

CRAIG PAEPRER
Chairman

ANTHONY GIANNICO
Vice Chairman

BOARD MEMBERS
RAYMOND COTE
ROBERT FRENKEL
VICTORIA CAUSA
JOHN NUCULOVIC

TOWN OF CARMEL
PLANNING BOARD



60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 – Ext.190
www.ci.carmel.ny.us

MICHAEL CARNAZZA
*Director of Code
Enforcement*

RICHARD FRANZETTI, P.E.
Town Engineer

PATRICK CLEARY,
AICP, CEP, PP, LEED AP
Town Planner

PLANNING BOARD AGENDA
JANUARY 25, 2023– 6:00 P.M.

TAX MAP # PUB. HEARING MAP DATE COMMENTS

TOWN BOARD REFERRAL - 6:00 PM – 7:00 PM

- | | | | | |
|---|--|--|--|---------------------------------|
| 1. Town of Carmel Comprehensive Master Plan and Zoning Code Draft | | | | Discussion (No Public Comments) |
|---|--|--|--|---------------------------------|

PUBLIC HEARING

- | | | | | |
|--|--------------|---------|--|---|
| 2. Carmel Centre Senior Housing (Pulte Homes)
Lot 3 – Terrace Drive | 55.14-1-11.1 | 1/25/23 | | Continuation of Open Public Hearing – Bond Return |
|--|--------------|---------|--|---|

SITE PLAN

- | | | | | |
|--|-----------|--|--------|-----------------------|
| 3. Lubic, Michael – 310 Buckshollow Road | 76.9-1-22 | | 1/5/23 | Residential Site Plan |
| 4. NYCDEP West Branch Auxiliary Dam –
34 Drewville Road | 65.-1-5 | | 5/5/22 | Site Plan |

MISCELLANEOUS

- | | | | | |
|--|-------------------------------|--|---------|---|
| 5. G & F Subdivision – Lots 5, 6 & 7 -
2054 Route 6 | 55.-2-24.5,
6-1, 7-2 & 8-2 | | 1/27/22 | Re-Approval of Final Subdivision Approval |
| 6. Pulte Homes of New York, LLC –
Lot 4 – Terrace Drive | 55.14-1-11.2 | | | Bond Return |
| 7. Pulte Homes of New York, LLC –
Lot 5 – Terrace Drive | 55.14-1-11.3 | | | Bond Return |

TOWN BOARD REFERRAL – CONTINUATION OF DISCUSSION

- | | | | | |
|---|--|--|--|---------------------------------|
| 8. Town of Carmel Comprehensive Master Plan and Zoning Code Draft | | | | Discussion (No Public Comments) |
|---|--|--|--|---------------------------------|



January 5, 2023

Craig Paepre, Chairman and Members of the Carmel Planning Board
60 McAlpin Ave
Mahopac, NY 10541

RE: Site Plan for Michael Lubic
310 Buckshollow Road
Mahopac, NY 10541
TM#: 76.9-1-22

Dear Mr. Paepre and the Members of the Carmel Planning Board,

The following is my response to Patrick Cleary's memo dated 12/8/2022:

1. The zoning district has been changed to R residence.
2. The Site Plan has been revised to indicate twenty 10' x 20' parking spaces with a 24' backup area.
3. The tandem parking spaces have been eliminated.
4. The rear parking area will be paved and striped.
5. I discussed the access to the property from Kennicut Hill Road with Michael Simone, the Highway Superintendent. Due to the steepness of the road, he recommended that we provide a 60' concrete curb from the intersection with Buckshollow Road and proceeding up the steep hill along Kennicut Hill Road, with a 20' concrete curb alongside the parking space closest to the property line.
6. There are no Stormwater Management facilities.
7. Since there are no public sewers accessible to this site, the existing septic system will be analyzed to ensure that it can accommodate the 10 apartments.
8. The Fire Inspector has inspected the apartments, and to the best of my knowledge there are no outstanding issues.
9. To the best of my knowledge, there are no code violations. In addition, the owner is agreeable to providing a sprinkler system for the two illegal apartments.

The following is my response to Mike Carnazza's memo dated 12/5/2022:

1. I have contacted Putnam County Health Department. They have no records on either the septic system or the well for this property. The owner will have a septic contractor give us a report on the size of the septic tank and the lineal footage of fields to determine if it is adequate for 10 apartments.
2. The owner is agreeable to providing a sprinkler system for the two illegal apartments.



The following is my response to Richard Franzetti's memo dated 12/1/2022:

1. The parking spaces and travel ways have been noted on the Site Plan with the appropriate dimensions.
2. The Site Plan has been referred to the Mahopac Fire Department.
3. I have contacted Putnam County Health Department. They have no records on either the septic system or the well for this property. The owner will have a septic contractor give us a report on the size of the septic tank and the lineal footage of fields to determine if it is adequate for 10 apartments.

Very truly yours,

A handwritten signature in cursive script that reads "Joel Greenberg". The signature is written in black ink and is positioned above the typed name.

Joel Greenberg, AIA, NACRB



**Environmental
Protection**

Rohit T. Aggarwala
Commissioner

Ana Barrio
Deputy Commissioner
Bureau of Engineering
Design & Construction

Sean McAndrew, P.E.
Executive Director
Water System Capital
Program

16 Little Hollow Road
Grahamsville, NY 12740

Tel. (845) 334-7195
Fax (845) 985-2282
mcandrews@dep.nyc.gov

January 3, 2023

Town of Carmel
Planning Board
Attn: Rose Trombetta
60 McAlpin Avenue
Mahopac, NY 10541

RE: **CRO-534: West Branch Reservoir Auxiliary Dam (Putnam County)**
New York City Department of Environmental Protection
Bureau of Engineering, Design and Construction
Slope Improvements Project
Town of Carmel Site Plan Approval Application

Dear Planning Board Members,

The New York City Department of Environmental Protection (DEP) is in receipt of the Town of Carmel's comments received as; a Memorandum from Cleary Consulting prepared by Patrick Cleary, AICP, CEP, PP, LEED AP to Chairman Paepre & Members of the Planning Board, and a Memorandum dated July 21, 2022 from Richard J. Franzetti P.E. Town Engineer to the Carmel Planning Board on the above referenced permit application packet addressing activities required to implement slope improvements at its West Branch Reservoir Auxiliary Dam (Town of Carmel, Putnam County). The following responses have been prepared to address the comments and note where revisions to design plans are being incorporated.

**Comments from Cleary Consulting Memorandum
Site Plan Comments**

Comment 1: The proposed modifications to the dam are permitted as a Public Utility Facility - §156-37

Response 1: Comment acknowledged.

Comment 2: The proposal will impact three wetlands, one of which is a NYSDEC regulated wetland, the remaining two are regulated by the Town of Carmel. The impacts to two of the wetlands will be temporary, but one of the Town regulated wetlands will be permanently impacted by the filling in of a stone drainage swale. Approval by the ECB is required.

Response 2: Comment acknowledged.

Comment 3: The proposal calls for installing new “native low maintenance vegetation” to replace 78 trees to be removed, and to also install “limited tree and shrub planting” at the entrance driveway. A landscaping plan, specifying proposed species and plant sizes, should be provided.

Response 3: Landscaping plans are provided as Sheets L-005.00 and L-006.00. Plant sizes have been added.

Comment 4: Traffic along Route 6 will be disrupted to allow for the project to be developed. The applicant has proposed a Work Zone Traffic Control Plan that will be coordinated with NYSDOT, Putnam County and Town. This plan must be reviewed and updated periodically, as necessary.

Response 4: Comment acknowledged. NYSDOT, Putnam County and Town of Carmel Highway Division have been informed of the project and given the opportunity to review the Work Zone Traffic Control Plan. Comments will be implemented to the extent feasible within the limits of the proposed project. Contact will be maintained with each agency throughout to the bidding and construction phases and proposed changes by the Contractor will be reviewed with the agency stakeholders prior to implementation. Specifically, in accordance with Note 2 of the NYSDOT Work Zone Traffic General Notes issued under EB 08-036 as Sheet 619-10 with an effective date of 01/08/09, the Contractor must submit to the (NYSDOT) Engineer, in writing, proposed revisions to the traffic control plan for review and approval by the Regional Director or his/her designee five (5) workdays prior to the planned implementation of such control plan.

Comment 5: A construction management plan covering all aspects of the project, such as erosion and sediment control, traffic, construction noise and lighting, hours of work activity, material staging, construction worker parking, et., shall be required as a condition of site plan approval.

Response 5: DEP is currently in the process of selecting a Construction Management firm to oversee construction of the project. A construction management plan covering the requested items above will be provided to the Town prior to award of the contract and issuance of Notice to Proceed to the Contractor.

Comment 6: Clarify if any of the proposed activities (such as excavation of the dam slope) will increase public safety of downstream properties.

Response 6: The slope improvements project will improve public safety of downstream properties by improving stability of a localized over-steepened area at the crest of the dam, improving collection and discharge of seepage

within/beneath the dam, and installing slope and ground water instrumentation to monitor conditions within the dam embankment. Roadway improvements to Route 6 will also improve traffic safety.

SEQR Comments:

Comment 1: In accordance with NYCRR Section 8 Part 617, the proposed project is classified as an Unlisted Action.

The materials submitted in support of this application indicate that the NYC Bureau of Planning and Assessment (BEPA) is serving as the Lead Agency for this action.

It is unclear if a Coordinated Review is being conducted. The Town has not received any documentation indicating that a Coordinated Review has commenced (such a notice of Lead Agency designation).

If a Coordinated Review is not occurring, the Planning Board must undertake its own SEQR review for those actions the Town is responsible for.

Response 1: A Coordinated Review has been completed by the NYC BEPA and Negative Declaration has been issued. A copy of the declaration is provided is Attachment No. 1.

Comments from Richard J. Franzetti P.E., Town Engineer General Comments:

Comment 1: The following referrals are required:

- a. United States Army Corps of Engineers (USACE)
- b. New York State Department of Environmental Conservation (NYSDEC)
- c. New York State Department of Transportation (NYSDOT)
- d. New York City Department of Environmental Conservation (NYCDEP)
- e. Putnam County Department of Planning -GML 239(m)
- f. Putnam County Bureau of Emergency Services
- g. Putnam County Department of Highway and Facilities (PCDHF)
- h. Town of Carmel Highway Department
- i. Town of Carmel Environmental Conservation Board (ECB)
- j. Carmel and Mahopac central school districts
- k. Mahopac/ Carmel Fire Departments

Response 1: Comment Acknowledged. On October 24, 2022, a project Stakeholder Meeting was held virtually via Microsoft Teams. CDM Smith, on behalf of NYCDEP, scheduled and coordinated the meeting which was used as a platform to discuss the project design, traffic control plan and details and project schedule with Stakeholders. Project meeting minutes are provided as

Attachment No. 2. Meeting minutes and slides were distributed to all attendees and invitees.

Comment 2: The following permits are required:

- a. USACOE – Nationwide Permit
- b. NYSDEC – for stormwater, protection of waters and wetlands
- c. NYSDOT – stormwater
- d. NYCDEP – stormwater
- e. ECB for wetlands

Response 2: Comment acknowledged. The status of the permit applications/approvals are provided below.

- a. USACOE – Nationwide Permit - Approved June 21, 2022
- b. NYSDEC – Dam and Impoundment Structures, Freshwater Wetlands, 401 Water Quality Certification, Protection of Waters
Comments received on September 23, 2022
Response to comments submitted to NYSDEC on November 29, 2022
Notice of Complete Application (NCA) received on December 21, 2022.
NCA to be published in local newspaper prior to January 7, 2023.
- c. NYSDOT – stormwater -MS4 update is pending.
- d. NYCDEP – stormwater - SWPPP approved February 8, 2022
- e. ECB for wetlands - Pending approval with of Town of Carmel Site Plan

Comment 3: The area of disturbance for the work as provided is ~3.6 acres. The threshold criteria of disturbance for the NYSDEC stormwater regulation are between 5,000 square feet and one (1) acre and over one (1) acres. The project will require coverage under the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GO-0-20-001) and the development of a Stormwater Pollution Prevention Plan (SWPPP) that has permanent controls. However, there are two (2) jurisdictions that oversee the MS4 stormwater regulations. The first is NYSDOT for Route 6 and the second is the Town of Carmel. The applicant has noted this and will work with both agencies regarding these regulations.

Approval from both agencies will be required. Town specific areas should be provided as standalone documents.

The applicant has also submitted a SWPPP which has been provided to the Town.

Response 3: A SWPPP for this project was approved by NYCDEP on February 8, 2022. A copy has been provided to the Town of Carmel with the Site Plan Application. NYCDEP continues to coordinate with NYSDOT regarding inclusion of the proposed roadway drainage improvements in their MS4 for

Route 6. A copy of the acceptance from NYSDOT will be provided to the Town upon receipt.

Comment 4: The applicant has provided traffic control details. These should be reviewed by the NYSDOT, PCDHF, PCBOE, Town of Carmel Highway.

Response 4: DEP has coordinated with NYSDOT throughout the project design phase regarding roadway lane and shoulder widths for Route 6 and traffic control details. Most recently, DEP conducted a Stakeholder Meeting on October 24, 2022, to present the project, including the traffic control details, to NYSDOT, PCDHR, PCBOE and the Town of Carmel Highway. Subsequently, CDM Smith, on DEP's behalf, provided the current (100% Design) plans, including the traffic control details, to NYSDOT and PCDHF. Comments are pending from NYSDOT. PCDHF responded on December 1, 2022, with one comment asking that the project include improvements to the Drewville Road/Route 6 intersection to improve safety. DEP considered the request and determined that changes to the intersection would require substantial work outside the limits of the current project and are not feasible to include in CRO-534, which is currently at the 100% design stage. PCBOE inquired about accommodations for emergency vehicles during road reconstruction. DEP informed PCBOE that emergency vehicle pre-emption has been included for the temporary traffic signals. Stakeholder Meeting minutes are provided as Attachment No. 2.

In addition, the Contractor will be required to consult with NYSDOT, Putnam County and Town of Carmel Highway Division prior to implementing any changes to the Work Zone Traffic Control Plan developed for the project.

Comment 5: The applicant will be required to supply a stormwater maintenance agreement and maintenance guarantee per Town Code (§156-85 and §156-87B respectively).

Response 5: Comment acknowledged.

Comment 6: Should any public improvement be deemed necessary as part of the development of the tract, a performance Bond and associated Engineering Fee must eventually be established for the work. The applicant will need to develop quantity take offs for bonding purposes.

The applicant should note that a Performance Bond and associated Engineering fee is minimally required for the stormwater management practices, erosion and sediment control drainage features, landscaping, etc. installed at the site. Please see §156-61 J and K of the Town Code for additional information.

Response 6: Comment acknowledged.

Detailed Comments

Comment 1: Documents submitted indicate different areas of disturbance for the project (EIS narrative/ 3.6 acres, SWPPP §1 shows 4.5 acres). These should be corrected.

Response 1: The difference in the areas of disturbance presented in the EIS narrative (3.6 acres) and SWPPP (4.5 acres) are attributed to the fact that the EIS disturbed area references only the area of the site that will have active construction and ground disturbance, whereas the SWPPP includes approximately 0.9 acres for the temporary construction staging area. In addition to the disturbed area of 3.6 acres, the EIS narrative also acknowledges the project area (which includes the staging area) as approximately 4 acres.

Comment 2: All planting should be verified by the Town of Carmel Wetlands inspector. Note should be added to the drawings.

Response 2: The following note has been added to Sheets L-005.00, L-006.00 and C-049.00 The note has also been added to specification Section 32 90 00 – Planting.

All planting shall be verified by the Town of Carmel Wetlands inspector prior to installation.

Comment 3: All plantings shall be installed per §142 of the Town of Carmel Town Code. Note should be added to the drawings.

Response 3: The following note has been added to Sheets L-005.00, L-006.00 and C-049.00 The note has also been added to specification Section 32 90 00 – Planting.

All plantings shall be installed per §142 of the Town of Carmel Town Code.

Comment 4: All fill brought to the site must be certified per NYSDEC regulations and manifest/ certifications of the fill material being delivered should be provided.

Response 4: Specification Section 31 23 23 – Fill includes reference to applicable NYSDEC regulations for suitable fill material. A manifest of fill deliveries, including certification that it meets Section 31 23 23 will be maintained, and can be provided to the Town of Carmel upon request.

Comment 5: Work along existing access road must have a stabilized construction entrance.

Response 5: As shown on Sheet G-004.00 construction access roads already exist on the northwest and southeast corners of the site and are the primary construction access points for the Contractor. A stabilized construction entrance is shown on Sheet C-42 on the northeast side of Route 6. A stabilized construction has been added to Sheet C-43 to support the access road located from Drewville Road. The stabilized construction entrance shall be constructed in accordance with Detail F on Sheet C-48.

Type text here
Should there be questions or additional information required to process this application, please contact Linda Singh (Deputy Portfolio Manager) at 917-207-9477 or via e-mail at LindaSi@dep.nyc.gov.

Very truly yours,

A handwritten signature in black ink that reads "Paul Costa". The signature is written in a cursive style with a long horizontal line extending to the right.

Paul Costa, P.E.
Portfolio Manager

cc. L. Singh, DEP
D. DeKoski, DEP
J. Fitzsimmons, DEP
S. Salzberg, DEP
E. LeClair, CDM Smith



NEGATIVE DECLARATION
Notice of Determination of Non-Significance

November 18, 2022

West Branch Auxiliary Dam Slope Improvements
CEQR No. 22DEP026U

This Negative Declaration has been prepared in accordance with the State Environmental Quality Review Act (SEQRA) authorized by Article 8 of the Environmental Conservation Law and its implementing regulations as set forth in 6NYCRR Part 617, and the New York City Environmental Quality Review (CEQR) process as set forth in 62 RCNY Chapter 5 and Executive Order 91 of 1977 and its amendments. The New York City Department of Environmental Protection (DEP), as lead agency, has determined that the proposed project described below would not have a significant adverse effect on the environment and is herein publishing a Negative Declaration. An Environmental Assessment Form (EAF) and attachments supporting the analysis were distributed on November 4, 2021.

PROJECT DESCRIPTION

The New York City Department of Environmental Protection (DEP) proposes improvements to the slope of the West Branch Auxiliary Dam and U.S. Route 6 east of Drewville Road, located in the Town of Carmel, Putnam County, New York. The proposed West Branch Dam Slope Improvements would improve the stability of the downstream slope and safety of U.S. Route 6 that passes over the Auxiliary Dam crest. Reconstruction of Route 6 would meet current New York State Department of Transportation (NYSDOT) standards. The tax parcel the Auxiliary Dam resides within is 45.8 acres in size. The project area is approximately 4 acres in size although physical work would be confined to an area of approximately 3.6 acres.

The proposed action requires approvals from the Town of Carmel, New York State Department of Environmental Conservation, and United States Army Corps of Engineers.

The DEP Bureau of Environmental Planning and Analysis has concluded that the proposed action is classified as a Type I Action per 6NYCRR Part 617.4(b)(9). In accordance with the State Environmental Quality Review Act as set forth in 6NYCRR Part 617 authorized by Article 8 of the Environmental Conservation Law, and the City Environmental Quality Review process, as set forth in 62 RCNY Chapter 5 and Executive Order 91 of 1977 and its amendments, as lead agency DEP has conducted a coordinated review for the above referenced action.

POTENTIAL IMPACT ASSESSMENT

As presented in detailed discussions in the November 2021 Environmental Assessment Form and Environmental Assessment and the additional project information above, the proposed project would not result in the potential for significant adverse environmental impacts. It is estimated that the work would be completed over six months, with no work anticipated from approximately December 15th through March 15th due to typical inclement winter weather. Should conditions be favorable, DEP approval would be required to continue work during the winter months. The work is anticipated to begin in 2023 with completion in 2025. The project incorporated specific measures to minimize potential impacts as discussed for the impact categories below.

Historic and Archeological Resources

- At the request of NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Construction Protection Plan would be implemented to ensure the historic gatehouse is not impacted by the construction activities.

Natural Resources – Plants and Animals

- Vegetation appropriate for dam safety and maintenance would be replanted after slope reconstruction.
- To avoid impacts to foraging eagles during construction, contractors would employ flagging or other anti-perching measures to discourage Bald Eagles and other raptors from perching on tall equipment.
- To avoid potential impacts to the Northern Long-eared Bat and Indiana Bat, tree removal activities would be performed between November 1 and March 31.
- Potential impacts to aquatic wildlife would be minimized through use of turbidity curtain or curtains and other best management practices to minimize in-water turbidity during construction (see below).

Natural Resources – Surface Waters and Wetlands

- To protect water quality during the reconstruction of U.S. Route 6, a turbidity curtain(s) would be installed in the West Branch Reservoir. The turbidity curtain would be installed May 1 or later in the first year of construction and removed by March 1 at the end of the work on U.S. Route 6.
- All equipment used in or adjacent to the Reservoir would be steam cleaned prior to use.
- Wetlands soils would be stockpiled separately to backfill and restore the trenched area.
- To minimize impacts from construction vehicles, geotextile or equivalent would be required for work in the wetlands.

Soils and Stormwater Management

Soil erosion and sediment control measures would be implemented during construction to prevent soils and sediments from migrating offsite as runoff:

- A temporary barrier of geotextile fabric or filter cloth and reinforced with posts (silt fence) would be installed along the toe of the dam at the east side of the project site.
- As previously stated, a temporary turbidity curtain(s) would be placed in the West Branch Reservoir prior to work on the U.S. Route 6 roadway or work at the crest of the dam.

- A temporary, semi-permeable barrier would be installed within storm drain inlets in the project area to filter and settle out sediments from runoff before it enters the storm drain inlet.
- To suppress dust, visual air monitoring would be performed concurrently with site construction activities. Dust suppression may include spraying the site with water until the surface is wet.
- Areas disturbed or rough graded that are subject to erosion would receive a temporary seeding in combination with straw mulch or a suitable equivalent.
- Erosion control blankets would be used on slopes 3 horizontal to 1 vertical or steeper to stabilize soils. Blankets would be placed immediately after seeding.
- The site would be maintained and graded such that all stormwater runoff is diverted to soil erosion and sediment control features.
- Stockpiling of soils would be restricted to a designated area at the project site. A silt fence would surround the soil stockpiles to prevent migration and to capture loose soil.
- The final site restoration includes grading and spreading loam and seeding on the non-rip rap work area. The temporary staging area would be restored (graded and replanted) at the conclusion of the work.

Construction Impacts

Below are many of the measures that would be taken to minimize project impacts during construction.

Traffic/Transportation

- Vehicular traffic would be maintained on U.S. Route 6 and Drewville Road for the duration of the proposed project. During the first construction season, U.S. Route 6 is expected to be open to traffic in both directions.
- Temporary lane shutdowns required to allow for the safe movement of equipment or to provide for worker safety would be minimized to the extent practicable.
- During the nighttime reconstruction of U.S. Route 6, traffic would be maintained using temporary traffic signals controlling alternating one-way traffic.
- Occasional closures of both lanes would be necessary but are expected to be infrequent and short duration (approximately 15 minutes or less) to allow for safe construction operations. At the end of each work night, the roadway would be reopened fully to allow for two-way traffic to flow freely during the daytime period.
- To minimize traffic impacts to U.S. Route 6, during construction of the embankment fill, contractor vehicular access to the project site would be primarily via the gated West Branch Auxiliary Dam site access road off Drewville Road. Some construction related traffic such as material deliveries may access the site from the secondary driveway off U.S. Route 6.
- Contractor parking would be confined to the auxiliary dam site. Contractor parking would not be permitted on Drewville Road or U.S. Route 6.

