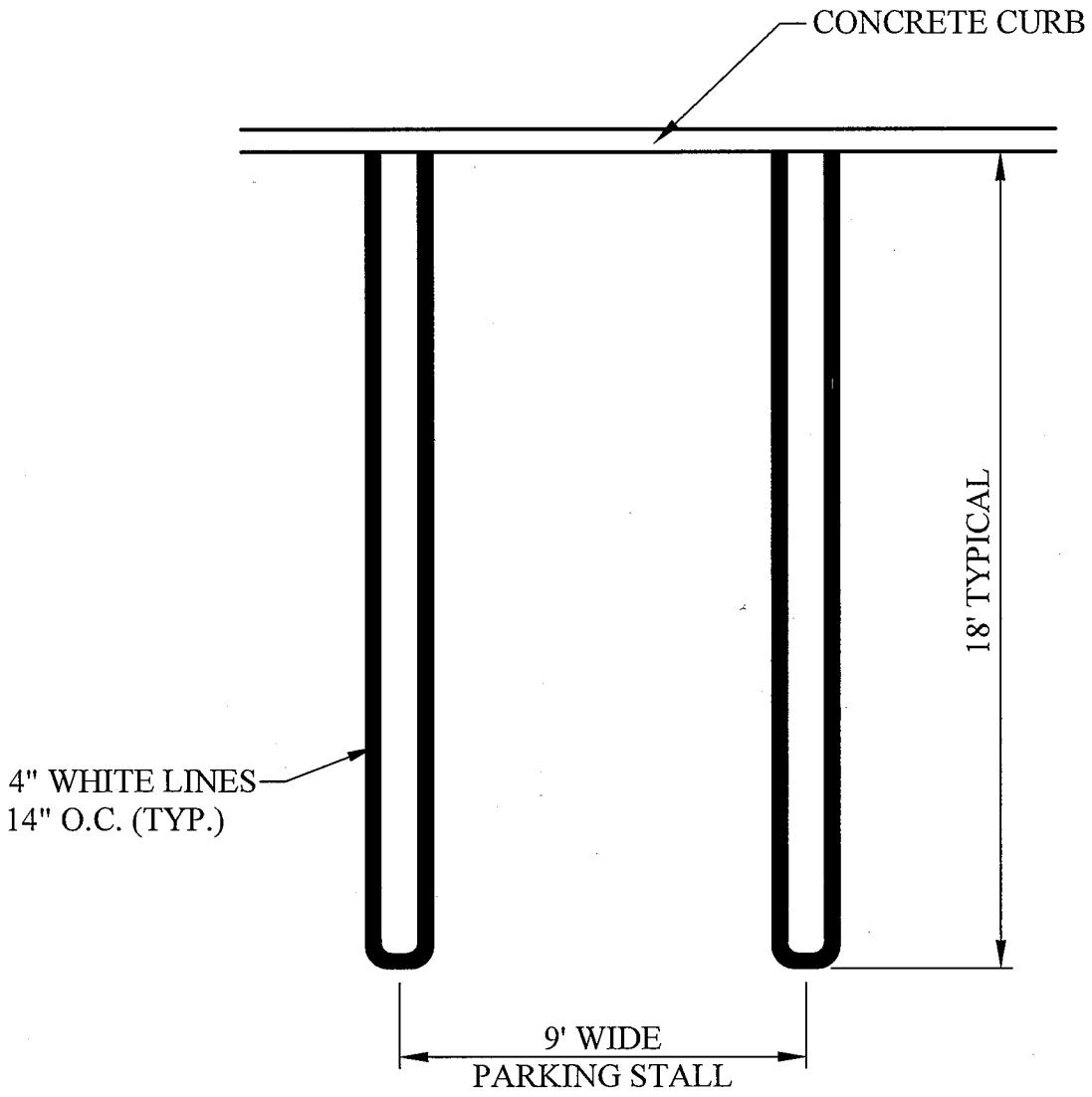
14. A Stormwater Facilities Maintenance Agreement must be executed and filed. Approval from the Town of Newburgh Town Board is required.

15. Limits of disturbance should be delineated in the field with orange construction fence per the Orange Construction Fence Detail. Silt fence should not be utilized for limits of disturbance.

Respectfully submitted,

MHE Engineering, D.P.C.

Patrick J. Hines
Principal
PJH/kbw



TYPICAL PARKING SPACE DETAIL

SCALE: N.T.S.

Matrix Development Group
Forsgate Drive, CN4000
Cranbury, NJ 08512
Tel: (732) 521-2900
Fax: (609) 395-8289
www.matrixcompanies.com

October 12, 2023

Via Hand Delivery

Town of Newburgh Planning Board
21 Hudson Valley Professional Plaza
Newburgh NY 12550
Attn: John P. Ewasutyn, Chairman

Re: Site Plan Submission PB #22-029
Matrix I-84 Distribution Center

Dear Mr. Ewasutyn,

Enclosed are updated plans related to our site plan application for Matrix I-84 Distribution Center. These plans contain minor revisions to address SWPPP, grading and landscaping; details are provided in the comment response letters. A revised SEQR EAF is also included along with a detailed summary of the changes (attached). A copy of the clarification letter addressing anticipated soil export previously sent to the Board is also enclosed. We believe that these changes will have no negative impact and are consistent with the Board's finding of a Negative Declaration for the project.

The submission includes:

- 12 hard copy sets of detailed site plans (selected sheets)
- 12 copies comment response letters
- 12 copies updated EAF and SEQR clarification letter dated October 03, 2023
- 12 Copies updated Clearing and Grading Permit Application (updated area of disturbance)
- Revised SWPPP (MHE and Board record copy only)
- 1 full submission set of all plans reports and correspondence for record purposes

A hard copy of all plans and correspondence, along with an electronic copy of same will also be sent directly to all Board consultants, namely Mr. Hines, Ms. Arent, Mr. Cordisco, and Mr. Wersted.

We would like to request that the Board grant the approvals below after the public hearing, if all public comments have been adequately addressed to the Board's satisfaction:

- Clearing and Grading Permit
- Site Plan Approval
- Subdivision/Lot Line Change
- ARB Approval

We look forward to meeting with the Board to continue our ongoing site plan review; in the meantime, please contact me if you have any questions.

Sincerely,

Raymond Aquino P.E.
Director of Land Development

MATRIX

EAF Update Summary - I-84 Distribution Center
October 12, 2023

The following changes were made to the EAF as outlined below:

B. Governmental Approval, Funding or Sponsorship – list of approvals and corresponding dates have been updated to reflect current status of the project – this change is informational only and does not relate to any environmental impacts resulting from the project

D.1.b Proposed and Potential Development – See attached letter dated October 03, 2023. Area of disturbance increased 1.2 acres due to grading changes made to minimize soil export from the site.

D.2.a Project Operations – See attached letter dated October 03, 2023. This section has been updated to reflect current excavation and grading of the site including anticipated soil export.

D.2.c and d. Project Operations – anticipated water and sewer usage updated to reflect anticipated water and sewer demand of 11,700 gpd. This allotment is approved by the City of Newburgh for treatment. The additional demand as approved, will have no negative impact to the water and sewer infrastructure serving the project.

E.1.b Land Uses on and surrounding the project site - See attached letter dated October 03, 2023. Forested acreage post - development was reduced by 1.2 acres due to grading changes made to minimize soil export from the site.

E.1.h. Potential contamination history – this section was updated to reflect recent removal of soils impacted by prior dumping on the property, resulting in a positive environmental impact.

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Matrix I-84 Distribution Center		
Project Location (describe, and attach a general location map): The site is located on Route 17K in the Town of Newburgh. It is located 0.75 miles east of the intersection of I-84. S/B/L: 89-1-66; 89-1-69.11; 86-1-97		
Brief Description of Proposed Action (include purpose or need): The proposed development is a +/- 595,900-square foot warehouse that meets the requirements of the zoning code. The proposed action will also include associated loading and parking spaces, utilities, and stormwater management practices. Access to the project site will be from Route 17K. Additional detail is included in the project narrative.		
Name of Applicant/Sponsor: Matrix Newburgh Route 17K Development, LLC	Telephone: (732) 718-6896 E-Mail: kgriffin@matrixcompanies.com	
Address: 3 Center Drive		
City/PO: Monroe Township	State: New Jersey	Zip Code: 08831
Project Contact (if not same as sponsor; give name and title/role): W. Charles Utschig Jr., Senior Associate	Telephone: 914-323-7410 E-Mail: cutschig@langan.com	
Address: 1 North Broadway		
City/PO: White Plains	State: New York	Zip Code: 10601
Property Owner (if not same as sponsor): * See note at bottom of page Manheim Remarketing, Inc.	Telephone: E-Mail:	
Address: 6205 Peachtree Dunwoody Road		
City/PO: Atlanta	State: GA	Zip Code: 30328

* The applicant is the owner of S/B/L: 89-1-66.
Manheim Remarking, Inc. is the current owner of S/B/L: 89-1-69.11 and 86-1-97.

B. Government Approvals *** See note at bottom of page for additional approvals/permits**

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Newburgh Planning Board - Site Plan Approval, SEQR Determination	Initial SEQR Submission: July 2023 SEQR Determination: September 2023
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town Engineer and Health Department - Water Main Approval	Projected date: December 2023
e. County agencies ☑Yes ☐No	Orange County Dept of Planning- Site Plan Review Department of Health - Water Connection	Projected date: December 2023
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDOT - Highway Work Permit, NYSDEC - SPDES	NYSDOT Stage 1 Submission: June 2023
h. Federal agencies ☑Yes ☐No	FAA Notice of Construction/Hazard to Air Nav. Determination	Determination Issued: September/October 2023

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes ☐No

If Yes, identify the plan(s):

Priority Growth Area as identified in the Orange County, New York Comprehensive Plan

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

Additional City, Town or Village Planning Board or Commission Approvals Required: Architectural Review Board Approval, NYSDEC 5-acre Disturbance Waiver, Clearing and Grading Permit, City of Newburgh Sewer Connection & Approval of Developers Agreement

Additional Other Local Agencies Approvals Required: Code Compliance Officer, Town Blasting Permit, Town Building Department Building Permit & City of Newburgh Sewer Connection

Additional County Agencies Approvals: OCDOH Sewer and Water Main Approval

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
IB - Interchange Business District; Stewart Airport Overlay District

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Valley Central School District

b. What police or other public protection forces serve the project site?
Town of Newburgh Police Department

c. Which fire protection and emergency medical services serve the project site?
Orange Lake Fire District; Town of Newburgh Emergency Medical Services

d. What parks serve the project site?
Stewart State Forest (2 miles west), Algonquin Park (2.3 miles east), Cronomer Hill Park (2.7 miles east), San Giacomo Park (3.7 miles south east)

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Industrial - Warehouse building

b. a. Total acreage of the site of the proposed action? ±62.0 acres
b. Total acreage to be physically disturbed? ±44.5 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? ±62.0 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Industrial subdivision/lot merge
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☑ Yes ☐ No
i. If No, anticipated period of construction: 18 months * See note at bottom of page
ii. If Yes:
- Total number of phases anticipated 3
- Anticipated commencement date of phase 1 (including demolition) 11 month 2023 year
- Anticipated completion date of final phase 3 month 2025 year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

* A 5 acre waiver will be requested for this project

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 1

ii. Dimensions (in feet) of largest proposed structure: <40 feet height; 590 width; and 1,010 length

iii. Approximate extent of building space to be heated or cooled: 595,900 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Stormwater Management Basin -Dry detention basins will temporarily impound water during storm events

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: Drainage from site

iii. If other than water, identify the type of impounded/contained liquids and their source. N/A

iv. Approximate size of the proposed impoundment. Volume: TBD million gallons; surface area: TBD acres

v. Dimensions of the proposed dam or impounding structure: N/A height; N/A length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): earth fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☑ Yes ☐ No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? Land grading - export

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): +/-160,000 CY
- Over what duration of time? 5 months

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.
Exported material will be topsoil and in-situ soils. A disposal plan will be developed prior to construction.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☑ No
If yes, describe.

v. What is the total area to be dredged or excavated? 44.5 acres * See notes at end of page

vi. What is the maximum area to be worked at any one time? 20 acres

vii. What would be the maximum depth of excavation or dredging? 31 feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

* 44.5 acres is the overall limit of disturbance
* 20 acres is the max area to be worked on at one time per the 5-ac waiver.
* 31 feet is the largest cut that will occur on the site.

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No

If Yes:

i. Total anticipated water usage/demand per day: 11,700 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No

If Yes:

- Name of district or service area: Town of Newburgh consolidated water district
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No

If Yes:

i. Total anticipated liquid waste generation per day: 11,700 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

Sanitary Wastewater

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: City of Newburgh - Renwick Street wastewater treatment plant
- Name of district: Town of Newburgh Sewer District (Crossroads Sewer District in the Joint Sewer District Consolidation Agreement)
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 26.3 acres (impervious surface)

_____ Square feet or 62.0 acres (parcel size)

ii. Describe types of new point sources. Conveyance pipes

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site stormwater runoff will be treated for water quality and detained by various stormwater management basins and features, including underground detention chambers. Stormwater discharge will be directed to match existing watersheds and flow patterns.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Truck fleet

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Generators, concrete batch plants, soil screener and heavy construction equipment

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

Rooftop HVAC units, generators

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☑ No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): +/- 360 trucks/day

iii. Parking spaces: Existing 0 spaces Proposed 224 spaces Net increase/decrease 224 spaces

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: Access to the route will be provided from NYS route 17K. Modifications to NYS Route 17K will be required to allow for access into the site.

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: 450 KW

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): Grid/ local utility (Central Hudson Gas and Electric - Coldenham substation)

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 am to 7 pm
- Saturday: 7 am to 7 pm
- Sunday: Will comply with local regulations
- Holidays: Will comply with local regulations

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: 24 hours

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If yes:

i. Provide details including sources, time of day and duration:

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe:

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Full cut-off lighting will be installed to provide light along driveways, walkways and parking areas to ensure clear and safe circulation, while avoiding adverse impacts on surrounding areas. The lighting plan will be submitted with future submissions and will include standard pole-mount and wall fixtures.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☑ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: Approximately 125 tons per N/A (unit of time)
- Operation : Approximately 90 tons per year (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: On-site recycling will be provided and privately hauled to a recycling facility.
- Operation: On-site recycling will be provided and privately hauled to a recycling facility.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Solid waste will be handled by a private contractor.
- Operation: Solid waste will be handled by a private contractor.

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☑ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Stewart International Airport, Army National Guard Base

ii. If mix of uses, generally describe:

The general mix of uses is characterized by uses associated with a transportation corridor including transportation, industrial and commercial uses, with scattered residential uses.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.55	±26	+25.45
• Forested	39.25	±11.95	-27.3
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	17.0	±18.85	+1.85
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	5.2	5.2	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑ Yes ☐ No

Excavations have been completed to address soils impacted by historic surface disposal activities. Soils to be disposed off-site.

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☑ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

Not Applicable

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑ Yes ☐ No

If yes, provide DEC ID number(s): 336088, 336002, 336057

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

Site code 336088 is Stewart International Airport (South of the Proposed Development), which was previously used as an Air National Guard Base. Aqueous film-forming form (AFFF), in which perfluorooctanesulfonic acid (PFOS) is a key ingredient, has been used over the years at the airport to put out fires and in training exercises. PFOS was detected in groundwater, surface water and catch basins at the airport and in Lake Washington and its tributaries.

Site code 336002 and 336057 are in reference to the F&T Darrigo site located at 84 Lakeside Road (750 North of the Proposed Development). Hazardous wastes including spent cleaning solution from metal finishing, furniture stripping waste, battery waste containing lead, and septic waste were disposed of in the on-site lagoons from 1948 to 1985. Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were chromium, copper, lead, nickel, and zinc in soil. Remedial actions have successfully achieved soil cleanup objectives for commercial use. Remaining contamination at the site is being managed under a Site Management Plan.

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 15 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site:

ESB - Erie extremely stony soils	20 %
MdB - Mardin gravelly silt loam	24 %
SXC - Swartswood and Mardin soils	34 %

d. What is the average depth to the water table on the project site? Average: n/a feet * Groundwater not encountered

e. Drainage status of project site soils:
☐ Well Drained: 0 % of site
☑ Moderately Well Drained: 100 % of site
☐ Poorly Drained 0 % of site

f. Approximate proportion of proposed action site with slopes:
☐ 0-10%: +41 % of site
☐ 10-15%: +20 % of site
☐ 15% or greater: +39 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features. *See note at bottom of page

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 862-136 Classification C
- Lakes or Ponds: Name n/a Classification _____
- Wetlands: Name Federal Waters, Federal Waters, Federal Waters,... Approximate Size _____
- Wetland No. (if regulated by DEC) n/a

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☑ Yes ☐ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:
i. Name of aquifer: _____

* Section E.2.h is automatically filled out through the NYSDEC EAF Mapper Generator. A wetland delineation is in the process of being complete. The proposed development shall not disturb any existing on-site wetlands. Any existing on-site wetlands will be protected during construction.

m. Identify the predominant wildlife species that occupy or use the project site:

white-tailed deer | grey squirrel | wild turkey
eastern cottontail | chipmunk |
various songbirds | groundhog

n. Does the project site contain a designated significant natural community? ☑ Yes ☐ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): Red Maple-Hardwood Swamp

ii. Source(s) of description or evaluation: Regulatory map: NYSDEC EAF Mapper Generator

iii. Extent of community/habitat:

- Currently: 1460.0 acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:

i. Species and listing (endangered or threatened): Indiana Bat, Upland Sandpiper

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site?

ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name:

ii. Basis for designation:

iii. Designating agency and date:

* Section E.2.n is automatically filled out through the NYSDEC EAF Mapper Generator, which looks at significant natural communities, as well as a 1/2 mile buffer. The significant natural community that was flagged through the EAF Generator, is the Red Maple-Hardwood Swamp, which is located 1,000 ft North of the project site (North of I-84). There are no significant natural communities located within the project site.

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No * See note at the bottom of the page

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Stewart State Forest; Newburgh-Beacon Bridge/Hudson River

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): State forest land; State Scenic Road

iii. Distance between project and resource: 3-6 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

* Section E.3.f is automatically filled out through the NYSDEC EAF Mapper Generator. SHPO identifies an isolated archaeological sensitive area surrounding the adjacent Newburgh Toyota property.

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

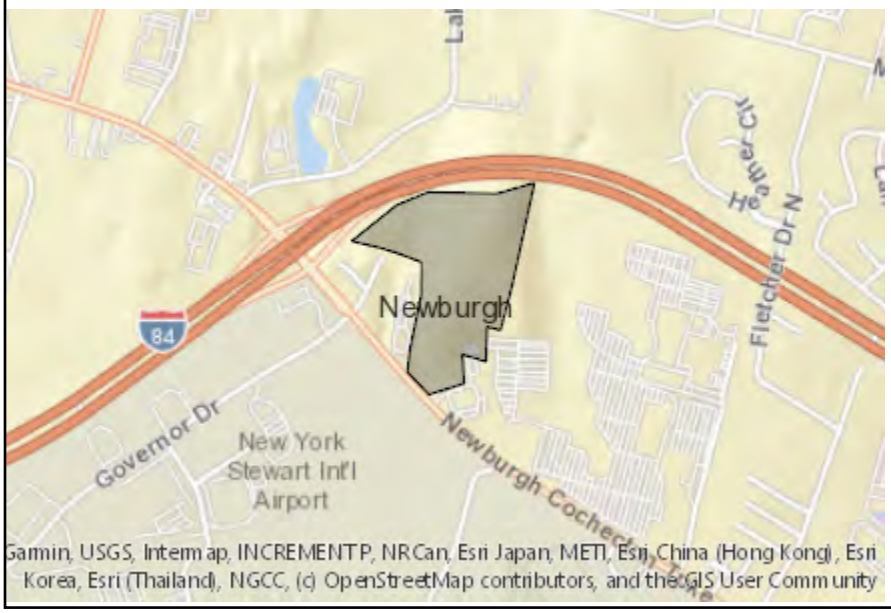
Applicant/Sponsor Name Sponsor - Langan (W. Charles Utschig Jr., PE) Date October 11, 2023

Signature  Title Senior Associate

PRINT FORM

EAF Mapper Summary Report

Tuesday, November 8, 2022 1:41 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	336088, 336002, 336057
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	862-136
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No

E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Red Maple-Hardwood Swamp
E.2.n.i [Natural Communities - Acres]	1460.0
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Indiana Bat, Upland Sandpiper
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

October 12, 2023

Chairman John Ewasutyn and Planning Board Members
Town of Newburgh Planning Board
Town of Newburgh Town Hall
1496 Route 300
Newburgh, NY 12550

Re: Matrix I-84 Distribution Center
226 Route 17K
Town of Newburgh, New York
PB No. 2022-29
Langan Project No.: 190063302

Dear Chairman Ewasutyn and Planning Board Members:

The following is an itemized response to the Town Planning Board Consultant comments for the above referenced application (comments are italicized and our responses are in bold text):

Karen Arent, Landscape Architect Review Comments dated September 20, 2023

Comment 1. *Design Comments. The design of the plantings along the road was a neat strip of lawn leading up to a 30-36" height stone wall in line with Newburgh design guidelines with thick layered plantings of meadow mix, understory shrubs and trees, and forested shade trees, all working together to create a manicured edge near the road with more naturalized screen planting further into the site. A stone wall, 30" in height, is shown at the mouth of the site, many of the previously proposed understory plantings are missing, and there is a large gap between proposed tree plantings, undermining the design that was a large selling point of the project. Additionally, a detail for the wall is referenced in the response letter but no detail has been included in the latest plan set. Provide details for the proposed stone retaining wall. The board should determine whether the length of stone wall is sufficient. Regardless, add understory plantings and additional trees in the planting bed along the road to fill in the gaps, returning the design to the original intent and to mesh the site design with the well-landscaped properties along 17K. See Figures 1 and 2 for comparison of design between the submission and the previous submission in July.*

Response: **There is an existing drainage way that traverses the property frontage from west to east. Wetland C drains through an existing 8-inch culvert and an existing 15-inch culvert before getting to the existing 39"x27" culvert that discharges water from the site to the other side of Route 17K. The culverts onsite are undersized in the existing condition which means larger culverts are being proposed. There are three 15-inch RCP culverts under the proposed driveway. In the proposed condition, water will flow from Wetland C,**

through the new driveway culverts, and ultimately leave the site through the current discharge point. The discharge from detention basin B will also merge with this waterway. The current proposed plan balances protection of the existing wetland, front yard buffer landscaping, a defined waterway for stormwater runoff, and the entrance walls. With the addition of the entrance walls, the hedge rows were removed, however front buffer trees were not removed. The two rows of front buffer plantings were shifted to provide a defined waterway and to protect plantings from inundation. The western entrance wall length is limited by the proposed driveway culvert and existing wetland. It is proposed to be ±60-LF. The eastern entrance wall length is also limited by the proposed driveway culvert. It is proposed to be ±100-LF. A detail of the stone retaining wall is included on Drawing CS502.

Comment 2. *Mitigating Impacts with Trees. Tree plantings are vital as they provide a wealth of benefits and methods of mitigating impacts of new developments. For the board's information, list of benefits of trees can be found at the end of this comment. On a site where 26 acres of trees are being removed, we do not believe enough trees have been added to the plan (147 deciduous trees and 65 evergreen trees are proposed). Although there is a net gain of 11 deciduous trees on the latest submitted plans, many understory plantings were removed from the planting beds along the road and there is now a large gap between layers of trees there. The view from the road provides the strongest and most immediate visual impact on the site. Eleven additional trees will do nothing to mitigate impacts of the site. It is our recommendation to add many more trees to mitigate impacts of the proposed development. Trees can be small in size and planted along steep hills and around the dry detention basins. Our recommendation after speaking with the landscaper for the Route 300 site that 1-1 ½" trees are manageable to plant on slopes, are installed at a height tall enough to withstand competition from herbaceous meadow plants and will have a good survival rate if tree species tolerant of compacted soils are selected.*

Response: **The proposed planting plan includes all front buffer planting, basin planting, and parking lot planting as required. In addition, we have included additional accent planting at the office entrances and as a means of buffering between adjacent neighbors and have included the planting of restoration sized trees along the upper hill, all as a means of providing additional trees throughout the site.**

As noted in the comment above, some understory planting has been removed to install the front entrance walls, however, all trees in this area were not removed. There was some shifting of these trees to accommodate the waterways, and there will be an understory of meadow mix to stabilize the ground and fill in the space between trees. We believe that these shifts in the front buffer trees add the visual mitigation by creating a more layered tree planting between the development and the road.

Comment 3. *In our experiences at the Matrix site along Route 300, as well as in other locations in the Town of Newburgh, invasive vines have run rampant and pose a large risk to trees. Vines will quickly grow up trunks, suffocating trees and blocking out the*

sun. Because trees are proposed within meadow areas at the front of the site, especially along the road, and because they are such a large part of the design, there needs to be more aggressive weed control during establishment of meadow plantings and during the life of the meadow. Please note along Route 84 between the road and the river there are large masses of dead trees which were choked out by invasive vines. This is present in other locations in Newburgh as well. We recommend a 5-10 year pest management control to remove any of the very dangerous invasive vines.

Response: Weed eradication will be done prior to the installation of meadow mix throughout the site per the meadow mix notes. All installed plant material will be maintained through construction and for a period of two years following installation for allow for establishment of plant material. Maintenance beyond the establishment period will be continual via a landscape company retained by the owner.

Comment 4. Additional notes regarding replacement of washed-out soil, not just mulch, must be added to the plans. It is imperative to have a strategy in place for washed out soils to avoid erosion in the landscape and to ensure plants have sufficient depth of soil needed to thrive.

Response: Instances of washed out soil shall be addressed as part of the erosion and sediment control measures on site. Additional notes have been added to confirm that washed soil is addressed in the Stabilization of Disturbed Surfaces Notes on Sheet CS002.

Comment 5. Updated details for Bioretention Basins were not included in this submission. Provide details for the basins which reflect previously issued comment 7.

Response: The bioretention detail on Drawing CS505 has been revised.

Comment 6. There has not been a chance to review the locations of the sample plots, that they are in ideal locations and that they sufficiently represent density, species, and sizes of trees within the wooded areas on site. Please let us know how and if the plots are marked so an inspection can be performed.

Response: As was noted in previous letters, the plots are surveyed and were marked with flags in the field for review.

If you have any questions or require any additional information, please do not hesitate to contact this office.

Respectfully submitted,
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

W. Charles Utschig, Jr. PE
Associate

WCU:mj

cc: Matrix Companies

\\langan.com\data\WPW\data3\190063302\Project Data\Correspondence\Letters\2023-10-12 Landscape Comment Response Letter.docx

TOWN OF NEWBURGH

APPLICATION FOR CLEARING AND GRADING

Name of applicant: Matrix Newburgh Route 17K Development, LLC

Name of owner on premises: Manheim Remarketing, Inc./Matrix Newburgh Route 17K Development, LLC

Address of owner: Forsgate Dr. CN 4000 Cranbury NJ 08512

Telephone number of owner: 732 521-2900

Telephone number of applicant: 732 521-2900

State whether applicant is owner, lessee, agent, architect, engineer or contractor:
Applicant is owner of SBL 89-1-66 and purchaser under contract for portion of SBL 89-1-69.11 and SBL 86-1-97

Location of land on which proposed work will be done: Route 17K WB adjacent to Newburgh Toyota SBL 89-1-66, 89-1-69.11 and 86-1-97

Section: see above **Block:** _____ **Lot:** _____ **Sub. Div.:** _____

Zoning District of Property: IB **Size of Lot:** 62 acres

Area of lot to be cleared or graded: 27.3 acres cleared, 44.5 acres total graded and disturbed

Proposed completion of date: Fall/Winter 2024/2025

Name of contractor/agent, if different than owner: TBD

Address: TBD

Telephone number: TBD

Date of Planning Board Approval: Review concurrent with site plan **(if required)**

I hereby agree to hold the Town of Newburgh harmless from any claims arising from the proposed activity.

Signature of owner: _____ MANAGER **Date:** 10/11/23

Signature of applicant (if different than owner): _____

TOWN ACTION:

Examined: _____ **20** _____

Approved: _____ **20** _____

Disapproved: _____ **20** _____

October 02, 2023

Chairman John Ewasutyn and Planning Board Members
Town of Newburgh Planning Board
Town of Newburgh Town Hall
1496 Route 300
Newburgh, NY 12550

Re: Matrix I-84 Distribution Center
226 Route 17K
Town of Newburgh, New York
PB No. 2022-29
Langan Project No.: 190063302

Dear Chairman Ewasutyn and Planning Board Members:

At the planning board meeting on September 21, 2023, a negative declaration was issued for the above mentioned project. The purpose of this letter is to clarify an impact regarding question D.2. a., which states "Does the proposed action include any excavation, mining, dredging, during construction, operations, or both?" The answer had been checked off as no and the Town subsequently classified this item a small impact. Pat Hines noted at the planning board meeting that this indicated the site would be balanced from a cut/fill perspective. Balancing the site was a design objective but various constraints led to a final site design that we and our contractor have determined to require an export of material.

Multiple factors influenced the finished floor elevation of the proposed building including but not limited to retaining wall heights, the FAA application, entrance road grade limitations, and getting the development as close to a balanced site as possible. Ultimately, the building elevation of 569.5 was accepted by the FAA and satisfied other design criteria which generates a net export for the site. There is approximately 160,000 CY of export (90,000 CY of topsoil and 70,000 CY of general fill) expected to be produced.

It is anticipated that 15 dump trucks per day will each drive 8 round trips for a total of 120 truck trips in, 120 trips out. This will be required over an 8-hour workday for this export until the site is brought to its final grade. The primary travel route will be to / from I-84. The truck trips generated are nominal and will be accommodated on the construction access and adjacent road. Not only will there be fewer dump truck trips during export than WB-64 truck trips when the building is operational, but the smaller truckers have less of a traffic impact than the larger trucks.

Revised grading plans, included with this letter, have been produced to place additional fill onsite, in efforts to reduce export to the greatest extent possible. The revised plan places additional fill in two areas: in between retaining wall 1 and 1A, as shown on CG101, and to the west of retaining wall 1, as shown on Sheet CG102. The additional fill placed in between retaining wall 1 and 1A, reduces the need for ±160-lf of wall which allows access for maintenance of the 3:1 sloped area. Maintenance access paths are provided around the slope. This space, which was previously inaccessible, is proposed as lawn now that it is an accessible and maintainable area. Additional fill has also been placed to west of retaining wall 1, as shown on CG102. The construction of this 3:1 slope will increase the limit of disturbance an additional ±1.2 acres, which is less than 2% of the entire parcel. Additional clearing and grading is required, however the proposed development will remain in compliance with the Town's tree ordinance. Clearing restrictions previously required for this project will apply. A 30-ft minimum wooded buffer is maintained in this area to mitigate any visual impact to the adjacent commercial property. A revised SWPPP will be submitted prior to the public hearing encompassing the additional tree clearing, however the impacts will not affect the overall stormwater design of the project. The additional slope will runoff to an existing drainage path along the property line, as it does in existing conditions. The bottom of ditch is ±6-10-ft below the bank on the adjacent property, therefore there are no concerns of runoff impacting the adjacent property.

In conclusion, no significant impacts are generated from this change and, as a result, these revisions are covered by the previous Neg Dec.

If you have any questions or require any additional information, please do not hesitate to contact this office.

Respectfully submitted,
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

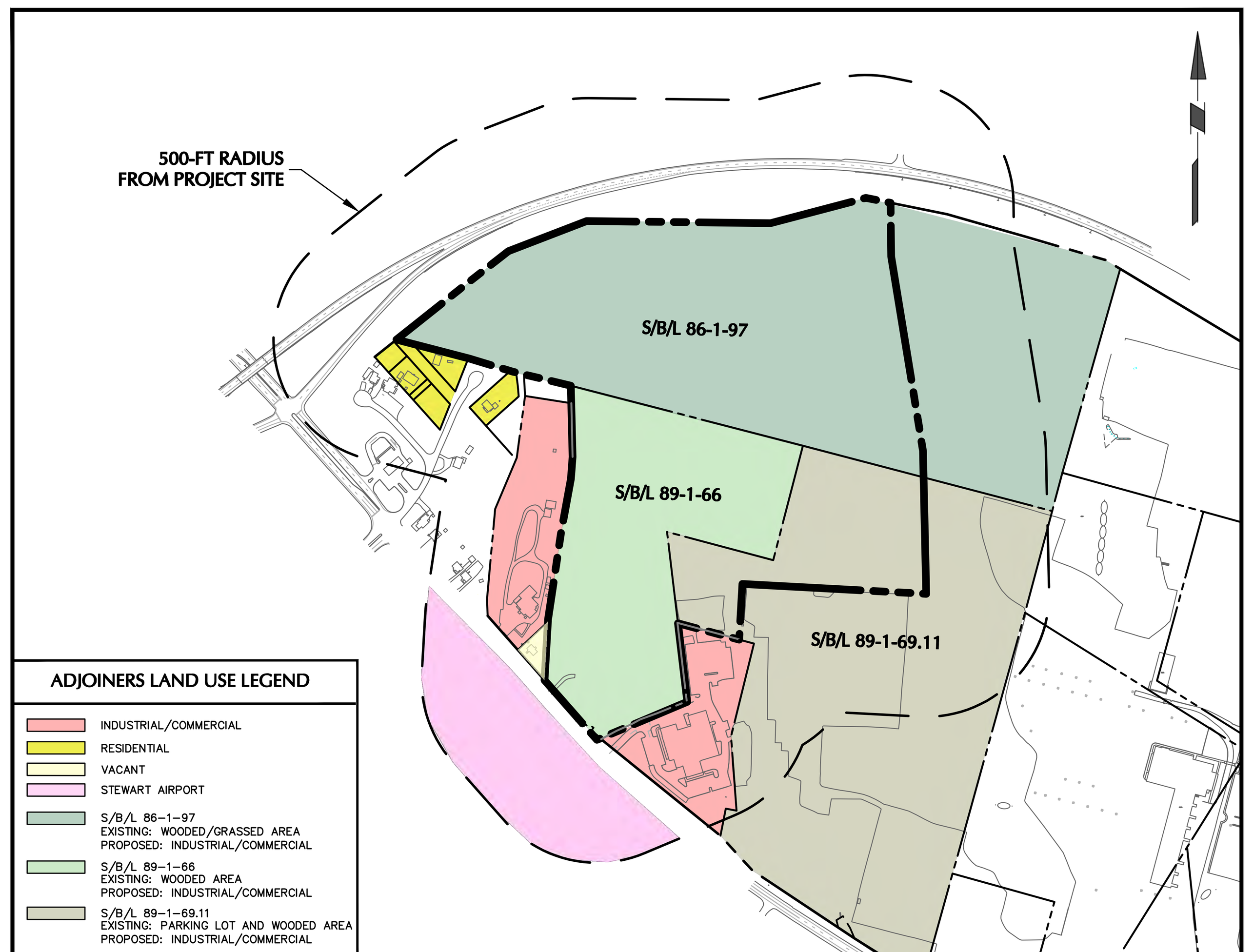
Lauren McMahon, PE
Project Manager

LM:lm

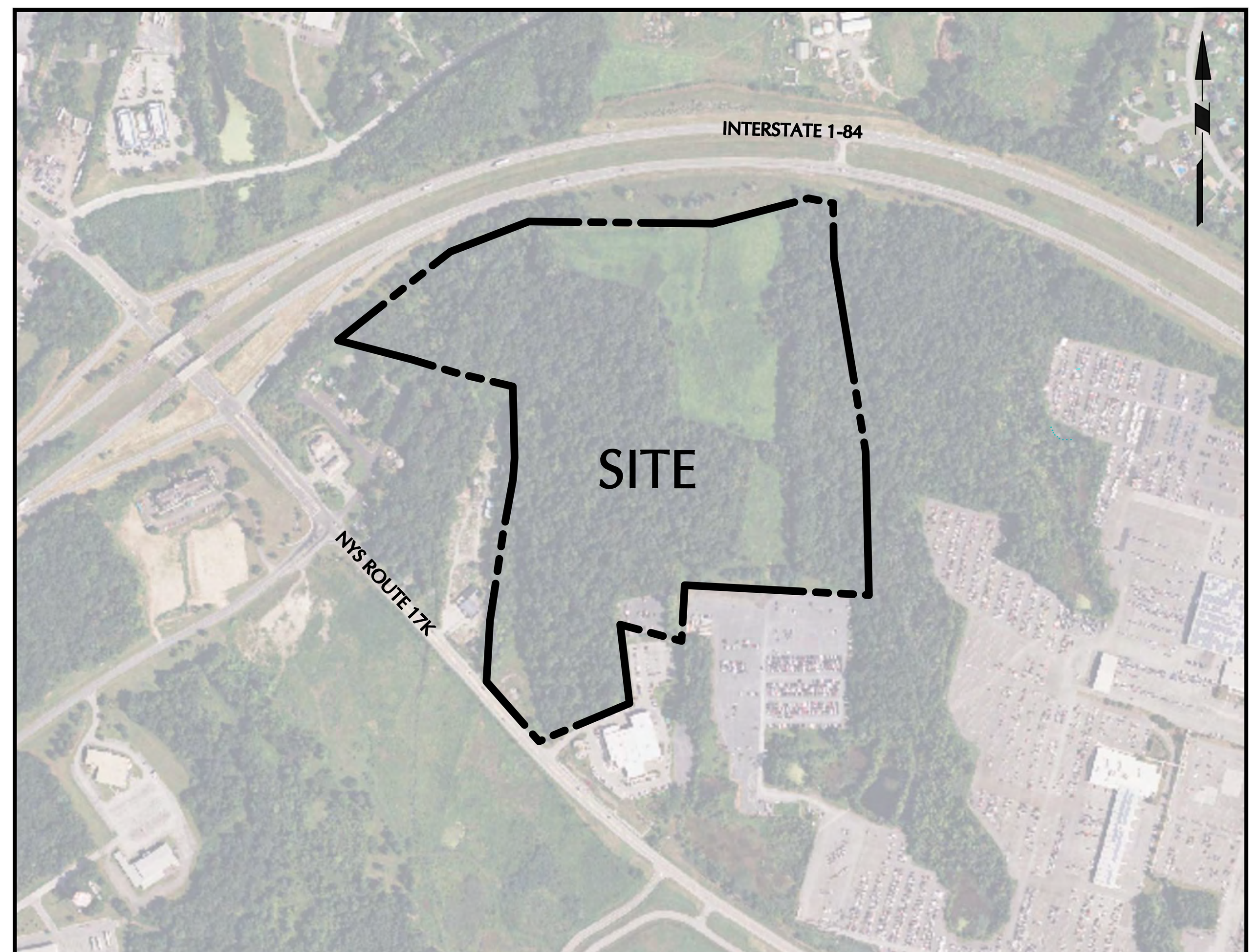
cc: Patrick Hines, MHE Engineering, D.P.C.,
Ken Wersted, Creighton Manning Engineering, LLP
Ken Griffin and Ray Aquino, Matrix Companies
Chuck Utschig, Langan Engineering

SITE PLAN APPROVAL DOCUMENTS FOR
MATRIX I-84 DISTRIBUTION CENTER

TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK
SECTION 89, BLOCK 1, LOTS 66 AND 69.11; SECTION 86, BLOCK 1, LOT 97
PLANNING BOARD PROJECT No: 2022-29

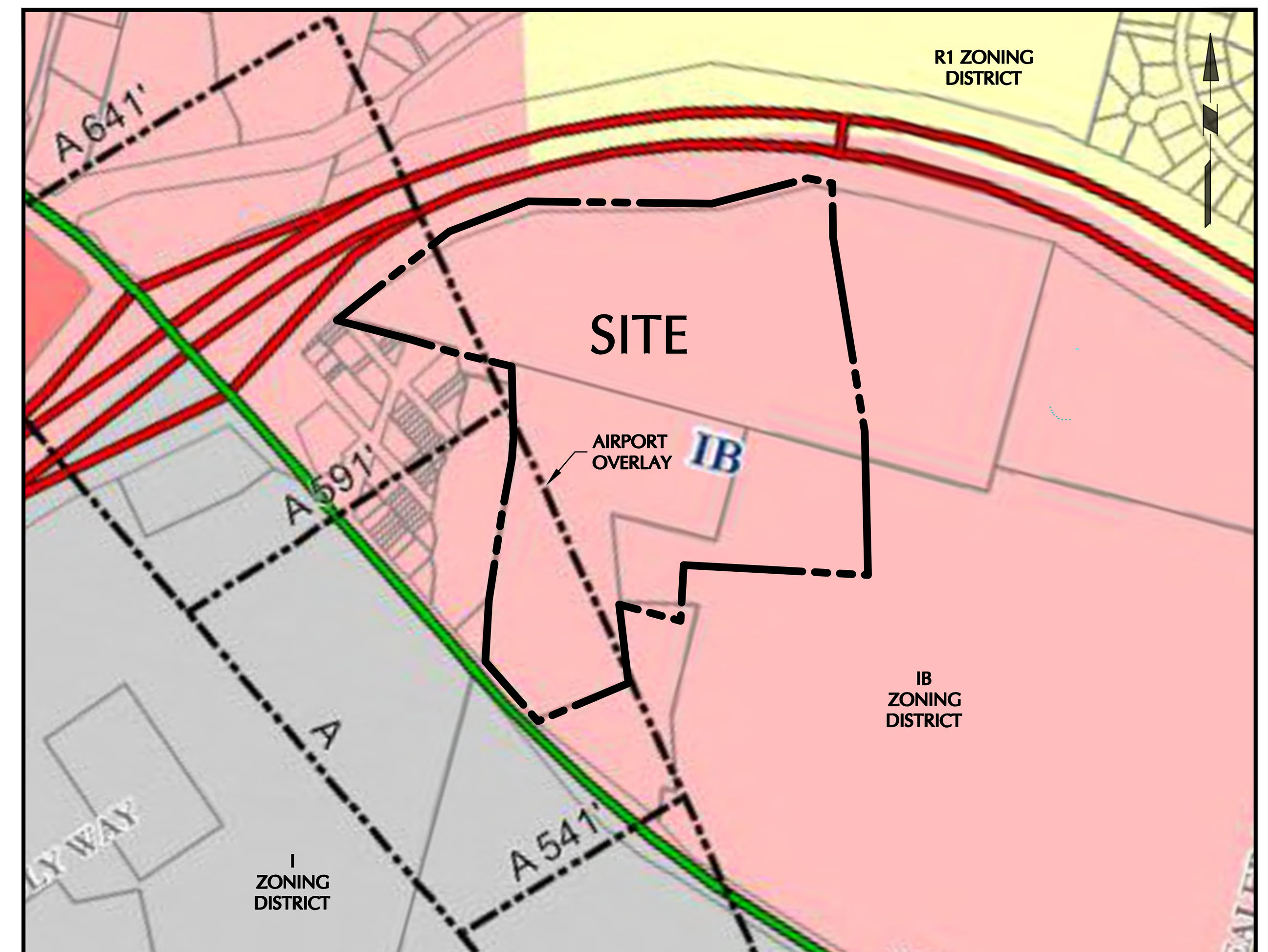


ADJOINERS AND LAND USE MAP
SCALE: 1 INCH = 500 FEET



MAP REF: AUTODESK

AERIAL MAP
SCALE: 1 INCH = 500 FEET



MAP REF: ORANGE COUNTY PLANNING DEPARTMENT - TOWN OF NEWBURGH ZONING MAP

ZONING MAP
SCALE: 1 INCH = 500 FEET

DRAWING LIST		
DRAWING NO.	SHEET NO.	DRAWING TITLE
CS001	1 OF 45	COVER SHEET
CS002	2 OF 45	LEGEND & NOTES
CD100	3 OF 45	EXISTING CONDITIONS AND SITE REMOVALS PLAN
CB100	4 OF 45	LOT LINE CHANGE (1 OF 2)
CB200	5 OF 45	LOT LINE CHANGE (2 OF 2)
CS100	6 OF 45	OVERALL SITE PLAN
CS101	7 OF 45	SITE PLAN (1 OF 2)
CS102	8 OF 45	SITE PLAN (2 OF 2)
CS200	9 OF 45	EMERGENCY ACCESS ROUTE
CS300	10 OF 45	MANHEIM ZONING ANALYSIS
TM100	11 OF 45	TRUCK TURNING MOVEMENT PLAN
CP100	12 OF 45	PAVEMENT PLAN
CG100	13 OF 45	OVERALL GRADING PLAN
CG101	14 OF 45	GRADING PLAN (1 OF 2)
CG102	15 OF 45	GRADING PLAN (2 OF 2)
CG201	16 OF 45	ROADWAY PROFILE
CG301	17 OF 45	SITE SECTIONS
CG400	18 OF 45	OVERALL DRAINAGE PLAN
CG401	19 OF 45	DRAINAGE PLAN (1 OF 2)
CG402	20 OF 45	DRAINAGE PLAN (2 OF 2)
CG501	21 OF 45	DRAINAGE PROFILES (1 OF 2)
CG502	22 OF 45	DRAINAGE PROFILES (2 OF 2)
CU100	23 OF 45	OVERALL UTILITY PLAN
CU101	24 OF 45	UTILITY PLAN (1 OF 2)
CU102	25 OF 45	UTILITY PLAN (2 OF 2)
CU201	26 OF 45	SANITARY SEWER PROFILE
CU202	27 OF 45	WATERMAIN PROFILE
CE100	28 OF 45	PHASING PLAN
CE101	29 OF 45	EROSION & SEDIMENT CONTORL PLAN (1 OF 2)
CE102	30 OF 45	EROSION & SEDIMENT CONTROL PLAN (2 OF 2)
CS501	31 OF 45	SITE DETAILS (1 OF 2)
CS502	32 OF 45	SITE DETAILS (2 OF 2)
CS503	33 OF 45	WATER DETAILS
CS504	34 OF 45	SEWER DETAILS
CS505	35 OF 45	DRAINAGE DETAILS (1 OF 2)
CS506	36 OF 45	DRAINAGE DETAILS (2 OF 2)
CS507	37 OF 45	EROSION & SEDIMENT CONTROL DETAILS
LANDSCAPE ARCHITECTURE DRAWINGS		
LP100	38 OF 45	OVERALL PLANTING PLAN
LP101	39 OF 45	PLANTING PLAN (1 OF 2)
LP102	40 OF 45	PLANTING PLAN (2 OF 2)
LP501	41 OF 45	PLATING NOTES AND DETAILS
LL100	42 OF 45	OVERALL SITE LIGHTING PLAN
LL101	43 OF 45	SITE LIGHTING PLAN (1 OF 2)
LL102	44 OF 45	SITE LIGHTING PLAN (2 OF 2)
LL501	45 OF 45	SITE LIGHTING NOTES AND DETAILS
TREE PRESERVATION DRAWINGS		
TP100	1 OF 6	OVERALL TREE PRESERVATION PLAN
TP101	2 OF 6	TREE PRESERVATION PLAN - TILE 1
TP102	3 OF 6	TREE PRESERVATION PLAN - TILE 2
TP103	4 OF 6	TREE PRESERVATION PLAN - TILE 3
TP104	5 OF 6	TREE PRESERVATION PLAN - TILE 4
TP105	6 OF 6	TREE PRESERVATION PLAN - TILE 5

PROJECT CONTACTS

APPLICANT:	MATRIX NEWBURGH ROUTE 17K DEVELOPMENT, LLC 3 CENTRE DRIVE MONROE TOWNSHIP, NJ 08831
OWNER (SBL: 89-1-66):	MATRIX NEWBURGH ROUTE 17K DEVELOPMENT, LLC 3 CENTRE DRIVE MONROE TOWNSHIP, NJ 08831
OWNER (SBL: 89-1-69.11):	MANHEIM REMARKETING, INC 6205 PEACHTREE DUNWOODY ROAD NE ATLANTA, GA 30328
OWNER (SBL: 86-1-97):	MANHEIM REMARKETING, INC 6205 PEACHTREE DUNWOODY ROAD NE ATLANTA, GA 30328
SITE CIVIL/ENGINEER:	LANGAN ONE NORTH BROADWAY, SUITE 910 WHITE PLAINS, NY 10601 (914) 323-7400

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

SIGNATURE — 10/10/2023 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
COVER SHEET

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No.
CS001

Sheet 1 of 45

Date: 10/10/2023 Time: 16:29 User: brchambers Style Table: Langan.stb Layout: CS001 Document Code: 190063302-0501-CS001-0101

ABBREVIATIONS

(TYP)	TYPICAL
VIF	VERIFY IN FIELD
NEC.	NECESSARY
PROP.	PROPOSED
EXIST.	EXISTING
HC	HANDI-CAP
SHT.	SHEET
NO.	NUMBER
TW	TOP OF WALL
BW	BOTTOM OF WALL
WV	WATER VALVE
HYD	HYDRANT
YR.	YEAR
AC	ACRE
SF	SQUARE FEET
LF	LINEAR FEET
PT	POINT OF TANGENT
PC	POINT OF CURVATURE
HP	HIGH POINT
LP	LOW POINT
VC	VERTICAL CURVE
PVI	POINT OF VERTICAL INFLECTION
STA	STATION
A.D.	ALGEBRAIC DIFFERENCE
K	CURVE COEFFICIENT
BVCS	BEGINNING VERTICAL CURVE STATION
BVCE	BEGINNING VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EVCE	END VERTICAL CURVE ELEVATION
ELEV.	ELEVATION
EL	ELEVATION
HORIZ.	HORIZONTAL
VERT.	VERTICAL
PERF.	PERFORATED
HDPE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
DIP	DUCTILE IRON PIPE
CIP	CAST IRON PIPE
INV	INVERT
MIN.	MINIMUM
ES	END SECTION
OS	OUTLET STRUCTURE
N.T.S.	NOT TO SCALE
UP	UTILITY POLE
CTGE	CABLE, TELEPHONE, GAS, ELECTRIC
LSE	LOWEST SEWERABLE ELEVATION
R	ARC RADIUS
A	ARC LENGTH
△	CENTRAL ANGLE
CL	CHORD LENGTH
CB	CHORD BEARING

TOWN OF NEWBURGH NOTES

1. CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH.
2. CONSTRUCTION OF SANITARY SEWER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH SANITARY SEWER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH SEWER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDEC AND THE TOWN OF NEWBURGH.
3. THE APPLICANT SHALL BE RESPONSIBLE FOR THE PREPARATION OF "AS-BUILT" RECORD DRAWINGS OF THE SEWER SYSTEM. SUBMITTAL OF THESE DRAWINGS IS A CONDITION OF DEDICATION AND RELEASE OF THE PERFORMANCE SECURITY.
4. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH SEWER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.
5. THE SEWER MAIN SHALL BE TESTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.

LEGEND

GENERAL NOTES

1. EXISTING BACKGROUND INFORMATION IS BASED ON "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C.
2. THE CONTRACTOR SHALL CALL "DIG SAFELY NEW YORK" PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CALL 1-800-962-7962 OR 811 FOR STAKEOUT REQUESTS.
3. ALL EXISTING UTILITY LINES SHALL BE LOCATED/VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING ANY MATERIALS AND/OR STARTING ANY CONSTRUCTION.
4. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITE WORK CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
5. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER MAKES NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY AVAILABLE INFORMATION WHICH WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS, CORRELATE CONDITIONS WITH THE DRAWINGS AND RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL MAKE ADDITIONAL TOPOGRAPHIC SURVEYS HE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOW ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
6. THE CONTRACTOR SHALL, WHEN THEY DEEM NECESSARY, PROVIDE WRITTEN REQUESTS FOR INFORMATION (RFI) TO THE OWNER AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITE WORK ITEM. THE RFI SHALL BE IN A FORM ACCEPTABLE TO OWNER AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF 10 WORK DAYS OR ADDITIONAL REASONABLE TIME FOR A WRITTEN REPLY. THE RFI SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE WORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
7. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO CONSTRUCTION. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO CONSTRUCTION.
8. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
9. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL DOORS, STAIRS, RAMPS, CANOPIES, SIDEWALKS, AND ARCHITECTURAL ELEMENTS AROUND THE BUILDING, AND SHALL COORDINATE INSTALLATION OF THESE ELEMENTS WITH THE SITE LAYOUT PRIOR TO INSTALLATION.
10. ALL WETLANDS SHOWN ON THIS PLAN SET ARE TO BE PROTECTED AND MAINTAINED, NO DISTURBANCE IS PERMITTED.

SITE LAYOUT PLAN NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT/ CONTRACTOR TO CALL 811. NO WORK SHALL COMMENCE UNTIL A FIELD MARK OUT HAS BEEN PERFORMED.
2. THE APPLICANT SHALL SCHEDULE WITH THE TOWN ENGINEER A PRE-CONSTRUCTION CONFERENCE TO BE ATTENDED BY THE TOWN, PROJECT DESIGN PROFESSIONAL, APPLICANT AND CONTRACTOR FOR THE PROJECT. ABSOLUTELY NO PROJECT CONSTRUCTION WORK MAY BEGIN UNTIL WRITTEN "APPROVAL TO CONSTRUCT" NOTIFICATION AND/OR EVIDENCE OF THE RECEIPT OF THE NOI FROM THE NYSDEC IS SUBMITTED TO THE TOWN ENGINEER, AND THE PRE-CONSTRUCTION CONFERENCE HAS TAKEN PLACE. AT THE PRE-CONSTRUCTION CONFERENCE, THE APPLICANT MUST CONFIRM TO THE TOWN ENGINEER THAT THE PROJECT DESIGN PROFESSIONAL WILL CONTINUE TO BE THE ENGINEER-OF-RECORD THROUGHOUT PROJECT CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE TOPOGRAPHIC AS-BUILTS FOR ALL PROPOSED STORMWATER QUALITY AND QUANTITY FACILITIES. THE ENGINEER OF RECORD SHALL REVIEW AND PROVIDE WRITTEN CONFIRMATION THAT THE STORMWATER FACILITIES WERE INSTALLED SUBSTANTIALLY IN CONFORMANCE WITH THE APPROVED SITE PLAN AND SWPPP DOCUMENTS.

SIGNAGE NOTES

1. ALL SIGNAGE, STRIPING, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL TENANT SPECIFIC SIGNAGE AND STRIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS AT THE OWNER'S OPTION. ALL OTHER SIGNAGE AND STRIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST MUTCD MANUAL.
3. MOUNT SIGNAGE ACCORDING TO LOCAL CODES.

STABILIZATION OF DISTURBED SURFACES

1. MULCH (INCLUDING GRAVEL MULCH) – MULCH OFFERS AN EFFECTIVE MEANS OF STABILIZATION. THIS CAN ALSO INCLUDE ROLLED EROSION CONTROL BLANKETS.
2. SPRAY ADHESIVES – THESE ARE PRODUCTS GENERALLY COMPOSED OF POLYMERS IN A LIQUID OR SOLID FORM THAT ARE MIXED WITH WATER TO FORM AN EMULSION THAT IS SPRAYED ON THE SOIL SURFACE WITH TYPICAL HYDROSEEDING EQUIPMENT. THE MIXING RATIOS AND APPLICATION RATES WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIC SOILS ON THE SITE. IN NO CASE SHOULD THE APPLICATION OF THESE ADHESIVES BE MADE ON WET SOILS OR IF THERE IS A PROBABILITY OF PRECIPITATION WITHIN 48 HOURS OF ITS PROPOSED USE. MATERIAL SAFETY DATA SHEETS WILL BE PROVIDED TO ALL APPLICATORS AND OTHERS WORKING WITH THE MATERIAL.
3. POLYMER ADDITIVES – THESE POLYMERS ARE MIXED WITH WATER AND APPLIED TO THE DRIVING SURFACE BY A WATER TRUCK WITH A GRAVITY FEED DRIP BAR, SPRAY BAR OR AUTOMATED DISTRIBUTOR TRUCK. THE MIXING RATIOS AND APPLICATION RATES WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INCORPORATION OF THE EMULSION INTO THE SOIL WILL BE DONE TO THE APPROPRIATE DEPTH BASED ON EXPECTED TRAFFIC. COMPACTION AFTER INCORPORATION WILL BE BY VIBRATORY ROLLER TO A MINIMUM OF 95%. THE PREPARED SURFACE SHALL BE MOIST AND NO APPLICATION OF THE POLYMER WILL BE MADE IF THERE IS A PROBABILITY OF PRECIPITATION WITHIN 48 HOURS OF ITS PROPOSED USE. MATERIAL SAFETY DATA SHEETS WILL BE PROVIDED TO ALL APPLICATORS WORKING WITH THE MATERIAL.
4. BARRIERS – WOVEN GEOTEXTILES CAN BE PLACED ON THE DRIVING SURFACE TO EFFECTIVELY REDUCE DUST THROW AND PARTICLE MIGRATION ON HAUL ROADS. STONE CAN ALSO BE USED FOR CONSTRUCTION ROADS FOR EFFECTIVE DUST CONTROL.
5. SEEDING – REFER TO LANDSCAPE PLANS AND DETAILS.
6. EROSION – IF EROSION WASHOUT IS PREVENTING PERMANENT STABILIZATION, CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY TO REMEDIATE THE CAUSE OF EROSION.

DEMOLITION NOTES

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING STRUCTURES, PAVEMENTS, SLABS, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON PLANS.
2. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATION, ORDINANCES, AND STATUTES.
3. THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
4. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT, OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES, OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY, OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVER, REMOVAL, ABATEMENT, OR DISPOSAL OR ASBESTOS OR OTHER HAZARDOUS MATERIALS.
5. THE CONTRACTOR SHALL VERIFY THAT A SOIL EROSION AND SEDIMENT CONTROL PERMIT HAS BEEN OBTAINED FOR DEMOLITION ACTIVITIES. CONTRACTOR SHALL COMPLY WITH THE CONDITIONS THEREON BY INSTALLING AND MAINTAINING ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AND MAKING REQUIRED NOTIFICATIONS.

WATER NOTES

1. ALL CONSTRUCTION TO COMPLY WITH CURRENT TOWN OF NEWBURGH SPECIFICATIONS AND ORDINANCES.
2. CONTRACTOR SHALL SECURE ALL PERMITS AT HIS/HER OWN EXPENSE.
3. MATERIAL FOR WATERMAINS:

   A) POLY-VINYL CHLORIDE (P.V.C.) PLASTIC MUNICIPAL WATER PIPE WITH INTEGRAL BELL AND SPIGOT JOINTS, PIPE SHALL CONFORM TO THE LATEST REVISION OF AWWA C-900 SPECIFICATION AND SHALL BE CLASS 150, DR 18.

   B) CEMENT LINED DUCTILE IRON PIPE MINIMUM THICKNESS CLASS 52 WITH 150 PSI WORKING PRESSURE AND SHALL CONFORM TO AWWA SPECIFICATION C 151 LATEST REVISION FOR HYDRANT ASSEMBLIES. THE PIPE SHALL BE ENCASED WITH A MINIMUM 8 MIL. POLYETHYLENE WRAP, AS PER AWWA C 105 SPECIFICATION. TYPE MECHANICAL JOINT TEES AND NIPPLES. HYDRANTS SHALL BE PLACED A MAXIMUM OF 500± APART. HYDRANTS SHALL BE "BAGGED" UNTIL READY FOR USE. HYDRANTS SHALL OPEN COUNTERCLOCKWISE [LEFT], AND CLOSE CLOCKWISE RIGHT.
4. ALL FIELD INSTALLED BOLTS SHALL BE CAPPED WITH SACRIFICIAL ZINC ANODES.
5. CONTRACTOR WILL BE RESPONSIBLE TO FURNISH AND INSTALL TEST POINTS AT THE APPROXIMATE LOCATIONS AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE TOWN ENGINEER. THE TEST POINTS SHALL CONSIST OF A 1" OR 2" CORPORATION STOP, AND THE NECESSARY 1" OR 2" COPPER PIPE TO ADEQUATELY CONDUCT THE REQUIRED TESTS. AFTER TESTING HAS BEEN COMPLETED AND APPROVED, THE CONTRACTOR SHALL REMOVE THE CORPORATION STOPS AND INSTALL STANDARD AWWA FACTORY THREADED BRASS PLUGS. SAMPLE POINTS SHALL BE LOCATED AT THE BEGINNING AND END OF EACH LINE WITH A MAXIMUM SPACING OF 1000 FEET.
6. THE WATER MAIN SHALL BE TESTED, DISINFECTED, AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION, AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO PUTTING THE WATER MAIN IN SERVICE. SATISFACTORY TESTING RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT AND ORANGE COUNTY HEALTH DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER A MINIMUM OF 24 HOURS PRIOR TO SAMPLING.
7. PRESSURE AND LEAKAGE TEST SHALL BE DONE IN ACCORDANCE WITH AWWA C-600 STANDARDS.
8. DISINFECTION SHALL BE COMPLETED IN ACCORDANCE WITH AWWA C651, LATEST REVISION. THE TABLET METHOD IS NOT ALLOWED.
9. INSTALLATION SHALL COMPLY WITH THE 2018 "TEN STATES STANDARDS." HORIZONTAL SEPARATION-WATERMAIN SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER MAIN. THE DISTANCE SHALL BE FROM EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A TEN FOOT SEPARATION, THE APPROPRIATE REVIEWING AGENCY MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE WATERMAIN CLOSER TO A SEWER MAIN, PROVIDED THAT THE WATER MAIN IS IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER.
10. WATERMAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE, OR BELOW THE SEWER. THE CROSSINGS SHALL BE ARRANGED SO THAT THE WATERMAIN JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM SEWER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

SEWER NOTES

1. ALL CONSTRUCTION TO COMPLY WITH CURRENT TOWN OF NEWBURGH SPECIFICATIONS AND ORDINANCES.
2. CONTRACTOR SHALL SECURE ALL PERMITS AT HIS OWN EXPENSE.
3. MATERIALS FOR SANITARY SEWER:

   A. POLYVINYL CHLORIDE (P.V.C) SANITARY SEWER PIPE WITH INTEGRAL BELL AND SPIGOT JOINTS, PIPE SHALL CONFORM TO ASTM D3034, SPECIFICATION LATEST REVISION. GRAVITY SEWER SHALL BE PVC SDR-35 AND FORCEMAIN SHALL BE PVC SDR-21.

   B. EQUAL APPROVED BY TOWN ENGINEER.
4. HORIZONTAL SEPARATION: SEWERS SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE FROM EDGE TO EDGE. PRACTICAL TO MAINTAIN A TEN FOOT SEPARATION, THE APPROPRIATE REVIEWING AGENCY MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO A WATER MAIN, PROVIDED THAT THE WATER MAIN IS IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER.
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6. ALL TRENCHING IN THE ROW SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER.
7. NOTWITHSTANDING SATISFACTORY TEST RESULTS, IF EXCESSIVE INFILTRATION IS DISCOVERED WITHIN TWO YEARS OF ACCEPTANCE OF THE SEWER SYSTEM, THE CONTRACTOR WILL BE REQUIRED TO CORRECT THE SITUATION. THE CONTRACTOR SHALL, UPON WRITTEN NOTICE FROM THE ENGINEER, TAKE THE NECESSARY STEPS TO CORRECT THE LEAK AT NO ADDITIONAL COST TO THE OWNER. SUCH WORK SHALL BE ACCOMPLISHED WITHIN TWO WEEKS OF THE DATE OF NOTIFICATION.
8. GRAVITY SANITARY SEWER SHALL BE TESTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS AND ASTM F-1417, LATEST VERSION.
9. SEWER MANHOLES SHALL BE TESTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS AND ASTM C-1244, LATEST VERSION.
10. FORCEMAIN SHALL BE TESTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS AND AWWA C900, LATEST VERSION.

TOWN OF NEWBURGH SEWER NOTES

1. CONSTRUCTION OF SANITARY SEWER FACILITIES AND CONNECTION TO THE TOWN OF NEWBURGH SANITARY SEWER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH SEWER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDEC AND THE TOWN OF NEWBURGH.
2. ALL SEWER PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH SEWER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.
3. ALL GRAVITY SANITARY SEWER SERVICE LINES SHALL BE 4 INCHES IN DIAMETER OR LARGER AND SHALL BE SDR-35 PVC PIPE CONFORMING TO ASTM D-3034-89. JOINTS SHALL BE PUSH-ON WITH ELASTOMERIC RING GASKET CONFORMING ASTM D-3212. FITTINGS SHALL BE AS MANUFACTURED BY THE PIPE SUPPLIER OR EQUAL AND SHALL HAVE A BELL AND SPIGOT CONFIGURATION COMPATIBLE WITH THE PIPE.
4. THE SEWER MAIN SHALL BE TESTED IN ACCORDANCE WITH TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH SEWER DEPARTMENT.
5. THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

TOWN OF NEWBURGH WATER NOTES

1. "CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH."
2. ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSI\AWWA C151\A21.51 FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
3. THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE EBBA IRON MEGALUG SERIES 1100 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER DEPARTMENT.
4. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI\AWWA C110\A21.10 FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI\AWWA C153\A21.53 FOR DUCTILE IRON COMPACT FITTINGS, LATEST REVISION.
5. ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI\AWWA C509 SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
6. TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-615 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI\AWWA C509 SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM; TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.
7. ALL HYDRANTS SHALL BE CLOW-EDDY F-2640 CONFORMING TO AWWA STANDARD C502, LATEST REVISION. ALL HYDRANTS SHALL INCLUDE A 5 ¼ INCH MAIN VALVE OPENING, TWO 2 ½ INCH DIAMETER NPT HOSE NOZZLES, ONE 4 INCH NPT STEAMER NOZZLE, A 6 INCH DIAMETER INLET CONNECTION AND A 1 ½ INCH PENTAGON OPERATING NUT. ALL HYDRANTS SHALL OPEN LEFT (COUNTER-CLOCKWISE). HYDRANTS ON MAINS TO BE DEDICATED TO THE TOWN SHALL BE EQUIPMENT YELLOW. HYDRANTS LOCATED ON PRIVATE PROPERTY SHALL BE RED.
8. ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-15020N FOR ¾ AND 1 INCH, MUELLER H-15000N OR B-25000N FOR 1 ½ AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1502-2N FOR ¾ AND 1 INCH AND MUELLER B-25204N FOR 1 ½ AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10314N FOR ¾ AND 1 INCH AND MUELLER H-10310N FOR 1 ½ AND 2 INCH SIZES.
9. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT.
10. THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.
11. THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

EROSION & SEDIMENT CONTROL NOTES

1. REFER TO THE SPDES GENERAL PERMIT COMPLIANCE NOTES FOR ADDITIONAL REQUIREMENTS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", LATEST REVISIONS.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION. EXISTING VEGETATION SHALL BE PRESERVED AS MUCH AS IS PRACTICAL.
4. THE CONTRACTOR AND THEIR SUBCONTRACTOR(S) SHALL IDENTIFY THE TRAINED INDIVIDUAL THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
5. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
6. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
7. STOCKPILED TOPSOIL SHALL BE TEMPORARILY SEEDED, MULCHED, AND ENCLOSED WITH SILT FENCING. ALL GRASS SEED WILL CONTAIN AT LEAST 25 PERCENT RAPID GERMINATING PERENNIAL RYE GRASS.
8. EROSION AND SEDIMENT CONTROL INSPECTIONS:

   A. THE TRAINED INDIVIDUAL SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS TO ENSURE PROPER PERFORMANCE. ANY SEDIMENT BUILD-UP SHALL BE CLEANED. ALL DAMAGES TO EROSION AND SEDIMENT CONTROLS SHALL BE REPAIRED EITHER AT THE BEGINNING OR AT THE END OF EACH WORKING DAY.

   B. THE QUALIFIED INSPECTOR SHALL CONDUCT SITE INSPECTIONS EVERY 7 DAYS DURING CONSTRUCTION. ANY DEFICIENCIES NOTED IN THE REPORTS SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR.

   C. IF SOIL DISTURBANCE ACTIVITIES ARE SUSPENDED FOR WINTER SHUTDOWN, TEMPORARY STABILIZATION MEASURES WILL BE APPLIED TO ALL DISTURBED AREAS. IN THIS CASE AND SUBJECT TO THE APPROVAL OF THE NYSDEC AND THE TOWN, THE FREQUENCY OF INSPECTIONS BY THE QUALIFIED PROFESSIONAL MAY BE REDUCED TO AT LEAST ONE INSPECTION EVERY 30 CALENDAR DAYS.

   D. IF NYSDEC OR THE TOWN AUTHORIZES SOIL DISTURBANCES GREATER THAN 5-ACRES, THE QUALIFIED PROFESSIONAL WILL CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY AT LEAST 2 CALENDAR DAYS, EVERY 7 CALENDAR DAYS TO ENSURE THE STABILITY AND EFFECTIVENESS OF ALL PROTECTIVE MEASURES AND PRACTICES UNTIL SUCH TIME THAT LESS THAN 5-ACRES OF SOIL REMAIN DISTURBED.
9. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
10. EARTHWORK ACTIVITIES SHALL BE CONSISTENT WITH THE PLANS. THE EARTHWORK OPERATION AREAS SHALL BE STABILIZED ON AN ONGOING BASIS WITH NO AREAS, WHICH ARE NOT CURRENTLY UNDER CONSTRUCTION, LEFT WITHOUT AT LEAST TEMPORARY COVER FOR MORE THAN 48 HOURS.
11. EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED BY A SURROUNDING SILT FENCE BARRIER.
12. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED LANDSCAPE SOILS.
13. IF CONSTRUCTION TAKES PLACE IN "WET SOILS", CURTAIN DRAINS OR SUBSURFACE DRAINAGE SHALL BE INSTALLED TO DEWATER THE SOILS. DEWATERING DISCHARGES WILL NOT BE DIRECTED INTO WETLANDS, WATER COURSES, WATER-BODIES, OR STORM SEWER SYSTEMS.
15. TEMPORARY DRAINAGE SWALES WITH A MINIMUM GRADE OF ONE PERCENT SHALL BE INSTALLED TO DIRECT RUNOFF AWAY FROM EXCAVATED AREAS. SWALES SHALL BE INSTALLED WITH STAKED AND SECURED HAY BALE BERMS TO PREVENT DOWNSTREAM SILTATION. LOCATION OF THE DRAINAGE SWALES AND HAY BALES WILL BE AT THE DIRECTION OF THE DESIGN ENGINEER. SILT FENCE SHALL BE PROPERLY INSTALLED DOWN GRADE OF ALL DISTURBED AREAS. SILT FENCE SHALL BE INSTALLED ALONG CONTOURS TO FILTER SEDIMENT FROM RUNOFF. INSPECTION BY CONTRACTOR SHOULD BE FREQUENT AND REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED. SILT FENCE SHOULD BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
16. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE UNDERGONE FINAL STABILIZATION, UPGRADIENT SURFACES HAVE BEEN PROPERLY STABILIZED, AND ALL STORMWATER MANAGEMENT SYSTEMS ARE IN PLACE AND OPERABLE. ALL AREAS DISTURBED BY THE REMOVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE FILLED IN, TOPSOILED, SEEDED, AND MULCHED. FINAL STABILIZATION IS ACHIEVED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80 PERCENT COVERAGE IS ESTABLISHED, OR EQUIVALENT STABILIZATION MEASURES, SUCH AS PLACEMENT OF MULCH OR GEOTEXTILE, IS COMPLETED ON ALL AREAS NOT PAVED OR COVERED BY PERMANENT STRUCTURES. ENSURE THAT FINAL STABILIZATION OF ALL TRIBUTARY AREAS IS ACHIEVED PRIOR TO THE CONSTRUCTION OF THE BIORETENTION BASINS.

TELEPHONE NOTES

1. ALL UNDERGROUND TELEPHONE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE TELEPHONE COMPANY.
2. TELEPHONE CONDUIT SHALL BE SCH. 40 PVC OR AS REQUIRED BY THE TELEPHONE COMPANY.
3. MINIMUM TELEPHONE CONDUIT BURIAL DEPTH SHALL BE TWO FEET, OR GREATER IF REQUIRED BY THE TELEPHONE COMPANY.
4. BUILDING CONTRACTOR SHALL ROUTE TELEPHONE SERVICE INSIDE OF THE BUILDING TO ONE COMMON POINT FOR CONNECTION TO THE SITE TELEPHONE CONDUIT.

ELECTRICAL SERVICE NOTES

1. ALL ABOVEGROUND AND UNDERGROUND ELECTRICAL SERVICE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ELECTRIC COMPANY, CENTRAL HUDSON.
2. ELECTRICAL CONDUIT SHALL BE SCH. 80 PVC OR AS REQUIRED BY THE ELECTRIC COMPANY.
3. MINIMUM ELECTRICAL CONDUIT BURIAL DEPTH SHALL BE THREE FEET, OR GREATER IF REQUIRED BY THE ELECTRIC COMPANY.

GAS NOTES

1. ALL UNDERGROUND GAS SERVICE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE GAS COMPANY, CENTRAL HUDSON.
2. GAS PIPING (SIZE AND MATERIAL) SHALL BE AS REQUIRED BY THE GAS COMPANY.
3. MINIMUM GAS PIPING BURIAL DEPTH SHALL BE THREE FEET, OR GREATER IF REQUIRED BY THE GAS COMPANY.

SPDES GENERAL PERMIT COMPLIANCE NOTES

1. THE NOTICE OF INTENT (NOI) AND SIGNED MS4 SWPPP ACCEPTANCE FORM (IF APPLICABLE) SHALL BE FILED WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC). A COPY OF THE NOI, SIGNED MS4 SWPPP ACCEPTANCE FORM (IF APPLICABLE), AND THE NOI ACKNOWLEDGEMENT SHALL BE MAINTAINED AT THE SITE IN THE LOG BOOK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE FOLLOWING:

   A. THE CONTRACTOR AND THEIR SUBCONTRACTORS SHALL READ AND UNDERSTAND THE CONDITIONS OF THE "NYSDEC SPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES" (NYSDEC SPDES GENERAL PERMIT) IN EFFECT.