Air Quality

- To minimize impacts to the air quality from construction, dust suppression measures described above would be implemented.
- Soil, debris, and other materials would be promptly removed from the site.
- Open body trucks transporting materials would be covered to prevent airborne dust and water would be used to control dust during construction operations including grading.

Noise and Light

- Construction has been staged to minimize the duration of construction which would occur over a two-year period with no work taking place in the winter months.
- Activities would be confined to the project area to minimize impacts.

STATEMENT OF NO SIGNIFICANT EFFECT

DEP has determined that, as proposed, the West Branch Auxiliary Dam Improvements are not anticipated to have any potential significant adverse impacts on the quality of the environment. No significant adverse impacts on historic/archaeological resources, transportation, noise, or other impact categories would occur as a result of the proposed action. Any natural resources, hazardous materials, or air quality impacts related to construction would be temporary and would incorporate the measures discussed above and therefore are not considered significant effects on the environment or public health. These conclusions are based on the analyses and determinations discussed above.

SUPPORTING STATEMENTS

The above determination is based on an environmental assessment which finds that the action, as proposed, would not result in significant effects on the environment that would require the preparation of an Environmental Impact Statement.

For further information, please contact:

Kathryn Kelly
Bureau of Environmental Planning and Analysis
New York City Department of Environmental Protection
71 Smith Avenue
Kingston, NY 12401
Phone: (845) 340-7761
email: kkelly@dep.nyc.gov

Sincerely,



Phil Simmons
Managing Director, Environmental Impact Analysis and Technical Review

cc:

Honorable Michael Cazzari, Supervisor, Town of Carmel
Honorable MaryEllen Odell, County Executive, Putnam County
Richard Franzetti, Town Engineer, Town of Carmel
Fred Pena, Commissioner, Putnam County Highway and Facilities
David J. Chomycz, Acting Resident Engineer Southern Dutchess & Putnam County, NYSDOT
John Petronella, Regional Permit Administrator, NYSDEC
Chris Lang, Environmental Analyst, NYSDEC
Brian Orzel, Project Manager, USACE
Daniel Michaud, DEP
James O'Connor, DEP
Linda Singh, DEP
James Fitzsimmons, DEP
John Milgrim, DEP
Paul Costa, DEP
Spencer Salzberg, DEP
Susan Darling, DEP
Kathryn Kelly, DEP

MEETING SUMMARY

New York City Department of Environmental Protection CRO-534: West Branch Auxiliary Dam Slope Safety Improvements Putnam County, New York

Date: October 24, 2022
Time: 11:00 AM – 11:50 AM
Location: Virtual

Subject: West Branch Auxiliary Dam Slope Improvements Contract CRO-534

Attendees:

Name	Affiliation
Paul Costa	NYCDEP BEDC
Linda Singh	NYCDEP BEDC
John Milgrim	NYCDEP BWS
Joel Sanson	NYCDEP BWS
Mike Carnazza	Town of Carmel Building Inspector
Ken Clair	Putnam County Emergency Services
Fred Pena	Putnam County Highway & Facilities
Brian Hildebrand	Putnam County Highway & Facilities
John Tully	Putnam County Highway & Facilities
Robert Lipton	Putnam County
Vincent Tamagna	Putnam County Public Transportation
David Chomycz	NYSDOT Region 8 Permit Engineer
Cassandra Bibbo	NYSDOT Region 8 Residency
Nikhil Natarajan	NYSDOT Region 8
Heather Pillsworth	NYSDOT Region 8 Public Information Officer
Leonor Volpe	Mahopac CSD Transportation
Ann Raymond	Carmel SD Transportation Supervisor
Marcie Encinas	CDM Smith
Erik LeClair	CDM Smith

Meeting Objective:

Presentation of the West Branch Auxiliary Dam Slope Improvements Project, NYCDEP Contract CRO-534, to the various stakeholders to identify stakeholder concerns or coordination items.

Meeting Summary:

A meeting was held virtually on October 24, 2022, to review NYCDEP's West Branch Auxiliary Dam Slope Improvements (WDAM) Project. Erik LeClair, CDM Smith Project Manager, shared a

presentation (attached) and provided a brief introduction of the project scope, schedule, and key design aspects related to work zone traffic control. Paul Costa, NYCDEP Portfolio Manager, and Linda Singh, NYCDEP Accountable Manager, expressed their appreciation for all participants attendance and assurance that communication via meetings and other methods will be ongoing as the project progresses towards the start of construction.

The following items were presented during the project introduction.

Project Location

The West Branch Auxiliary Dam is in Putnam County, Town of Carmel on NYCDEP-owned property north and east of the intersection of US Route 6 and CR 36 (Drewville Road). From the intersection the project limits extend northward along the crest of the dam to NYCDEP's gravel access road on the east side of Route 6. Work performed will be primarily on the east side of Route 6 at the downstream embankment and along Route 6 within the limits of the crest of the dam.

Project Background

The Dam Embankment and Road Improvements project was developed following:

- Identification of longitudinal pavement cracking, leaning guide railing and utility poles along Route 6
- Engineering assessment which identified localized slope stability issue adjacent to roadway
- Assessments that identified slope erosion caused by roadway drainage
- Narrow roadway lanes and shoulders
- Communications with the Town of Carmel require construction for roadway improvements to be performed during night-time hours to minimize impacts to traffic

Proposed Work

- The proposed work include will be performed over 2.5-year period.
 - Construction Season 1 – West Branch Dam Repairs and Slope Safety Improvements will be in progress starting in March 2024 through November 2024 and will include:
 - Install three temporary traffic signals
 - Tree removals
 - Widen Drewville Road site entrance
 - Install fill to flatten downstream face slope
 - Install seepage underdrain at toe of slope
 - Replace damaged seepage drain piping
 - Remove low-level dam outlet pipe
 - Construction Season 2 – Completion of remaining dam embankment repairs, installation of highway drainage system, and Route 6 reconstruction will be in progress starting in March 2025 through November 2025 and will include:
 - Install curb and drainage system
 - Reconstruction of Route 6 between Drewville Road to the Shaft 10 facility driveway
 - Widening of lanes and shoulders. US Route 6 will have a final width from curb to curb of approximately 24 ft

- Replace guide railing
- Replace utility poles

Work performed during Construction Season 1 is not expected to substantially impact traffic flow. Temporary traffic lights installed at the site limits will rest on green for Route 6 traffic and be occasionally activated by construction vehicles entering/exiting the site. Periodic, short term lane closures may be required for contractor equipment or material deliveries. During Construction Season 2 the traffic signals will be active at night to control alternating one-way traffic. Traffic will be free flowing during the daytime in both lanes, on interim (gravel, temporary pavement) surfaces.

The slideshow presentation shared during the meeting is provided as **Attachment A**. Following the presentation, the meeting was opened to discussion. The following items were discussed; items upon completion of the project presentation:

- David Chomycz, NYSDOT, inquired about road surface restoration prior to the winter snow and ice removal season. He noted that NYSDOT requires a hard pavement surface for winter snow and ice. NYSDOT will not allow interim pavement surfaces during winter plowing operations. November 1 to April 15 is NYSDOT’s “Snow and Ice Season”.
 - CDM Smith PM stated that the Work Restrictions Specification will be updated to note this seasonal work restriction and to include requirements for the Contractor to restore all roadways to a hard pavement surface by November 1, unless a later date is approved in coordination with NYSDOT.
- David Chomycz noted that the March start date may be premature for road construction as this area often sees snows until early- to mid-April.
 - Erik LeClair noted that the schedule and work restrictions will be updated to reflect a mid-April limitation on start of roadway construction.
 - Contract documents to include a note that contractor may be permitted to start construction in March weather permitting with appropriate coordination and approval from DOT.
- Fred Pena, Putnam County Highway & Facilities Commissioner, confirmed that the County’s Drewville Road Bridge Replacement and Stoneleigh Road Intersection projects are projected to be complete prior to the start of the West Branch Auxiliary Dam project. One county project will be done in 2023 and the other will start in 2023 and likely finish in 2024.
 - Schedule of the county projects was noted by attendees.
- Fred Pena inquired what the detour on Drewville Road will be during construction.
 - Erik LeClair responded that no formal signed detour is planned. The work, as designed, will be completed with construction staging and alternating one way traffic to try to keep traffic on site. Three temporary traffic signals will be implemented to control traffic flow.
- Putnam County inquired about improvements to the Drewville Road and Route 6 intersection with respect to the tight turning radius from Drewville Road onto Route 6. Current conditions require vehicles/trucks to pull partially into the north bound lane of Route 6 to see if there is oncoming traffic. Vehicles/trucks often cross the centerline when making that turning movement. The County asked if consideration can be given to improving sight distances and the turning movement? The County asked for a copy of the project plans showing the final intersection alignment.
- Mike Carnazza, Town of Carmel, suggested clearing trees at the southeast corner for improved sight distance at the intersection.

- Erik LeClair noted that the project includes widening of Route 6 over the dam to 11'6" for each traffic lane with 2'6" shoulders, which will provide slightly increased roadway width for the turning vehicles entering Route 6.
- David Chomycz, NYSDOT, commented on the temporary lane width during Stage 1. The 10' lane width with 1' buffer is acceptable for straight road segments, but not be adequate at the intersection due to the turning movement of larger vehicles at that curve on Route 6. He suggested DEP consider a 12' width due to close proximity of an asphalt plant and other commercial vehicle traffic on Route 6.
 - Erik LeClair noted that the temporary lane width was set to have adequate space for construction of the highway drainage system. He noted the temporary lane width will reviewed to determine if 12' temporary lanes can be implemented.
- Cassandra Bibbo, NYSDOT, inquired about coordination with NYSEG and their large climate resiliency project along Route 6 in the project area.
 - Erik LeClair confirmed communication/coordination between NYCDEP and NYSEC is ongoing.
- Heather Pillsworth, NYSDOT, inquired about the project's coordination with Emergency Services. What is duration of light cycle on Route 6?
 - Erik LeClair was unable to provide the specific duration of the light cycles but confirmed that there will be emergency vehicle pre-emption provided during construction.
 - Heather Pillsworth noted that the contract documents should require the Contractor to coordinate information with emergency services when NYSDOT Traffic Management Center (TMC) notification is submitted.
 - Ken Clair, Putnam County Emergency Services, stated NYCDEP and the Contractor can coordinate with him for emergency services pre-emption.
 - NYSDOT will communicate with the Travel Advisory Commission

Action Items

- CDM Smith will share the 100% design plans with Putnam County and NYSDOT

Attachments

- Meeting slideshow presentation

West Branch Auxiliary Dam Slope Safety Improvements CRO-534

Stakeholder's Information Meeting

October 24, 2022

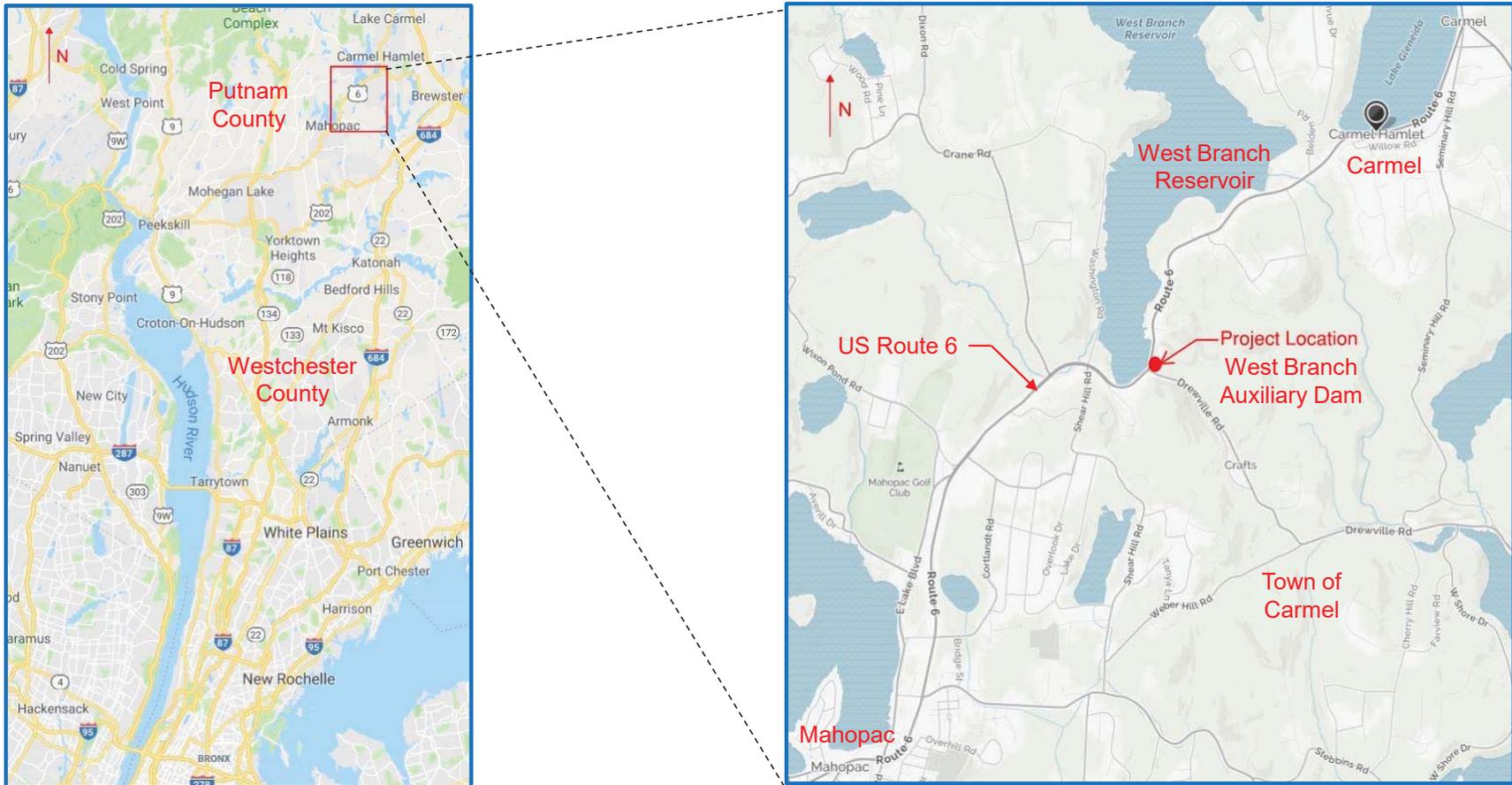


Presentation Outline

- Project Location
- Project Background
- Proposed Work
- Construction Season 1
- Construction Season 2
- Agency Coordination
- Schedule
- Contacts

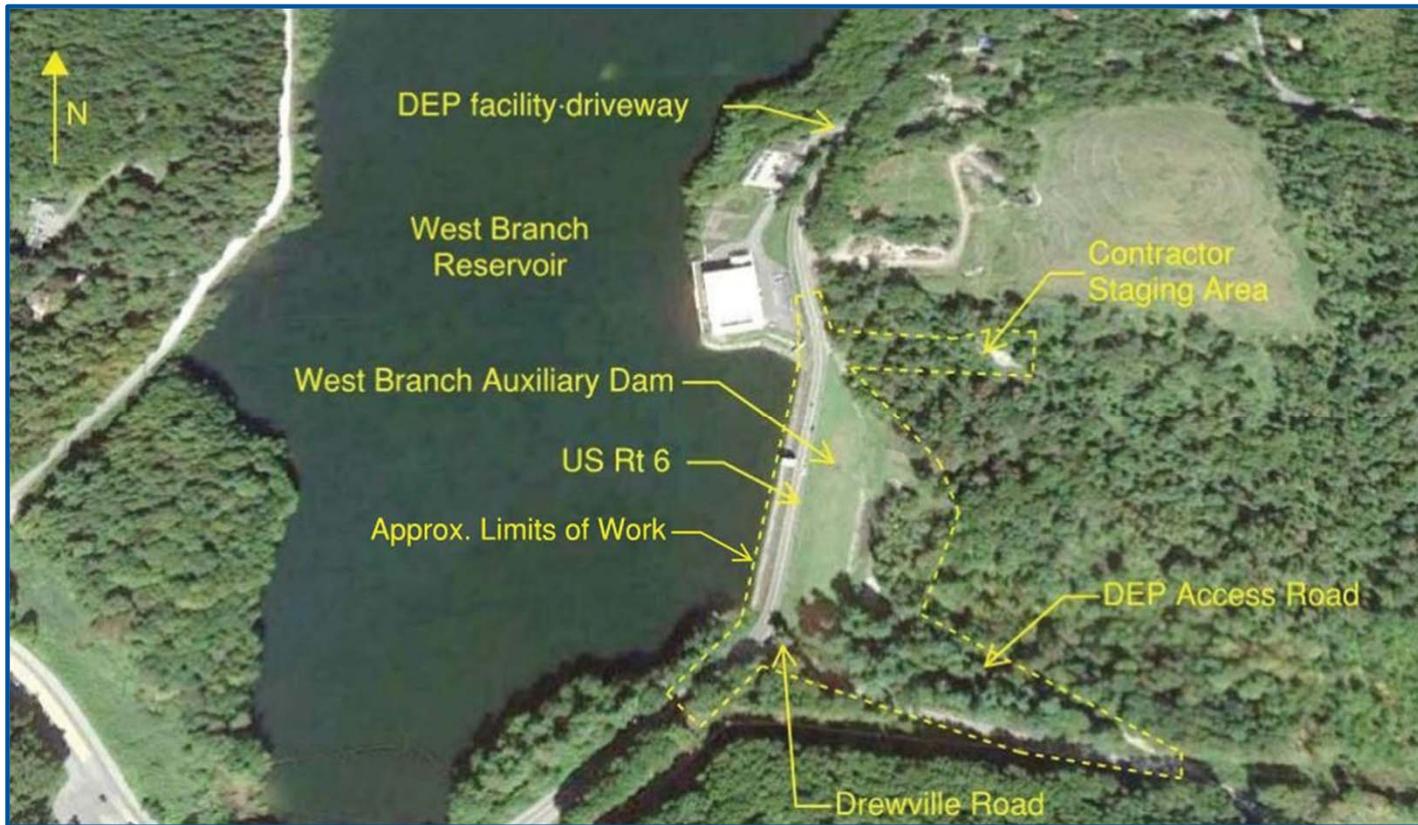


Project Location



West Branch Auxiliary Dam

Project Location



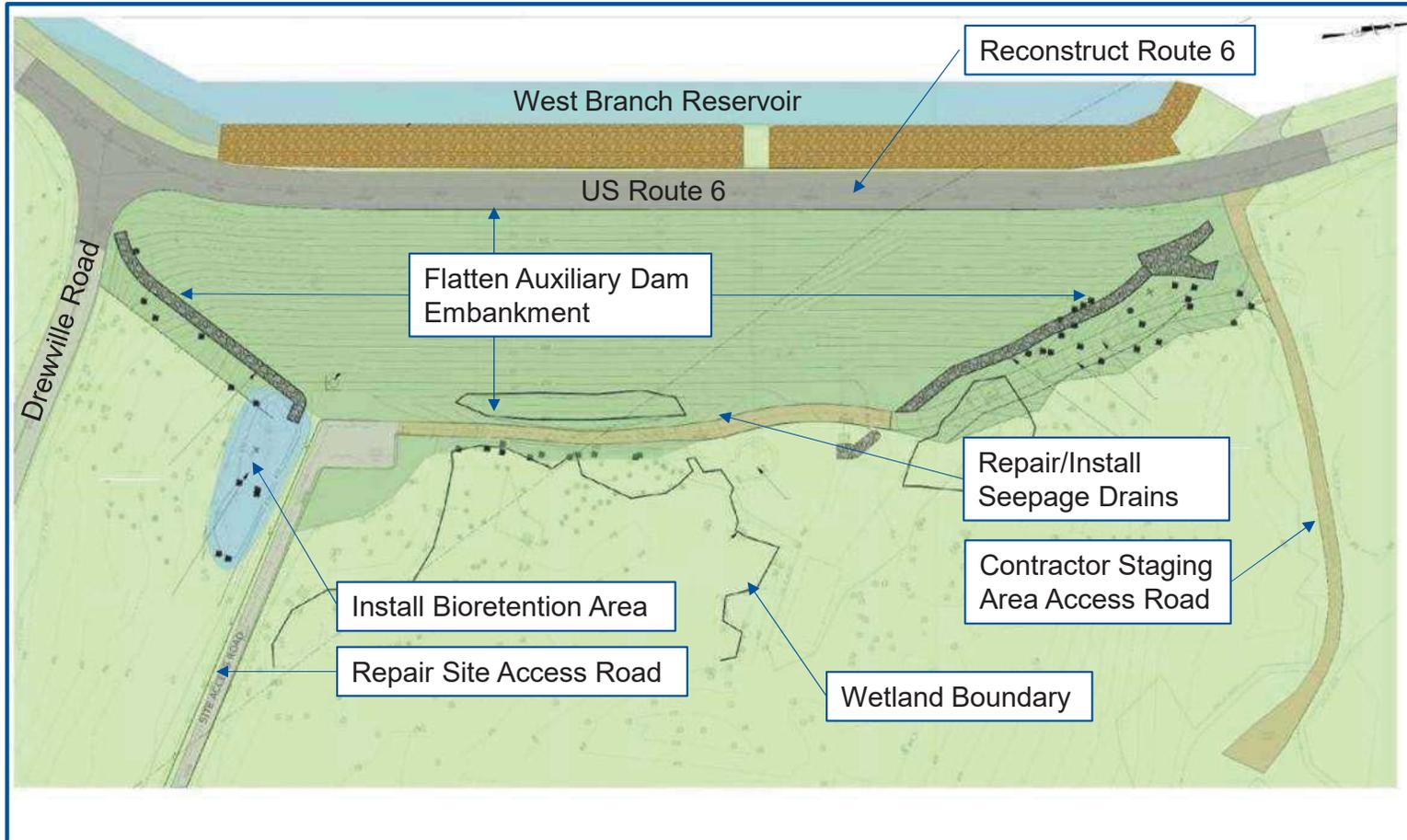
Project Background

Dam Embankment and Roadway Improvements

- Longitudinal pavement cracking, leaning guide railing and utility poles along Route 6
- Engineering assessment identified localized slope stability issue adjacent to roadway
- Slope erosion caused by roadway drainage
- Narrow roadway lanes and shoulders
- Night-time construction for roadway improvements per request by Town



Proposed Work



Proposed Work

- **2.5 year construction contract**
- **Season 1 – Dam Embankment Improvements**
- **Season 2 – Route 6 Improvements**



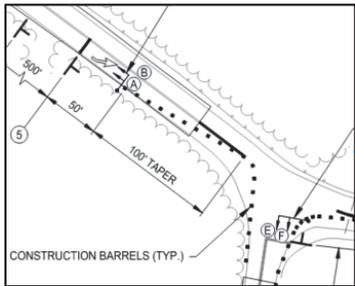
Proposed Work Construction Season 1

- **West Branch Auxiliary Dam Repair & Improvements**

- Install temporary traffic signals
- Tree removals
- Widen Drewville Road site entrance
- Install fill to flatten downstream face slope
- Install seepage underdrain at toe of slope
- Replace damaged seepage drain piping
- Remove low-level dam outlet pipe

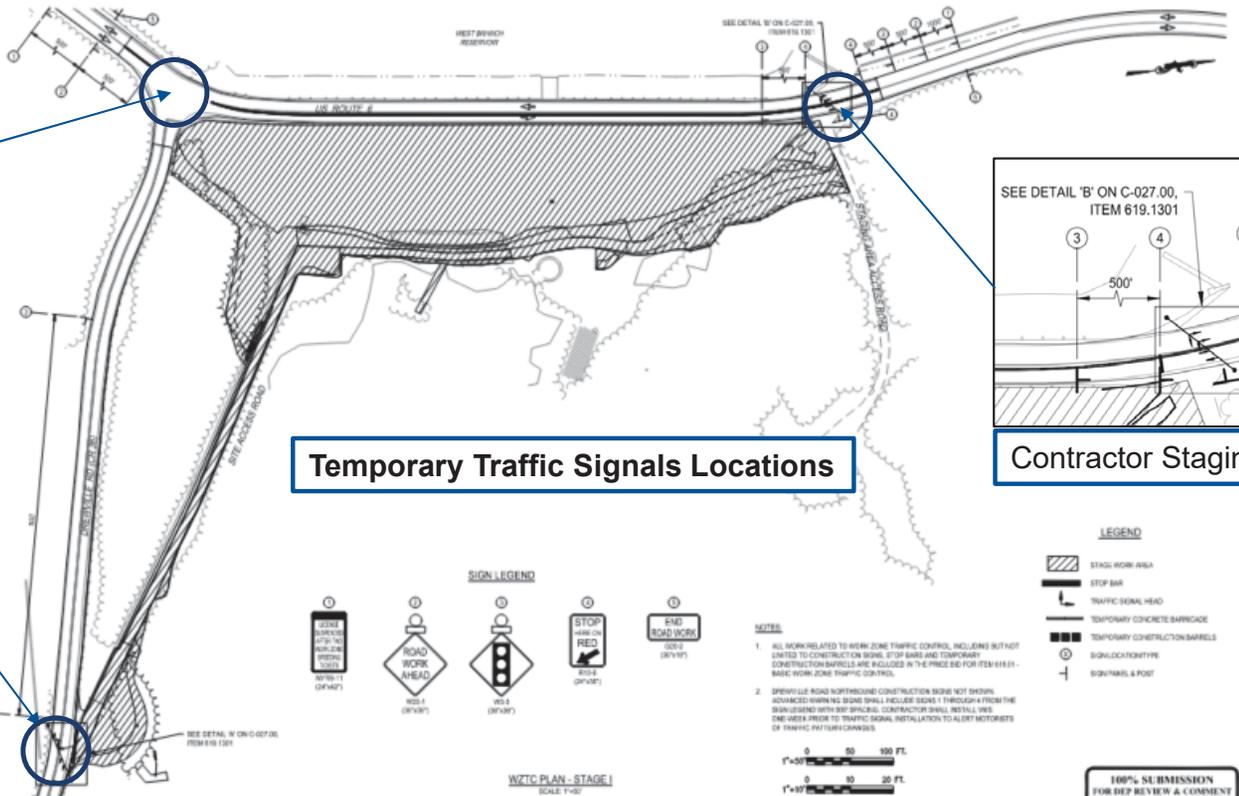
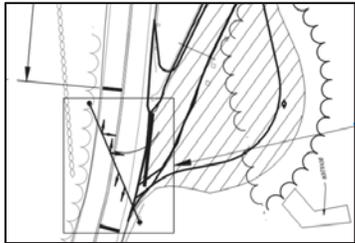


Proposed Work Construction Season 1

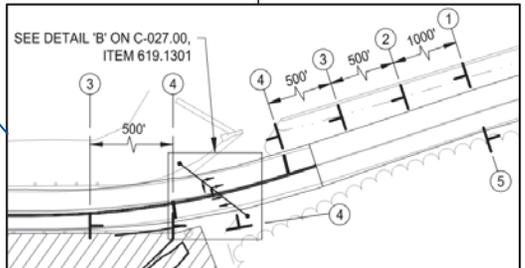


Route 6 / Drewville Road

Drewville Site Entrance



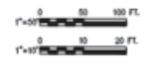
Temporary Traffic Signals Locations



Contractor Staging Area Entrance

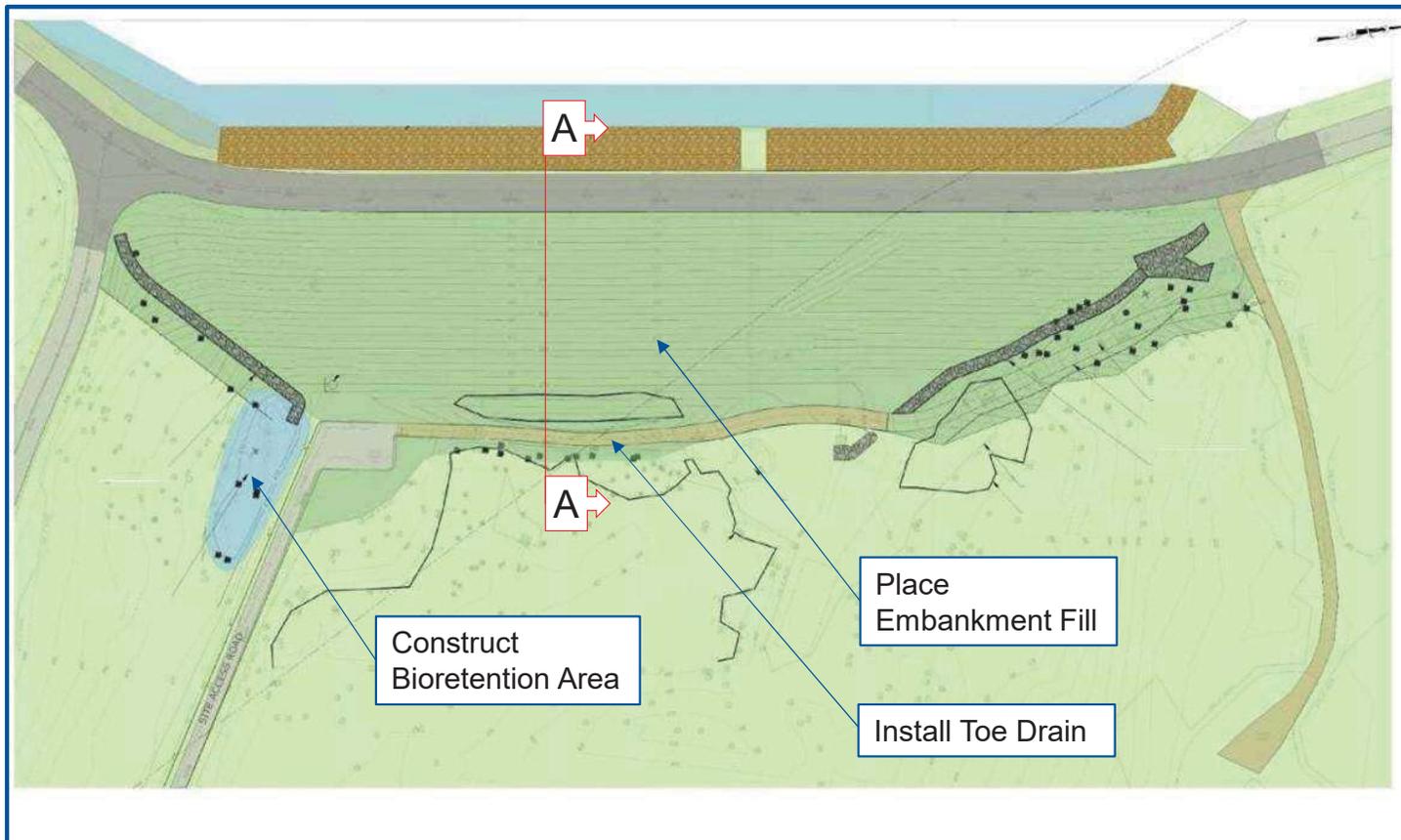


- NOTES**
1. ALL WORK RELATED TO WORK ZONE TRAFFIC CONTROL, INCLUDING BUT NOT LIMITED TO CONSTRUCTION SIGNS, STOP BARS AND TEMPORARY CONSTRUCTION BARRELS ARE INCLUDED IN THE PRICE BID FOR ITEM 619.01 - BASIC WORK ZONE TRAFFIC CONTROL.
 2. DREWVILLE ROAD NORTHBOUND CONSTRUCTION SIGNAL NOT SHOWN. ADVANCED WARNING SIGNS SHALL INCLUDE SIGNS 1 THROUGH 4 FROM THE SIGN LEGEND WITH STOP SIGNALS. CONTRACTOR SHALL INSTALL THESE ONE WEEK PRIOR TO TRAFFIC SIGNAL INSTALLATION TO ALERT MOTORISTS OF TRAFFIC CONTROL CHANGES.

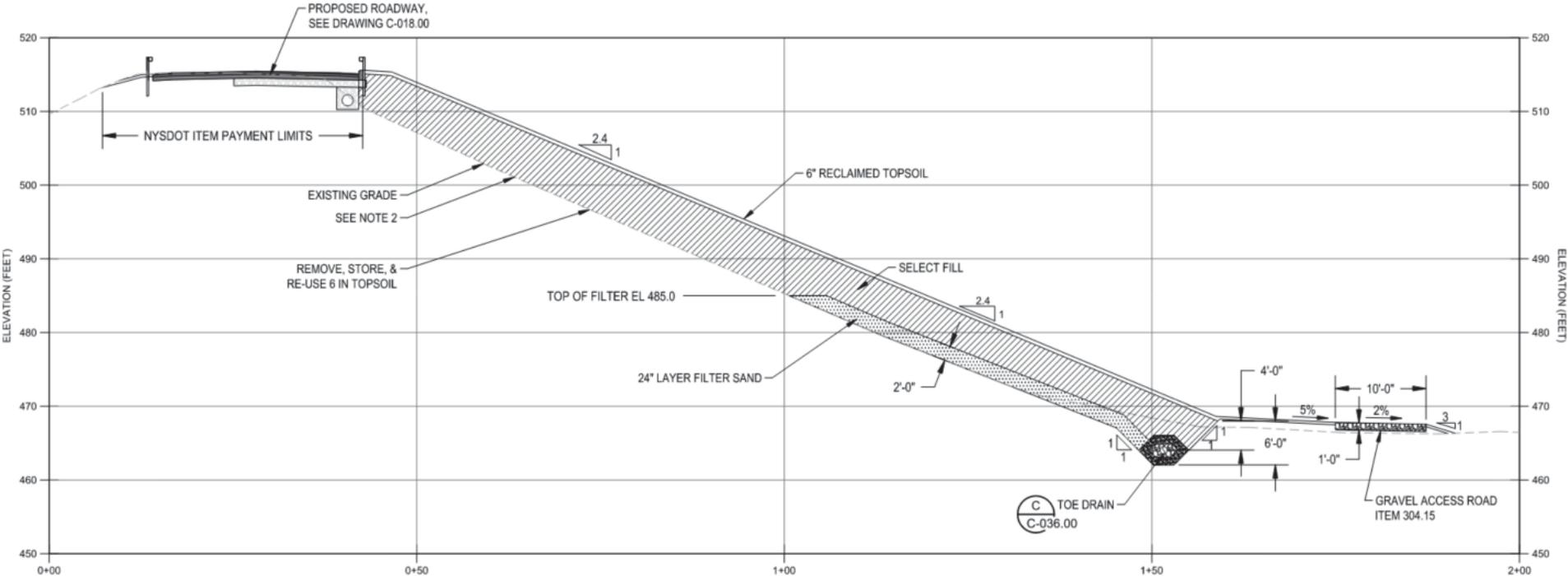


100% SUBMISSION
FOR REP REVIEW & COMMENT
DATE 04/10/2018 3:32PM

Proposed Work Construction Season 1

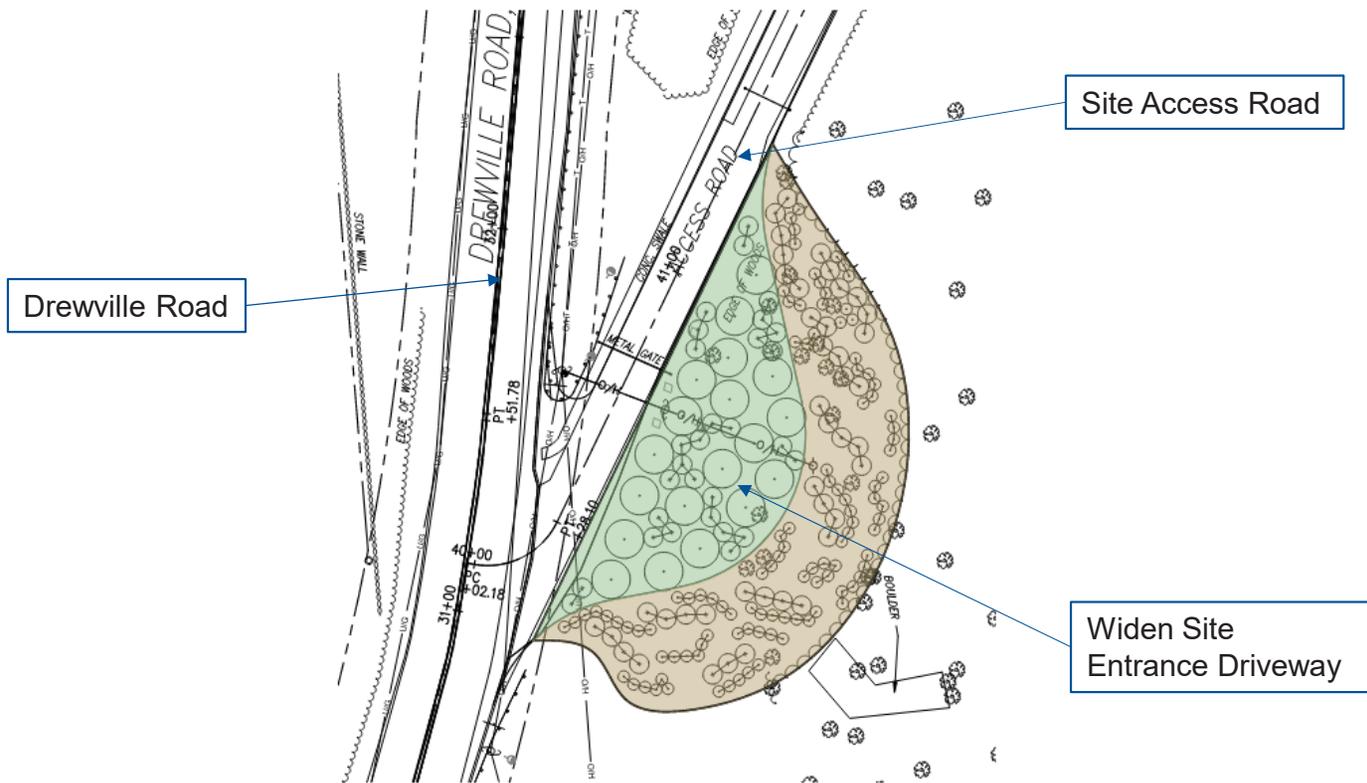


Embankment Cross Section



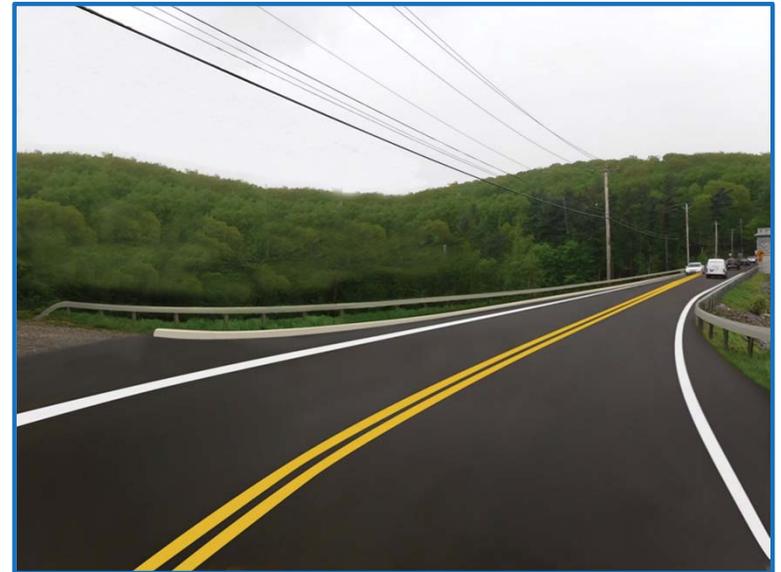
SECTION A

Drewville Road Site Entrance Widening

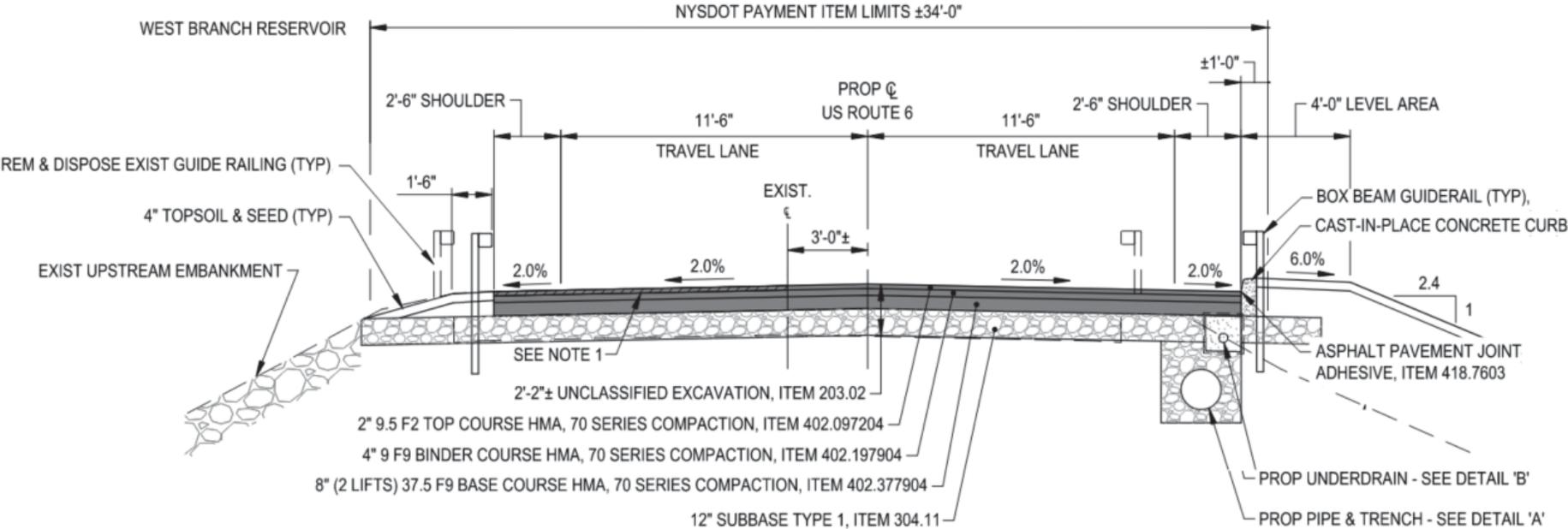


Proposed Work Construction Season 2

- **US Route 6 Reconstruction**
 - Drewville Rd to Shaft 10 facility driveway
 - Minor widening of lanes and shoulders
 - Install curb and drainage system
 - Replace guide railing
 - Replace utility poles



Route 6 Pavement Reconstruction

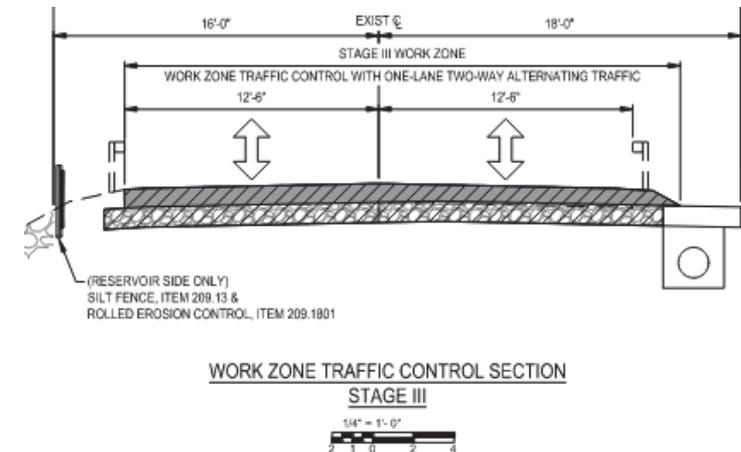


Route 6

Work Zone Traffic Control

▪ Nighttime Construction on Route 6

- Nighttime lane closures – 8pm to 4am
- Alternating one-way traffic at night on Route 6
- Reopen lanes for two-way traffic during the daytime
- Reduced speed & interim road surface (day & night)
- Traffic controlled by temporary signals
- Work area illuminated at night
- Up to 3-month roadway construction duration

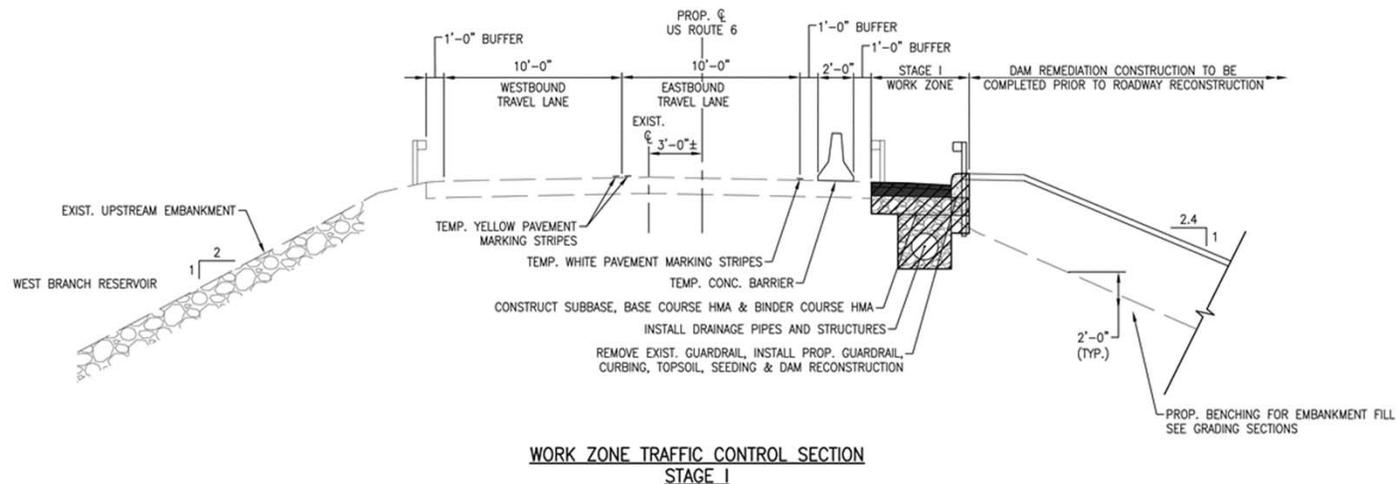


Route 6

Stage I Traffic Control

■ Stage I Work Area

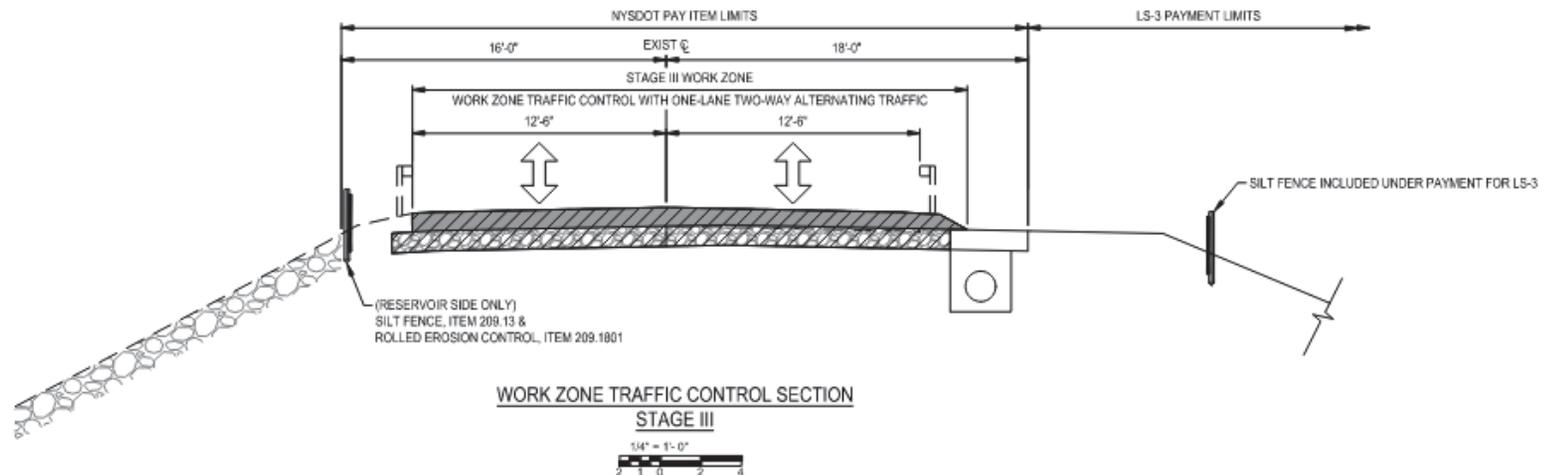
- Free flow traffic on existing paved surface with reduced lane width
- Construction of drainage system offline (outside roadway)
- Short term lane closures during daytime off-peak periods (flaggers)