   B. THE CONTRACTOR AND THEIR SUBCONTRACTORS SHALL READ AND SIGN THE CERTIFICATION STATEMENT PROVIDED IN THE APPENDICES OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

   C. THE CONTRACTOR AND THEIR SUBCONTRACTORS SHALL IDENTIFY THE TRAINED INDIVIDUAL(S) THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE SWPPP. THE TRAINED INDIVIDUAL(S) SHALL READ AND SIGN THE CERTIFICATION STATEMENT PROVIDED IN THE SWPPP. A COPY OF THE SIGNED CERTIFICATION STATEMENT SHALL BE PLACED IN THE SITE LOG BOOK AND GIVEN TO THE TOWN FOR THEIR RECORDS.

   D. THE TRAINED INDIVIDUAL(S) SHALL PROVIDE DOCUMENTATION THAT HE/SHE HAS RECEIVED TRAINING IN PROPER EROSION AND SEDIMENT CONTROL PRINCIPLES FROM A SOIL AND WATER CONSERVATION DISTRICT, OR OTHER NYSDEC ENDORSED ENTITY TO THE TOWN FOR THEIR RECORDS.

   E. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE WORK OUTLINED HEREIN.

   F. THE TRAINED CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL STORMWATER POLLUTION PREVENTION MEASURES OUTLINED IN THE SWPPP AND PROJECT PLANS.

   G. THE CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION CONFERENCE WITH THE OWNER (AND/OR OWNER'S REPRESENTATIVES), TRAINED INDIVIDUAL(S), TOWN ENGINEER, TOWN WATER SUPERINTENDENT, AND THE QUALIFIED PROFESSIONAL AT LEAST ONE WEEK PRIOR TO COMMENCEMENT OF CONSTRUCTION.

   H. THE CONTRACTOR OR OWNER SHALL HAVE THE QUALIFIED PROFESSIONAL, AS DEFINED WITHIN THE NYSDEC SPDES GENERAL PERMIT, CONDUCT AN INITIAL SITE ASSESSMENT AND CERTIFY THAT THE APPROPRIATE EROSION AND SEDIMENT CONTROL STRUCTURES AS DEPICTED ON THE PLANS HAVE BEEN ADEQUATELY INSTALLED AND IMPLEMENTED PRIOR TO COMMENCEMENT OF CONSTRUCTION. REFER TO SWPPP FOR THE INITIAL SITE ASSESSMENT GUIDELINES.

   I. THE CONTRACTOR SHALL MAINTAIN A RECORD OF ALL EROSION AND SEDIMENT CONTROL INSPECTION REPORTS AT THE SITE IN A LOG BOOK. THE SITE LOG BOOK SHALL BE MAINTAINED ON-SITE AND BE MADE AVAILABLE TO THE PERMITTING AUTHORITY.
3. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETE, THE OWNER/OPERATOR SHALL HAVE A QUALIFIED PROFESSIONAL CONDUCT A FINAL SITE ASSESSMENT TO DETERMINE IF THE SITE MEETS THE FINAL STABILIZATION CRITERIA AS DEFINED WITHIN THE NYSDEC SPDES GENERAL PERMIT. IF THE SITE IS DETERMINED TO MEET THE FINAL STABILIZATION CRITERIA, A NOTICE OF TERMINATION (NOT) SHALL BE COMPLETED AND SUBMITTED TO THE NYSDEC TO TERMINATE COVERAGE UNDER THE SPDES GENERAL PERMIT.

POLLUTION PREVENTION CONTROL NOTES

GOOD HOUSEKEEPING PRACTICES ARE DESIGNED TO MAINTAIN A CLEAN AND ORDERLY WORK ENVIRONMENT. GOOD HOUSEKEEPING MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS BY THOSE PARTIES INVOLVED WITH THE DIRECT CARE AND DEVELOPMENT OF THE SITE. THE FOLLOWING MEASURES SHOULD BE IMPLEMENTED TO CONTROL THE POSSIBLE EXPOSURE OF HARMFUL SUBSTANCES AND MATERIALS TO STORMWATER RUNOFF:

1. MATERIAL RESULTING FROM THE CLEARING AND GRUBBING OPERATION SHALL BE STOCKPILED AWAY FROM STORM DRAINAGE, WATER BODIES AND/OR WATERCOURSES AND SURROUNDED WITH ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES. SOIL STOCKPILE LOCATIONS SHALL BE EXPOSED NO LONGER THAN 14 DAYS BEFORE SEEDING.
2. EQUIPMENT MAINTENANCE AREAS SHALL BE PROTECTED FROM STORMWATER FLOWS AND SHALL BE SUPPLIED WITH APPROPRIATE WASTE RECEPTACLES FOR SPENT CHEMICALS, SOLVENTS, OILS, GREASES, GASOLINE, AND ANY POLLUTANTS THAT MIGHT CONTAMINATE THE SURROUNDING HABITAT AND/OR WATER SUPPLY. EQUIPMENT WASH-DOWN ZONES SHALL BE LOCATED WITHIN AREAS DRAINING TO SEDIMENT CONTROL DEVICES.
3. THE USE OF DETERGENTS FOR LARGE-SCALE (I.E., VEHICLES, BUILDINGS, PAVEMENT SURFACES, ETC.) WASHING IS PROHIBITED.
4. MATERIAL STORAGE LOCATIONS AND FACILITIES (I.E., COVERED STORAGE AREAS, STORAGE SHEDS, ETC.) SHALL BE LOCATED ON-SITE AND SHALL BE STORED ACCORDING TO THE MANUFACTURER'S STANDARDS IN A DEDICATED STAGING AREA. CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER TOXIC MATERIAL MUST BE STORED IN WATERPROOF CONTAINERS. RUNOFF CONTAINING SUCH MATERIALS MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED AND DISPOSED AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY.
5. HAZARDOUS SPILLS SHALL BE IMMEDIATELY CONTAINED TO PREVENT SUCH POLLUTANTS FROM ENTERING THE SURROUNDING HABITAT AND/OR WATER SUPPLY. SPILL KITS SHALL BE PROVIDED ON-SITE AND SHALL BE DISPLAYED IN A PROMINENT LOCATION FOR EASE OF ACCESS AND USE. SPILLS GREATER THAN FIVE (5) GALLONS SHALL BE REPORTED TO THE NYSDEC RESPONSE UNIT AT 1-800-457-7362. IN ADDITION, A RECORD OF THE INCIDENT(S) AND/OR NOTIFICATIONS SHALL BE DOCUMENTED AND ATTACHED TO THE SWPPP.
6. PORTABLE SANITARY WASTE FACILITIES SHALL BE PROVIDED ON-SITE FOR WORKERS AND SHALL BE PROPERLY MAINTAINED.
7. DUMPSTERS AND/OR DEBRIS CONTAINERS SHALL BE LOCATED ON-SITE AND SHALL BE OF ADEQUATE SIZE TO MANAGE RESPECTIVE MATERIALS. REGULAR COLLECTION AND DISPOSAL OF WASTES SHALL OCCUR AS REQUIRED.
8. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING. A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHALL BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED AND DISPOSED OF. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED AND/OR REPAIRED, SEEDED, AND MULCHED FOR FINAL STABILIZATION.
9. NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION, WHICH DISCHARGES FROM THE SITE, MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE. IT CAN BE RETAINED IN THE TEMPORARY SEDIMENT BASINS UNTIL IT EVAPORATES.
10. DISCHARGES FROM DEWATERING ACTIVITIES, INCLUDING DISCHARGES FROM DEWATERING TRENCHES AND EXCAVATIONS, MUST BE MANAGED BY APPROPRIATE CONTROL MEASURES.
11. WASTEWATER DISCHARGES FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS IS PROHIBITED.

CONSTRUCTION SEQUENCING NOTES

CLEARING AND GRUBBING ACTIVITIES

1. FLAG THE DISTURBANCE LIMITS PRIOR TO THE COMMENCEMENT OF CLEARING AND GRUBBING ACTIVITIES.
2. INSTALL PERIMETER SILT FENCE AND TREE PROTECTION MEASURES AS SHOWN ON THE PROJECT PLANS.
3. CLEARING AND GRUBBING ACTIVITIES SHALL BE LIMITED TO A MAXIMUM OF 5-ACRES, UNLESS REQUIRED APPROVALS ARE RECEIVED TO DISTURB A GREATER AMOUNT FROM THE TOWN OF NEWBURGH. STABILIZE CONCURRENTLY WITH THE CLEARING ACTIVITIES SUCH THAT NO MORE THAN 5-ACRES ARE CLEARED AND GRUBBED AT ANY ONE TIME. WOODS CHIPS AND/OR SPRAY MULCH SHALL BE USED TO TEMPORARILY STABILIZE THE CLEARED AREA. CHIPPING TREES AND STUMP GRINDINGS GENERATED AS PART OF THE CLEARING OPERATIONS WILL ALSO BE USED TO PRODUCE WOOD CHIPS.
4. INSPECT ALL EROSION CONTROL MEASURES DURING CLEARING AND GRUBBING ACTIVITIES. REPAIR ANY DAMAGED EROSION CONTROL MEASURES UPON DISCOVERY.

BULK GRADING CONSTRUCTION

1. THE CONTRACTOR SHALL DEMARCATE THE DISTURBANCE LIMITS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF EACH PHASE.
2. INSTALL TEMPORARY DIVERSION MEASURES TO ENSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASINS. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ENSURE THAT THE TRIBUTARY AREA TO EACH DIVERSION MEASURE SHALL NOT EXCEED 5-ACRES.
3. THE TEMPORARY SEDIMENT BASINS SHALL BE GRADED TO THE TOP OF THE GRAVEL LAYER IN THE BIORETENTION PRACTICES AND GRADED TO THE TOP OF THE AQUATIC BENCH IN THE STORMWATER PONDS. INSTALL DEWATERING DEVICES AND OUTLET CONTROL STRUCTURES WITH DEWATERING RISER IN ACCORDANCE WITH THE PROJECT PLANS. COVER THE PRIMARY INLET OF THE OUTLET CONTROL STRUCTURE WITH AMOCO TYPE 4545 OR APPROVED EQUAL CONSTRUCTION FABRIC TO PREVENT FINES FROM ENTERING THE STORMWATER DISCHARGES.
4. THE EARTHWORK OPERATIONS WILL GENERALLY PROCEED AS SHOWN ON THE PHASING PLANS. TO MINIMIZE THE NEED TO IMPORT OR EXPORT MATERIAL, THE EXCESS CUT MATERIAL CAN BE PLACED IN A PHASE REQUIRING FILL AS LONG AS THE OVERALL TOTAL DISTURBANCE BETWEEN THE PHASES DOES NOT EXCEED 20 ACRES.
5. ANY TEMPORARY OR TOPSOIL STOCKPILES SHALL BE PROTECTED FROM EROSION WITH SEED/MULCH AND SHALL BE COVERED IN RAIN EVENTS AS CONDITIONS WARRANT. (REFER TO PROJECT DETAILS FOR ADDITIONAL INFORMATION.)
6. TO MINIMIZE UNNECESSARY DISTURBANCES, EXCAVATION AND FILL AREAS SHALL BE MANAGED TO ENABLE THE INSTALLATION OF UTILITIES AS THE FILL PROGRESSES, WHEREVER POSSIBLE.
7. THE DISTURBED AREAS SHALL BE ACTIVELY STABILIZED AS WORK PROGRESSES.
8. REPEAT THE ABOVE PROCESS FOR EACH OF THE PHASES UNTIL THE NECESSARY FILL MATERIAL HAS BEEN OBTAINED.
9. THE TEMPORARY SEDIMENT BASINS SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBANCE ACTIVITIES THAT CONTRIBUTE TO THE TEMPORARY SEDIMENT BASINS HAVE BEEN COMPLETED.
10. THE PERMANENT STORMWATER MANAGEMENT PRACTICES SHALL NOT BE COMPLETED UNTIL ALL OF THE CONTRIBUTING AREAS TO THE PRACTICES HAVE BEEN CONSTRUCTED AND STABILIZED.

GENERAL CONSTRUCTION

1. BULK GRADING OPERATIONS SHALL OCCUR FIRST.
2. PREPARE PAVEMENT SUBGRADE AND INSTALL SUBBASE MATERIAL. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24-HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE SUBBASE MATERIAL HAS BEEN INSTALLED.
3. INSTALL PROPOSED CURBING AND BINDER COURSE. INLET PROTECTION MEASURES MAY BE REMOVED TEMPORARILY DURING THIS OPERATION, BUT NO MORE THAN 24-HOURS PRIOR TO PLACEMENT OF THE SUBBASE MATERIAL. INLET PROTECTION MEASURES SHALL BE REPLACED ONCE THE BINDER COURSE HAS BEEN INSTALLED.
4. FINISH GRADING AND STABILIZE ALL DISTURBED AREAS. ALL CATCH BASINS, DRAINAGE MANHOLES, AND DRAINAGE LINES SHALL BE CLEANED OF ANY ACCUMULATED SILT AND SEDIMENT.
5. REMOVE ALL ACCUMULATED SEDIMENT WITHIN THE TEMPORARY SEDIMENT BASINS. REMOVE THE TEMPORARY PERFORATED RISERS AND CONSTRUCTION FABRIC FROM OUTLET CONTROL STRUCTURES.
6. FINALIZE CONSTRUCTION OF THE BIORETENTION AREAS AND STORMWATER PONDS UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
7. INSTALL ALL PLANTINGS IN ACCORDANCE WITH THE PROJECT PLANS.
8. PLACE PAVEMENT TOP COURSE AND PAVEMENT MARKINGS, AS APPROPRIATE.
9. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATELY STABILIZE THE AREAS DISTURBED DURING THEIR REMOVAL. ESTABLISH PERMANENT VEGETATIVE COVER AND INSTALL ALL LANDSCAPING.

THE LIMITS OF DISTURBANCE WILL BE FLAGGED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION TO ENSURE OVER CLEARING DOES NOT OCCUR. THE ENTIRE DISTURBANCE AREA WILL BE CLEARED INITIALLY FOR BULK GRADING ACTIVITIES. PORTIONS OF THE PHASE WILL BE STABILIZED WITH APPROPRIATE STABILIZATION MEASURES WHILE CONSTRUCTION IS OCCURRING IN OTHER PORTIONS OF THE SITE. STABILIZATION METHODS WILL INCLUDE, BUT NOT LIMITED TO, HYDRO-SEEDING, MULCHING, HAYING, AND SPREADING WOOD CHIPS OVER THE DISTURBED AREAS ONCE CONSTRUCTION WITHIN THOSE AREAS ARE COMPLETE.

A MINIMUM OF TWO SITE INSPECTIONS WILL BE CONDUCTED EVERY SEVEN CALENDAR DAYS BY THE QUALIFIED INSPECTOR TO ENSURE THE STABILITY AND EFFECTIVENESS OF ALL PROTECTIVE MEASURES AND PRACTICES DURING CONSTRUCTION FOR AS LONG AS MORE THAN 5-ACRES OF LAND REMAINS DISTURBED.

SOIL RESTORATION NOTES

SOIL RESTORATION SHALL BE PERFORMED IN THE DISTURBED AREAS. THE SOILS SHALL BE RESTORED AS FOLLOWS:

TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT
NO SOIL DISTURBANCE	RESTORATION NOT PERMITTED
MINIMAL SOIL DISTURBANCE (E.G., CLEARING AND GRUBBING ACTIVITIES)	RESTORATION NOT REQUIRED
AREAS WHERE TOPSOIL IS STRIPPED ONLY (NO CHANGE IN GRADE)	AERATE AND APPLY 6" OF TOPSOIL
AREAS OF CUT OR FILL	APPLY FULL SOIL RESTORATION
HEAVY TRAFFIC AREAS ON SITE (ESPECIALLY IN 5' TO 25' AROUND BUILDINGS BUT NOT WITHIN 5' PERIMETER AROUND FOUNDATION WALLS)	APPLY FULL RESTORATION
AREAS WHERE RUNOFF REDUCTION AND/OR INFILTRATION PRACTICES ARE APPLIED	RESTORATION MY NOT BE REQUIRED, BUT MAY BE APPLIED TO ENHANCE THE REDUCTION SPECIFIED FOR THE APPROPRIATE PRACTICE
REDEVELOPMENT PROJECTS	SOIL RESTORATION IS REQUIRED ON REDEVELOPMENT PROJECTS IN AREAS WHERE EXISTING IMPERVIOUS AREA WILL BE CONVERTED TO PERVIOUS AREA

PRIOR TO APPLYING FULL SOIL RESTORATION, ALL CONSTRUCTION ACTIVITY, INCLUDING CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE, SITE CLEANUP AND TRAFFICKING, SHOULD BE FINISHED AND THE SITE CLOSED OFF TO FURTHER DISTURBANCE. FULL SOIL RESTORATION IS IMPLEMENTED IN A TWO PHASE PROCESS.

1. DEEP RIP THE AFFECTED THICKNESS OF EXPOSED SUBSOIL MATERIAL, AGGRESSIVELY FRACTURING IT BEFORE THE PROTECTED TOPSOIL IS REAPPLIED ON THE SITE.
2. DECOMPACT, SIMULTANEOUSLY THROUGH THE RESTORED TOPSOIL LAYER AND UPPER HALF OF THE AFFECTED SUBSOIL.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

SCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303
10/10/2023
DATE SIGNED

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
LEGENDS & NOTES

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF
Drawing No. **CS002**
Sheet 2 of 45

REFERENCE NOTES

1. EXISTING SITE FEATURES, TOPOGRAPHIC, AND UTILITY INFORMATION SHOWN HEREON ARE FROM AN ALTA/NSPS LAND TITLE SURVEY PREPARED BY LAGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE, AND GEOLOGY, D.P.C
2. THE HORIZONTAL DATUM REFERENCED IS THE NORTH AMERICAN DATUM OF 1983 (NAD83), NEW YORK STATE EAST STATE PLANE.
3. THE VERTICAL DATUM REFERENCED IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. ONSITE WETLANDS HAVE BEEN DELINEATED AND LOCATED BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C. WETLAND SCIENTISTS ON 11/01/2022 AND 11/02/2022.
5. TREE REMOVAL SHALL OCCUR BETWEEN NOVEMBER 1 AND MARCH 31.

SLOPES TABLE					
NUMBER	MIN. SLOPE	MAX. SLOPE	AREA (SF)	AREA (AC)	COLOR
1	15.0%	20.0%	319,807	7.34	
2	20.0%	25.0%	193,050	4.43	
3	25.0%	Vertical	537,263	12.33	

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Revisions		
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1
Date	Description	No.

100 0 50 100
SCALE IN FEET

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STATE OF NEW YORK — CHARLES UTSCHIG JR. — 062303 — PROFESSIONAL ENGINEER

10/10/2023
SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER NY Lic. No. 062303

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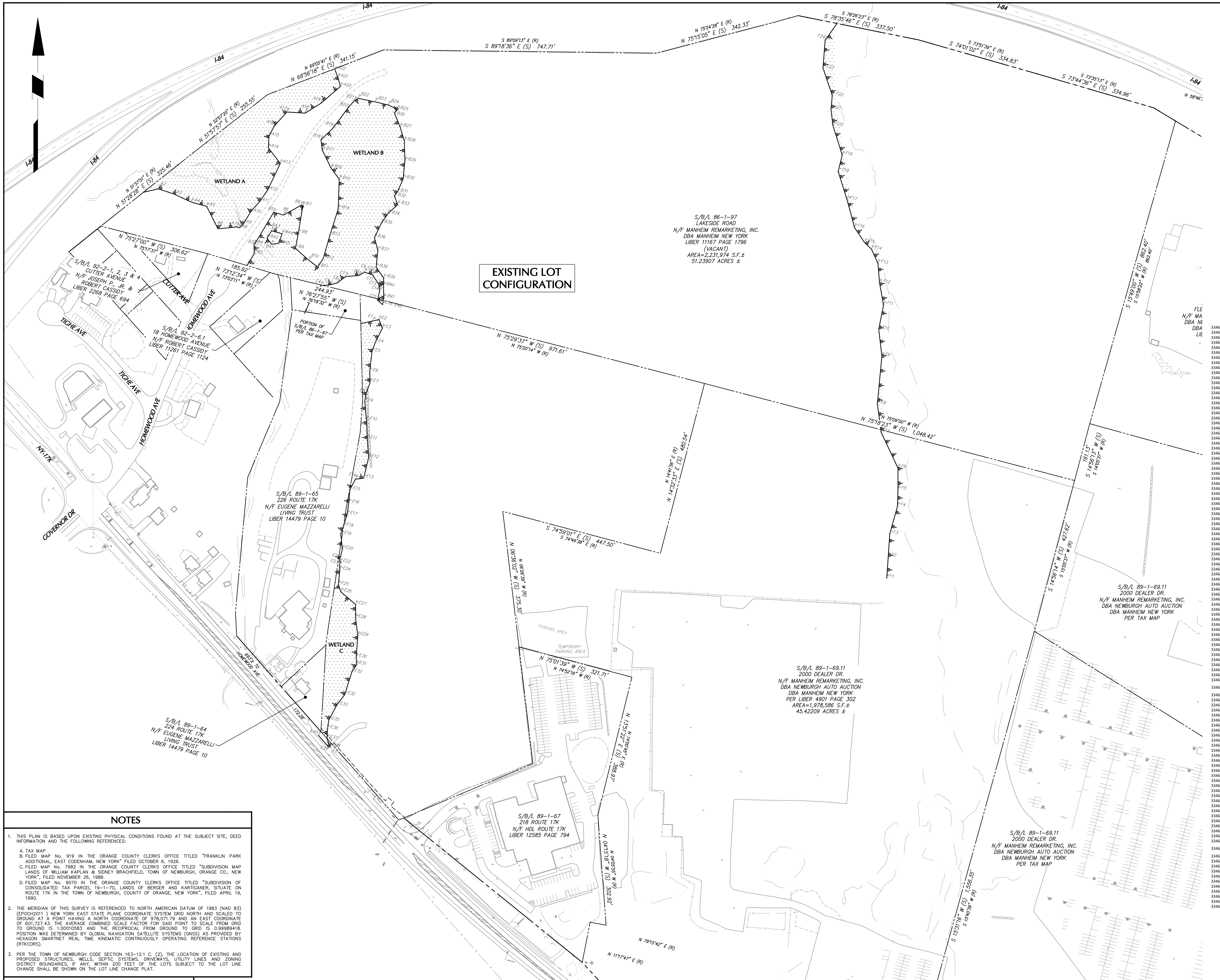
Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
EXISTING CONDITIONS AND SITE REMOVALS PLAN

Project No.	Drawing No.
190063302	CD101
Date: JULY 10, 2023	
Drawn By: LM	
Checked By: CU	Sheet 3 of 45

Date: 10/10/2023 Time: 16:30 User: brchambers Style Table: Langan.stb Layout: CD100 Document Code: 190063302-0501-CD101-0101



MAP REF: MICROSOFT, TOMTOM

VICINITY MAP

SCALE: 1 INCH = 700 FEET

NOTES

CERTIFIED PROPERTY OWNERS LIST WITHIN 500' OF SUBJECT PROPERTY

334600 86-1-39.3	Costubbs LLC	60 East 42nd St Ste 1942	New York NY	10165
334600 92-4-17	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 89-1-74.2	NYS Dept of Trasportation	P.O Box 91396	Albany NY	12201
334600 92-4-6	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-2-9	Philip A Bruno, Arlene T Bruno	22 Pierpoint Ave	Newburgh NY	12550
334600 86-1-87.1	Manheim Remarketing, Inc., DBA Newburgh Auto Auction	6205 Peachtree Dunwoody Road	Atlanta GA	30328
334600 92-4-2	David Lince	2 Homewood Ave	Newburgh NY	12550
334600 92-3-14	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-4-3	David Lince	2 Homewood Ave	Newburgh NY	12550
334600 92-1-1	Joseph P Cassidy Jr. , Robert Cassidy	Tighe Ave	Newburgh NY	12550
334600 93-1-39	Loomis W Owens, Harriett J Owens	10 Lloyd Road	Newburgh NY	12550
334600 92-4-10	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-4-15	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-4-8	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-6-4	Joseph P Cassidy	90 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 89-1-64	Eugene A Mazzarelli Living Trust	739 Hewitt Ln	New Windsor NY	12553
334600 92-3-3	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-3-16	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-4-4	David Lince	2 Homewood Ave	Newburgh NY	12550
334600 93-1-30.1	Joyce White, Willard E White	9 Lloyd Road	Newburgh NY	12550
334600 92-4-19	David Lince	2 Homewood Ave	Newburgh NY	12550
334600 92-3-11	William R Carr	P.O Box 91396	Newburgh NY	12550
334600 92-4-13	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-2-7	Philip A Bruno, Arlene T Bruno	22 Pierpoint Ave	Newburgh NY	12550
334600 92-6-9	Joseph P Cassidy Jr. , Jean Cassidy	14 Tighe Ave	Newburgh NY	12550
334600 92-4-1	David Lince	2 Homewood Ave	Newburgh NY	12550
334600 92-4-20	David M Lince	2 Homewood Ave	Newburgh NY	12550
334600 92-3-6	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-3-4	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-4-11	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-4-7	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-2-8	Philip A Bruno, Arlene T Bruno	22 Pierpoint Ave	Newburgh NY	12550
334600 92-4-18	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-3-18	Albert F Hague	414 Lattintown Rd	Marlboro NY	12542
334600 92-6-21.1	Joseph Cassidy	900 Cove Cay Dr. Apt 1C	Clearwater FL	33760
334600 94-1-61.2	G-Team Delivery Services Corp	162 Route 17K	Newburgh NY	12550
334600 94-1-1.1	Michael Thomas Ashberry	13 Dene Rd	Newburgh NY	12550
334600 94-1-34	Kevin Halvorsen, Ginnette Selazzo	7 June Rd	Newburgh NY	12550
334600 93-1-64.54	Rafael Alberto Crespo, Elena Altagracia Crespo	5 Ali Ln	Newburgh NY	12550
334600 89-1-74.1	NYS Dept of Transportation	1 Express Dr	Newburgh NY	12550
334600 92-3-15	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-5-9.2	BAB Plus, LLC	800 Central Ave Ste 201	Scarsdale NY	10583
334600 92-4-16	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-3-8	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-1-3	Joseph P Cassidy Jr, Robert Cassidy	Tighe Ave	Newburgh NY	12550
334600 94-1-51	160 Rt 17K LLC	19 Lindy Dr	Carmel NY	10512
334600 94-1-32.1	Atahualpa Del Orbe	9 June Rd	Newburgh NY	12550
334600 94-1-29.1	Frank J Lisi, Rosemarie C Lisi	10 June Rd	Newburgh NY	12550
334600 89-1-78	NYS Dept of Transportation	169 Route 17K	Newburgh NY	12550
334600 92-2-5.2	Frank J Puleo, Gay A Puleo	12 Anita Ln	Newburgh NY	12550
334600 92-3-7	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-1-2	Joseph P Cassidy Jr., Robert Cassidy	Tighe Ave	Newburgh NY	12550
334600 92-4-9	17K Newburgh LLC	5020 Route 9W	Newburgh NY	12550
334600 92-6-11.1	Joseph Cassidy Jr., Jean Cassidy	14 Tighe Ave	Newburgh NY	12550
334600 94-1-2	Robert Dickman, Natalie Millspaugh	11 Dene Rd	Newburgh NY	12550
334600 94-1-1.2	Sunnyside Dev LLC	19 Lindy Dr	Carmel NY	10512
334600 94-1-30	Sunnyside Dev LLC	19 Lindy Dr	Carmel NY	10512
334600 94-1-50	160 Rt 17K LLC	19 Lindy Dr	Carmel NY	10512
334600 86-1-97	Manheim Remarketing, Inc.	6205 Peachtree Dunwoody Rd	Atlanta GA	30328
334600 93-1-8	Alkaben Shah, Hemal Shah	115 Fletcher Dr N	Newburgh NY	12550
334600 95-2-2	Richard Hansen, Diana Dorado	142 Fletcher Dr N	Newburgh NY	12550
334600 89-1-66	BBS Real Estate Mngmnt LLC	49 West Wilwood Rd	Saddle River NJ	07458
334600 92-4-14	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-2-6.1	Robert Cassidy	18 Homewood Ave	Newburgh NY	12550
334600 95-2-3	Terry Justyna	3 Anita Ln	Newburgh NY	12550
334600 95-2-6.14	James Comandi, Debra Comandi	14 Anita La	Newburgh NY	12550
334600 95-2-4.2	Gregory T Gaetano, Olga Gaetano	11 Anita Ln	Newburgh NY	12550
334600 93-1-64.2	Michael Martinez	123 Fletcher Dr N	Newburgh NY	12550
334600 94-1-59.2	Parcels, LLC Matrix Newburgh Development	CN4000 Forsgate Drive	Cranbury NJ	08512
334600 94-1-49	160 Rt 17K LLC	19 Lindy Dr	Carmel NY	10512
334600 95-2-4.1	Rickson L Nesbitt, Andrea L Nesbitt	7 Anita Ln	Newburgh NY	12550
334600 93-1-32	Gordon Robert Salese Living Trust, Gordon Robert Salese	2585 SE 2nd St	Pompano Beach FL	33062
334600 92-4-5	17K Newburgh NY LLC	5020 Route 9W	Newburgh NY	12550
334600 92-1-4	Joseph P Cassidy Jr., Robert Cassidy	Tighe Ave	Newburgh NY	12550
334600 95-2-6.11	Daniel Smith	15 Anita Ln	Newburgh NY	12550
334600 89-1-65	Eugene A Mazzarelli Living Trust	739 Hewitt Ln	New Windsor NY	12553
334600 93-1-64.3	Jose R Herrera, Esperanza Herrera	125 Fletcher Dr N	Newburgh NY	12550
334600 95-2-1	Manfred Bay	138 Fletcher Dr N	Newburgh NY	12550
334600 115-3-15	Keith M Hills, Diane Hills	403 Plum Ct	Newburgh NY	12550
334600 97-1-11.1	Robert C Wells	166 Brookside Farms Rd	Newburgh NY	12550
334600 89-1-79	NYS Dept of Transportation	.	Albany NY	12201
334600 89-1-67	HDL Route 17K	218 Route 17K	Newburgh NY	12550
334600 93-1-40	Loomis W Owens, Harriet J Owens	10 Lloyd Rd	Newburgh NY	12550
334600 92-3-13	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-6-5	Joseph P Cassidy Jr., Jean Cassidy	14 Tighe Ave	Newburgh NY	12550
334600 95-2-5.1	Anthony E Burnett, Connie Burnett	8 Anita Ln	Newburgh NY	12550
334600 93-1-64.2	Israel Rodriguez, Eugene Rodriguez	129 Fletcher Dr N	Newburgh NY	12550
334600 93-1-64.1	Jorge E Bermudez, Elena Bermudez	121 Fletcher Dr N	Newburgh NY	12550
334600 93-1-64.41	Matilde Reyes	127 Fletcher Dr N	Newburgh NY	12550
334600 115-3-16	Dorothy Flournoy	405 Plum Ct	Newburgh NY	12550
334600 92-3-21	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-3-10	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-3-1	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-6-15	Joseph P Cassidy	900 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 92-6-18	Joseph P Cassidy	900 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 86-1-96	Frank Darrigo, The Frank Darrigo Under	84 Lakeside Rd	Newburgh NY	12550
334600 92-6-22	Joseph Cassidy	900 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 92-3-12	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 93-1-64.53	John Alba, Alicia Alba	116 N Fletcher Dr N	Newburgh NY	12550
334600 92-3-9	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-3-17	Albert F Hague	414 Lattintown Road	Marlboro NY	12542
334600 92-6-3	Joseph P Cassidy	900 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 89-1-69.11	Manheim Remarketing, Inc., DBA Newburgh Auto Auction	6205 Peachtree Dunwoody Road	Atlanta GA	30328
334600 93-1-64.43	Raymond Yannone III	2899 Route 9W	New Windsor NY	12553
334600 92-6-16	Joseph P Cassidy	900 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 93-1-60.2	Sunnyside Development LLC	19 Lindy Dr	Carmel NY	10512
334600 93-1-64.51	Martin John Bradley, Vanessa A Ishak	130 Fletcher Dr N	Newburgh NY	12550
334600 92-3-2	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-3-5	Robert C Lattimore, Arlene T Lattimore	10 Homewood Ave	Newburgh NY	12550
334600 92-6-2	Joseph P Cassidy	900 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 89-2-23	NYS Dept of Transportation	Bldg 138 Stewart Airport	Newburgh NY	12550
334600 94-1-57	Newburgh Z Property LLC	16 Hamilton Trl	Totowa NJ	07512
334600 92-6-17	Joseph P Cassidy	900 Cove Cay Dr Apt 1C	Clearwater FL	33760
334600 93-1-64.52	Brian Rivera	2410 Barker Ave Apt 13G	Bronx NY	10467

NOTES

1. THIS PLAN IS BASED UPON EXISTING PHYSICAL CONDITIONS FOUND AT THE SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:
   A. TAX MAP
   B. FILED MAP No. 919 IN THE ORANGE COUNTY CLERKS OFFICE TITLED "FRANKLIN PARK ADDITIONAL, EAST CODENHAM, NEW YORK" FILED OCTOBER 6, 1926.
   C. FILED MAP No. 7982 IN THE ORANGE COUNTY CLERKS OFFICE TITLED "SUBDIVISION MAP LANDS OF WILLIAM KAPLAN & SIDNEY BRACHFIELD, TOWN OF NEWBURGH, ORANGE CO., NEW YORK", FILED NOVEMBER 26, 1986.
   D. FILED MAP No. 9070 IN THE ORANGE COUNTY CLERKS OFFICE TITLED "SUBDIVISION OF CONSOLIDATED TAX PARCEL 19–1–70, LANDS OF BERGER AND KARTIGANER, SITUATE ON ROUTE 17K IN THE TOWN OF NEWBURGH, COUNTY OF ORANGE, NEW YORK", FILED APRIL 19, 1990.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83) (EPOCH2011) NEW YORK EAST STATE PLANE COORDINATE SYSTEM GRID NORTH AND SCALED TO GROUND AT A POINT HAVING A NORTH COORDINATE OF 978,071.79 AND AN EAST COORDINATE OF 601,727.43. THE AVERAGE COMBINED SCALE FACTOR FOR SAID POINT TO SCALE FROM GRID TO GROUND IS 1.00010583 AND THE RECIPROCAL FROM GROUND TO GRID IS 0.99989418. POSITION WAS DETERMINED BY GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS) AS PROVIDED BY HEXAGON SMARTNET REAL TIME KINEMATIC CONTINUOUSLY OPERATING REFERENCE STATIONS (RTKCORS).
3. PER THE TOWN OF NEWBURGH CODE SECTION 163–12.1 C. (2), THE LOCATION OF EXISTING AND PROPOSED STRUCTURES, WELLS, SEPTIC SYSTEMS, DRIVEWAYS, UTILITY LINES AND ZONING DISTRICT BOUNDARIES, IF ANY, WITHIN 200 FEET OF THE LOTS SUBJECT TO THE LOT LINE CHANGE SHALL BE SHOWN ON THE LOT LINE CHANGE PLAT.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

100 0 50 100
SCALE IN FEET

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10/10/2023
DATE SIGNED
SIGNATURE ... TSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
LOT LINE CHANGE (1 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No.
CB100

Sheet 4 of 45

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Date: 10/10/2023 Time: 16:30 User: brchambers Style Table: Langan.stb Layout: CB100 Document Code: 190063302-0501-CB101-0101

NOTES

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   C. FILED MAP No. 7982 IN THE ORANGE COUNTY CLERKS OFFICE TITLED "SUBDIVISION MAP LANDS OF WILLIAM KAPLAN & SIDNEY BRACHFIELD, TOWN OF NEWBURGH, ORANGE CO., NEW YORK", FILED NOVEMBER 26, 1986.
   D. FILED MAP No. 9070 IN THE ORANGE COUNTY CLERKS OFFICE TITLED "SUBDIVISION OF CONSOLIDATED TAX PARCEL 19-1-70, LANDS OF BERGER AND KARTIGANER, SITUATE ON ROUTE 17K IN THE TOWN OF NEWBURGH, COUNTY OF ORANGE, NEW YORK", FILED APRIL 19, 1990.
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3. PER THE TOWN OF NEWBURGH CODE SECTION 163-12.1 C. (2), THE LOCATION OF EXISTING AND PROPOSED STRUCTURES, WELLS, SEPTIC SYSTEMS, DRIVEWAYS, UTILITY LINES AND ZONING DISTRICT BOUNDARIES, IF ANY, WITHIN 200 FEET OF THE LOTS SUBJECT TO THE LOT LINE CHANGE SHALL BE SHOWN ON THE LOT LINE CHANGE PLAT.

ZONING TABLE: TOWN OF NEWBURGH, NY
INTERCHANGE BUSINESS (IB) ZONING DISTRICT

CODE REF.	BULK REGULATION	REQUIRED	PROPOSED LOT	
			PROPOSED	COMPLIANCE
Schedule 8	PRINCIPAL USE	Use subject to site plan review by Planning Board	Warehouse	YES
Schedule 8	MIN. LOT AREA	40,000 SF	"±2,698,696 SF (62.0 AC) "	YES
Schedule 8	MIN. LOT WIDTH	150 FT	720 FT	YES
Schedule 8	MIN. LOT DEPTH	150 FT	2,110 FT	YES
Sect. 185-18	MIN. FRONT YARD (STATE ROAD)(1)	60 FT	>60 FT	YES
Schedule 8	MIN. SETBACK FROM ROUTE 17K(2)	500-FT	>500-FT	YES
Schedule 8	MIN. REAR YARD	60 FT	>60 FT	YES
Schedule 8	MIN. SIDE YARD (ONE SIDE)	30 FT	>30 FT	YES
Schedule 8	MIN. SIDE YARD (BOTH SIDES)	80 FT	>80 FT	YES

Notes:

(1) A 60 FT front yard setback is required from State roads (NYS Route 17K)

(2) Per Schedule 8, Column D., Line Item 9., "Warehouse, storage and transportation facilities, including truck and bus terminals, not within 500 feet of Route 17K" is a use subject to site plan review by the Planning Board.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

100 0 50 100
SCALE IN FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

SIGNATURE — DATE SIGNED 10/10/2023
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

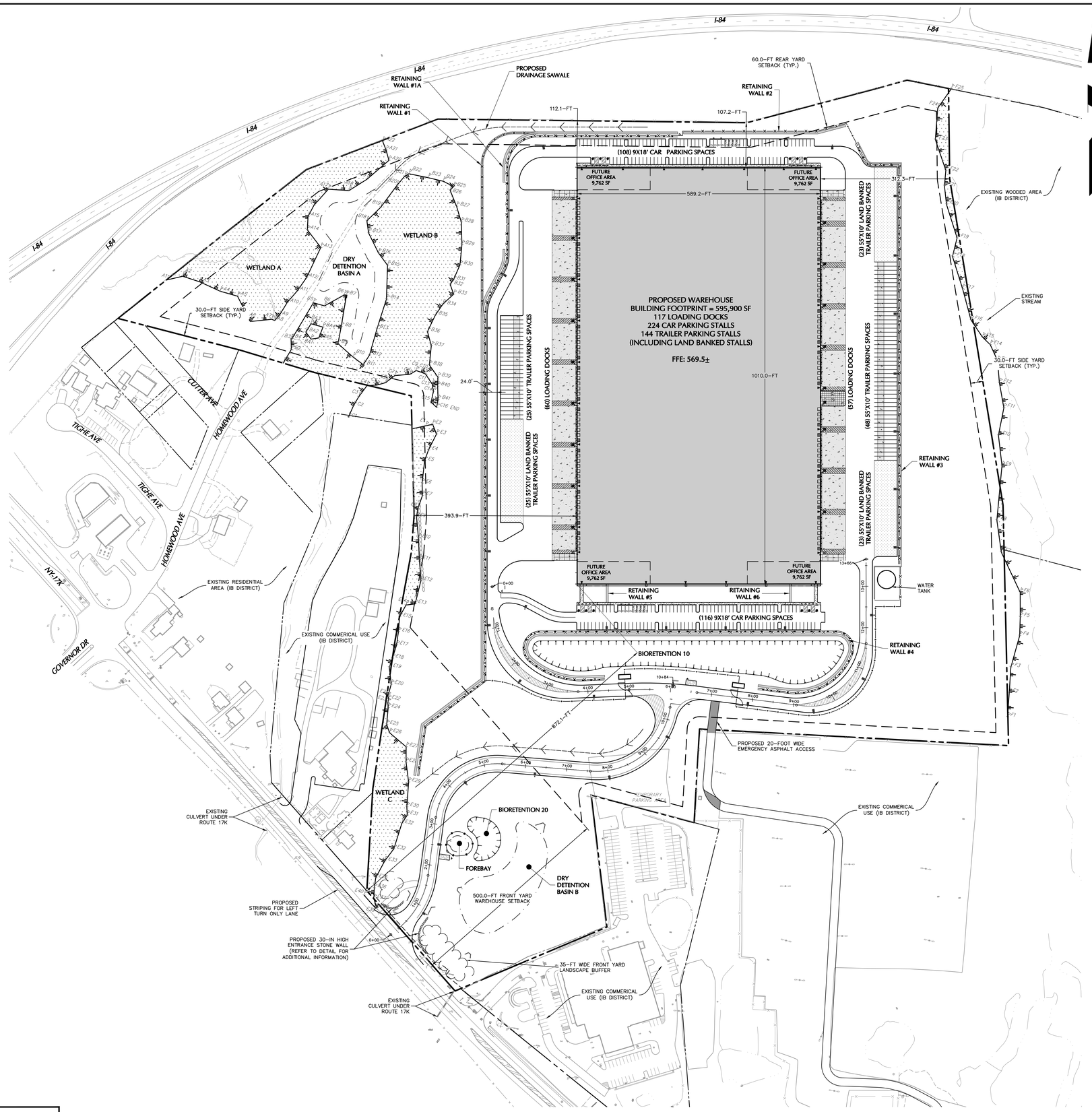
LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
LOT LINE CHANGE (2 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU
Drawing No. CB200

Date: 10/10/2023 Time: 16:30 User: brchambers Style Table: Langan.stb Layout: CS102 Document Code: 190063302-0501-CB101-0102



ZONING TABLE: TOWN OF NEWBURGH, NY				
INTERCHANGE BUSINESS (IB) ZONING DISTRICT				
CODE REF.	**BULK REGULATION**	**REQUIRED**	**PROPOSED LOT**	
			PROPOSED	**COMPLIANCE**
Schedule 8	PRINCIPAL USE	Use subject to site plan review by Planning Board	Warehouse	YES
Schedule 8	MIN. LOT AREA	40,000 SF	±2,698,696 SF (62.0 AC)	YES
Schedule 8	MIN. LOT WIDTH	150 FT	720 FT	YES
Schedule 8	MIN. LOT DEPTH	150 FT	2,110 FT	YES
Sect. 185-18	MIN. FRONT YARD (STATE ROAD)[1]	60 FT	872.1 FT	YES
Schedule 8	MIN. SETBACK FROM ROUTE 17K[2]	500-FT	872.1 FT	YES
Schedule 8	MIN. REAR YARD	60 FT	107.2 FT	YES
Schedule 8	MIN. SIDE YARD (ONE SIDE)	30 FT	312.3 FT	YES
Schedule 8	MIN. SIDE YARD (BOTH SIDES)	80 FT	706.2 FT	YES
Schedule 8	MAX. LOT BUILDING COVERAGE	40%	22.1%	YES
Schedule 8	MAX. BUILDING HEIGHT	40 FT	< 40 FT	YES
Schedule 8	MAX. LOT SURFACE COVERAGE	80%	<60%	YES
Sect. 185-18	FRONT YARD LANDSCAPE BUFFER ALONG ROUTE 17K	35 FT	35 FT	YES

Notes:
(1) A 60 FT front yard setback is required from State roads (NYS Route 17K)

(2) Per Schedule 8, Column D., Line Item 9., "Warehouse, storage and transportation facilities, including truck and bus terminals, not within 500 feet of Route 17K" is a use subject to site plan review by the Planning Board.

LOADING & OFF-STREET PARKING REQUIREMENTS SECTION (185-13)		
Zone: IB (Interchange Business)		
Loading Requirements	**Required**	**Proposed**
2 spaces up to initial 40,000 SF and 1 additional space for each 40,000 square feet in addition to the first 40,000 square feet	Initial 40,000 SF Building = 2 spaces 555,500 SF Remaining Building / 40,000 SF = 13.9 spaces 2 spaces + 14 spaces = 16 loading spaces required	**> 16 spaces provided**
Off-Street Parking Requirements		
Office Building: 1/200 SF of building floor area for first 20,000 SF of floor area, then 1/300 SF additional floor area	20,000 SF total office space proposed 20,000 SF office / 200 SF = 100 spaces required	**224 total spaces provided**
Warehouse: 2 per 3 employees on duty or on the premises at any one time (minimum 2 spaces)	186 employees per shift / 3 employees = 62 spaces 62 spaces * 2 spaces = 124 spaces required	
Total	100 spaces + 124 spaces = 224 spaces required	
ADA Accessible Parking Requirements		
	201-300 total spaces = 7 ADA spaces required	**12 spaces provided**

SITE NOTES

1. ALL GUARD HOUSES AND ASSOCIATED SECURITY FENCES AND UTILITIES TO BE INSTALLED AT OWNER'S OPTION BASED ON TENANT REQUIREMENTS.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Revisions		
Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

100 0 50 100
SCALE IN FEET

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STATE OF NEW YORK — CHARLES UTSCHIG — 062303 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE
CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303
10/10/2023
DATE SIGNED

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SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
OVERALL SITE PLAN

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. CS100
Sheet 6 of 45

Date: 10/10/2023 Time: 16:30 User: brchambers Style Table: Langan.stb Layout: CS100 Document Code: 190063302-0501-CS101-0101

INTERSTATE 84

84

RETAINING WALL #1A
MODULAR BLOCK RETAINING WALL (±17-FOOT HIGH MAX.)

RETAINING WALL #1
MODULAR BLOCK RETAINING WALL (±51-FOOT HIGH MAX.)

PROPOSED FALL PROTECTION FENCE (TYP.)

PROPOSED DRAINAGE SWALE

8-FT MIN. X 18-FT ADA PARKING SPACE (TYP.)

WHEEL STOP (TYP.)

2.0-FT WIDE CURB BREAK

PROPOSED GUIDERAIL (TYP.)

SECURITY FENCE AND GATE TO BE INSTALLED AT OWNERS OPTION (TYP.)

PROPOSED FALL PROTECTION FENCE (TYP.)

FOUR (4) PROPOSED EV SPACES

FOUR (4) PROPOSED FUTURE EV SPACES

RETAINING WALL #2
MODULAR BLOCK OR BIG BLOCK RETAINING WALL (±19-FOOT HIGH MAX.)

8-FT MIN. X 18-FT ADA PARKING SPACE (TYP.)

2.0-FT WIDE CURB BREAK

60.0-FT REAR YARD SETBACK (TYP.)

SECURITY FENCING TO BE INSTALLED AT OWNERS OPTION (TYP.)

6-INCH HIGH CONCRETE CURB (TYP.)

RETAINING WALL #3
MODULAR BLOCK RETAINING WALL (±30-FOOT HIGH MAX.)

WETLAND A

DRY DETENTION BASIN A

WETLAND B

EXISTING ACCESS PATH SHALL BE UTILIZED FOR STORMWATER MAINTENANCE

30.0-FT SIDE YARD SETBACK

EXISTING GATE TO REMAIN

FLUSH CURB (TYP.)

BUILDING OVERHANG (TYP.)

24.0-FT

FUTURE OFFICE AREA 9,762 S.F.

6.0-FT WIDE CONCRETE SIDEWALK

590.0-FT

18.0-FT (TYP.)

10.2-FT

9.0-FT (TYP.)

26.0-FT

282.7-FT

DRIVE-IN RAMP SHALL BE INSTALLED AT OWNERS OPTION

5-FT WIDE ACCESS GATE

24.0-FT

70.0-FT

60.0-FT

DOOR (TYP.)

LOADING DOCK (TYP.)

CROSSED HATCH DOCK INDICATES THAT LOADING DOCK EQUIPMENT WILL NOT BE INSTALLED. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

70.0-FT

23 LAND BANKED TRAILER SPACES

PROPOSED WAREHOUSE
BUILDING FOOTPRINT = 595,900 SF
117 LOADING DOCKS
224 CAR PARKING STALLS
144 TRAILER PARKING STALLS
(INCLUDING LAND BANKED STALLS)

1010.0-FT

55.0-FT

8.0-FT

15-FT WIDE CONCRETE DOLLY STRIP (TYP.)

24.0-FT

25 LAND BANKED TRAILER SPACES

393.9-FT

24.0-FT

10.0-FT

60.0-FT

70.0-FT

55.0-FT

8.0-FT

30.0-FT SIDE YARD SETBACK (TYP.)

PROPOSED LIGHTPOLE (TYP.)

15-FT WIDE CONCRETE DOLLY STRIP (TYP.)

TRANSFORMER

23 LAND BANKED TRAILER SPACES

DOOR (TYP.)

CROSSED HATCH DOCK INDICATES THAT LOADING DOCK EQUIPMENT WILL NOT BE INSTALLED. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

LOADING DOCK (TYP.)

60.0-FT

70.0-FT

55.0-FT

LEGEND

FALL PROTECTION FENCE	-x-x-x-x-x-x-x-x-x-
8-FT SECURITY FENCE	——+——+——+——+——
GUIDE RAIL	—•—•—•—•—•—•—

SIGN LEGEND

A	B	C	D
STOP	RESERVED PARKING	NO PARKING ANY TIME	STORMWATER MANAGEMENT PRACTICE – SMP NAME Project Identification – PROJECT NAME Must Be Maintained In Accordance With O & M Plan DO NOT REMOVE OR ALTER
R1-1 30"x30"	R7-8 12"x18"	R7-1 12"x18"	STORMWATER PRACTICE MAINTENANCE SIGN 24"x18"

NOTE: ALL PROPOSED SIGNAGE SHALL CONFORM TO THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) FOR SIZE, LEGEND AND PLACEMENT.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
2	PLANNING BOARD SUBMISSION	10/12/2023
1	PLANNING BOARD SUBMISSION	8/28/2023

Revisions

50 0 25 50
SCALE: 1 INCH = 50 FEET

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STATE OF NEW YORK — CHARLES UTSCHIG JR. — 062303 — PROFESSIONAL ENGINEER

10/10/2023
DATE SIGNED

PROFESSIONAL ENGINEER NY Lic. No. 062303

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Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SITE PLAN (1 OF 2)

Project No.	190063302
Date	JULY 10, 2023
Drawn By	LM
Checked By	CU

Drawing No.
CS101
Sheet 7 of 45

Date: 10/10/2023 Time: 16:31 User: brchambers Style Table: Langan.stb Layout: CS101 Document Code: 190063302-0501-CS101-0102

PROPOSED WAREHOUSE
BUILDING FOOTPRINT = 595,900 SF
117 LOADING DOCKS
224 CAR PARKING STALLS
144 TRAILER PARKING STALLS
(INCLUDING LAND BANKED STALLS)

DOOR (TYP.)

CROSSED HATCH DOCK INDICATES THAT LOADING DOCK EQUIPMENT WILL NOT BE INSTALLED. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

LOADING DOCK (TYP.)

DRIVE-IN RAMP SHALL BE INSTALLED AT OWNERS OPTION

FUTURE OFFICE AREA 9,762 S.F.

FUTURE OFFICE AREA 9,762 S.F.

8-FT WIDE SIDEWALK TO BUILDING

8-FT WIDE SIDEWALK TO BUILDING

5'X5' CONCRETE PAD (TYP.)

BUILDING OVERHANG (TYP.)

FLUSH CURB (TYP.)

60.0-FT

70.0-FT

55.0-FT

393.9-FT

24.0-FT

24.0-FT

PROPOSED DIRECTIONAL SIGN. FINAL QUANTITY AND LOCATION OF DIRECTIONAL SIGNS TO BE DETERMINED BY OWNER

RETAINING WALL #5
MODULAR BLOCK RETAINING WALL (±8-FOOT HIGH MAX.)

6.0-FT WIDE CONCRETE SIDEWALK

BERM AREA (REFER TO GRADING PLAN)

RETAINING WALL #6
MODULAR BLOCK RETAINING WALL (±8-FOOT HIGH MAX.)

RETAINING WALL #4
MODULAR BLOCK RETAINING WALL (±37-FOOT HIGH MAX.)

PROPOSED FALL PROTECTION FENCE (TYP.)

WATER STORAGE TANK (43'-0" DIA. MAX)

6-INCH HIGH CONCRETE CURB (TYP.)

8-FT MIN. X 18-FT ADA PARKING SPACE (TYP.)

FOUR (4) PROPOSED EV SPACES

FOUR (4) PROPOSED FUTURE EV SPACES

24.0-FT

18.0-FT (TYP.)

9.0-FT (TYP.)

24.0-FT

8-FT MIN. X 18-FT ADA PARKING SPACE (TYP.)

PROPOSED FALL PROTECTION FENCE (TYP.)

PROPOSED GUIDERAIL (TYP.)

2.0-FT WIDE CURB BREAK

2.0-FT WIDE CURB BREAK

BIORETENTION 10

ALL GUARD HOUSES AND ASSOCIATED SECURITY FENCES AND UTILITIES TO BE INSTALLED AT OWNER'S OPTION BASED ON TENANT REQUIREMENTS

PROPOSED DIRECTIONAL SIGN. FINAL QUANTITY AND LOCATION OF DIRECTIONAL SIGNS TO BE DETERMINED BY OWNER

STORMWATER MAINTENANCE ACCESS

ALL GUARD HOUSES AND ASSOCIATED SECURITY FENCES AND UTILITIES TO BE INSTALLED AT OWNER'S OPTION BASED ON TENANT REQUIREMENTS

4-IN WIDE DOUBLE YELLOW STRIPED LINE (TYP.)

RETAINING WALL #1
MODULAR BLOCK RETAINING WALL (±51-FOOT HIGH MAX.)

30.0-FT

15.0-FT

15.0-FT

±22-FT MOUNTABLE CURB

SECURITY FENCING AND GATES TO BE INSTALLED AT OWNERS OPTION (TYP.)

PROPOSED DRAINAGE SWALE

20-FT WIDE EMERGENCY ACCESS

5.0-FT SHOULDER

40.0-FT

15.0-FT

15.0-FT

5.0-FT SHOULDER

TEMPORARY PARKING AREA

TEMPORARY PARKING AREA

WETLAND C

500.0-FT FRONT YARD WAREHOUSE SETBACK (SEE ZONING TABLE FOR ADDITIONAL INFORMATION)

BIORETENTION 20

HEADWALL (TYP.)

EXISTING CULVERT UNDER ROUTE 17K

ROUTE 17K

PROPOSED DRIVEWAY FOR ADJACENT DEVELOPER

PROPOSED 30-INCH HIGH ENTRANCE STONE WALL (REFER TO DETAIL FOR ADDITIONAL INFORMATION)

WOODEN SPLIT RAIL FENCE WITH ACCESS GATE

FOREBAY

DRY DETENTION BASIN B

50.0-FT BAT TAPER

PROPOSED STRIPING FOR LEFT TURN ONLY LANE

150.0-FT STORAGE

PROPOSED MONUMENT SIGN SHALL BE SETBACK FROM THE FRONT LOT LINE A MIN. OF 15-FT

5 LF CURB BREAK AT LOW SPOT

EXISTING CULVERT UNDER ROUTE 17K

FRONT YARD LANDSCAPE BUFFER (REFER TO LANDSCAPE PLAN FOR ADDITIONAL INFORMATION)

LEGEND

FALL PROTECTION FENCE —x—x—x—x—x—x—x—x—x—

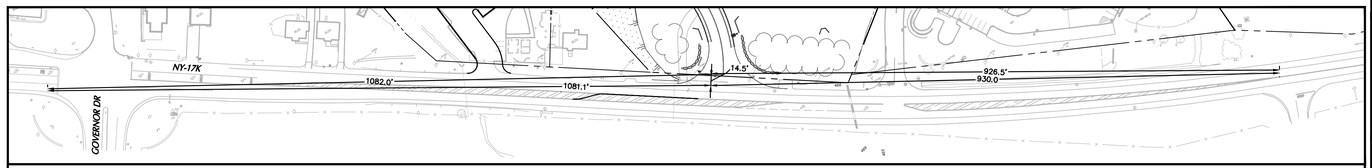
8-FT SECURITY FENCE —|—|—|—|—|—|—|—|—|—

GUIDE RAIL

SIGN LEGEND

A	B	C	D
STOP	RESERVED PARKING	NO PARKING ANY TIME	STORMWATER MANAGEMENT PRACTICE – SMP NAME Project Identification – PROJECT NAME Must Be Maintained In Accordance With O & M Plan DO NOT REMOVE OR ALTER
R1-1 30"x30"	R7-8 12"x18"	R7-1 12"x18"	STORMWATER PRACTICE MAINTENANCE SIGN 24"x18"

NOTE: ALL PROPOSED SIGNAGE SHALL CONFORM TO THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) FOR SIZE, LEGEND AND PLACEMENT.



SPEED LIMIT: 55 MPH
DESIGN SPEED LIMIT: 60 MPH

SIGHT DISTANCE ANALYSIS

SCALE: 1"=100'

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

SCALE: 1 INCH = 50 FEET

STATE OF NEW YORK · CHARLES UTSCHIG · 062303 · PROFESSIONAL ENGINEER

SIGNATURE

10/10/2023
DATE SIGNED

CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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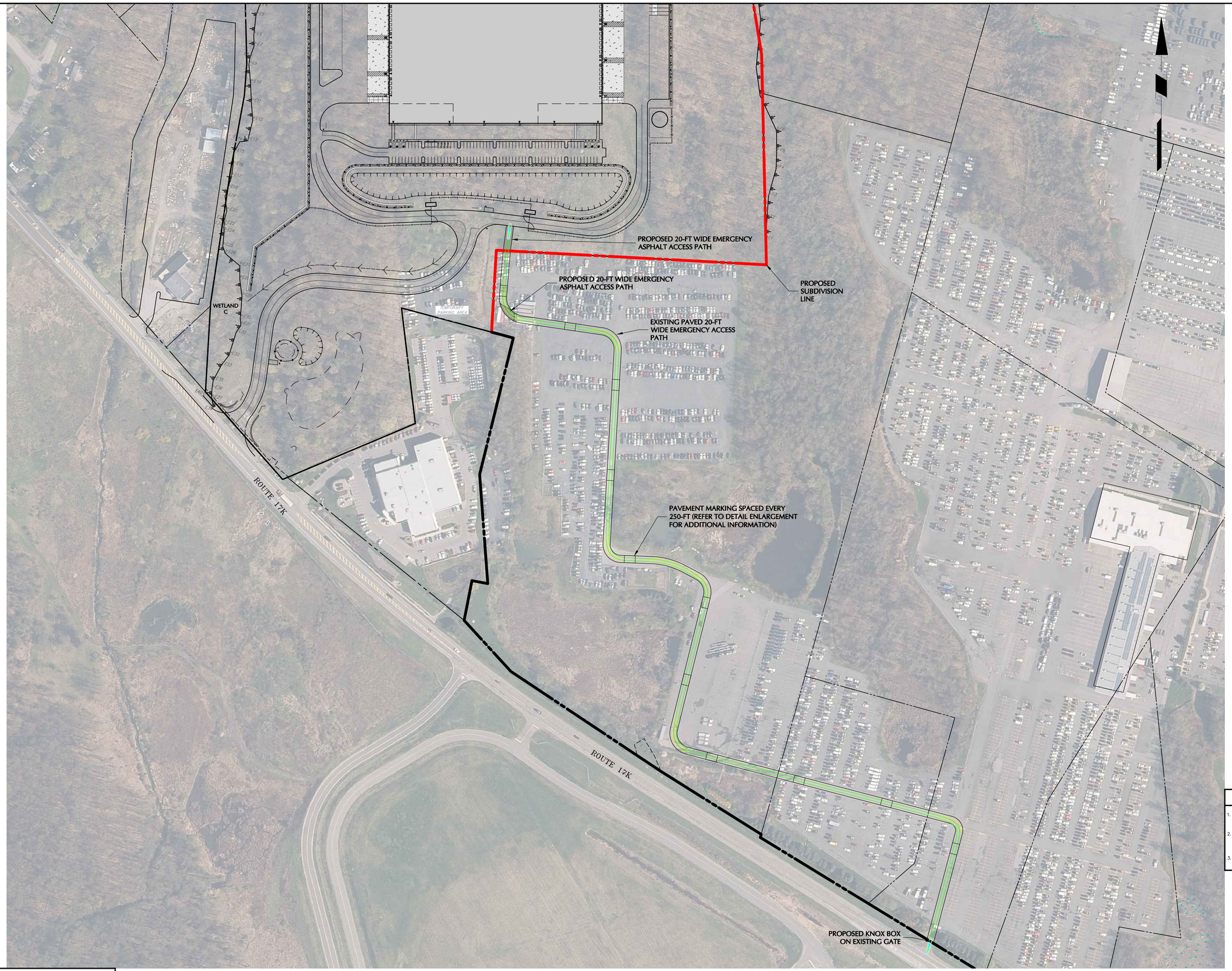
Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SITE PLAN (2 OF 2)

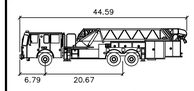
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. CS102
Sheet 8 of 45

Date: 10/10/2023 Time: 16:31 User: brchambers Style Table: Langan.stb Layout: CS102 Document Code: 190063302-0501-CS101-0103



TRUCK PROFILE



Smeal Aerial MM 100ft

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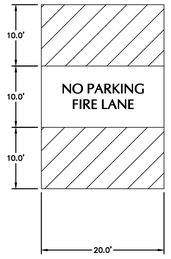
Track	: 7.75
Lock to Lock Time	: 6.0
Steering Angle	: 45.0



PAVEMENT MARKING DETAIL

EMERGENCY ACCESS NOTES

1. EMERGENCY ACCESS PATH SHALL REMAIN FREE FROM OBSTRUCTION
2. THE ENTRANCE TO THE EMERGENCY ACCESS PATH FROM ROUTE 17K SHALL BE ACCESSIBLE AT ALL TIMES BY EMERGENCY SERVICES
3. SNOW SHALL BE PLOWED WITHIN THE LIMITS OF THE EMERGENCY ACCESS PATH

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
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Revisions

100 0 50 100
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SIGNATURE
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Project
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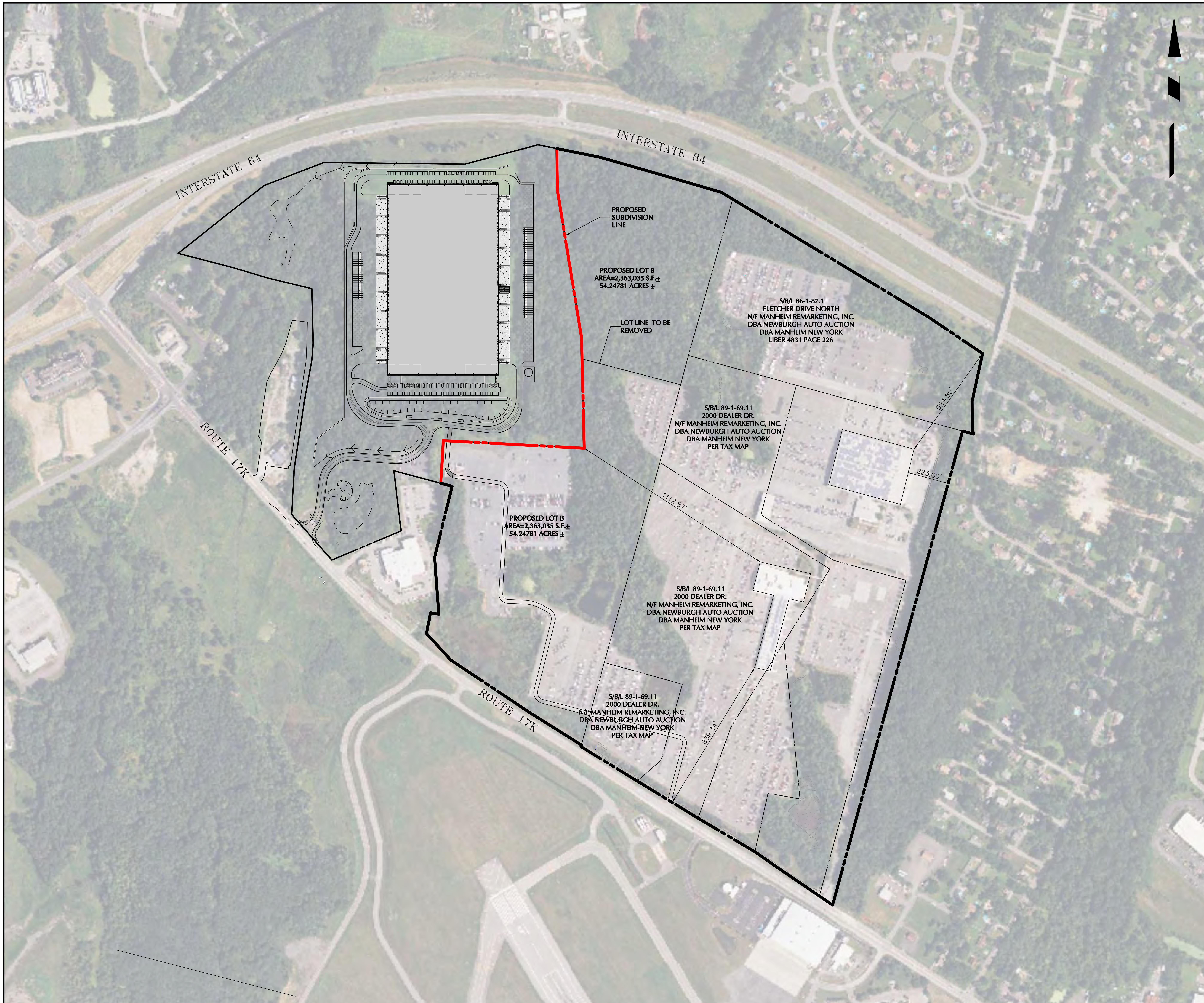
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
EMERGENCY ACCESS ROUTE

Project No.	190063302
Date	JULY 10, 2023
Drawn By	LM
Checked By	CU

Drawing No.
CS200
Sheet 9 of 45



ZONING TABLE: TOWN OF NEWBURGH, NY				
INTERCHANGE BUSINESS (IB) ZONING DISTRICT				
CODE REF.	BULK REGULATION	REQUIRED	PROPOSED LOT	
			POST SUBDIVISION	COMPLIANCE
Schedule 8	PRINCIPAL USE	Use subject to site plan review by Planning Board	Auto Dealership	YES
Schedule 8	MIN. LOT AREA	40,000 SF	±6,927,531 SF (159.0 AC)	YES
Schedule 8	MIN. LOT WIDTH	150 FT	2,739.6 FT	YES
Schedule 8	MIN. LOT DEPTH	150 FT	2,110.0 FT	YES
Sect. 185-18	MIN. FRONT YARD (STATE ROAD)	60 FT	839.3 FT	YES
Schedule 8	MIN. REAR YARD	60 FT	624.8 FT	YES
Schedule 8	MIN. SIDE YARD (ONE SIDE)	30 FT (1)	223.0 FT	YES
Schedule 8	MIN. SIDE YARD (BOTH SIDES)	80 FT	1,335.9 FT	YES
Schedule 8	MAX. LOT BUILDING COVERAGE	40%	±2.8%	YES
Schedule 8	MAX. BUILDING HEIGHT	40 FT	EXISTING	YES
Schedule 8	MAX. LOT SURFACE COVERAGE	80%	±51.4%	YES

Notes:
(1) Per code section 185-18C(5)(a), a portion of the eastern boundary of the manheim site is subject to an additional side yard setback based on building area. The proposed subdivision of the lot will not have an affect on the eastern property line or its associated side yard

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

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8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

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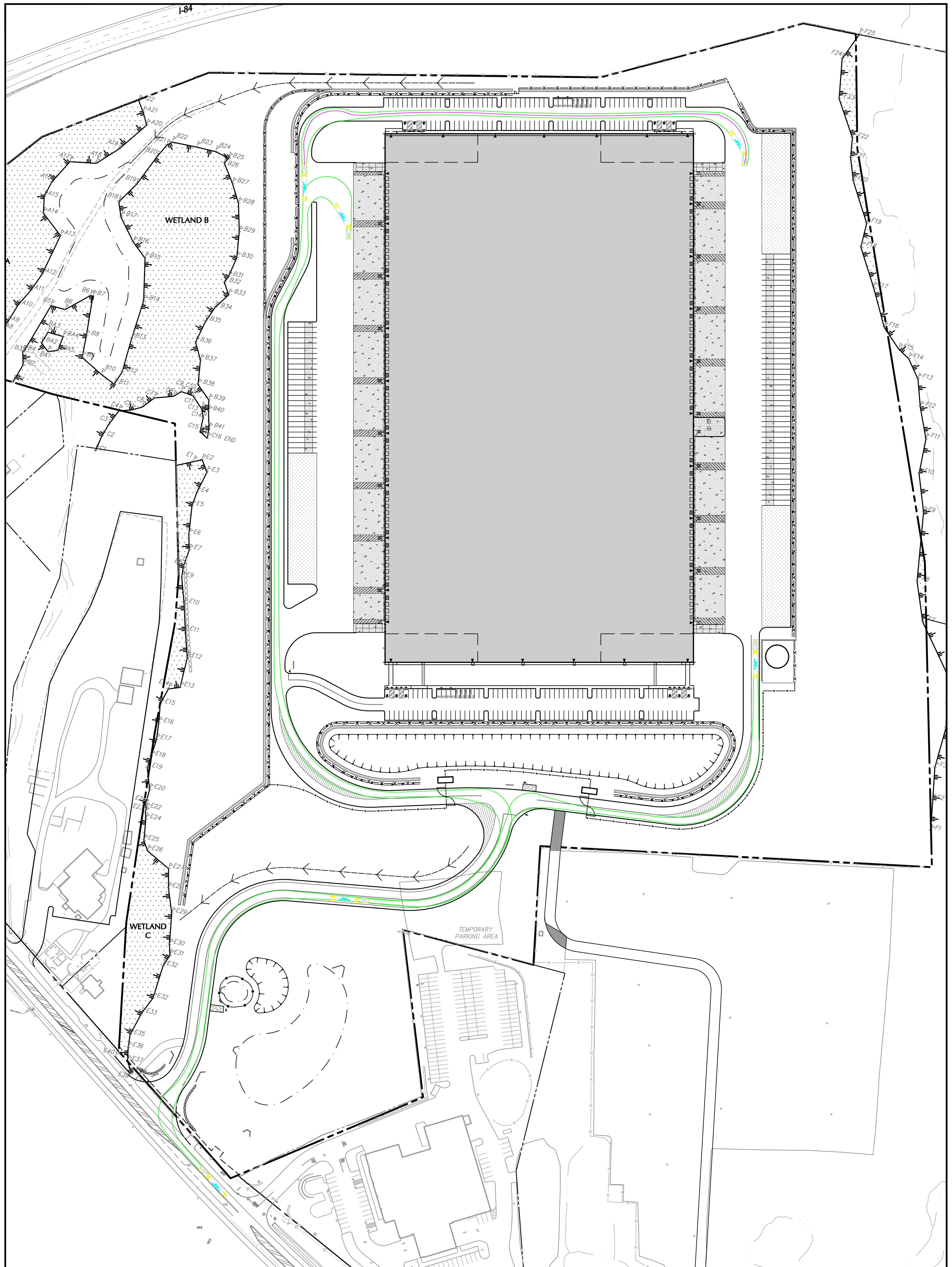
DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
MANHEIM ZONING ANALYSIS