Route 6

Stages II & III Traffic Control

- **Stage II & III Work Area**
 - Free flow traffic during the day
 - Alternating one-way traffic at night
 - Traffic controlled by temporary signals at night
 - Traffic on interim pavement layers (both lanes)



Agency Coordination

- Town of Carmel
- Putnam County Highway Department
- NYSDEC/USACOE
- NYSDOT Region 8
- Utility Owners
 - NYSEG
 - Verizon
 - First Light
 - Spectrum



Schedule

Project Milestone	Date
Design Phase & Permitting Complete	January 2023
Construction Notice to Proceed	August 2023
Site Mobilization & Tree Cutting	November – March 2023
Construction Season 1	March – November 2024
Construction Season 2	March – November 2025
Route 6 Lane Closures	Summer – Fall 2025
Construction Substantial Completion	January 2026

Project Contacts

- NYCDEP
 - Bureau of Engineering, Design & Construction:
 - Paul Costa – Portfolio Manager – (718) 595-5470
 - Linda Singh – Accountable Manager – (917) 207-9477
- CDM Smith
 - Project Manager – Erik LeClair – (518) 782-4573



New York State Department of Environmental Conservation

Division of Environmental Permits

NYSDEC Region 3 Headquarters
21 S Putt Corners Rd
New Paltz, NY 12561
(845) 256-3054

December 21, 2022

NYC DEPT OF ENVIRONMENTAL PROTECTION
96-05 HORACE HARDING EXPY FL 5
CORONA, NY 11368

Re: DEC ID # 3-3720-00447/00001
WEST BRANCH AUXILIARY DAM CRO-534

Dear Applicant :

Please be advised that your application for a DEC permit(s) is complete and a technical review has commenced. Notice and the opportunity for public comment is required for this application. Enclosed is a Notice of Complete Application for your project. Please have the Notice published in the newspaper identified below once during the week of 12/26/2022 on any day Monday through Friday.

The official newspaper of the Town (City) of CARMEL.

Contact the Town (City) Clerk's office to confirm the official newspaper.

On the Notice of Complete Application, that information presented between the horizontal lines, on the enclosed page(s) should be published. Do not print this letter or the information contained below the second horizontal line. Please request the newspaper publisher to provide you with a Proof of Publication for the Notice. Upon receipt of the Proof of Publication promptly forward it to this office. You must provide the Proof of Publication before a final decision can be rendered on your application. You are responsible for paying the cost of publishing the Notice in the newspaper.

Notification of this complete application is also being provided by this Department in the NYSDEC Environmental Notice Bulletin.

This notification does not signify approval of your application for permit. Additional information may be requested from you at a future date, if deemed necessary to reach a decision on your application. Your project is classified major under the Uniform Procedures Act. Accordingly, a decision is due within 90 days of the date of this notice unless a public hearing is held, which may extend this time frame. If a public hearing is necessary, you will be notified.

If you have any questions please contact me at the above address or phone number above.

Sincerely,

Chris Lang

CHRISTOPHER LANG

Division of Environmental Permits

Digitally signed by Chris Lang
Date: 2022.12.21 14:57:33
-05'00'

THIS IS NOT A PERMIT

**New York State Department of Environmental Conservation
Notice of Complete Application**

Date: 12/21/2022

Applicant: NYC DEPT OF ENVIRONMENTAL PROTECTION
96-05 HORACE HARDING EXPY FL 5
CORONA, NY 11368

Facility: WEST BRANCH AUXILIARY DAM CRO-534
WEST BRANCH RESERVOIR
CARMEL, NY 10512

Application ID: 3-3720-00447/00001

Permits(s) Applied for: 1 - Article 24 Freshwater Wetlands
1 - Article 15 Title 5 Stream Disturbance
1 - Article 15 Title 5 Dam

Project is located: in CARMEL in PUTNAM COUNTY

Project Description:

The applicant proposes improvements to the West Branch Auxiliary Dam (NYS ID: 231-0511B), including flattening/stabilizing the downstream slope, installing drainage infrastructure, and reconstructing US Route 6 which is carried over the dam crest. The proposed improvements would disturb Freshwater Wetland LC-30, its 100-foot adjacent area, and Crafts Brook [DEC Waters Index No. H-31-P44-23-1, Class C(T)], associated with grading and installation/repair of drainage infrastructure.

Availability of Application Documents:

Filed application documents, and Department draft permits where applicable, are available for inspection during normal business hours at the address of the contact person. To ensure timely service at the time of inspection, it is recommended that an appointment be made with the contact person.

State Environmental Quality Review (SEQR) Determination

Project is a Type I action and will not have a significant effect on the environment. A coordinated review with other involved agencies was performed and a Negative Declaration is on file.

SEQR Lead Agency NYC Dept of Environmental Protection

State Historic Preservation Act (SHPA) Determination

Cultural resource lists and maps have been checked. The proposed activity is not in an area of identified archaeological sensitivity and no known registered, eligible or inventoried archaeological sites or historic structures were identified or documented for the project location. No further review in accordance with SHPA is required.

Availability For Public Comment

Comments on this project must be submitted in writing to the Contact Person no later than 01/12/2023 or 15 days after the publication date of this notice, whichever is later.

Contact Person

CHRISTOPHER LANG
NYSDEC
21 S Putt Corners Rd
New Paltz, NY 12561
(845) 256-3096

CC List for Complete Notice

Jennifer Ross, DEC Dam Safety
Sarah Pawliczak, DEC Ecosystem Health
Brian Orzel, US Army Corps of Engineers
Town of Carmel
Linda Singh, DEP
Paul Costa, DEP
Erik LeClair, DEP
Maria Tupper-Goebel, DEP
Joseph Damrath, DEP
ENB

**SECTION 31 23 23 - FILL
CONTRACT CRO-534**

PART 1 GENERAL

1.01 SUMMARY

- A. This Section specifies the requirements for furnishing, placing and compacting all fill material necessary to bring excavations and site work to final grade as shown, specified or required.
- B. Clean fill material from an off-site source shall be non-hazardous and shall meet the requirements of this Section.
- C. The following index of this Section is presented for convenience:

Article	Title	Section Page
PART 1	GENERAL	1
1.01	Summary	1
1.02	Payment	1
1.03	Related Sections	2
1.04	References	2
1.05	Description	4
1.06	Quality Assurance	4
1.07	Submittals	6
1.08	Delivery, Storage, and Handling	6
1.09	Spare Parts, Special Tools, and Supplies	6
1.10	Special Warranty Provisions / Guarantee Periods	6
PART 2	PRODUCTS	7
2.01	Manufacturers	7
2.02	Materials / Equipment	7
2.03	Fabrication / Assembling / Finishes	10
2.04	Source Quality Control / Shop Tests	10
PART 3	EXECUTION.....	10
3.01	Examination / Preparation	10
3.02	Implementation	10
3.03	Field Testing / Quality Control	15
3.04	Startup / Demonstration	16
3.05	Adjusting / Protection / Cleanup.....	16

1.02 PAYMENT

- A. All costs shall be included in the lump sum price bid for Contract Item LS-3 Work Result, as specified in Section 01 27 00 – Measurement and Payment, except for the following NYSDOT Items labeled in the Contract Drawings:
 - 1. Contract Item 203.03 - Embankment in Place,
 - 2. Contract Item 610.1402 - Topsoil – Roadside.
- B. Payment for the NYSDOT Items listed in Article 1.02.A are strictly limited to the items labeled as such in the Contract Drawings and within the payment limits. Refer to Section 01 35 13 – Used of NYSDOT Specs and Drawings for specification details regarding the NYSDOT Item(s). Any item not labeled as a NYSDOT Item

SECTION 31 23 23 - FILL
CONTRACT CRO-534

and outside of the payment limits, within the Contract Drawings, shall be included in lump sum price bid for Contract Item LS-3 Work Result and subject to this Section.

1. Payment for reuse of stones and boulders into the existing swales and bioretention area shall be included under LS-3. Payment for new stone in the swales and bioretention area shall be paid under the appropriate NYSDOT Item number, for additional stone needed after reuse of all existing stones and boulders.

1.03 RELATED SECTIONS

- A. Section 01 74 20 - Construction Waste Management
- B. Section 02 24 20 - Soil Sampling and Analysis
- C. Section 03 30 00 - Cast-in-Place Concrete
- D. Section 31 23 16 - Excavation
- E. Section 31 23 19 - Dewatering
- F. Section 31 25 10 - Dust, Soil Erosion and Sediment Control
- G. Section 32 90 00 - Planting

1.04 REFERENCES

A. Definitions

1. Case-Specific Beneficial Use Determination (BUD): Under 6 NYCRR Part 360, Section 360.12(d), NYSDEC sets forth the requirements for petitioning NYSDEC to obtain a Case-Specific BUD, and the criteria for reviewing, granting, or denying of the BUD. For reuse of a solid waste to be determined a beneficial use, the petition must satisfy all criteria outlined under 6 NYCRR Part 360, Section 360.12(d).
2. Fill: Soil and similar material excavated or brought to the Site for the purposes of construction. All fill material must meet the requirements of this Section. Fill from an off-site source shall be non-hazardous.
3. Pre-Determined Beneficial Use for fill material: Under 6 NYCRR Part 360, Section 360.13(b) Waste cessation. "Fill material ceases to be solid waste in accordance with the following:
 - a. Restricted use fill and limited-use fill – once delivered to the site of reuse;
 - b. General fill generated outside of the City of New York – once a determination that it is general fill has been made;
 - c. General fill generated within the City of New York – once delivered to the site of reuse."
 - d. Under 6 NYCRR Part 360, Section 360.13 (c), Exemption for on-site reuse of fill material. "Fill material used as backfill for the excavation from which the fill material was taken, or as fill in areas

SECTION 31 23 23 - FILL
CONTRACT CRO-534

of similar physical characteristics on the project property is exempt from regulation” under 6 NYCRR Part 360. “If fill material exhibits historical or visual evidence of contamination (including odors), and will be used in an area with public access, the relocated fill material must be covered with a minimum of 12 inches of soil or fill material that meets the criteria for general fill, as defined in” Subdivision 360.13, Special requirements for pre-determined beneficial use of fill material. Refer to Section 02 24 20 - Soil Sampling and Analysis for sampling requirements, including a list of parameters to be analyzed for soils to be reused on-site, or soils to be reused or disposed off-site.

4. Suitable Material: Any material whose composition is satisfactory for use as fill. Any mineral (inorganic) soil, blasted or broken rock and similar materials of natural or man-made (i.e. recycled) origin, including mixtures thereof, are considered suitable materials. Determinations of whether a specific natural material is suitable shall be made by the Engineer on the above basis.
5. Unsuitable Materials: any material containing vegetable or organic matter such as muck, peat, organic silt, topsoil or sod, that is not satisfactory for use as fill material. Certain man-made deposits of industrial waste, or contaminated materials may also be determined to be unsuitable materials.

B. Reference Standards

1. ASTM C33 - Standard Specification for Concrete Aggregates
2. ASTM C131 - Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
3. ASTM C143 - Standard Test Method for Slump of Hydraulic-Cement Concrete
4. ASTM C330 - Lightweight Aggregates for Structural Concrete
5. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))
6. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
7. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))
8. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method
9. ASTM D4318 - Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils

SECTION 31 23 23 - FILL
CONTRACT CRO-534

10. ASTM D4832 - Standard Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Cylinders
11. ASTM D6023 - Standard Test Method for Density (Unit Weight), Yield, Cement Content, and Air Content (Gravimetric) of Controlled Low Strength Material (CLSM)
12. ASTM D6024 - Test Method for Ball Drop on Controlled Low Strength Material (CLSM) to Determine Suitability for Load Application
13. ASTM D6938 - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
14. D6913 - Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
15. D7928 - Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis
16. NYSDEC regulations, 6 NYCRR Part 375, Environmental Remediation Programs
17. NYSDEC regulations, 6 NYCRR Part 360, Solid Waste Management Facilities General Requirements
18. NYSDOT Standard Specifications

1.05 DESCRIPTION

- A. Recycled materials that the Engineer has evaluated and approved for general use shall be considered to be Suitable Material subject to the conditions for use as determined by the City. In general, the use of recycled materials must be sanctioned by NYSDEC, usually in the form of a BUD. See definition above.
- B. Suitable fill material from an off-site source shall be non-hazardous and shall come from the following hierarchical sources:
 1. Other DEP projects that have available, excess suitable materials;
 2. The NYC Clean Soil Bank, located at 830 Forbell Street, Brooklyn, and managed by the Mayor's Office of Environmental Remediation (OER);
 3. Beneficial Use Facilities; and
 4. Commercial Facilities.

1.06 QUALITY ASSURANCE

- A. Testing: The Contractor shall retain the services of an independent materials testing firm to perform the following laboratory and field tests.
- B. All materials used in construction, whether brought to the site or obtained from on-site sources, shall be tested for optimum moisture-maximum density curve, and reports of the test results for each source shall be submitted promptly. The tests shall be as follows:

**SECTION 31 23 23 - FILL
CONTRACT CRO-534**

Test	ASTM Standard	Tests Per Volume Delivered
Gradation	D6913	1 per 200 C.Y.
Compaction Density	or D1557	1 per 200 C.Y.

- C. Acceptability of placed and compacted fill shall be demonstrated by tests performed by the Contractor and accepted by the Engineer. The minimum number of tests shall be determined by quantity of material placed, and reports of the test results shall be submitted promptly. The Contractor shall perform either of the following tests subject to the approval of the Engineer:

Test	ASTM Standard	Tests Per Volume Placed
In-Place Density	D1556 D2167 D6938	1 per 200 cy

- D. The Contractor shall engage the services of a materials testing firm, with the qualifications required by Section 03 30 00 - Cast-in-Place Concrete, experience in the design and testing of materials and mixes, to perform material evaluation tests and to design mixes for flowable fill. A trial mix shall be performed to verify the flowable fill mix design. The trial mix shall also report slump, air content, yield, cement content, and dry unit weight per ASTM C143 and ASTM D6023.
- E. Any fill material brought to the site that is composed of soil or a mixture of soil (excluding gravel, crushed stone, other granular materials or flowable fill), and any soil being used for drainage fill, common fill, and pipe bedding, must comply with the following protocol:
1. Testing shall be performed on all soil brought on-site (fill and topsoil) and shall demonstrate chemical quality meeting 6 NYCRR Part 360, Section 360.13(f), Table 2: Fill Material Beneficial Use, specifically General Fill maximum concentration levels, unless otherwise approved by the Engineer.
 2. Chemical analyses shall include the 6 NYCRR Part 375-6.8(b) compounds, including volatile organic compounds and asbestos, as detailed in Section 02 24 20 - Soil Sampling and Analysis. All analyses shall be performed by a testing laboratory certified by the New York State Department of Health Environmental Laboratory Accreditation Program (NYSDOH-ELAP). Based on visual observation, the volume of physical contaminants, if present, shall also be recorded
 3. The frequency of testing per volume of fill shall be in accordance with 6 NYCRR Part 360.13 (e)(1), Table 1, Minimum Analysis Frequency for Fill Material purchased from a registered/permitted processing or recycling facility.
- F. When testing is required to confirm the reuse of on-site excavation spoils under a Case-Specific BUD, sample the soils in accordance with NYSDEC requirements.

SECTION 31 23 23 - FILL
CONTRACT CRO-534

1.07 SUBMITTALS

- A. Excavation and Fill Placement Plan: At least fifteen (15) days before commencing excavation activities, submit a Slope Excavation and Fill Placement plan to the Engineer for review and approval. The plan shall describe the methods, equipment, and materials that will be used to excavate into the existing dam slope, place the filter blanket, and reconstruct the slope as shown on the drawings. Excavation and fill placement work on the dam slope will be limited to sections no longer than 15 feet measured perpendicular to the slope and no wider than what the Contractor can excavate and fill within one work shift. Excavated benches shall not be left exposed to the weather outside of normal working hours.
- B. The Contractor shall submit shop drawings for the approval of the Engineer. Submittals shall include, but not be limited to:
 - 1. Name and location of all suppliers.
 - 2. Certificate of compliance with standard specified for each source of material.
 - 3. The Contractor shall submit all laboratory analytical reports, which shall include a Summary Table listing the analytical results with highlighted exceedances as defined in 6 NYCRR Part 360, Section 360.13 (f), Table 2: Fill Material Beneficial Use, as applicable.
 - 4. Prior to stockpiling or placing of select fill materials at the job site, submit for approval approximately 50-pound samples representative of the fill at the proposed borrow source. In addition, submit documentation of the availability of the required fill quantities at any proposed borrow source.
 - 5. Submit optimum moisture – maximum density curves and reports for all fill materials before placement of fill.
 - 6. Results of all compaction tests for fill placement.
 - 7. Mix design for flowable fill, including all materials used and trial mix test results.
 - 8. Certification by the lightweight fill producer of the gradation, dry loose unit weight, dry compacted unit weight, and Los Angeles Abrasion Test lost for the proposed lightweight fill source.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Materials delivered to the site shall be stored in a manner to prevent contamination and segregation. .

1.09 SPARE PARTS, SPECIAL TOOLS, AND SUPPLIES

- A. Not Used

1.10 SPECIAL WARRANTY PROVISIONS / GUARANTEE PERIODS

- A. Not Used

SECTION 31 23 23 - FILL
CONTRACT CRO-534

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Not Used

2.02 MATERIALS / EQUIPMENT

- A. General

1. Backfill shall be composed of suitable materials as defined in this Section.
 - a. On-site Materials: Material to be excavated and proposed for reuse as fill under Pre-Determined Beneficial Use must meet the requirements of 6 NYCRR Part 360, Section 360.13 (a), Applicability, Section 360.13 (b), Waste Cessation, or Section 360.13 (c), Exemption for On-site Reuse of Fill Material. If these criteria cannot be met, material shall meet Section 360.12(d), Case-specific beneficial use determinations - general. Fill may require sampling and analyses in accordance with Section 02 24 20 – Soil Sampling and Analysis. The Contractor shall maximize reuse of soil on-site for backfilling rather than import soil from other sources.
 - b. Off-site Imported Materials: Fill that is brought on site must meet the requirements of 6 NYCRR Part 360, Section 360.13 (f), Table 2: Fill Material Beneficial Use for General Fill.
2. Follow common fill requirements whenever drainage or select fill is not specified. Determine and obtain the approval of the Engineer for the appropriate test method where more than one compaction test method is specified.
3. Do not use wet or frozen material for backfilling.
4. The maximum stone size shall be two-thirds of the loose lift thickness of the backfill, but in no case shall contain stones over 3 inches in the largest dimension.

- B. Drainage (Filter) Sand

1. Drainage (filter) sand shall conform to the requirements for ASTM C33 Fine Aggregate and NYSDOT 703-07 Concrete Sand. Drainage (filter) sand containing limestone, shale, or clay and silt particles will be rejected.

- C. Select Fill

1. Select fill shall consist of non-calcareous gravel, crushed stone, or other granular or similar materials, as approved by the Engineer. Very fine sand, uniformly graded sands (SP) and gravels (GP), or materials that can shift or flow under pressure will be rejected. Material containing limestone, shale, or clay particles will be rejected. Select fill shall meet the following gradation limits:

**SECTION 31 23 23 - FILL
CONTRACT CRO-534**

U.S. Standard Sieve	Percent Passing By Dry Weight
2 inch	100
1-1/2 inch	90-100
1 inch	75-95
1/2 inch	45-70
#4	25-50
#10	15-40
#200	0-10

D. Common Fill

1. Common fill shall consist of gravel, crushed stone, or other granular or similar materials, as approved by the Engineer. Common fill may be obtained from on-site excavations provided it does not contain unsuitable material as per Article 1.04.A.5. Select fill may be used as common fill at no change in the Contract Price. Common fill shall meet the following gradation limits:
2. Granular on-site material that complies with the following gradation limits may be used as granular common fill:

U.S. Standard Sieve	Percent Passing By Dry Weight
3 inch	100
#10	50-100
#60	20-90
#200	0-20

3. Material passing the #200 sieve shall have a liquid limit less than or equal to 40 and a plasticity index less than or equal to 10, as determined by ASTM D4318.

E. Crushed Stone for Toe Drains

1. Crushed stone for toe drains shall conform to NYSDOT 733-20 Underdrain Filter Material Type 1. Crushed stone shall meet the following gradation limits:

U.S. Standard Sieve	Percent Passing By Dry Weight
1 inch	100
1/2 inch	30-100
1/4 inch	0-30
#10	0-10

SECTION 31 23 23 - FILL
CONTRACT CRO-534

U.S. Standard Sieve	Percent Passing By Dry Weight
#20	0-5

F. Pipe Bedding

1. For pipes up to 18 inches in diameter: Use well-graded material of which 90 percent is retained on a No. 8 sieve and 100 percent passes the 1/2 inch sieve.
2. For pipes greater than 18 inches in diameter: Use well-graded material of which 90 percent is retained on a No. 8 sieve and 100 percent passes a 1-inch sieve.

G. Lightweight Fill

1. Lightweight fill shall be a lightweight aggregate produced by the rotary kiln method and meeting the requirements of ASTM C330. No byproduct slags or cinders are permitted.
2. The material shall meet the grading requirements of ASTM C330, Table 1, Coarse Aggregate: 3/4 inch to No. 4.
3. Dry loose unit weight shall be maximum of 55 pcf. Dry compacted unit weight shall be a maximum of 60 pcf when measured by a one-point test performed in accordance with ASTM D698.
4. Maximum Los Angeles Abrasion Test loss of 50 percent when tested in accordance with ASTM C131 (B grading).