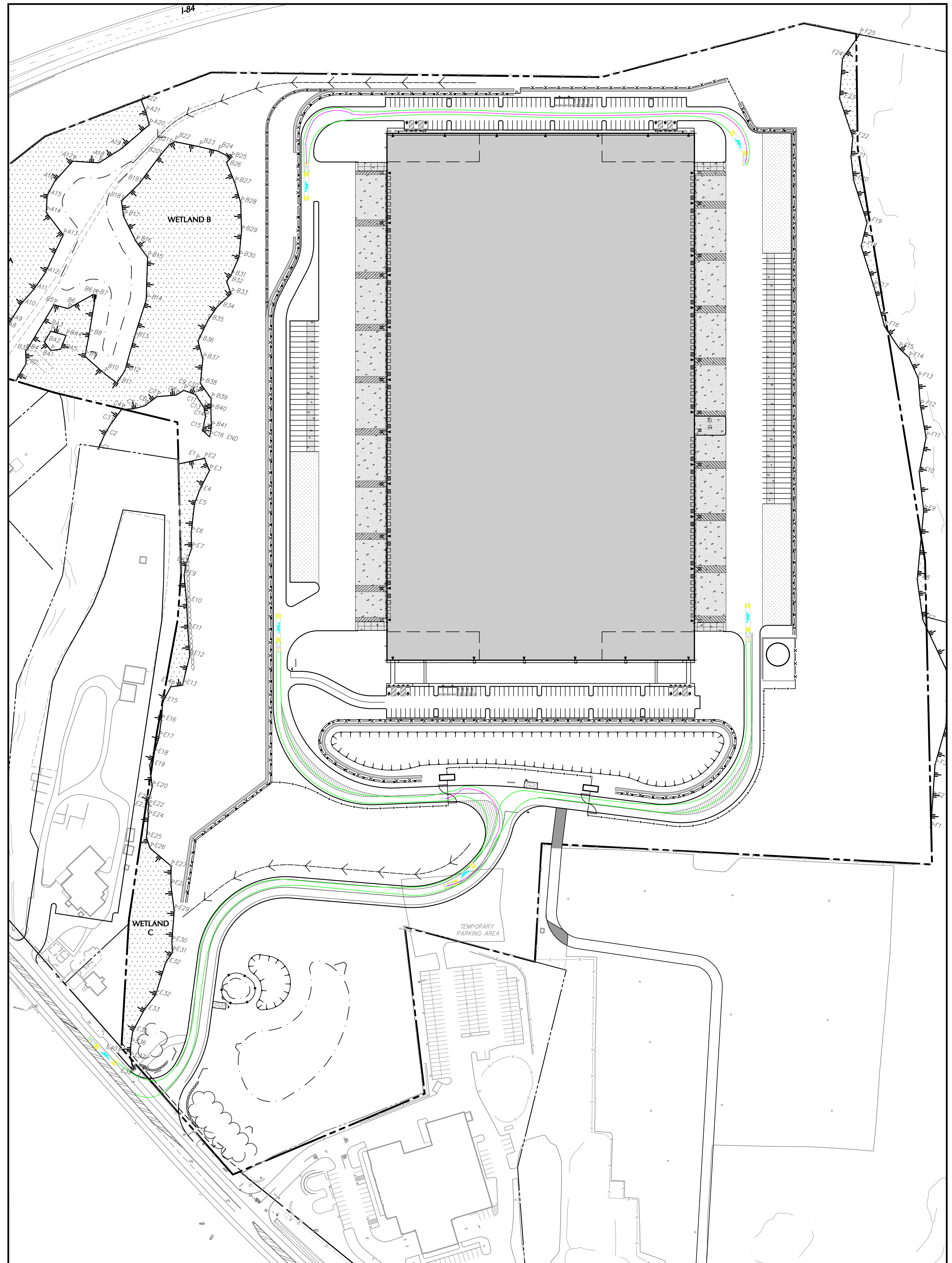
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No.
CS300
Sheet 10 of 45

Date: 10/10/2023 Time: 16:32 User: brchambers Style Table: Langan.stb Layout: CS300 Document Code: 190063302-0501-CS101-0105



TRUCK TURNING MOVEMENTS
ENTERING SITE



TRUCK TURNING MOVEMENTS
EXITING SITE

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

100 0 50 100
SCALE IN FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

SIGNATURE
10/10/2023
DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
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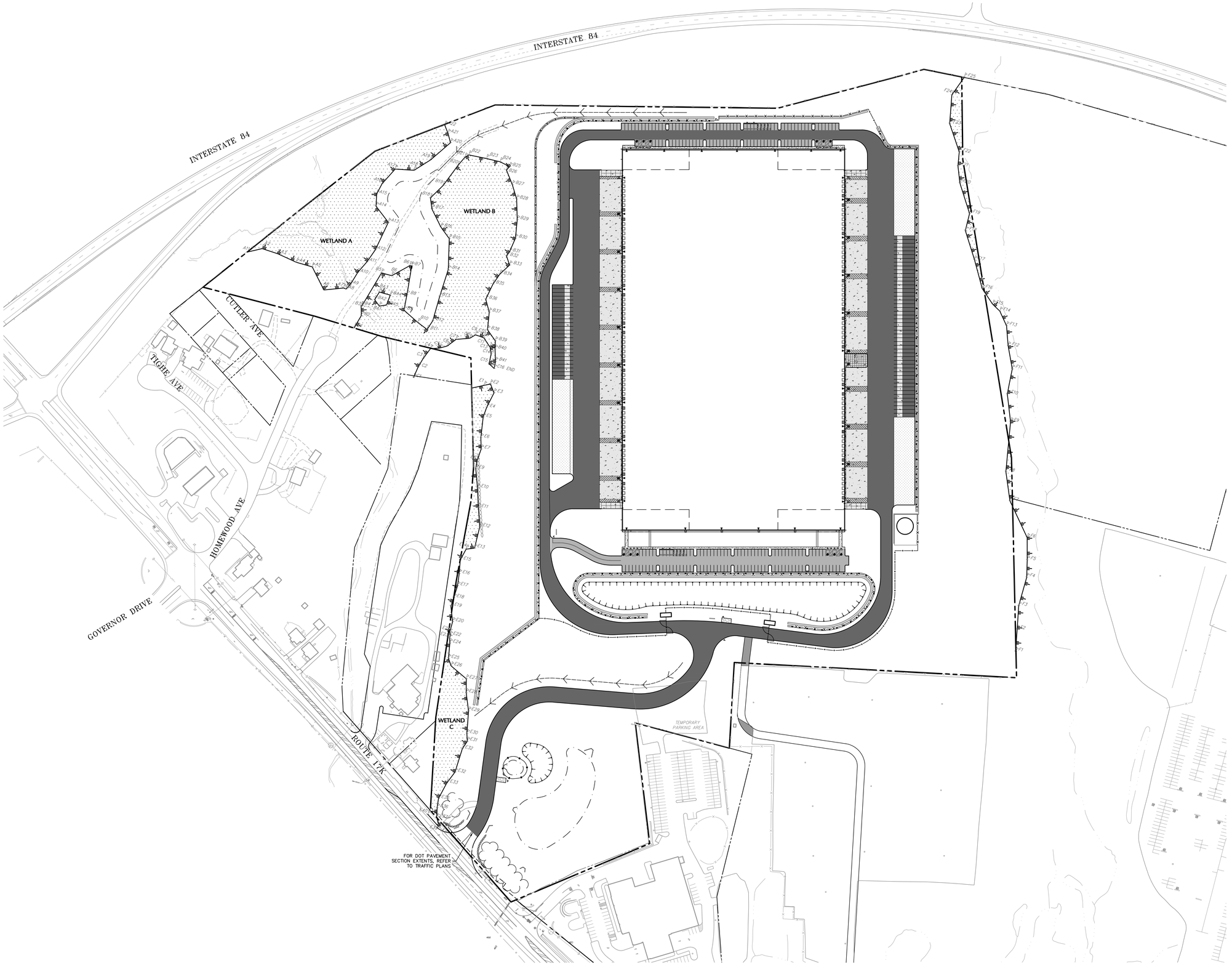
Project
MATRIX I-84
DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
TRUCK TURNING MOVEMENT PLAN

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No.
TM100
Sheet 11 of 45

Date: 10/10/2023 Time: 16:32 User: brchambers Style Table: Langan.stb Layout: TM100 Document Code: 190063302-0501-CA101-0101



LEGEND

- CAR PARKING (STANDARD DUTY PAVEMENT)
- ACCESS DRIVES AND TRUCK COURTS (HEAVY DUTY PAVEMENT)
- LOADING DOCK/DOLLY PAD (HEAVY DUTY CONCRETE PAVEMENT)
- CONCRETE SIDEWALK (STANDARD DUTY CONCRETE PAVEMENT)
- GRAVEL ACCESS ROAD
- LAND BANKED PARKING/TRAILER STORAGE SPACES (SEE NOTE 1)

PAVEMENT PLAN NOTES

1. ALL LAND BANKED PARKING AREAS SHALL BE BACKFILLED WITH MATERIAL/TOPSOIL FROM THE SITE AND SEEDED PER SPEC ON SHEET LP501.
2. INSTALL CURB AND DRAINAGE INLETS ALONG LOW SIDE OF THE LOT. THE LOT SHOULD BE FILLED WITH ONSITE MATERIAL/TOPSOIL AND SEEDED PER SPEC ON SHEET LP501.
3. GRADE AREAS TO DRAIN INTO STORMWATER MANAGEMENT FEATURE, DO NOT INSTALL FLUSH CURB. GRAVEL DIAPHRAGM TO BE INSTALLED AS STORMWATER PRETREATMENT. LOT AREA TO BE FILLED WITH ONSITE MATERIAL/TOPSOIL AND SEEDED PER SPEC ON SHEET LP501.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

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8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

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STATE OF NEW YORK — CHARLES H. SCHIG JR. — 062303 — PROFESSIONAL ENGINEER

10/10/2023
DATE SIGNED

CHARLES H. SCHIG JR., P.E.
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Project
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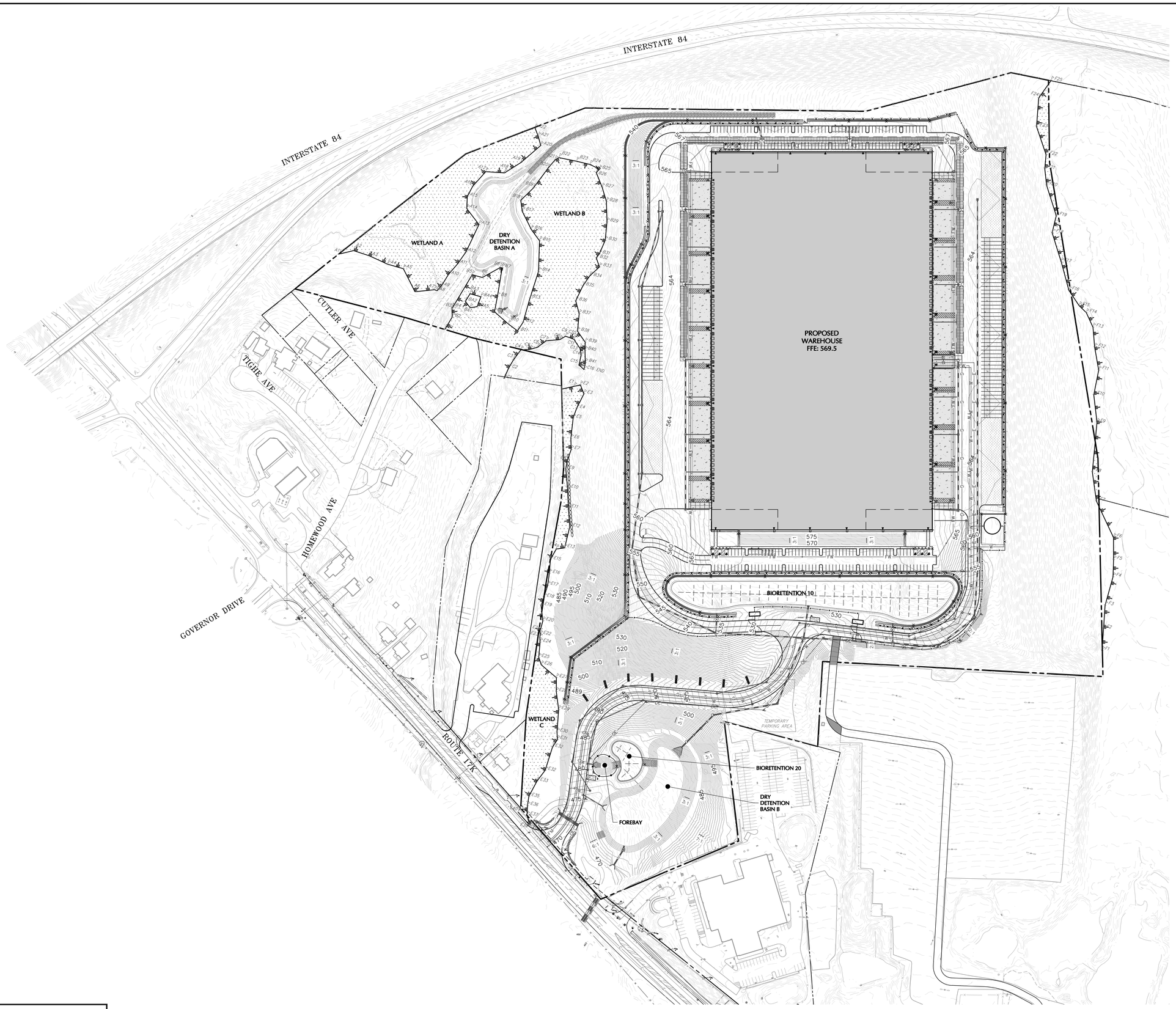
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY **NEW YORK**

Drawing Title
PAVEMENT PLAN

Project No. **190063302**
Date **JULY 10, 2023**
Drawn By **LM**
Checked By **CU**

Drawing No. **CP100**
Sheet **12** of **45**

Date: 10/10/2023 Time: 16:33 User: brchambers Style Table: Langan.stb Layout: CP100 - PAVEMENT PLAN Document Code: 190063302-0501-CP101-0101



TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
3	PLANNING BOARD SUBMISSION	10/12/2023
2	ISSUED FOR SEQR CLARIFICATION	10/03/2023
1	PLANNING BOARD SUBMISSION	8/28/2023

Revisions

100 0 50 100
SCALE IN FEET

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SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

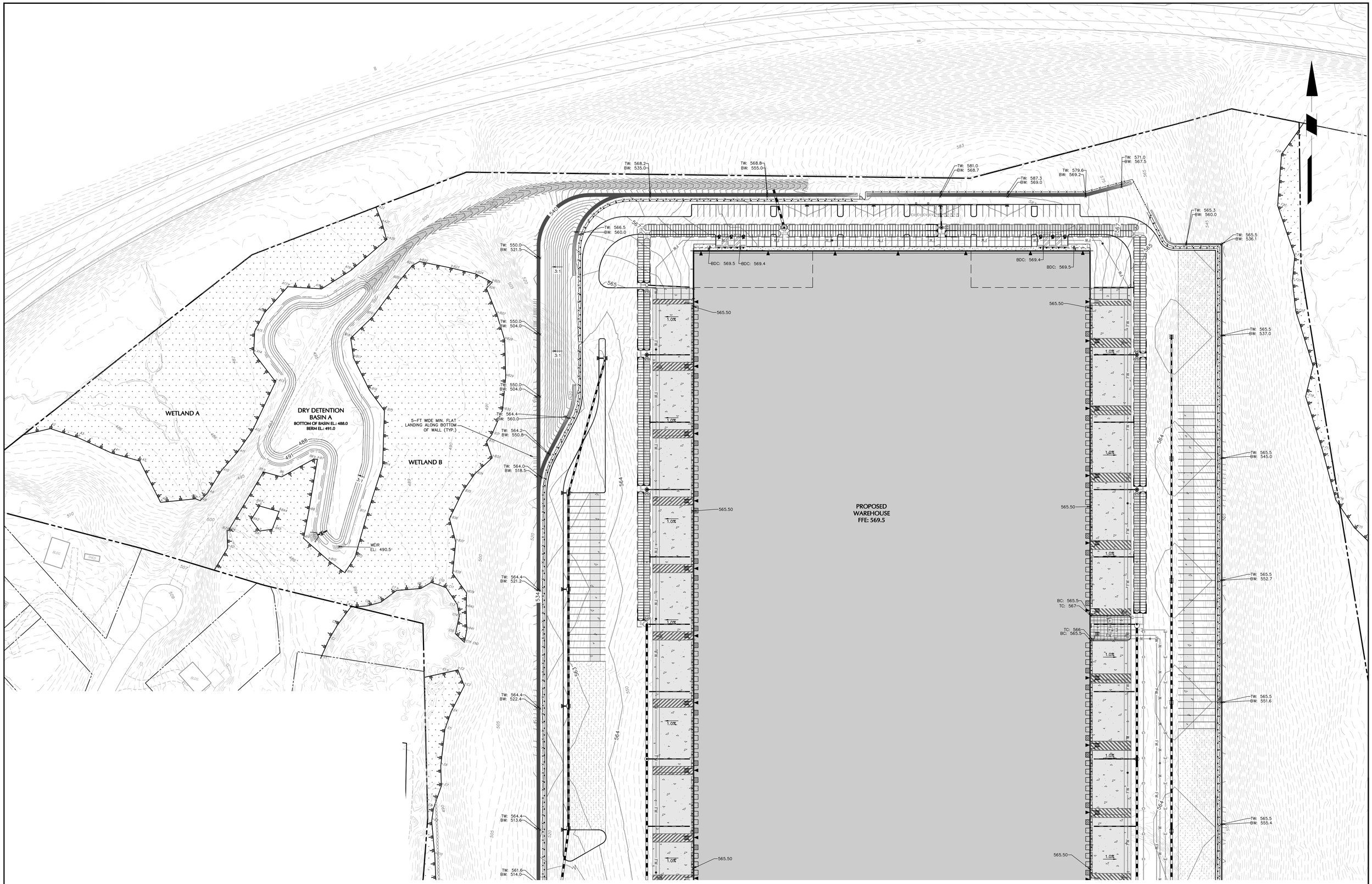
Drawing Title
OVERALL GRADING PLAN

Project No.	190063302
Date	JULY 10, 2023
Drawn By	LM
Checked By	CU

Drawing No. CG100

Sheet 13 of 45

Date: 10/11/2023 Time: 12:21 User: lmcmahon Style Table: Langan.stb Layout: CG100 Document Code: 190063302-0501-CG101-0101



TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	3
10/03/2023	ISSUED FOR SEQR CLARIFICATION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

50 0 25 50
SCALE: 1 INCH = 50 FEET

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STATE OF NEW YORK — CHARLES UTSCHIG — 062303 — PROFESSIONAL ENGINEER

SIGNATURE — CHARLES UTSCHIG JR., P.E.
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SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
GRADING PLAN (1 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. CG101
Sheet 14 of 45

Date: 10/10/2023 Time: 16:33 User: brchambers Style Table: Langan.stb Layout: CG101 Document Code: 190063302-0501-CG101-0102

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	3
10/03/2023	ISSUED FOR SEQR CLARIFICATION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

SCALE: 1 INCH = 50 FEET

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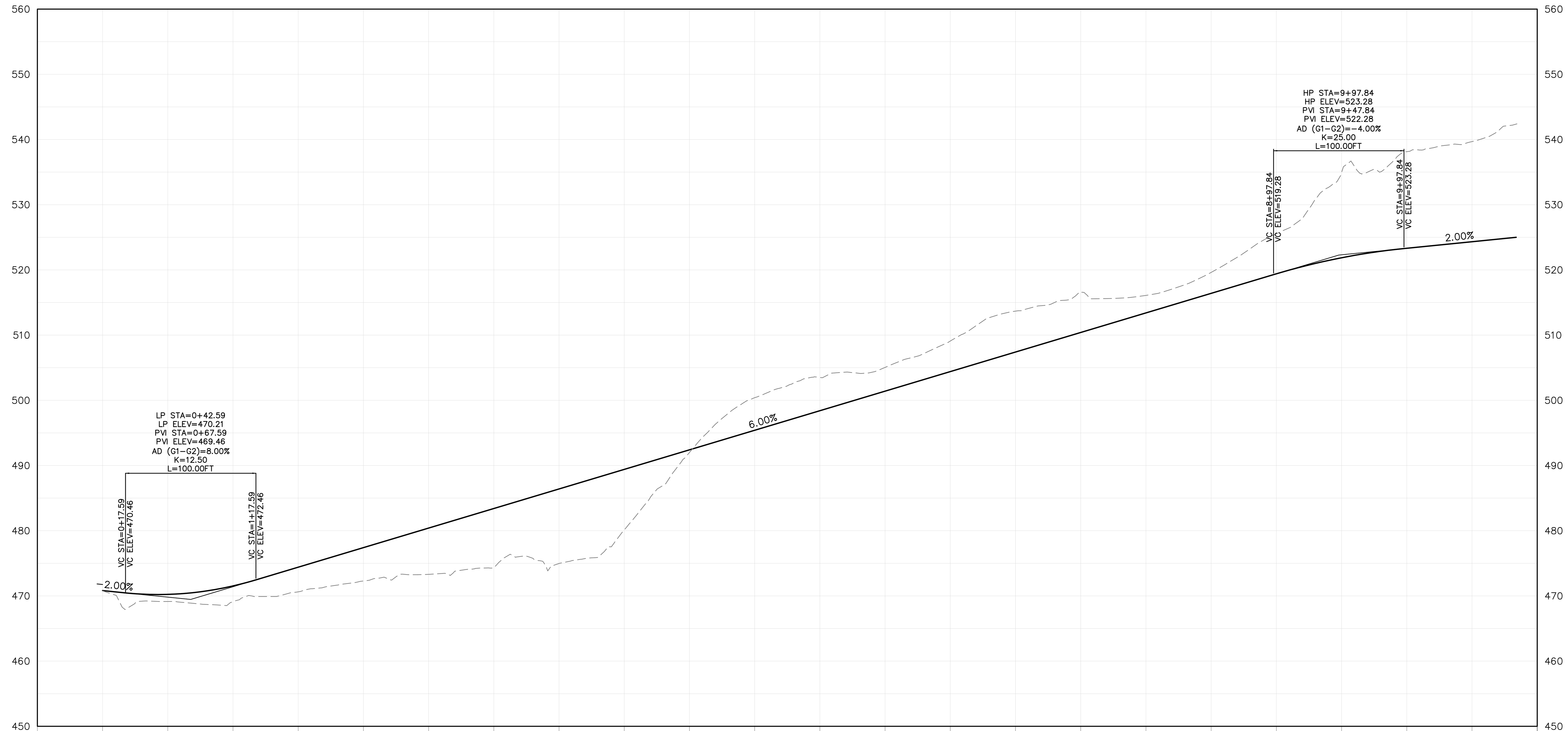
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
GRADING PLAN (2 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

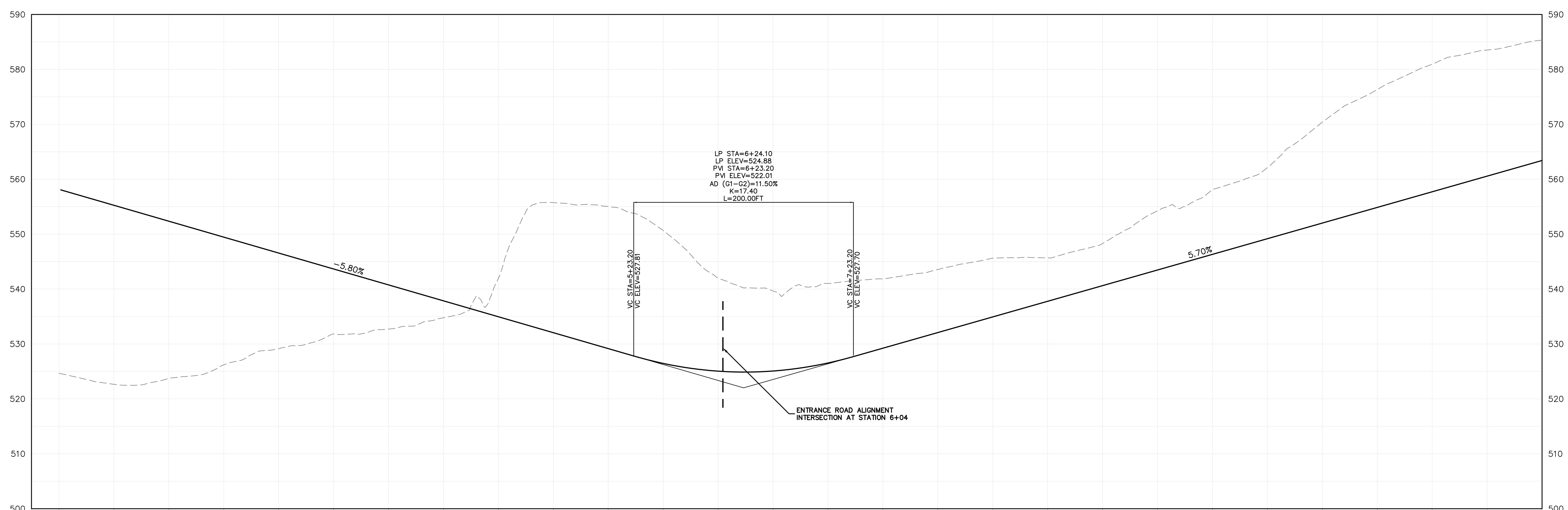
Drawing No.
CG102
Sheet 15 of 45

Date: 10/11/2023 Time: 12:22 User: lmcmahon Style Table: Langan.stb Layout: CG102 Document Code: 190063302-0501-CG101-0103



DISTANCE (FEET)	0		100		200		300		400		500		600		700		800		900		1000		1100
EXISTING ELEV (FEET)	470.8	469.1	469.1	470.6	472.3	473.3	474.3	475.0	480.1	492.0	500.4	503.5	505.0	509.1	513.7	516.5	516.1	519.6	525.5	535.0	538.1	539.7	
PROPOSED ELEV (FEET)	470.8	470.2	471.5	474.4	477.4	480.4	483.4	486.4	489.4	492.4	495.4	498.4	501.4	504.4	507.4	510.4	513.4	516.4	519.4	521.9	523.3	524.3	

ENTRANCE ROAD PROFILE
SCALE: H: 1"=50'
V: 1'=10'



DISTANCE (FEET)	0		100		200		300		400		500		600		700		800		900		1000		1100		1200		1300	
EXISTING ELEV (FEET)	524.7	522.7	523.7	526.2	529.1	531.8	532.7	534.8	541.9	555.7	555.0	550.6	542.0	539.6	541.0	541.8	543.6	545.6	545.7	548.3	554.3	558.1	562.1	570.4	576.3	580.9	583.5	585.3
PROPOSED ELEV (FEET)		555.3	552.4	549.5	546.6	543.7	540.8	537.9	535.0	532.1	529.2	526.5	525.0	525.1	526.5	529.2	532.1	534.9	537.8	540.6	543.5	546.3	549.2	552.0	554.9	557.7	560.6	563.4

MAIN ENTRANCE LOOP ROAD
SCALE: H: 1"=50'
V: 1'=10'

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

H: 50 V: 10 — 0 0 — 25 5 — 50 10
SCALE IN FEET

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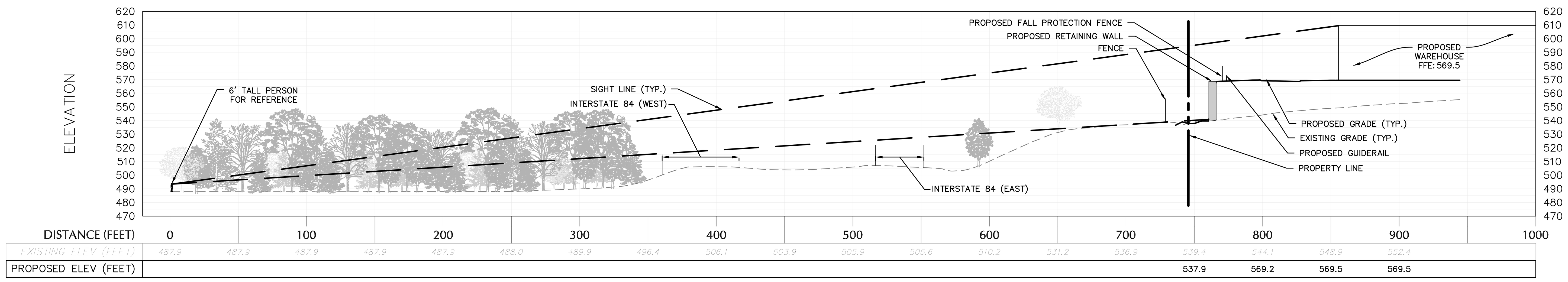
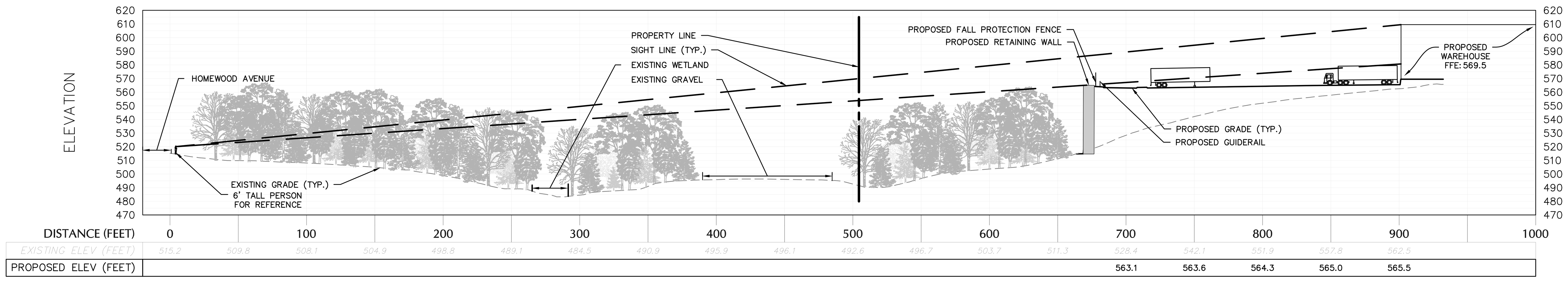
Project
MATRIX I-84
DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

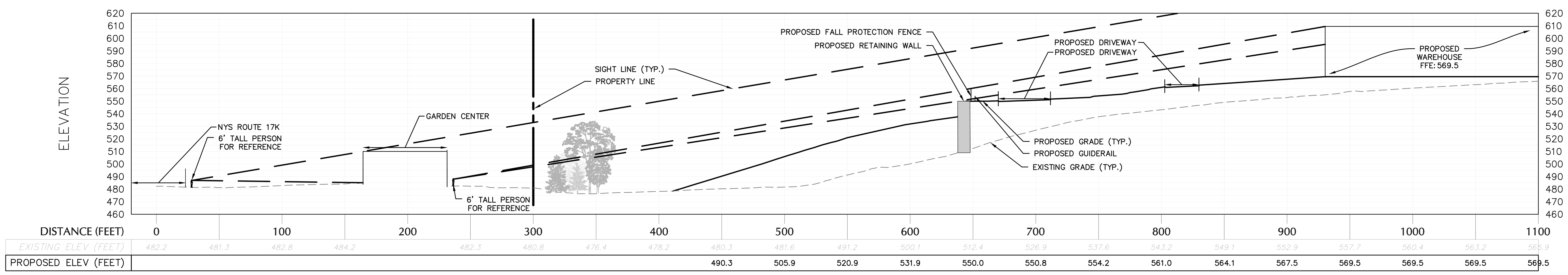
Drawing Title
ROADWAY PROFILE

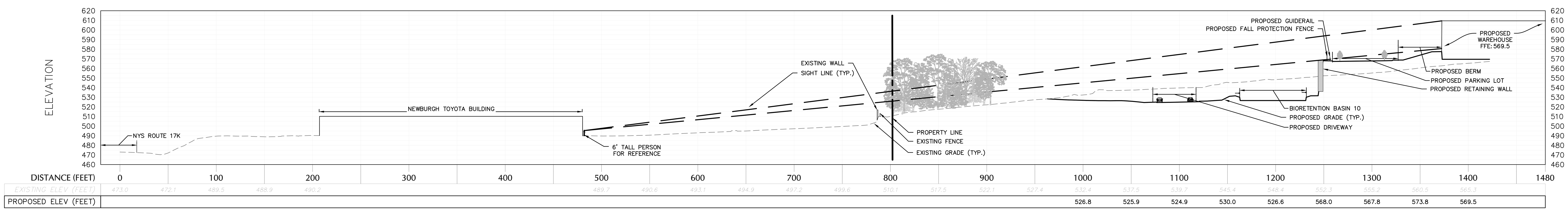
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No.
CG201
Sheet 16 of 45

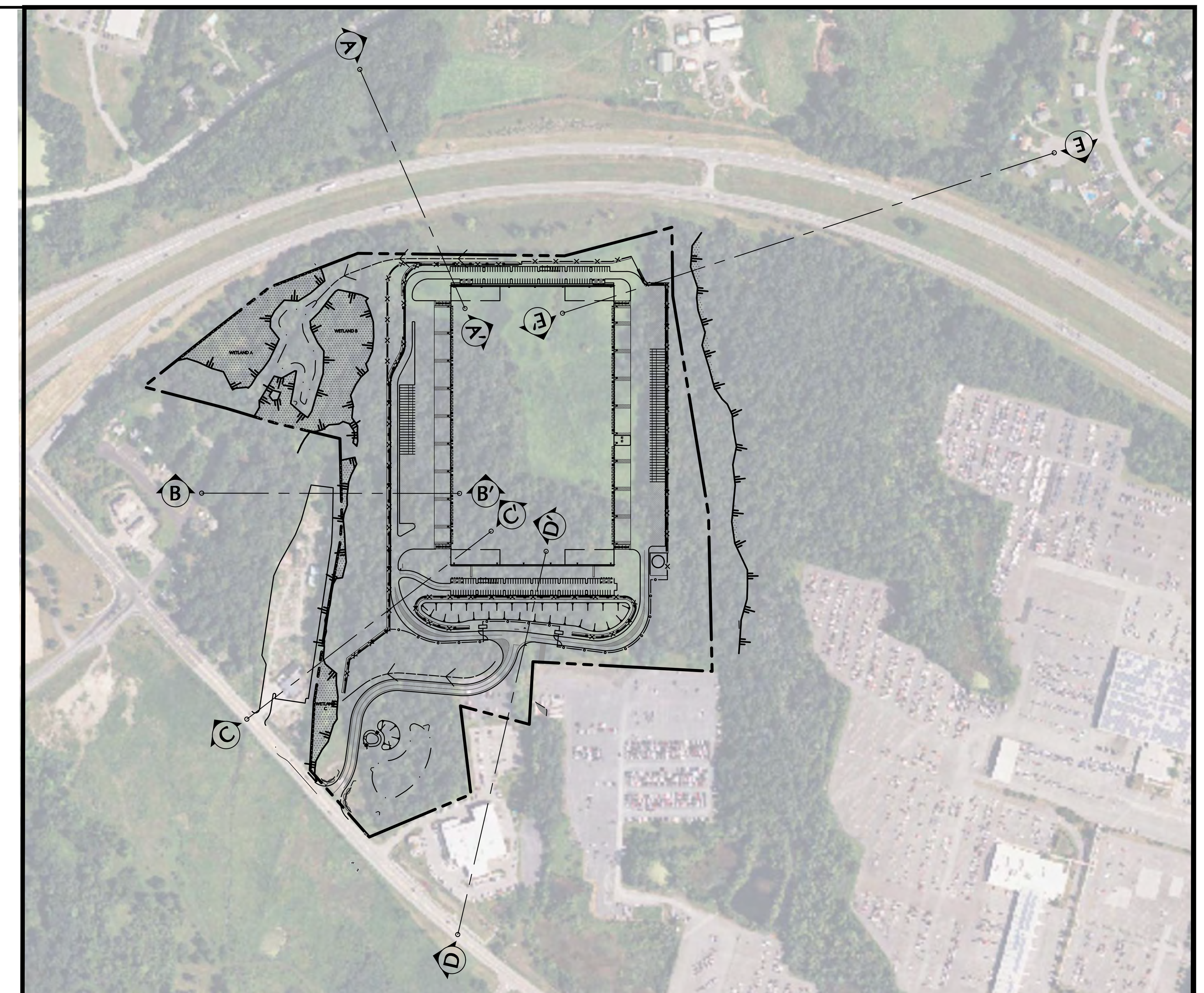

ELEVATION
PROPOSED FALL PROTECTION FENCE
PROPOSED RETAINING WALL
FENCE
PROPOSED WAREHOUSE FFE: 569.5
6' TALL PERSON FOR REFERENCE
SIGHT LINE (TYP.)
INTERSTATE 84 (WEST)
PROPOSED GRADE (TYP.)
EXISTING GRADE (TYP.)
PROPOSED GUIDERAIL
PROPERTY LINE
INTERSTATE 84 (EAST)
DISTANCE (FEET)
EXISTING ELEV (FEET)
PROPOSED ELEV (FEET)
537.9
569.2
569.5
569.5
AA' PROFILE


ELEVATION
PROPERTY LINE
SIGHT LINE (TYP.)
EXISTING WETLAND
EXISTING GRAVEL
HOMEWOOD AVENUE
PROPOSED FALL PROTECTION FENCE
PROPOSED RETAINING WALL
PROPOSED WAREHOUSE FFE: 569.5
PROPOSED GRADE (TYP.)
PROPOSED GUIDERAIL
EXISTING GRADE (TYP.)
6' TALL PERSON FOR REFERENCE
DISTANCE (FEET)
EXISTING ELEV (FEET)
PROPOSED ELEV (FEET)
563.1
563.6
564.3
565.0
565.5
BB' PROFILE


ELEVATION
PROPOSED FALL PROTECTION FENCE
PROPOSED RETAINING WALL
PROPOSED DRIVEWAY
PROPOSED DRIVEWAY
SIGHT LINE (TYP.)
PROPERTY LINE
PROPOSED WAREHOUSE FFE: 569.5
NYS ROUTE 17K
6' TALL PERSON FOR REFERENCE
GARDEN CENTER
PROPOSED GRADE (TYP.)
PROPOSED GUIDERAIL
EXISTING GRADE (TYP.)
6' TALL PERSON FOR REFERENCE
DISTANCE (FEET)
EXISTING ELEV (FEET)
PROPOSED ELEV (FEET)
490.3
505.9
520.9
531.9
550.0
550.8
554.2
561.0
564.1
567.5
569.5
569.5
569.5
569.5
CC' PROFILE


ELEVATION
PROPOSED GUIDERAIL
PROPOSED FALL PROTECTION FENCE
PROPOSED WAREHOUSE FFE: 569.5
EXISTING WALL
SIGHT LINE (TYP.)
PROPOSED BERM
PROPOSED PARKING LOT
PROPOSED RETAINING WALL
NEWBURGH TOYOTA BUILDING
BIORETENTION BASIN 10
PROPOSED GRADE (TYP.)
PROPOSED DRIVEWAY
NYS ROUTE 17K
6' TALL PERSON FOR REFERENCE
PROPERTY LINE
EXISTING FENCE
EXISTING GRADE (TYP.)
DISTANCE (FEET)
EXISTING ELEV (FEET)
PROPOSED ELEV (FEET)
526.8
525.9
524.9
530.0
526.6
568.0
567.8
573.8
569.5
DD' PROFILE


PROPOSED PARKING LOT
ELEVATION
PLUM CIRCUIT
6' TALL PERSON FOR REFERENCE
INTERSTATE 84 (WEST)
PROPOSED WAREHOUSE FFE: 569.5
INTERSTATE 84 EAST
SIGHT LINE (TYP.)
EXISTING GRADE (TYP.)
FENCE
PROPOSED GRADE (TYP.)
PROPOSED GUIDERAIL
PROPOSED FALL PROTECTION FENCE
PROPOSED RETAINING WALL
PROPERTY LINE
DISTANCE (FEET)
EXISTING ELEV (FEET)
PROPOSED ELEV (FEET)
564.7
565.1
567.9
569.5
569.5
569.5
569.5
EE' PROFILE


KEY MAP
SCALE: 1"=300

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

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Project
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SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SITE SECTION

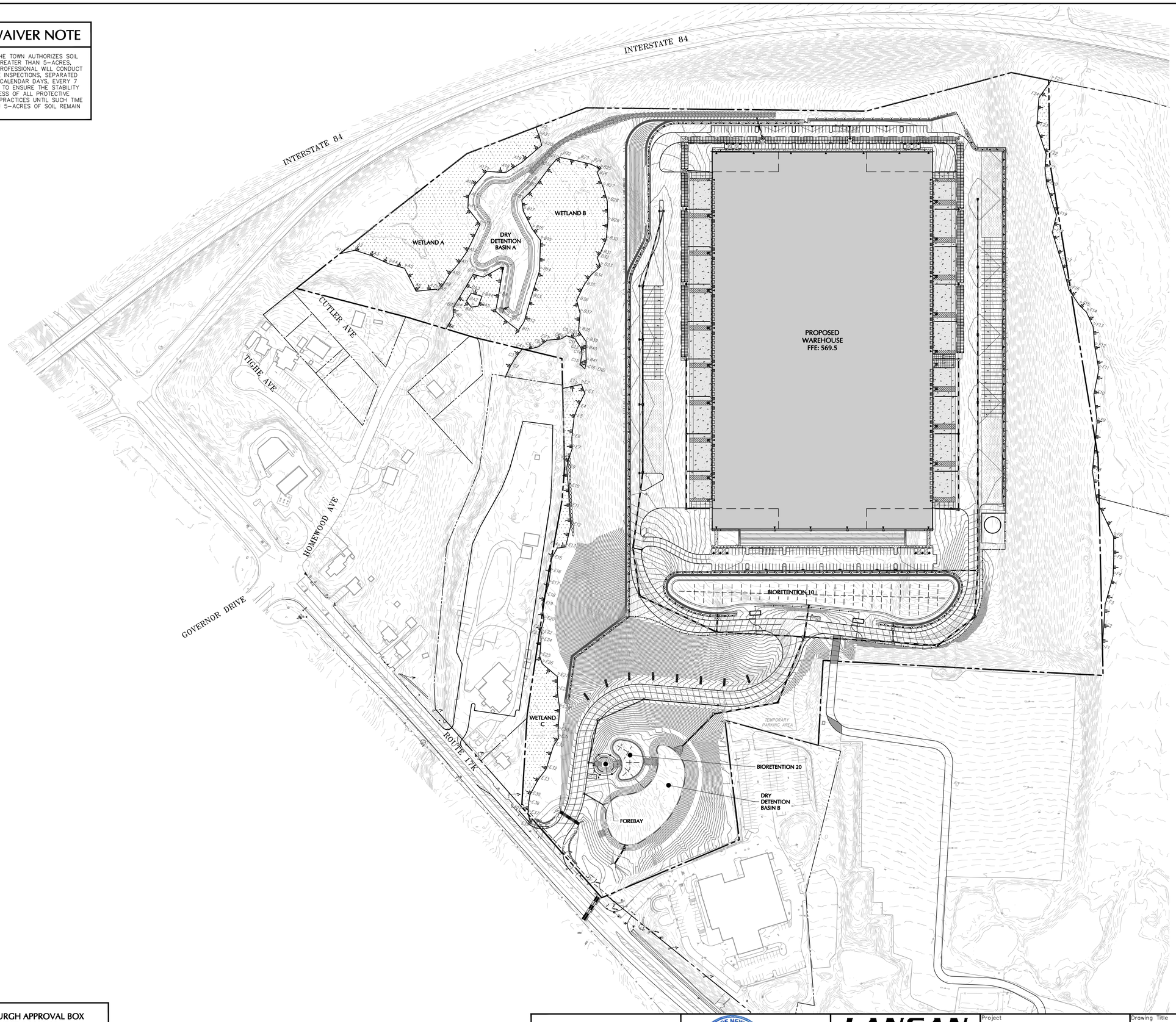
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No.
CG301
Sheet 17 of 45

Date: 10/10/2023 Time: 16:35 User: brchambers Style Table: Langan.stb Layout: CG301 Document Code: 190063302-0501-CG301-0101

5-ACRE WAIVER NOTE

1. IF NYSDEC OR THE TOWN AUTHORIZES SOIL DISTURBANCES GREATER THAN 5–ACRES, THE QUALIFIED PROFESSIONAL WILL CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY AT LEAST 2 CALENDAR DAYS, EVERY 7 CALENDAR DAYS TO ENSURE THE STABILITY AND EFFECTIVENESS OF ALL PROTECTIVE MEASURES AND PRACTICES UNTIL SUCH TIME THAT LESS THAN 5–ACRES OF SOIL REMAIN DISTURBED.



TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN — DATE

No.	Description	Date
2	PLANNING BOARD SUBMISSION	10/12/2023
1	PLANNING BOARD SUBMISSION	8/28/2023

Revisions

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SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
OVERALL DRAINAGE PLAN

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. CG400
Sheet 18 of 45


INTERSTATE 84
84
PROPOSED STONE LINED DRAINAGE SWALE (REFER TO DETAIL FOR ADDITIONAL INFORMATION)
OCS-57 RIM: 568.50 WEIR (24"X36"): 561.70 ORIFICE (24"ø): 556.70 INV. OUT: 556.70
RW-1 INV.: 555.50
59 LF 30" HDPE @ 2.05%
CB-56 GR: 567.68 INV. OUT: 564.71
CB-55 GR: 567.68 INV. IN (12" W): 562.66 INV. OUT: 562.45
CB-53 GR: 567.68 INV. IN (12" W): 560.39 INV. IN (12" E): 560.39 INV. OUT: 560.22
99 LF 12" HDPE @ 2.08%
99 LF 12" HDPE @ 2.08%
99 LF 12" HDPE @ 5.16%
CB-52 GR: 567.68 INV. OUT: 565.50
34 LF 15" HDPE @ 2.17%
PROPOSED UNDERGROUND STORMTECH MC4500 PROVIDED STORAGE = 141,701 CF MIN. TOP OF STONE: 562.2 TOP OF CHAMBERS: 561.7 BOTTOM OF CHAMBERS: 556.7 BOTTOM GRAVEL BASE: 555.95
10"ø RL INV.: 562.5
ISOLATOR ROW (TYP.). REFER TO ADS SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
CB-31 GR: 563.50 INV. IN (12" W): 559.80 INV. OUT: 558.80
10 LF 12" HDPE @ 1.57%
CB-32 GR: 563.37 INV. OUT: 559.96
207 LF 24" HDPE @ 0.50%
WETLAND A
DRY DETENTION BASIN A BOTTOM OF BASIN EL.: 488.0 BERM EL.: 491.0
8 LF 12" HDPE @ 2.50%
CB-29 GR: 562.36 INV. IN (24" N): 557.76 INV. IN (12" W): 558.80 INV. OUT: 557.26
OCS-59 GR: 491.00 INV. IN (15" NE): 488.00 INV. OUT: 488.00
9 LF DUAL 15" HDPE @ 0.00%
CB-30 GR: 562.73 INV. OUT: 559.00
INV.: 488.00
143 LF 30" HDPE @ 0.50%
CB-27 GR: 562.36 INV. IN (30" N): 556.54 INV. IN (12" W): 558.50 INV. OUT: 556.54
RW-58 INV.: 487.95
8 LF 12" HDPE @ 6.25%
7 LF DUAL 15" HDPE @ 0.71%
CB-28 GR: 562.27 INV. OUT: 559.00
173 LF 30" HDPE @ 0.50%
CB-25 GR: 562.36 INV. IN (30" N): 555.68 INV. IN (12" W): 558.50 INV. OUT: 555.68
8 LF 12" HDPE @ 6.25%
CB-26 GR: 562.27 INV. OUT: 559.00
184 LF 30" HDPE @ 0.50%
CB-23 GR: 562.28 INV. IN (30" N): 554.76 INV. IN (12" W): 558.50 INV. OUT: 554.76
8 LF 12" HDPE @ 6.25%
CB-24 GR: 562.18 INV. OUT: 559.00
202 LF 30"
8"ø RL INV.: 562.5
ROOF LEADER @ 0.5% MIN. (TYP.)
PROPOSED WAREHOUSE FFE: 569.5
DMH-97 GR: 564.78 INV. IN (30" S): 557.00
DMH-50 GR: 564.78 INV. IN (30" S): 558.50 INV. OUT: 558.50
200 LF 30" HDPE @ 0.75%
200 LF 30" HDPE @ 0.75%
DMH-101 GR: 564.81 INV. IN (30" S): 557.30
DMH-48 GR: 564.81 INV. IN (30" S): 558.64 INV. OUT: 558.64
200 LF 30" HDPE @ 0.67%
203 LF 30" HDPE @ 0.67%
DMH-49 RIM: 565.00 INV. IN (10" W): 562.00
CB-47 GR: 563.50 INV. OUT: 560.00
181 LF 18" HDPE @ 0.50%
CB-46 GR: 563.50 INV. IN (18" N): 559.10 INV. OUT: 558.60
181 LF 24" HDPE @ 0.50%
CB-45 GR: 563.50 INV. IN (24" N): 557.69 INV. OUT: 557.19
181 LF 30" HDPE @ 0.50%
CB-44 GR: 563.50 INV. IN (30" N): 556.28 INV. OUT: 556.28
191 LF 30" HDPE @ 0.50%
CB-43 GR: 563.41 INV. IN (30" N): 555.33 INV. OUT: 555.33
258 LF 30" HDPE @ 2.26%

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

SCALE: 1 INCH = 50 FEET (50 0 25 50)

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10/10/2023
DATE SIGNED

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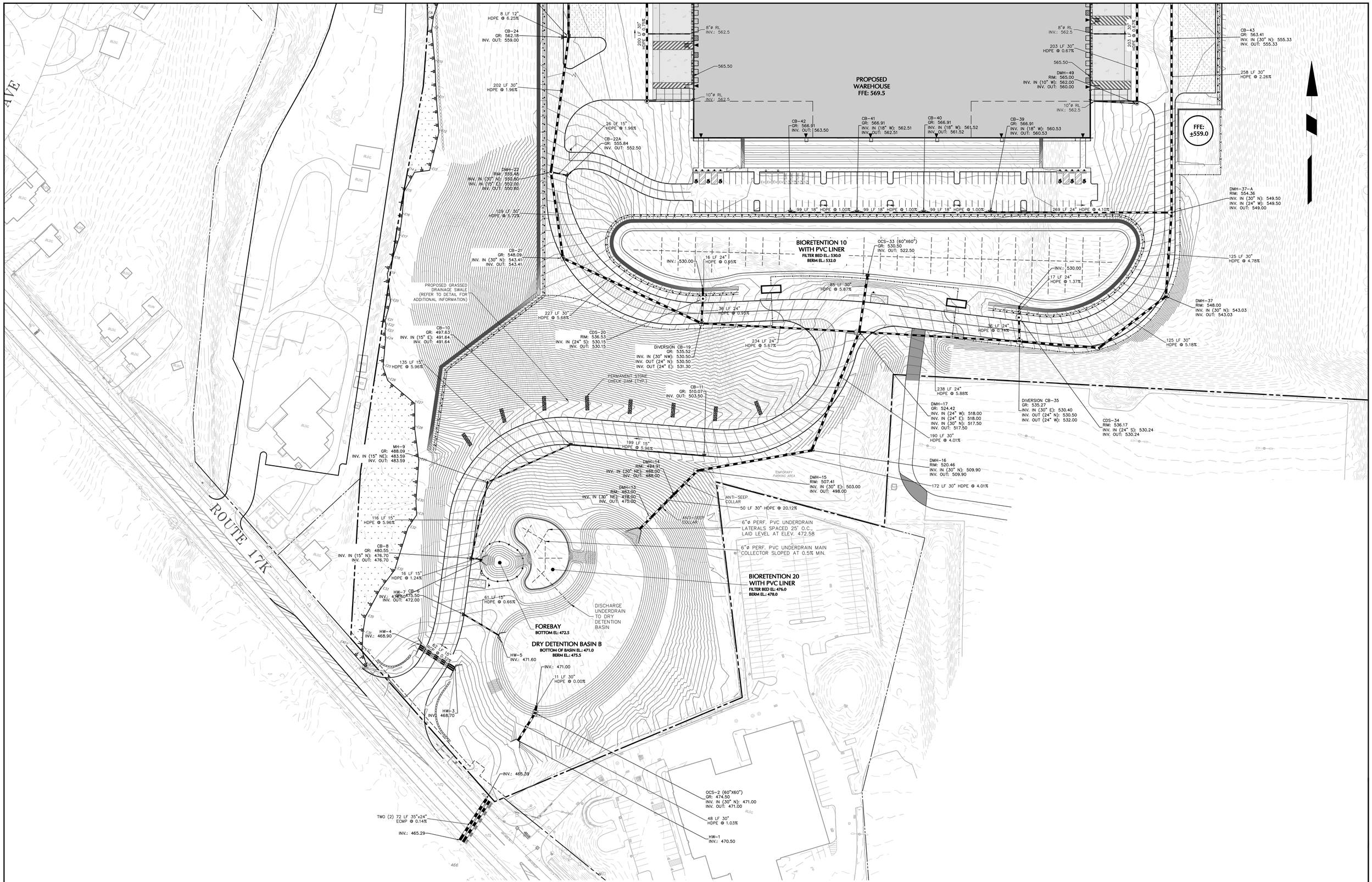
Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
DRAINAGE PLAN (1 of 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No.
CG401
Sheet 19 of 45

Date: 10/10/2023 Time: 17:29 User: brchambers Style Table: Langan.stb Layout: CG401 Document Code: 190063302-0501-CG102-0102



TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
2	PLANNING BOARD SUBMISSION	10/12/2023
1	PLANNING BOARD SUBMISSION	8/28/2023

Revisions

50 0 25 50
SCALE: 1 INCH = 50 FEET

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STATE OF NEW YORK — CHARLES UTSCHIG JR. — 062303 — PROFESSIONAL ENGINEER

SIGNATURE 10/10/2023 DATE SIGNED

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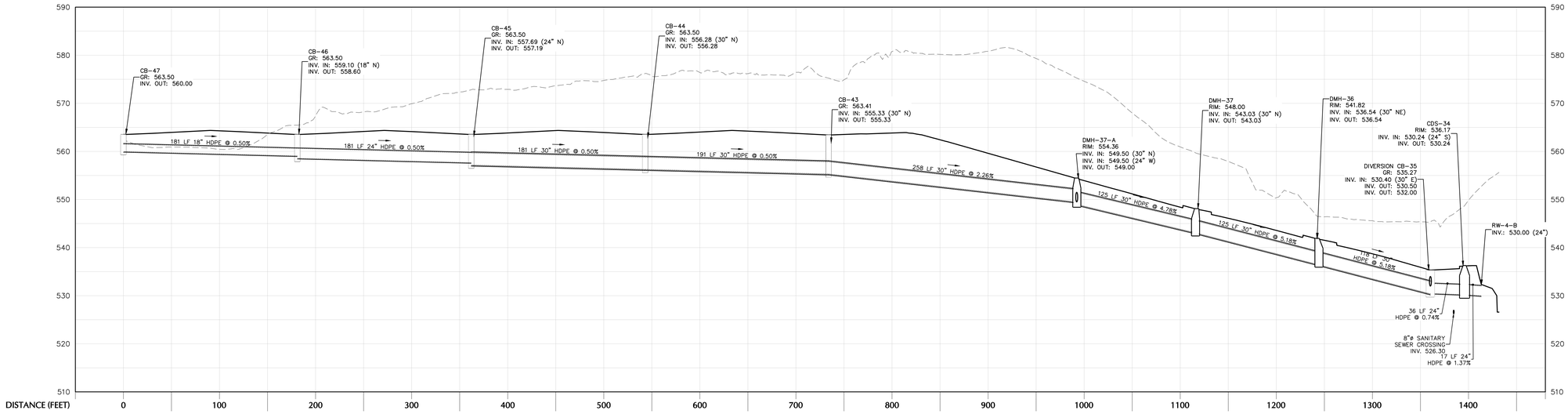
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
DRAINAGE PLAN (2 of 2)

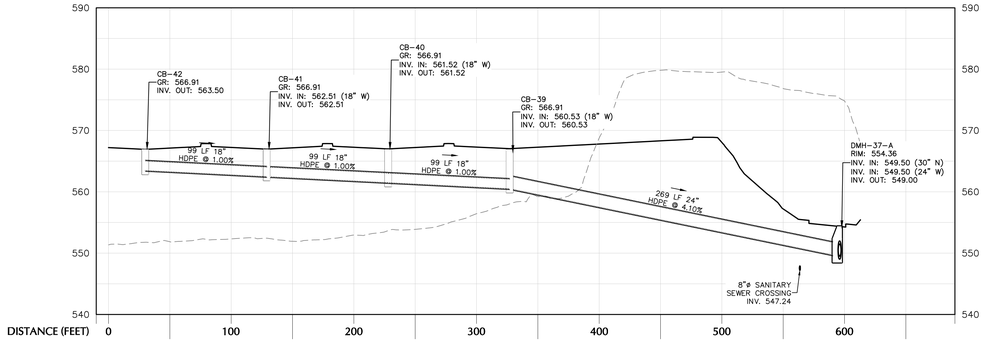
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. CG402
Sheet 20 of 45

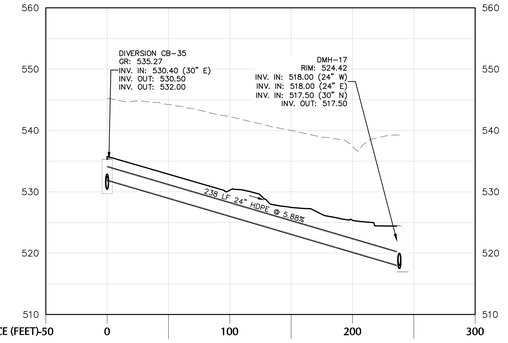
Date: 10/11/2023 Time: 12:24 User: lmcmahon Style Table: Langan.stb Layout: CG402 Document Code: 190063302-0501-CG102-0103



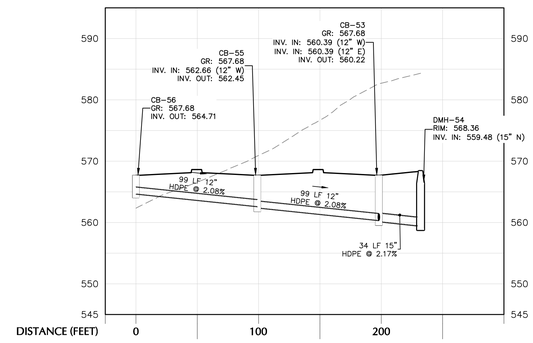
CB-47 TO RW-4-B



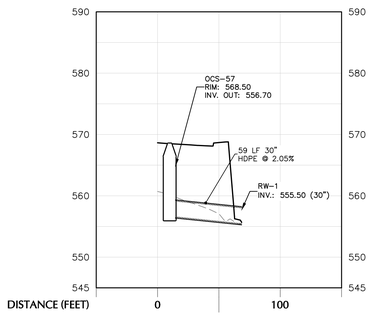
CB-42 TO DMH-37-A



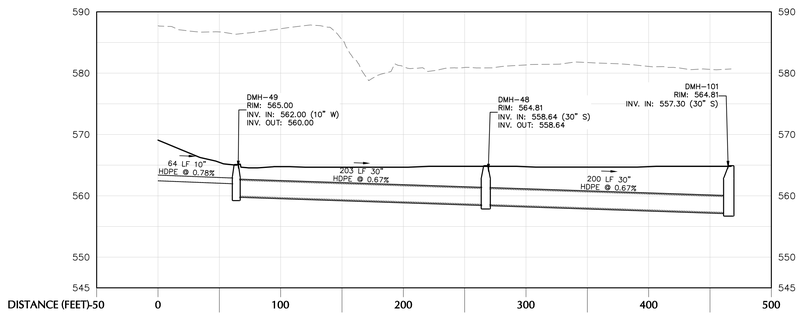
DIVERSION CB-35 TO DMH-17



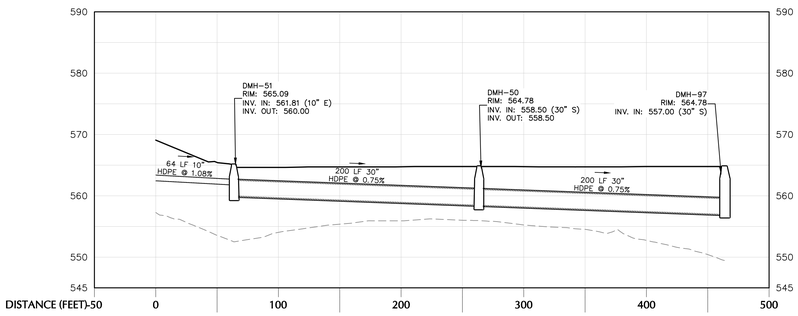
CB-56 TO DMH-54



OCS-57 TO RW-1



ROOF LEADER TO DMH-101



ROOFLEADER TO DMH-97

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Revisions		
Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

H:50 V:10 — 0 0 — 25 5 — 50 10
SCALE IN FEET

STATE OF NEW YORK — CHARLES UTSCHIG — 062303 — PROFESSIONAL ENGINEER

SIGNATURE

10/10/2023
DATE SIGNED

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PROFESSIONAL ENGINEER NY Lic. No. 062303

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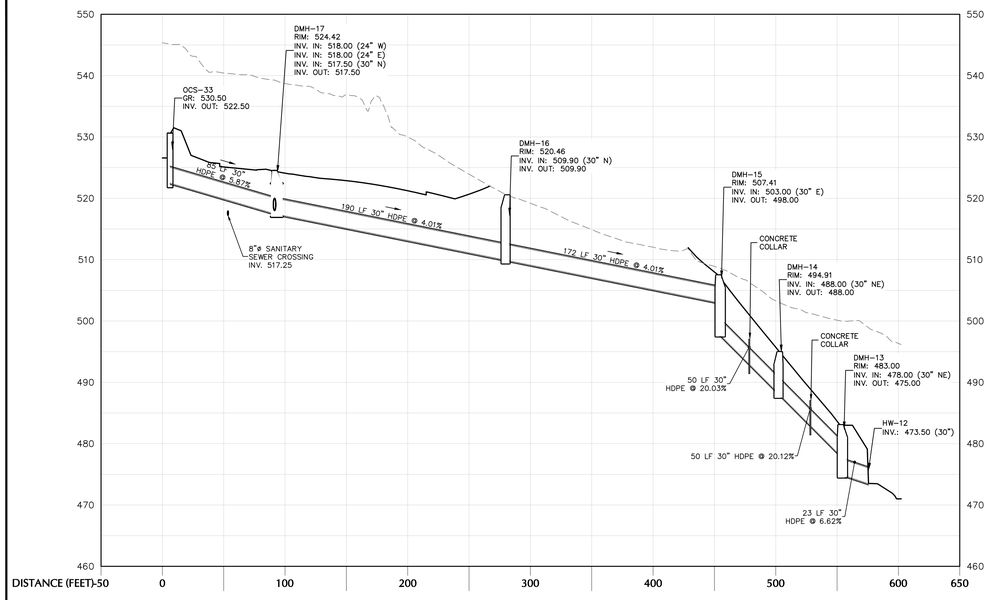
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
DRAINAGE PROFILE (1 OF 2)

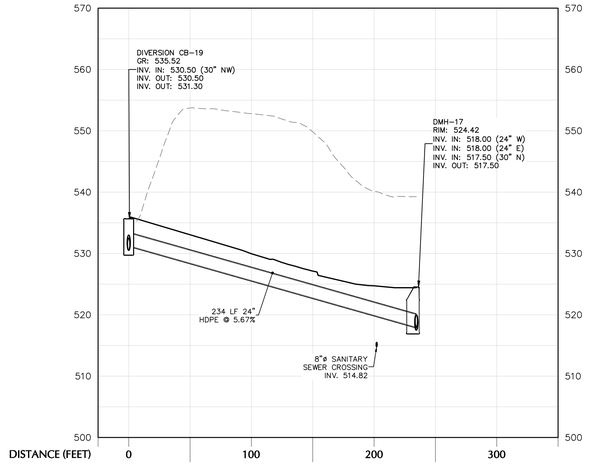
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No. CG501
Sheet 21 of 45

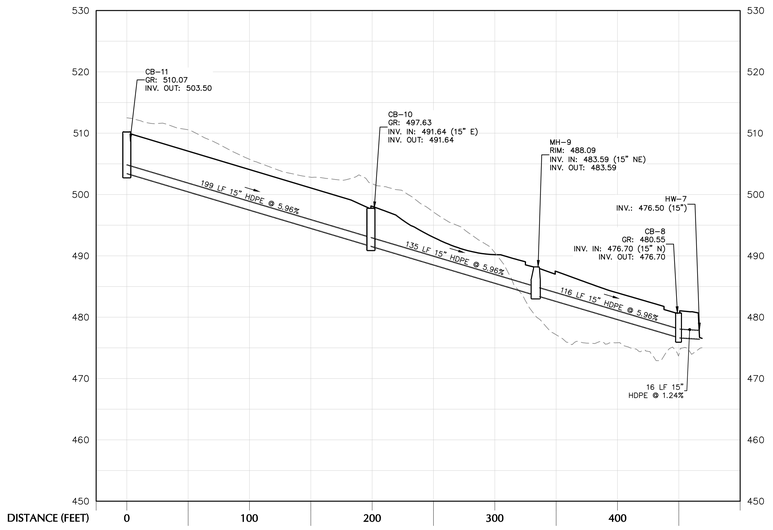
Date: 10/10/2023 Time: 16:36 User: brchambers Style Table: Langan.stb Layout: CG501 Document Code: 190063302-0501-CG201-0102



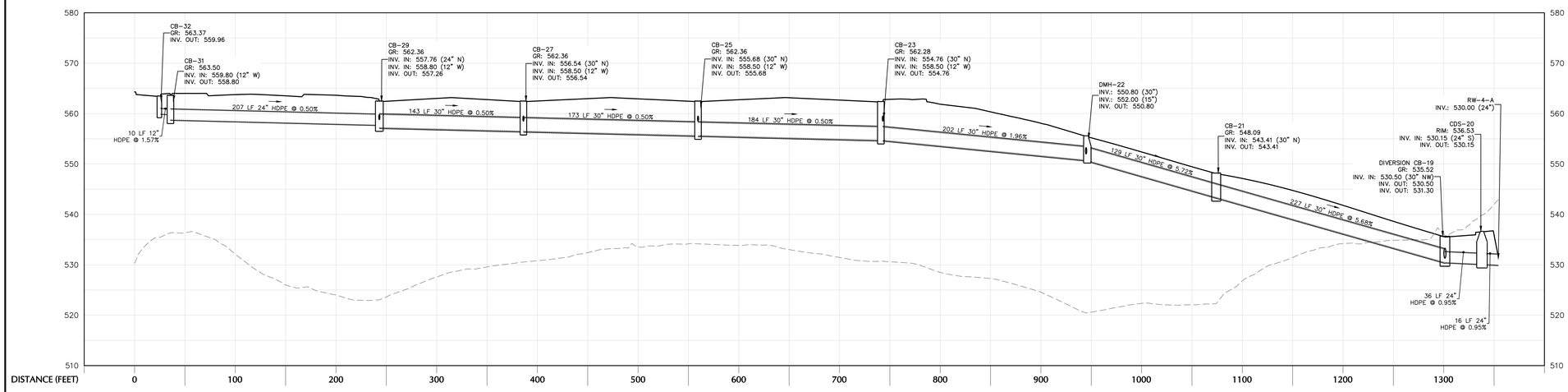
OCS-33 TO HW-12



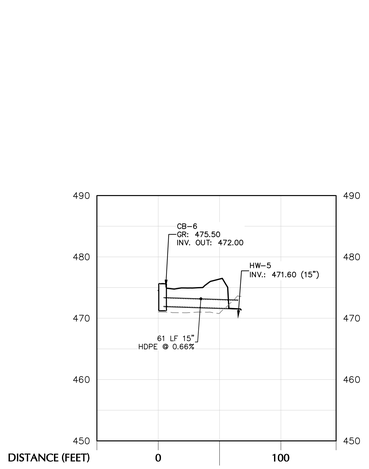
DIVERSION CB-19 TO DMH-17



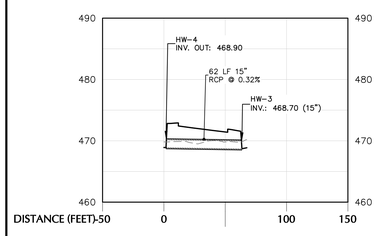
CB-11 TO HW-7



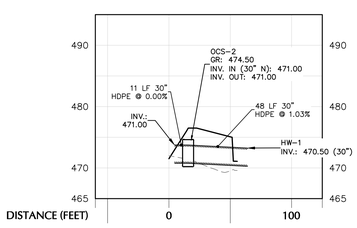
CB-32 TO RW-4-A



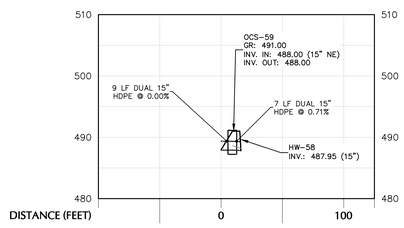
CB-6 TO HW-5



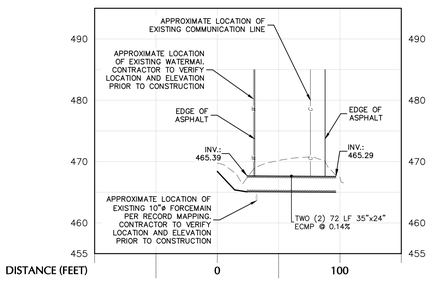
HW-4 TO HW-3



OCS-2 TO HW-1



OCS-59 TO HW-58



ROUTE 17K CULVERT

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Revisions		
Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

50 0 25 50
SCALE: 1 INCH = 50 FEET

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STATE OF NEW YORK · CHARLES UTSCHIG JR. · 062303 · PROFESSIONAL ENGINEER

SIGNATURE 10/10/2023
DATE SIGNED
CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
DRAINAGE PROFILE (2 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No. CG502
Sheet 22 of 45

Date: 10/10/2023 Time: 16:36 User: brchambers Style Table: Langan.stb Layout: CG501 Document Code: 190063302-0501-CG201-0103

UTILITY NOTES

1. CONTRACTOR SHALL COORDINATE THE FLING OF THE WATER TANK WITH THE TOWN'S WATER DEPARTMENT.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

100 0 50 100
SCALE IN FEET

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TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
OVERALL UTILITY PLAN

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. **CU100**
Sheet 23 of 45

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Date: 10/10/2023 Time: 16:37 User: brchambers Style Table: Langan.stb Layout: CU100 - OVERALL UTILITY PLAN Document Code: 190063302-0501-CU101-0101

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

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8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

SCALE: 1 INCH = 50 FEET

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ORANGE COUNTY NEW YORK

Drawing Title
UTILITY PLAN (1 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. CU101
Sheet 24 of 45

Date: 10/10/2023 Time: 16:37 User: brchambers Style Table: Langan.stb Layout: CU101 - UTILITY PLAN (1 Of 2) Document Code: 190063302-0501-CU101-0102

PROPOSED WAREHOUSE
FFE: 569.0
PROPOSED DIP CL-52 FIRE SUPPRESSION LOOP (TYP.)
PROPOSED SANITARY BUILDING CONNECTION
INV.: 556.60
AIR RELEASE VALVE MANHOLE
SMH-10
RIM: 563.16
INV. IN (8" W): 554.80
INV. OUT: 554.70
85 LF 8" PVC @ 2.12%
177 LF 8" PVC @ 5.50%
GAS
BIORETENTION 10
SMH-9
RIM: 553.09
INV. IN (8" N): 544.98
INV. OUT: 544.88
SMH-8 (DROP MANHOLE)
RIM: 546.51
INV. IN (8" N): 539.94
INV. OUT: 539.84
90 LF 8" PVC @ 5.50%
WATER MAIN
130 LF 8" PVC @ 5.50%
SMH-6
RIM: 525.14
INV. IN (8" E): 516.59
INV. OUT: 516.49
294 LF 8" PVC @ 3.88%
SMH-7
RIM: 538.07
INV. IN (8" E): 532.70
INV. OUT: 528.00
181 LF 8" PVC @ 3.88%
SMH-5
RIM: 519.00
INV. IN (8" NE): 509.48
INV. OUT: 509.38
SMH-3
RIM: 495.86
INV. IN (8" E): 490.22
INV. OUT: 490.12
252 LF 8" PVC @ 5.48%
SMH-4
RIM: 510.04
INV. IN (8" E): 504.14
INV. OUT: 504.04
135 LF 8" PVC @ 3.88%
148 LF 8" PVC @ 5.48%
SMH-2
RIM: 488.00
INV. IN (8" NE): 482.02
INV. OUT: 481.92
UTILITY POLE (TYP.)
OVERHEAD ELECTRIC (TYP.)
TEMPORARY PARKING AREA
WETLAND C
BIORETENTION 20
112 LF 8" PVC @ 5.48%
SMH-1
RIM: 481.80
INV. IN (8" N): 475.78
INV. OUT: 475.68
90 LF 8" PVC @ 5.48%
FOREBAY
PUMP STATION (SMH-0)
RIM: 476.54
INV. IN (8" NW): 470.73
DRY DETENTION BASIN B
ROUTE 17K
PROPOSED 2"ø SDR-21 PVC SANITARY SEWER FORCE MAIN
PROPOSED HOT-TAP TO EXISTING 10"ø SANITARY SEWER FORCE MAIN (REFER TO DETAIL FOR ADDITIONAL INFORMATION)
CONNECT INTO EXISTING 4"ø GAS MAIN IN ROUTE 17K
CONNECT INTO EXISTING WATERMAIN IN ROUTE 17K
RELOCATE EXISTING UTILITY POLE
EXISTING UTILITY EASEMENT
EXISTING UTILITY POLE (47497 N) TO BE RELOCATED
8" CPP CULVERT TO BE REMOVED
GAS LINE
10" PRESSURE SEWER
ROUTE 17K
CONNECT INTO EXISTING 4"ø GAS MAIN IN ROUTE 17K
PROPOSED HOT-TAP TO EXISTING 10"ø SANITARY SEWER FORCE MAIN (REFER TO DETAIL FOR ADDITIONAL INFORMATION)
CONNECT INTO EXISTING WATER MAIN IN ROUTE 17K. LOCATION, SIZE, INVERT, AND MATERIAL OF EXISTING WATER MAIN TO BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.

ROUTE 17K UTILITY ENLARGEMENT

SCALE: 1"=30'

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN — DATE

Date	Description	No.
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8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

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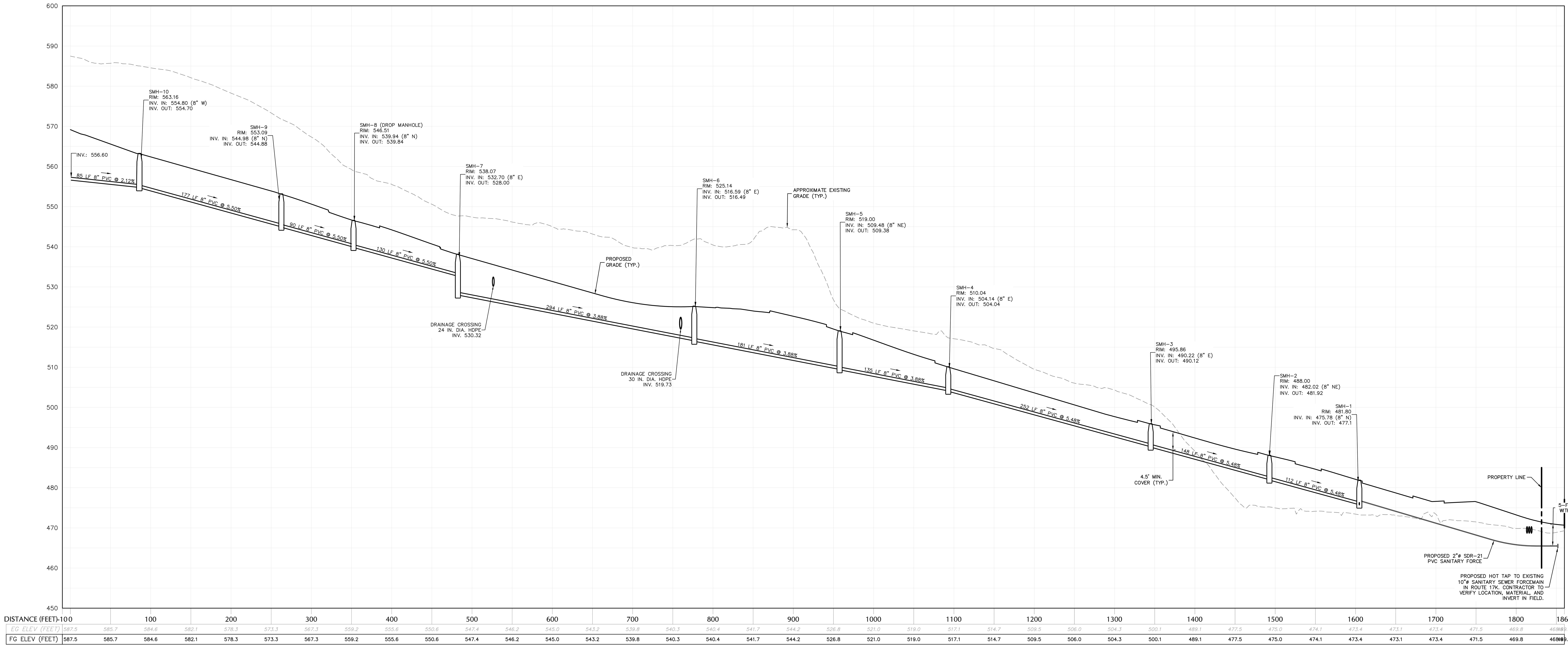
ORANGE COUNTY NEW YORK

Drawing Title
UTILITY PLAN (2 of 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. **CU102**



SANITARY SEWER PROFILE
SCALE: H: 1"=50'
V: 1"=10'

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
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8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

H: 50 0 25 50
V: 10 0 5 10
SCALE IN FEET

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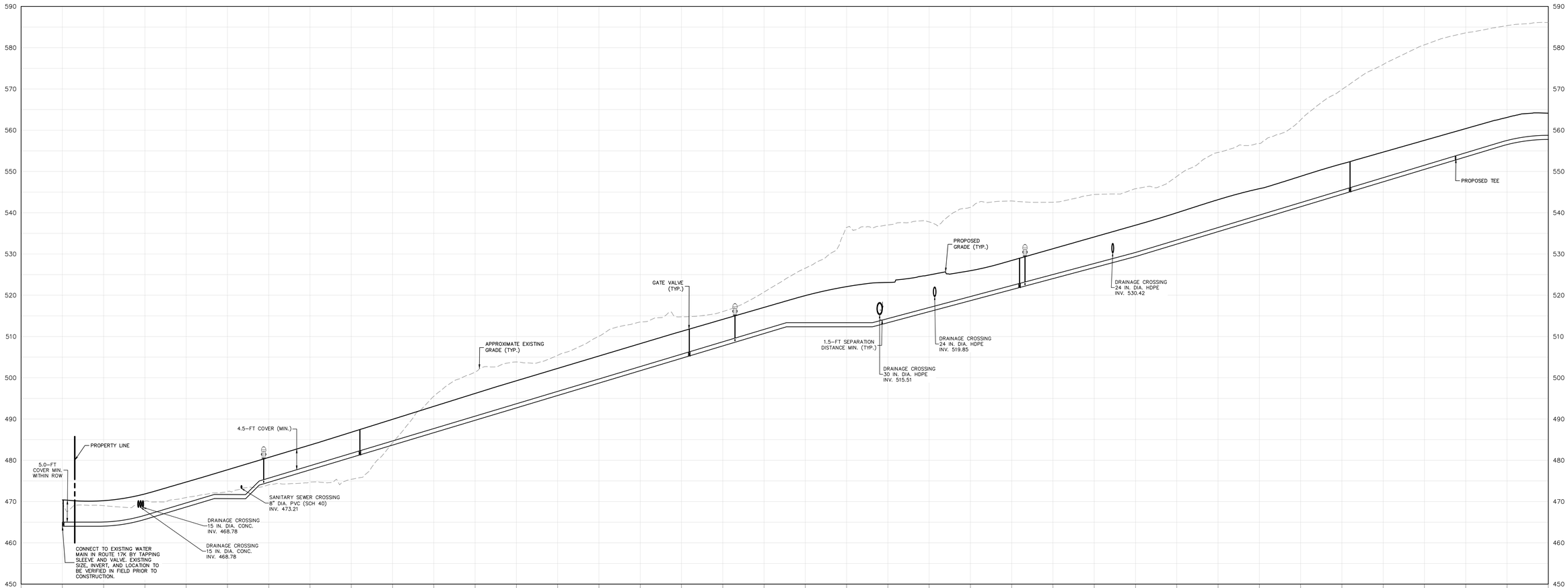
ORANGE COUNTY NEW YORK

Drawing Title
SANITARY SEWER PROFILE

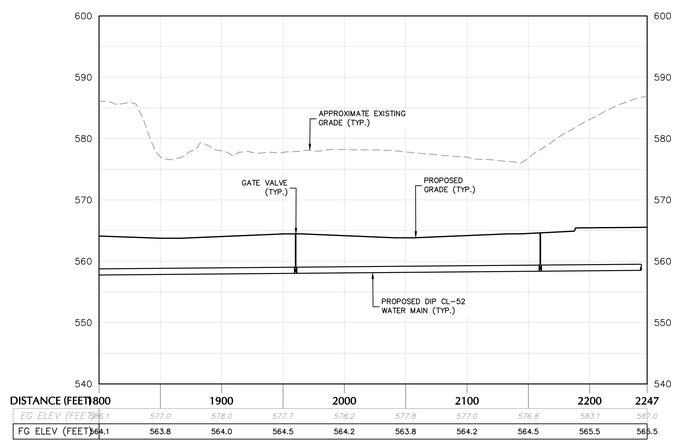
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No.
CU201
Sheet 26 of 45



DISTANCE (FEET)-50	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800
EG ELEV (FEET)	469.6	469.0	470.1	471.0	472.5	474.1	474.7	475.4	484.2	495.5	501.4	503.8	505.4	510.1	513.5	514.8	516.1	520.8	526.6	536.4	537.0	537.8	541.3	542.8	542.5	544.4	545.8	548.8	554.6	556.8	562.5	569.9	575.9	580.7	583.6	585.3	586.1
FG ELEV (FEET)	470.4	470.2	471.8	474.7	477.7	480.7	483.7	486.8	489.9	493.1	496.2	499.3	502.3	505.3	508.3	511.2	514.2	517.1	519.9	522.1	523.1	524.9	525.9	528.4	531.3	534.1	537.0	540.0	543.2	545.8	548.8	551.8	554.7	557.5	560.4	563.1	564.1

WATERMAIN PROFILE (1 OF 2)
SCALE: H: 1"=50'
V: 1"=10'



DISTANCE (FEET)1800	1900	2000	2100	2200	2247
EG ELEV (FEET) 586.1	577.0	578.0	577.7	578.2	577.8	577.0	576.8	583.1	587.0
FG ELEV (FEET) 564.1	563.8	564.0	564.5	564.2	563.8	564.2	564.5	565.5	565.5

WATERMAIN PROFILE (2 OF 2)
SCALE: H: 1"=50'
V: 1"=10'

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

50 0 25 50
SCALE: 1 INCH = 50 FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

STATE OF NEW YORK — CHARLES UTSCHIG — 062303 — PROFESSIONAL ENGINEER

SIGNATURE 10/10/2023 DATE SIGNED

PROFESSIONAL ENGINEER NY Lic. No. 062303

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
WATER MAIN PROFILE

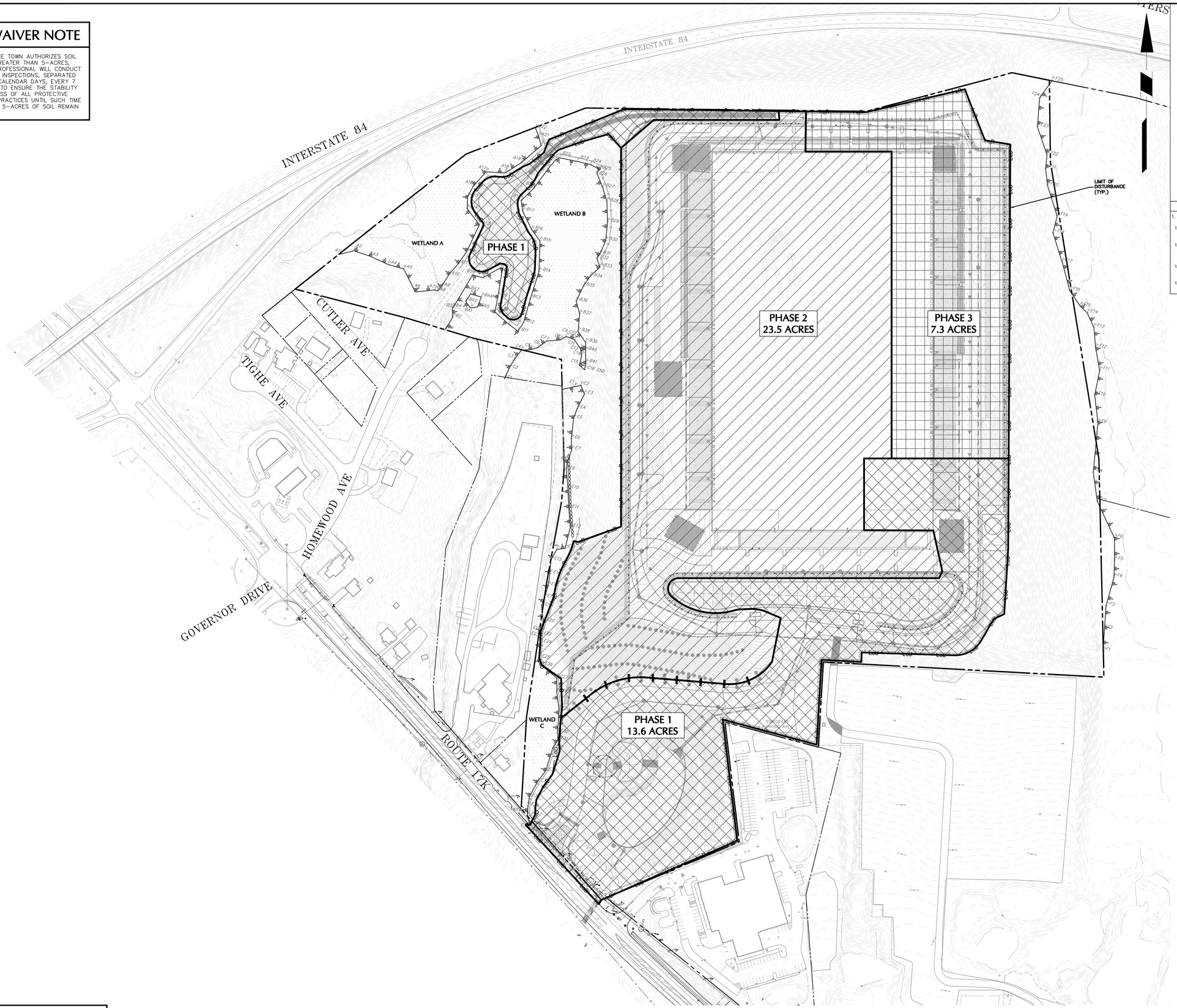
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No. CU202
Sheet 27 of 45

Date: 10/10/2023 Time: 16:38 User: brchambers Style Table: Langan.stb Layout: CU202 Document Code: 190063302-0501-CU201-0102

5-ACRE WAIVER NOTE

1. IF NYSDEC OR THE TOWN AUTHORIZES SOIL DISTURBANCES GREATER THAN 5–ACRES, THE QUALIFIED PROFESSIONAL WILL CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY AT LEAST 2 CALENDAR DAYS, EVERY 7 CALENDAR DAYS TO ENSURE THE STABILITY AND EFFECTIVENESS OF ALL PROTECTIVE MEASURES AND PRACTICES UNTIL SUCH TIME THAT LESS THAN 5–ACRES OF SOIL REMAIN DISTURBED.



KEY

- PHASE 1
- PHASE 2
- PHASE 3

PHASING NOTES

1. THIS PROJECT WILL BE COMPLETED IN FOUR PHASES AS FOLLOWS:
   - 1.1. PHASE 1A – INSTALLING CONSTRUCTION FENCE, INSTALLING SILT FENCE, TREE REMOVAL AND CLEARING/GRUBBING ACTIVITIES.
   - 1.2. PHASE 1 – INSTALLING SEDIMENT BASINS A, B, AND C, INSTALLING SWALE, TEMPORARY CONSTRUCTION ACCESS ROAD, AND CONSTRUCTION STAGING.
   - 1.3. PHASE 2 – CONSTRUCTING RETAINING WALL 1, 1A, AND 4, AND LEVELING OUT AND STABILIZING THE BUILDING PAD.
   - 1.4. PHASE 3 – CONSTRUCTING RETAINING WALLS 2 AND 3 AND THE EASTERN TRUCK COURT.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

100 0 50 100
SCALE IN FEET

SIGNATURE
10/10/2023
DATE SIGNED
CHARLES W. VOTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
PHASING PLAN

Project No. **190063302**
Date **JULY 10, 2023**
Drawn By **LM**
Checked By **CU**

Drawing No. **CE100**
Sheet **28** of **45**

Date: 10/11/2023 Time: 12:26 User: lmcmahon Style Table: Langan.stb Layout: CG400 Document Code: 190063302-0501-CE101-0101

5-ACRE WAIVER NOTE

1. IF NYSDEC OR THE TOWN AUTHORIZES SOIL DISTURBANCES GREATER THAN 5-ACRES, THE QUALIFIED PROFESSIONAL WILL CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY AT LEAST 2 CALENDAR DAYS, EVERY 7 CALENDAR DAYS TO ENSURE THE STABILITY AND EFFECTIVENESS OF ALL PROTECTIVE MEASURES AND PRACTICES UNTIL SUCH TIME THAT LESS THAN 5-ACRES OF SOIL REMAIN DISTURBED.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON JOHN P. EWASUTYN — DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

SCALE: 1 INCH = 50 FEET (50 0 25 50)

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SIGNATURE — 10/10/2023 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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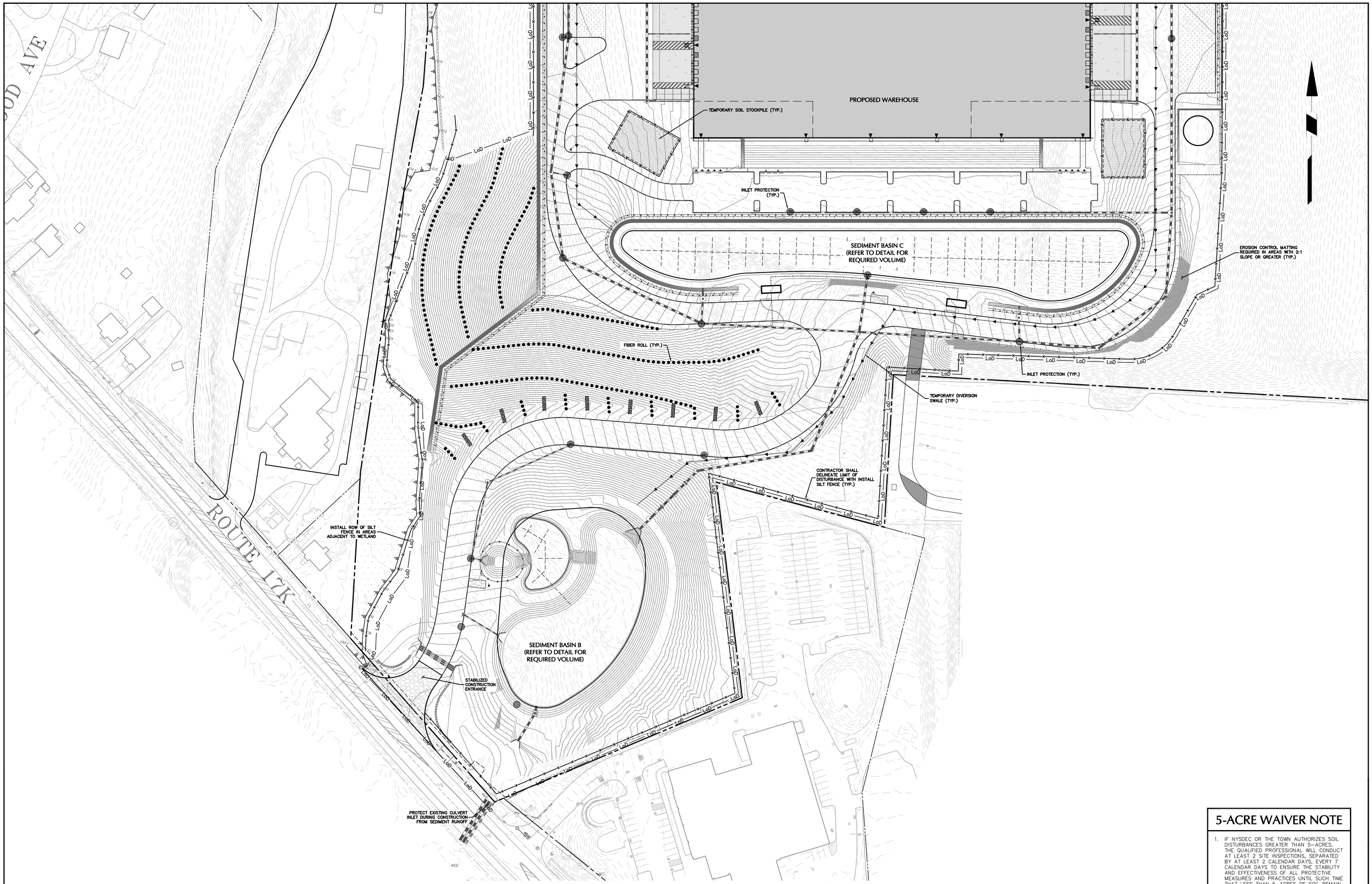
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
EROSION & SEDIMENT CONTROL PLAN (1 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. **CE101**
Sheet 29 of 45

Date: 10/10/2023 Time: 17:35 User: brchambers Style Table: Langan.stb Layout: CE101 Document Code: 190063302-0501-CE101-0102



5-ACRE WAIVER NOTE

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TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

50 0 25 50
SCALE: 1 INCH = 50 FEET

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STATE OF NEW YORK — CHARLES URSCHEL JR. — 062303 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE — CHARLES URSCHEL JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303
10/10/2023
DATE SIGNED

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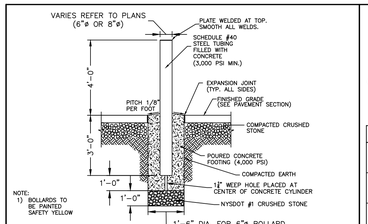
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
EROSION & SEDIMENT CONTROL PLAN (2 OF 2)

Project No.	190063302
Date	JULY 1, 2023
Drawn By	LM
Checked By	CU

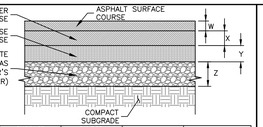
Drawing No.
CE102
Sheet 30 of 45

Date: 10/11/2023 Time: 12:27 User: lmcmahon Style Table: Langan.stb Layout: CG402 Document Code: 190063302-0501-CE101-0103



STEEL BOLLARD

SCALE: NTS

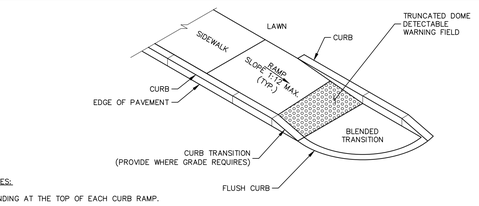


ASPHALT SECTION	SURFACE COURSE - 'W'	BINDER COURSE - 'X'	BASE - 'Y'	SUBBASE - 'Z'
CAR PARKING (STANDARD DUTY)	1.5 INCHES (HMA 9.5M64)	2.5 INCHES (HMA 19M64)	———	6 INCHES (NYSDOT TYPE 4)
MAIN ACCESS DRIVES (HEAVY DUTY)	2 INCHES (HMA 12.5M64)	———	4 INCHES (HMA 25M64)	8 INCHES (NYSDOT TYPE 4)
TRUCK COURTS (HEAVY DUTY)	2 INCHES (HMA 12.5M64)	———	4 INCHES (HMA 25M64)	8 INCHES (NYSDOT TYPE 4)
NYSDOT ENTRANCE (SEE NOTE 1)	1.5 INCHES (NYSDOT TYPE 6F)	2.5 INCHES (NYSDOT TYPE 3)	3.5 INCHES (NYSDOT TYPE 1)	12 INCHES (NYSDOT TYPE 4)

NOTES:
1. NYSDOT PAVEMENT SECTION TO BE USED FOR PAVEMENT WITHIN THE NYS ROUTE 300 RIGHT-OF-WAY.
2. PRIOR TO PLACING SUBBASE, ALL SUBGRADE AREAS SHALL BE PROOFROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5 TONS OR FULLY LOADED TRI-AXLE DUMP TRUCK TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. ANY SOFT AREAS SHALL BE REMOVED AND REPLACED WITH CLEAN, GRANULAR, FREE-DRAINING SOIL. APPROVED SUBGRADE SHOULD BE PROTECTED FROM FREEZING AND RAIN.
3. FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 12" AND SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557, OR AS APPROVED BY GEOTECHNICAL ENGINEER.
4. PRIOR TO ANY PAVING ACTIVITIES, THE SUBBASE SHALL BE PROOF ROLLED TO THE GEOTECHNICAL ENGINEER'S SATISFACTION. SOFT OR UNSTABLE AREAS SHALL BE REMEDIATED AS REQUIRED BY THE GEOTECHNICAL ENGINEER.
5. PAVING BASE COURSE SHALL BE CONSTRUCTED IN LAYERS NOT LESS THAN 2 INCHES AND NOT MORE THAN 4 INCHES THICK PER LIFT.
6. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
7. ALL ASPHALT TO BE PLACED IN ACCORDANCE WITH NYSDOT REQUIREMENTS.
8. PAVEMENT SUBGRADE PREPARATION WORK SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER. ISOLATED AREAS THAT EXHIBIT UNSUITABLE CONDITIONS SHALL BE OVER-EXCAVATED TO A DEPTH AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND IMMEDIATELY REPLACED WITH APPROVED COMPACTED FILL OR CRUSHED STONE.
8. SUBBASE MATERIAL MAY BE GENERATED FROM ON-SITE CRUSHING OF BEDROCK THAT MEETS THE REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.

SITE ASPHALT PAVEMENT SECTION

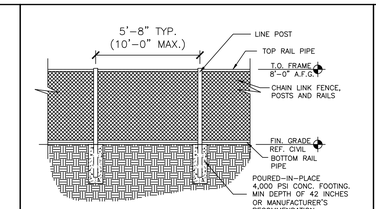
SCALE: NTS



SIDEWALK CURB RAMP NOTES:
1. THERE SHALL BE A LANDING AT THE TOP OF EACH CURB RAMP.
2. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF 5 FEET BY 5 FEET SQUARE. THE MAXIMUM CROSS SLOPE AT LANDINGS IS 2 PERCENT IN ANY DIRECTION. LANDINGS MAY OVERLAP WITH ADJACENT LANDINGS OR A SINGLE LANDING MAY SERVE MULTIPLE CURB RAMPS OR PARALLEL/PERPENDICULAR RAMPS.
3. THE MAXIMUM CROSS SLOPE OF CURB RAMPS SHALL BE 2 PERCENT. CURB RAMPS SURFACES SHALL GENERALLY LIE IN CONTINUOUS PLANES WITH A MINIMUM OF SURFACE WARP.
4. THE RUNNING GRADE OF CURB RAMPS SHOULD BE AS FLAT AS PRACTICABLE. THE MAXIMUM RUNNING GRADE OF ANY PORTION OF ANY CURB SHALL BE 1:12 (8.3%).
5. CURB RAMPS LOCATED WHERE PEDESTRIANS MAY WALK ACROSS THE CURB RAMP SHALL HAVE FLARED SIDES. THE LENGTH OF THE FLARES SHALL BE AT LEAST TEN (10) TIMES THE CURB HEIGHT, MEASURED ALONG THE CURB LINE. WHEN INFEASIBLE OR IMPRACTICABLE TO PROVIDE A LANDING THAT IS AT LEAST 5 FEET WIDE (MEASURED FROM THE TOP OF THE RAMP TO THE BACK OF THE SIDEWALK), THE LENGTH OF THE FLARES SHALL BE TWELVE (12) TIME THE CURB HEIGHT MEASURED ALONG THE CURB LINE.
6. THE SURFACE OF ALL CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES, EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
7. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES.
8. COORDINATE ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS. GUIDANCE FOR CROSSWALK MARKINGS AND TRAFFIC CONTROL DEVICES IS PROVIDED IN THE MUTCD. DRAINAGE GRATES AND UTILITY ACCESS COVERS ARE NOTE ALLOWED IN RAMP WALKING SURFACES OR LANDINGS UNLESS APPROVE BY THE DESIGN ENGINEER.
9. AT MARKED CROSSINGS, THE FULL WIDTH OF THE RAMP SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS. THE SIDES OF THE RAMP (THE FLARES) NEED NOT BE WITHIN THE WIDTH OF THE MARKINGS.
10. DETAILS ILLUSTRATE THAT DETECTABLE WARNINGS ARE REQUIRED. SEE THE CURRENT DETECTABLE WARNING STANDARD DETAIL AND NOTES FOR SPECIFIC DETECTABLE WARNING REQUIREMENTS.
11. SLOPES ON BLENDED TRANSITIONS SHALL NOT BE STEEPER THAN 2% (1 ON 50) IN ANY DIRECTION.
12. REFER TO THE SIDEWALK DETAIL FOR REQUIRED CONCRETE STRENGTH.

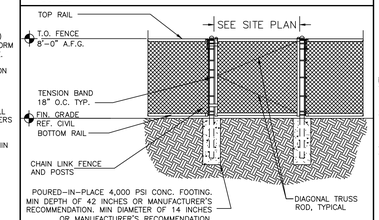
SIDEWALK CURB RAMP

SCALE: NTS



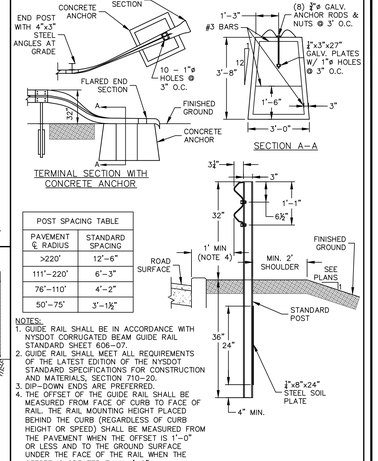
CHAIN LINK FENCE

SCALE: NTS



SINGLE SWING GATE

SCALE: NTS

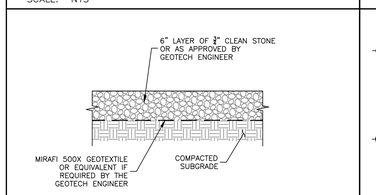


POST SPACING TABLE	
PAVEMENT ℄ RADIUS	STANDARD SPACING
>220'	12'-6"
111'-220'	6'-3"
76'-110'	4'-2"
50'-75'	3'-1½"

NOTES:
1. GUIDE RAIL SHALL BE IN ACCORDANCE WITH NYSDOT CORRUGATED BEAM GUIDE RAIL STANDARD SHEET 606-07.
2. GUIDE RAIL SHALL MEET ALL REQUIREMENTS OF THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 710-20.
3. DIP-DOWN ENDS ARE PREFERRED.
4. THE OFFSET OF THE GUIDE RAIL SHALL BE MEASURED FROM FACE OF CURB TO FACE OF RAIL. THE RAIL MOUNTING HEIGHT PLACED BEHIND THE CURB (REGARDLESS OF CURB HEIGHT OR SPEED) SHALL BE MEASURED FROM THE PAVEMENT WHEN THE OFFSET IS 1'-0" OR LESS AND TO THE GROUND SURFACE UNDER THE FACE OF THE RAIL WHEN THE OFFSET IS GREATER THAN 1'-0"

STEEL GUIDE RAIL

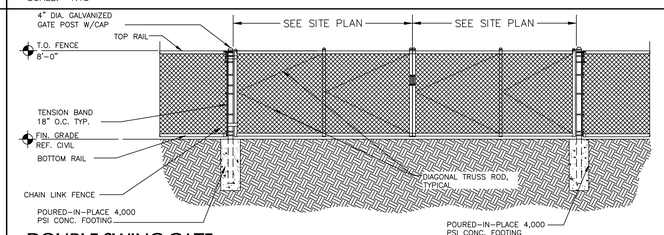
SCALE: NTS



NOTE:
REFER TO CS200 FOR PROPOSED LOCATIONS. A MAJORITY OF THE EMERGENCY ACCESS ROAD IS EXISTING PAVEMENT.

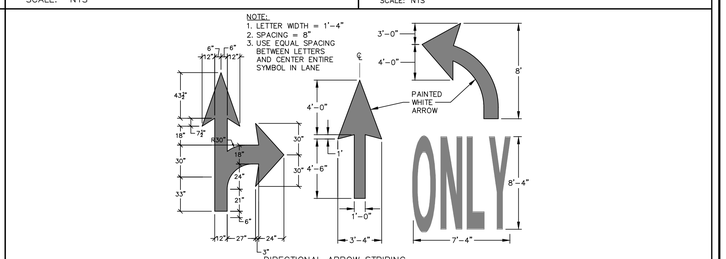
EMERGENCY ACCESS ROAD

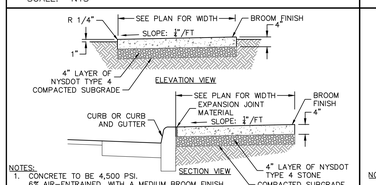
SCALE: NTS



DOUBLE SWING GATE

SCALE: NTS

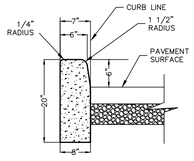




NOTES:
1. CONCRETE TO BE 4,500 PSI. 6% AIR-ENTRAINED, WITH A MEDIUM BROOM FINISH.
2. EXPANSION JOINTS TO BE INSTALLED @ 20-FT INTERVALS
3. 1" TOOLED JOINTS @ 5-FT INTERVALS.
4. EXTERIOR CONCRETE SHALL HAVE A WATER CONTENT RATIO OF 0.45 AND 6% AIR ENTRAINMENT.
5. CONTROL JOINTS SHALL BE SPACES MAXIMUM 15 FEET APART IN BOTH DIRECTIONS.

CONCRETE SIDEWALK

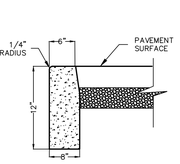
SCALE: NTS



NOTES:
1. CONCRETE SHALL BE 4,500 PSI CLASS 'B' AIR-ENTRAINED CONCRETE.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB AT 20 FOOT INTERVALS AND SHALL BE FILLED WITH PREFORMED BITUMINOUS JOINT FILLER.
3. ALL CURBS SHALL BE INSTALLED ON AN APPROVED, COMPACTED SUBGRADE.

6-INCH CONCRETE CURB

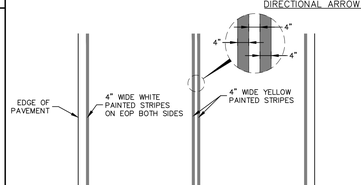
SCALE: NTS

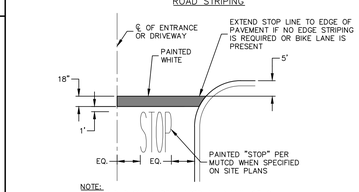


NOTES:
1. CONCRETE SHALL BE 4,500 PSI CLASS 'B' AIR-ENTRAINED CONCRETE.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB AT 20 FOOT INTERVALS AND SHALL BE FILLED WITH PREFORMED BITUMINOUS JOINT FILLER.
3. ALL CURBS SHALL BE INSTALLED ON AN APPROVED, COMPACTED SUBGRADE.

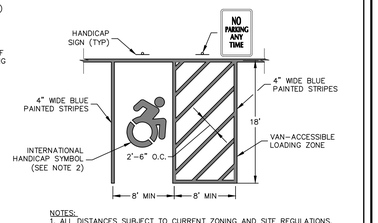
FLUSH CURB

SCALE: NTS





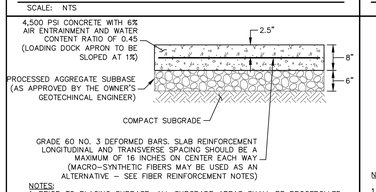
NOTE:
1. STOP BAR SHALL BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST CROSSWALK LINE AT INTERSECTIONS WITH CROSSWALKS.



NOTES:
1. ALL DISTANCES SUBJECT TO CURRENT ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE W/ ADA STANDARDS.
3. STRIPING WORK SHALL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.

PAVEMENT STRIPING

SCALE: NTS

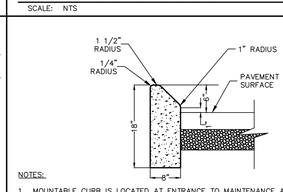


NOTES:
1. PRIOR TO PLACING SUBBASE, ALL SUBGRADE AREAS SHALL BE PROOFROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5 TONS OR FULLY LOADED TRI-AXLE DUMP TRUCK TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. ANY SOFT AREAS SHALL BE REMOVED AND REPLACED WITH CLEAN, GRANULAR, FREE-DRAINING SOIL. APPROVED SUBGRADE SHOULD BE PROTECTED FROM FREEZING AND RAIN.
2. FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 12" AND SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557, OR AS APPROVED BY GEOTECHNICAL ENGINEER.
3. FOR LOADING APRONS CONTROL JOINTS TO BE SAW CUT AT 15' MAX. SPACING IN BOTH DIRECTIONS.
4. FOR DOLLY STRIPS CONTROL JOINTS TO BE SAW CUT AT 15' MAX. SPACING.
5. PAVEMENT SUBGRADE PREPARATION WORK SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER. ISOLATED AREAS THAT EXHIBIT UNSUITABLE CONDITIONS SHALL BE OVER-EXCAVATED TO A DEPTH AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND IMMEDIATELY REPLACED WITH APPROVED COMPACTED FILL OR CRUSHED STONE.
6. SMOOTH 1"X13" ROUND DOWELS SHALL BE SPACED 12" APART AT ALL CONSTRUCTION JOINTS.
7. SUBBASE MATERIAL MAY BE GENERATED FROM ON-SITE CRUSHING OF BEDROCK THAT MEETS THE REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.

FIBER REINFORCEMENT NOTES:
- FIBERS SHOULD BE MACRO-SYNTHETIC.
- FIBERS SHOULD BE OBTAINED FROM ONE OF THE FOLLOWING SUPPLIERS:
  - TUF-STRAND SF BY EUCLID CHEMICAL COMPANY
  - CL95 MACRO FIBER BY PNA CONSTRUCTION TECHNOLOGIES, INC.
  - FORTA-FERRO BY FORTA CORPORATION
- RECOMMENDATIONS FOR THE DOSAGE RATE, WATER-CEMENT RATIO, AND THE USE OF CHEMICAL ADMIXTURES SUCH AS WATER-REDUCERS AND SUPER PLASTICIZERS SHOULD COME FROM MANUFACTURER.
- FIBERS SHOULD NOT BE MIXED AT THE SITE.

LOADING DOCK APRON & DOLLY STRIP

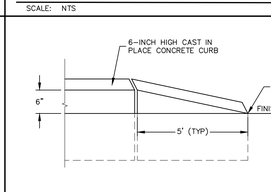
SCALE: NTS



NOTES:
1. MOUNTABLE CURB IS LOCATED AT ENTRANCE TO MAINTENANCE ACCESS.
2. CONCRETE SHALL BE 4,500 PSI CLASS 'B' AIR-ENTRAINED CONCRETE.
3. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB AT 20 FOOT INTERVALS AND SHALL BE FILLED WITH PREFORMED BITUMINOUS JOINT FILLER.
4. ALL CURBS SHALL BE INSTALLED ON AN APPROVED, COMPACTED SUBGRADE.

MOUNTABLE CURB

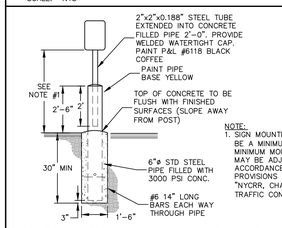
SCALE: NTS



NOTE:
SEE 6-INCH CONCRETE CURB DETAIL FOR ADDITIONAL INFORMATION.

CURB TERMINATION

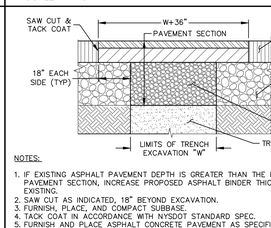
SCALE: NTS



NOTE:
1. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7'. MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN "NYCRR, CHAPTER V-UNIFORM TRAFFIC CONTROL DEVICES."

SIGN POST MOUNTING - BOLLARD

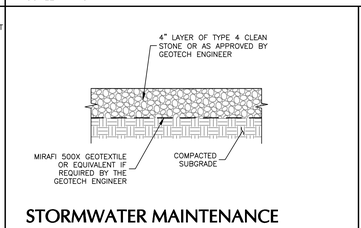
SCALE: NTS



NOTES:
1. IF EXISTING ASPHALT PAVEMENT DEPTH IS GREATER THAN THE PROPOSED ASPHALT PAVEMENT SECTION, INCREASE PROPOSED ASPHALT BINDER THICKNESS TO MATCH EXISTING.
2. SAW CUT AS INDICATED, 18" BEYOND EXCAVATION.
3. FURNISH, PLACE, AND COMPACT SUBBASE.
4. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
5. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

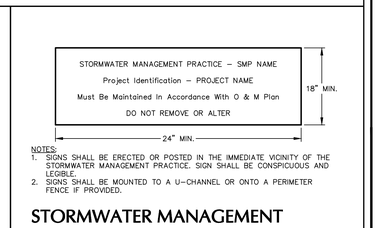
TRENCH RESTORATION IN PAVEMENT

SCALE: NTS



STORMWATER MAINTENANCE ACCESS PATH

SCALE: NTS



NOTES:
1. SIGNS SHALL BE ERECTED OR POSTED IN THE IMMEDIATE VICINITY OF THE STORMWATER MANAGEMENT PRACTICE. SIGN SHALL BE CONSPICUOUS AND LEGIBLE.
2. SIGNS SHALL BE MOUNTED TO A U-CHANNEL OR ONTO A PERIMETER FENCE IF PROVIDED.

STORMWATER MANAGEMENT PRACTICE SIGN

SCALE: NTS

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
2	PLANNING BOARD SUBMISSION	10/12/2023
1	PLANNING BOARD SUBMISSION	8/28/2023

Revisions

STATE OF NEW YORK — CHARLES UTSCHIG JR. — 062303 — PROFESSIONAL ENGINEER

SIGNATURE

10/10/2023
DATE SIGNED

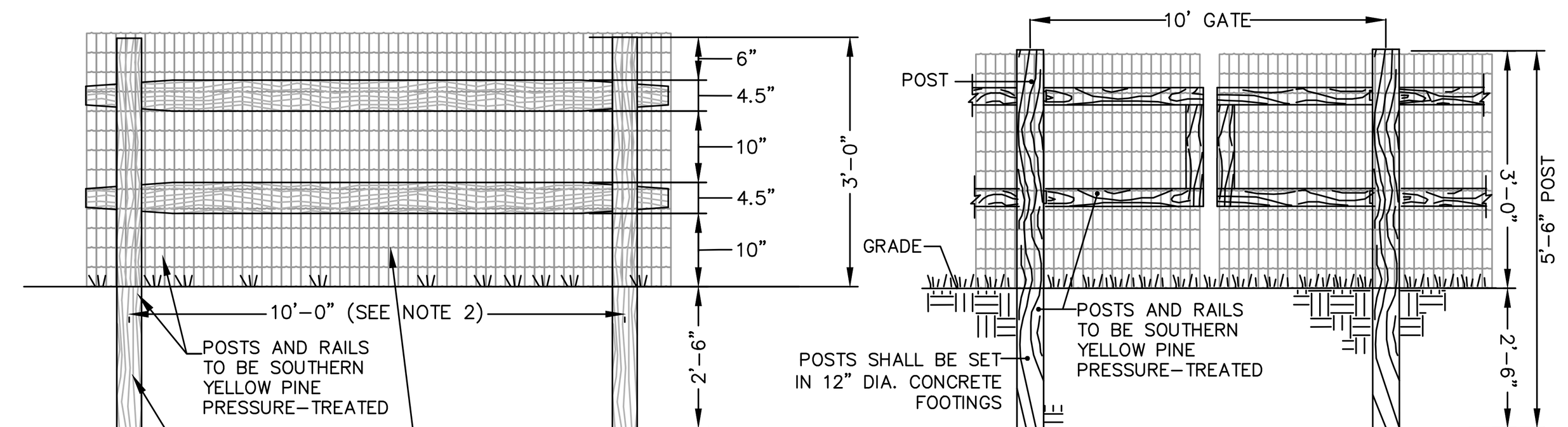
CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SITE DETAILS (1 OF 2)

Project No.	Drawing No.
190063302	CS501
Date: JULY 10, 2023	
Drawn By: LM	
Checked By: MF	Sheet 31 of 45

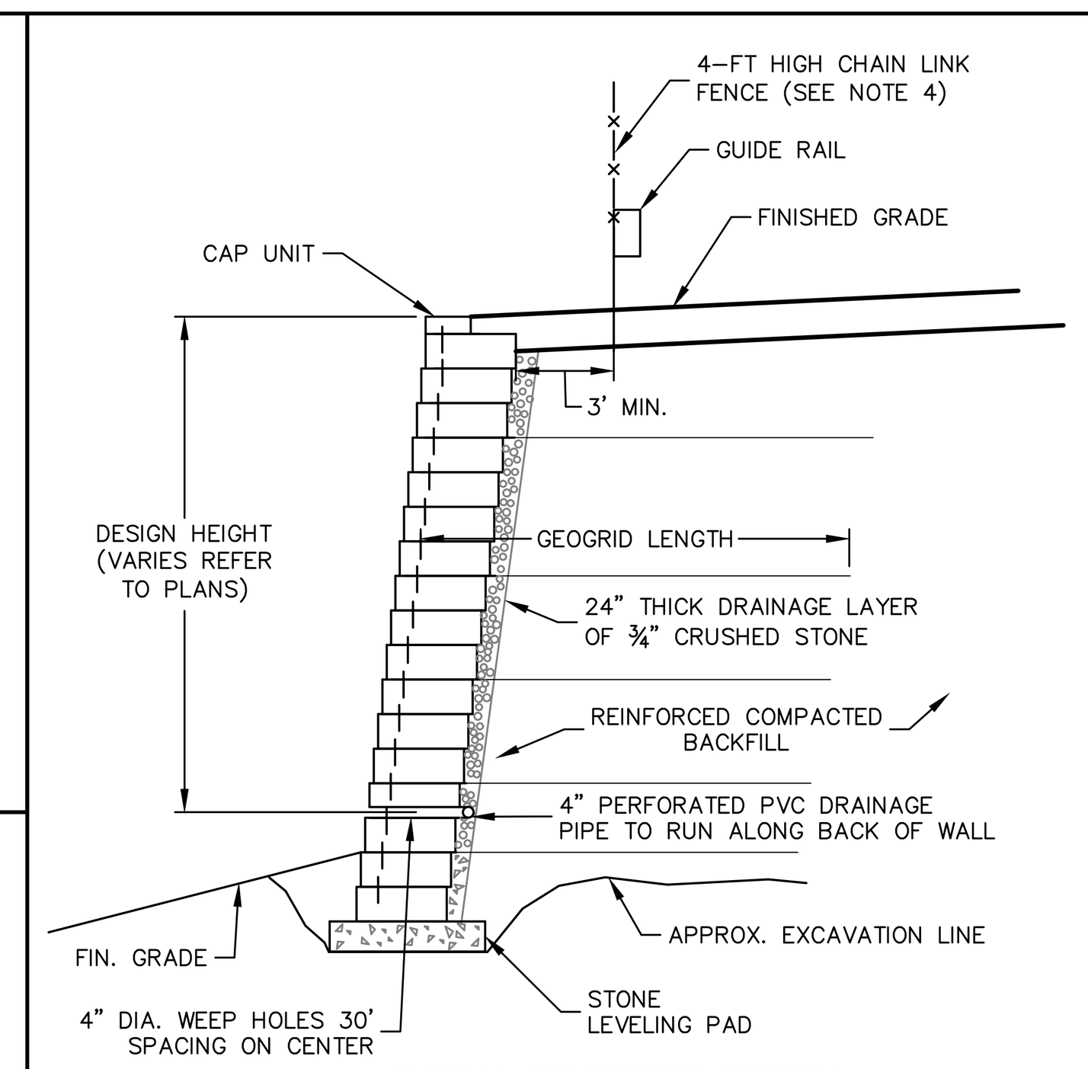


NOTES:

1. SPLIT RAIL FENCE AND GATE TO BE USED AROUND STORMWATER PRACTICES WITH PERMANENT WATER BODIES. REFER TO PLANS FOR LOCATIONS.
2. ALL DIMENSIONS ARE APPROXIMATE. DIMENSIONS WILL VARY WITH POST INSTALLATION DEPTH.
3. POST SPACING WILL VARY WITH LENGTH OF RAILS AND INSTALLATION PROCEDURE.

SPLIT RAIL FENCE AND GATE

SCALE: NTS



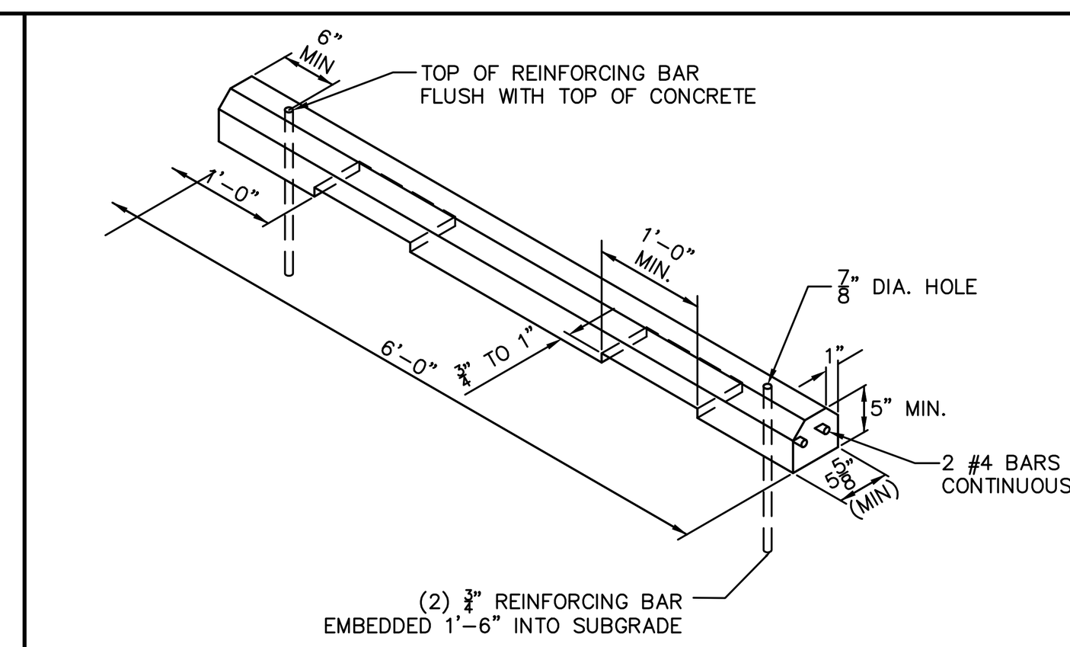
TYPICAL REINFORCED SECTION
STANDARD UNIT – 1" SETBACK

NOTES:

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL WALLS, CERTIFIED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER. SHOP DRAWINGS SHALL BE SUBMITTED TO LANGAN FOR REVIEW.
2. RETAINING WALLS PLANS AND PROFILES TO BE PROVIDED PRIOR TO ISSUANCE OF A BUILDING PERMIT.
3. RETAINING WALL DETAIL PROVIDED HEREIN ARE CONCEPT FOR PRICING.
4. A SAFETY BARRIER (FENCING) IS REQUIRED ON ALL WALLS WHERE THE WALL HEIGHT EXCEEDS 30". THE PROPOSED FENCING SHALL BE AFFIXED TO THE GUIDERAIL WHERE APPLICABLE TO MINIMIZE PENETRATIONS IN THE GEOGRID. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF CONNECTION, PLACEMENT, AND INSTALLATION METHOD.

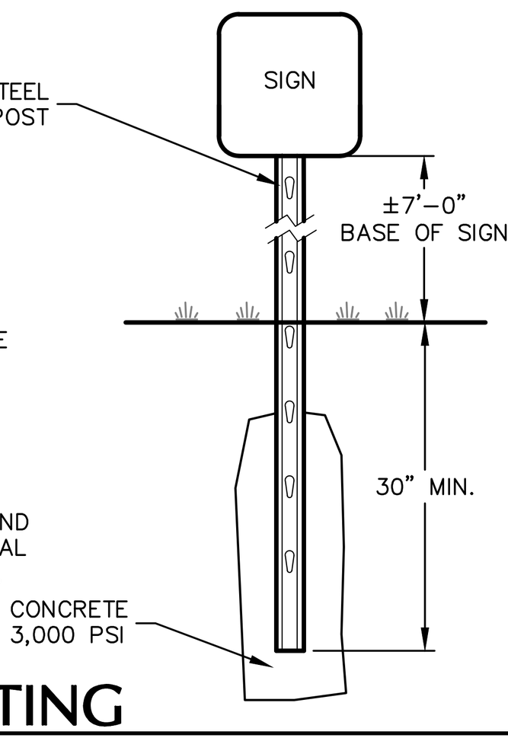
TYPICAL MODULAR BLOCK RETAINING WALL

SCALE: NTS



CONCRETE AUTO WHEEL STOP

SCALE: NTS

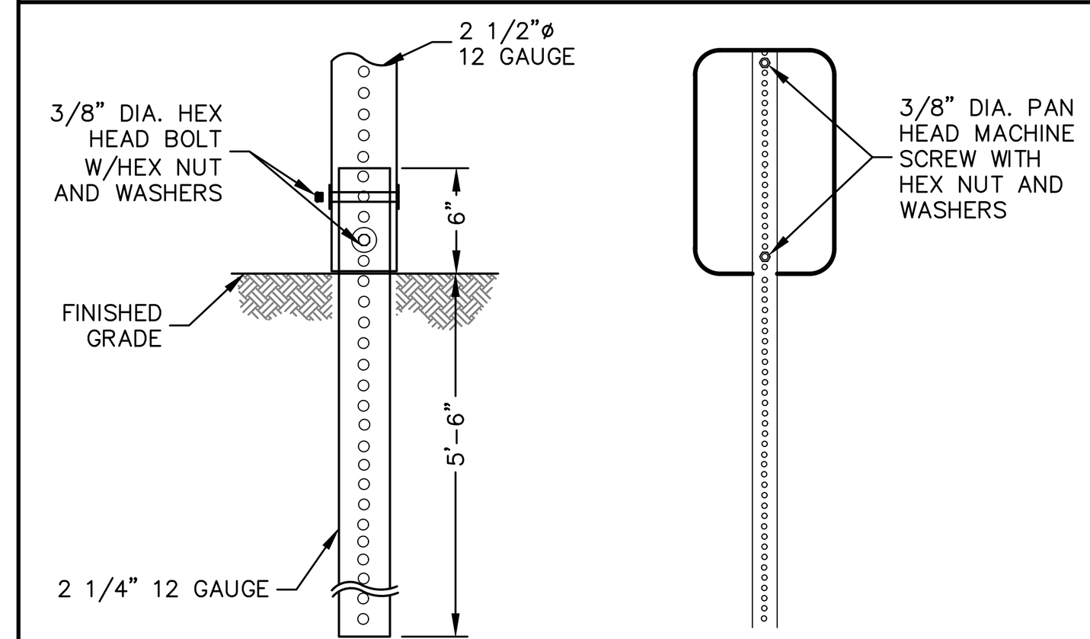


NOTES:

1. ALL SIGNS SHALL BE MINIMUM 18 GUAGE STEEL WITH BAKED ON ENAMEL FINISH. PROVIDE WITH PRE-PUNCHED MOUNTING HOLES.
2. POSTS: 2" STEEL U-CHANNEL BREAKAWAY POST.
3. SIGNS AND POSTS SHALL BE IN ACCORDANCE WITH LOCAL ORDINANCE AND MEET THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

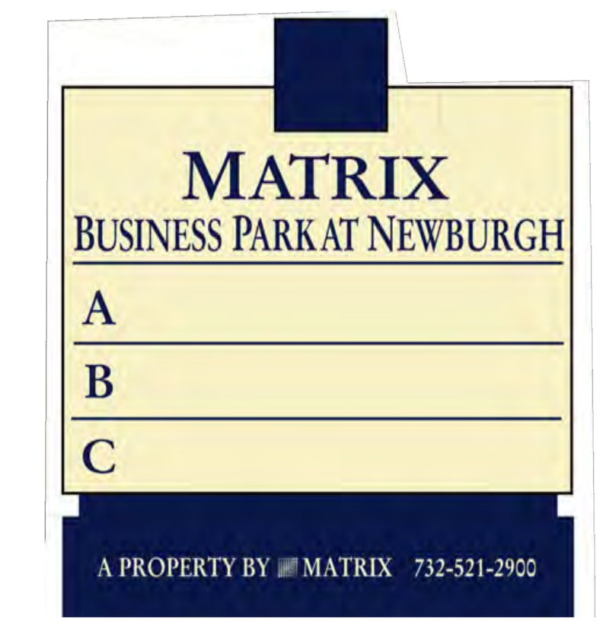
SIGN POST MOUNTING

SCALE: NTS



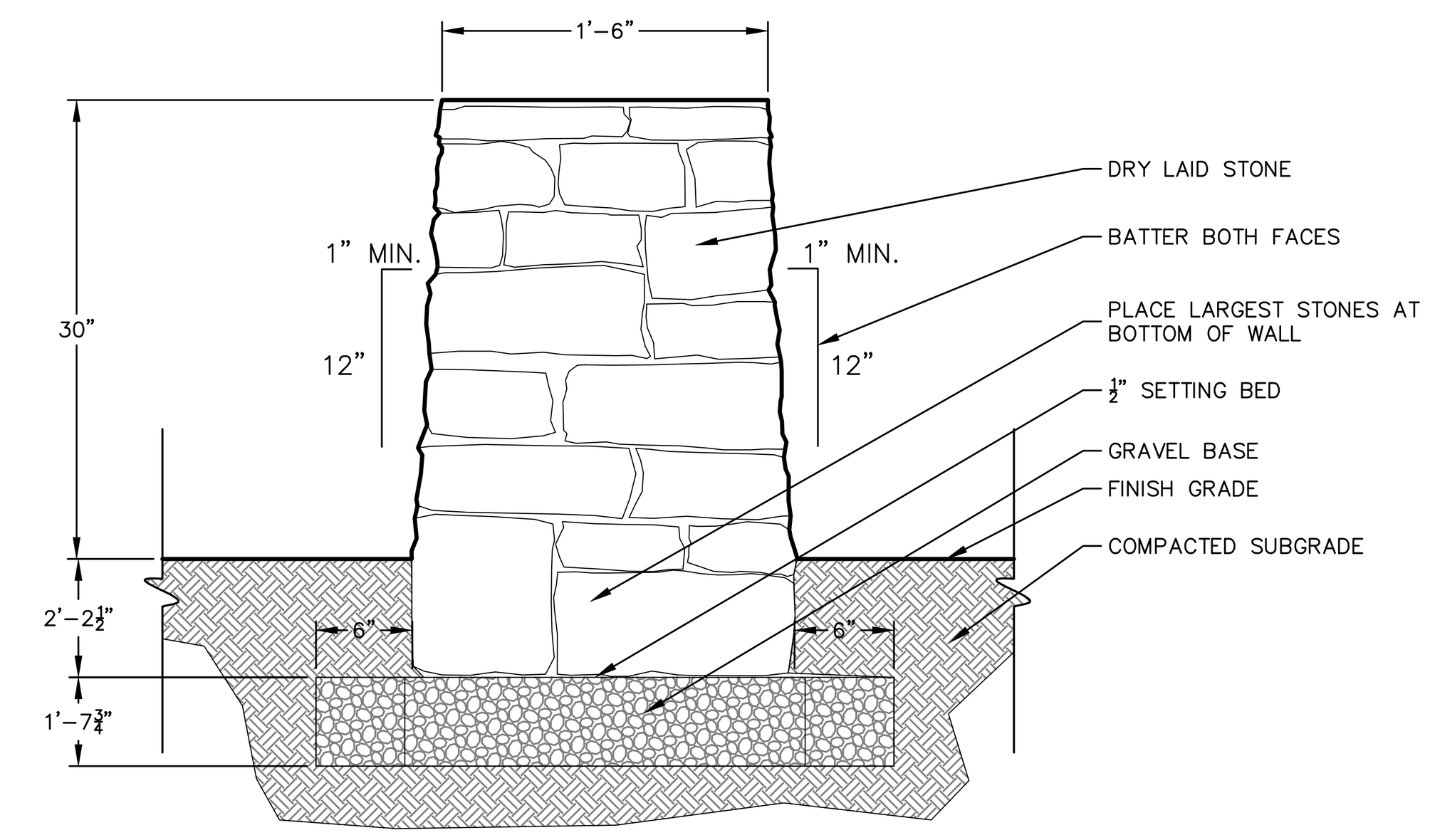
BREAKAWAY SIGN POST

SCALE: NTS



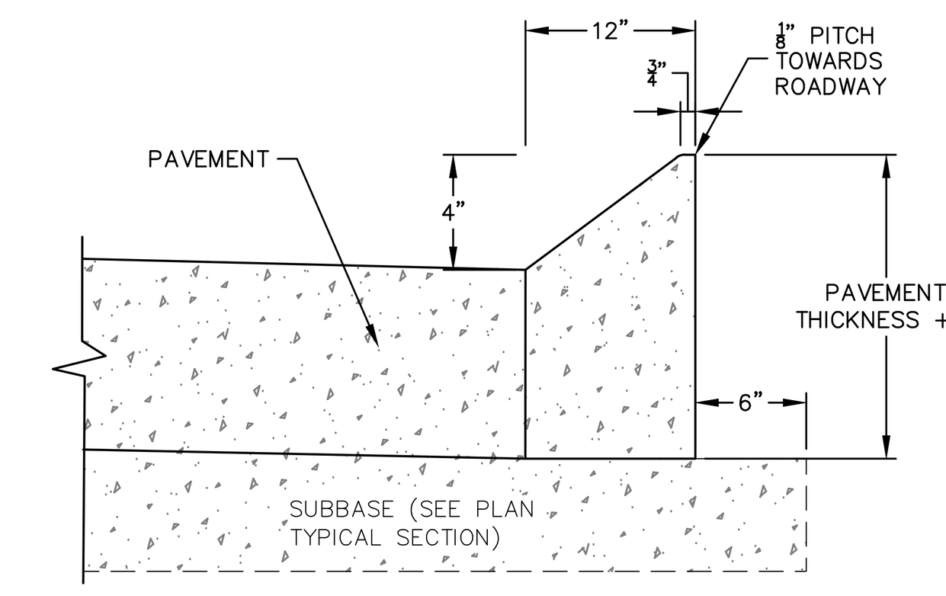
DIRECTIONAL SIGN

SCALE: NTS



FREE STANDING DRY LAID STONE WALL

SCALE: NTS

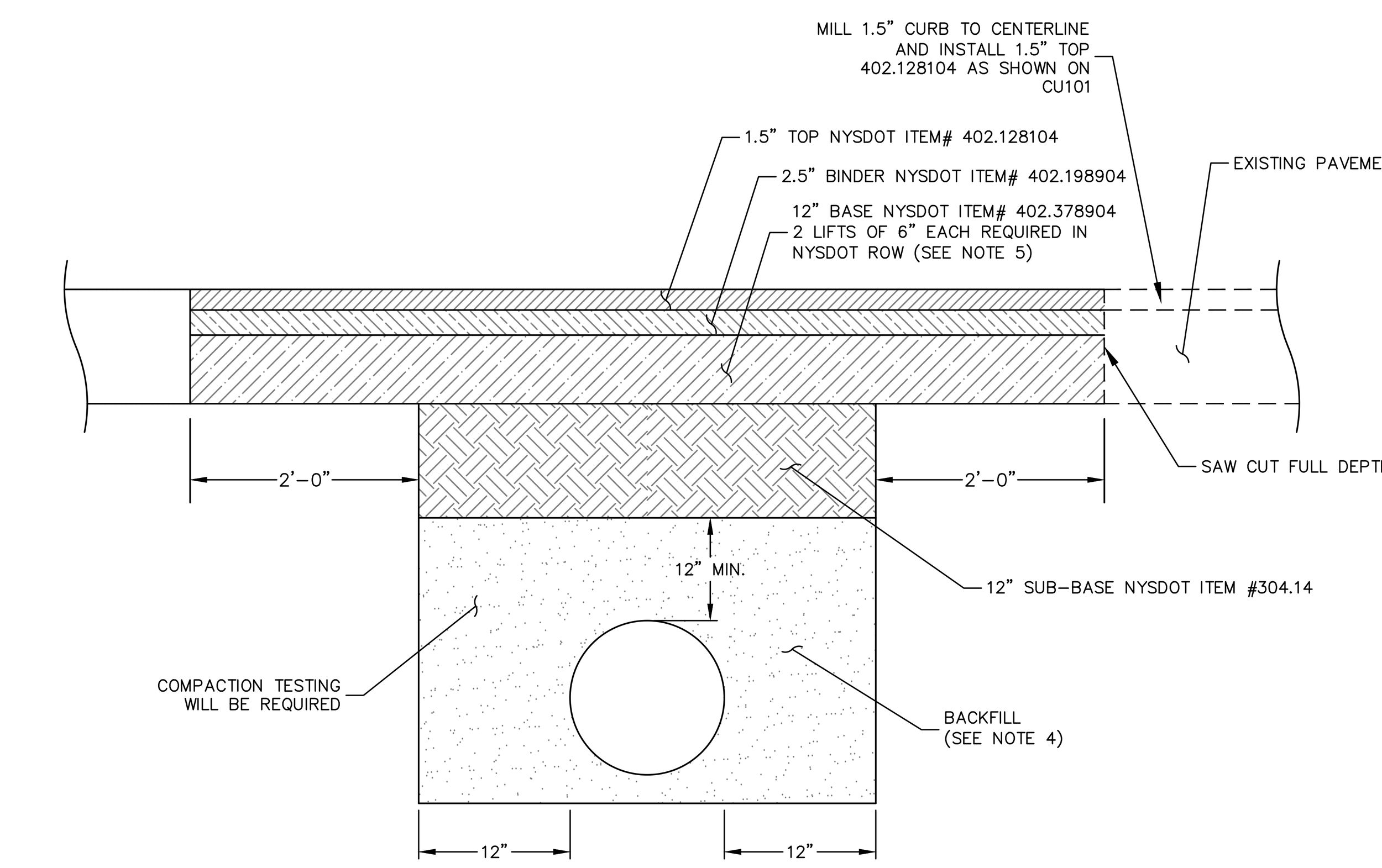


NYSDOT CONCRETE CURB (TYPE T100)

SCALE: NTS

MONUMENT SIGN

SCALE: NTS



NYSDOT ROW NOTES:

1. ALL MATERIALS SHALL BE PROVIDED AND WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND ALL CURRENT ADDENDUM. ALL ASPHALT CONCRETE ITEMS (BASE, BINDER, & TOP) SHALL BE THE APPROPRIATE SUPER-PAVER ITEMS.
2. WATER MAIN SHALL BE 5'-0" MIN. FROM TOP OF PIPE TO FINISH GRADE.
3. WHEN CONCRETE IS USED IT SHALL BE REINFORCED PORTLAND CEMENT CONCRETE WITH DOWELS INSTALLED AT THE REQUIRED SPACING. WHEN ASPHALT CONCRETE IS USED IT SHALL CONSIST OF SUPER-PAVER HOT MIX ASPHALT (HMA) COURSES: BASE, BINDER, AND TOP. THE TOTAL PAVEMENT THICKNESS SHALL MATCH EXISTING (INCLUDING REPLACING THE THICKNESS OF ANY UNDERLYING CONCRETE PAVEMENT WITH HMA.)
4. BACKFILL SHALL BE WITH SELECT GRANULAR MATERIAL FROM THE BOTTOM OF THE TRENCH TO THE BOTTOM OF THE SUBBASE COURSE. PLACEMENT SHALL BE AS DESCRIBED IN SECTION 200. EARTHWORK OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION CURRENT SPECIFICATIONS AND ADDENDA.
5. MINIMUM OF 12" OF SUPERPAVE BASE BUT BASE HMA SHOULD MATCH DEPTH FROM TOP OF EXISTING SUBBASE TO BOTTOM OF EXISTING BINDER COURSE. PLACED IN NO MORE THAN 6" LIFTS.
6. MILL AND FILL 1½" TOP COURSE 25' ON EACH SIDE OF TRENCH, FROM CURB TO EDGE OF TRAVEL LANE (INCLUDING PAVEMENT MARKINGS).
7. WHERE THE DISTANCE BETWEEN THE TOP OF PIPE ELEVATION AND THE TOP OF SUBGRADE ELEVATION IS LESS THAN 2', CLSM SHALL BE USED FOR BACKFILL MATERIAL TO TOP OF SUBGRADE ELEVATION.
8. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED AT THE BOTTOM OF THE TRENCH, A LAYER OF SELECT GRANULAR FILL OR CLSM SHALL BE PLACED TO PROVIDE A STABLE BEDDING.
9. DO NOT PLACE CLSM IN CONTACT WITH ALUMINUM PIPE OR CONNECTIONS UNLESS ALUMINUM IS COATED WITH AN APPROVED PRIMER.
10. DO NOT PLACE CLSM CONTAINING FLY ASH IN CONTACT WITH CAST IRON OR DUCTILE IRON PIPES OR FITTINGS.
11. ALL PAVEMENT JOINTS SHALL BE SEALED.
12. ALL DISTURBED OR NEW PAVEMENT SHALL HAVE TEMPORARY PAVEMENT STRIPING INSTALLED WITHIN 24 HOURS AND FINAL STRIPING BEFORE ACCEPTANCE OF WORK.

PAVEMENT SECTION NYSDOT R.O.W.

SCALE: NTS

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN
DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303
10/10/2023
DATE SIGNED

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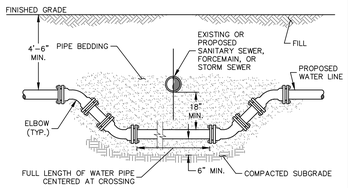
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SITE DETAILS (2 OF 2)

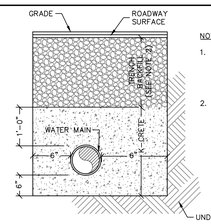
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No.
CS502
Sheet 32 of 45



WATER LINE OFFSET

SCALE: NTS

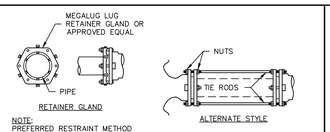


NOTE:

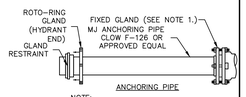
1. ENCASE WATERMAIN WITH K-CRETE IN AREAS WHERE VERTICAL CLEARANCE IS LESS THAN 18" AND HORIZONTAL CLEARANCE IS LESS THAN 10'.
2. WHEN IN ROAD, USE NYSDOT ITEM 304.15 TO THE BOTTOM OF THE ROAD SUBBASE. WHEN OUTSIDE OF ROAD, USE ON SITE SOIL WITH MAX. PARTICLE SIZE 4" TO FINISHED GRADE. COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY.

WATER MAIN ENCASEMENT

SCALE: NTS



NOTE:
PREFERRED RESTRAINT METHOD

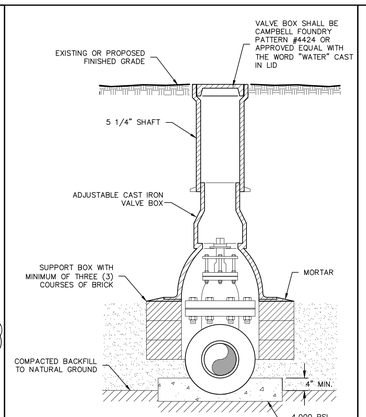


NOTE:
PREFERRED FOR HYDRANT INSTALLATION

NOTE:
1. EBBA IRON MEGALUG RETAINING GLANDS ARE REQUIRED.

THRUST RESTRAINT

SCALE: NTS

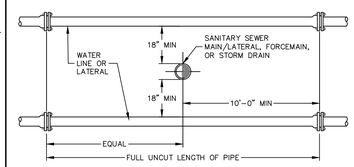


NOTES:

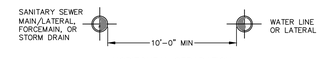
1. SIMILAR INSTALLATION FOR CURB BOX OR SERVICE LINE.
2. REFER TO PLAN FOR SIZE AND LOCATION.
3. VALVES TO BE MUELLER.

VALVE BOX

SCALE: NTS



VERTICAL SEPARATION



HORIZONTAL SEPARATION

NOTES:

1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE APPROVAL OF THE HEALTH DEPARTMENT.
2. IF THE MINIMUM SEPARATION REQUIREMENTS CANNOT BE ACHIEVED, ONE OF THE FOLLOWING MUST USED:
   A. VERTICAL:
      - OFFSET THE WATER LINE TO PROVIDE 18" MINIMUM VERTICAL SEPARATION FROM THE SEWER/STORM PIPE. ONE FULL LENGTH OF PIPE MUST BE CENTERED OVER THE SEWER/STORM PIPE SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER/STORM PIPE AS POSSIBLE. REFER TO WATER LINE OFFSET DETAIL FOR ADDITIONAL INFORMATION.
   B. VERTICAL AND HORIZONTAL:
      - CONSTRUCT THE SEWER OF PVC PRESSURE PIPE MATERIAL, 10' ON EACH SIDE OF THE WATER LINE/SEWER CROSSING. THE SEWER PIPE MUST BE PRESSURE TESTED.
      - ENCASE THE WATER LINE IN 50 PSI CONCRETE, 10' ON EACH SIDE OF THE WATER LINE/SEWER CROSSING. CONCRETE ENCASEMENT MUST BE A MINIMUM OF 6" AROUND THE WATER LINE.

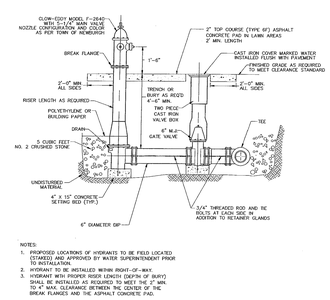
WATER LINE SEPARATION

SCALE: NTS

NOTE:1) MAXIMUM DEPTH OF COVER NOT TO EXCEED 6' WITHOUT APPROVAL OF THE TOWN WATER SUPERINTENDENT.

2) ALL SOIL COMPACTION TO BE IN ACCORDANCE WITH GEOTECHNICAL SPECIFICATIONS

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATERMAIN TRENCH EXCAVATION AND BACKFILL (UNDER PAVEMENT)
DATE: NOVEMBER 2001 | BY: CLD | NO SCALE

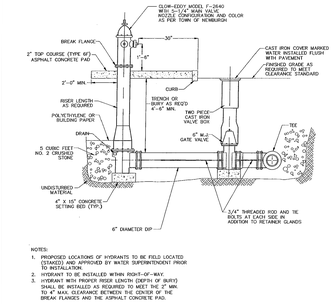


NOTES:

1. PROPOSED LOCATIONS OF HYDRANTS TO BE FIELD LOCATED (STAKED) AND APPROVED BY WATER SUPERINTENDENT PRIOR TO INSTALLATION.
2. HYDRANT TO BE INSTALLED WITHIN RIGHT-OF-WAY.
3. HYDRANT WITH PROPER RISER LENGTH (DEPTH OF BURY) SHALL BE INSTALLED AS REQUIRED TO MEET THE 2" MIN. TO 4" MAX. CLEARANCE BETWEEN THE CENTER OF THE BREAK FLANGES AND THE ASPHALT CONCRETE PAD.