H. Flowable Fill

1. Flowable fill (also known as controlled low strength material) shall be a uniform mixture of sand, Type II Portland cement, fly ash, slag, admixtures, and water. The mix design shall produce a flowable material with little or no bleed water which produces a minimum compressive strength of 50 psi and maximum compressive strength of 100 psi at 56 days. The cured material shall be excavatable and have a maximum dry unit weight of 100 pounds per cubic foot. Slump shall be from 7 inches to 10 inches.
2. Admixtures specifically designed for flowable fill shall be used to improve flowability, reduce unit weight, control strength development, reduce settlement and reduce bleed water. Admixtures shall be:
 - a. Rheocell-Rheofill manufactured by BASF;
 - b. DaraFill manufactured by W.R. Grace Construction Products;
 - c. Or an approved equal.
3. All other materials shall be as specified in Section 03 30 00 - Cast-in-Place Concrete.

I. Compaction Equipment

SECTION 31 23 23 - FILL
CONTRACT CRO-534

1. Equipment and Methods: Perform all compaction with suitable approved equipment and methods.
2. Compact granular materials with vibratory plates or smooth-drum vibratory rollers.
3. Compact clay and other cohesive material with sheep's-foot rollers or similar equipment where practicable. Use hand-held pneumatic tampers elsewhere for compaction of cohesive fill material.
4. Compact low cohesive soils with pneumatic-tire rollers or large vibratory equipment where practicable. Use small vibratory equipment elsewhere for compaction of cohesionless fill material.
5. Use only hand-operated compaction equipment when compacting fill adjacent to buried foundation walls, manholes, vaults, or other structures.
6. Do not use heavy compaction equipment over pipelines or other structures, unless the depth of fill is sufficient to adequately distribute the load.

2.03 FABRICATION / ASSEMBLING / FINISHES

- A. Not Used

2.04 SOURCE QUALITY CONTROL / SHOP TESTS

- A. Not Used

PART 3 EXECUTION

3.01 EXAMINATION / PREPARATION

- A. All stockpiled materials shall be adequately handled as required in Section 31 25 10 – Dust, Soil Erosion and Sediment Control.
- B. No material shall be placed until satisfactory test reports for material type and compaction requirements have been approved by the Engineer.
- C. Warning tape/ribbon shall be placed and/or restored as required when backfilling new and existing utility lines.

3.02 IMPLEMENTATION

- A. Backfill all excavations to the original surface of the ground or to such other grades as may be shown or required. For areas to be covered by lawn mix, leave or stop backfill 12 inches below the finished grade or as otherwise required to provide adequate depth of lawn mix to satisfy the requirements of Section 32 90 00 – Planting.
- B. Remove from the space being backfilled, any compressible, decayable, or destructible rubbish and refuse before backfilling is started. Dispose of the rubbish and refuse in accordance with the requirements of Section 01 74 20 – Construction Waste Management.

SECTION 31 23 23 - FILL
CONTRACT CRO-534

- C. Leave sheeting and bracing in place or remove as the Work progresses, as shown in the Contract Drawings, specified or directed by the Engineer.
- D. Do not permit backfilling construction equipment to travel over or against cast-in-place concrete structures until the specified concrete strength has been obtained, as verified by concrete test cylinders. In special cases where conditions warrant, the above restriction may be modified provided the concrete has gained sufficient strength, as determined from test cylinders, to satisfy design requirements for the removal of forms and the application of load.
- E. Electrical Duct and Structure Bedding
 - 1. All electrical ducts and precast manhole bases shall be bedded in well graded, compacted, select fill material. Select fill shall be placed in uniform layers not greater than 9 inches in loose thickness and compacted in place with suitable mechanical or pneumatic tools to not less than 95 percent of the maximum dry density as determined by ASTM D1557. Bedding thickness shall be not less than 6 inches after compaction. Bedding below electrical ducts shall extend the full width of the trench.
 - 2. Existing underground structures, tunnels, conduits and pipes crossing the excavation shall be bedded with compacted select fill. Place bedding material under and around each existing underground structure, tunnel, conduit or pipe and extend underneath and on each side to a distance equal to the depth of the trench below the structure, tunnel, conduit or pipe.
 - 3. Cast-in-place manhole bases and other foundations for structures shall be cast against a concrete work mat in clean and dry excavations, unless otherwise shown, specified or required.
- F. Pipe Bedding and Initial Backfill
 - 1. Place select fill by hand for initial pipe backfill from top of bedding to 1 foot over top of pipes in uniform layers not greater than 6 inches in loose thickness. Tamp under pipe haunches and thoroughly compact in place with suitable mechanical or pneumatic tools to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
 - 2. Do not place stone fragments larger than 2-inch size in the pipe bedding or in the backfill within 1 foot over the top of pipes, nor any stone fragments larger than 3-inch size within 2 feet from any pipe, conduit or concrete wall.
 - 3. Bed pipelines or electrical ducts placed in short tunnels in structural fill, flowable fill, or 2500 psi concrete. Completely fill the remainder of the annular space between the outside of the pipe wall and the tunnel wall with select fill, flowable fill, suitable job-excavated material, or 2500 psi concrete, as approved. Pipes and ducts in short tunnels shall be supported to permit placing and compaction of backfill.
- G. Placement of Flowable Fill

SECTION 31 23 23 - FILL
CONTRACT CRO-534

- a. Flowable fill shall be batched and premixed by an approved producer, dispensed from ready-mix trucks, and placed by approved methods and equipment.
- b. Flowable fill shall be placed so as to completely fill the space to receive it with no trapped air pockets or other voids. Positive means of allowing air to escape shall be provided where necessary. Where placed against and around existing structures, lift heights shall be limited so as not to overload the structure. Lift heights shall be as approved by the Engineer.
- c. Where flowable fill is placed around piping and other elements subject to floating within the fill, positive means shall be taken to provide temporary balancing loads to prevent uplift, or fill lift heights shall be limited to prevent uplift.
- d. Application of loads or placement of other fill materials or concrete on top of flowable fill shall not occur until the flowable fill surface is determined to be suitable for loading per ASTM D6024.

H. Trench Backfill

1. Backfill trenches from 1 foot over the top of the pipe, from the top of electrical duct bedding or as shown to the bottom of pavement base course, subgrade for lawns or lawn replacement, to the top of the existing ground surface or to such other grades as may be shown or required. Backfill trenches as soon as, in the opinion of the Engineer, it can be done without injury to the concrete or pipes.
2. Provide select fill, suitable common fill or other material, as specified and as approved for trench backfill.
3. Depth of Placement - General: Except under pavements, walkways, railroad tracks, and street or highway appurtenances, or as otherwise specified, place trench backfill in uniform layers not greater than 9 inches in loose thickness and thoroughly compact in place using suitable mechanical or pneumatic equipment. Compact backfill to not less than 90 percent of the maximum dry density as determined by ASTM D1557.
4. Depth of Placement - Traffic Areas and Under Utilities: Where pavements, walkways, railroad tracks and street or highway appurtenances are to be placed over trenches and under utilities or utility services crossing the trench, provide trench backfill using select fill placed in uniform layers not greater than 9 inches in loose thickness and thoroughly compacted in place with equipment as specified above. Compact backfill to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
5. Depth of Placement - Undeveloped Areas: In undeveloped areas and where select fill material or hand-placed backfill are not specified or required, place suitable material in lifts not exceeding 12 inches in loose thickness. Compact backfill to not less than 90 percent of the maximum dry density as

SECTION 31 23 23 - FILL
CONTRACT CRO-534

determined by ASTM D1557. Mound the top of the trench approximately 6 inches to allow for consolidation of backfill.

6. Backfill trenches in such a way as to prevent dropping material directly on top of any conduit or pipe through any great vertical distance. Do not allow backfilling material from a bucket to fall directly on a structure or pipe and, in all cases, lower the bucket so that the impact of falling material will not cause damage.
7. Break up lumps and distribute any stones, pieces of crushed rock or lumps which cannot readily be broken up throughout the mass so that all interstices are solidly filled with fine material.
8. Retain backfill in trenches by temporary bulkheads only and remove them as the backfilling progresses. Do not make bulkheads of stone.
9. Do not cover sewers, drains, basin connections, ends of sewers and branches until the Engineer orders or gives permission to backfill.
10. After completion of backfilling in City streets, remove all surplus material, and regrade and leave free, clear, and in good order all roadways and sidewalks. Deposit and compact a temporary surface of asphalt, or other equivalent and suitable material to a depth of six inches on all backfilled areas where ordered by the Engineer in writing. Until areas are restored to their original condition, maintain the surface of the temporary pavement in good and safe condition and promptly fill all depressions caused by settlement of the backfill with the temporary surfacing materials and compact the same. Wet the temporary surface by spraying with water when necessary to prevent a dust nuisance.

I. Structure Backfill

1. Backfill excavations as soon as, in the opinion of the Engineer, it can be done without injury to the concrete or structures.
2. Use select fill underneath all structures, and adjacent to structures where pipes, connections, electrical ducts and structural foundations are to be located within this fill. Use select fill beneath all pavements, walkways, and railroad tracks, and extend to the bottom of pavement base course or ballast.
 - a. Place select fill in uniform layers not greater than 8 inches in loose thickness and thoroughly compact in place with suitable approved mechanical or pneumatic equipment.
 - b. Compact select fill to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
3. When shown on the Contract Drawings, or approved by the Engineer, lightweight fill shall be used to raise the grade in areas that are to support pavements, walkways, railroad tracks and other structures.
 - a. Place lightweight fill in uniform horizontal layers not greater than 12 inches in loose thickness.

SECTION 31 23 23 - FILL
CONTRACT CRO-534

- b. Lightweight fill shall be compacted by four complete coverages with an approved smooth drum vibratory roller having a minimum static weight of 14,000 pounds, a minimum dynamic force of 23,000 pounds, and a total force not less than 5,500 pounds per foot of compactor drum width.
 4. Use common granular fill adjacent to structures in all areas not specified above, unless otherwise shown or specified. Select fill may be used in place of common granular fill at no additional cost.
 - a. Extend such backfill from the bottom of the excavation or top of bedding to the underside of the lawn mix for seeded, sodded or hydroseeded areas, the top of previously existing ground surface or to such other grades as may be shown or required.
 - b. Place backfill in uniform layers not greater than 8 inches in loose thickness and thoroughly compact in place with suitable equipment, as specified above.
 - c. Compact backfill to not less than 90 percent of the maximum dry density as determined by ASTM D1557.
 5. In unpaved areas adjacent to structures, for the top 1 foot of fill directly under the lawn mix, use cohesive backfill conforming to Article 2.02.G.3, placed in 6-inch lifts. The cohesive backfill shall extend to the limits of the excavated area. Compact to not less than 90 percent of the maximum dry density as determined by ASTM D1557.
 6. When shown on the Contract Drawings, flowable fill shall be used for backfilling of structures. Backfilling with flowable fill shall be as specified in Article 3.02.G.
 7. When sheeting is withdrawn, solidly fill all cavities in or adjoining the trench or other excavation. When sheeting is left in place, solidly fill all cavities behind such sheeting.
- J. Drainage Blanket
 1. Provide a drainage blanket consisting of drainage fill where shown, specified, or required. Place drainage fill in uniform layers not greater than 8 inches in loose thickness.
 2. Where drainage fill is required underneath structures or adjacent to structures where pipes, connections, electrical ducts, and structural foundations will be located within the fill, compact the fill with a minimum of four (4) passes of a smooth-drum vibratory roller or plate compactor having a minimum static weight of 1,500 pounds and a minimum dynamic force of 20,000 pounds. .
 3. Where drainage fill is required in areas not specified in Paragraph 3.02.J.2, compact with a minimum of two (2) passes of a smooth-drum vibratory roller or plate compactor having a minimum static weight of 1,500 pounds and a minimum dynamic force of 20,000 pounds.

SECTION 31 23 23 - FILL
CONTRACT CRO-534

4. Compaction equipment must be clean and free from other fill types or debris and must not result in contamination of the drainage fill. Any contaminated drainage fill shall be removed and replaced with clean fill at no additional cost.

K. Earth Embankments

1. Make all earth embankments of approved select fill material.
2. Place fill in uniform layers not greater than 10 inches in loose thickness. Compact in place with suitable approved mechanical equipment.
3. Compact earth embankments to not less than 95 percent of the maximum dry density as determined by ASTM D1557.
4. Do not use cohesionless, granular material as earth embankment backfill, unless otherwise shown or required.

L. Finish Grading

1. Perform finish grading in accordance with the completed contour elevations and grades shown on the Contract Drawings and blend into conformation with remaining natural ground surfaces.
 - a. Leave all finished grading surfaces smooth and firm to drain. Areas shall be finished to the degree obtainable by either blade or scraper operations and suitable for application of topsoil.
 - b. Bring finish grades to elevations within plus or minus 0.10 foot of elevations or contours shown.
 - c. Areas which are anticipated to be undisturbed for a period of more than 30 days shall receive temporary seeding of rye grass at a rate of three bushels per acre, weather and season permitting. This seeding shall be repeated as necessary to maintain a continuing ground cover.
2. Grade outside of building or structure lines in a manner to prevent accumulation of water within the area. Where necessary or where shown, extend finish grading to ensure that water will be carried to drainage ditches, and the site area left smooth and free from depressions holding water.

3.03 FIELD TESTING / QUALITY CONTROL

A. Sampling and Testing of Select and Common and Lightweight Backfill:

1. Provide sampling, testing, and laboratory methods as determined by the Engineer for select fill and common fill. Lightweight fill shall be tested as specified herein.

B. Test all backfill to the satisfaction of the Engineer. These tests shall be the basis for acceptance or rejection by the Engineer of the compaction. Failure to achieve the specified densities shall require the Contractor to recompact or remove the material as required. Sampling and Testing of Flowable Fill:

SECTION 31 23 23 - FILL
CONTRACT CRO-534

1. The Contractor shall provide all facilities as may be necessary for the ready procurement of samples of flowable fill from the Work or truck mixers as required by the Engineer for test purposes.
2. The DEP/QA/QC Consultant will provide personnel and equipment for making periodic determinations in the field of slump, air content, ambient and concrete temperature, unit weight and yield and for the preparation of compressive strength test cylinders as required in compliance with applicable ASTM tests and procedures. In compliance with ASTM D4832, a minimum of two cylinders will be tested at 7 days, two at 28 days, and three at 56 days. Tests shall be made on material at point of discharge into the work. Tests shall be made for each 200 cubic yards of material placed but not less than one test for each day flowable fill is placed.
3. The Contractor shall supply all equipment necessary to perform the required tests including, but not limited to, cylinder molds, tags, capping compound, slump cones, platform scale, two buckets (each 2 cubic feet in size), thermometers, pressure air meter, and roller meter.

C. Correction of Work:

1. Correct any areas of unsatisfactory compaction by removal and replacement, or by scarifying, aerating or sprinkling as needed and recompaction in place prior to placement of a new lift. The Contractor shall, if necessary, increase the compactive effort by increasing the number of passes, using heavier or more suitable compaction equipment, or by reducing the lift thickness. The Contractor shall adjust the moisture content of the soil to bring it to the optimum range by drying or adding water, as required.
2. Correct any depression which may develop from settlement in backfilled areas within one year after the work is fully completed. Provide, as needed, backfill material, pavement base replacement, permanent pavement, sidewalk, curb and driveway repair or replacement, and lawn replacement, and perform the necessary reconditioning and restoration work to bring such depressed areas to proper grade as approved.

3.04 STARTUP / DEMONSTRATION

- A. Not Used

3.05 ADJUSTING / PROTECTION / CLEANUP

- A. Not Used

END OF SECTION

**SECTION 31 23 23 - FILL
CONTRACT CRO-534**

NO TEXT ON THIS PAGE

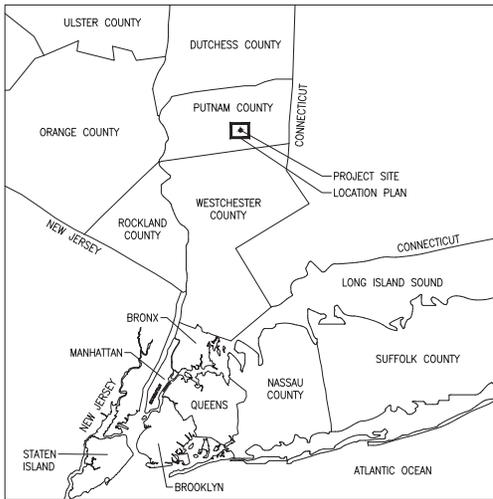


TOWN OF CARMEL
 PRELIMINARY SITE PLAN
 APPLICATION
 DATE SUBMITTED: 5/5/2022

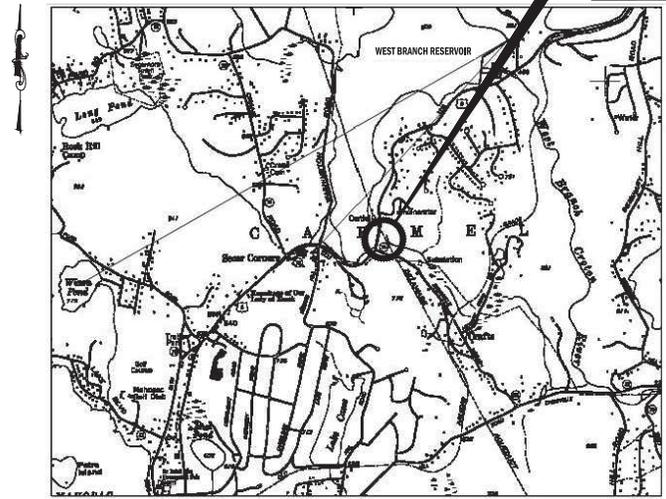
NEW YORK CITY
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION

**WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS
 CONTRACT CRO-534**

PUTNAM COUNTY, NEW YORK
 MAY 2022



KEY PLAN
 NOT TO SCALE



LOCATION PLAN



PRELIMINARY SITE PLAN APPLICATION
TOWN OF CARMEL

MICHAEL BORSYKOWSKY, P.E.
 ASSISTANT COMMISSIONER
 WATER SYSTEM CAPITAL PROGRAM

ANA BARRIO
 DEPUTY COMMISSIONER
 BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION

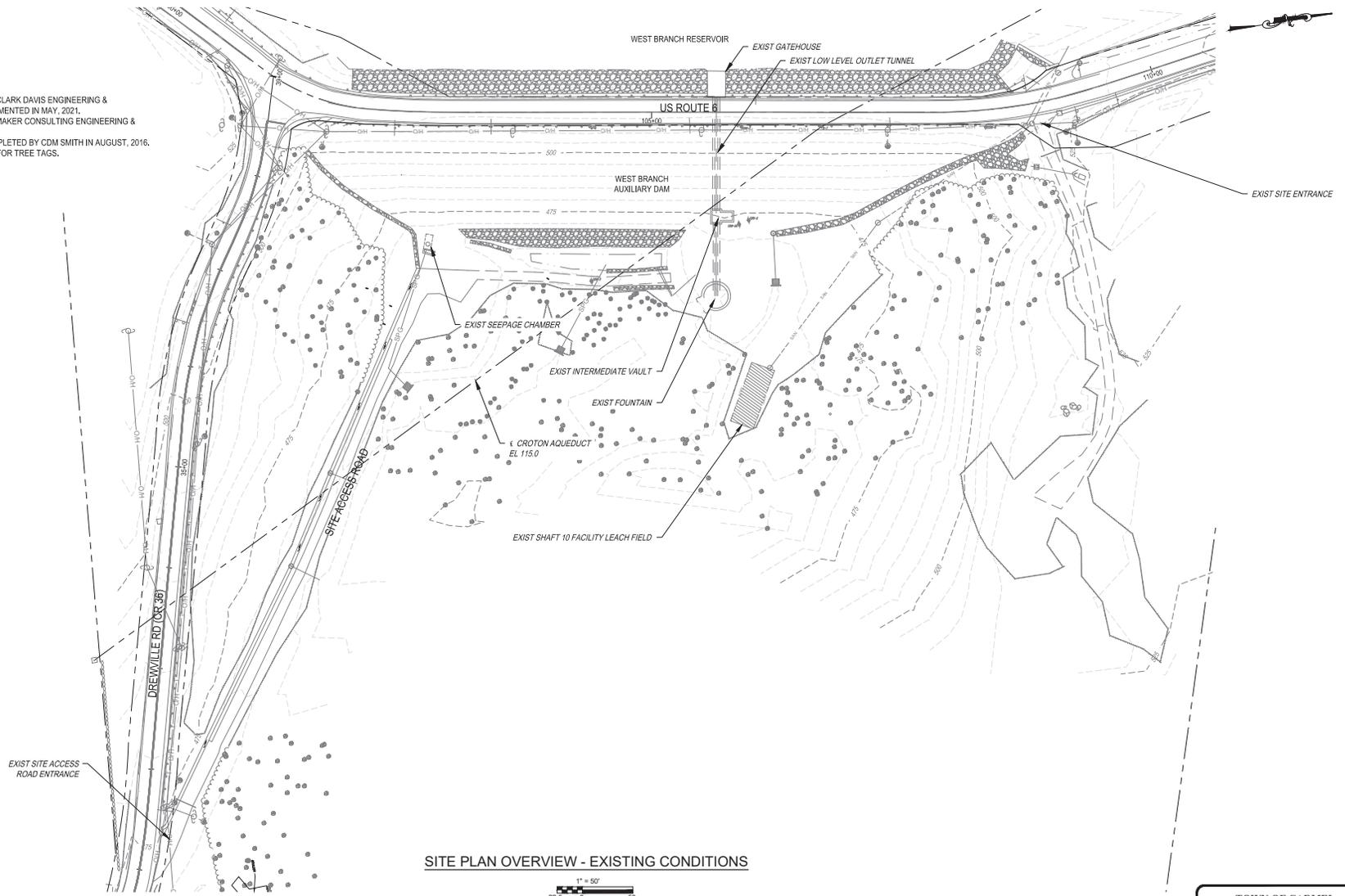
VINCENT SAPEINZA, P.E.
 COMMISSIONER
 DEPARTMENT OF ENVIRONMENTAL PROTECTION



NOTES:

- 1) FIELD SURVEY PERFORMED BY RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING IN DECEMBER, 2016 AND SUPPLEMENTED IN MAY, 2021.
- 2) BATHYMETRIC SURVEY PERFORMED BY SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING IN SEPTEMBER, 2016.
- 3) WETLAND DELINEATION FLAGGING WAS COMPLETED BY CDM SMITH IN AUGUST, 2016.
- 4) REFERENCE DRAWINGS L-001.00 TO L-005.00 FOR TREE TAGS.