IF DRAIN HOLES ARE TO BE PLUGGED, THEN THE HYDRANT SHALL BE MARKED TO INDICATE THAT IT MUST BE PUMPED AFTER USE. WHEN WATER OR EVIDENCE OF HIGH GROUNDWATER IS FOUND WITHIN 2' BELOW HYDRANT BASE

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
HYDRANT AND VALVE ASSEMBLY INSTALLATION
DATE: NOVEMBER 2001 | BY: CLD | NO SCALE



NOTES:

1. PROPOSED LOCATIONS OF HYDRANTS TO BE FIELD LOCATED (STAKED) AND APPROVED BY WATER SUPERINTENDENT PRIOR TO INSTALLATION.
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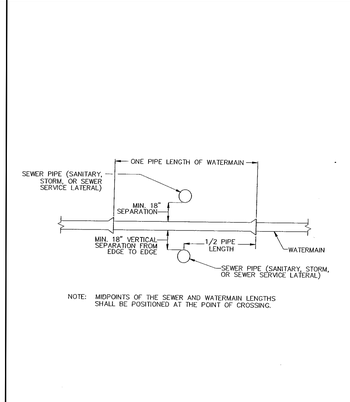
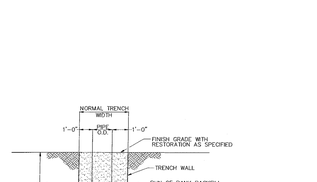
IF DRAIN HOLES ARE TO BE PLUGGED, THEN THE HYDRANT SHALL BE MARKED TO INDICATE THAT IT MUST BE PUMPED AFTER USE. WHEN WATER OR EVIDENCE OF HIGH GROUNDWATER IS FOUND WITHIN 2' BELOW HYDRANT BASE

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
HYDRANT AND VALVE ASSEMBLY INSTALLATION (ADJACENT CURB)
DATE: NOVEMBER 2001 | BY: CLD | NO SCALE



NOTE: MIDPOINTS OF THE SEWER AND WATERMAIN LENGTHS SHALL BE POSITIONED AT THE POINT OF CROSSING.

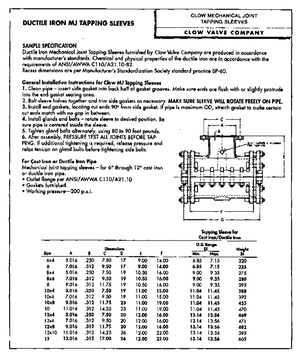
TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATERMAIN/SEWER CROSSING
DATE: NOVEMBER 2001 | BY: CLD | NO SCALE



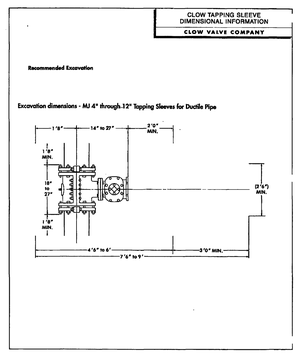
NOTE: 1) MAXIMUM DEPTH OF COVER NOT TO EXCEED 6' WITHOUT APPROVAL OF TOWN WATER SUPERINTENDENT.

2) ALL SOIL COMPACTION TO BE IN ACCORDANCE WITH GEOTECHNICAL SPECIFICATIONS

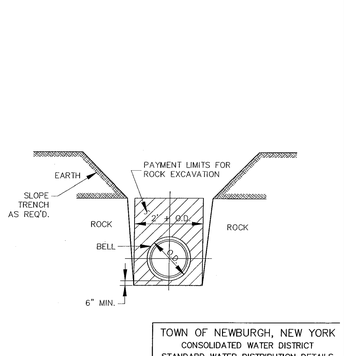
TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
WATERMAIN TRENCH EXCAVATION AND BACKFILL (OUTSIDE OF PAVEMENT)
DATE: NOVEMBER 2001 | BY: CLD | NO SCALE



REFERENCE: TOWN OF NEWBURGH WATER DISTRICT



REFERENCE: TOWN OF NEWBURGH WATER DISTRICT



TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS
TRENCH WITH ROCK EXCAVATION
DATE: NOVEMBER 2001 | BY: CLD | NO SCALE

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

STATE OF NEW YORK — CHARLES USCHIG JR. — 062303 — PROFESSIONAL ENGINEER — PROFESSIONAL ENGINEER

SIGNATURE — 10/10/2023 DATE SIGNED

CHARLES USCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

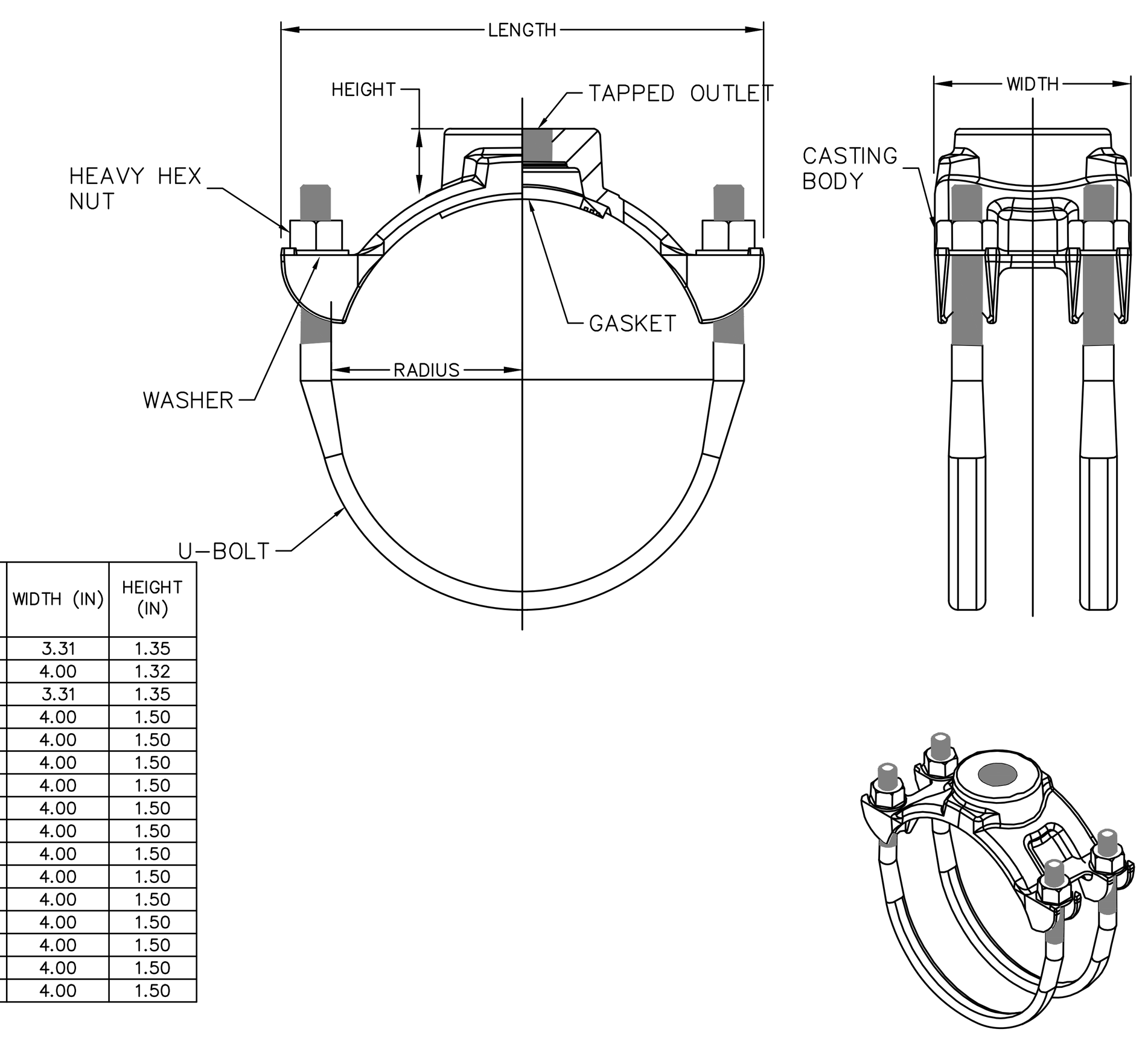
LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
WATER DETAILS

Project No.	Drawing No.
190063302	CS503
Date: JULY 10, 2023	
Drawn By: LM	
Checked By: MF	Sheet 33 of 45

Date: 10/10/2023 Time: 16:40 User: brchambers Style Table: Langan.stb Layout: CS503 Document Code: 190063302-0501-CS501-0103

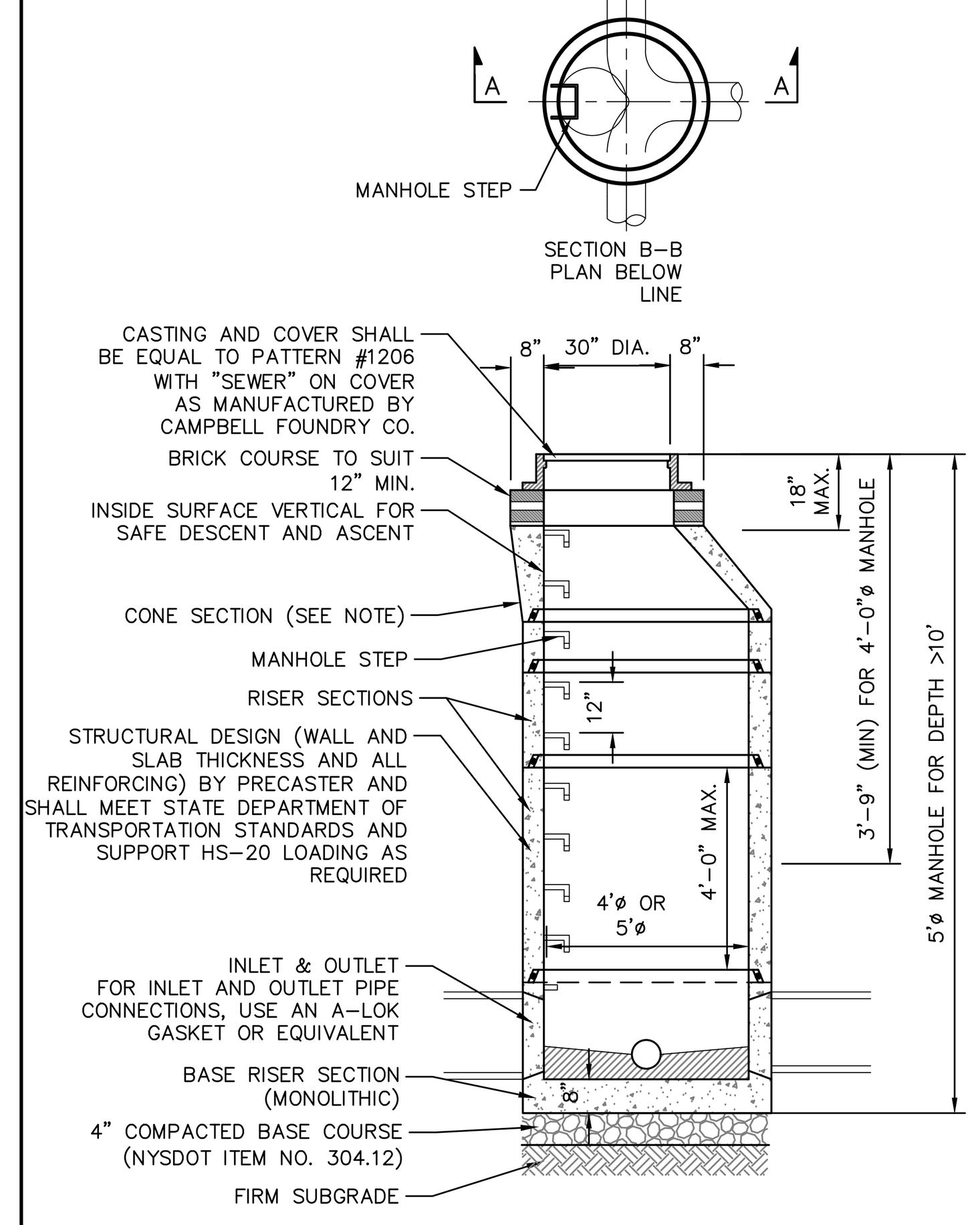


NOMINAL SIZE (IN)	PIPE OD RANGE (IN)	RADIUS (IN)	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)
2	2.38–2.50	1.25	4.88	3.31	1.35
3	3.50	1.75	6.37	4.00	1.32
	3.45–4.05	2.03	6.38	3.31	1.35
4	4.00–4.50	2.25	6.94	4.00	1.50
	4.50–4.80	2.40	7.00	4.00	1.50
	4.50–5.40	2.70	7.63	4.00	1.50
6	6.00–6.63	3.32	8.75	4.00	1.50
	6.63–6.90	3.45	8.81	4.00	1.50
	6.63–7.60	3.80	9.50	4.00	1.50
8	8.00–8.63	4.32	11.19	4.00	1.50
	8.63–9.05	4.53	11.13	4.00	1.50
	8.63–9.80	4.90	11.81	4.00	1.50
10	10.00–11.10	5.55	13.06	4.00	1.50
	11.10–12.12	6.06	14.19	4.00	1.50
12	12.00–13.20	6.60	15.19	4.00	1.50
	13.20–14.38	7.19	16.31	4.00	1.50

NOTES:
1. CASTING BODY: DUCTILE IRON PER ASTM A536 65–45–12.
2. U–BOLT: ZINC–PLATE STEEL PER AISI C1018.
- 3" AND SMALLER: 1/2–13 UNC THREAD.
- 4" AND LARGER: 5/8–11 UNC THREAD.
- 316 STAINLESS STEEL AVAILABLE UPON REQUEST.
- U–BOLT IS NOT RECOMMENDED FOR USE ON PVC PIPE.
3. NUT & WASHER: TYPE 304 STAINLESS STEEL.
4. OUTLET: REFER TO CATALOG FOR AVAILABLE "IP" (NPT) OR "CC" (PER AWWA C800) TAP SIZES.
5. GASKET: NBR PER ASTM D2000 MBC 610. EPDM AVAILABLE UPON REQUEST.
6. COATING:
- 202U & 202SSU: SHOP COAT ENAMEL
- 202NU & 202NSSU: NYLON COATING 10–12 MILS THICK
- NUTS: BLACK EPOXY E–COAT

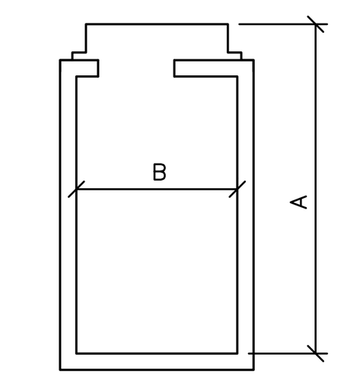
HOT TAP

SCALE: NTS



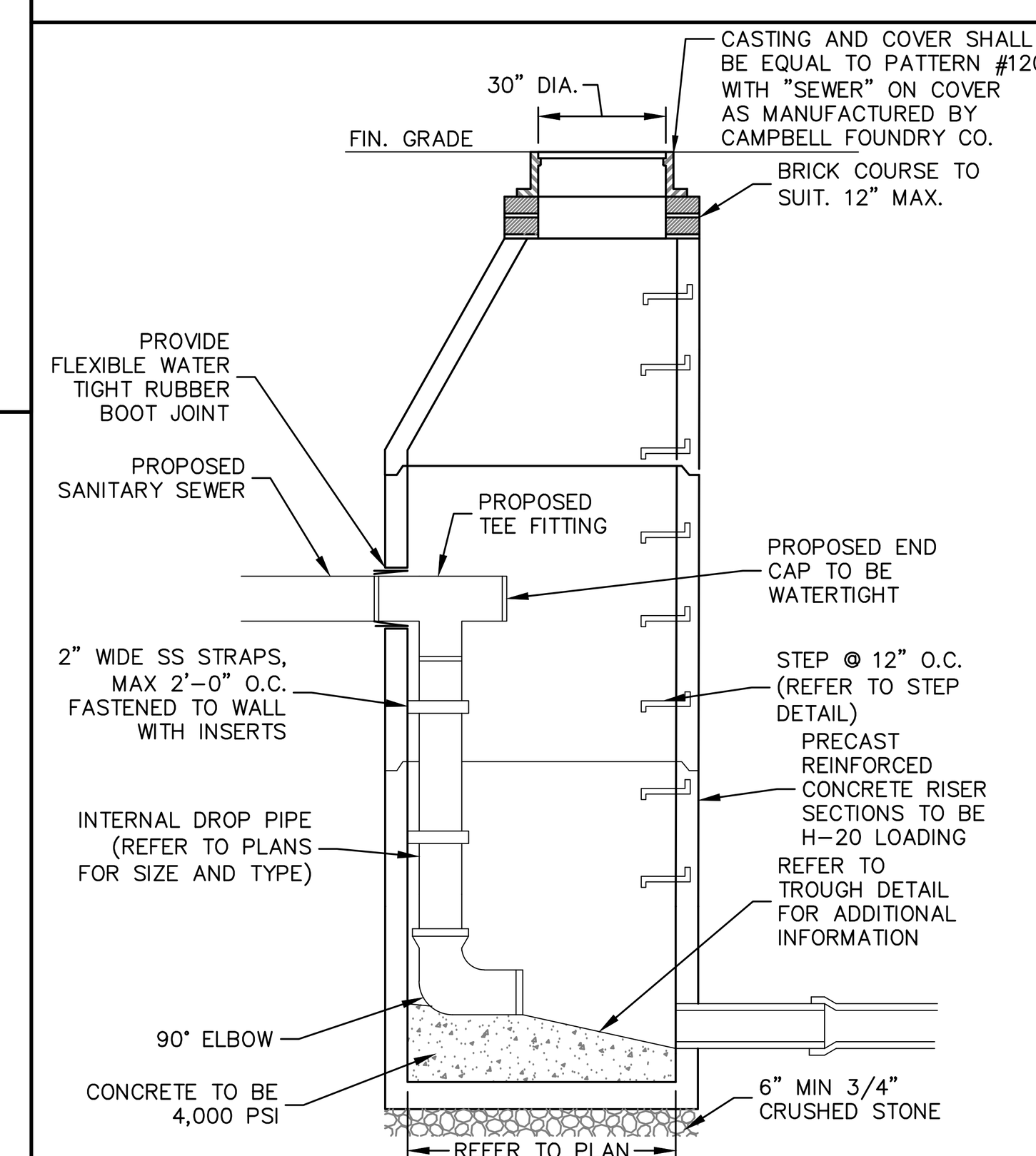
SANITARY MANHOLE NOTES
1. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO 3/4 OF THE DIAMETER OF THE SEWER.
2. THE SHELF SHALL SLOPE TOWARD THE INVERT CHANNEL AT A RATE OF 1" PER FOOT.
3. TYPE "B" MANHOLES (SHALLOW TYPE) TO BE PROVIDED WHERE REQUIRED BY DEPTH CONDITIONS.
4. SEE THE SPECIFICATIONS FOR LENGTH OF PIPE CONNECTIONS TO MANHOLE.
5. ALL CONCRETE SHALL BE 4000 PSI MINIMUM.
6. ENTIRE OUTSIDE SURFACE OF MANHOLE SHALL RECEIVE TWO COATS OF BITUMINOUS COATING. KOPPERS 300M PENNOXY TAR 32–8–4, OR APPROVED EQUAL.
7. INSTALL 2 LAYERS OF PLASTIC PREFORMED JOINT SEALANT BETWEEN ALL SECTIONS & UNDER FRAME.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR MANHOLE IN ACCORDANCE WITH SPECIFICATIONS.
9. 4' DIA. MANHOLE – FROM 8" TO 30" PIPES
10. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER", CAST ON THE COVERS.
11. THE PRECAST CONCRETE STRUCTURE SHALL COMPLY WITH ASTM SPECIFICATIONS C478.
12. ALL SANITARY SEWER MANHOLES ARE TO BE CONSTRUCTED WITH THE COMPRESSION TYPE RESILIENT SEAL ASSEMBLY EQUAL TO "OMEGA CONCRETE PRODUCTS INC.".
13. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND CONSTRUCT THE PROPER SIZE STRUCTURE INCLUDING THE NECESSARY OPENINGS TO ACCOMMODATE THE WORK, AS SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER, AT NO ADDITIONAL COST.
14. ALL NECESSARY PATCHING SHALL BE ACCOMPLISHED WITH A NON–SHRINK CEMENT MORTAR GROUT EQUAL TO "SIKA–SET" AS MANUFACTURED BY THE SIKA CHEMICAL CORPORATION.

DEPTH 'A'	WIDTH 'B'
< 10'–0"	4'–0"ø
> 10'–0"	5'–0"ø



SANITARY MANHOLE

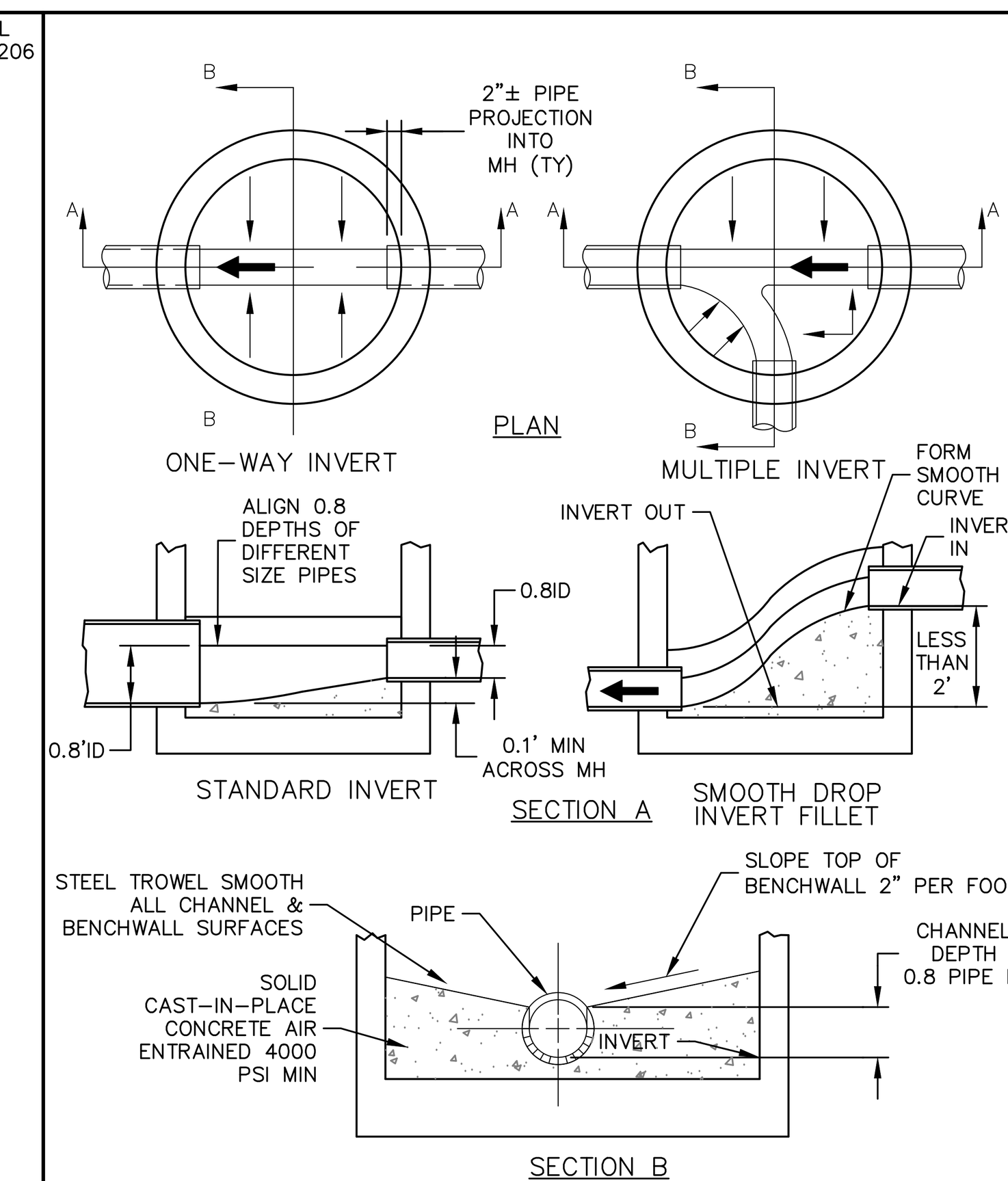
SCALE: NTS



NOTES:
1. TO BE USED WHEN INCOMING SEWER IS MORE THAN 2'–0" HIGHER THAN THE OUTGOING SEWER.
2. PIPE SIZE AND TYPE OF DROP CONNECTION TO BE THE SAME AS MAIN OR LATERAL.
3. ALL JOINTS SHOULD BE SEALED INSIDE AND OUT WITH CEMENT GROUT CONTAINING TWO PARTS CEMENT AND ONE PART SAND AND ANTI–HYDRO OR OTHER APPROVAL ADDITIVE IN ACORDANCE WITH MANUFACTURE'S RECOMMENDATIONS FOR WATER TIGHTNESS.
4. SEE SANITY SEWER MANHOLE DETAIL, HERE ON FOR ADDITIONAL REQUIREMENTS AND STANDARDS FOR THE PRECAST SANITY MANHOLE.

INTERNAL DROP SANITARY MANHOLE

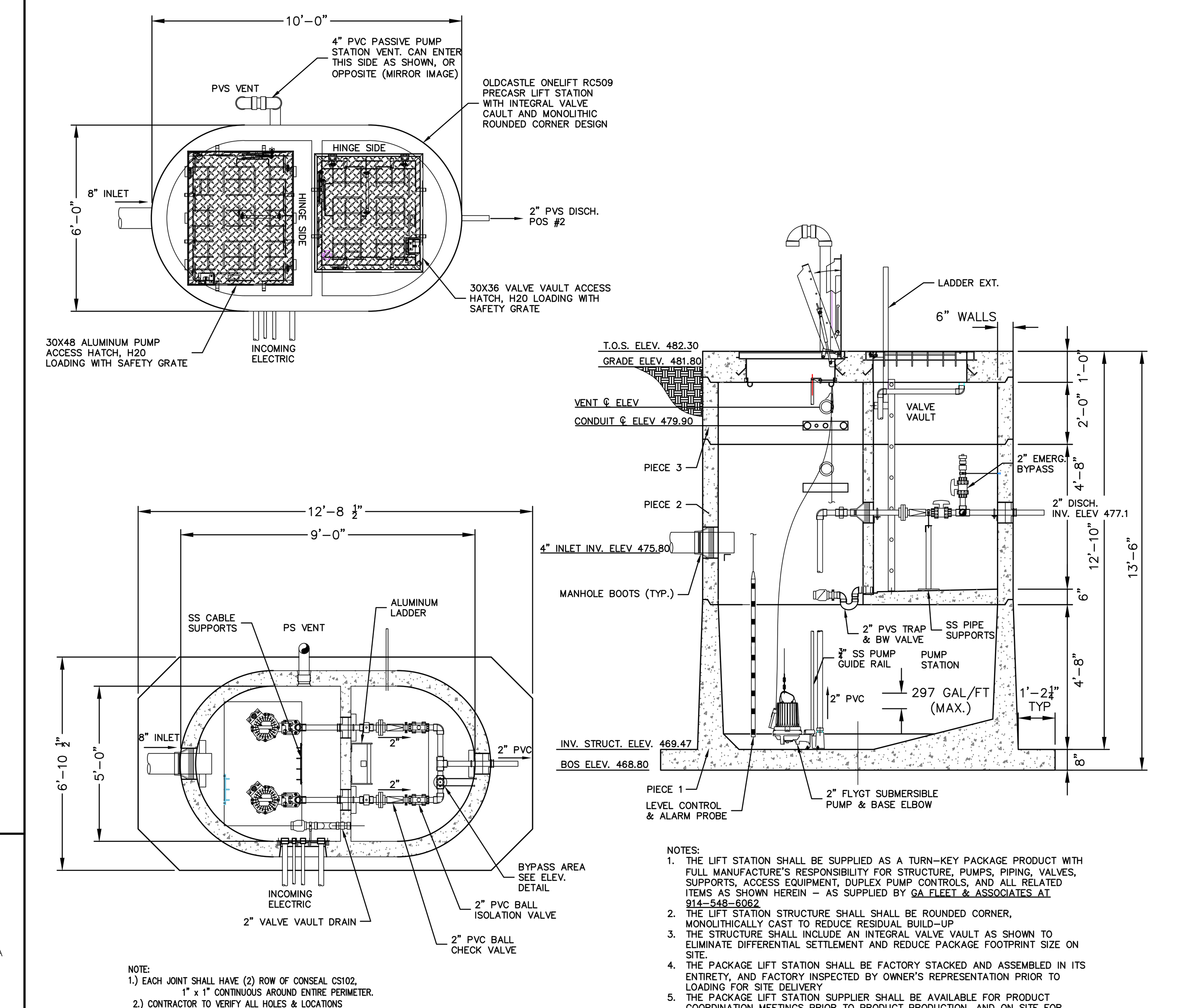
SCALE: NTS



NOTE:
1. INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

INVERT, CHANNEL AND BENCHWALLS

SCALE: NTS



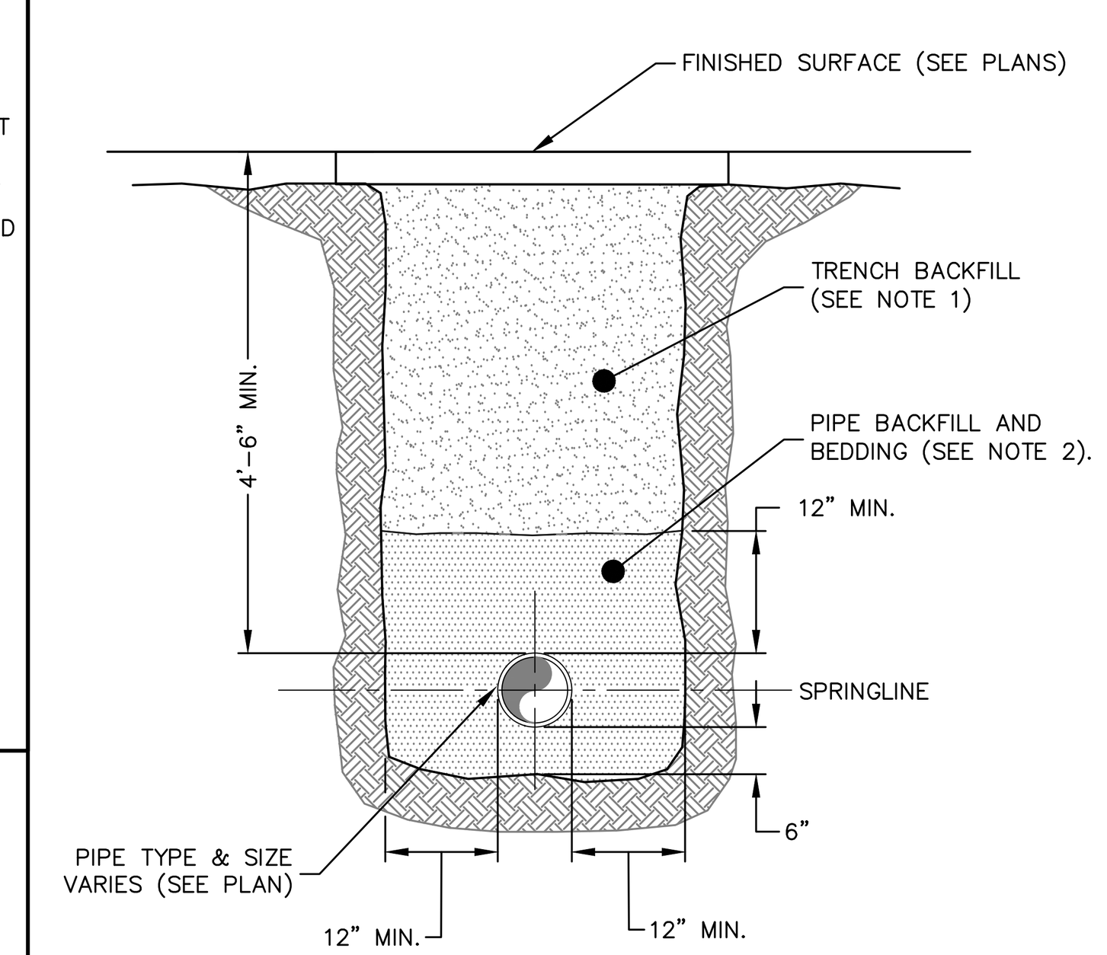
NOTE:
1.) EACH JOINT SHALL HAVE (2) ROW OF CONSEAL CS102, 1" x 1" CONTINUOUS AROUND ENTIRE PERIMETER.
2.) CONTRACTOR TO VERIFY ALL HOLES & LOCATIONS

APPROX. WEIGHT:
PIECE #1 – BASE SECTION – 11 TONS
PIECE #2 – VAULT SECTION – 6.5 TONS
PIECE #3 – 2' VV RISER SECTION – 2.5 TONS
PIECE #4 – TOP SLAB – 3 TONS
(NOTE: PIECE #3 & #4 ARE FACTORY ASSEMBLED, SEALED AND SHIPPED TOGETHER – 5.5 TONS TOTAL)

NOTES:
1. THE LIFT STATION SHALL BE SUPPLIED AS A TURN–KEY PACKAGE PRODUCT WITH FULL MANUFACTURE'S RESPONSIBILITY FOR STRUCTURE, PUMPS, PIPING, VALVES, SUPPORTS, ACCESS EQUIPMENT, DUPLEX PUMP CONTROLS, AND ALL RELATED ITEMS AS SHOWN HEREIN – AS SUPPLIED BY GA FLEET & ASSOCIATES AT 914–548–6062
2. THE LIFT STATION STRUCTURE SHALL SHALL BE ROUNDED CORNER, MONOLITHICALLY CAST TO REDUCE RESIDUAL BUILD–UP
3. THE STRUCTURE SHALL INCLUDE AN INTEGRAL VALVE VAULT AS SHOWN TO ELIMINATE DIFFERENTIAL SETTLEMENT AND REDUCE PACKAGE FOOTPRINT SIZE ON SITE.
4. THE PACKAGE LIFT STATION SHALL BE FACTORY STACKED AND ASSEMBLED IN ITS ENTIRETY, AND FACTORY INSPECTED BY OWNER'S REPRESENTATION PRIOR TO LOADING FOR SITE DELIVERY
5. THE PACKAGE LIFT STATION SUPPLIER SHALL BE AVAILABLE FOR PRODUCT COORDINATION MEETINGS PRIOR TO PRODUCT PRODUCTION, AND ON SITE FOR PRODUCT INSTALLATION OVERSIGHT.
6. THE PACKAGE LIFT STATION SUPPLIER SHALL BE ON SITE DURING STATION TESTING AND STATION START–UP & TRAINING FOR THE PURPOSES OF PRODUCT ADJUSTMENT, DEMONSTRATION, AND PRODUCT Q&A.
7. COMPLETE PACKAGE DOCUMENTATION (SUBMITTALS, DRAWINGS AND O&M MANUALS) SHALL BE SUPPLIED UNDER "ONE" BOUND FOLDER EACH BY THE PACKAGE LIFT STATION MANUFACTURER OR THEIR DISTRIBUTOR.
8. THE PACKAGE LIFT STATION SUPPLIER SHALL BE RESPONSIBLE FOR COMPLETE PACKAGE WARRANTIES THROUGH THE TIME PERIOD AS SPECIFIED.
9. OWNER'S REPRESENTATIVES SHALL COORDINATE AND VERIFY ALL PUMP STATION INLET SIZES AND LOCATIONS, AS WELL AS ALL CRITICAL ELEVATIONS PRIOR TO COMMENCEMENT OF PRODUCT SUBMITTALS.

PUMP SYSTEM

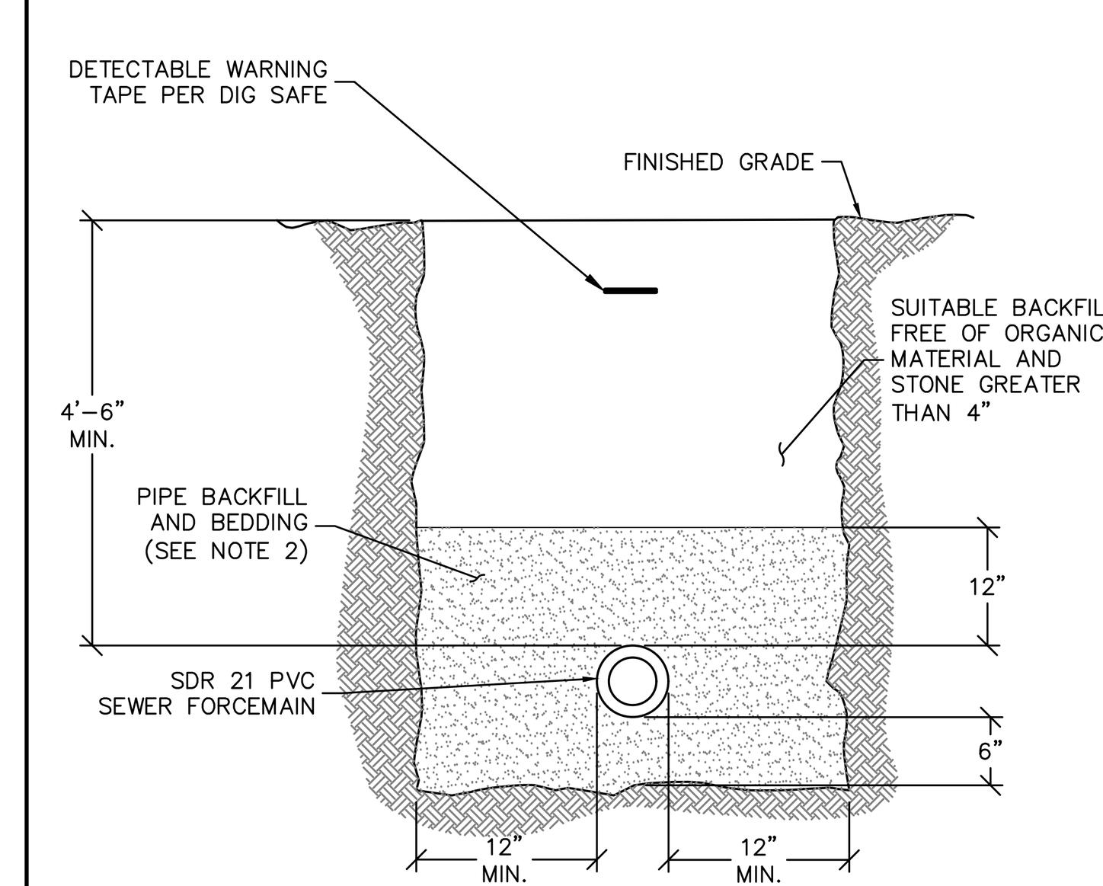
SCALE: NTS



NOTES:
1. PREDOMINATELY GRANULAR FILL MATERIAL. OR ON SITE MATERIAL HAVING A MAX. PARTICLE SIZE 4". COMPACT IN MAX. 8" LOOSE LIFTS TO 95% (98% IN PAVEMENT) MODIFIED PROCTOR DENSITY.
2. MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE ¾".
3. WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIAL. COMPACT TO THE SPRINGLINE.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

SEWER PIPE TRENCH

SCALE: NTS

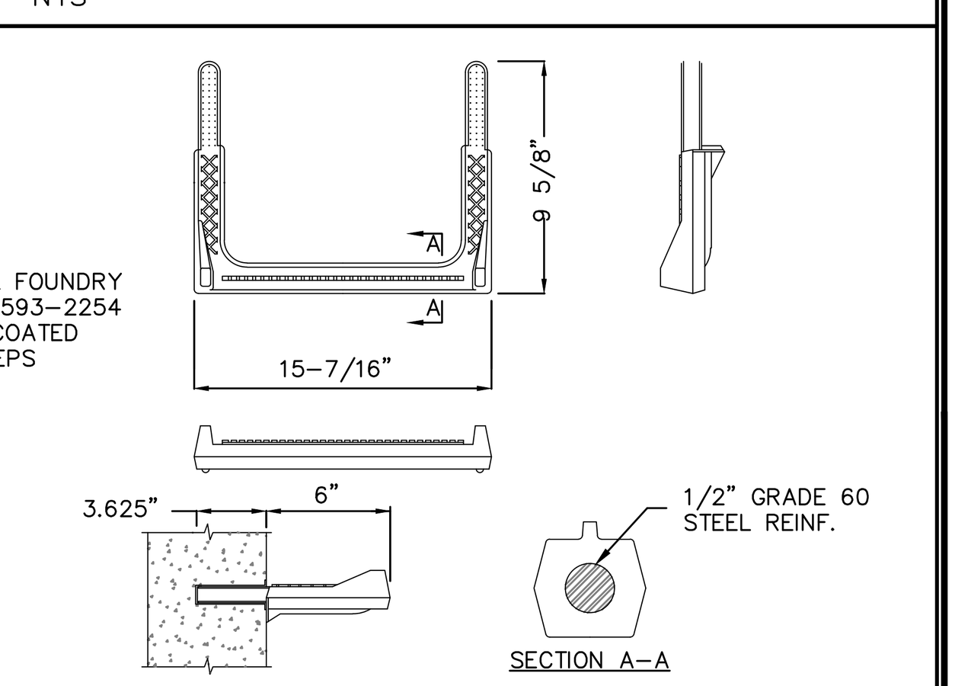


NOTES:
1. DETECTABLE WARNING TAPE SHALL BE GREEN AND MARKED "SEWER LINE". INSTALL CONTINUOUS DETECTABLE WARNING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB
2. MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE ¾".
3. WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIAL. COMPACT TO THE SPRINGLINE.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

SEWER FORCEMAIN TRENCH

SCALE: NTS

NOTE:
CAMPBELL FOUNDRY MODEL #2593–2254 PLASTIC COATED STEEL STEPS



MANHOLE STEP

SCALE: NTS

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

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10/10/2023
DATE SIGNED
SIGNATURE ... W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

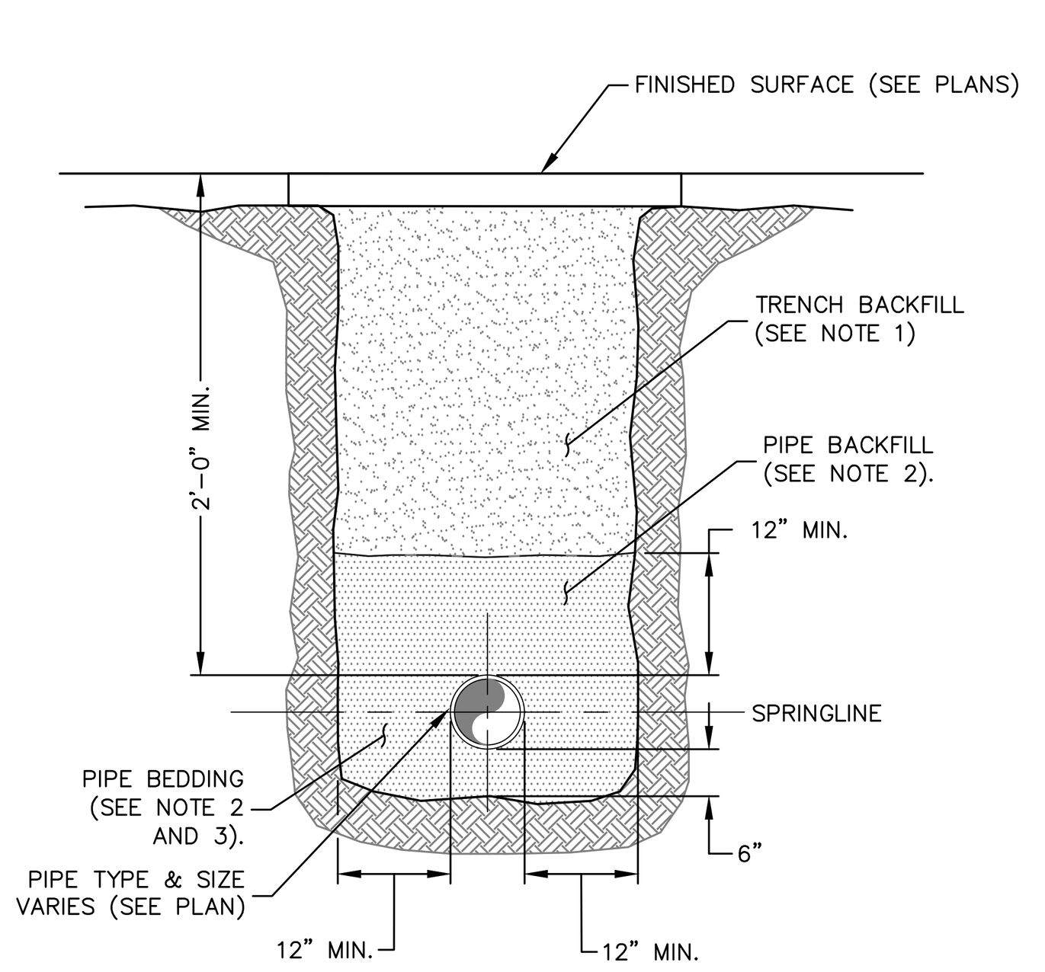
Drawing Title
SEWER DETAILS

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No.
CS504

Sheet 34 of 45

Date: 10/10/2023 Time: 16:40 User: brchambers Style Table: Langan.stb Layout: CS504 Document Code: 190063302-0501-CS501-0104

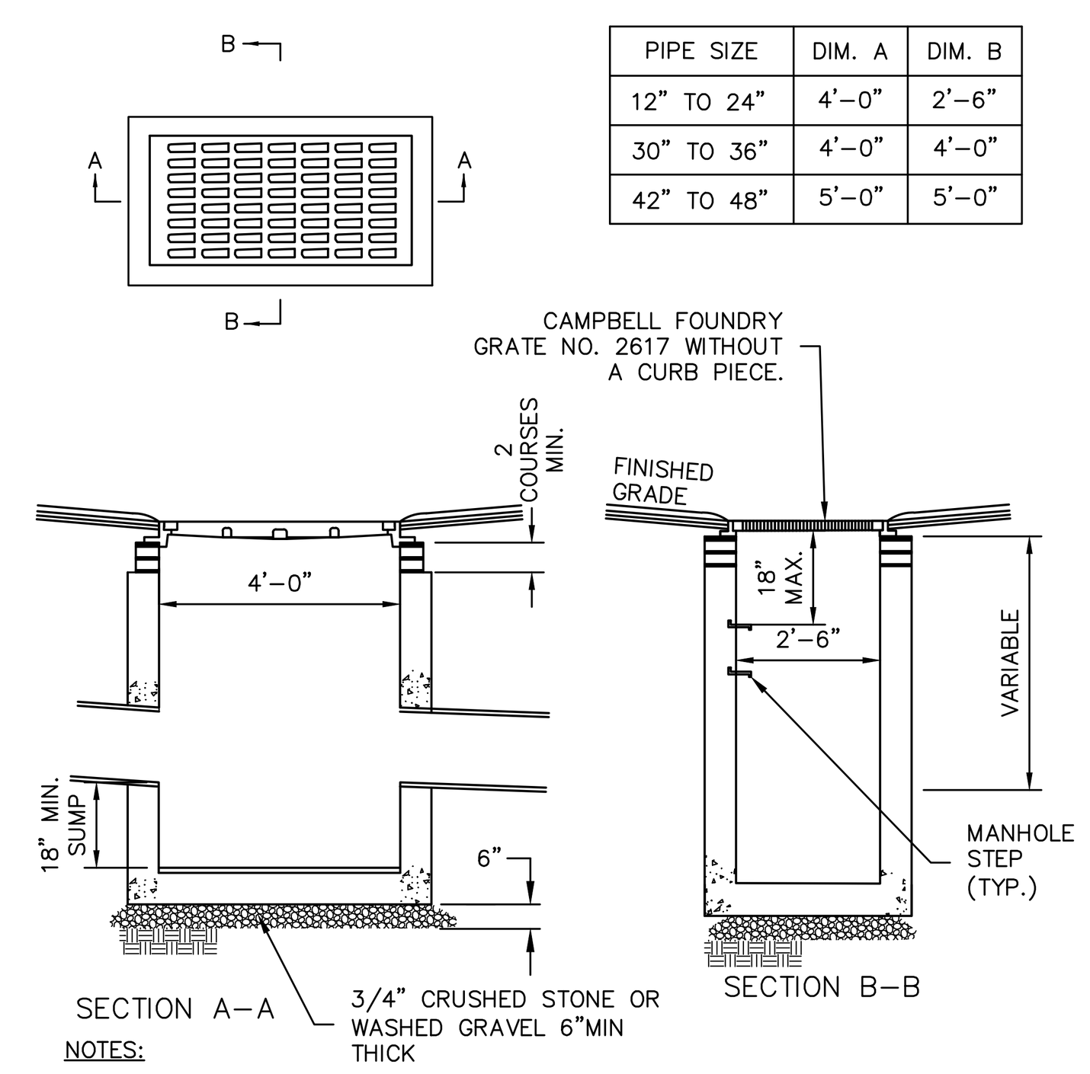


NOTES:
1. ON-SITE SOILS HAVING A MAX. PARTICLE SIZE 4" CAN BE USED FOR REUSE OF EXISTING SOILS. COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY.
2. MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE ¾". COMPACT IN MAX. 6" LOOSE LIFTS.
3. WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIAL. COMPACT TO THE SPRINGLINE IN MAX. 6" LOOSE LIFTS.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

DRAINAGE PIPE TRENCH

SCALE: NTS

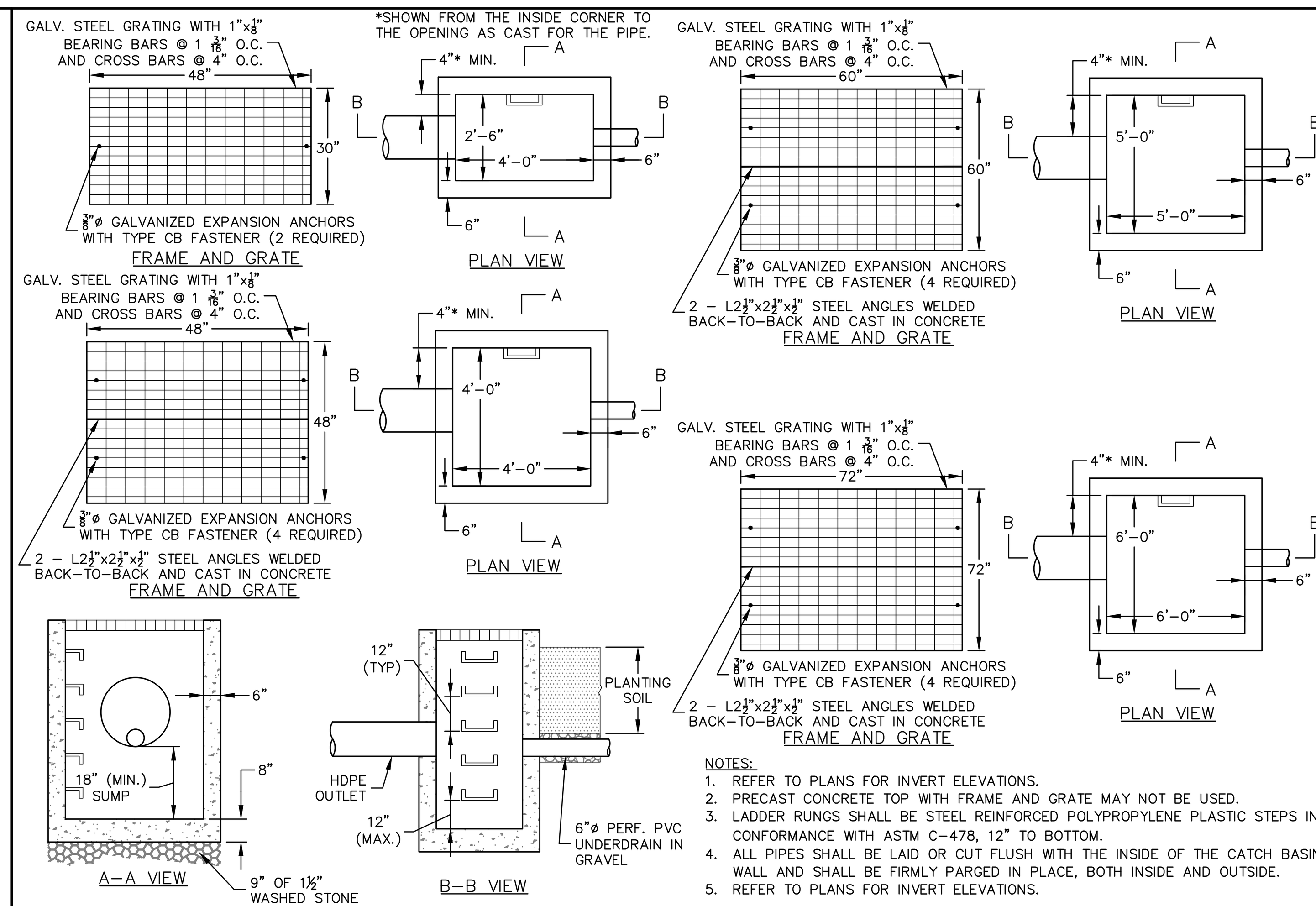
PIPE SIZE	DIM. A	DIM. B
12" TO 24"	4'-0"	2'-6"
30" TO 36"	4'-0"	4'-0"
42" TO 48"	5'-0"	5'-0"



NOTES:
1. THE CONTRACTOR SHALL SUBMIT SHOP DWGS. FOR EACH STRUCTURE FOR THE ENGINEERS REVIEW PRIOR TO FABRICATION.
2. STRUCTURE SHALL BE CERTIFIED AS CONFORMING TO ASTM-C913 LATEST REVISION.
3. STEPS NOT REQUIRED FOR STRUCTURES LESS THAN 4' DEEP.
4. FOR STRUCTURES WITH PIPE DIAMETERS EXCEEDING MAXIMUMS, PROVIDE CONCRETE SLAB AS NOTED.
5. STRUCTURAL DESIGN (WALL AND SLAB THICKNESS AND ALL REINFORCING) BY PRECASTER AND SHALL MEET STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SUPPORT HS-20 LOADING AS REQUIRED.
6. DETAIL INDICATES MINIMUM STRUCTURE DIMENSIONS. LARGER DIMENSIONS MAY BE REQUIRED FOR LARGER PIPES.

DRAIN INLET

SCALE: NTS

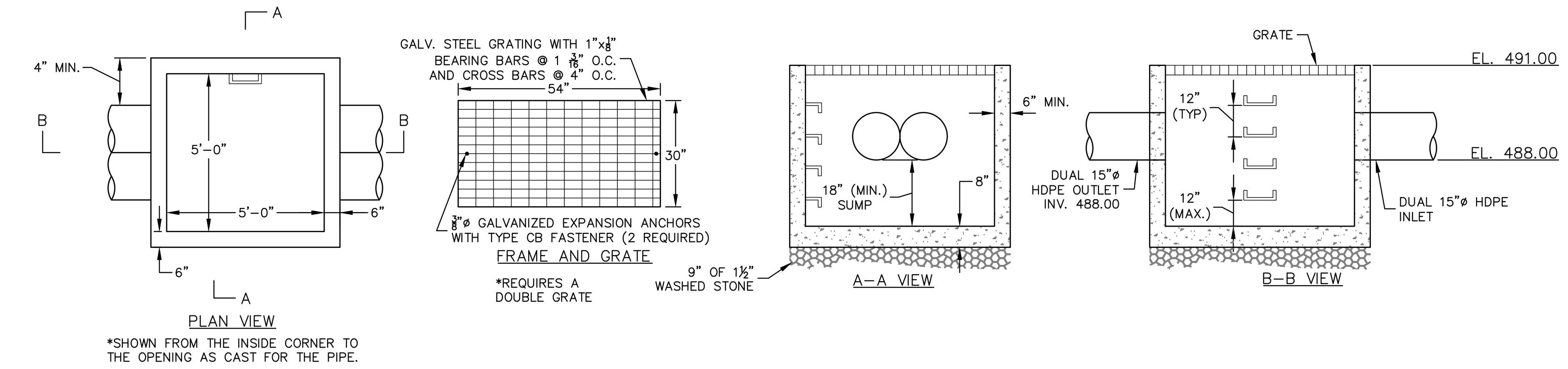


NOTES:
1. REFER TO PLANS FOR INVERT ELEVATIONS.
2. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
3. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
4. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.
5. REFER TO PLANS FOR INVERT ELEVATIONS.

BIORETENTION OUTLET CONTROL STRUCTURE

SCALE: NTS

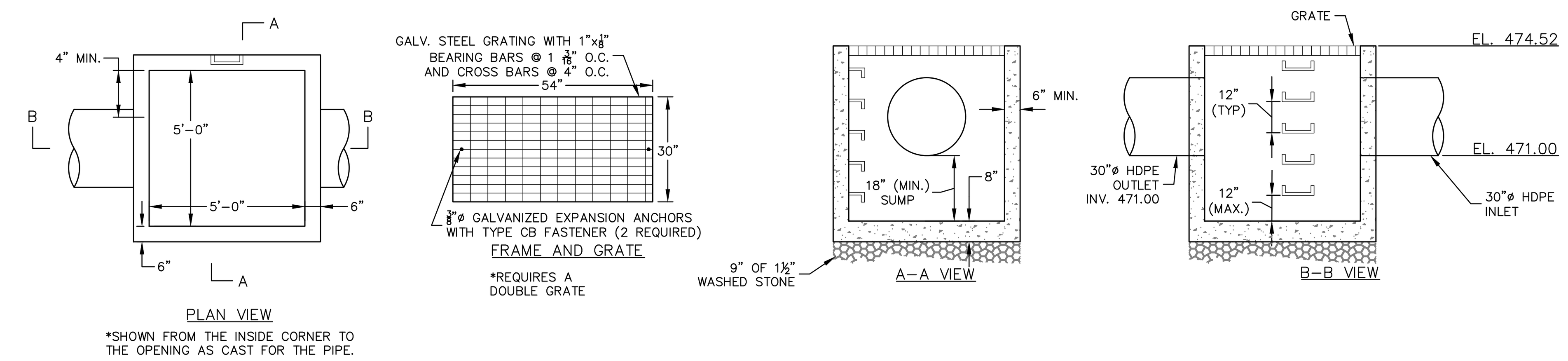
NOTES:
1. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
2. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
3. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.



DETENTION BASIN A OUTLET CONTROL STRUCTURE OCS-59

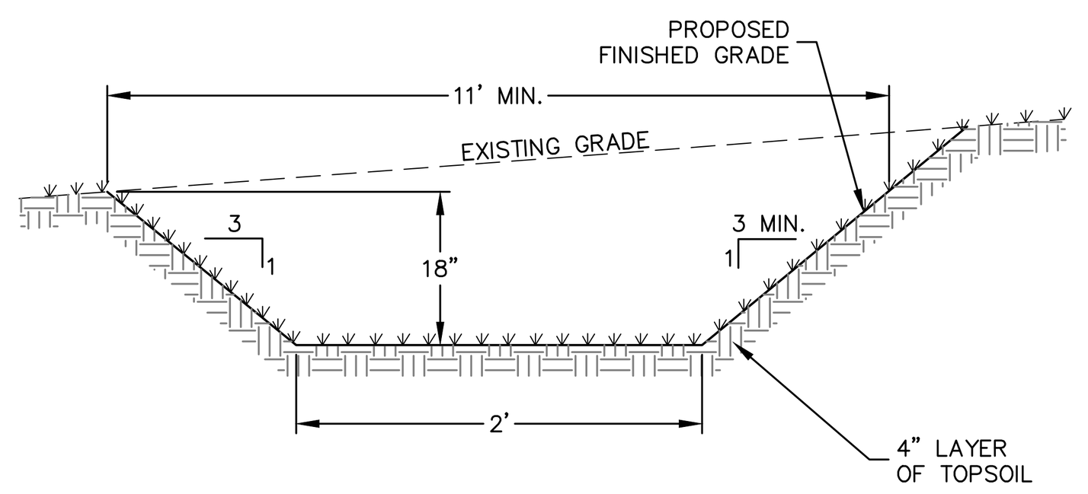
SCALE: NTS

NOTES:
1. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
2. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
3. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.



DETENTION BASIN B OUTLET CONTROL STRUCTURE OCS-2

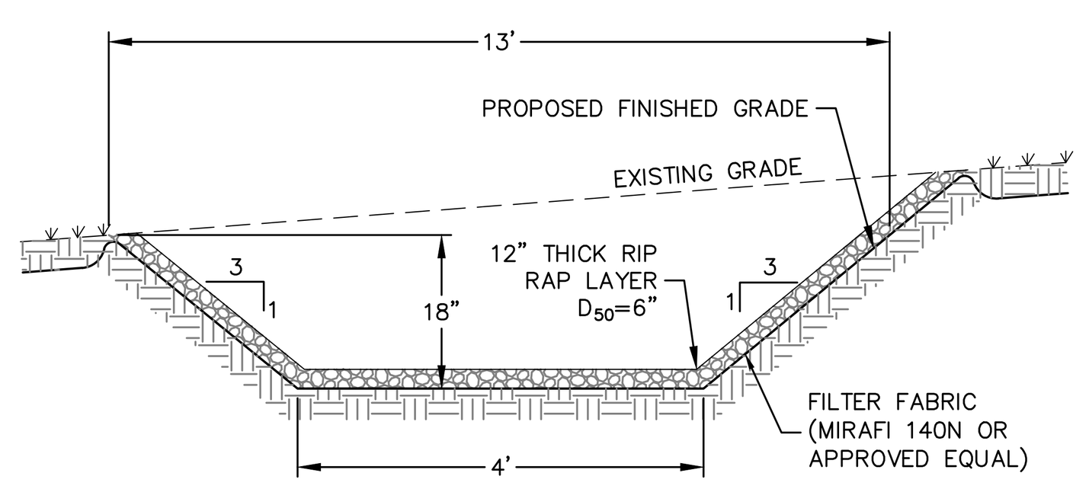
SCALE: NTS



NOTES:
1. PROVIDE TURF REINFORCEMENT MATTING TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. TURF MATTING SHALL BE TENSAR EROSION MAT OR APPROVED EQUAL.
2. SWALE SHALL BE SEEDED AND MULCHED WITH FAST GERMINATING RYE 15 LBS TO 25 LBS PER 1,000 SQUARE FEET.

GRASS SWALE

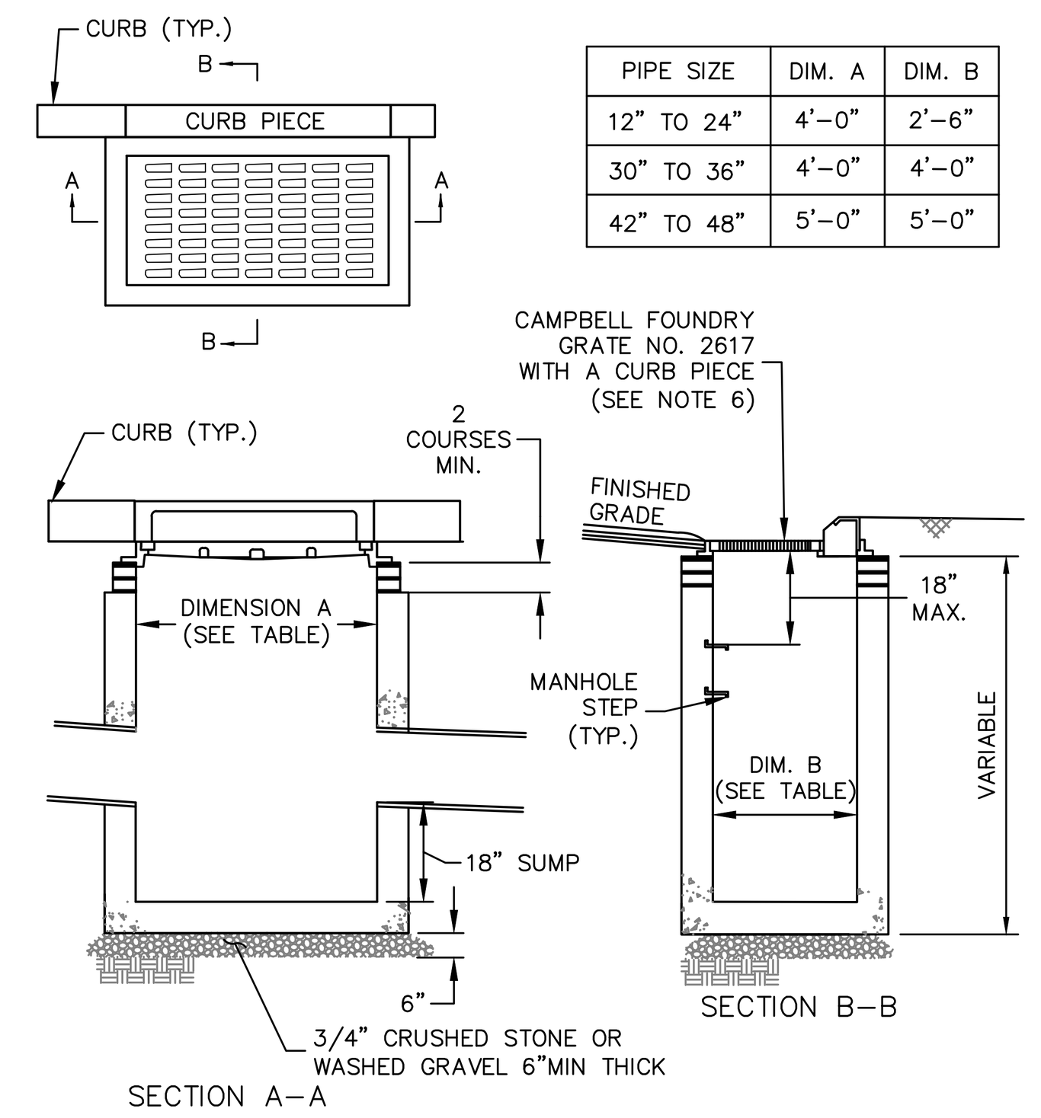
SCALE: NTS



RIPRAP SWALE

SCALE: NTS

PIPE SIZE	DIM. A	DIM. B
12" TO 24"	4'-0"	2'-6"
30" TO 36"	4'-0"	4'-0"
42" TO 48"	5'-0"	5'-0"

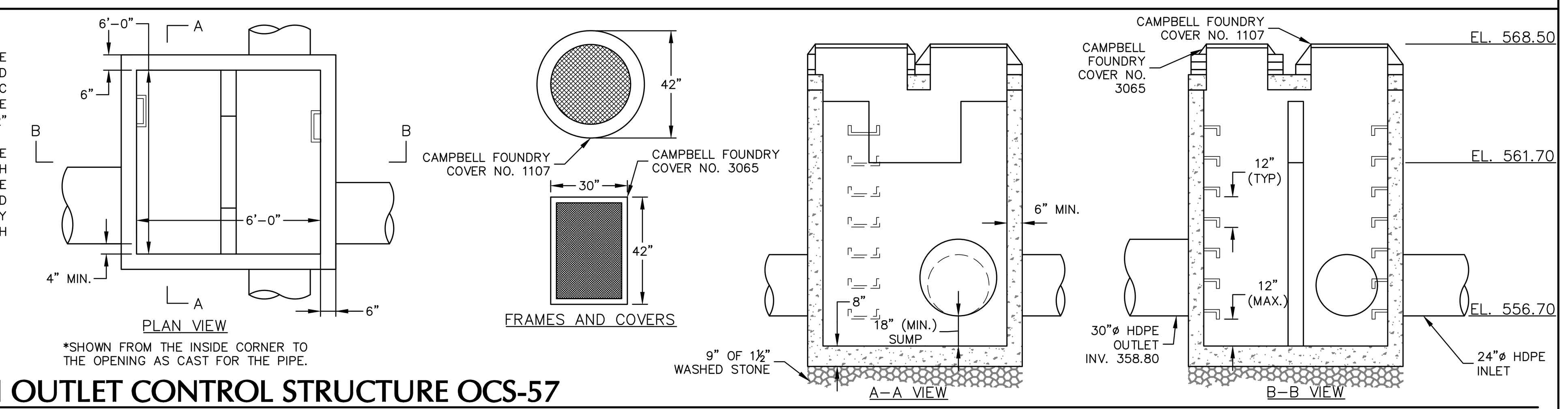


NOTES:
1. THE CONTRACTOR SHALL SUBMIT SHOP DWGS. FOR EACH STRUCTURE FOR THE ENGINEERS APPROVAL PRIOR TO FABRICATION.
2. STRUCTURE SHALL BE CERTIFIED AS CONFORMING TO ASTM-C913 LATEST REVISION.
3. STEPS NOT REQUIRED FOR STRUCTURES LESS THAN 4' DEEP.

CATCH BASIN

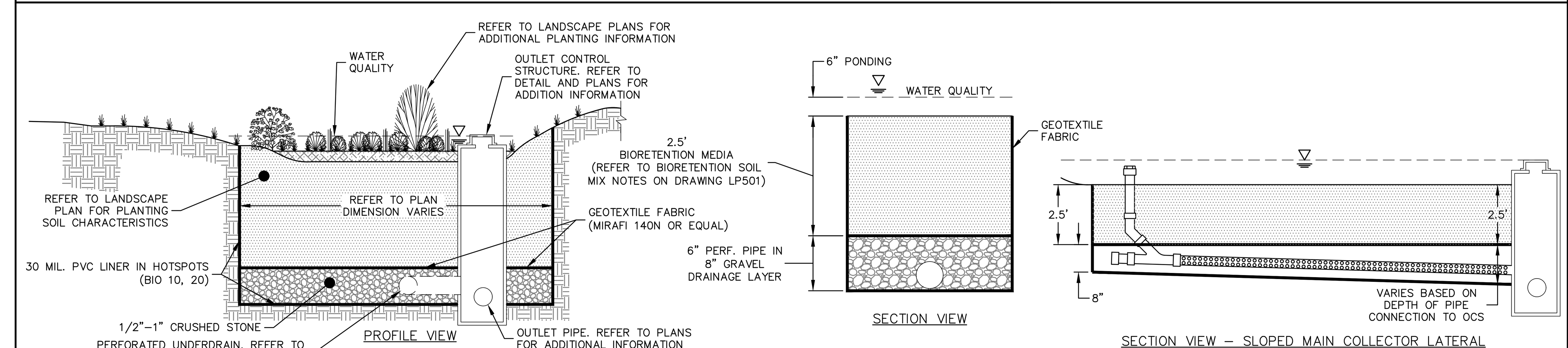
SCALE: NTS

NOTES:
1. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
2. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.



STORMTECH OUTLET CONTROL STRUCTURE OCS-57

SCALE: NTS



NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL APPENDIX C NOTES:
1. ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR pH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.
2. SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY.
3. SHOULD THE pH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.
4. IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND STORAGE VOLUMES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.
5. COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTIONS FROM HEAVY EQUIPMENT.
6. ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE REQUIRED SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.
7. WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.
8. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" OR GREATER. DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN.. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS BY HAND OR WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.
9. MULCH AROUND INDIVIDUAL PLANTS ONLY. SHREDDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.
10. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE.
11. ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.
12. TREES SHALL BE BRACED USING 2" X 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.
13. GRASSES AND LEGUME SEED SHALL BE TILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.
14. THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDED THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH IS USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
15. UNDER DRAINS TO BE PLACED ON A 3'-0" WIDE SECTION OF FILTER CLOTH. PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.
16. THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
17. THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

BIORETENTION AREA MANAGEMENT:
1. ANNUAL INSPECTION AND REPAIR OF OR REPLACEMENT OF TREATMENT COMPONENTS.
2. TWICE PER YEAR (SPRING AND FALL) INSPECT TREES AND SHRUBS TO EVALUATE HEALTH, REMOVE AND REPLACE DEAD OR DYING PLANTS, AND PRUNE DISEASED OR BROKEN PLANTS.
3. WEED ANNUALLY AND PRUNE SHRUB VEGETATION UNTIL VEGETATION IS ESTABLISHED TO IMPROVE APPEARANCE.
4. REPLACE MULCH TO COVER EXPOSED SOIL AREA. REMOVE AND REPLACE MULCH EVERY TWO TO THREE YEARS. MULCH DEPTH NOT TO EXCEED 3-INCHES.
5. SAMPLE SOIL FOR FERTILITY EVERY THREE YEARS. ADDITION OF LIMESTONE ONE OR TWO TIMES PER YEAR TO MAINTAIN PROPER PH IS RECOMMENDED. FIELD OR LABORATORY TESTING FOR PH IS ACCEPTABLE.
6. CHECK BASIN FOR SEDIMENT BUILD UP AND REMOVE SEDIMENT IF GREATER THAN ONE INCH.
7. CHECK BASIN AFTER STORM EVENT TO ENSURE THAT IT DEWATERS PROPERLY (DRAINS WITHIN 48-HOURS).
8. CHECK OUTLET OVERFLOW FOR EVIDENCE OF BLOCKAGE AND SOIL EROSION AT DISCHARGE POINTS. CLEAN BLOCKAGES AS REQUIRED AND STABILIZE EROSIVE AREAS AS NEEDED.