PROPERTY PARCEL NUMBER: 65-1-1
 OWNER: CITY OF NEW YORK
 ZONING: NEW YORK CITY WATERSHED



SITE PLAN OVERVIEW - EXISTING CONDITIONS



Last Saved By: E. Leclair, 11/10/2022 10:07:04 AM
 Plot Style Table: BECC_Drawing.ctb
 Drawing Name: S:\Location\26981\2022\1000\04_01 - East.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY: M. POWELL	 11 8000 American Blvd, Suite 200 Latham, NY 12110 Tel: (518) 762-6500
CHECKED BY: E. LECLAIR	
DESIGN LEAD: S. MURPHY	
SECTION MANAGER: E. LECLAIR	

DRAWN BY: M. POWELL



APPROVED FOR THE CITY OF NEW YORK
L. SINGH ACCOUNTABLE MANAGER
P. COSTA PORTFOLIO MANAGER

WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

NEW YORK CITY
ENVIRONMENTAL PROTECTION
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

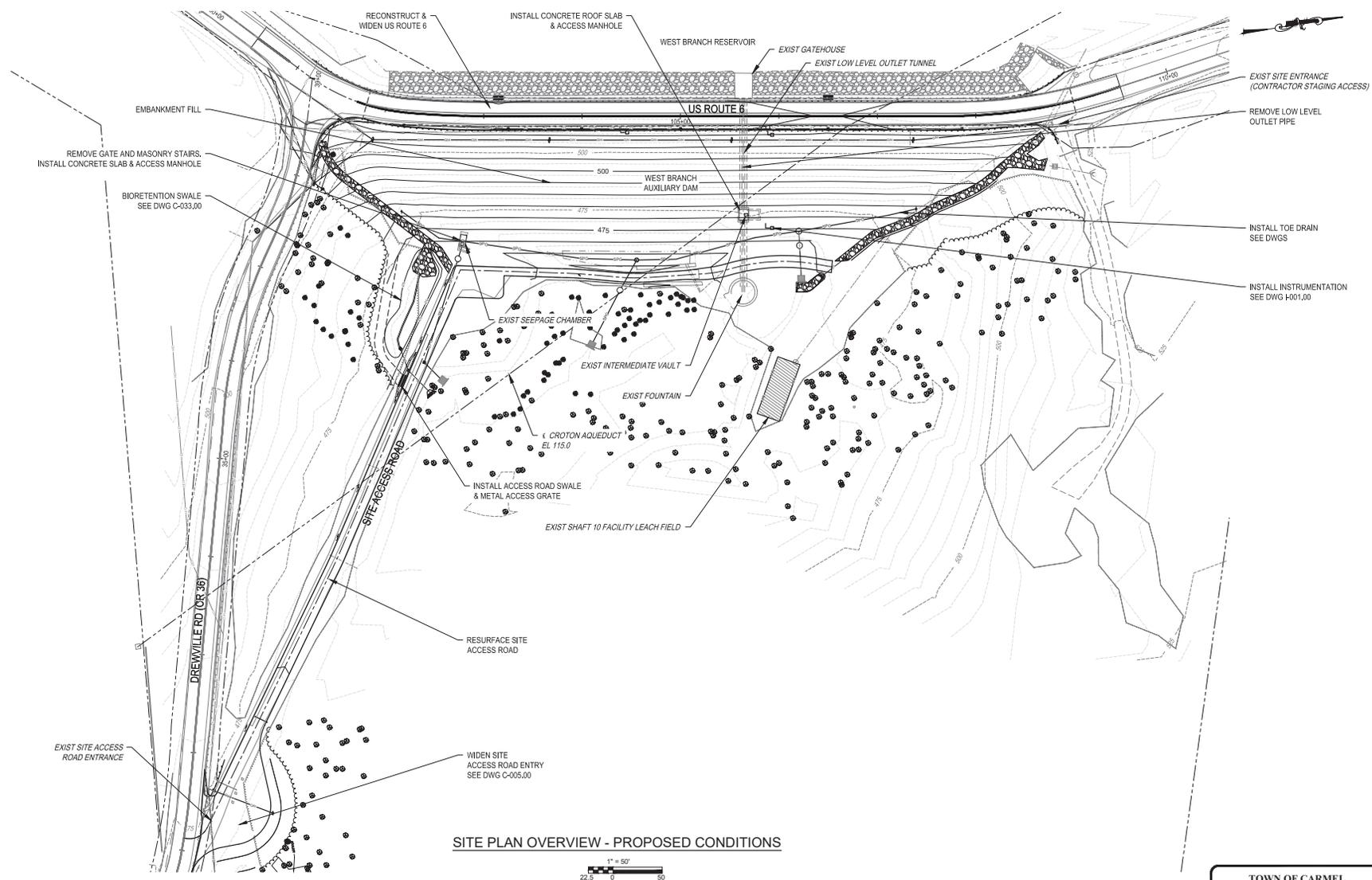
SITE PLAN OVERVIEW - EXISTING CONDITIONS

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

DATE: 9/5/2022
SCALE: 1"=50'
SHEET NO.: 4 OF 49
DRAWING NO. G-004.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Lead: Sarah B. & John POWELL L.L.D., Thursday, May 05, 2022, and Drain Right of Thruway, May 05, 2022, 2:32:42 PM.
 Plot Size: ANSI (D) (24.00 X 34.00 INCHES) Plot Scale: 1"=50'
 Drawing Name: & Location: C:\pwworking\2698130\04\04_01 - Proposed.dwg



SITE PLAN OVERVIEW - PROPOSED CONDITIONS



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
 M. POWELL
 CHECKED BY:
 E. LECLAIR
 DESIGN LEAD:
 S. MURPHY

DRAWN BY:
 M. POWELL

 11 8180 American Blvd, Suite 200
 Latham, NY 12110
 Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

**NEW YORK CITY
ENVIRONMENTAL PROTECTION**
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS**
 PUTNAM COUNTY, NEW YORK
 SITE PLAN OVERVIEW - PROPOSED CONDITIONS

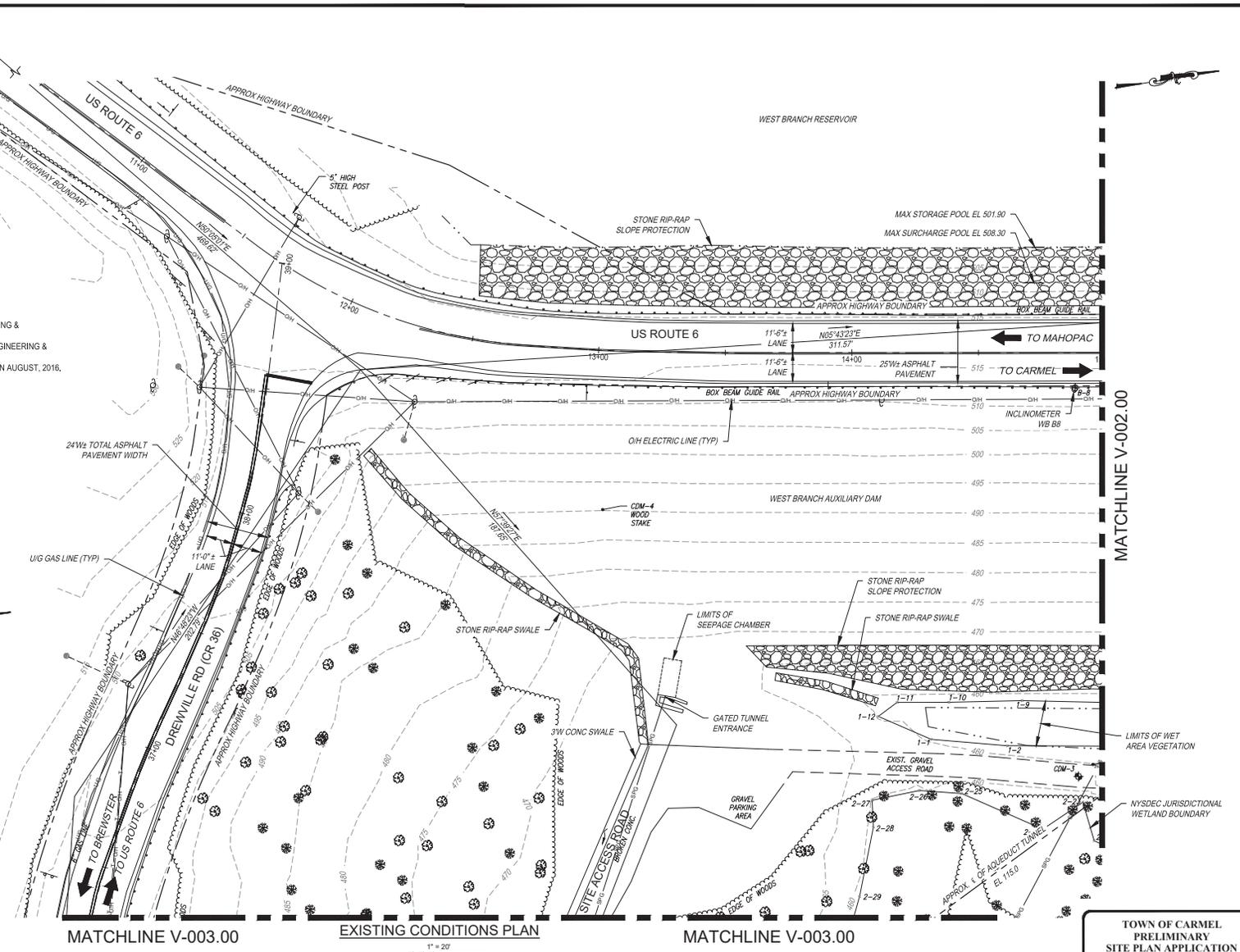
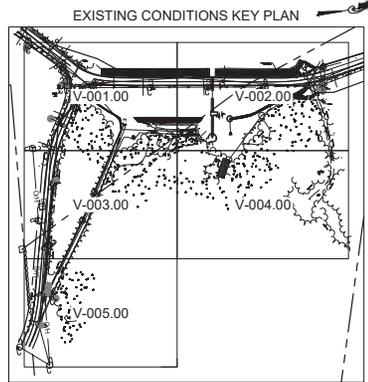
DATE: 5/5/2022
 SCALE: 1"=50'
 SHEET NO.:
 5 OF 49
 DRAWING NO.
 G-004.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

CONTROL BASELINE 101
 N 93°27'4.36"
 E 709'635.52'
 EL=525.48

- NOTES:
- 1) FIELD SURVEY PERFORMED BY RYAN BIGGS CLARK DAVIS ENGINEERING & SURVEYING IN DECEMBER, 2016 AND SUPPLEMENTED IN MAY, 2021.
 - 2) BATHYMETRIC SURVEY PERFORMED BY SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING IN SEPTEMBER, 2016.
 - 3) WETLAND DELINEATION FLAGGING WAS COMPLETED BY CDM SMITH IN AUGUST, 2016.
 - 4) REFERENCE DRAWINGS L-001.00 TO L-005.00 FOR TREE TAGS.

PROPERTY PARCEL NUMBER: 65,-1-1
 OWNER: CITY OF NEW YORK
 ZONING: NEW YORK CITY WATERSHED



TOWN OF CARMEL
 PRELIMINARY
 SITE PLAN APPLICATION

Last Saved By: E. Leclair, Wednesday, April 27, 2022 and Date Plotted Wednesday, May 4, 2022 11:09:08 PM.
 Paper Size (ANSI) (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\proj\mtd\2626130\V-001.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
 CHECKED BY:
E. LECLAIR
 DESIGN LEAD:
S. MURPHY
 SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

 11500 American Blvd, Suite 200
 Luthers, NY 12110
 Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

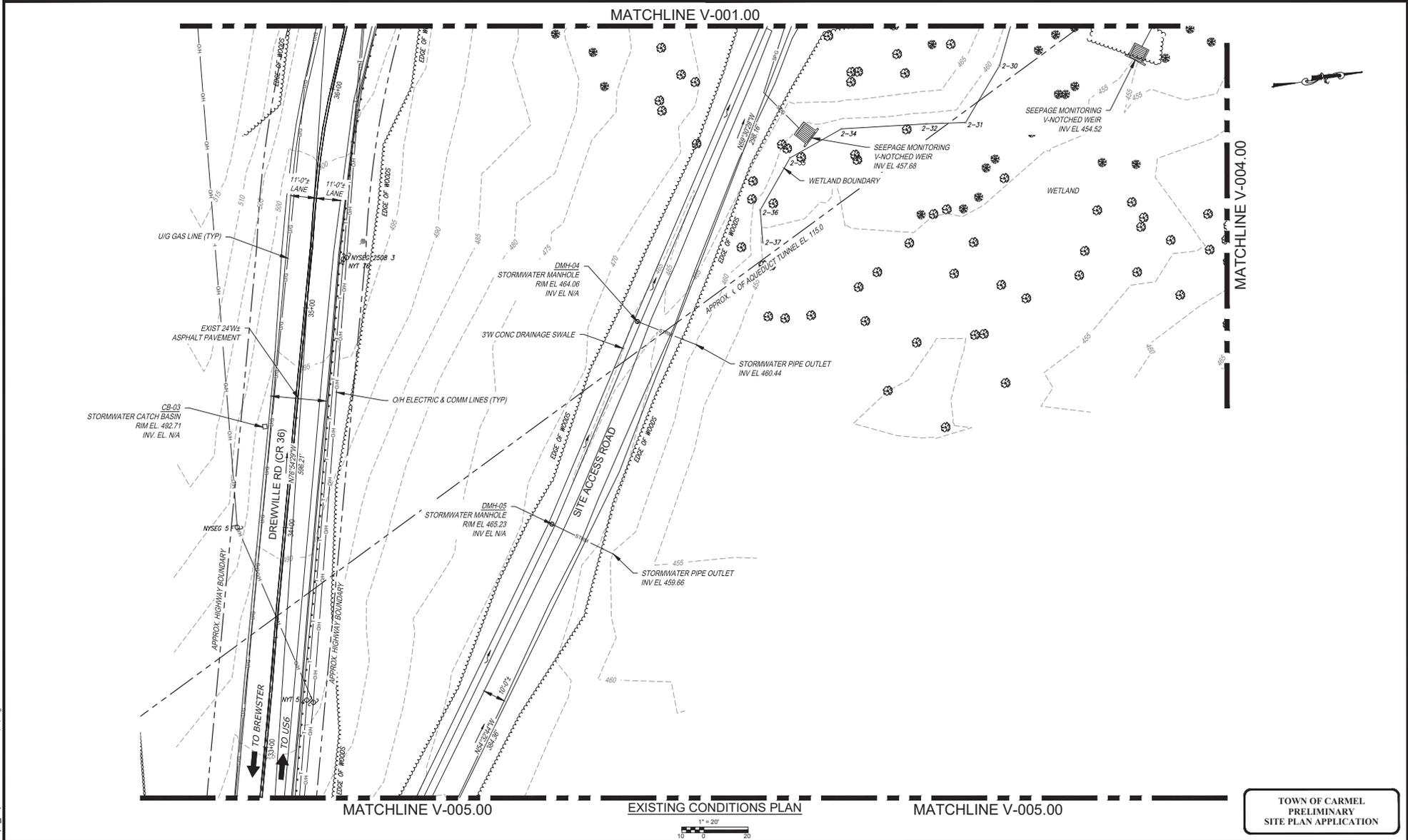
WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

NEW YORK CITY
 ENVIRONMENTAL PROTECTION
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
 SLOPE IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK
 EXISTING CONDITIONS PLAN (1 OF 5)

DATE: 5/5/2022
 SCALE: 1"=20'
 SHEET NO.:
6 OF 49
 DRAWING NO.:
V-001.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION



NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

CDM Smith
11800 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

D. COSTA
PORTFOLIO MANAGER

WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
95-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS**
PUTNAM COUNTY, NEW YORK

EXISTING CONDITIONS PLAN (3 OF 5)

DATE: 9/5/2022
SCALE: 1"=20'
SHEET NO.: 8 OF 49
DRAWING NO. V-003.00

Last Saved By: E. Leclair
 Plot Date: 9/5/2022 11:09:20 AM
 Plot Scale: 1"=20'
 Plot Style Table: BDDC_Drawing.ctb
 Drawing Name: S:\Location\C:\nw_epl\powell\m26261301v-001.dwg

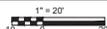
All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

MATCHLINE V-002.00

MATCHLINE V-003.00



EXISTING CONDITIONS PLAN



TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: E. POWELL, L.L.D., Wednesday, April 27, 2022 and Date Plotted/Plotted/Headed: May 4, 2022 11:09:24 PM
 Paper Size (ANSI) D (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\pwr_ej\powell\mca\26081300\01_001.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL
GDM Smith
11500 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

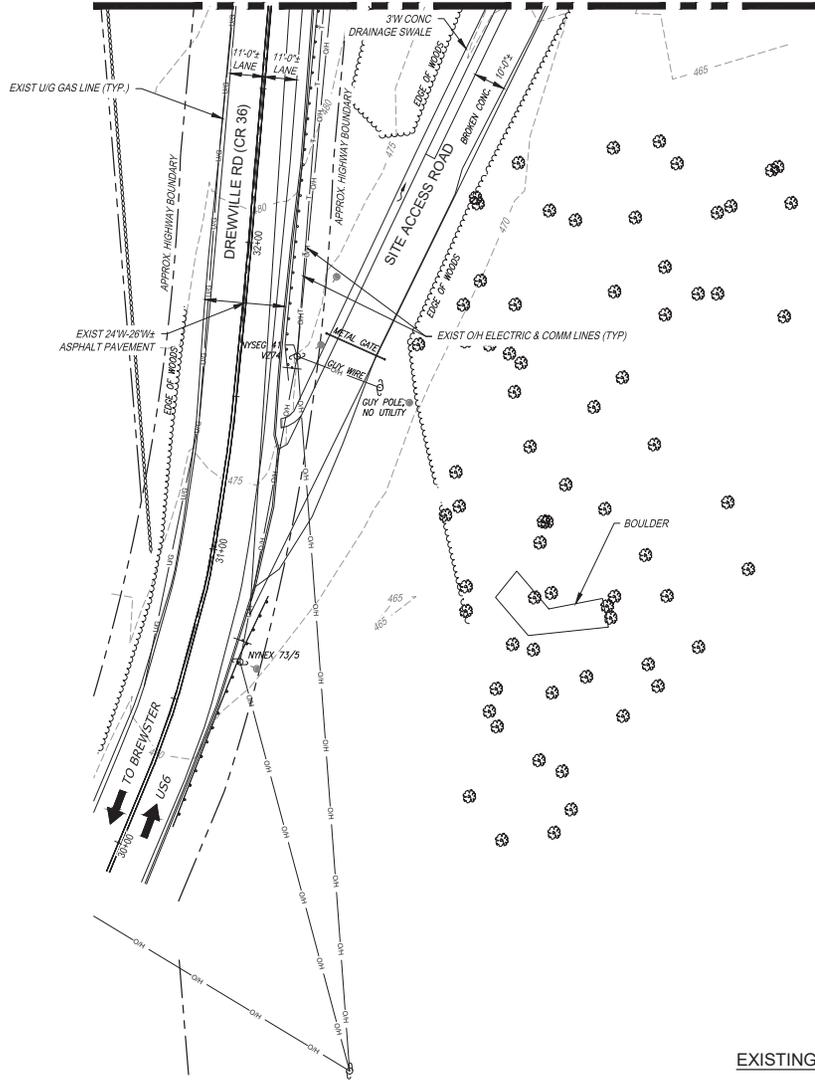
NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
EXISTING CONDITIONS PLAN (4 OF 5)

DATE: 5/5/2022
SCALE: 1"=20'
SHEET NO.:
9 OF 49
DRAWING NO.
V-004_00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

MATCHLINE V-003.00



EXISTING CONDITIONS PLAN



TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: B. & B. PAVENEL L.L.P., Wednesday, April 27, 2022 and Date Plotted/Plotted: Wednesday, May 4, 2022 11:09:50 PM.
 Paper Size (ANSI) (D:22.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name & Location: C:\pvc_files\pvc_files\1001\001.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL
CDM Smith
11800 American Blvd, Suite 200
Lanham, NY 12110
Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

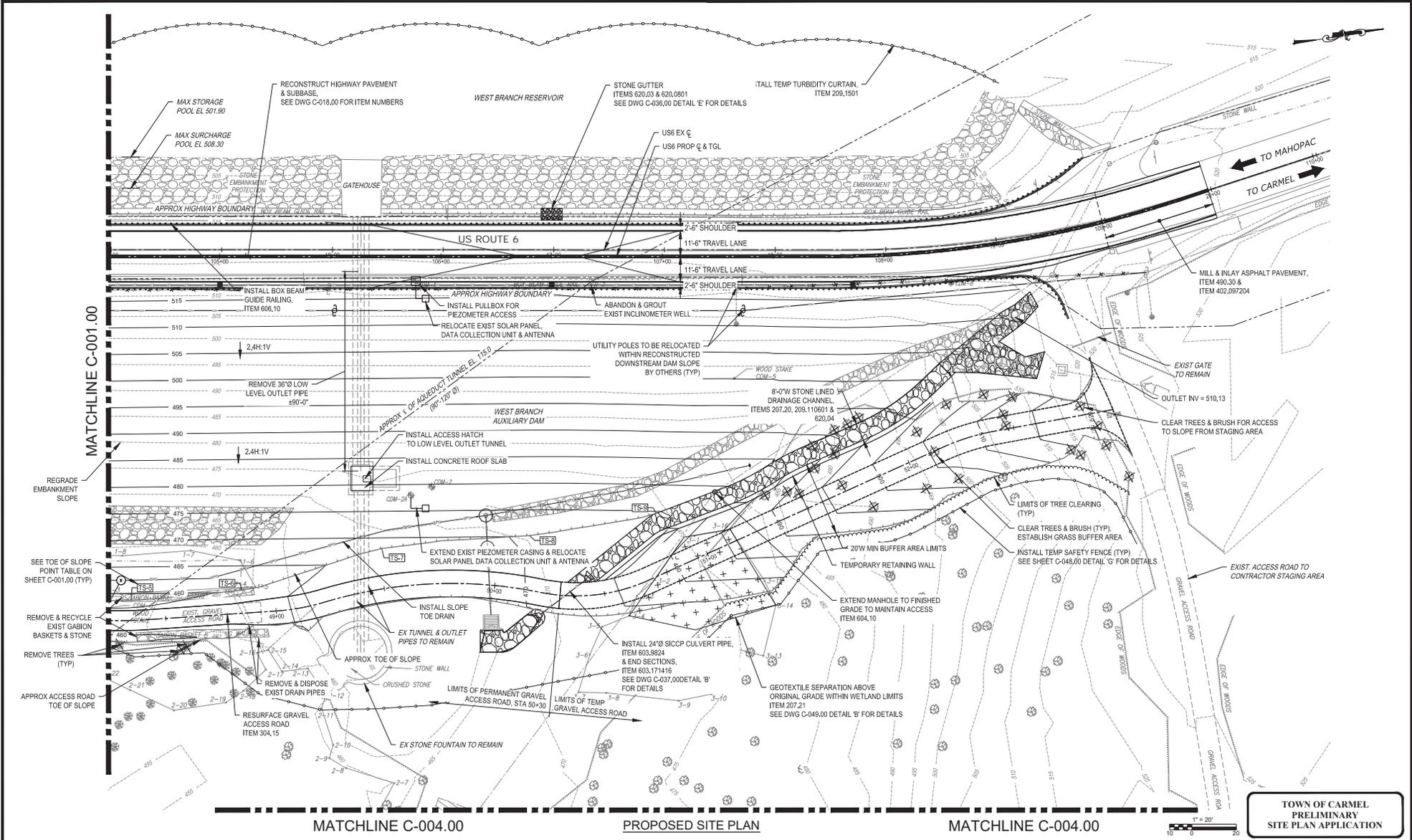
WARNING! IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
EXISTING CONDITIONS PLAN (5 OF 5)