CONSTRUCTION INSTALLATION:
1. STAKE THE LIMITS AND PROVIDE OFFSETS OF THE PROPOSED BIORETENTION AREA AND SET ACCESSIBLE REFERENCE ELEVATIONS, AS NEEDED.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES CONSISTENT WITH OVERALL DEVELOPMENT E&S PLAN.
3. STABILIZE THE GRADING AROUND THE PROPOSED AREA AND DIVERT RUNOFF AWAY FROM THE PROPOSED EXCAVATIONS.
4. EXCAVATE THE BIORETENTION AREA TO THE PROPOSED LINES AND GRADES SHOWN ON THE SITE PLANS, AND SCARIFY THE EXISTING SOIL SURFACES, TAKING CARE NOT TO COMPACT THE IN-SITU SOILS.
5. INSTALL THE UNDERDRAIN SYSTEM AND OVERFLOW STRUCTURES. INSTALL THE FABRIC ON THE SIDEWALLS AND STAKE IN PLACE.
6. BACKFILL THE EXCAVATIONS WITH THE SOIL MIXTURE AS SHOWN ON THE PLANS AND SPECIFIED HEREIN.
7. FINISH GRADING THE SURFACE OF THE BIORETENTION AREA. LEAVE ROOM FOR 3-INCHES OF SHREDDED HARDWOOD MULCH.
8. PLANT VEGETATION WITHIN THE BIORETENTION AREA AS SPECIFIED IN THE PLANTING NOTES AND LANDSCAPE PLANS.
9. MULCH THE SURFACE WITH NOT MORE THAN 3-INCHES OF SINGLE PASS. REMOVE TEMPORARY SEDIMENT CONTROLS AND ANY ENTRANCE BLOCKS TO THE BIORETENTION AREA AFTER ACCEPTANCE BY THE DESIGN PROFESSIONAL AND THE LOCAL REGULATORY AUTHORITY.
10. BIORETENTION SOIL MEDIA SHALL BE IMPORTED AND NOT MIXED ON SITE. MATERIAL SHALL BE APPROVED BY THE ENGINEER.

BIORETENTION WITH UNDERDRAIN

SCALE: NTS

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON — DATE
JOHN P. EWASUTYN

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

SIGNATURE — 10/10/2023 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

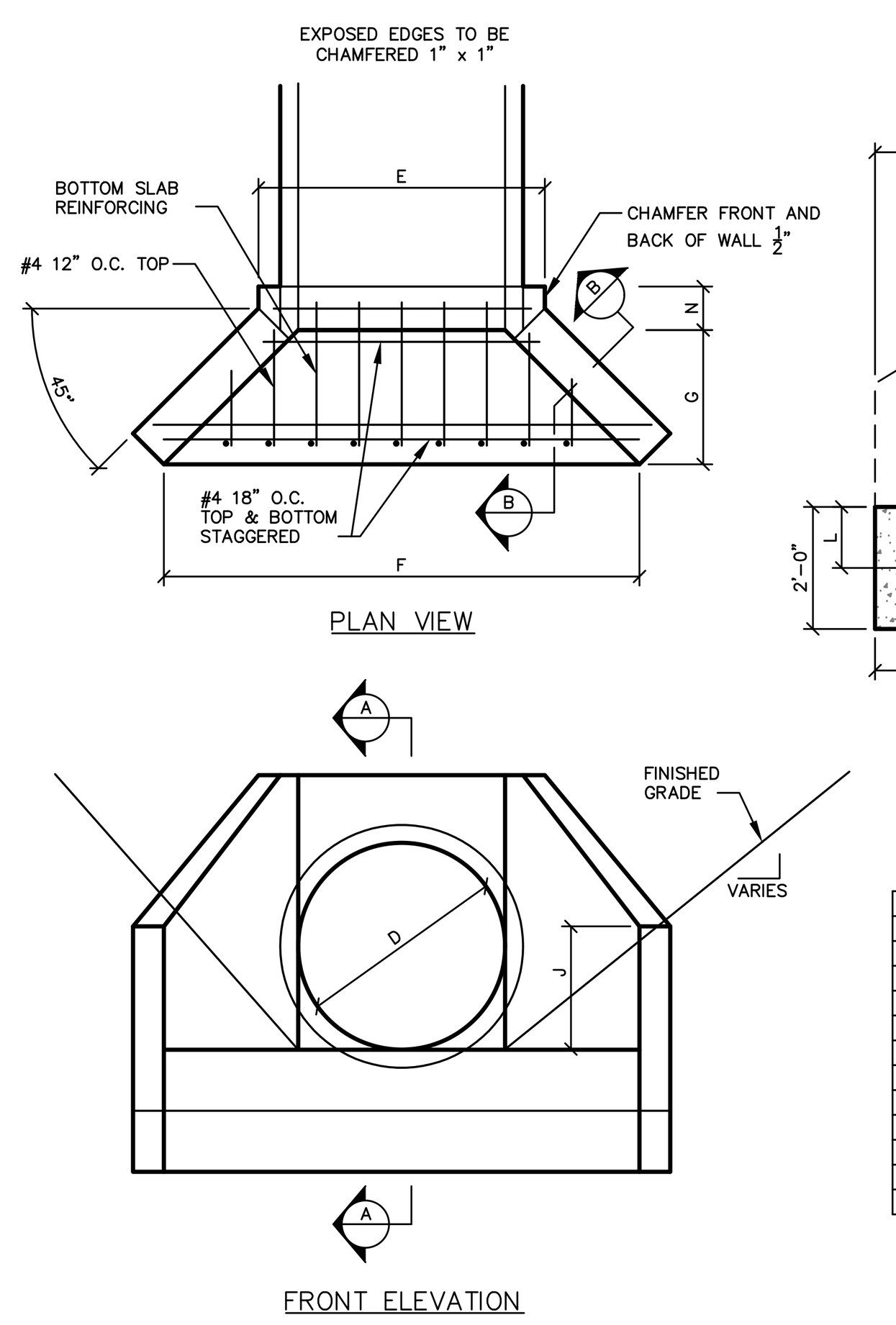
Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

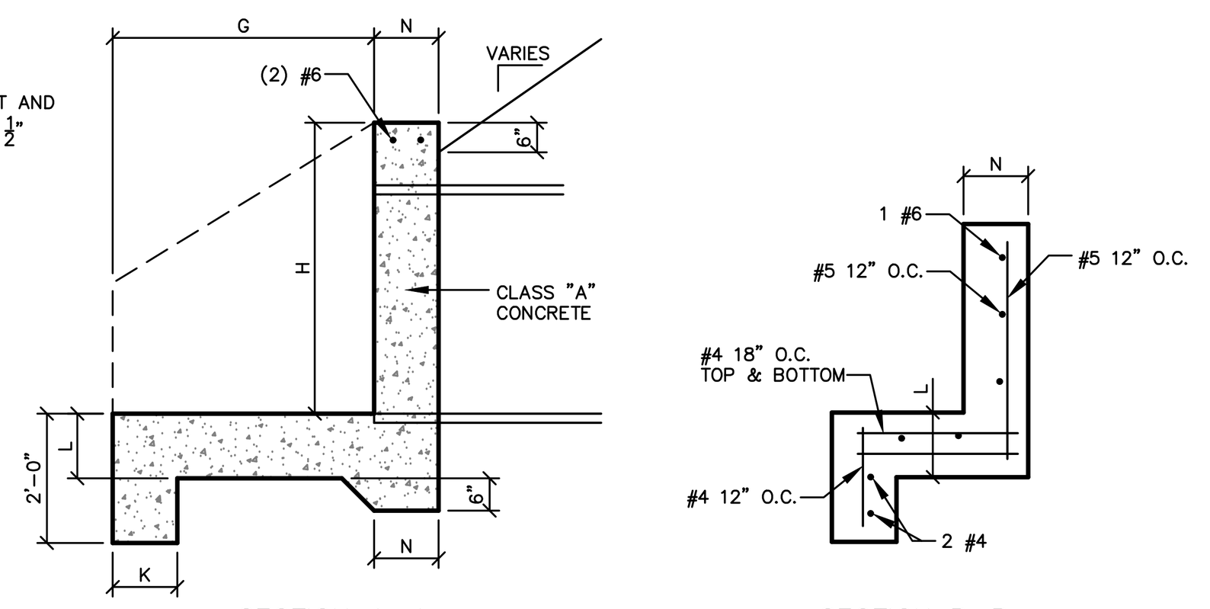
Drawing Title
DRAINAGE DETAILS (1 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No. CS505

Sheet 35 of 45





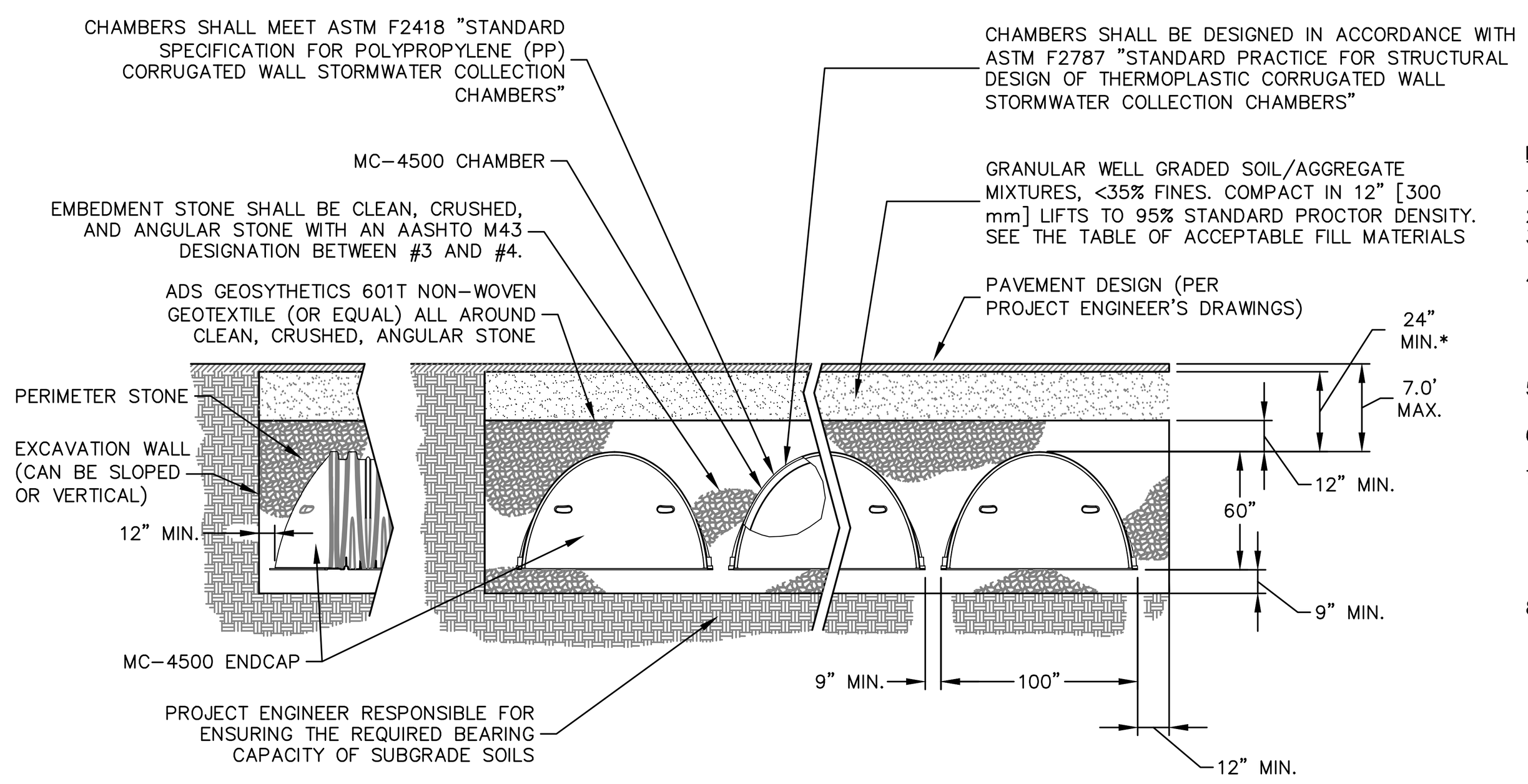
NOTES:
1. HEAD WALLS MAY BE PRECAST OR CAST IN PLACE PER SITE REQUIREMENTS.
2. PROVIDE 6" MINIMUM THICK ¾" WASHED STONE OR CRUSHED GRAVEL UNDER HEADWALLS AND WING WALLS.
3. f'c = 4,000 PSI

D	E	F	G	H	J	K	L	N	R	△ VOL. C.Y.
18"	3'–0"	7'–6"	3'–0"	3'–0"	2'–0"	8"	8"	8	#5 @ 12" O.C.	1.70
21"	3'–4"	7'–9"	3'–0"	3'–3"	2'–0"	8"	8"	8	#5 @ 12" O.C.	1.80
24"	3'–8"	8'–0"	3'–0"	3'–6"	2'–0"	8"	8"	8	#5 @ 12" O.C.	1.90
27"	3'–11"	8'–3"	3'–6"	3'–9"	2'–0"	8"	8"	8	#5 @ 12" O.C.	2.00
30"	4'–2"	8'–6"	3'–0"	4'–0"	2'–1"	8"	8"	10"	#5 @ 12" O.C.	2.85
36"	4'–8"	10'–0"	3'–6"	4'–6"	2'–3"	8"	10"	10"	#5 @ 12" O.C.	3.15
42"	5'–3"	11'–6"	4'–0"	5'–0"	2'–9"	8"	10"	10"	#5 @ 12" O.C.	3.87
48"	5'–10"	13'–0"	4'–6"	5'–6"	3'–0"	8"	10"	12"	#5 @ 12" O.C.	5.08
54"	6'–5"	14'–6"	5'–0"	6'–0"	3'–3"	9"	12"	12"	#6 @ 8" O.C.	6.50
60"	7'–0"	16'–0"	5'–6"	6'–6"	3'–6"	9"	12"	12"	#6 @ 8" O.C.	7.98
66"	7'–7"	17'–6"	6'–0"	6'–0"	3'–9"	9"	12"	14"	#6 @ 8" O.C.	9.14
72"	8'–2"	19'–6"	6'–6"	6'–6"	4'–3"	9"	12"	14"	#6 @ 8" O.C.	11.10

△ BASED ON 2:1 CHANNEL SIDE SLOPES

CONCRETE HEADWALL

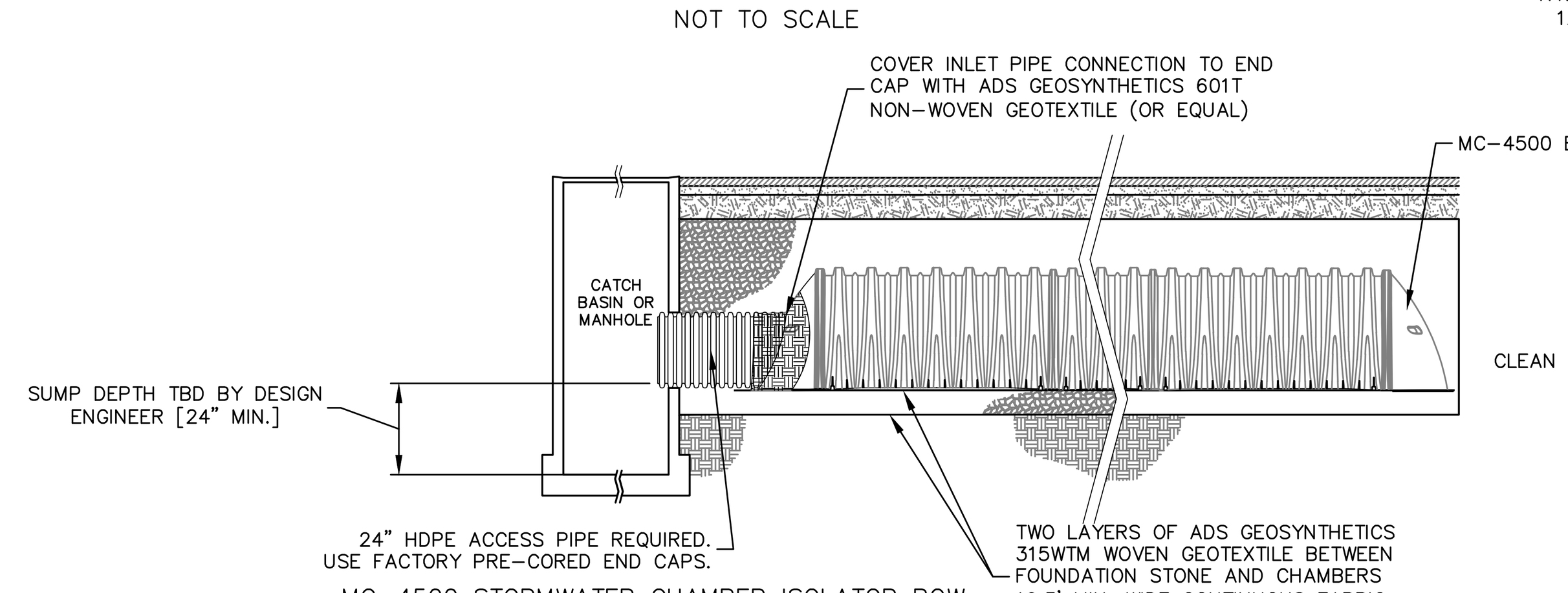
SCALE: NTS



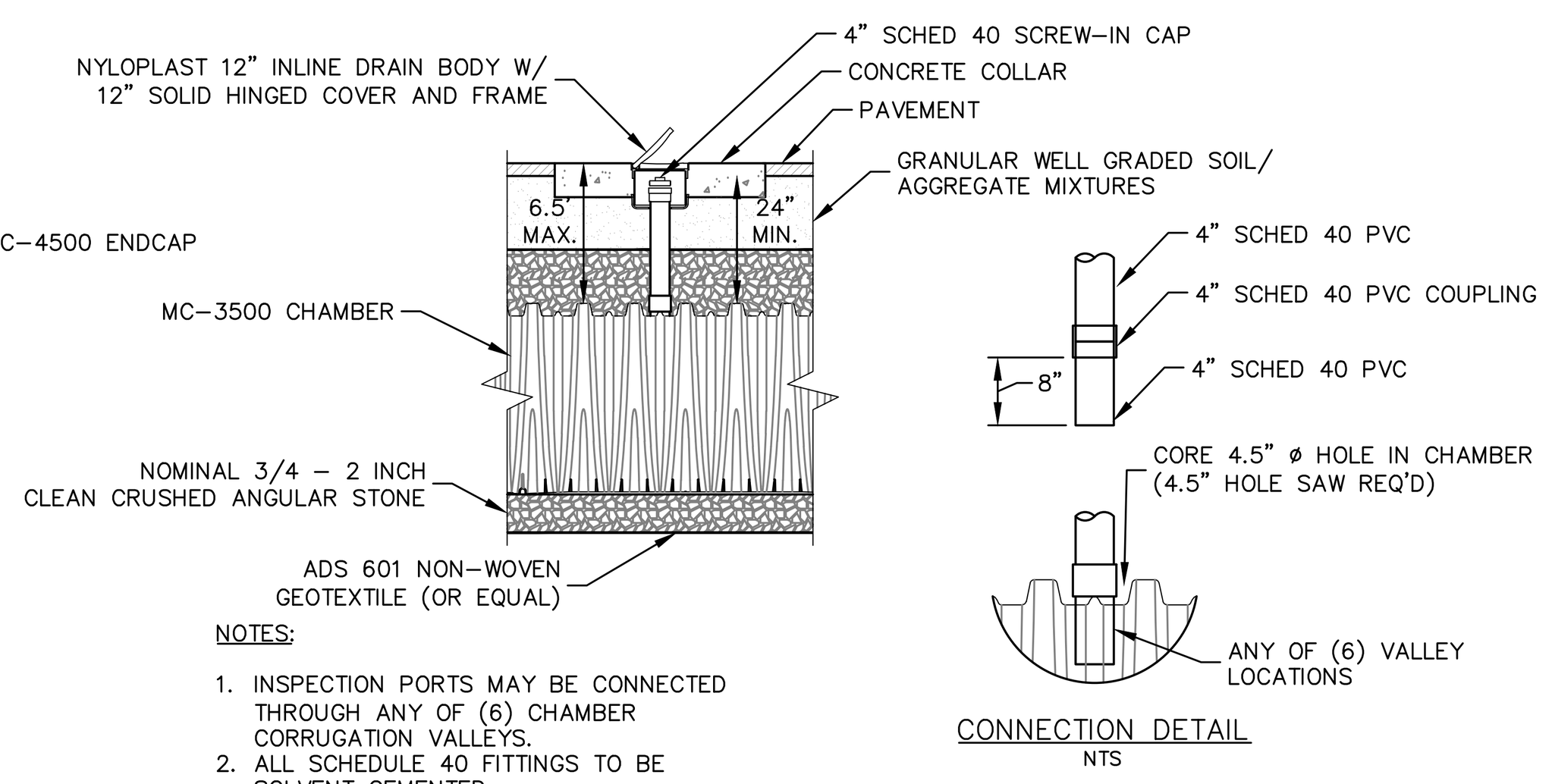
NOTES:
1. PERIMETER STONE MUST ALWAYS BE BROUGHT UP EVENLY WITH BACKFILL OF BED. PERIMETER STONE MUST EXTEND HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH STRAIGHT OR SLOPED SIDEWALLS.
2. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.

MC–4500 STORMWATER CHAMBER CROSS SECTION
NOT TO SCALE

MC–4500 STORMWATER CHAMBER SPECIFICATIONS:
1. CHAMBERS SHALL BE STORMTECH MC–4500 OR APPROVED EQUAL.
2. CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT–MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG–DURATION DEAD LOADS AND 2) SHORT–DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
5. CHAMBERS SHALL CONFIRM TO THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATIONS FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.
6. CHAMBERS SHALL CONFIRM TO THE REQUIREMENTS OF ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.
7. ONLY CHAMBERS THAT ARE APPROVED BY THE PROJECT ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE PROJECT ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
   a. A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET.
   b. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL CROSS SECTION IS BASED.
8. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST CONSTRUCTION GUIDE.



MC–4500 STORMWATER CHAMBER ISOLATOR ROW
NOT TO SCALE

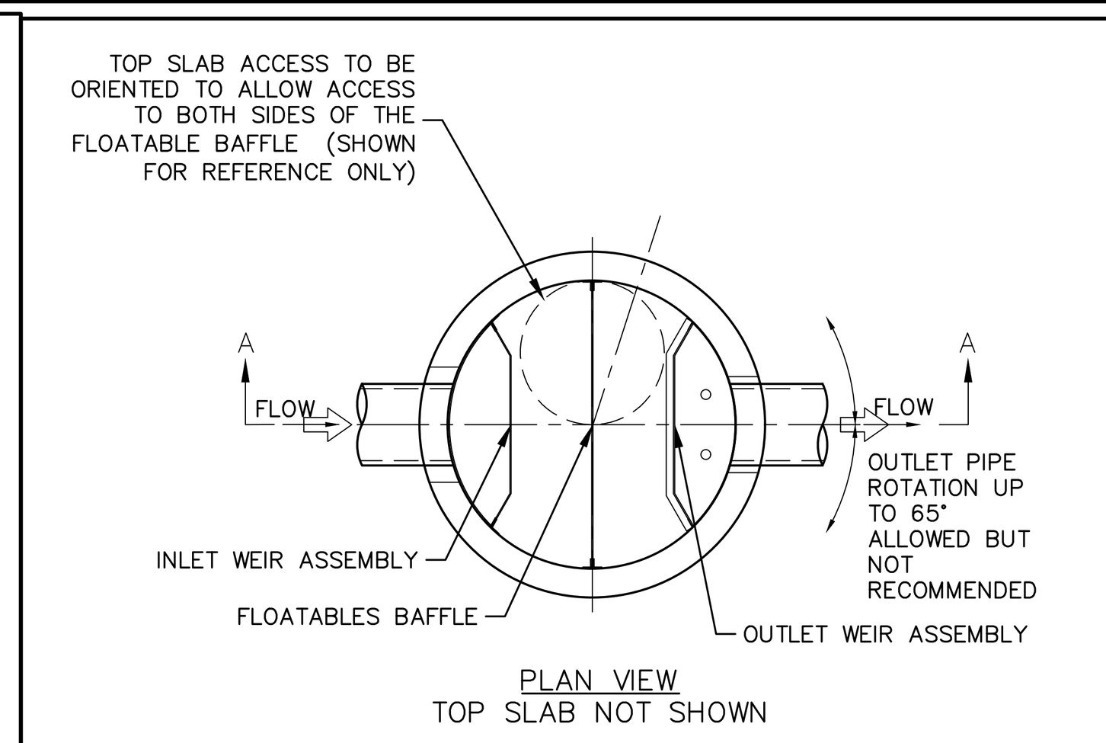


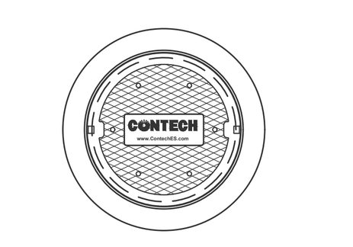
NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY OF (6) CHAMBER CORRUGATION VALLEYS.
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.

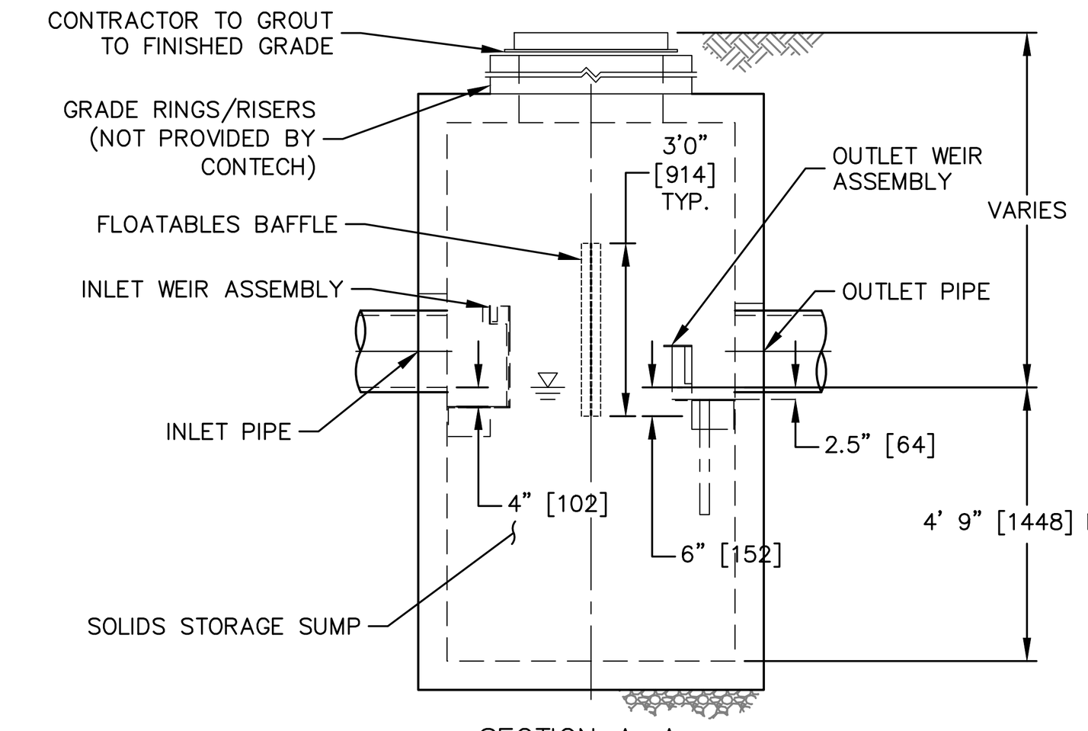
MC–4500 STORMWATER CHAMBER INSPECTION PORT
NOT TO SCALE

STORMTECH MC-4500 STORMWATER CHAMBER

SCALE: NTS







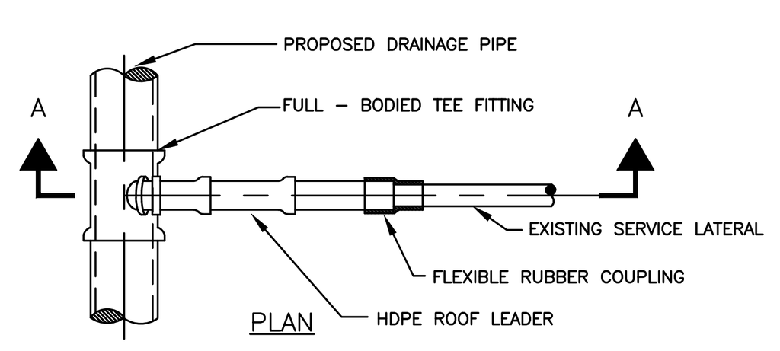
SCICLONEX DESIGN NOTES
THE STANDARD SCX–05 CONFIGURATION IS SHOWN

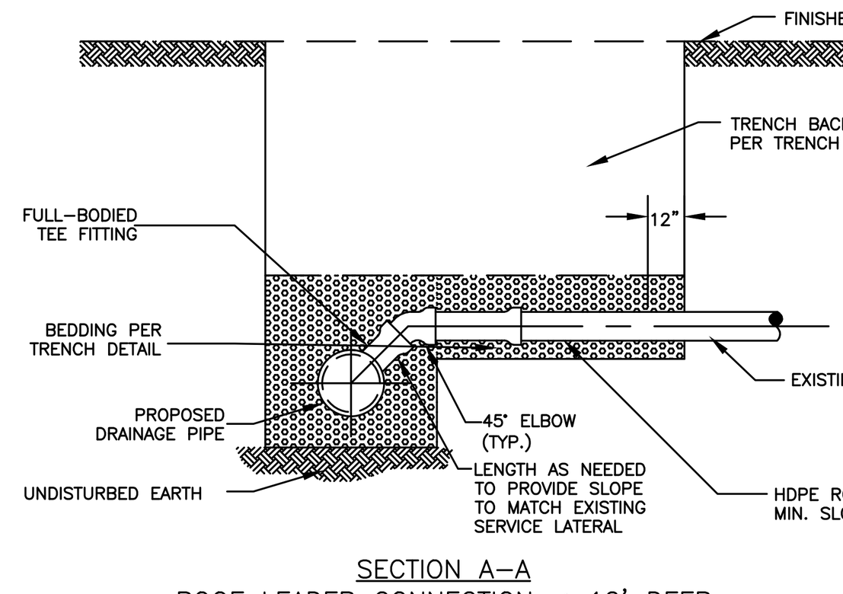
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. SCICLONEX WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. SCICLONEX STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' – 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. SCICLONEX STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

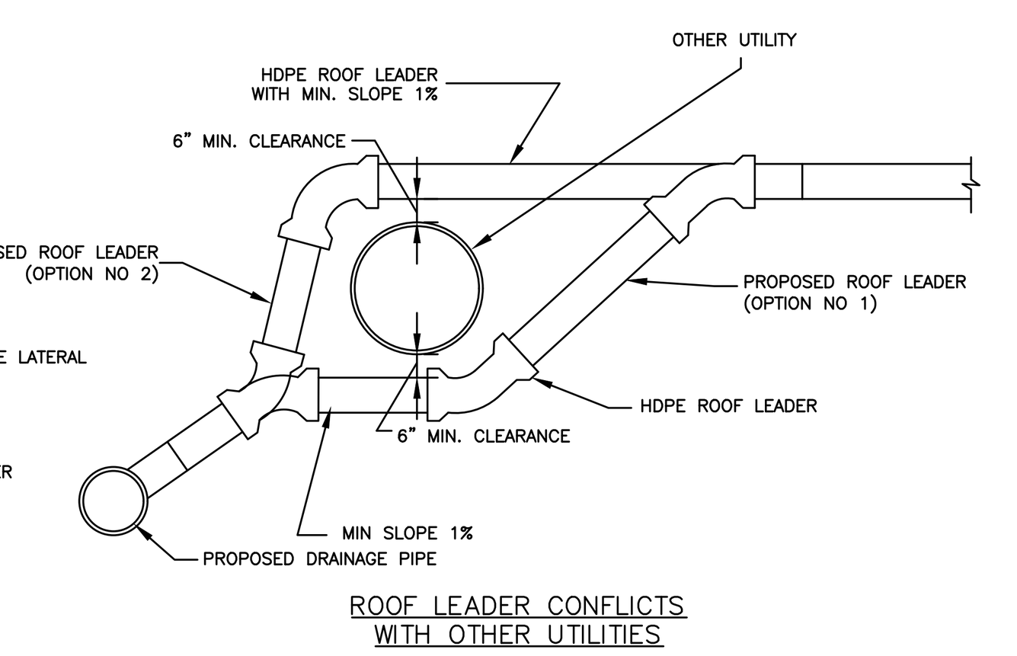
INSTALLATION NOTES
A. ANY SUB–BASE, BACKFILL DEPTH, AND/OR ANTI–FLOTATION PROVISIONS ARE SITE–SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE SCICLONEX MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

SCX-05 SCICLONEX STANDARD DETAIL

SCALE: NTS

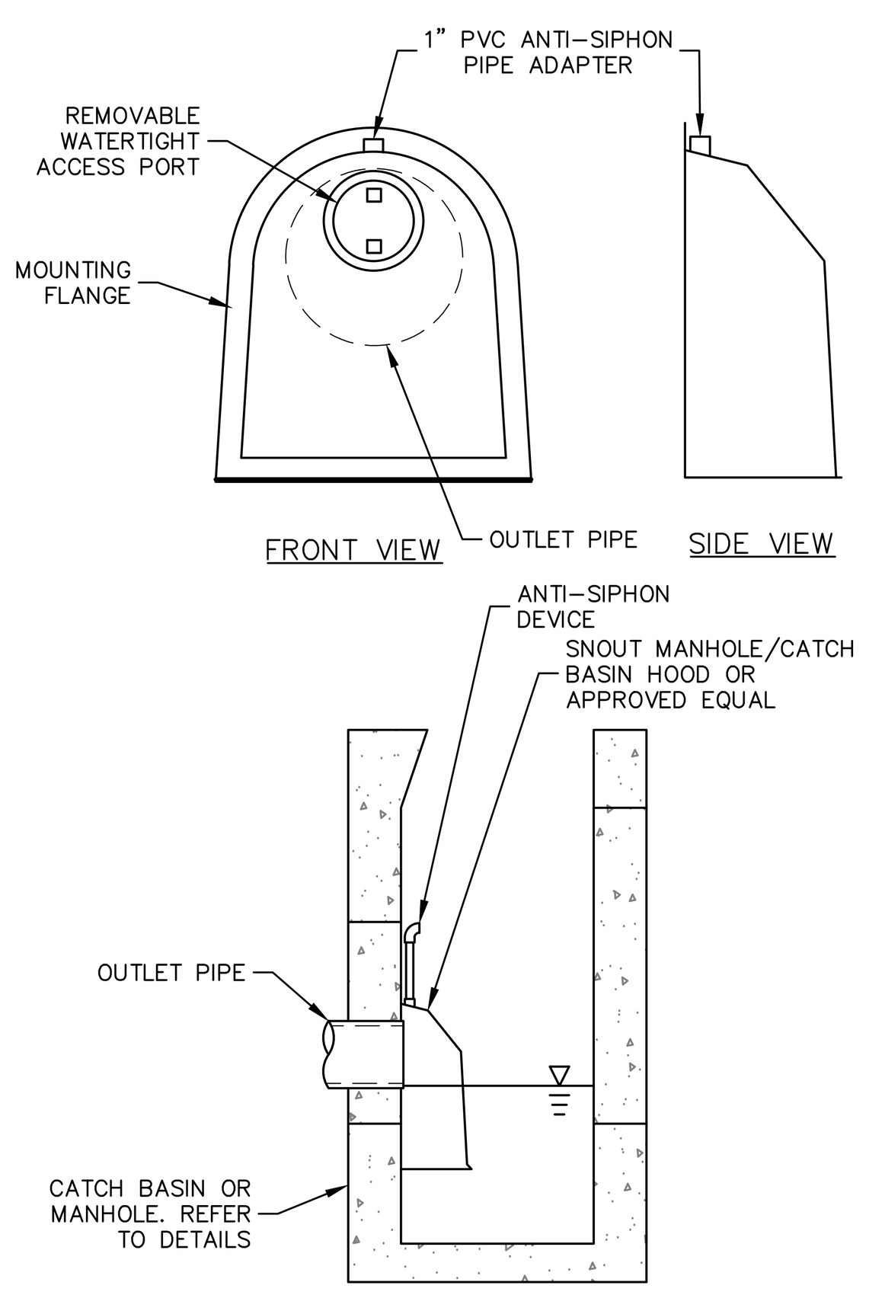






ROOF LEADER CONNECTION

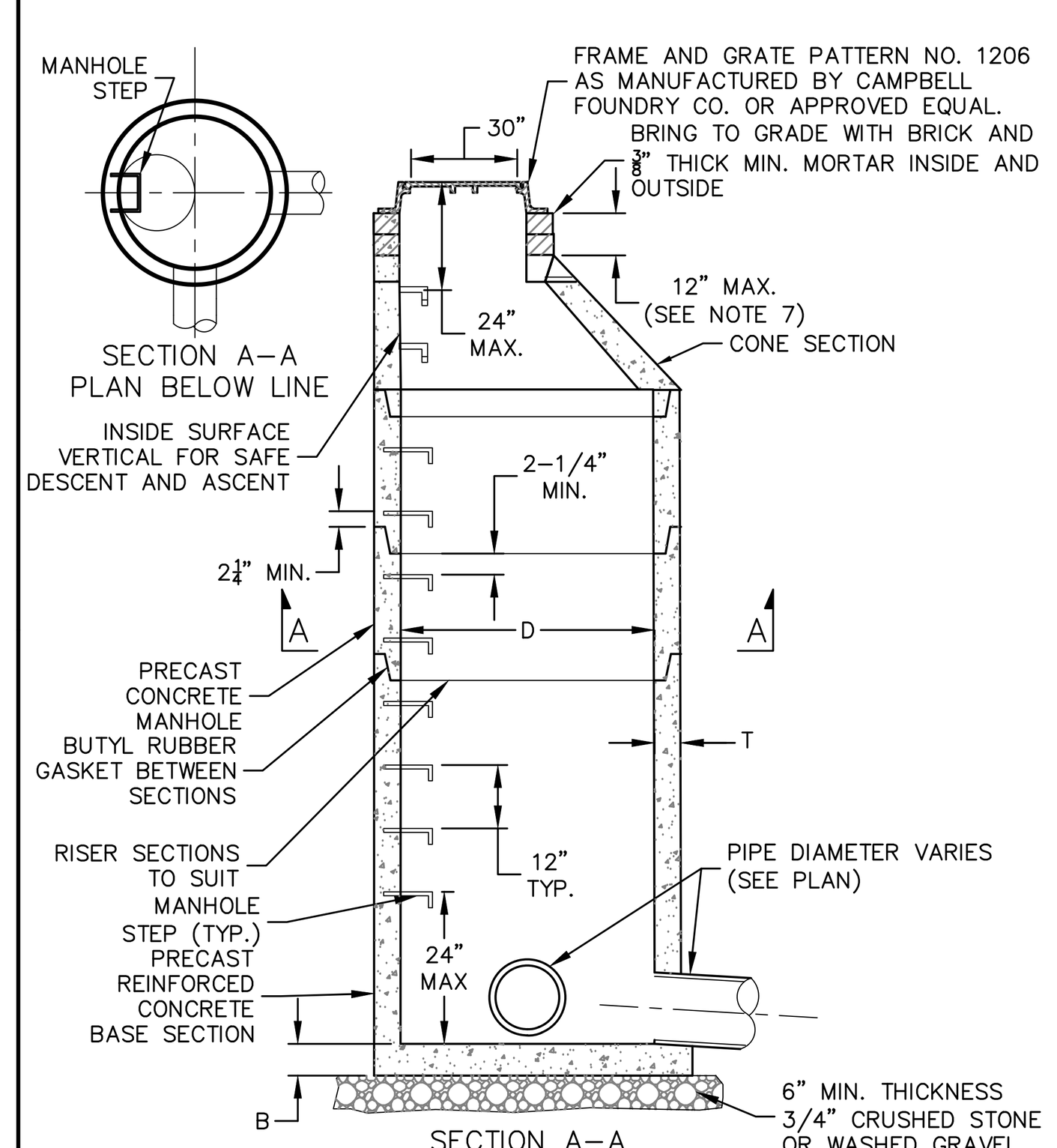
SCALE: NTS



NOTES:
1. HOODS TO BE PROVIDED ON INLET PIPES WITH UPSTREAM PIPE SLOPES 10% OR STEEPER. HOODS DO NOT NEED TO BE INSTALLED IF INLET AND OUTLET PIPE ARE AT THE SAME ELEVATION.

MANHOLE/CATCH BASIN HOOD

SCALE: NTS



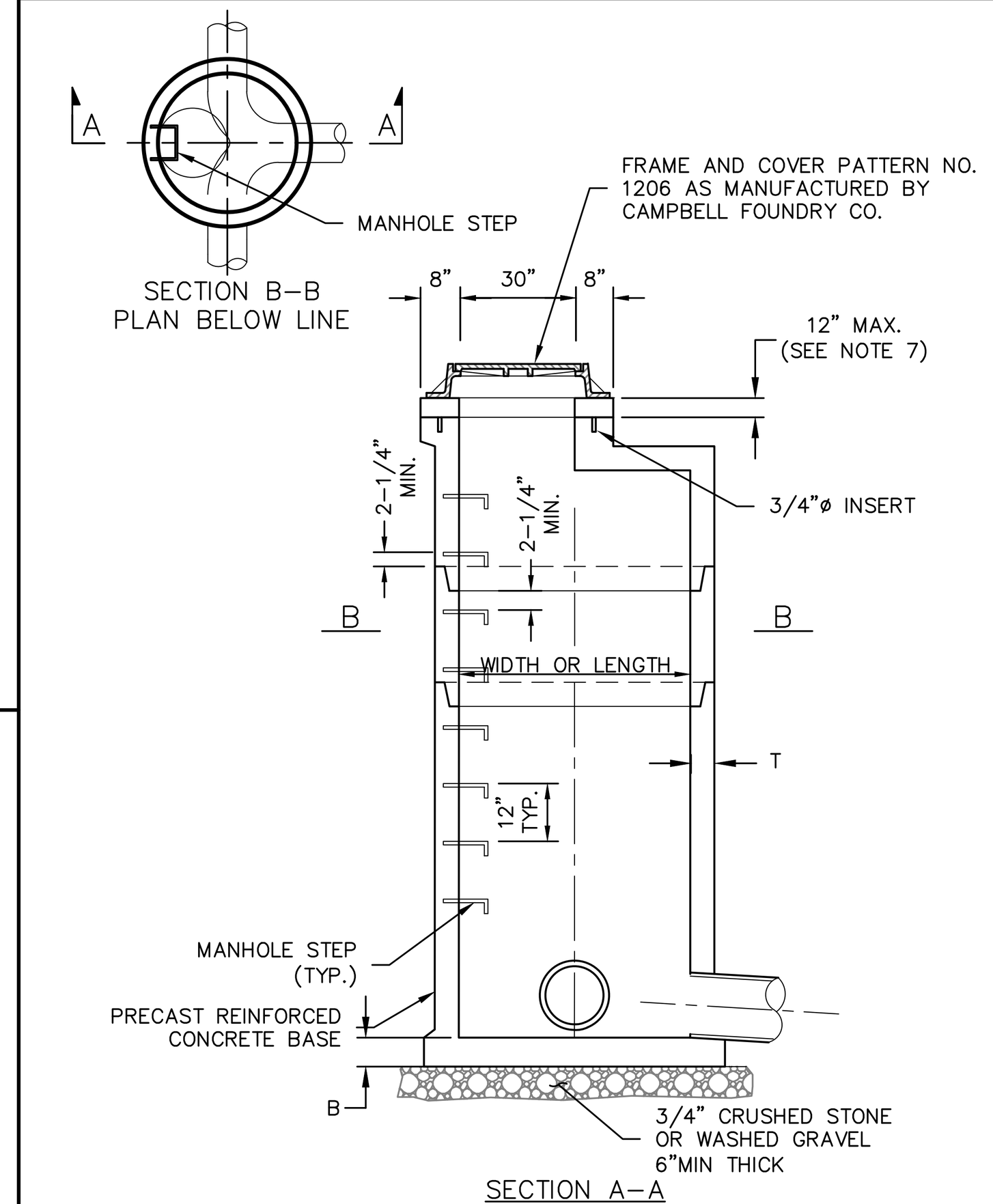
NOTES:
1. MANHOLE TO BE DESIGNED FOR H–20 LOADING.
2. CONCRETE TO TEST 4,000 PSI MINIMUM @ 28 DAYS IN CONFORMANCE WITH ASTM C–478.
3. STEPS TO ALUMINUM ALLOY WITH DEPRESSED TREAD. STEEL REINFORCED POLYPROPYLENE IS OPTIONAL.
4. ALL MANHOLE FRAMES SHALL BE BOLTED TO THE CONE SECTION WITH 2–3/4" DIA. BOLTS WITH WASHERS AND NUTS. BOLTS TO BE AT 180° ON BOLT CIRCLE.
5. INSTALL 2 LAYERS OF PLASTIC PREFORMED JOINT SEALANT BETWEEN ALL SECTIONS & UNDER FRAME.
6. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASTM C478.
7. WHEN TWO OR MORE GRADE ADJUSTMENT RINGS ARE USED, A WATERTIGHT PVC CONNECTOR SHALL BE INSTALLED BETWEEN THE FRAME AND THE CONE. CONNECTOR SHALL BE WATER–LOK CONNECTOR BFA ANTI–FLOATING BY A–LOK PRODUCTS INC. OR APPROVED EQUAL.
8. SOIL CONDITIONS BELOW STRUCTURE DEEMED UNSUITABLE BY THE FIELD ENGINEER SHALL BE EXCAVATED TO A SUITABLE MATERIAL OR A MAXIMUM OF TWO ADDITIONAL FEET AND BACKFILLED WITH 3/4" CLEAN CRUSHED STONE.
9. DETAIL INDICATES MINIMUM STRUCTURE DIMENSIONS FOR LARGER PIPES, OR AS PIPE GEOMETRY DEEMS NECESSARY.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL.

DRAINAGE MANHOLE DIMENSIONS		
DIA.	T (MIN)	B (MIN)
48"	5"	6"
60"	5"	6"
72"	6"	8"
84"	6"	8"
96"	6"	8"

PIPE SIZE RANGE	WIDTH (I.D.)
8" TO 15" PIPES	4'–0"ø
16" TO 27" PIPES	5'–0"ø
30" TO 48" PIPES	6'–0"ø
60" PIPES	7'–0"ø

STORMWATER MANHOLE - CIRCULAR

SCALE: NTS



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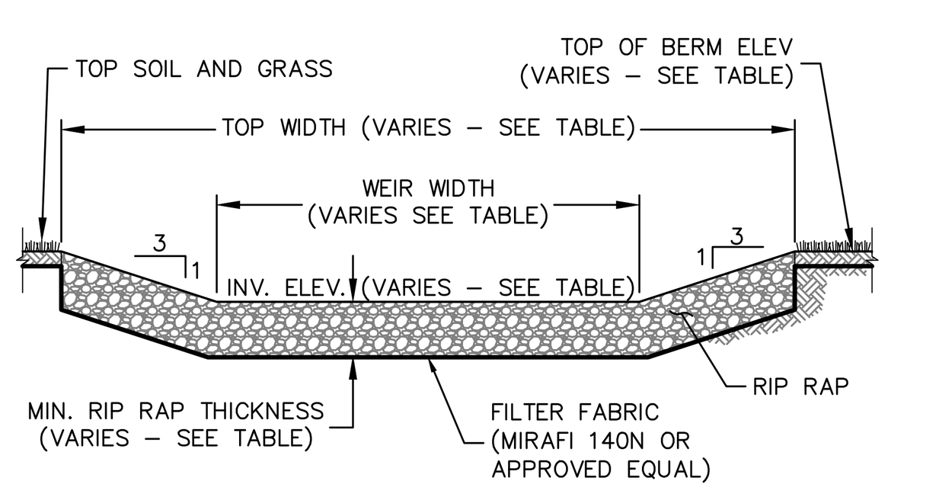
6. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASTM C478.
7. WHEN TWO OR MORE GRADE ADJUSTMENT RINGS ARE USED, A WATERTIGHT PVC CONNECTOR SHALL BE INSTALLED BETWEEN THE FRAME AND THE CONE. CONNECTOR SHALL BE WATER–LOK CONNECTOR BFA ANTI–FLOATING BY A–LOK PRODUCTS INC. OR APPROVED EQUAL.
8. SOIL CONDITIONS BELOW STRUCTURE DEEMED UNSUITABLE BY THE FIELD ENGINEER SHALL BE EXCAVATED TO A SUITABLE MATERIAL OR A MAXIMUM OF TWO ADDITIONAL FEET AND BACKFILLED WITH 3/4" CLEAN CRUSHED STONE.
9. DETAIL INDICATES MINIMUM STRUCTURE DIMENSIONS FOR LARGER PIPES, OR AS PIPE GEOMETRY DEEMS NECESSARY.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL.

DRAINAGE MANHOLE DIMENSIONS		
DIM.	T (MIN)	B (MIN)
3'–0" X 4'–0"	5"	6"
3'–0" X 5'–0"	5"	6"
4'–0" X 5'–0"	6"	8"
6'–0" X 6'–0"	6"	8"

PIPE SIZE RANGE	WIDTH	LENGTH
8" TO 15" PIPES	3'–0"	4'–0"
16" TO 27" PIPES	3'–0"	5'–0"
30" TO 48" PIPES	4'–0"	5'–0"
54" TO 60" PIPES	6'–0"	6'–0"

STORMWATER MANHOLE - SQUARE OR RECTANGULAR

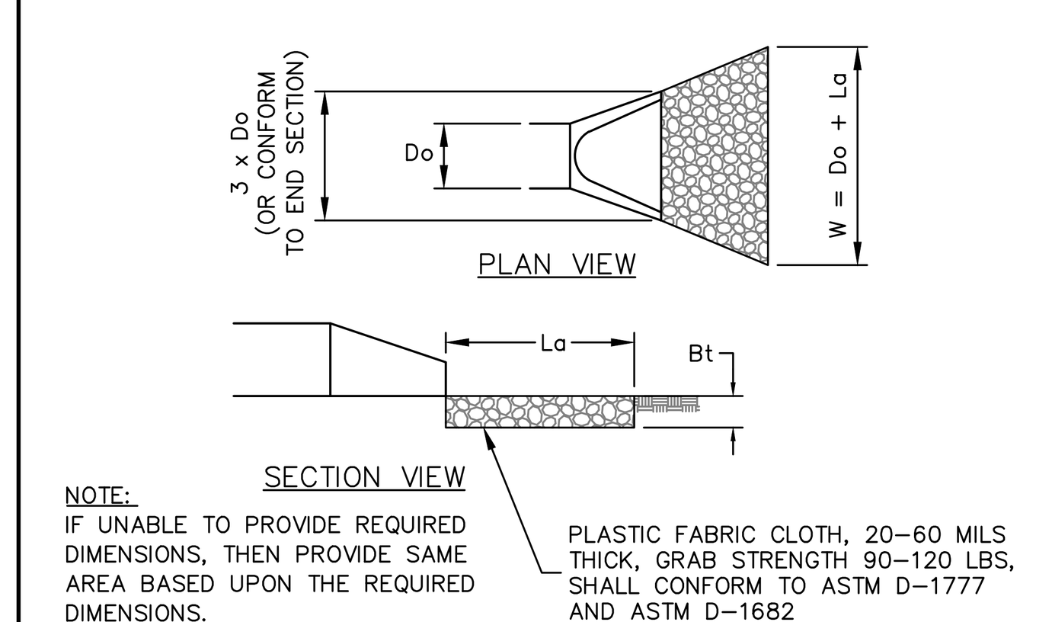
SCALE: NTS



STRUCTURE	TOP OF BERM ELEV.	OVERFLOW WEIR INVERT ELEV.	WEIR WIDTH (FT)	TOP WIDTH (FT)	d_{50} RIP RAP STONE SIZE (IN)	d_{max} RIP RAP MAX STONE SIZE (IN)	MIN. RIP RAP THICKNESS (IN)
BIORETENTION 20 FOREBAY	478.0	476.5	10	19	4	6	9
BIORETENTION 20	478.0	476.5	10	19	4	6	9
DETENTION A OVERFLOW	491.0	490.5	25	28	4	6	9
DETENTION B EMERGENCY OVERFLOW	475.5	475.0	10	13	4	6	9

OVERFLOW WEIR

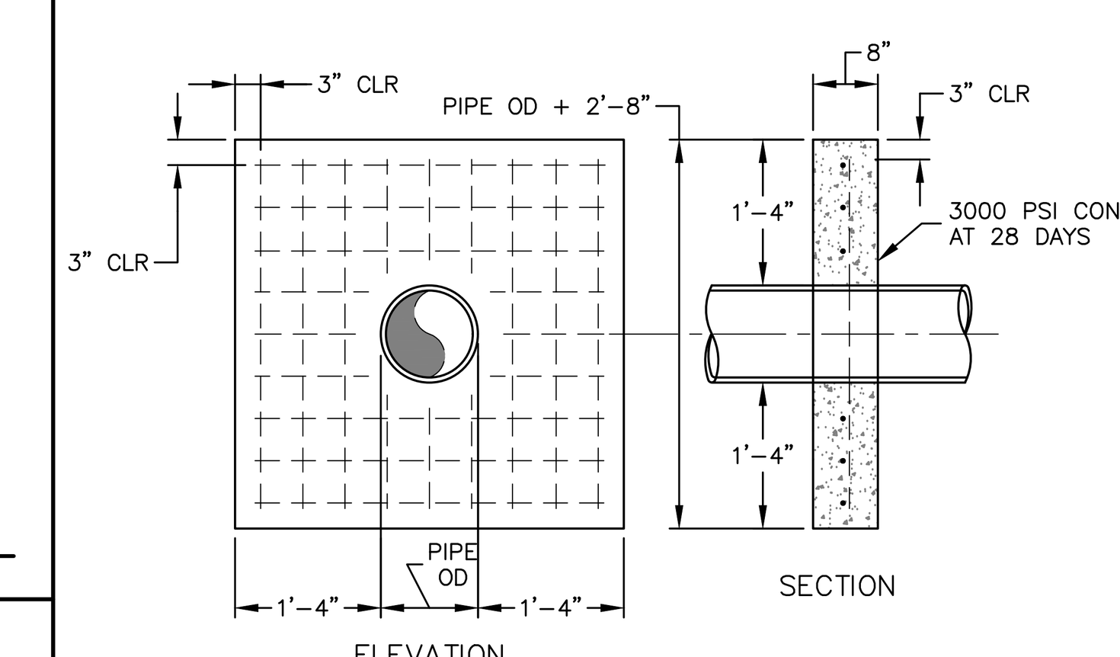
SCALE: NTS



NOTE:
IF UNABLE TO PROVIDE REQUIRED DIMENSIONS, THEN PROVIDE SAME AREA BASED UPON THE REQUIRED DIMENSIONS.

RIP RAP OUTLET PROTECTION

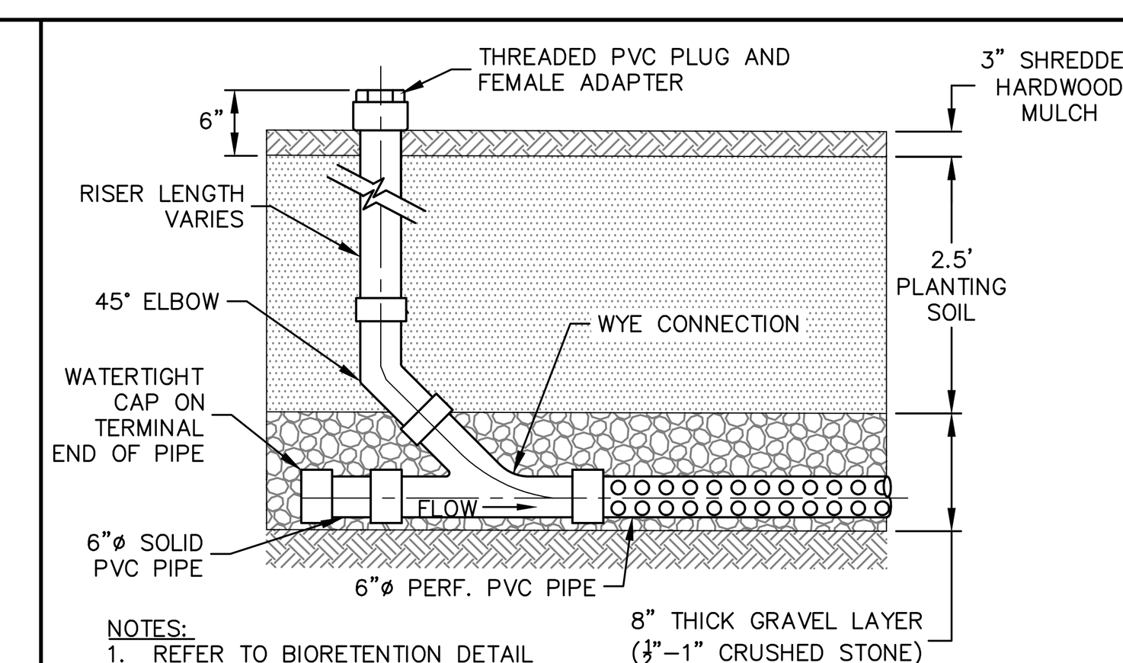
SCALE: NTS



NOTES:
1. PRIOR TO CONSTRUCTION OF COLLAR, THE OUTSIDE OF THE PIPE SHALL BE CLEANED. (PRECAST UNITS MAY BE USED AT THE ENGINEERS DISCRETION)
2. ALL REINFORCING STEEL SHALL BE GRADE 60.
3. MAINTAIN A MINIMUM 6" COVER OVER ANTI–SEEP COLLAR.
4. THE CONNECTION OF ANTI–SEEP COLLARS TO OUTLET PIPES SHALL BE WATERTIGHT.
5. O–RING GASKETS SHALL BE USED ON BASIN DISCHARGE PIPES THROUGH BERM AREAS.
6. MAXIMUM SPACING OF ANTI–SEEP COLLARS THROUGH BERM AREAS SHALL BE 40 FEET.

ANTI-SEEP COLLAR /CONCRETE ANCHOR

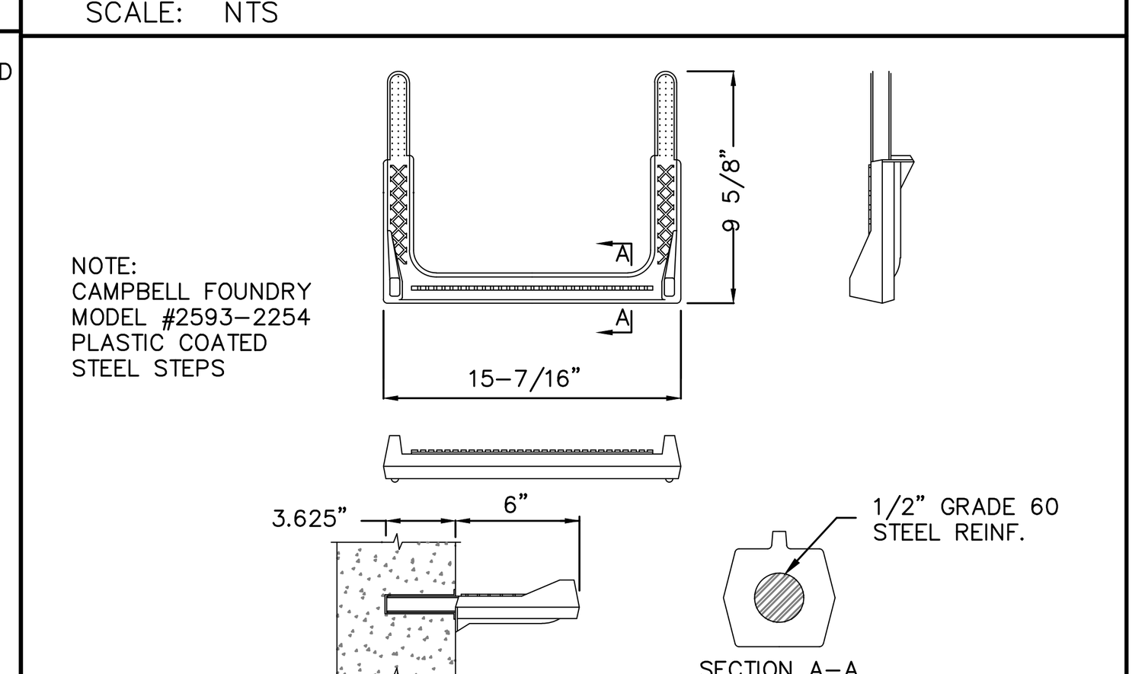
SCALE: NTS



NOTES:
1. REFER TO BIORETENTION DETAIL FOR ADDITIONAL INFORMATION

BIORETENTION CLEANOUT

SCALE: NTS



MANHOLE STEP

SCALE: NTS

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN
DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

10/10/2023
DATE SIGNED
PROFESSIONAL ENGINEER NY Lic. No. 062303

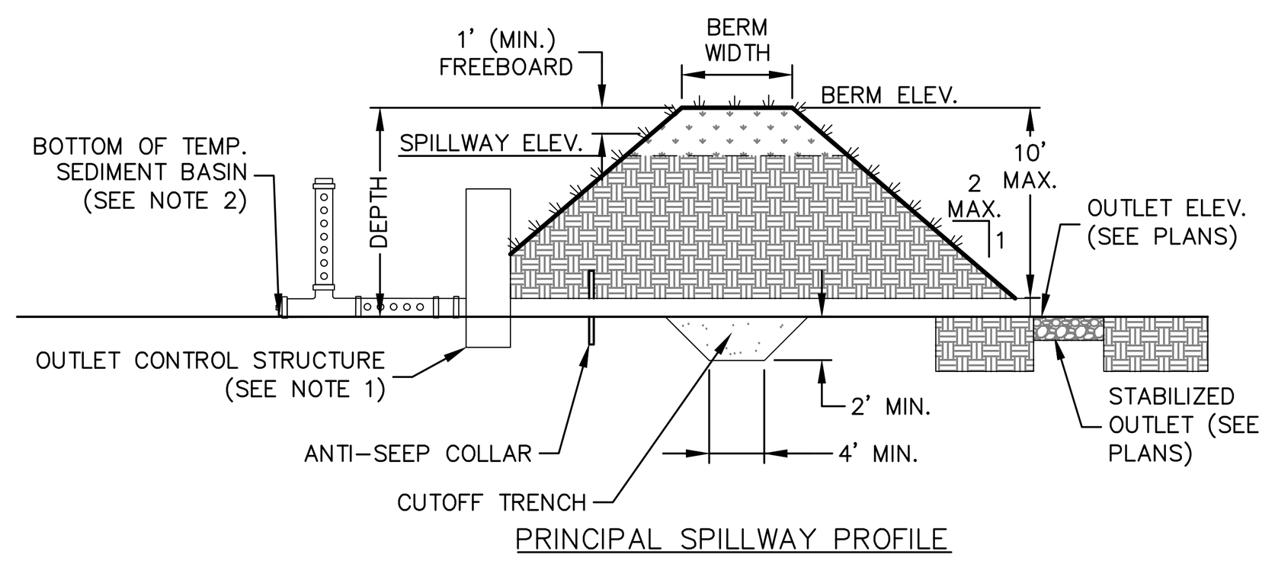
LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

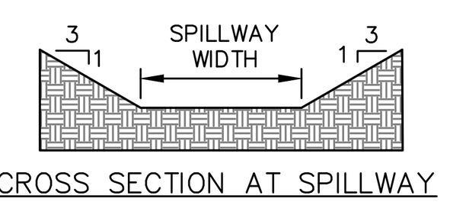
Drawing Title
DRAINAGE DETAILS (2 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF

Drawing No.
CS506
Sheet 36 of 45



PRINCIPAL SPILLWAY PROFILE



CROSS SECTION AT SPILLWAY

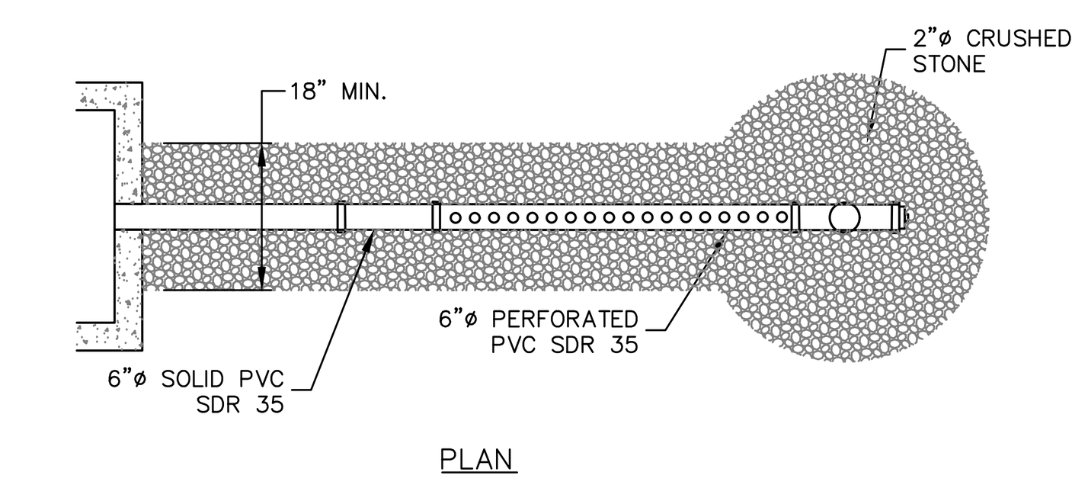
NOTES:
1. INSTALL OUTLET CONTROL STRUCTURE. BOARD UP ORIFICES, SLOTS, AND TOP OF STRUCTURE.
2. TEMPORARY SEDIMENT BASIN TO BE EXCAVATED TO THE TOP OF THE GRAVEL LAYER OF THE BIORETENTION AREA AND AQUATIC BENCH OF THE STORMWATER POND. SOIL RESTORATION TO BE PERFORMED AS NECESSARY. SOILS TO BE RESTORED SHALL BE AERATED. AERATION INCLUDES THE USE OF MACHINES SUCH AS TRACTOR-DRAWN IMPLEMENTS WITH COULTERS MAKING A NARROW SLIT IN THE SOILS, A ROLLER WITH MAHY SPIKES MAKING INDENTATION IN THE SOILS, OR PRONGS WHICH FUNCTION LIKE A MINI-SUBSOILER.
3. ONCE SITE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, THE TEMPORARY SEDIMENT BASIN SHALL BE CLEANED AND EXCAVATED FOR THE INSTALLATION OF THE BIORETENTION AREAS AND STORMWATER POND. ALL ACCUMULATED SEDIMENT WITHIN THE TEMPORARY SEDIMENT BASIN SHALL BE REMOVED.
4. SEE SEDIMENT BASIN DEWATERING STRUCTURE FOR ADDITIONAL INFORMATION ON DEWATERING THE TEMPORARY SEDIMENT BASIN.

LOCATION	DRAINAGE AREA (AC)	REQUIRED SEDIMENT STORAGE VOLUME (CF)	REQUIRED DEWATERING ZONE VOLUME (CF)	TOTAL REQUIRED VOLUME (CF)	BOTTOM OF BASIN ELEV.	BERM ELV.	BERM WIDTH (FT)	BASIN CLEANOUT ELEV. (FT)
Sediment Basin A	8.0 AC (MAX)	8,000	28,800	36,800	486.0	491	10	486.5
Sediment Basin B	15.4	15,400	55,440	70,840	471.0	475.5	10	471.5
Sediment Basin C	19.8	19,800	71,280	91,080	526.5	532	10	527.0

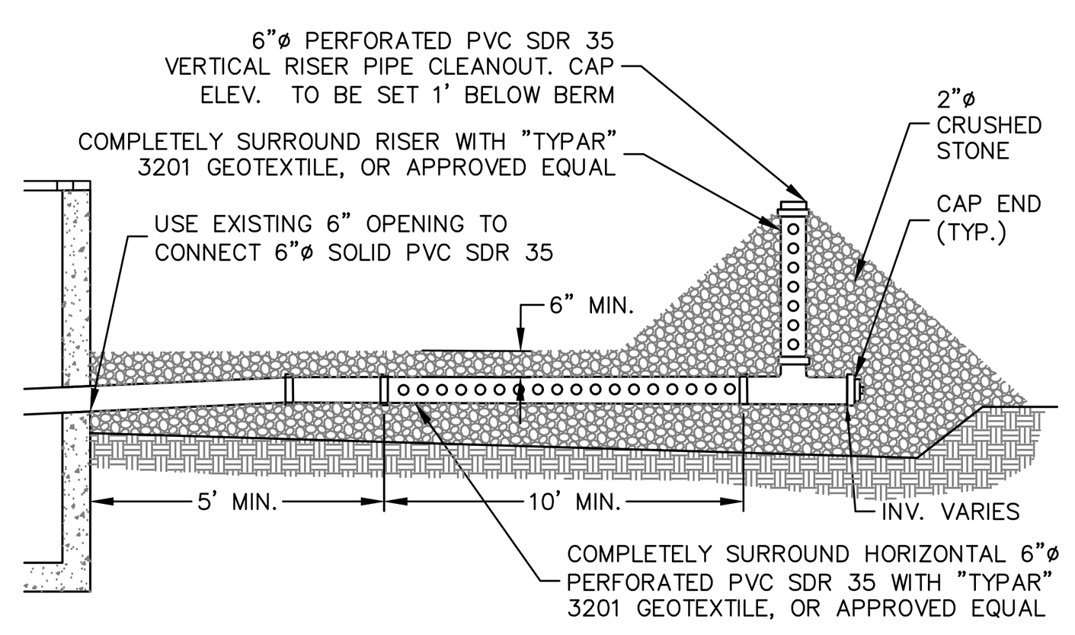
TEMPORARY SEDIMENT BASIN/TRAP

SCALE: NTS

NOTES:
1. CONTRACTOR TO USE THE 6" UNDERDRAIN OPENING IN THE OUTLET CONTROL STRUCTURE TO CONNECT TO TEMPORARY DEWATERING DEVICE. WHERE UNDERDRAINS ARE NOT REQUIRED, THE TEMPORARY 6" OPENING IN THE OUTLET CONTROL STRUCTURE SHALL BE PATCHED.



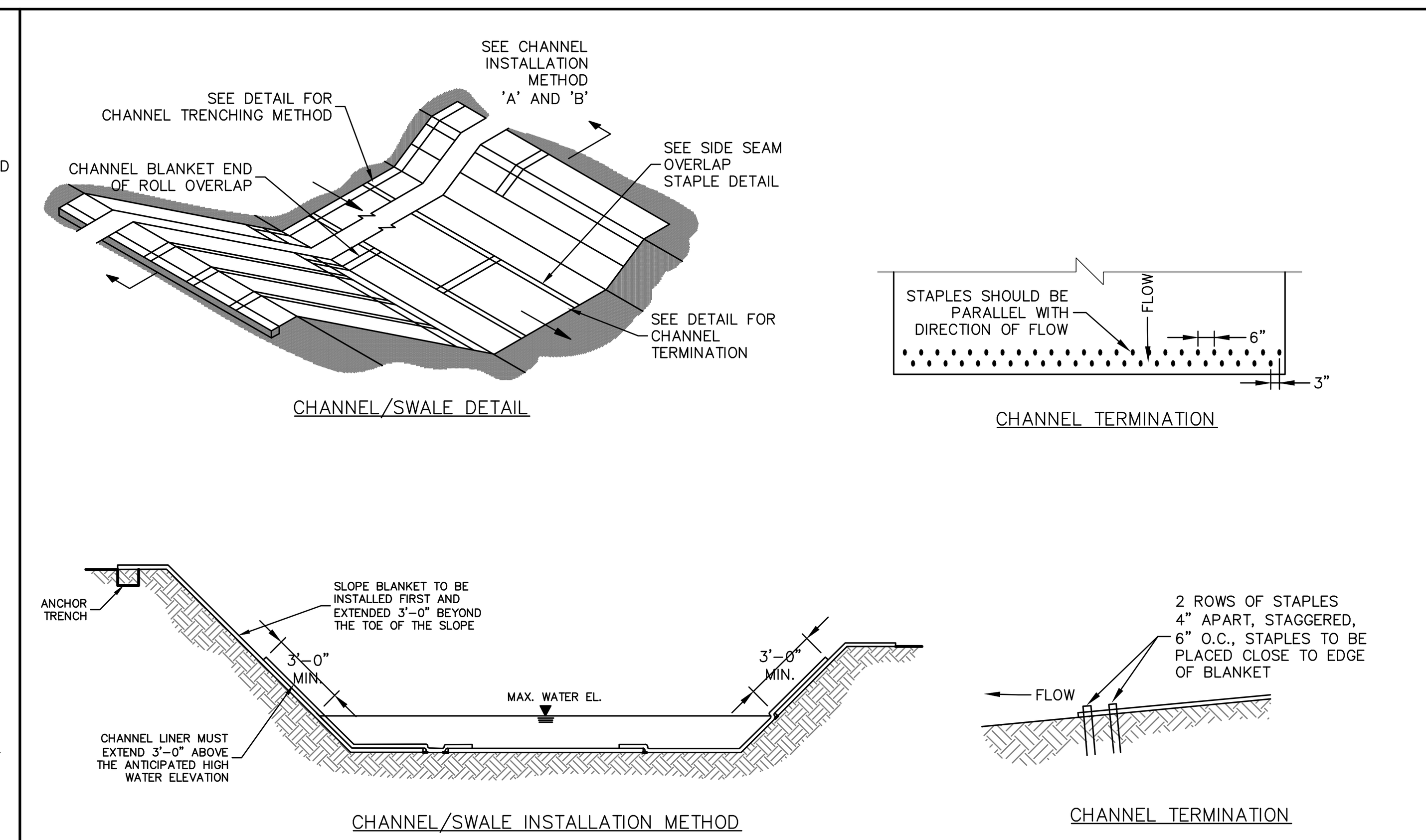
PLAN



SECTION

TEMPORARY SEDIMENT BASIN DEWATERING DEVICE

SCALE: NTS

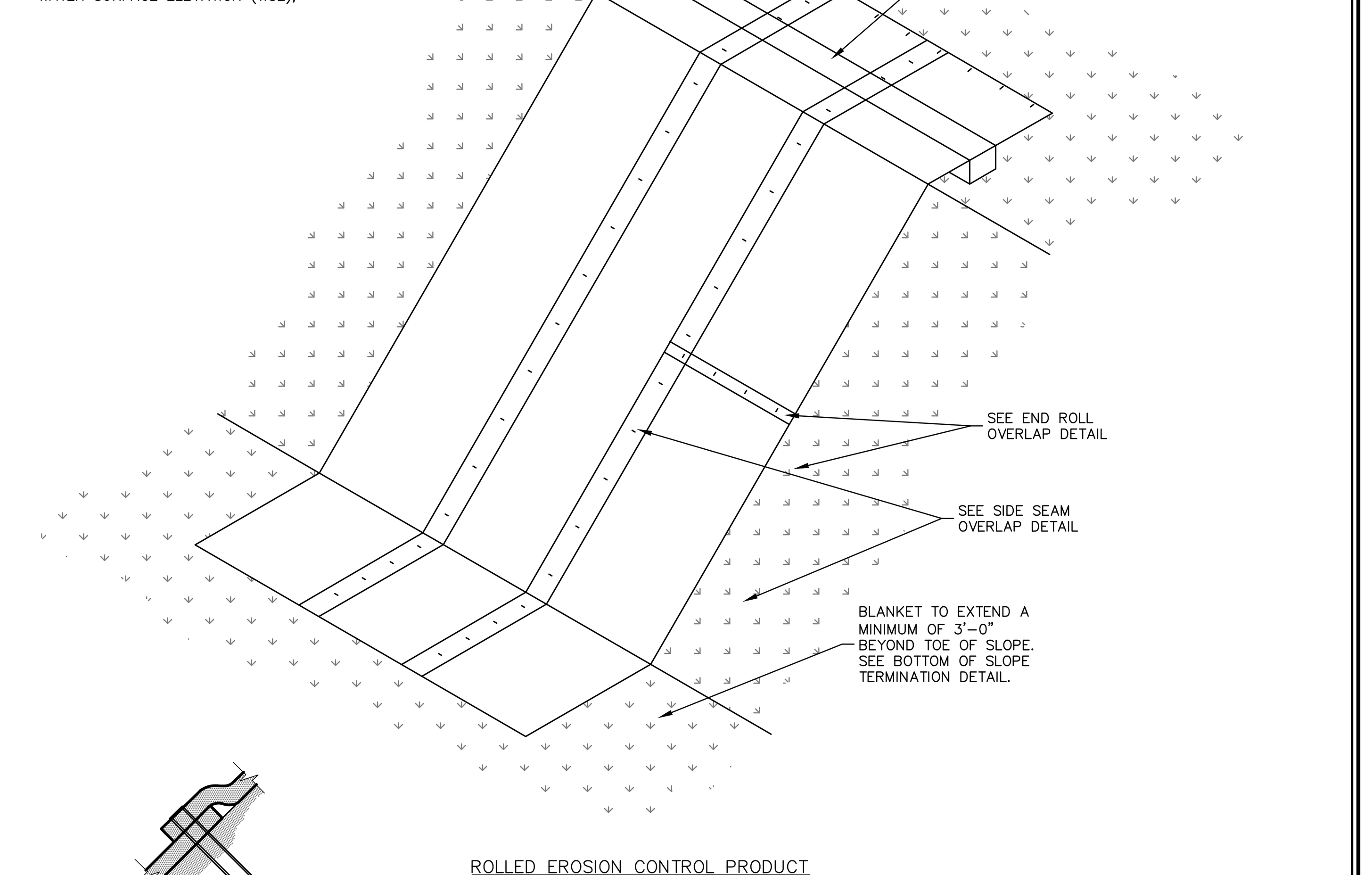


NOTES:
1. ROLLED EROSION CONTROL BLANKET (RECB) TO BE NORTH AMERICAN GREEN SC150BN OR APPROVED EQUAL.
2. CONTRACTOR SHALL REFER TO MANUFACTURER INSTALLATION GUIDE FOR INSTALLATION REQUIREMENTS.
3. 6" U-SHAPED STAPLES SHALL BE USED, UTILIZING STAPLE PATTER 'C' PER THE NORTH AMERICAN GREEN INSTALLATION GUIDE.
4. SLOPE BLANKET SHALL BE USED ABOVE THE POND WATER SURFACE ELEVATION (WSE),

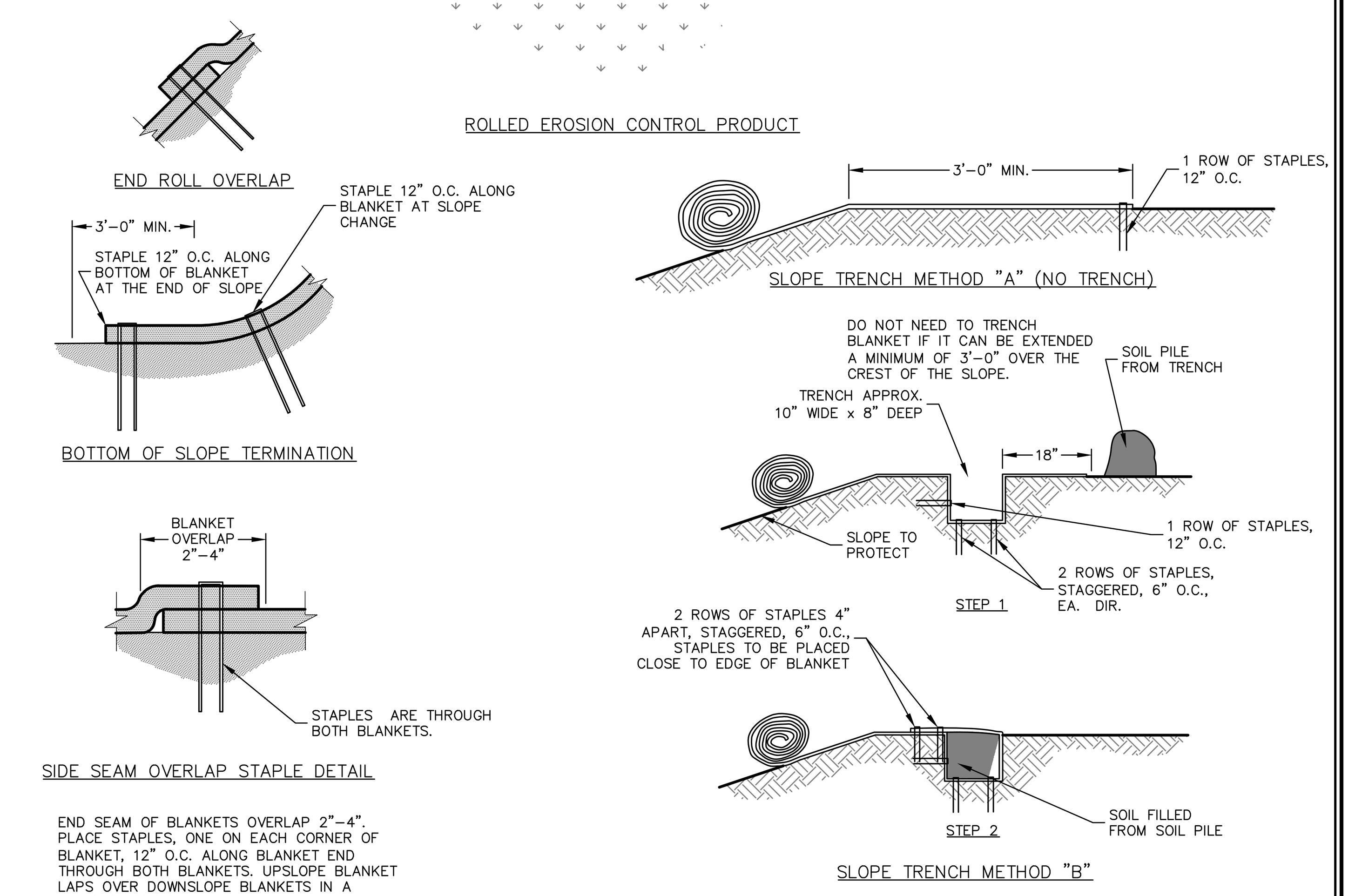
ROLLED EROSION CONTROL PRODUCT - CHANNEL/SWALE INSTALLATION

SCALE: NTS

NOTES:
1. ROLLED EROSION CONTROL BLANKET (RECB) TO BE NORTH AMERICAN GREEN SC150BN OR APPROVED EQUAL.
2. CONTRACTOR SHALL REFER TO MANUFACTURER INSTALLATION GUIDE FOR INSTALLATION REQUIREMENTS.
3. 6" U-SHAPED STAPLES SHALL BE USED, UTILIZING STAPLE PATTER 'C' PER THE NORTH AMERICAN GREEN INSTALLATION GUIDE.
4. SLOPE BLANKET SHALL BE USED ABOVE THE POND WATER SURFACE ELEVATION (WSE),



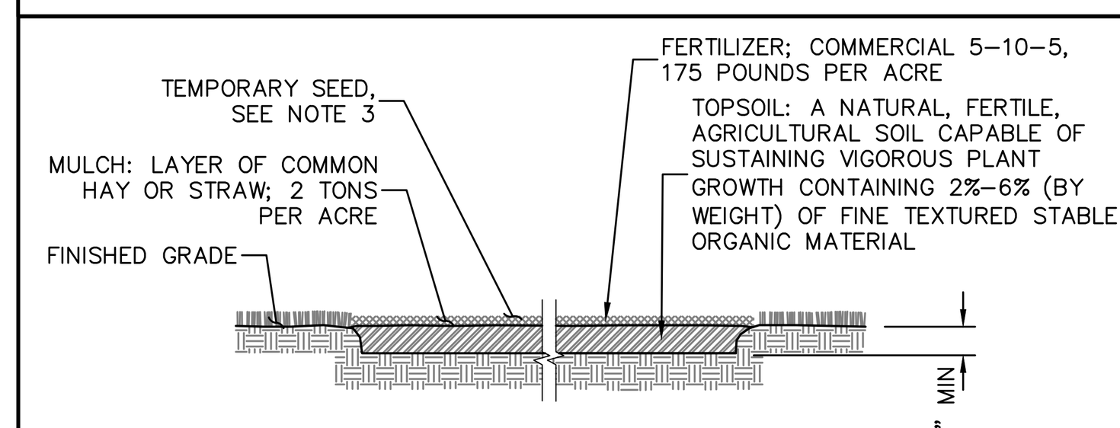
ROLLED EROSION CONTROL PRODUCT



END SEAM OF BLANKETS OVERLAP 2"-4". PLACE STAPLES, ONE ON EACH CORNER OF BLANKET, 12" O.C. ALONG BLANKET END THROUGH BOTH BLANKETS. UPSLOPE BLANKET LAPS OVER DOWNSLOPE BLANKETS IN A SHINGLE AFFECT.

ROLLED EROSION CONTROL PRODUCT - SLOPE INSTALLATION

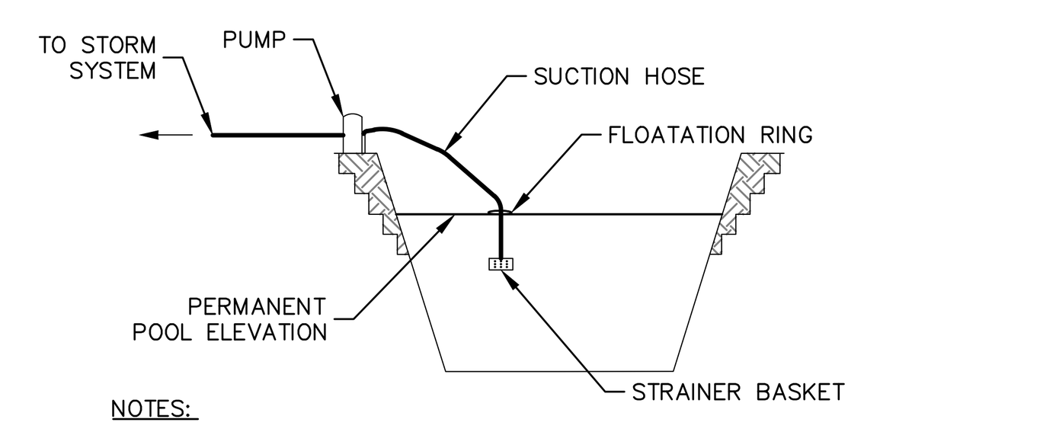
SCALE: NTS



NOTES:
1. TO BE USED ON DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 7 DAYS OR MORE AND WILL BE RE-DISTURBED DURING CONSTRUCTION.
2. FERTILIZER OR LIME ARE NOT TYPICALLY USED FOR TEMPORARY SEEDINGS.
3. SEED MIX:
   A. IF SPRING, SUMMER OR EARLY FALL: SEED WITH ANNUAL OR PERENNIAL RYEGRASS AT A RATE OF 1 LB PER 1000 SF.
   B. IF LATE FALL OR WINTER: SEED WITH CERTIFIED 'AROOSTOOK' WINTER (CEREAL RYE) AT A RATE OF 2.5 LBS PER 1000 SF.

TEMPORARY VEGETATIVE COVER

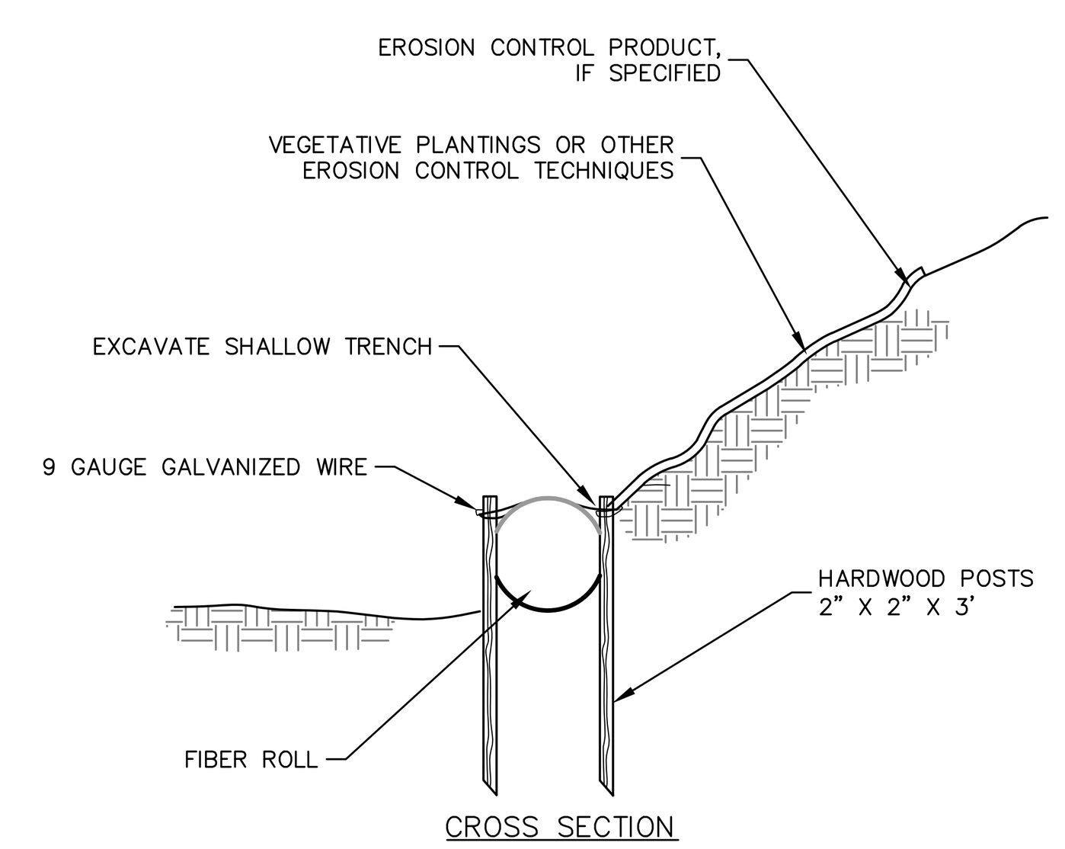
SCALE: NTS



NOTES:
1. THE PUMP INTAKE HOSE SHALL BE EQUIPPED WITH A STRAINER BASKET AND FLOTATION RING.
2. THE POND SHALL BE DEWATERED USING THIS METHOD UNTIL THE WATER SURFACE ELEVATION IS ONE FOOT ABOVE THE BOTTOM OF THE POND
3. THIS METHOD IS REQUIRED IF WATER ELEVATION EXCEEDS 1 FOOT FROM BOTTOM OF POND

TEMPORARY DE-WATERING DEVICE

SCALE: NTS

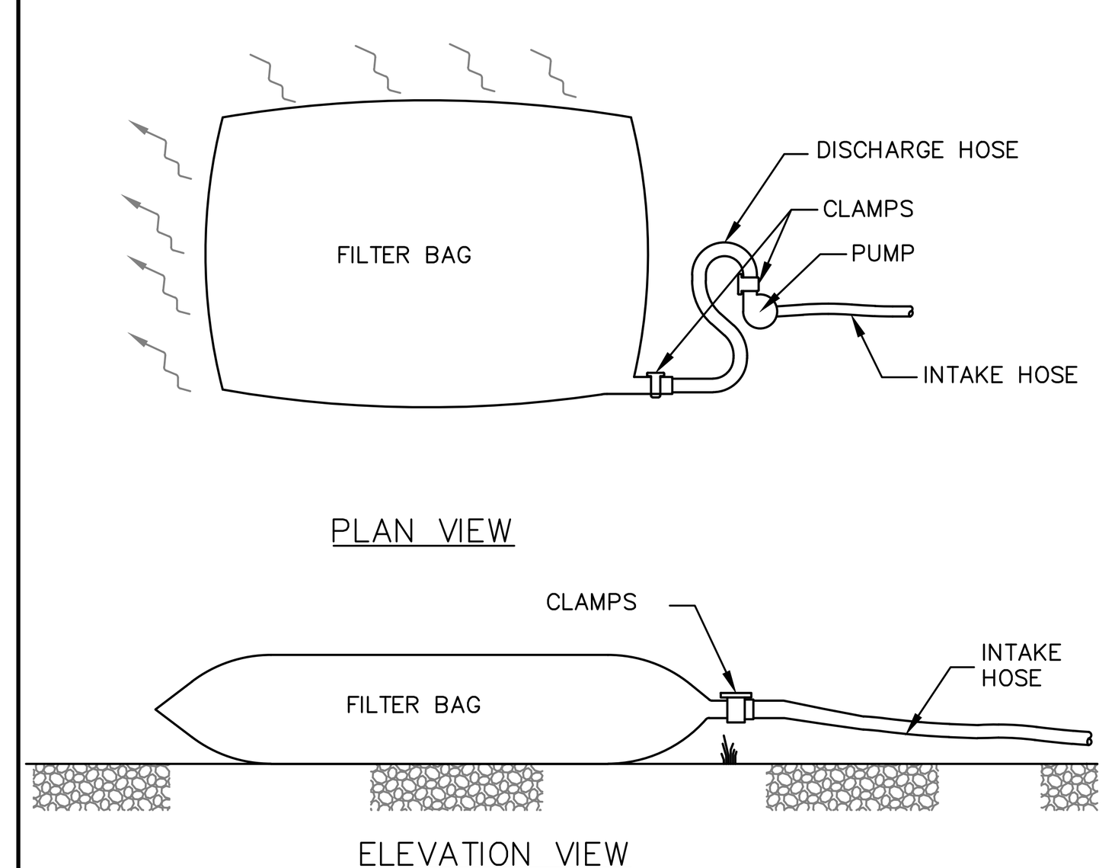


CROSS SECTION

CONSTRUCTION SPECIFICATIONS:
1. EXCAVATE A SHALLOW TRENCH SLIGHTLY BELOW BASEFLOW OR A 4" TRENCH ON SLOPE CONTOURS.
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2" X 2" POSTS PLACED ON BOTH SIDES OF THE ROLL AND SPACED LATERALLY ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IN NECESSARY.
3. NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH 9 GAUGE GALVANIZED WIRE OR ⅛" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANT WITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.

FIBER ROLL

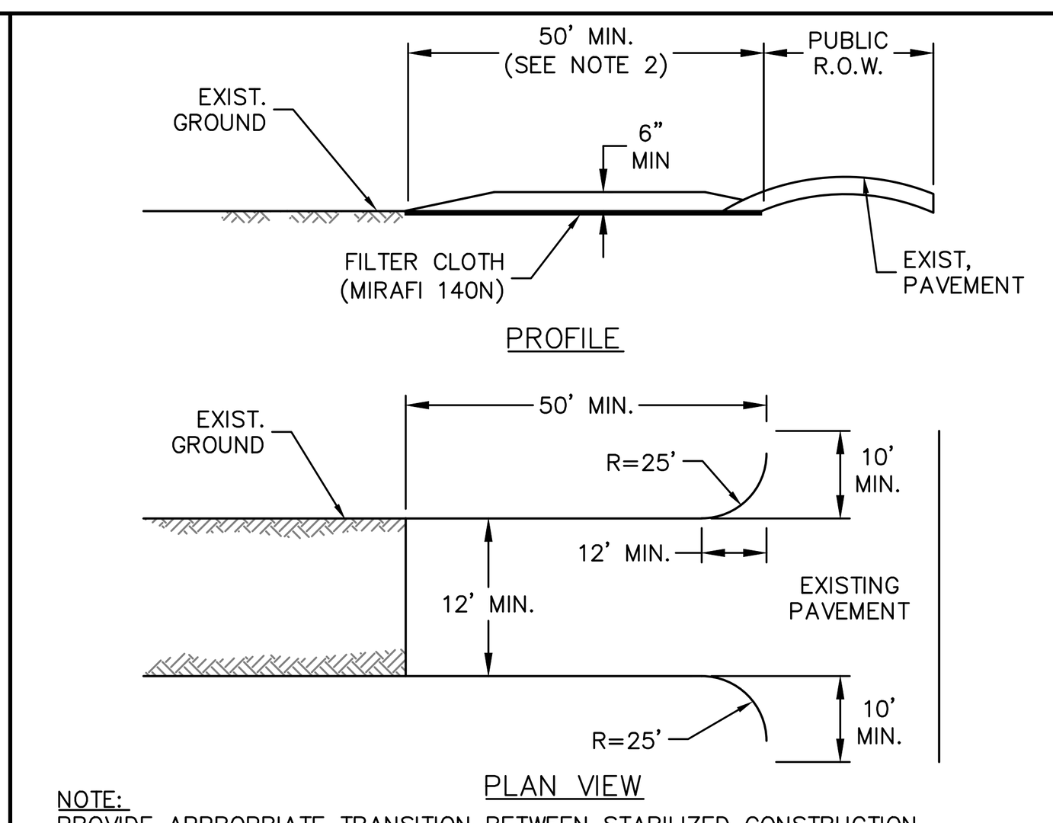
SCALE: NTS



NOTES:
1. FILTER BAG SHALL BE NON-WOVEN GEOTEXTILE WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 180 MICRONS.
2. FILTER BAGS SHALL BE PLACED ON A RIP RAP BLANKET (BLANKET SIZE TO BE SIZE OF SILT SACK/BAG + 2 FT ALL AROUND). RIP RAP BLANKET SHALL BE 6" THICK AND HAVE A D_{50}=2" AND A D_{MAX}=4". RIP RAP SHALL BE UNDERLAIN BY GEOTEXTILE FABRIC (MIRAFI 500X OR APPROVED EQUAL).
3. CLAMP PUMP DISCHARGE HOSE SECURELY INTO FILTER BAGS.
4. PUMPING RATE NOT TO EXCEED THE MANUFACTURER'S RECOMMENDED PUMPING RATE.
5. WHEN SEDIMENTS FILL 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE PROPERLY. DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS. BAGS MAY NOT BE REUSED.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO DISPOSE OF THE SEDIMENT BAG APPROPRIATELY.
7. CONTRACTOR IS RESPONSIBLE TO HAVE EXTRA SEDIMENT BAGS ON SITE.
8. USE WITH DEWATERING DEVICES

FILTER SACK/BAG

SCALE: NTS

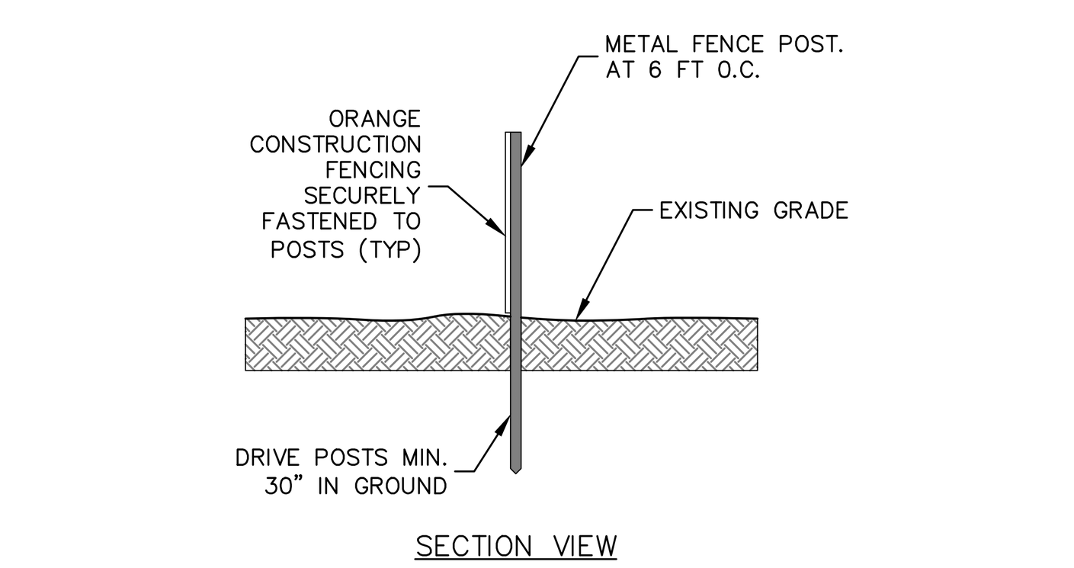


NOTE:
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

CONSTRUCTION SPECIFICATIONS
1. STONE SIZE – USE 3" STONE (NYSDOT ITEM #623.11 SIZE DESIGNATION #2, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50-FEET (EXCEPT ON SINGLE FAMILY LOT, 30-FEET MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SIGHT.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL. A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTR. ENTRANCE

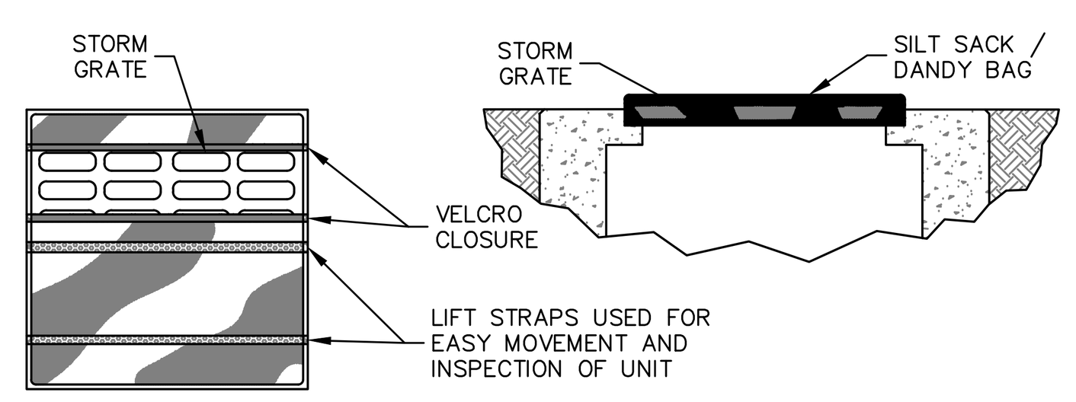
SCALE: NTS



SECTION VIEW

ORANGE CONSTRUCTION FENCE

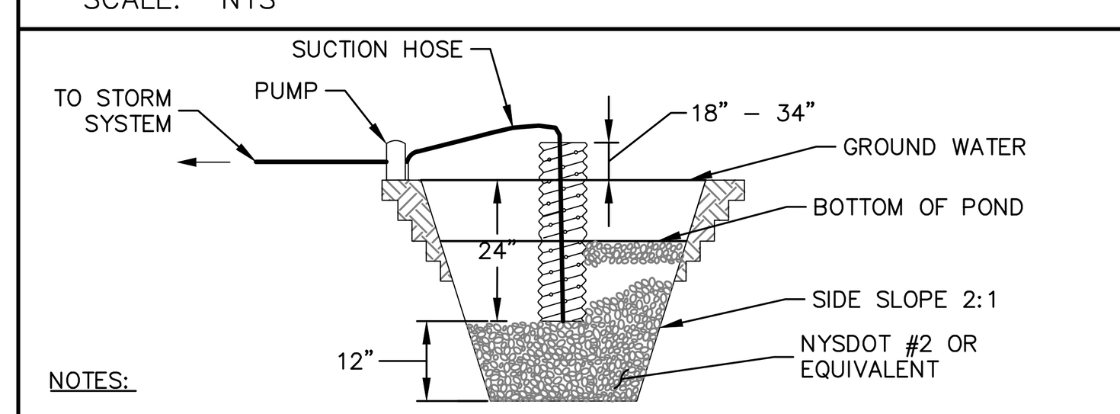
SCALE: NTS



NOTES:
1. INLET SEDIMENT CONTROL DEVICE SHALL BE SILT SACK BY ACF ENVIRONMENTAL PRODUCTS, DANDY BAG BY DANDY PRODUCTS, OR APPROVED EQUAL.
2. INLET SEDIMENT CONTROL DEVICE SHALL BE MAINTAINED AS PER THE STANDARDS AND SPECIFICATIONS OF THE NYSDEC STANDARDS FOR EROSION AND SEDIMENT CONTROL (BLUE BOOK).
3. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN COMPLETELY STABILIZED (GREATER THAN 75% VEGETATIVE COVER), THE INLET SEDIMENT CONTROL DEVICE SHALL BE CLEANED OUT AND REMOVED FROM THE STRUCTURE.

INLET PROTECTION - SILT SACK

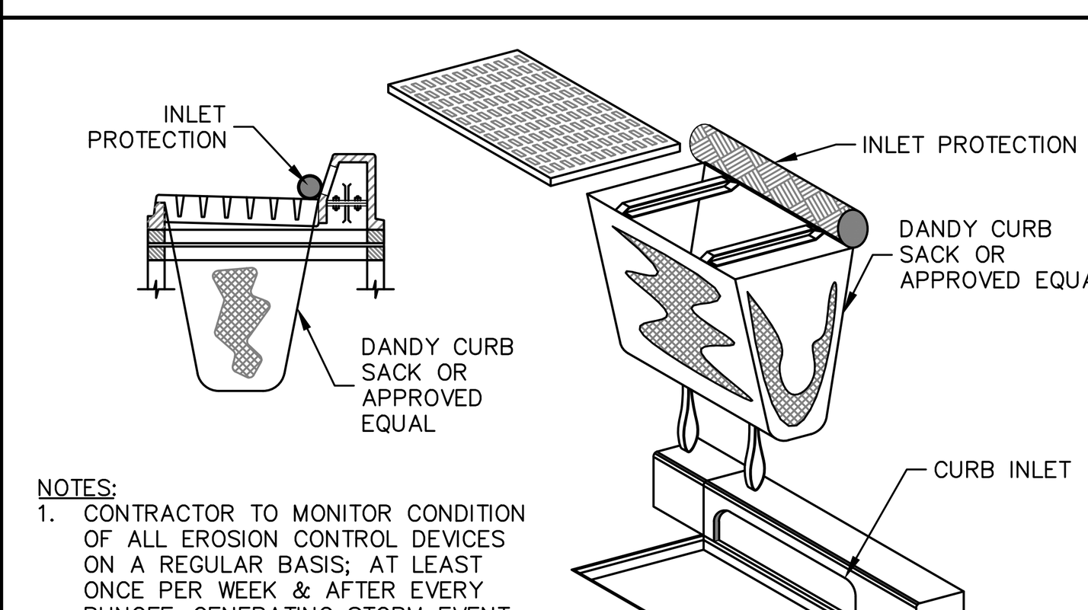
SCALE: NTS



NOTES:
1. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12-24" DIAMETER CORRUGATED OR PVC PIPE.
2. A BASE OF 2" AGGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD BE BACKFILLED WITH 2" AGGREGATE.
3. THE STANDPIPE SHOULD EXTEND 18-34" ABOVE THE LIP OF THE PIT.
4. THE STANDPIPE SHALL BE WRAPPED WITH FILTERCLOTH BEFORE INSTALLATION. ¼" – ½" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, PRIOR TO ATTACHING THE FILTERCLOTH.

TEMPORARY DE-WATERING SUMP PIT

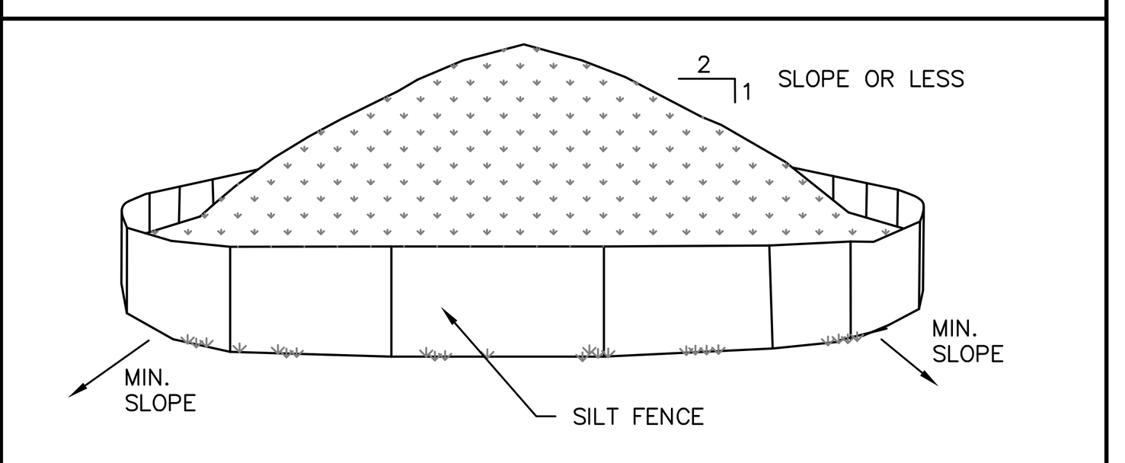
SCALE: NTS



NOTES:
1. CONTRACTOR TO MONITOR CONDITION OF ALL EROSION CONTROL DEVICES ON A REGULAR BASIS; AT LEAST ONCE PER WEEK & AFTER EVERY RUNOFF-GENERATING STORM EVENT.
2. DEVICES TO BE EMPTIED/ CLEANED AS NEEDED.

INLET PROTECTION - DANDY SACK

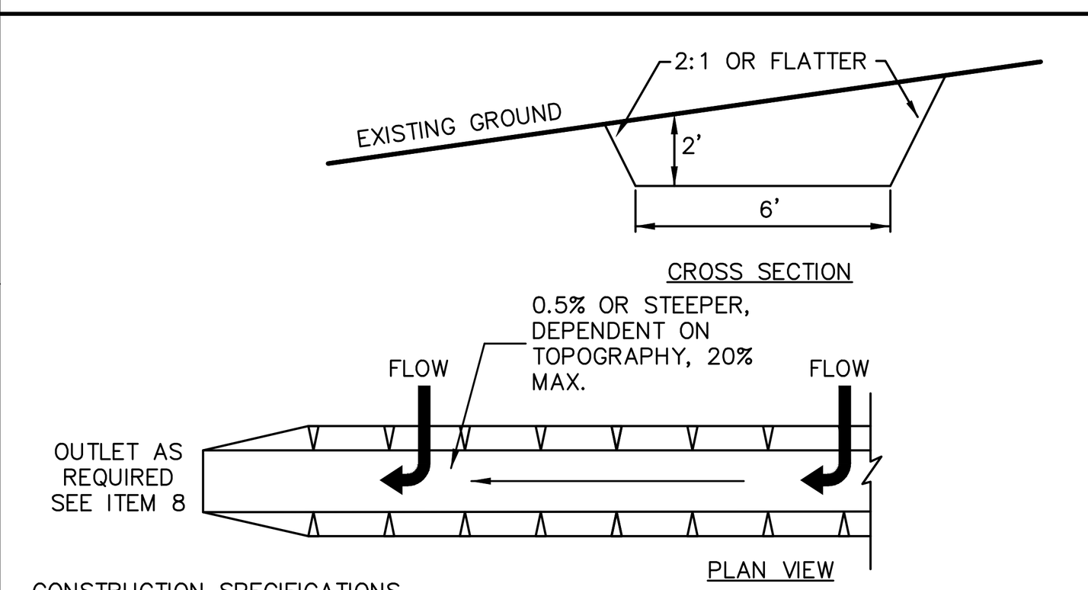
SCALE: NTS



NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V: 2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. HAY BALES TO BE USED WHERE STOCKPILES ARE LOCATED ON PAVED AREAS.

TEMPORARY STOCKPILE

SCALE: NTS



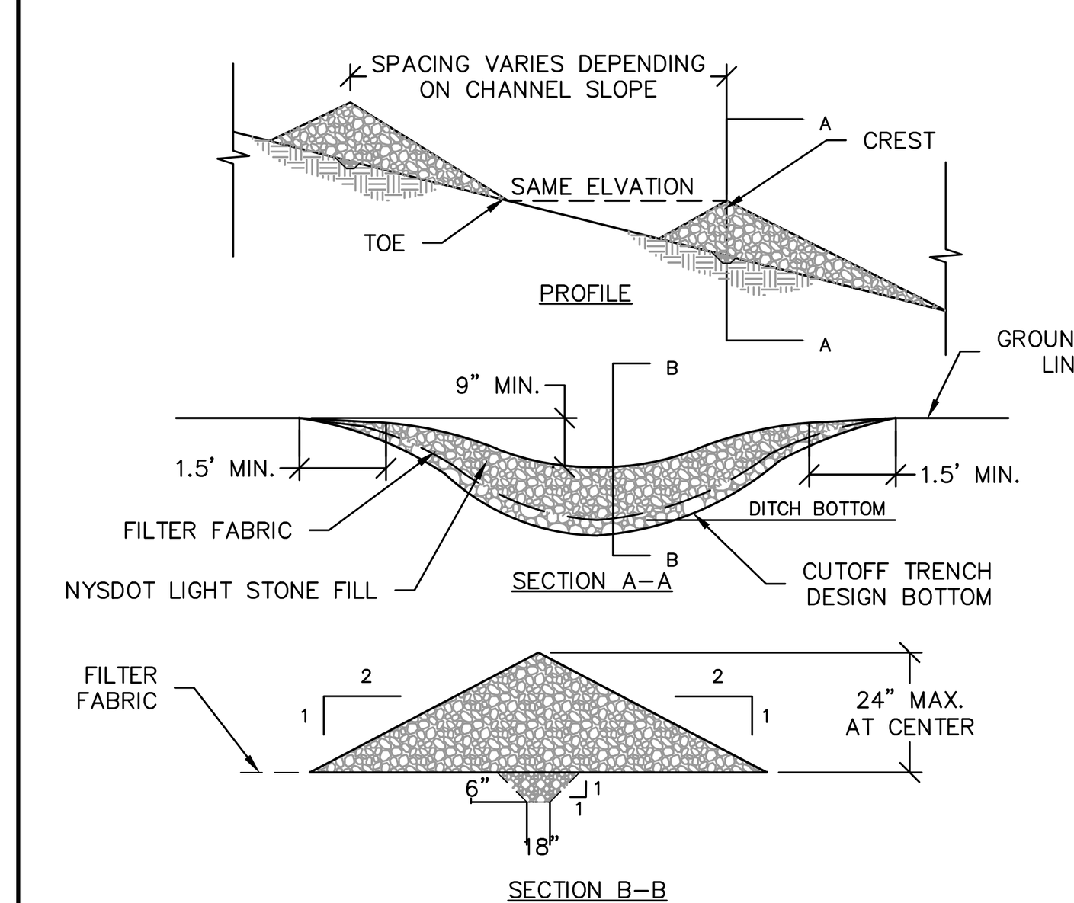
CONSTRUCTION SPECIFICATIONS
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTION-ABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULAR-ITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PRO-VIDED AFTER EACH RAIN EVENT.
9. STABILIZATION SHALL BE AS PER THE CHART BELOW:

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC. OR LESS)	B (5-10 AC.)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SEED WITH JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

TEMPORARY DIVERSION SWALE

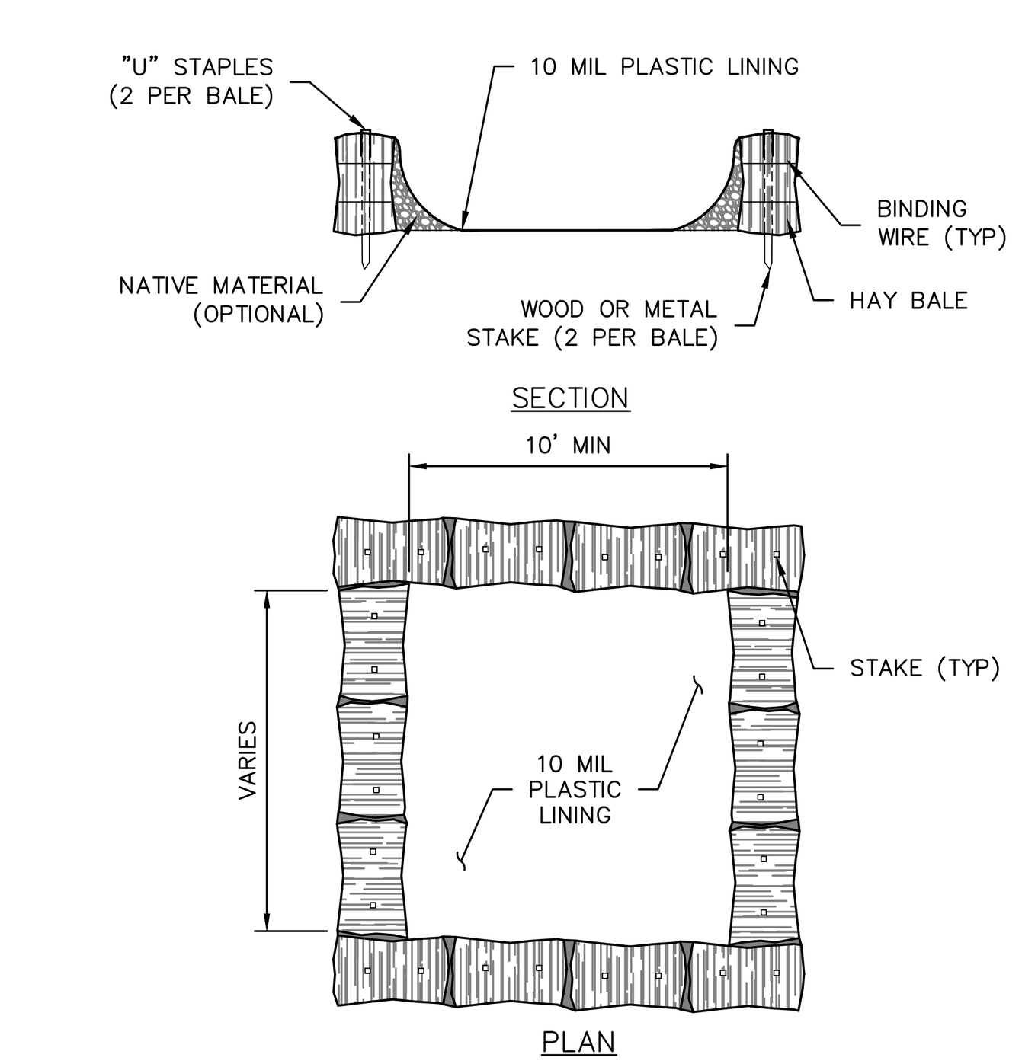
SCALE: NTS



CONSTRUCTION SPECIFICATIONS:
1. STONE SHALL BE 2 TO 9 INCHES IN SIZE (NYSDOT LIGHT STONE FILL MEETS THESE REQUIREMENTS). STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN ON THE PLAN.
2. SET SPACING OF CHECK DAMS AS INDICATED ON PLANS. THE TOE OF THE UPGRADIENT CHECK DAM SHALL BE AT THE SAME ELEVATION AS THE CREST OF THE CHECK DAM IMMEDIATELY DOWNGRADIENT.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAM ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

STONE CHECK DAM

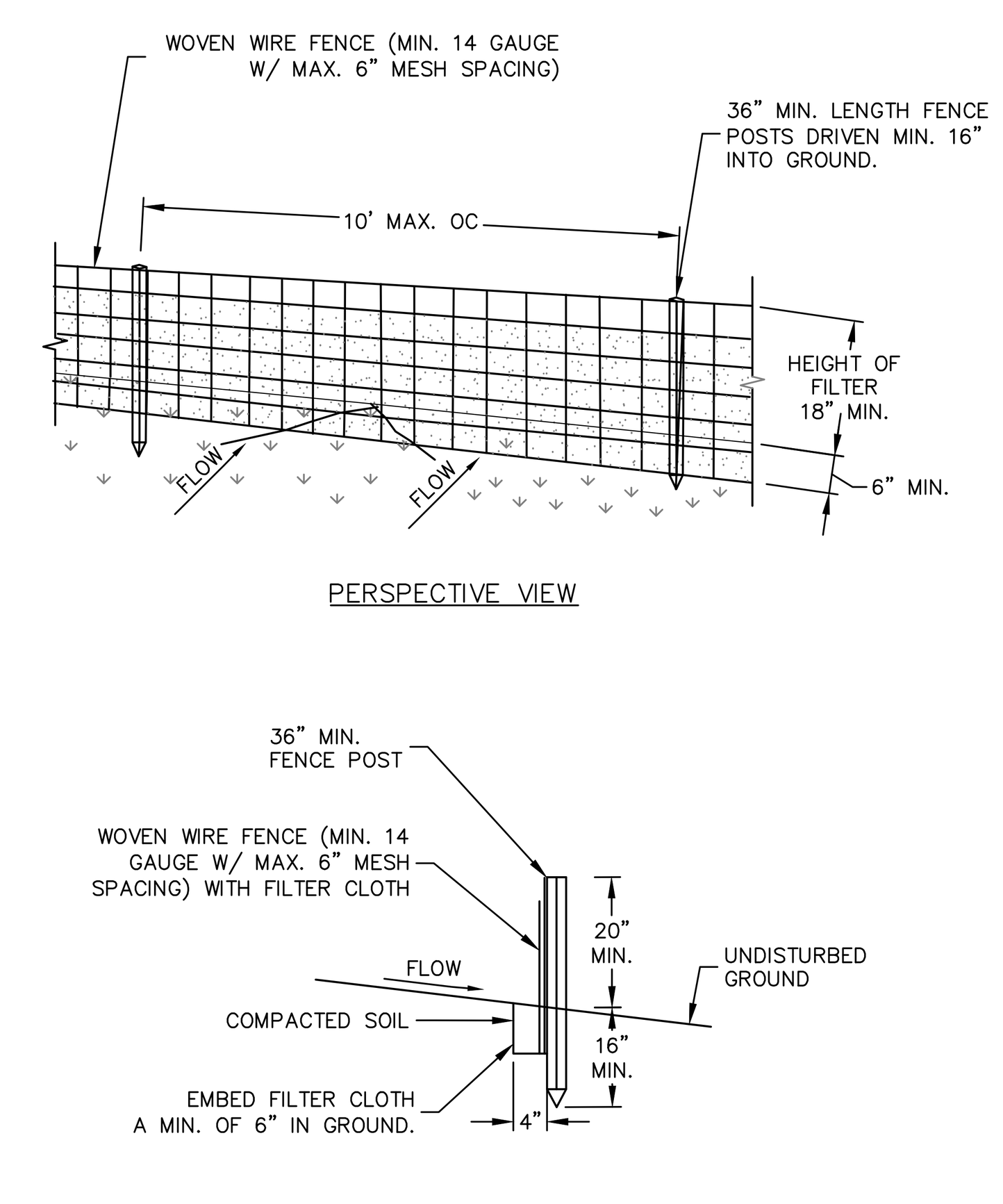
SCALE: NTS



NOTES:
1. CONCRETE WASHOUT SIGN TO BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. REMOVE HARDEN CONCRETE WHEN WITHIN 4" FROM TOP OF STRUCTURE.
3. CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITIES ARE TWO-THIRDS FULL.
4. LINERS, HAY BALES, ETC. SHALL BE INSPECTED FOR DAMAGE. ANY DAMAGE SHALL BE REPAIR PROMPTLY.

ABOVE GROUND TEMPORARY CONCRETE WASHOUT FACILITY

SCALE: NTS



CONSTRUCTION SPECIFICATIONS:
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER "T" OR "U" TYPE, OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 14 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
4. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
5. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT THAT MEETS THE MINIMUM REQUIREMENTS SHOWN.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

DETAIL NOTES:
1. INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL ("THE BLUE BOOK").
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE, BUT AT LEAST 10 FEET FROM THE TOE OF A SLOPE STEEPER THAN 3H:1V, TO ALLOW FOR MAINTENANCE AND ROLL DOWN. THE AREA BEYOND THE FENCE MUST BE UNDISTURBED OR STABILIZED.
3. THE TYPE OF SILT FENCE SPECIFIED FOR EACH LOCATION ON THE PLAN SHALL NOT EXCEED THE MAXIMUM SLOPE LENGTH AND MAXIMUM FENCE LENGTH REQUIREMENTS SHOWN IN THE TABLE BELOW. IF A TYPE SILT FENCE IS NOT SPECIFIED ON THE PLANS, THE CRITERIA FOR STANDARD SILT FENCE CAN BE APPLIED.
4. SILT FENCE SHALL BE REMOVED AS SOON AS THE DISTURBED AREA HAS ACHIEVED FINAL STABILIZATION.

		SLOPE LENGTH/FENCE LENGTH (FT.)		
SLOPE	STEEPNESS	STANDARD	REINFORCED	SUPER
<2%	<50:1	300/1500	N/A	N/A
2-10%	50:1 TO 10:1	125/1000	250/2000	300/2500
10-20%	10:1 TO 5:1	100/750	150/1000	200/1000
20-33%	5:1 TO 3:1	60/500	80/750	100/1000
33-50%	3:1 TO 2:1	40/250	70/350	100/500
>50%	>2:1	20/125	30/175	50/250

SILT FENCE

SCALE: NTS

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN
DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

SIGNATURE W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303
10/10/2023
DATE SIGNED

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
EROSION & SEDIMENT CONTROL DETAILS

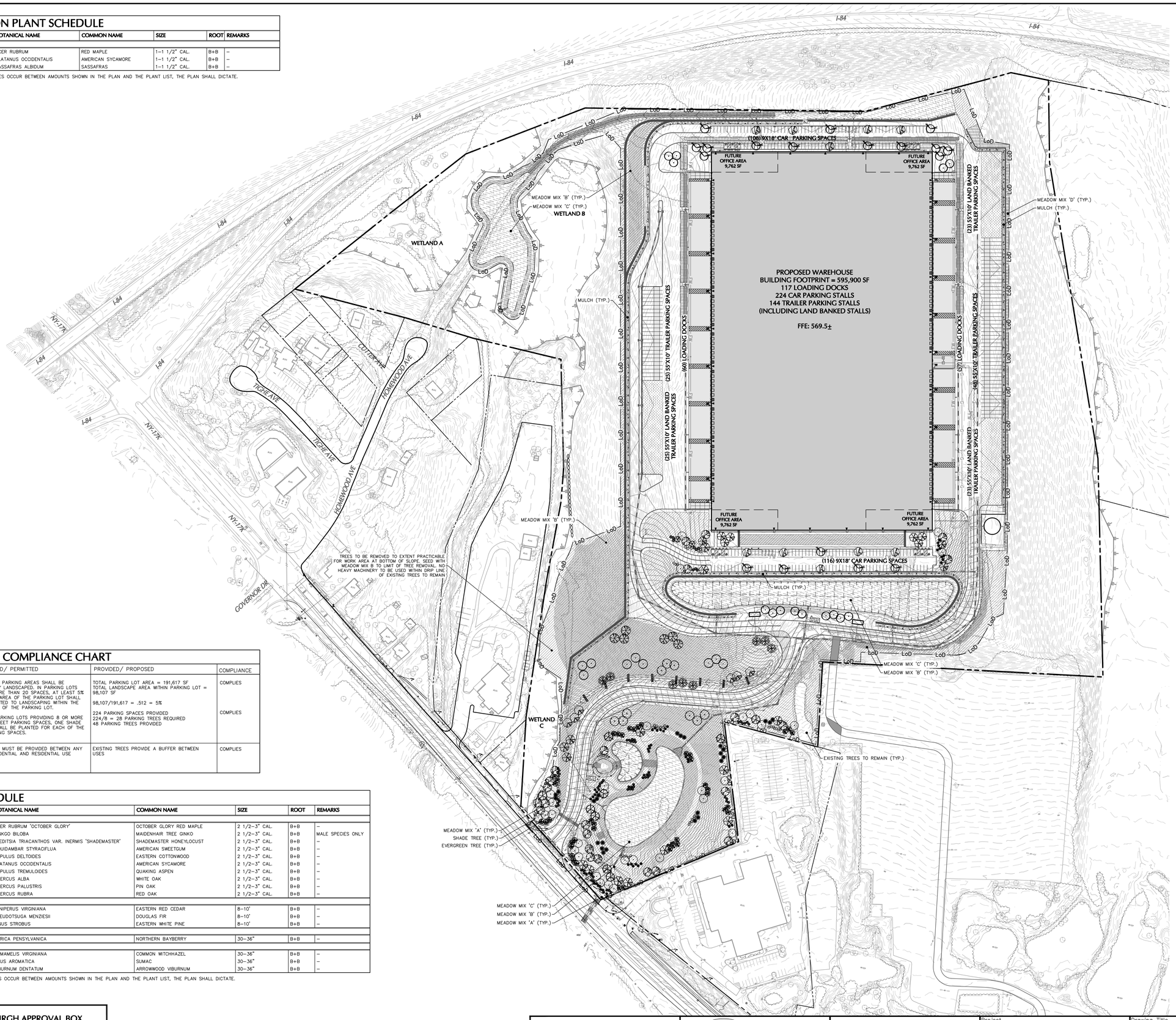
Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By MF
Drawing No. CS507
Sheet 37 of 45

Date: 10/10/2023 Time: 16:41 User: brchambers Style Table: Langan.stb Layout: CS506 Document Code: 190063302-0501-CS501-0107

RESTORATION PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREE(S)						
*AR	9	ACER RUBRUM	RED MAPLE	1–1 1/2" CAL.	B+B	–
*PLO	9	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	1–1 1/2" CAL.	B+B	–
*SA	6	SASSAFRAS ALBIDUM	SASSAFRAS	1–1 1/2" CAL.	B+B	–

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.



ORDINANCE COMPLIANCE CHART

SECTION	REQUIRED/ PERMITTED	PROVIDED/ PROPOSED	COMPLIANCE
185–13(D.9)(A)	ALL OPEN PARKING AREAS SHALL BE SUITABLY LANDSCAPED. IN PARKING LOTS WITH MORE THAN 20 SPACES, AT LEAST 5% OF THE AREA OF THE PARKING LOT SHALL BE DEVOTED TO LANDSCAPING WITHIN THE INTERIOR OF THE PARKING LOT. IN ALL PARKING LOTS PROVIDING 8 OR MORE OFF–STREET PARKING SPACES, ONE SHADE TREE SHALL BE PLANTED FOR EACH OF THE 8 PARKING SPACES.	TOTAL PARKING LOT AREA = 191,617 SF TOTAL LANDSCAPE AREA WITHIN PARKING LOT = 98,107 SF 98,107/191,617 = .512 = 5% 224 PARKING SPACES PROVIDED 224/8 = 28 PARKING TREES REQUIRED 48 PARKING TREES PROVIDED	COMPLIES COMPLIES
185–21(C.1)	A BUFFER MUST BE PROVIDED BETWEEN ANY NONRESIDENTIAL AND RESIDENTIAL USE	EXISTING TREES PROVIDE A BUFFER BETWEEN USES	COMPLIES

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREE(S)						
AROG	11	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2–3" CAL.	B+B	–
GB	18	GINKGO BILOBA	MAIDENHAIR TREE GINKO	2 1/2–3" CAL.	B+B	MALE SPECIES ONLY
GTIS	9	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2 1/2–3" CAL.	B+B	–
LST	10	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 1/2–3" CAL.	B+B	–
PDS	6	POPULUS DELTOIDES	EASTERN COTTONWOOD	2 1/2–3" CAL.	B+B	–
PLO	14	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2 1/2–3" CAL.	B+B	–
PPT	14	POPULUS TREMULOIDES	QUAKING ASPEN	2 1/2–3" CAL.	B+B	–
QA	23	QUERCUS ALBA	WHITE OAK	2 1/2–3" CAL.	B+B	–
QP	14	QUERCUS PALUSTRIS	PIN OAK	2 1/2–3" CAL.	B+B	–
QR	29	QUERCUS RUBRA	RED OAK	2 1/2–3" CAL.	B+B	–
EVERGREEN TREE(S)						
JV	28	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8–10'	B+B	–
PM	25	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	8–10'	B+B	–
PS	12	PINUS STROBUS	EASTERN WHITE PINE	8–10'	B+B	–
EVERGREEN SHRUB(S)						
MP	9	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	30–36"	B+B	–
DECIDUOUS SHRUB(S)						
HVCW	49	HAMAMELIS VIRGINIANA	COMMON WITCHHAZEL	30–36"	B+B	–
RA	51	RHUS AROMATICA	SUMAC	30–36"	B+B	–
VD	59	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	30–36"	B+B	–

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TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

100 0 50 100
SCALE IN FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

REGISTERED LANDSCAPE ARCHITECT MICHAEL HUNTON 2926

SIGNATURE — MICHAEL HUNTON, RLA — DATE SIGNED 10/10/2023
NY REGISTERED LANDSCAPE ARCHITECT
Lic. No. 2926

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
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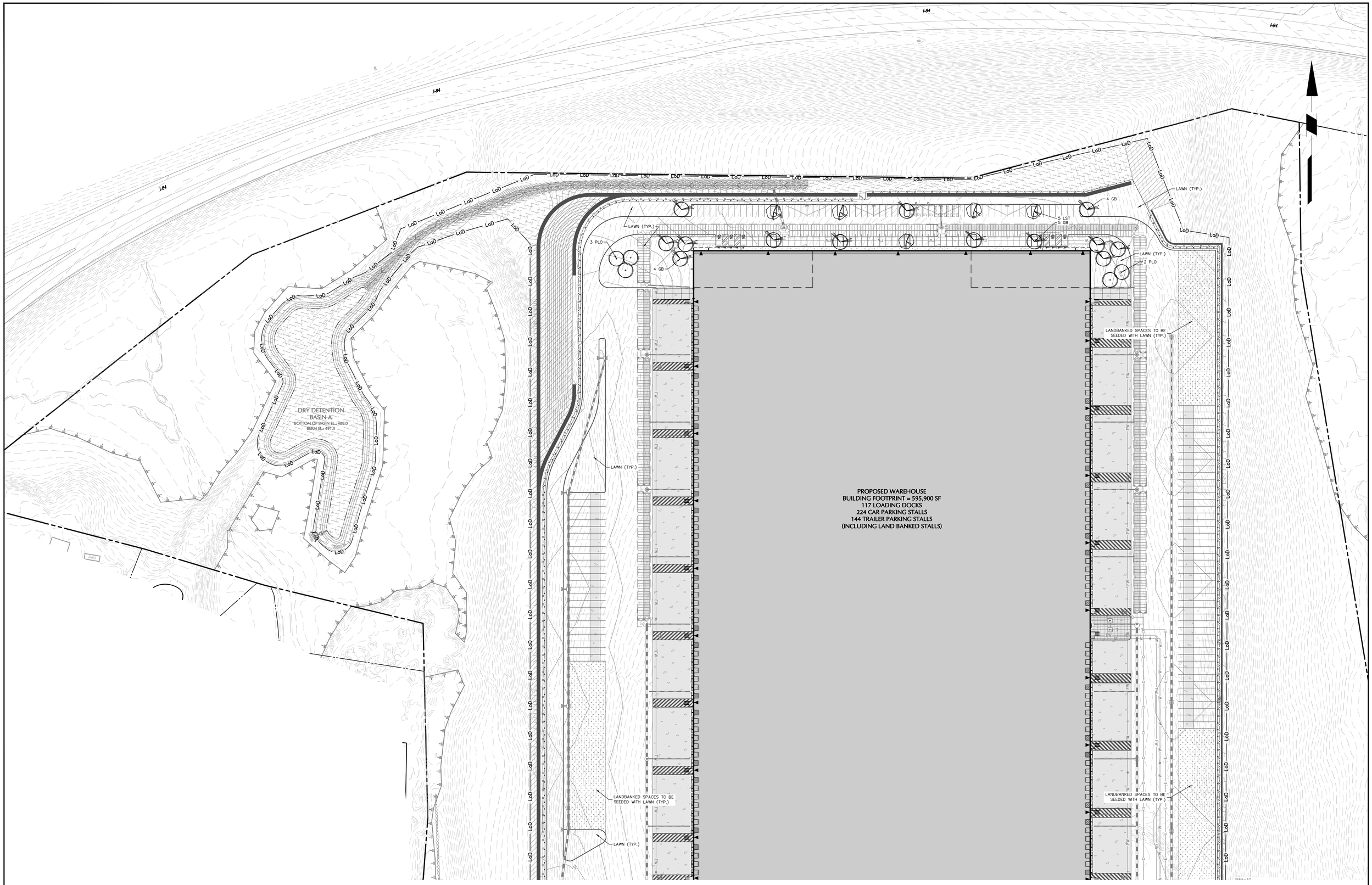
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
OVERALL PLANTING PLAN

Project No.	190063302
Date	JULY 10, 2023
Drawn By	RP
Checked By	MJ/MH

Drawing No.
LP100
Sheet 38 of 45

Date: 10/11/2023 Time: 12:30 User: lmcmahon Style Table: Langan.stb Layout: LP100 Document Code: 190063302-0501-LP101-0101



TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

50 0 25 50
SCALE: 1 INCH = 50 FEET

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REGISTERED LANDSCAPE ARCHITECT — MICHAEL HUNTON — No. 2926 — STATE OF NEW YORK

SIGNATURE — 10/10/2023 DATE SIGNED

MICHAEL HUNTON, RLA
NY REGISTERED LANDSCAPE ARCHITECT
Lic. No. 2926

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

Project
MATRIX I-84 DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY **NEW YORK**

Drawing Title
PLANTING PLAN (1 OF 2)

Project No. **190063302**
Date **JULY 10, 2023**
Drawn By **RP**
Checked By **MJ/MH**

Drawing No. **LP101**
Sheet **39** of **45**

Date: 10/10/2023 Time: 16:42 User: brchambers Style Table: Langan.stb Layout: LP101 Document Code: 190063302-0501-LP101-0102

FRONT ENTRY ENLARGEMENT
SCALE:1=30'

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
2	PLANNING BOARD SUBMISSION	10/12/2023
1	PLANNING BOARD SUBMISSION	8/28/2023

Revisions

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REGISTERED LANDSCAPE ARCHITECT MICHAEL HUNTON 2926 STATE OF NEW YORK

SIGNATURE

10/10/2023
DATE SIGNED

MICHAEL HUNTON, RLA
NY REGISTERED LANDSCAPE ARCHITECT
Lic. No. 2926

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

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ORANGE COUNTY NEW YORK

Drawing Title
PLANTING PLAN (2 OF 2)

Project No.	190063302
Date	JULY 10, 2023
Drawn By	RP
Checked By	MJ/MH

Drawing No.
LP102
Sheet 40 of 45

Date: 10/11/2023 Time: 12:32 User: lmcmahon Style Table: Langan.stb Layout: LP102 Document Code: 190063302-0501-LP101-0103

GENERAL LANDSCAPE PLANTING NOTES

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
2. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST.
3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
4. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
5. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES PRIOR TO THE START OF EXCAVATION ACTIVITIES. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
7. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER, TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
8. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
9. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE PLANTING, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
10. DELIVERY, STORAGE, AND HANDLING
    - A. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
    - B. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
    - C. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOTBALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8 INCHES INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
    - D. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
11. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.
12. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.
13. PER TOWN LANDSCAPE BOND REQUIREMENTS, NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF TWO YEARS FOLLOWING ACCEPTANCE BY THE OWNER. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. PLANTS WILL BE INSPECTED UPON COMPLETIION OF INSTALLATION ONCE A REQUEST FOR INSPECTION HAS BEEN SUBMITTED BY THE CONTRACTOR AND WILL BE INSPECTED AGAIN THE FOLLOWING FOUR GROWING SEASONS.
14. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.
15. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.
16. THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.
17. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
18. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.
19. ALL FENCE INSTALLATION SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.
20. FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND PLANTING PLAN THE GRAPHIC QUANTITY SHOWN SHALL GOVERN.
21. PLANT MATERIALS SHALL NOT BE PLANTED UNTIL THE FINISHED GRADING HAS BEEN COMPLETED.
22. ALL PLANT INSTALLATIONS SHALL BE COMPLETED EITHER BETWEEN APRIL 1 – JUNE 15 OR AUGUST 15 – NOVEMBER 1, UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. SEE LAWN SEEDING DATES IN SEEDING NOTES.

LAWN WATERING SCHEDULE

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RESEEDED AND REESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.

IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED PREPARATION, ATTAINING OPTIMAL pH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

1. SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS.
2. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED, WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.
3. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.
4. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.
5. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2-½ INCHES. AFTER 2 TO 3 WEEKS OF MOWING, CONTINUE TO WATER TO A 6 INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND SOIL MOISTURE SENSORS IF APPLICABLE.

LAWN SEED MIX

1. LAWN SEED MIX: LESCO GRASS SEED – ALL PRO TRANSITION MIX (3 TURF-TYPE TALL-FESCUE GRASSES)

   NOTES:
   A) SEED RATE:
      1) NEW ESTABLISHMENT: SEED AT A RATE OF 6-8 LBS/1000 SQ FT
      2) RENOVATION: 20-50% EXISTING COVER: 5-7 LBS/1000 SQ FT
         50-75% EXISTING COVER: 4-6 LBS/1000 SQ FT

2. GENERAL SEED NOTES:

   A) FINAL SEED MIXTURES, RATES, AND SPECIES TO BE DETERMINED BASED ON PROJECT LANDSCAPE ARCHITECT REVIEW.
   B) SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 15) OR THE FALL (SEPTEMBER 1 TO OCTOBER 15).
   C) ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A GLYPHOSATE-BASED HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
   D) IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL SEEDER WHERE APPLICABLE.
   E) THERE MUST BE CONTINUOUS SOIL MOISTURE FOR 4-6 WEEKS TO ALLOW FOR PROPER GERMINATION.

PLANTING SOIL SPECIFICATIONS

1. PLANTING SOIL, ALTERNATELY MAY BE REFERRED TO AS TOPSOIL, SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1/2" DIA., IT SHOULD HAVE A HIGH ORGANIC CONTENT SUITABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODORS.

2. PLANTING SOIL:

   REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOD, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANS AND SPECIFICATIONS.

   SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.

   CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, GUARANTEE, AND TRADEMARK OF THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS. SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARPAULIN UNTIL TIME OF ACTUAL USE.

   ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE, OR APPROVED EQUAL, PRIOR TO DELIVERY TO THE SITE. CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.

   A. THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION:
      a. PARTICLE SIZE ANALYSIS – LOAMY SAND: 60-75% SAND, 25-40% SILT, AND 5-15% CLAY.
      b. FERTILITY ANALYSIS: pH (5.5-6.5), SOLUBLE SALTS (LESS THAN 2 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM
      c. ORGANIC MATTER CONTENT: 2.5-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS
      d. TOXIC SUBSTANCE ANALYSIS
      e. MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED
      f. NOT MORE THAN 1% OF MATERIAL SHALL BE RETAINED BY A #4 SIEVE

3. BIORETENTION SOIL MIX
   a. BIORETENTION SOIL MIX IS TO BE USED IN ALL DETENTION BASINS AND RAIN GARDENS.
   b. MIX TO CONSIST OF 60% COARSE SAND, 40% SUBMITTED TOPSOIL/HORTICULTURAL SOIL MIX
   c. TOPSOIL/HORTICULTURAL SOIL MIX: REFER TO SPECIFICATIONS LISTED IN SECTION ABOVE

   d. COARSE SAND

   1) PARTICLE SIZE ANALYSIS

SIEVE	PERCENT PASSING
3/8 INCH (9.5 MM)	100
NO 4 (4.75 MM)	95-100
NO 8 (2.36 MM)	80-100
NO 16 (1.18 MM)	50-85
NO 30 (.60 MM)	25-60
NO 50 (.30 MM)	10-30
NO 100 (.15 MM)	2-10
NO 200 (0.75 MM	2-5

   2) CHEMICAL ANALYSIS
      PH: LOWER THAN 7.0
      TOXIC SUBSTANCE ANALYSIS

   e. FINAL BIORETENTION MIX

   1) PARTICLE SIZE ANALYSIS
      a) SAND – 80-85%
      b) SILT – 10-15%
      c) CLAY – 2-5%

      NOT MORE THAN 1% OF MATERIAL TO BE RETAINED BY A #4 SIEVE

   2) CHEMICAL ANALYSIS
      a) PH – 5.5-6.5
      b) SOLUBLE SALTS: LESS THAN 2 MMHO/CM

   3) CONTRACTOR TO SUBMIT TOXIC SUBSTANCE ANALYSIS AND MATERIAL DRAINAGE RATE IN ADDITION TO INFORMATION LISTED ABOVE. DRAINAGE RATE OF MATERIAL TO EXCEED 1 INCH/HOUR

4. SOIL AMENDMENT FOR PLANT MATERIAL:
   IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPOSTED, PH RANGE OF 6-8; MOISTURE CONTENT 35-55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE; SOLUBLE SALT CONTENT LESS THAN 0.5 MM HOS/CM; MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL.

   A. ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MOLD WITH 60-90% ORGANIC CONTENT BY WEIGHT. SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF 1 YR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2", WOOD CHIPS OVER 1".

   B. SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.

   C. AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS:
      a. GROUND LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED PENDING RESULTS OF SOIL ANALYSIS.
         – BRING pH LEVELS TO 5.5 MIN. TO 6.5 FOR NON-ERICACEOUS PLANTS
         – BRING pH LEVELS TO 4.5 MIN. TO 5.5 FOR ERICACEOUS PLANTS
      b. TERRA-SORB BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS.
      c. MYCOR-ROOT SAVER BY 'PLANT HEALTH CARE' 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.

5. WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.

6. CLEAN SOIL FILL IN LANDSCAPE AREAS:
   LANDSCAPE FILL MATERIAL, BELOW PLANTING SOILS, SHALL HAVE THE PHYSICAL PROPERTIES OF A SANDY LOAM WITH AN ORGANIC CONTENT OF LESS THAN 2% AND A PH BETWEEN 5 – 7.

7. SOIL PLACEMENT:
   A. CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS, TWELVE INCHES (12") MINIMUM DEPTH PLANTING SOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH PLANTING SOIL LAYER IN SHRUB AREAS, AND THIRTY-SIX INCHES (36") MINIMUM DEPTH PLANTING SOIL LAYER IN TREE PLANTING AREAS.

   B. SCARIFY AND/OR TILL COMPACTED SUBSOILS TO A MINIMUM DEPTH OF 6 INCHES. THOROUGHLY MIX A 6 INCH DEPTH LAYER OF PLANTING SOIL INTO THE SUBSOIL PRIOR TO PLACING PLANTING SOIL AT THE DEPTHS INDICATED ABOVE. PLANTING SOIL SHALL BE PLACED IN 12-18" LIFTS AND WATER THOROUGHLY BEFORE INSTALLING NEXT LIFT. REPEAT UNTIL DEPTHS AND FINISH GRADES HAVE BEEN ACHIEVED. NO SOILS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION.

   C. PLANTING SOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE PLANTING SOIL UTILIZED IN ALL PLANTING AREAS.

8. SOIL CONDITIONING:
   A. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER pH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED. GROUND LIMESTONE AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PENDING RESULTS OF SOIL ANALYSIS. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE, MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE.