DATE: 5/5/2022
SCALE: 1"=20'
SHEET NO.:
10 OF 49
DRAWING NO.:
V-005_00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: E:\Data\POWELL\JLD, Wednesday, April 27, 2022 and Date Plotted: Wednesday, May 4, 2022 9:00:26 PM
 Paper Size: ANSI (D) (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\pwworking\jld\2698180\C-001.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
M. POWELL
CHECKED BY:
E. LECLAR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAR

DRAWN BY:
M. POWELL
GDM Smith
11800 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 762-6800



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

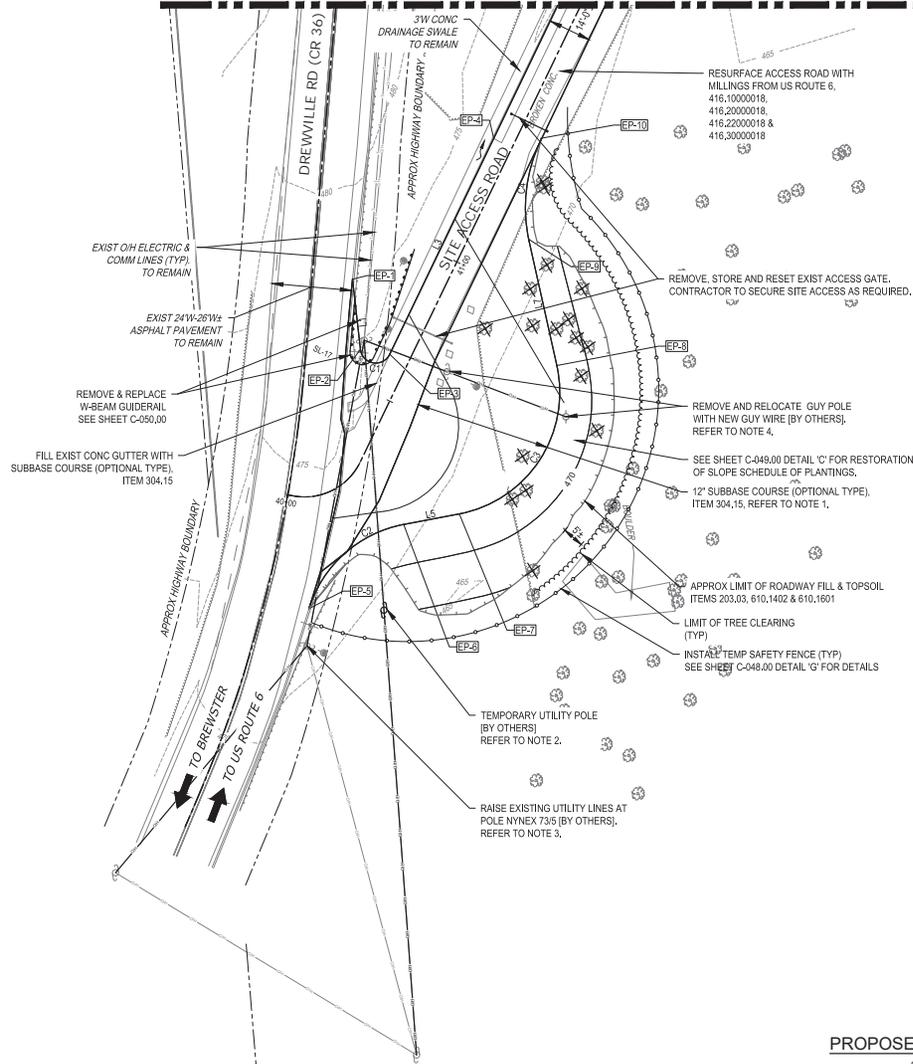
NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
PROPOSED SITE PLAN (2 OF 5)

DATE: 5/5/2022
SCALE: 1"=20'
SHEET NO.: 12 OF 49
DRAWING NO.: C-002.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

MATCHLINE C-003.00



NOTE:

1. CONTRACTOR SHALL RESTORE SITE ENTRANCE AT THE COMPLETION OF WORK BY REMOVING 6" OF SUBBASE COURSE AND REPLACING WITH 6" TOPSOIL & SEED, ITEMS 203.02, 610,1402 & 610,1601 SEE DWG C-049.00 DETAILS 'C' & 'D'
2. A TEMPORARY UTILITY POLE SHALL BE INSTALLED BY NYSEG TO RAISE THE NEUTRAL WIRE TO HIGHEST PRACTICAL EXTENT TO OBTAIN INCREASED VERTICAL CLEARANCE AT ENTRANCE.
3. OVERHEAD UTILITIES ON POLE NYNEX 73/5 (DIRECTLY EAST OF THE DREWILLE RD CONSTRUCTION ENTRANCE) TO BE RASIED TO HIGHEST PRACTICAL EXTENT TO OBTAIN INCREASED VERTICAL CLEARANCE AT ENTRANCE.
4. GUY POLE SHALL BE RELOCATED BY NYSEG, OUTSIDE OF THE WIDENED CONSTRUCTION ENTRANCE.

EDGE OF PAVEMENT LINE & CURVE TABLE			
ID#	BEARING / DELTA	RADIUS	LENGTH
C1	148°03'51"	5.00'	12.92'
L1	N87°06'09"W		22.84'
C4	037°28'08"	50.00'	32.70'
L7	S86°46'53"W		41.87'
C3	091°48'47"	40.00'	64.10'
L5	N01°24'44"W		18.34'
C2	061°41'03"	40.00'	43.06'
L3	S54°53'28"E		77.52'

EDGE OF PAVEMENT POINT TABLE			
POINT #	DESCRIPTION	NORTHING	EASTING
3	EP-1	935329.09	710524.03
4	EP-2	935327.94	710546.84
5	EP-3	935337.04	710549.95
6	EP-4	935381.62	710486.54
7	EP-5	935297.87	710626.91
8	EP-6	935332.56	710605.02
9	EP-7	935350.89	710604.57
10	EP-8	935389.84	710562.33
11	EP-9	935387.48	710520.53
12	EP-10	935396.49	710488.97

PROPOSED SITE PLAN



TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: E. Leclair Powell, Wednesday, April 27, 2022 and Date Plotted Wednesday, May 4, 2022 9:01:00 PM
 Paper Size (ANSI) (10.00 X 24.00 INCHES) Plot Scale: 1"=20'
 Drawing Name & Location: C:\pwr_epl\powell\mca\2608180\C-001.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
M. POWELL

CHECKED BY:
E. LECLAIR

DESIGN LEAD:
S. MURPHY

SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

11800 American Blvd, Suite 200
Luthers, NY 12110
Tel: (518) 765-6800

APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

J. COSTA
PORTFOLIO MANAGER

WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION, LAW, SECTION, 7209.2.

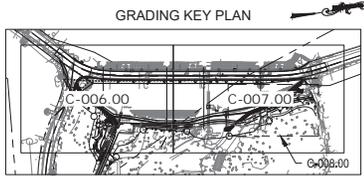
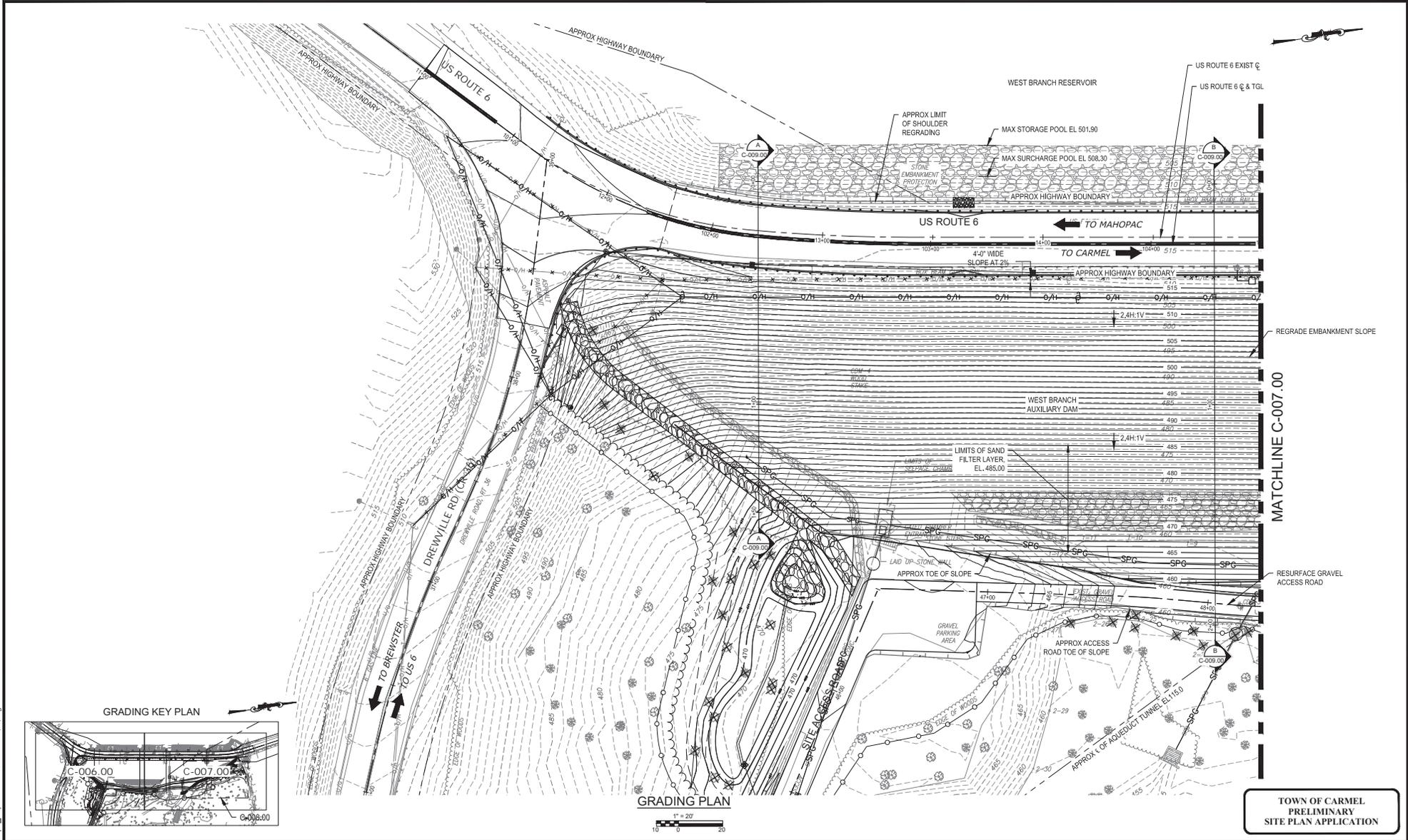
NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

PROPOSED SITE PLAN (5 OF 5)

DATE: 5/5/2022
SCALE: 1"=20'
SHEET NO.: 15 OF 49
DRAWING NO. C-005.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



GRADING PLAN
1" = 20'

**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: 8 DataPOWER.LTD, Wednesday, April 27, 2022 and Date Plotted: Thursday, May 5, 2022, 10:55:28 AM
 Paper Size: ANSI (D) (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Plot Style Table: BECC_Drawing.ctb
 Drawing Name: & Location: C:\pwr_81\lowell\mca2698130\C-006.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY: S. MURPHY	DRAWN BY: M. POWELL
CHECKED BY: E. LECLAR	
DESIGN LEAD: S. MURPHY	11 8100 American Blvd, Suite 200 Latham, NY 12110 Tel: (518) 765-6600



APPROVED FOR THE CITY OF NEW YORK	NYC Environmental Protection
L. SINGH ACCOUNTABLE MANAGER	
D. COSTA PORTFOLIO MANAGER	

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

**NEW YORK CITY
ENVIRONMENTAL PROTECTION**
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-45 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

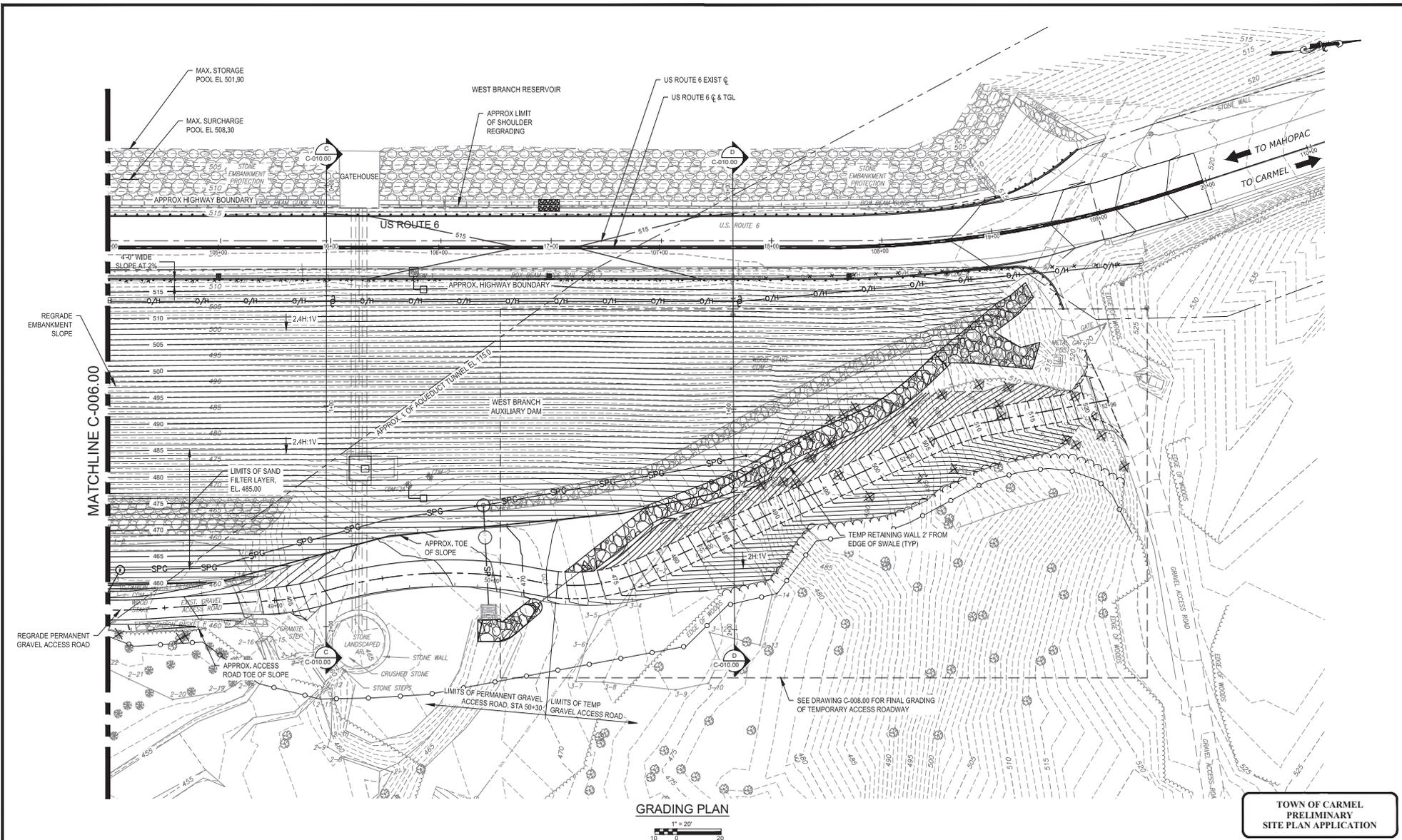
**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS**
PUTNAM COUNTY, NEW YORK

GENERAL SITE GRADING PLAN (1 OF 2)

DATE: 9/5/2022
SCALE: 1"=20'
SHEET NO.: 16 OF 49
DRAWING NO.: C-006.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: E. Leclair, Wednesday, April 27, 2022 and Date Plotted: Thursday, May 5, 2022, 10:05:43 AM
 Paper Size: ANSI (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: S:\Location\C:\pwworking\jpowellm\226281\200-C-006.00.dwg



GRADING PLAN
 1" = 20'
 10 0 20

**TOWN OF CARMEL
 PRELIMINARY
 SITE PLAN APPLICATION**

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
 CHECKED BY:
E. LECLAIR
 DESIGN LEAD:
S. MURPHY
 SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

 11 8100 American Blvd, Suite 200
 Luthers, NY 12110
 Tel: (518) 785-6800


Environmental Protection

APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

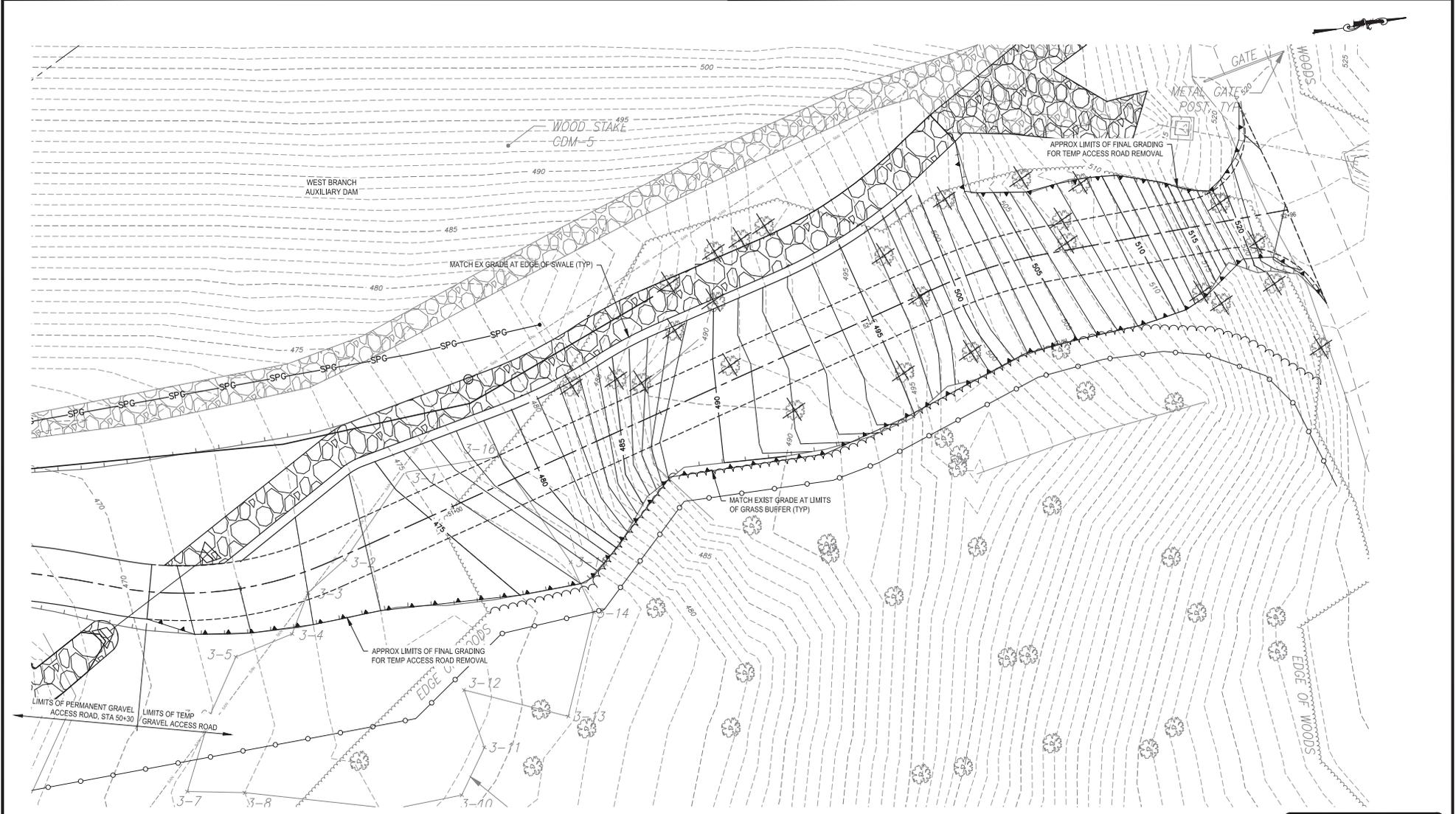
"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

**NEW YORK CITY
 ENVIRONMENTAL PROTECTION**
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-45 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
 SLOPE IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK**
 GENERAL SITE GRADING PLAN (2 OF 2)

DATE: 9/5/2022
 SCALE: 1"=20'
 SHEET NO.:
 17 OF 49
 DRAWING NO.:
 C-007.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



GRADING PLAN
 1" = 20'
 10' 0' 20'

**TOWN OF CARMEL
 PRELIMINARY
 SITE PLAN APPLICATION**

Last Saved By: B. & B. POWELL L.L.P., Wednesday, April 27, 2022 and Date Plotted: Wednesday, May 4, 2022 9:10:39 PM
 Paper Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Plot Style: TbltblrBEECD_Drawing.ctb
 Drawing Name: S:\Location\C:\pwr_p\1106wellmnd\26261180-C-008.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
S. MURPHY
 CHECKED BY:
E. LECLAIR
 DESIGN LEAD:
S. MURPHY
 SECTION MANAGER:
E. LECLAIR

DRAWN BY:
S. MURPHY

 11 8180 American Blvd, Suite 200
 Latham, NY 12110
 Tel: (518) 762-6600



APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

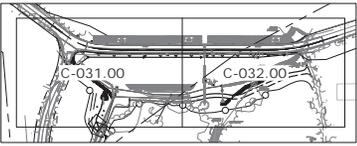
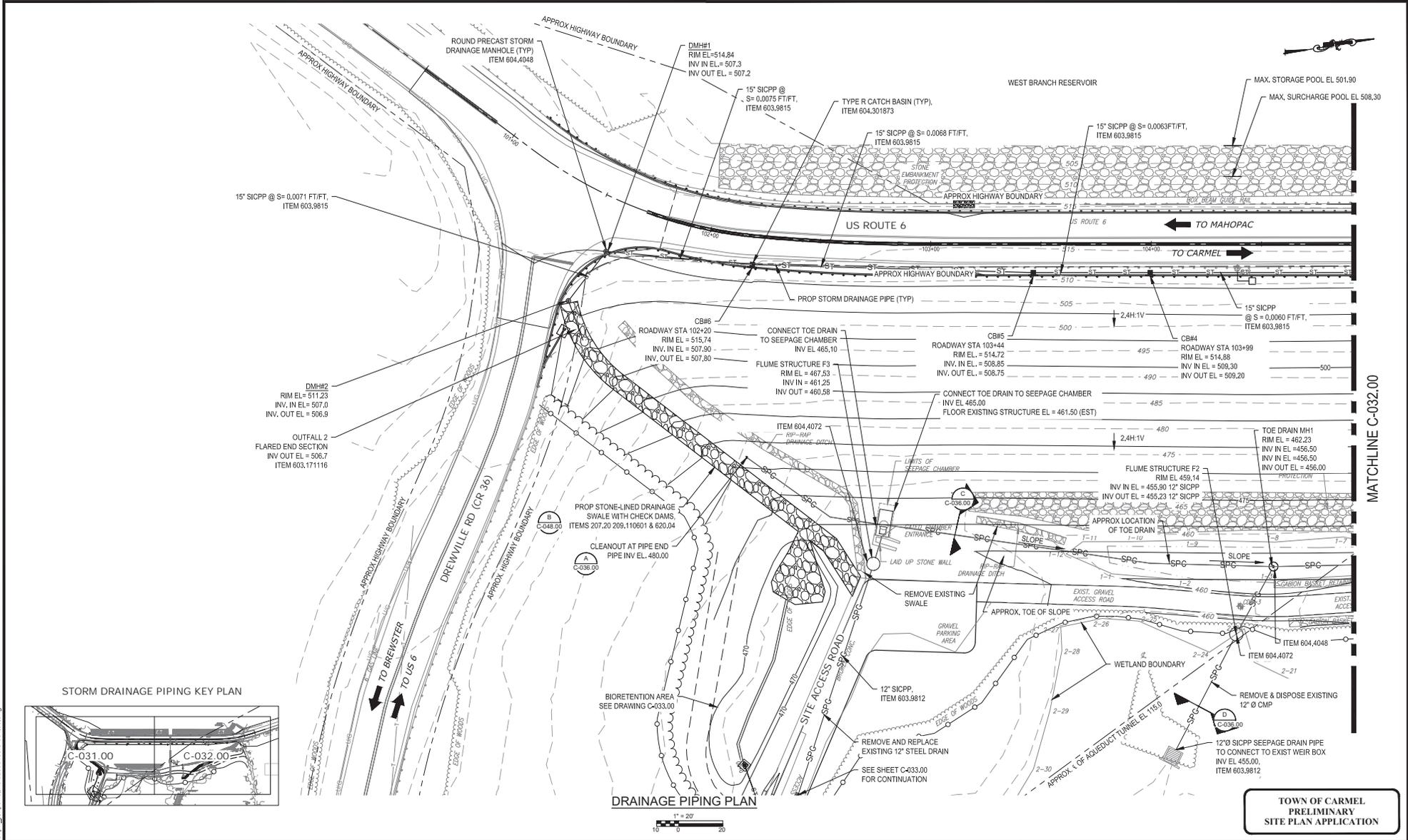
"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