   B. ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

   C. SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSIS):
      a. THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A pH HIGHER THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATTER AMENDMENT.

      b. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.

      c. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

MEADOW SEED NOTES

1. MEADOW SEED MIX A – ERNST SEED MIX ERNMX-123
   "NATIVE UPLAND WILDLIFE FORAGE & COVER MEADOW MIX"

34.9%	ANDROPOGON GERARDII, 'NIAGARA'	BIG BLUESTEM, 'NIAGARA'
27.0%	PANICUM VIRGATUM, 'CAVE-IN-ROCK'	SWITCHGRASS, 'CAVE-IN-ROCK'
21.0%	ELYMUS VIRGINICUS, 'MADISON'	VIRGINIA WILDRYE, 'MADISON'
9.0%	SORGHASTRUM NUTANS, 'TOMAHAWK'	INDIANGRASS, 'TOMAHAWK'
3.0%	RUDBECKIA HIRTA, PA ECOTYPE	BLACKEYED SUSAN, PA ECOTYPE
2.0%	CHAMAECRISTA FASCICULATA, PA ECOTYPE	PARTRIDGE PEA, PA ECOTYPE
1.5%	HELIOPSIS HELIANTHOIDES, PA ECOTYPE	OXEYE SUNFLOWER, PA ECOTYPE
1.0%	COREOPSIS TINCTORIA	PLAINS COREOPSIS
0.4%	DESMODIUM CANADENSE, PA ECOTYPE	SHOWY TICKTREFOIL, PA ECOTYPE
0.1%	ASCLEPIAS SYRIACA	COMMON MILKWEED
0.1%	MONARDA FISTULOSA, PA ECOTYPE	WILD BERGAMOT, PA ECOTYPE

   NOTES:
   SEED AT A RATE OF 20 LB/ACRE OF 100% PURE LIVE SEED

2. MEADOW SEED MIX B ERNST SEED MIX ERNMX-183 "NATIVE DETENTION AREA MIX"

32%	PANICUM CLANDESTINUM, 'TIOGA'	DEERTONGUE, 'TIOGA'
20%	CAREX VULPINOIDEA	FOX SEDGE
20%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
20%	PANICUM VIRGATUM, 'SHAWNEE'	SWITCHGRASS, 'SHAWNEE'
4%	AGROSTIS PERENNANS, ALBANY PINE BUSH	AUTUMN BENTGRASS, ALBANY PINE BUSH
2%	JUNCUS TENUIS	PATH RUSH
1%	JUNCUS EFFUSUS	SOFT RUSH
1%	PANICUM RIGIDULUM	REDTOP PANICGRASS

   NOTES:
   1. SEED AT A RATE OF 20 LBS/ACRE OF 100% PURE LIVE SEED.
   2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 30 LBS/ACRE.
   3. FOR FALL SEEDING, APPLY A NURSE CROP OF WINTER RYE AT A RATE OF 30 LBS/ACRE.

3. MEADOW SEED MIX C – ERNMX-181 "NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS"

31%	SORGHASTRUM NUTANS	INDIANGRASS
20%	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS
14%	ANDROPOGON GERARDII, 'NIAGARA'	BIG BLUESTEM 'NIAGARA'
10%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE
7%	ELUYMUS CANADENSIS	CANADA WILDRYE
4%	AGROSTIS PERENNANS	AUTUMN BENTGRASS
4%	PANICUM VIRGATUM 'CARTHAGE'	SWITCHGRASS, 'CARTHAGE'
3%	PANICUM CLANDESTINUM, TIOGA	DEERTONGUE, TIOGA
1.5%	ECHINACEA PURPUREA	PURPLE CONEFLOWER
1.3%	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
1.2%	HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER
1%	COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS
1%	RUDBECKIA HIRTA	BLACKEYED SUSAN
.3%	MONARDA FISTULOSA	WILD BERGAMOT
.2%	ASCLEPIAS SYRIACA	COMMON MILKWEED
.2%	SOLIDAGO RUGOSA	WRINKLELEAF GOLDENROD
.1%	ASTER LATERIFLORUS	CALICO ASTER
.1%	ASTER PILOSUS	HEATH ASTER

   NOTES:
   SEED AT A RATE OF 60 LBS/ACRE OF 100% PURE LIVE SEED.

4. MEADOW SEED MIX D ERNST SEED MIX ERNMX-140 "PARTIALLY SHADED AREA MIX"

20.00%	ELYMUS HYSTRIX	BOTTLEBRUSH GRASS
20.00%	ELYMUS VIRGINICUS	VIRGINIA WILD RYE
10.00%	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
6.00%	PENSTEMON DIGITALIS	TALL WHITE BEARD TONGUE
6.00%	ZIZIA AUREA	GOLDEN ALEXANDERS
5.00%	CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
5.00%	PANICUM CLANDESTINUM	DEER TONGUE, 'TIOGA'
5.00%	RUDBECKIA HIRTA	BLACK EYED SUSAN
3.00%	ASTER PRENANTHOIDES	ZIGZAG ASTER
2.00%	AGROSTIS PERENNANS	AUTUMN BENTGRASS
2.00%	GEUM CANADENSE	WHITE AVENS
2.00%	HELIOPSIS HELIANTHOIDES	OX EYE SUNFLOWER
2.00%	MONARDA FISTULOSA	WILD BERGAMOT
2.00%	MONARDA MEDIA	PURPLE BERGAMOT
2.00%	SOLIDAGO BICOLOR	WHITE (SILVER ROD) GOLDENROD
2.00%	VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED
1.00%	PENSTEMON LAEVIGATUS	APPALACHIAN BEARD TONGUE

   NOTES:
   1. SEED AT A RATE OF 20 LBS./ACRE OF 100% PURE LIVE SEED.
   2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 30 LBS./ ACRE.
   3. FOR FALL SEEDING, APPLY A NURSE CROP OF WINTER RYE AT A RATE OF 30 LBS./ ACRE.

GENERAL SEEDING NOTES:

1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 15) OR THE FALL (SEPTEMBER 1 TO OCTOBER 15).
2. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
3. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE.
4. THERE MUST BE CONTINUOUS SOIL MOISTURE FOR 4-6 WEEKS TO ALLOW PROPER GERMINATION.
5. NO DRILL SEEDING IS TO TAKE PLACE UNDER EXISTING TREES TO REMAIN.

WEED CONTROL / MAINTENANCE

1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NOT MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH. IF SEED MIX IS NOT WELL ESTABLISHED AFTER THE FIRST GROWING SEASON, OVERSEEDING MUST BE COMPLETED IN THE NEXT SEEDING WINDOW. OVERSEEDING IS TO BE COMPLETED IN ALL AREAS THAT ARE NOT ESTABLISHED.
3. MOW IN DETENTION BASIN AND WETLAND TRANSITION AREAS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE FOR DETENTION BASIN AND WETLAND TRANSITION AREAS SHALL OCCUR DURING LATE SUMMER (JULY 15 – AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN DETENTION BASIN, WETLAND OR WETLAND TRANSITION AREAS AFTER ESTABLISHMENT OF MEADOW MIX.

LANDSCAPE MAINTENANCE NOTES

1. MAINTENANCE OPERATIONS BEFORE APPROVAL:

   A. PLANT CARE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS SATISFACTORILY INSTALLED AND SHALL CONTINUE THROUGHOUT THE LIFE OF THE CONTRACT UNTIL FINAL ACCEPTANCE OF THE PROJECT.

   B. CARE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND GUYS AS ORIGINALLY INSTALLED, WATERING WHEN NEEDED OR DIRECTED, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.

   C. CONTRACTOR SHALL REMOVE AND REPLACE ALL DEAD, DEFECTIVE AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE.

2. MAINTENANCE DURING CONSTRUCTION:

   A. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING. PLANTS SHALL BE WATERED, MULCHED, WEEDED, PRUNED, SPRAYED, FERTILIZED, CULTIVATED, AND OTHERWISE MAINTAINED AND PROTECTED UNTIL PROVISIONAL ACCEPTANCE. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE AND POSITION, PLANTING SAUCER RESTORED AND DEAD MATERIAL REMOVED. STAKES AND WIRES SHALL BE TIGHTENED AND REPAIRED. DEFECTIVE WORK SHALL BE CORRECTED AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON PERMIT.

   B. IF A SUBSTANTIAL NUMBER OF PLANTS ARE SICKLY OR DEAD AT THE TIME OF INSPECTION, ACCEPTANCE SHALL NOT BE GRANTED AND THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF ALL PLANTS SHALL BE EXTENDED FROM THE TIME REPLACEMENTS ARE MADE OR EXISTING PLANTS ARE DEEMED ACCEPTABLE BY THE LANDSCAPE ARCHITECT.

   C. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE SPECIFIED ON THE PLANT LIST OR THAT WHICH WAS TO REMAIN OR BE RELOCATED. THEY SHALL BE FURNISHED AND PLANTED AS SPECIFIED. THE COST SHALL BE BORNE BY THE CONTRACTOR. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART, VANDALISM, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, ETC., AND LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.

   D. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS AFTER INSPECTION AND PROVISIONAL ACCEPTANCE.

   E. AT THE END OF THE ESTABLISHMENT PERIOD, INSPECTION SHALL BE MADE AGAIN. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR UNSATISFACTORY TO THE LANDSCAPE ARCHITECT OR OWNER SHALL BE REMOVED FROM THE SITE AND REPLACED DURING THE NORMAL PLANTING SEASON.

3. LAWN MAINTENANCE:

   A. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH PORTION OF LAWN IS PLANTED AND CONTINUE FOR 8 WEEKS AFTER ALL LAWN PLANTING IS COMPLETED.

   B. WATER TO KEEP SURFACE SOIL MOIST, REPAIR WASHED OUT AREAS BY FILLING WITH TOPSOIL, LIMING, FERTILIZING AND RE-SEEDING; MOW TO 2 1/2 – 3 INCHES AFTER GRASS REACHES 3 1/2 INCHES IN HEIGHT, AND MOW FREQUENTLY ENOUGH TO KEEP GRASS FROM EXCEEDING 3 1/2 INCHES. WEED BY LOCAL SPOT APPLICATION OF SELECTIVE HERBICIDE ONLY AFTER GRASS IS WELL-ESTABLISHED.

TREE PROTECTION NOTES:

1. ALL EXISTING TREES WITHIN THE LIMITS OF TREE PROTECTION FENCING. SHALL BE PROTECTED THOUGHOUT THE DURATION OF WORK. TREE PROTECTION FENCING SHALL BE INSTALLED AT THE DRIP-LINE OF THE PROTECTED TREE UNLESS CONDITIONS WARRANT THE FENCE TO BE LOCATED WITHIN THE LIMIT OF BRANCHING. THE PROJECT LANDSCAPE ARCHITECT TO APPROVE THE LOCATION OF ALL FENCING PRIOR TO EXCAVATION.
2. TREE PROTECTION PLANKING SHALL BE INSTALLED AROUND ALL EXISTING TREES AS NOTED ON THIS DRAWING. REFER TO DETAIL ON THIS SHEET.
3. TREE PROTECTION FENCING SHALL BE MAINTAINED TO PROTECT TREES AT ALL TIMES. ANY DAMAGED FENCING SHALL BE IMMEDIATELY REPLACED WHEN DAMAGED.
4. IF TREE PROTECTION FENCING NEEDS TO BE MOVED OR BREACHED DUE TO TEMPORARY CONSTRUCTION ACTIVITY WITHIN THE TREE PROTECTION ZONE, THE FENCING WILL BE RESET TO ITS ORIGINAL LOCATION IMMEDIATELY AFTER CONSTRUCTION WITHIN THE TREE PROTECTION ZONE IS COMPLETE.
5. DEMOLITION WORK ADJACENT TO PROTECTED TREES SHALL BE PERFORMED BY NON-MECHANICAL METHODS. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN, OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS.
6. ALL EXPOSED TREE ROOTS SHALL BE THOROUGHLY IRRIGATED ON A DAILY BASIS AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
7. ALL WORK TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF EITHER THE OWNER'S REPRESENTATIVE OR THE PROJECT LANDSCAPE ARCHITECT.

1 TREE PROTECTION FENCE AND PLANKING

NTS

GENERAL NOTE:

DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS, THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. IN ADDITION, IMPORTED OR AMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.

PLANTING SOIL WITHIN AREAS OF CUT OR RAISED GRADE

PLANTING SOIL WITHIN AREAS OF UNCHANGED GRADE

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO SEND SAMPLES OF EXISTING SOILS INTENDED FOR USE IN PLANTING AREAS (1 PER 500 CY.) TO TESTING LABORATORY OR UNIVERSITY COOPERATIVE EXTENSION FOR TESTING. ALL TESTING COSTS ARE AT THE CONTRACTOR'S EXPENSE.
2. RECYCLED CRUSHED CONCRETE AND ASPHALT MILLINGS SHALL NOT BE PLACED WITHIN 2'-6" OF FINISH GRADE IN PROPOSED LANDSCAPE AREAS.
3. IMPORTED FILL SHALL CONTAIN NO CONTAMINATION IN EXCEEDENCE OF THE APPLICABLE STATE ENVIRONMENTAL STANDARDS AND MEET THE ENVIRONMENTAL REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF COMPLIANCE PRIOR TO DELIVERY OF ANY FILL TO THE SITE.
4. CONTRACTOR TO LIGHTLY COMPACT ALL PLACED PLANTING SOILS AND RAISE GRADES ACCORDINGLY TO ALLOW FOR FUTURE SETTLEMENT OF PLANTING SOILS (TYP.)
5. NO STONES, WOOD CHIPS, OR DEBRIS LARGER THAN 1/2" SHALL BE ACCEPTABLE WITHIN PLANTING AREAS.

2 PLANTING SOIL

NTS

3 TREE PLANTING

NTS

NOTES:
1. ALL SHRUBS TO BE SET PLUMB.
2. REFER TO LANDSCAPE PLAN FOR SPACING OF INDIVIDUAL PLANTS.
3. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM PLANTS PRIOR TO PLANTING.

4 SHRUB AND ORNAMENTAL GRASS PLANTING

NTS

5 EVERGREEN TREE PLANTING

NTS

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN
DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

2926
SIGNATURE
MICHAEL HUNTON, RLA
NY REGISTERED LANDSCAPE ARCHITECT
Lic. No. 2926
10/10/2023
DATE SIGNED

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
T: 914.323.7400 F: 914.323.7401 www.langan.com

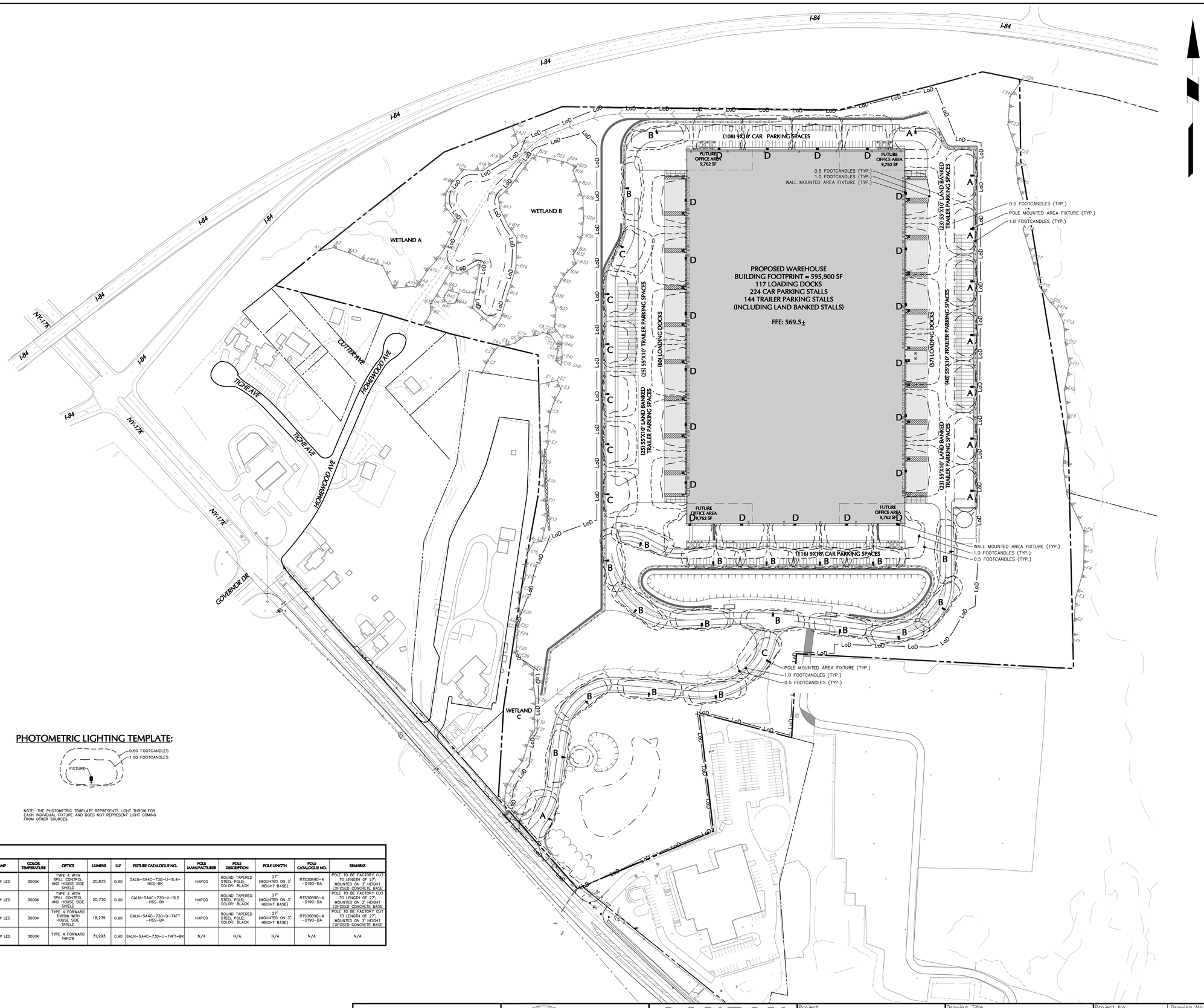
Project
MATRIX I-84
DISTRIBUTION CENTER
SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
PLANTING NOTES & DETAILS

Project No. 190063302
Date JULY 10, 2023
Drawn By RP
Checked By MJ/MH

Drawing No.
LP501

Sheet 41 of 45



STATISTICS

DESCRIPTION	AVG.	MAX.	MIN.	MAX./MIN.	AVG./MIN.
CAR PARKING NORTH	1.77 fc	3.5 fc	0.5 fc	7.00:1	3.54:1
CAR PARKING SOUTH	2.55 fc	4.7 fc	0.9 fc	5.22:1	2.83:1
DRIVEWAY	1.37 fc	5.2 fc	0.5 fc	10.40:1	2.74:1
SIDEWALK	2.52 fc	4.6 fc	1.0 fc	4.60:1	2.52:1
TRUCK LOADING EAST	1.86 fc	4.2 fc	0.5 fc	8.40:1	3.72:1
TRUCK LOADING WEST	1.85 fc	4.1 fc	0.5 fc	8.20:1	3.70:1
TRUCK STORAGE EAST	1.73 fc	3.8 fc	0.5 fc	7.60:1	3.46:1
TRUCK STORAGE WEST	0.95 fc	1.5 fc	0.6 fc	2.50:1	1.58:1

NOTE:
1. LIGHT PHOTOMETRY AND CALCULATIONS FOR EXISTING LIGHTING ARE NOT INCLUDED IN THE ABOVE STATISTICS.

PHOTOMETRIC LIGHTING TEMPLATE:

NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE AND DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.

SITE LIGHTING SCHEDULE

SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	COLOR TEMPERATURE	OPTICS	LUMENS	LLF	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.	REMARKS
■•	A	10	COOPER	GALLEON II	SINGLE POLE MOUNTED AREA FIXTURE WITH HOUSE SIDE SHIELD COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 4 WITH SPILL CONTROL AND HOUSE SIDE SHIELD	20,835	0.90	GALN-SA4C-730-U-SL4-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30890-4-D190-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■•	B	19	COOPER	GALLEON II	SINGLE POLE MOUNTED AREA FIXTURE WITH HOUSE SIDE SHIELD COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 2 WITH SPILL CONTROL AND HOUSE SIDE SHIELD	20,730	0.90	GALN-SA4C-730-U-SL2-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30890-4-D190-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■•	C	6	COOPER	GALLEON II	SINGLE POLE MOUNTED AREA FIXTURE WITH HOUSE SIDE SHIELD COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 4 FORWARD THROW WITH HOUSE SIDE SHIELD	18,239	0.90	GALN-SA4C-730-U-T4FT-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30890-4-D190-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■	D	21	COOPER	GALLEON II	WALL MOUNTED AREA FIXTURE COLOR: BLACK	30'-0"	269W LED	3000K	TYPE 4 FORWARD THROW	31,993	0.90	GALN-SA4C-730-U-T4FT-BK	N/A	N/A	N/A	N/A	N/A

NOTE:
1. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES.
2. ALL POLE MOUNTED FIXTURES OVER 25' ARE TO RECEIVE VIBRATION DAMPENERS.

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

NOTE: SEE SHEET LL101 AND LL102 FOR ENLARGED LIGHTING PLANS. SEE SHEET LL501 FOR LIGHTING NOTES AND DETAILS

No.	Description	Date
2	PLANNING BOARD SUBMISSION	10/12/2023
1	PLANNING BOARD SUBMISSION	8/28/2023

Revisions

100 0 50 100
SCALE IN FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

REGISTERED LANDSCAPE ARCHITECT
MICHAEL HUNTON
NEW YORK
2926

SIGNATURE — 10/10/2023 DATE SIGNED

MICHAEL HUNTON, RLA
NY REGISTERED LANDSCAPE ARCHITECT
Lic. No. 2926

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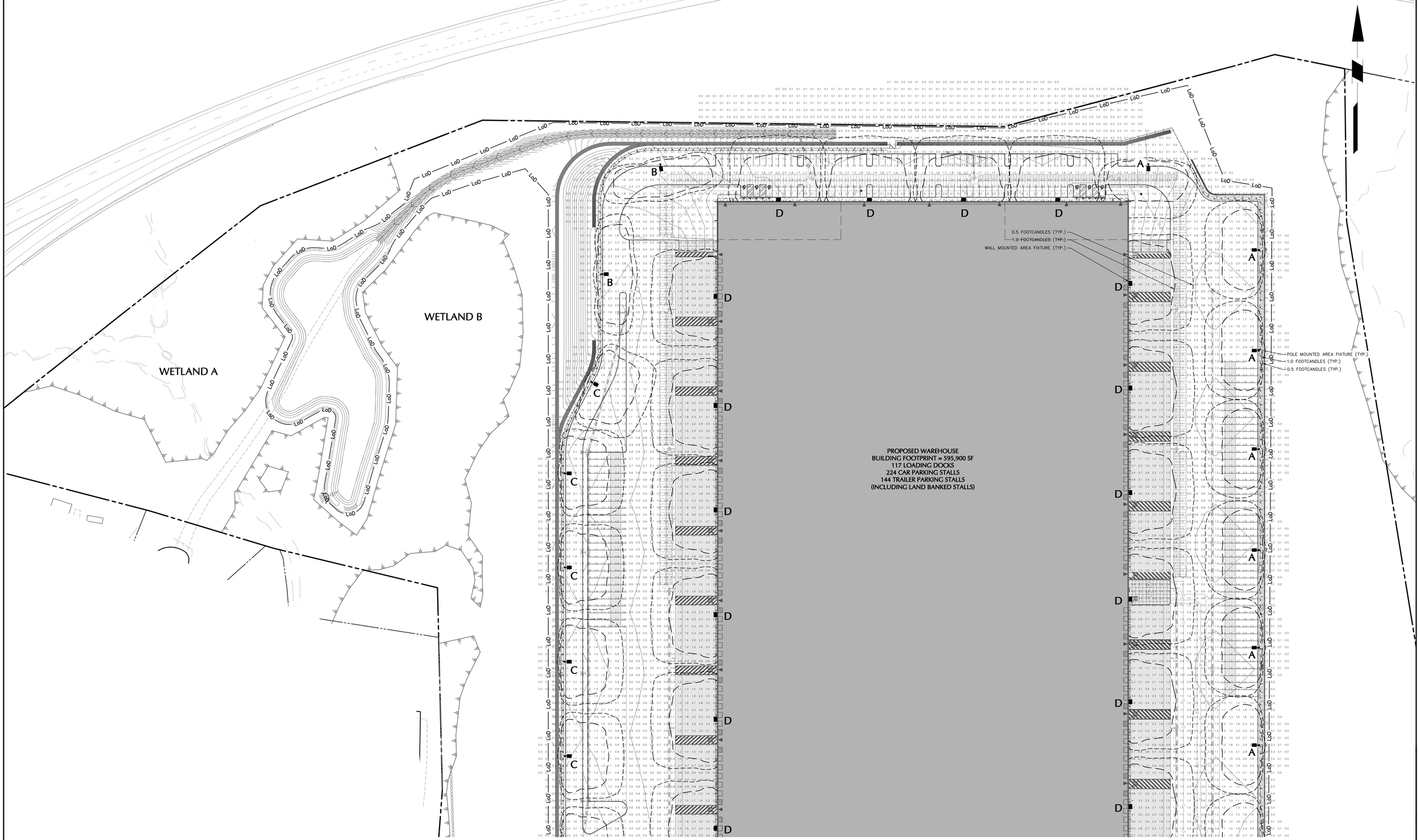
ORANGE COUNTY NEW YORK

Drawing Title
OVERALL SITE LIGHTING PLAN

Project No. 190063302
Date JULY 10, 2023
Drawn By LL
Checked By MJ/MH

Drawing No. LL100
Sheet 42 of 45

Date: 10/11/2023 Time: 12:37 User: lmcmahon Style Table: Langan.stb Layout: LL100 Document Code: 190063302-0501-LL101-0101



TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

NOTE: SEE SHEET LL100 FOR OVERALL LIGHTING PLAN, FIXTURE SCHEDULE AND STATISTICS. SEE SHEET LL101 AND LL102 FOR ENLARGED LIGHTING PLANS. SEE SHEET LL501 FOR LIGHTING NOTES AND DETAILS

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

50 0 25 50
SCALE: 1 INCH = 50 FEET

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REGISTERED LANDSCAPE ARCHITECT
MICHAEL HUNTON
No. 2926
STATE OF NEW YORK

SIGNATURE — MICHAEL HUNTON, RLA — DATE SIGNED 10/10/2023
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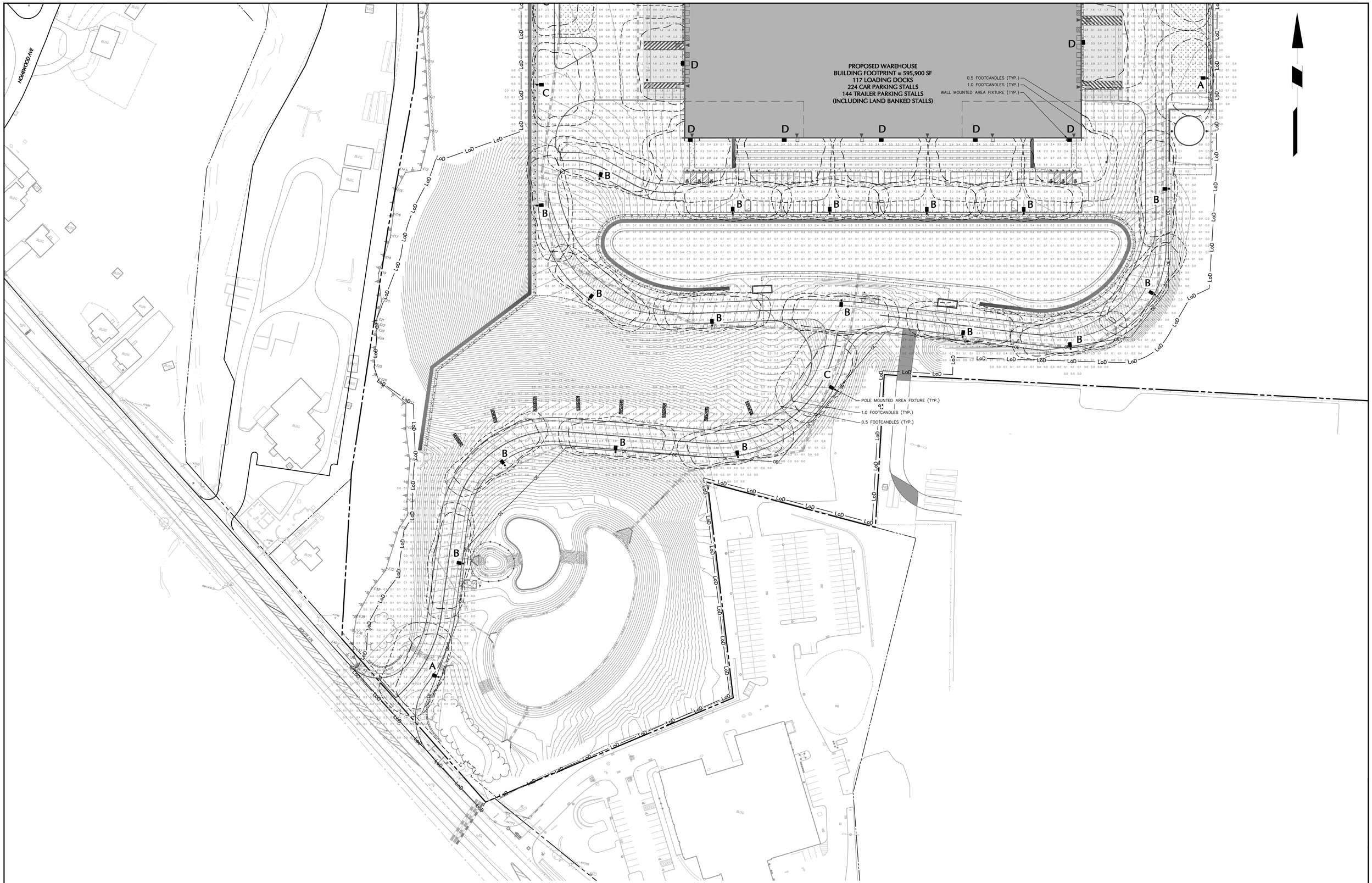
Drawing Title
SITE LIGHTING PLAN (1 of 2)

Project No.	190063302
Date	JULY 10, 2023
Drawn By	LL
Checked By	MJ/MH

Drawing No. LL101
Sheet 43 of 45

Date: 10/10/2023 Time: 16:44 User: brchambers Style Table: Langan.stb Layout: LL101 Document Code: 190063302-0501-LL101-0102



TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

NOTE: SEE SHEET LL100 FOR OVERALL LIGHTING PLAN, FIXTURE SCHEDULE AND STATISTICS. SEE SHEET LL101 AND LL102 FOR ENLARGED LIGHTING PLANS. SEE SHEET LL501 FOR LIGHTING NOTES AND DETAILS

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	2
8/28/2023	PLANNING BOARD SUBMISSION	1

Revisions

SCALE: 1 INCH = 50 FEET

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REGISTERED LANDSCAPE ARCHITECT — MICHAEL HUNTON — 2926

SIGNATURE — 10/10/2023 DATE SIGNED

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ORANGE COUNTY NEW YORK

Drawing Title
SITE LIGHTING PLAN (2 OF 2)

Project No. 190063302
Date JULY 10, 2023
Drawn By LL
Checked By MJ/MH

Drawing No. **LL102**
Sheet 44 of 45

Date: 10/11/2023 Time: 12:39 User: lmcmahon Style Table: Langan.stb Layout: LL102 Document Code: 190063302-0501-LL101-0103

SITE LIGHTING NOTES:

GENERAL

1. POINT–BY–POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP/ DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS–BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS.NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE PLANS.
2. LIGHT LEVEL POINT SPACING IS 10 FT. LEFT TO RIGHT AND 10 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.

COMPLIANCE

3. ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
4. LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

COORDINATION

5. CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
6. REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
7. CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
8. INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.
9. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.

POLES AND FOOTINGS

10. PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST–IN–PLACE CONCRETE. THE USE OF ALTERNATE LIGHTING FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.
11. CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.
12. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
13. ALL POLES HIGHER THAN 25 FT. SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

WALL MOUNTED FIXTURES

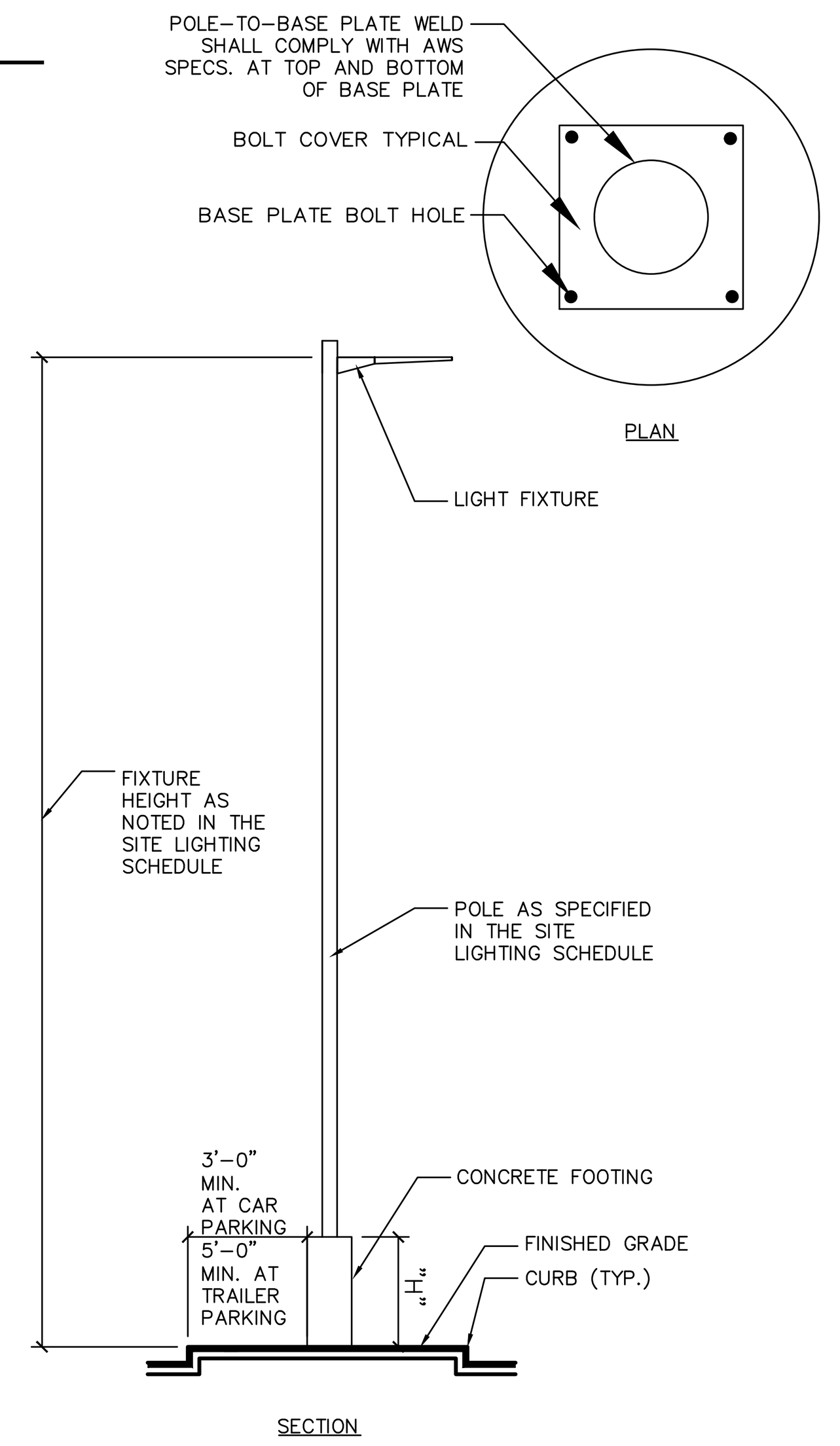
14. CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.
15. INSTALLATION AND ELECTRICAL CONNECTIONS FOR WALL MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, UTILITY AND SITE PLANS AND TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

ADJUSTMENT AND INSPECTION

16. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
17. CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.
18. CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE PLANS.

REQUIREMENTS FOR ALTERNATES

19. ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
    A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR
    B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOFOOTCANDLE, THE SYSTEM'S PERFORMANCE.
    C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS; IES CALCULATIONS, POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND UNIFORMITY RATIOS, SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.
    D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
    E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
    F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.

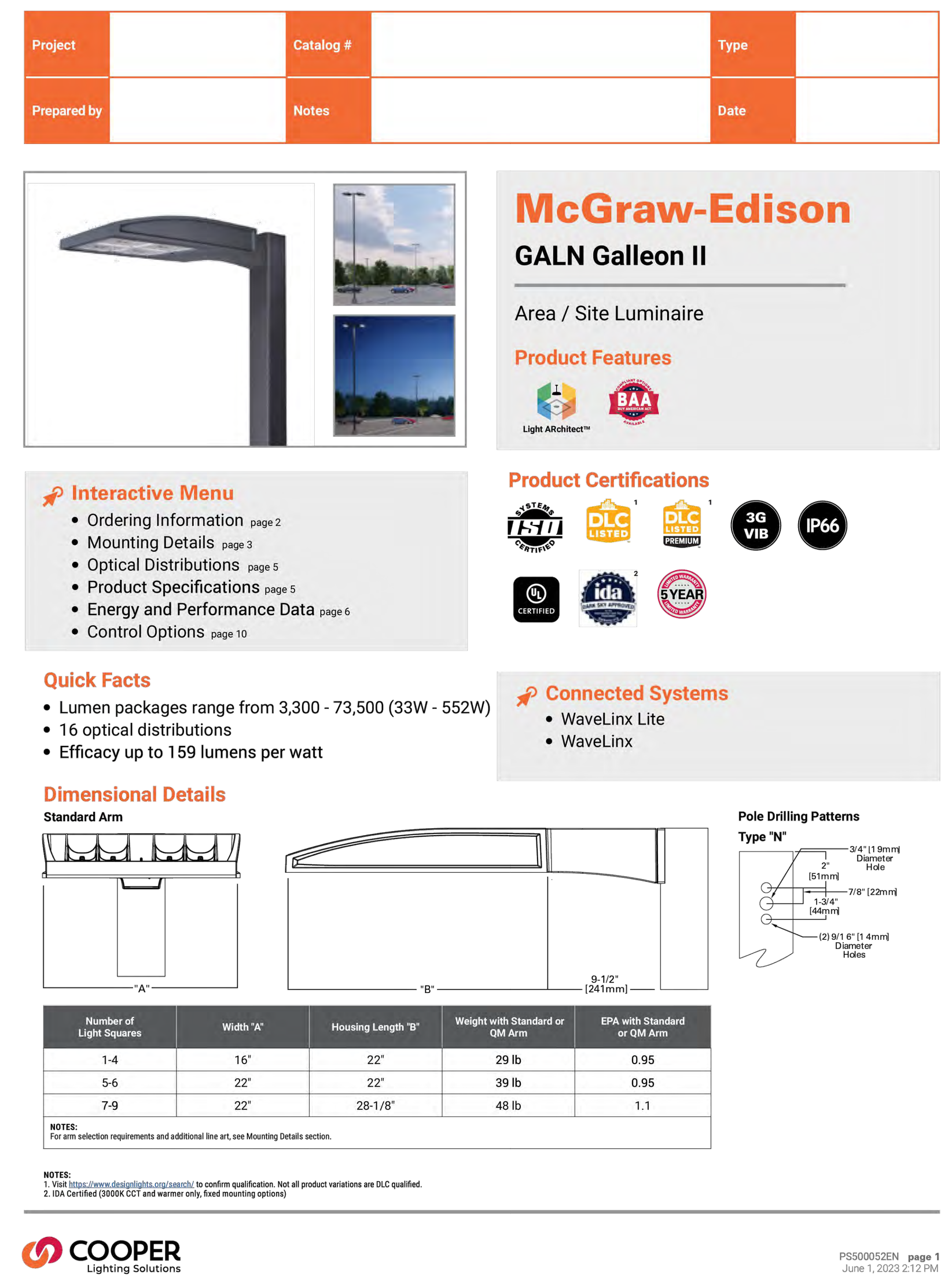


NOTES:

1. ALL LIGHT POLES TO RECEIVE FACTORY INSTALLED VIBRATION DAMPENERS.
2. REFER TO THE PLANS FOR THE DIMENSION FROM FACE OF CURB TO FOOTING AT TRAILER PARKING.

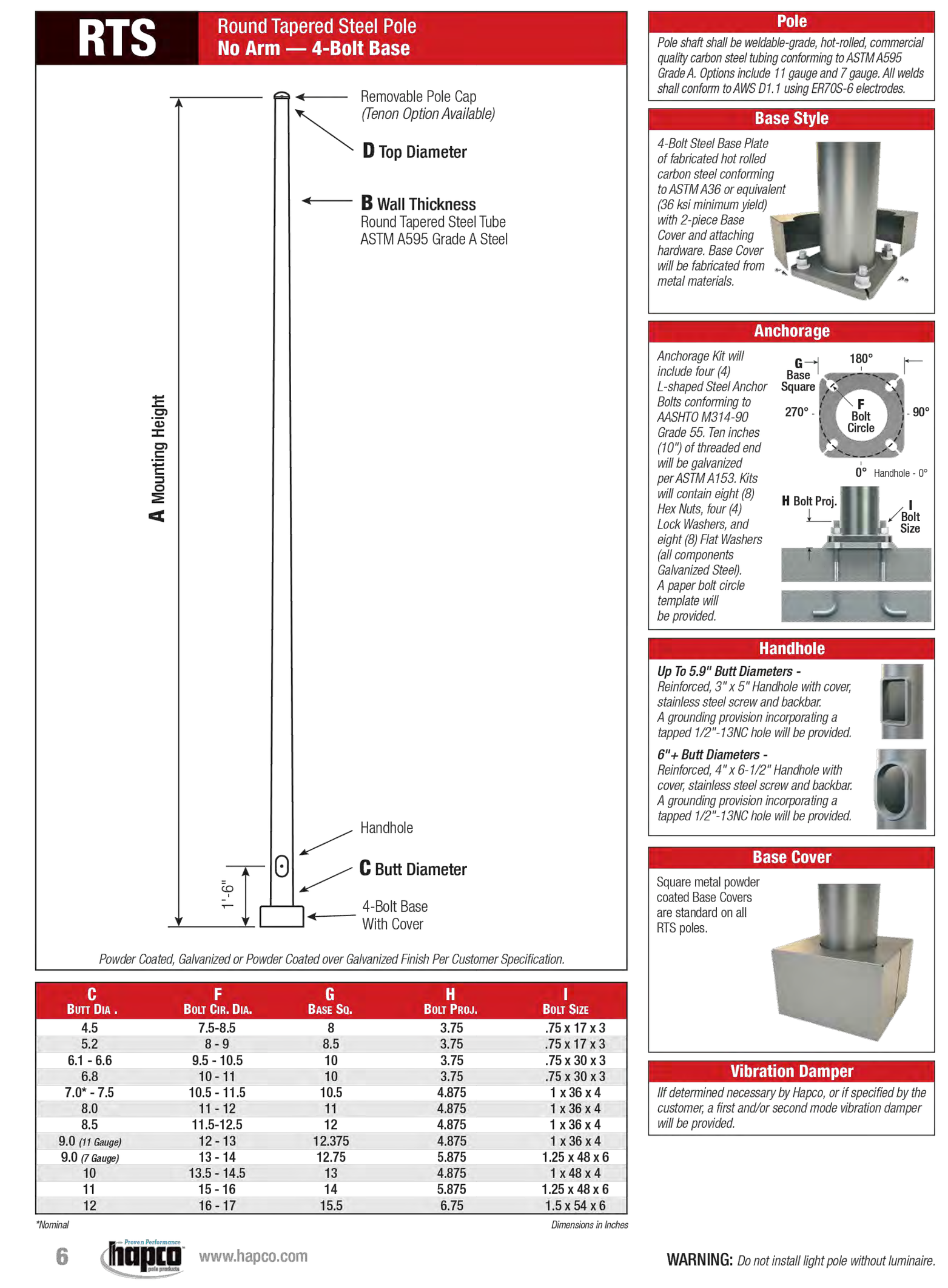
1 LIGHT FIXTURE AND POLE

NTS



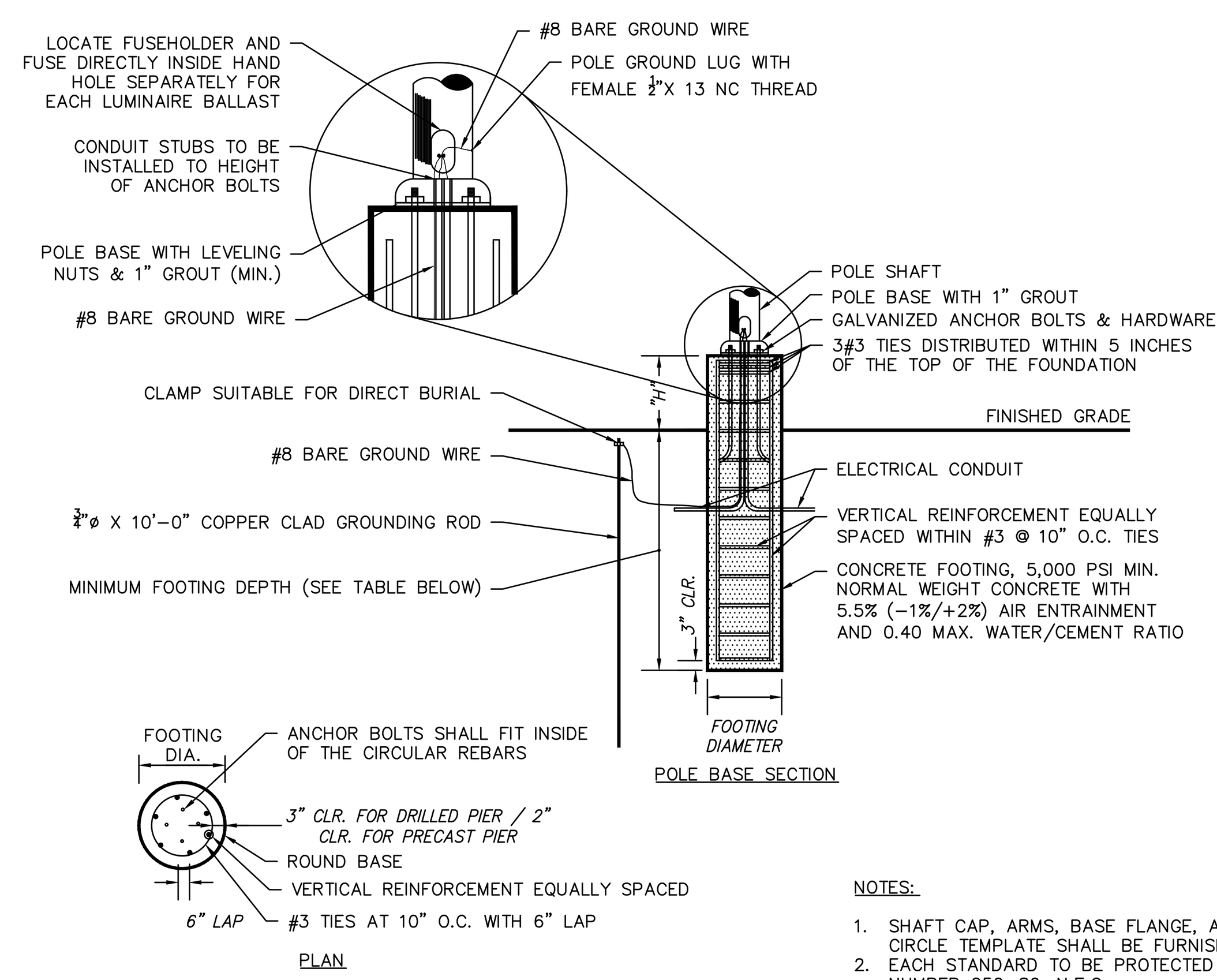
2 LIGHT FIXTURE

NTS



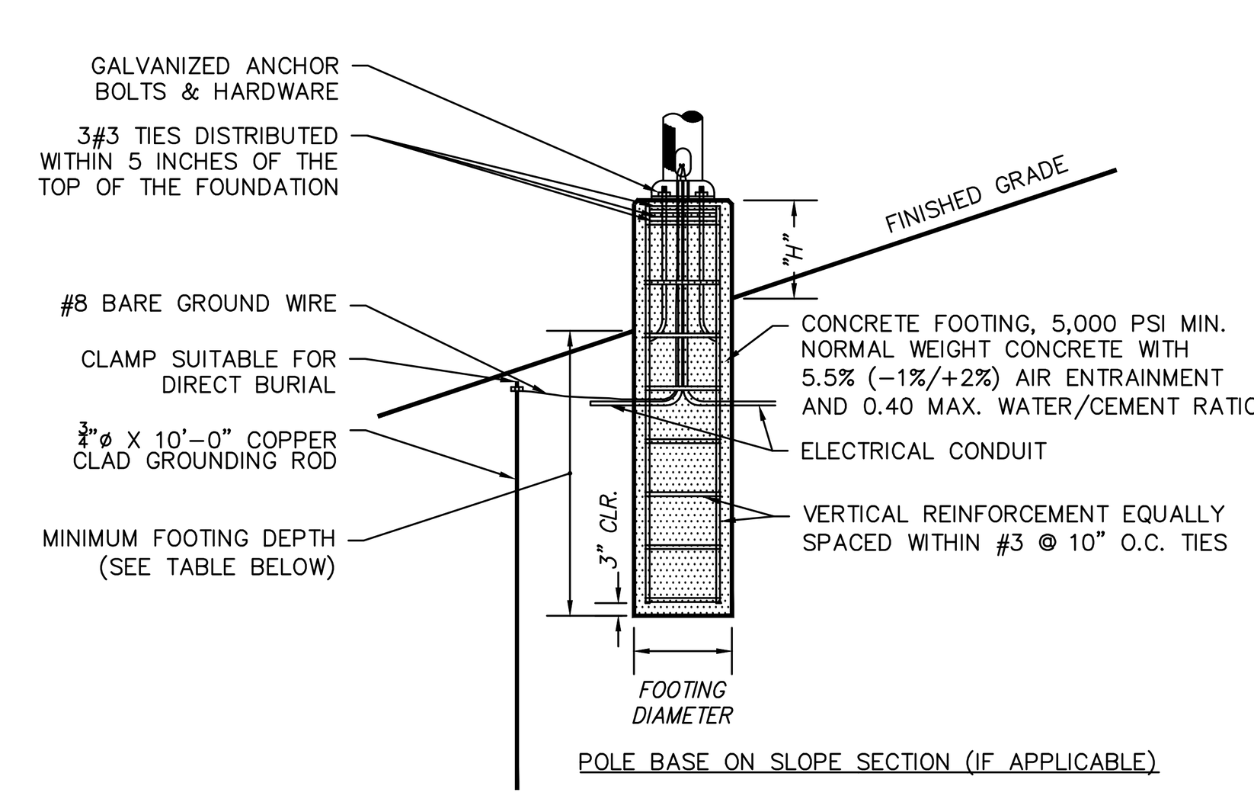
3 LIGHT POLE

NTS



NOTES:

EXPOSED HEIGHT OF POLE BASE (H) SHALL BE MEASURED ON THE UPHILL SIDE OF A SLOPE. FOOTING DEPTH (D) SHALL BE MEASURED ON THE DOWNHILL SIDE OF A SLOPE. AN ADDITIONAL VARIABLE HEIGHT (V) WILL BE BASED ON THE SLOPE ON WHICH THE POLE BASE IS LOCATED. CONTRACTOR TO CALCULATE FULL LENGTH OF EACH POLE BASE REQUIRED ON SLOPES (H+D+V = TOTAL BASE LENGTH)



MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	VERTICAL REINFORCEMENT	'H'
30'–0"	8'–0"	2'–0"	6 #5 BARS	3'–0" EXPOSED CONCRETE BASE

NOTES:

1. SHAFT CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MANUFACTURER.
2. EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER 250–86, N.E.C.
3. CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENT OF ACI 318. CAST–IN–PLACE SHALL HAVE UNCONFINED COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI AT 28–DAYS. DEFORMED REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60.
4. CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
5. IF POLE BASE IS CAST–IN–PLACE, POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND–RUBBED SMOOTH.
6. CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT.
7. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.
8. CONTRACTOR TO CONFIRM GROUNDING DESIGN WITH MEP.

4 LIGHT POLE BASE

NTS

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JOHN P. EWASUTYN

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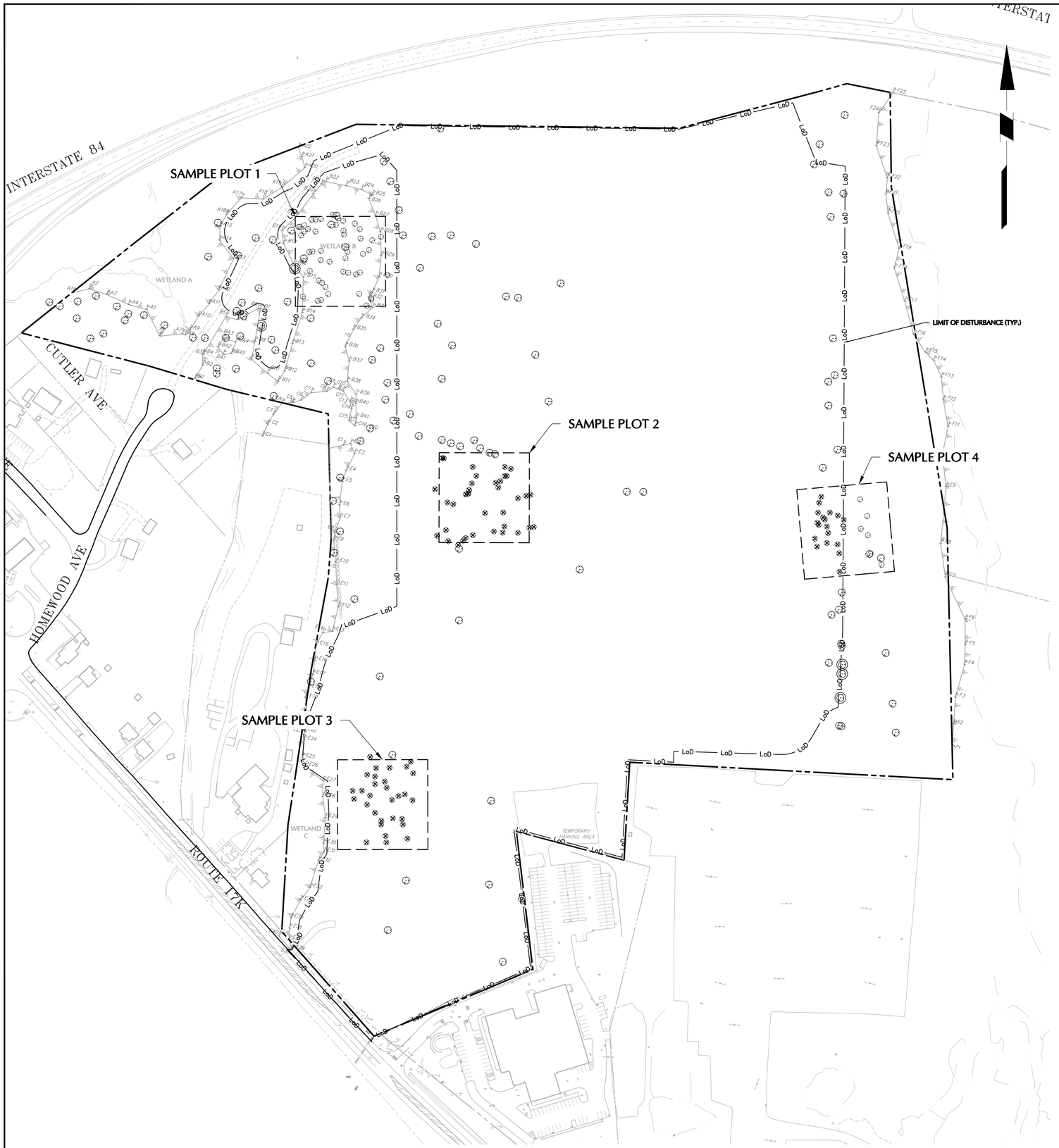

SAMPLE PLOT 1

COMMON NAME	SIZE (DBH)
Pin Oak	17
Pin Oak	17
Pin Oak	19
Pin Oak	18
Pin Oak	24
Pin Oak	17
Red Maple	18
Pin Oak	16
Pin Oak	19
Pin Oak	17
Red Maple	16
Red Maple	25
Red Maple	14
Pin Oak	20
Pin Oak	17
Pin Oak	23
Pin Oak	14
Red Maple	16
Swamp White Oak	21
Pin Oak	16
Red Maple	15
Red Maple	14
Pin Oak	16
Pin Oak	20
Swamp White Oak	20
White Oak	23
White Oak	21
Red Maple	20
Red Maple	20
Red Maple	15
Pin Oak	18
Red Maple	14
Sugar Maple	17
Red Maple	19
Pin Oak	27
Red Maple	29
Red Maple	14
White Oak	20
Red Oak	20
Pin Oak	20
White Oak	21
Red Maple	20
Shagbark Hickory	17
Shagbark Hickory	14
White Oak	35
Pin Oak	24
Red Maple	20
Pignut Hickory	14

SAMPLE PLOT 2

COMMON NAME	SIZE (DBH)
White Oak	18
White Oak	15
Red Oak	19
Red Oak	16
Sugar Maple	17
White Oak	18
Sugar Maple	15
Sugar Maple	15
Black Oak	18
Red Oak	16
Red Oak	19
White Oak	17
Black Oak	19
White Oak	18
American beech	19
Sugar Maple	14
White Oak	17
White Oak	18
Shagbark Hickory	18
White Oak	19
Pin Oak	21
Pignut Hickory	14
Red Oak	20
Red Maple	42
American Beech	18
White Oak (Dead)	14
Black Cherry	15
Black Oak	17
Red Oak	17
American Elm	18
Red Maple	17
Red Maple	19
American Elm	14
Red Maple	19
Red Maple	20
Sassafras	15
American Elm	20

SAMPLE PLOT 3

COMMON NAME	SIZE (DBH)
American Elm	20
Norway Maple	15
American Elm (Dead)	14
White Oak	16
American Elm	15
Pin Oak	14
Red Oak	14
Sugar Maple	14
White Oak	18
Norway Maple	19
White Oak	16
Red Oak	20
White Oak	14
Red Maple	19
Black Cherry	14
Sugar Maple	18
Pin Oak	14
Pin Oak	18
Black Oak	18
Sugar Maple	16
Sugar Maple	20
Sugar Maple	20
White Oak (Dead)	15
Black Oak	16
Pin Oak	16
Black Oak	22
Sugar Maple	16
Eastern Red Cedar	14
Shagbark Hickory	16

SAMPLE PLOT 4

COMMON NAME	SIZE (DBH)
White Oak	48
Pignut Hickory	16
Tree-of-Heaven	18
Sweet Birch	18
White Oak	30
Sassafras	14
Red Maple	18
Pignut Hickory	21
Pignut Hickory	18
Red Oak	15
Sugar Maple	14
Tree-of-Heaven	14
Yellow Birch	14
Pignut Hickory	15
Shagbark Hickory	20
Sugar Maple	16
Pignut Hickory	25
Pignut Hickory	16
White Oak	15
White Oak	15
White Ash	19
Red Oak	19
Norway maple	20
Norway maple	20

Total Significant Tree Inches Over 4 Acres (Excluding Dead Trees)	**2,472**
Existing Wooded Area Onsite (Acres)	**39.25**
Total Significant Tree Inches Over Wooded Area Onsite	**24,257**
75% of Total Significant Tree Inches Over Wooded Area Onsite (Allowable Removal in Inches)	**18,192**
Proposed Tree Removal (Acres)	**27.3**
Proposed Significant Tree Removal (Inches)	**16,868**
Proposed Significant Tree Removal (%)	**69.54%**

TREE PRESERVATION NOTES

1. THIS APPLICATION SHALL COMPLY WITH THE TOWN OF NEWBURGH CODE CHAPTER 172 ENTITLED "TREE PRESERVATION AND PROTECTION TO THE CODE OF THE TOWN OF NEWBURGH."
2. THE TREE PRESERVATION PLANS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE TOWN OF NEWBURGH CODE SECTION 172–5.
3. ALL SIGNIFICANT TREES HAVE BEEN LOCATED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF CHAPTER 172.
3. ALL SPECIMEN TREES HAVE BEEN TAGGED AND IDENTIFIED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF CHAPTER 172.
4. PER SECTION 175–4–C., DEVELOPMENT ACTIVITES SHALL NOT REMOVE OR DISTURB MORE THAN 75% OF TOTAL INCHES IN DIAMETER OF SIGNIFICANT TREES. PER THE CALCUALTIONS ON THIS SHEET, THIS APPLICATION IS PROPOSING 69.5% REMOVAL OF SIGNIFICANT TREES WHICH IS IN COMPLIANCE WITH THE CODE.
5. TREE REMOVAL SHALL OCCUR BETWEEN NOVEMBER 1 AND MARCH 31.

SPECIMEN TREES

NO.	COMMON NAME	SIZE (DBH)	NOTES
101	Swamp White	25	TO REMAIN
102	White Oak	39	TO REMAIN
103	White Oak	26	TO REMAIN
104	Sugar maple	33	TO REMAIN
105	Black Oak	30	TO REMAIN
106	Black Oak	24	TO REMAIN
107	Black Oak	26	TO REMAIN
108	White Oak	38	TO REMAIN
109	Black Oak	25	TO REMAIN
110	White Oak	26	TO REMAIN
111	Red Oak	26	TO REMAIN
112	Pin Oak	27	TO REMAIN
113	Eastern cottonwood	31	TO REMAIN
114	Red Maple	36	TO REMAIN
115	Red Maple	28	TO REMAIN
116	Eastern cottonwood	24	TO BE REMOVED
117	Red Oak	25	TO BE REMOVED
118	Red Maple	24	TO BE REMOVED
119	Red Maple	25	TO BE REMOVED
120	Swamp White	24	TO REMAIN
121	Cottonwood	25	TO REMAIN
122	Swamp White	26	TO REMAIN
123	Red Oak	33	TO REMAIN
124	Swamp White	25	TO REMAIN
125	Swamp White	30	TO REMAIN
126	Black Oak	38	TO BE REMOVED
127	Red Oak	26	TO BE PROTECTED
128	White Oak	33	TO BE PROTECTED
129	Black Oak	24	TO BE REMOVED
130	Black Oak	30	TO BE REMOVED
131	Pin Oak	25	TO REMAIN
132	Red Maple	24/20	TO BE PROTECTED
133	Red Maple	29	TO BE REMOVED
134	Pin Oak	24	TO REMAIN
135	Pin Oak	24	TO REMAIN
136	Red Oak	24	TO BE REMOVED
137	Red Maple	26	TO REMAIN
138	Red Oak	25	TO REMAIN
139	Red Maple	25	TO REMAIN
140	Pin Oak	32	TO REMAIN
141	Red Maple	27	TO REMAIN
142	Cottonwood	24	TO REMAIN
143	Red Maple	27	TO REMAIN
144	Cottonwood	37	TO BE REMOVED
145	American Beech	24	TO BE REMOVED
146	Red Oak	29	TO BE REMOVED
147	Black Oak	25	TO BE REMOVED
148	Red Oak	25	TO BE REMOVED
149	White Oak	25	TO BE REMOVED
150	White Oak	24	TO BE REMOVED
151	Red Oak	33	TO BE REMOVED
152	Red Oak	24	TO BE REMOVED
153	White Oak	32	TO BE REMOVED
154	Red Oak	27	TO BE REMOVED
155	Black Oak	25	TO BE REMOVED
156	Red Oak	37	TO BE REMOVED
157	Red Maple	36	TO BE REMOVED
158	Red Oak	30	TO BE REMOVED
159	Red Oak	37	TO REMAIN
160	White Oak	29	TO REMAIN
161	White Oak	27	TO REMAIN
162	Red Oak	25	TO REMAIN
163	Red Oak	27	TO BE PROTECTED
164	Black Oak	27	TO BE REMOVED
165	Red Oak	25	TO BE REMOVED
166	White Oak	24	TO BE REMOVED
167	White Oak	41	TO BE REMOVED
168	White Oak	25	TO BE REMOVED
169	White Oak	27	TO BE REMOVED
170	White Oak	25	TO BE REMOVED
171	Red Oak	24	TO REMAIN
172	Red Maple	24	TO REMAIN
173	Swamp White	25	TO REMAIN
174	White Oak	35	TO REMAIN
175	Red Maple	25	TO REMAIN
176	Black Locust	35	TO REMAIN
177	Silver maple	37	TO BE REMOVED
178	White Oak	24	TO REMAIN
179	Pignuthickory	24	TO REMAIN
180	Sugar maple	24	TO BE REMOVED
181	American Beech	24	TO BE REMOVED
182	Norway Maple	25	TO BE REMOVED
183	Mockernut	25	TO BE REMOVED
184	Red Oak	27	TO BE REMOVED
185	Sugar maple	32	TO BE REMOVED
186	Norway Maple	27	TO BE REMOVED
187	Black oak	33	TO BE REMOVED
188	Pignut	32	TO BE REMOVED
189	Norway Maple	26	TO BE REMOVED
190	Norway Maple	27	TO BE REMOVED
191	Sugar maple	26	TO BE REMOVED
192	Sugar maple	27	TO BE REMOVED
193	Red Oak	34	TO BE REMOVED
194	White Oak	33	TO REMAIN
195	Red oak	24	TO REMAIN
196	White Oak	31	TO BE PROTECTED
197	Sugar maple	25	TO BE PROTECTED
198	Mockernut	25	TO BE PROTECTED
199	Red Oak	25	TO BE REMOVED
200	Pignut	24	TO BE REMOVED
201	White Oak	25	TO BE REMOVED
202	Red Oak	25	TO BE REMOVED
203	Pignut	25	TO BE REMOVED
204	Red Oak	32	TO BE REMOVED
205	Red Oak	34	TO BE REMOVED
206	Pignut	24	TO BE REMOVED
207	Tulip poplar	24	TO BE REMOVED
208	White Oak	26	TO BE REMOVED
209	Red Oak	33	TO BE REMOVED
210	Black Oak	24	TO BE REMOVED
211	Tulip poplar	27/16	TO REMAIN
212	Black Oak	27	TO REMAIN
213	Sugar maple	24	TO BE REMOVED
214	Pignuthickory	27	TO REMAIN
215	White Oak	48	TO REMAIN
216	Red Oak	24	TO BE REMOVED
217	Red Oak	25	TO BE REMOVED
218	Black Oak	26	TO REMAIN
219	Tulip poplar	24	TO REMAIN
220	Red Oak	24	TO REMAIN
221	Pin Oak	26	TO BE REMOVED
222	Swamp White	26	TO REMAIN

Total Specimen Tree Inches	3,338
Total Specimen Tree Inches To Be Removed	1,716

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	1

Revisions

100 0 50 100
SCALE IN FEET

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STATE OF NEW YORK · CHARLES UTSCHIG JR. · 062303 · PROFESSIONAL ENGINEER

SIGNATURE 10/10/2023
DATE SIGNED

CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.
One North Broadway, Suite 910
White Plains, NY 10601
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SECTION No. 86, BLOCK No. 1, LOT No. 97
SECTION No. 89, BLOCK No. 1, LOT No. 66 and 69.11
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
OVERALL TREE PRESERVATION PLAN

Project No. **190063302**
Date **JULY 10, 2023**
Drawn By **LM**
Checked By **CU**

Drawing No. **TP100**
Sheet **1** of **6**

Date: 10/10/2023 Time: 16:46 User: brchambers Style Table: Langan.stb Layout: TP100 Document Code: 190063302-0301-LS101-0101

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TOWN PROJECT # 2022-29

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Drawing Title
TREE PRESERVATION PLAN - TILE 1

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No.
TP101
Sheet 2 of 6

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TOWN PROJECT # 2022-29

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White Plains, NY 10601
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ORANGE COUNTY NEW YORK

Drawing Title
TREE PRESERVATION PLAN - TILE 2

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. TP102
Sheet 3 of 6

Date: 10/10/2023 Time: 16:47 User: brchambers Style Table: Langan.stb Layout: TP102 Document Code: 190063302-0301-LS101-0103

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

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Date	Description	No.
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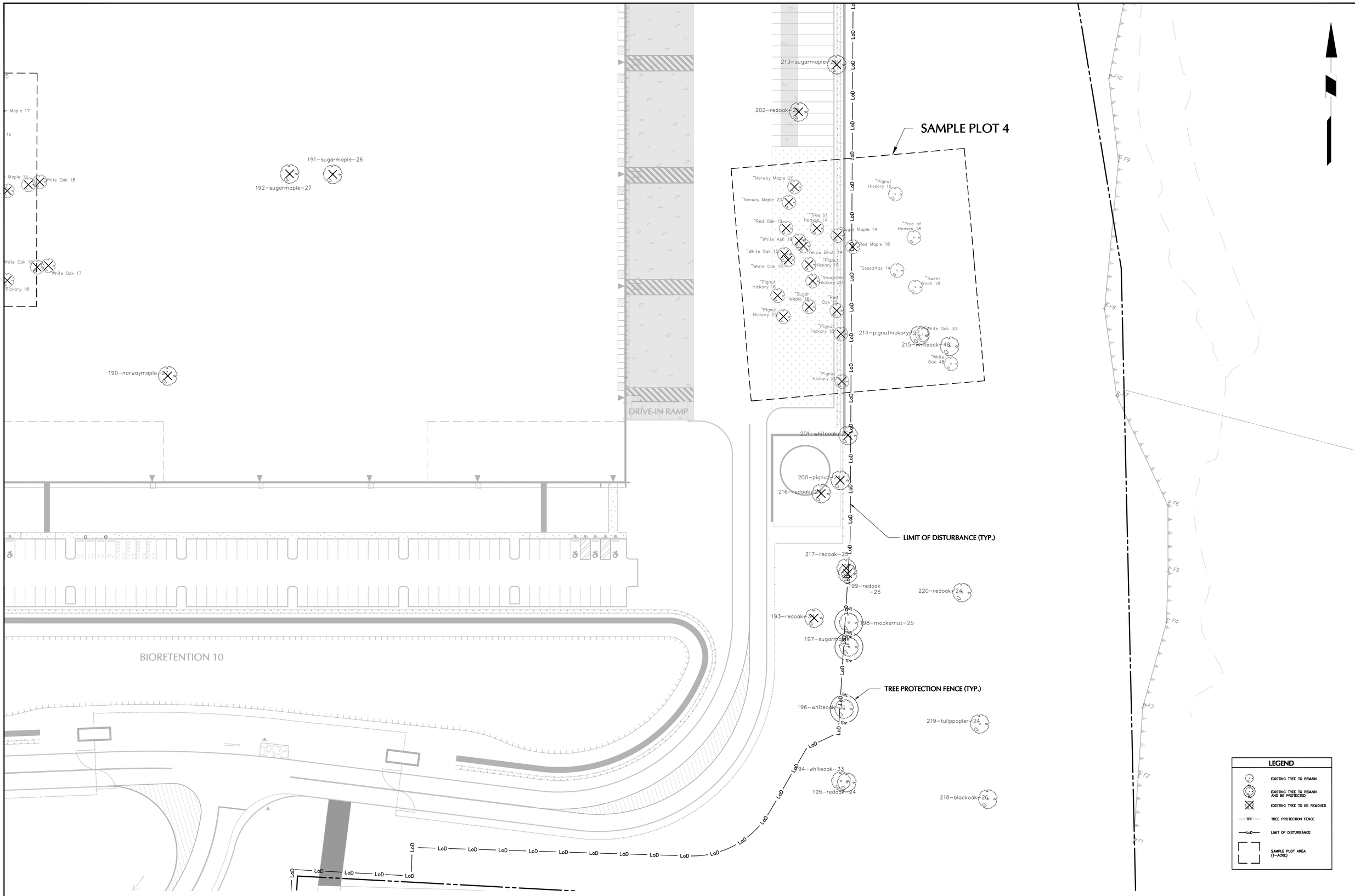
ORANGE COUNTY NEW YORK

Drawing Title
TREE PRESERVATION PLAN - TILE 3

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No.
TP103

Date: 10/10/2023 Time: 16:47 User: brchambers Style Table: Langan.stb Layout: TP103 Document Code: 190063302-0301-LS101-0104



LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO REMAIN AND BE PROTECTED
- EXISTING TREE TO BE REMOVED
- TPF — TREE PROTECTION FENCE
- LoD — LIMIT OF DISTURBANCE
- SAMPLE PLOT AREA (1–ACRE)

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

PLANNING BOARD CHAIRPERSON
JOHN P. EWASUTYN

DATE

No.	Description	Date
1	PLANNING BOARD SUBMISSION	10/12/2023

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SIGNATURE

10/10/2023
DATE SIGNED

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ORANGE COUNTY NEW YORK

Drawing Title
TREE PRESERVATION PLAN - TILE 4

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
Checked By CU

Drawing No. TP104
Sheet 5 of 6

Date: 10/10/2023 Time: 16:48 User: brchambers Style Table: Langan.stb Layout: TP104 Document Code: 190063302-0301-LS101-0105

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # 2022-29

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Date	Description	No.
10/12/2023	PLANNING BOARD SUBMISSION	1

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Drawing Title
TREE PRESERVATION PLAN - TILE 5

Project No. 190063302
Date JULY 10, 2023
Drawn By LM
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Drawing No.
TP105
Sheet 6 of 6

Date: 10/10/2023 Time: 16:48 User: brchambers Style Table: Langan.stb Layout: TP105 Document Code: 190063302-0301-LS101-0106