**NEW YORK CITY
 ENVIRONMENTAL PROTECTION**
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
 SLOPE IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK**
 FINAL SITE GRADING PLAN - TEMPORARY ACCESS
 ROAD

DATE: 5/5/2022
 SCALE: 1"=20'
 SHEET NO.:
 18 OF 49
 DRAWING NO.
 C-008.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: GDM-POMMEL, Wednesday, April 27, 2022 and Date Plotted Wednesday, May 4, 2022 10:04:56 PM
 Paper Size (ANSI) (D:22.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: S:\Location\C:\ow_g1\owelmd\26981\800\C-031.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
D. ROSENTHAL
CHECKED BY:
E. LECLAR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
E. LECLAR



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

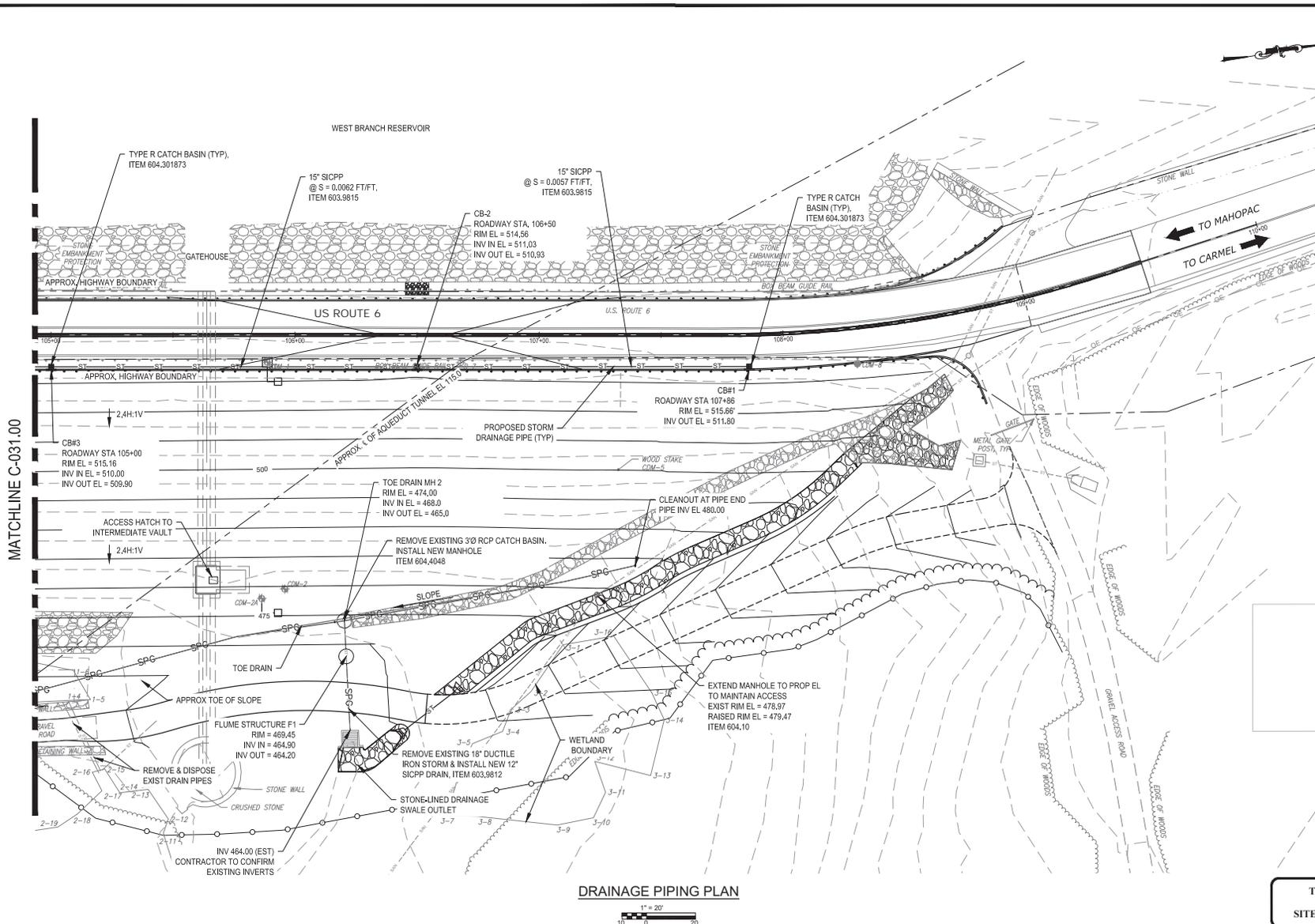
WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY, IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION, LAW, SECTION 7209.2.

**NEW YORK CITY
ENVIRONMENTAL PROTECTION**
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK**
DRAINAGE & PIPING PLAN (1 OF 2)

DATE: 5/5/2022
SCALE: 1"=20'
SHEET NO.:
19 OF 49
DRAWING NO.:
C-031.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



MATCHLINE C-031.00

DRAINAGE PIPING PLAN



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: & Date: PDMVEL.LMD, Wednesday, April 27, 2022 and Date Plotted: Wednesday, May 4, 2022, 10:04:57 AM.
 Paper Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: Plot Style Table: BECD_Drawing.ctb
 Drawing Name: & Location: C:\pvc_pl\lowell\mdu2698180\C-031.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
D. ROSENTHAL
CHECKED BY:
E. LECLAR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
E. LECLAR

DRAWN BY:
R. HANES
CDM Smith
11 8000 American Blvd, Suite 200
Luthers, NY 12110
Tel: (518) 765-6600



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

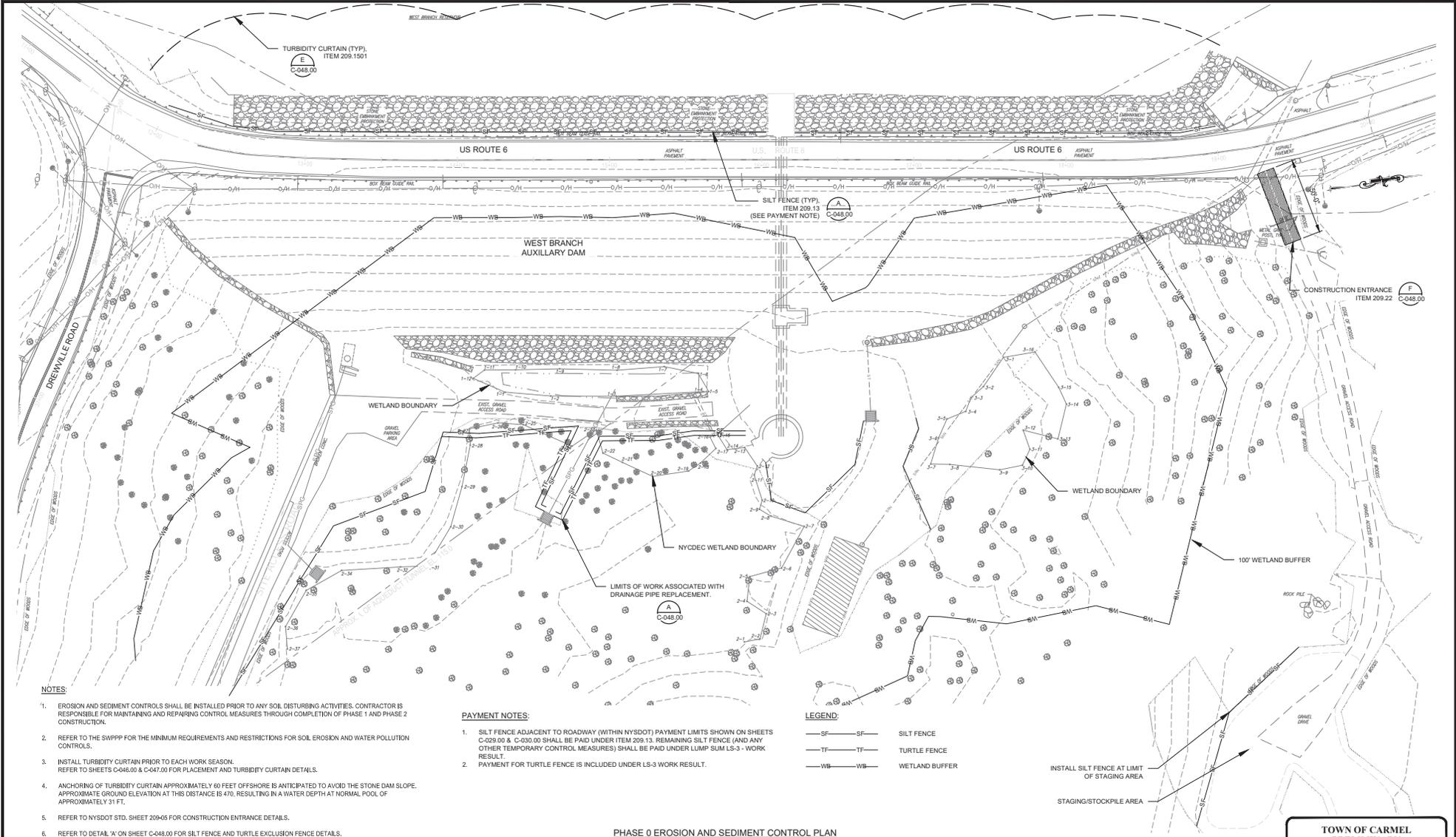
"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

**NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION**
96-45 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK**
DRAINAGE & PIPING PLAN (2 OF 2)

DATE: 9/5/2022
SCALE: 1"=20'
SHEET NO.:
20 OF 49
DRAWING NO.
C-032.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:**
1. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBING ACTIVITIES. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND REPAIRING CONTROL MEASURES THROUGH COMPLETION OF PHASE 1 AND PHASE 2 CONSTRUCTION.
 2. REFER TO THE SWPPP FOR THE MINIMUM REQUIREMENTS AND RESTRICTIONS FOR SOIL EROSION AND WATER POLLUTION CONTROLS.
 3. INSTALL TURBIDITY CURTAIN PRIOR TO EACH WORK SEASON. REFER TO SHEETS C-048.00 & C-047.00 FOR PLACEMENT AND TURBIDITY CURTAIN DETAILS.
 4. ANCHORING OF TURBIDITY CURTAIN APPROXIMATELY 60 FEET OFFSHORE IS ANTICIPATED TO AVOID THE STONE DAM SLOPE. APPROXIMATE GROUND ELEVATION AT THIS DISTANCE IS 470, RESULTING IN A WATER DEPTH AT NORMAL POOL OF APPROXIMATELY 31 FT.
 5. REFER TO NYS DOT STD. SHEET 209-05 FOR CONSTRUCTION ENTRANCE DETAILS.
 6. REFER TO DETAIL 'A' ON SHEET C-048.00 FOR SILT FENCE AND TURTLE EXCLUSION FENCE DETAILS.
 7. SEDIMENT BAGS FOR TREATMENT OF DEWATERING WATER SHALL BE LOCATED WITHIN THE LIMITS OF THE PHASE 0 SILT FENCING ON THE EAST SIDE OF THE DAM. NO DEWATERING WATER WILL BE ALLOWED TO DISCHARGE INTO THE RESERVOIR. REFER TO SHEET C-048.00 DETAIL 'C' FOR SEDIMENT BAG DETAILS.

- PAYMENT NOTES:**
1. SILT FENCE ADJACENT TO ROADWAY (WITHIN NYSOT) PAYMENT LIMITS SHOWN ON SHEETS C-029.00 & C-030.00 SHALL BE PAID UNDER ITEM 209.13. REMAINING SILT FENCE (AND ANY OTHER TEMPORARY CONTROL MEASURES) SHALL BE PAID UNDER LUMP SUM LS-3 - WORK RESULT.
 2. PAYMENT FOR TURTLE FENCE IS INCLUDED UNDER LS-3 WORK RESULT.

- LEGEND:**
- S—S— SILT FENCE
 - T—T— TURTLE FENCE
 - WB—WB— WETLAND BUFFER

INSTALL SILT FENCE AT LIMIT OF STAGING AREA
STAGING/STOCKPILE AREA

PHASE 0 EROSION AND SEDIMENT CONTROL PLAN



NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
R. HANES
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
R. HANES
GDM Smith
17500 American Blvd, Suite 200
Luthers, NY 12110
Tel: (518) 765-6600

APPROVED FOR THE CITY OF NEW YORK
NYC Environmental Protection
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

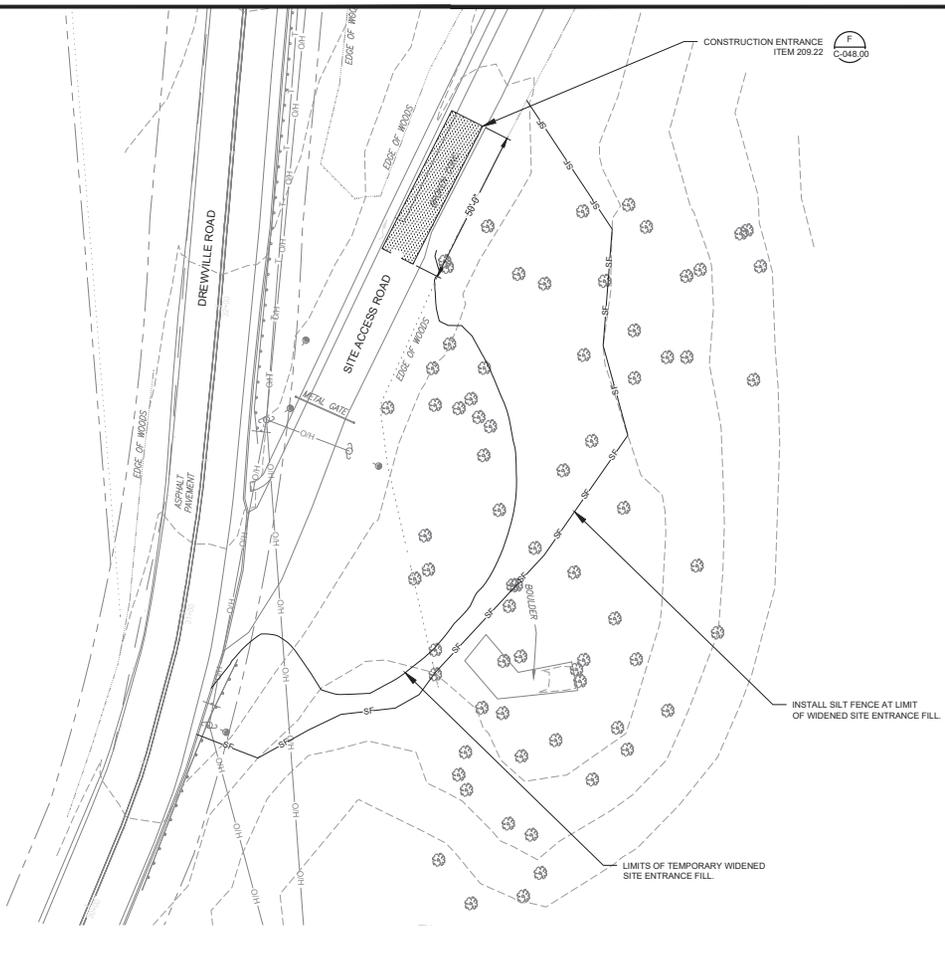
WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
PHASE 0 SOIL EROSION & SEDIMENT CONTROL PLAN
(1 OF 2)

TOWN OF CARMEL PRELIMINARY SITE PLAN APPLICATION

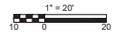
DATE: 10/17/2022
SCALE: 1"=30'
SHEET NO.: 22 OF 49
DRAWING NO.: C-042.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: E. Leclair; Date: 05/12/2022 10:08 AM; Plot Date: 05/12/2022 10:08 AM
 Plot Size: ANSI (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=30'
 Drawing Name: & Location: C:\pwworking\dm0268657\C-043.dwg



PHASE 0 EROSION AND SEDIMENT CONTROL PLAN



LEGEND:
 —SF— SILT FENCE

**TOWN OF CARMEL
 PRELIMINARY
 SITE PLAN APPLICATION**

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
D. ROSENTHAL
 CHECKED BY:
E. LECLAIR
 DESIGN LEAD:
D. ROSENTHAL
 SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

 11 8180 American Blvd, Suite 200
 Latham, NY 12110
 Tel: (518) 765-6800



APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

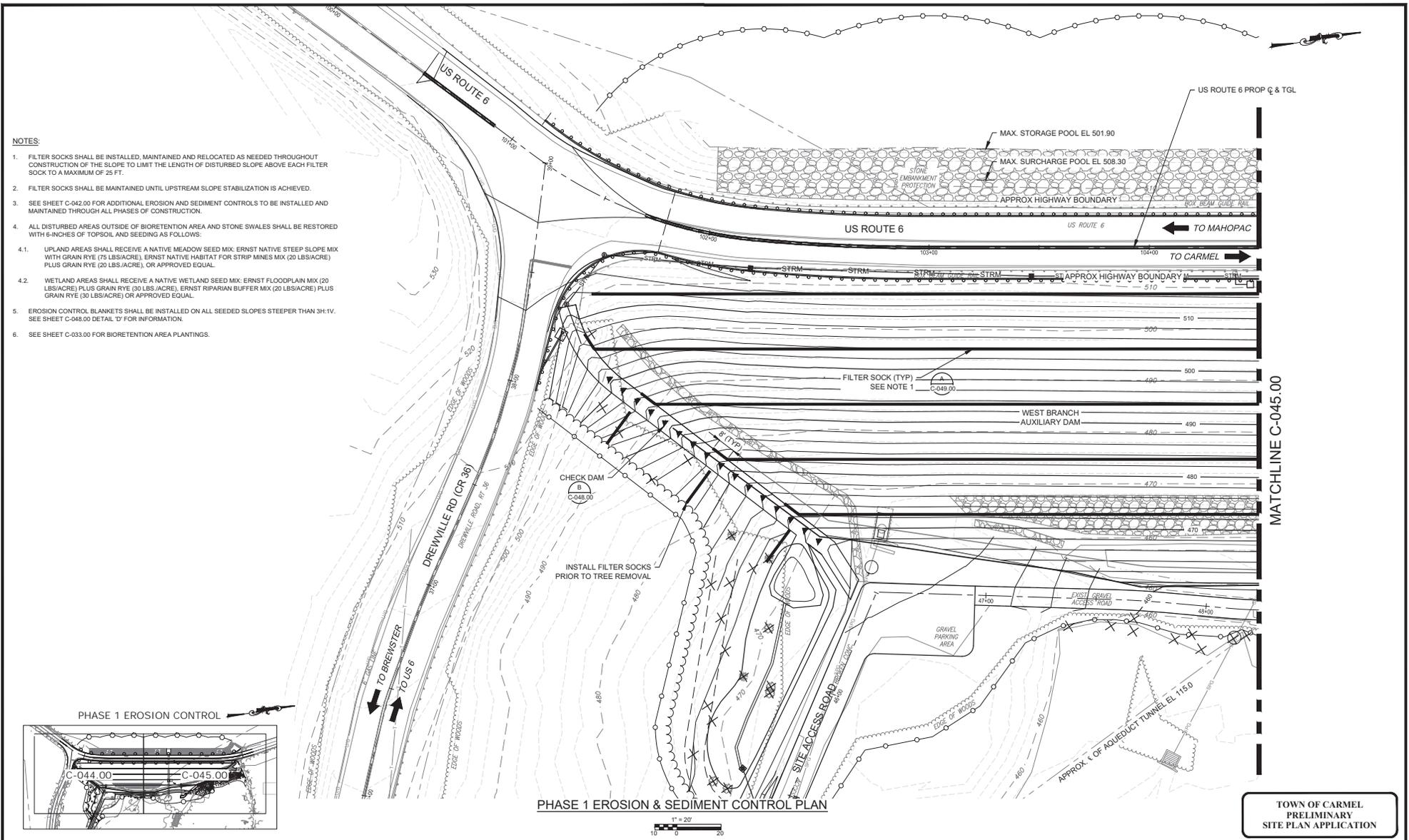
"WARNING! IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION, LAW, SECTION 7209.2."

**NEW YORK CITY
 ENVIRONMENTAL PROTECTION**
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

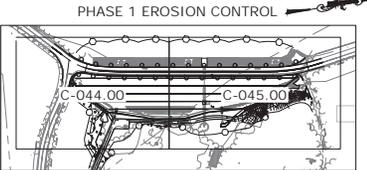
**WEST BRANCH AUXILIARY DAM
 SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK**
 PHASE 0 SOIL EROSION & SEDIMENT CONTROL PLAN
 (2 OF 2)

DATE: 12/12/2022
 SCALE: 1"=30'
 SHEET NO.:
 23 OF 49
 DRAWING NO.:
 C-043.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:**
1. FILTER SOCKS SHALL BE INSTALLED, MAINTAINED AND RELOCATED AS NEEDED THROUGHOUT CONSTRUCTION OF THE SLOPE TO LIMIT THE LENGTH OF DISTURBED SLOPE ABOVE EACH FILTER SOCK TO A MAXIMUM OF 25 FT.
 2. FILTER SOCKS SHALL BE MAINTAINED UNTIL UPSTREAM SLOPE STABILIZATION IS ACHIEVED.
 3. SEE SHEET C-042.00 FOR ADDITIONAL EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND MAINTAINED THROUGH ALL PHASES OF CONSTRUCTION.
 4. ALL DISTURBED AREAS OUTSIDE OF BIORETENTION AREA AND STONE SWALES SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDING AS FOLLOWS:
 - 4.1. UPLAND AREAS SHALL RECEIVE A NATIVE MEADOW SEED MIX: ERNST NATIVE STEEP SLOPE MIX WITH GRAIN RYE (75 LBS/ACRE), ERNST NATIVE HABITAT FOR STRIP MINES MIX (20 LBS/ACRE) PLUS GRAIN RYE (20 LBS/ACRE), OR APPROVED EQUAL.
 - 4.2. WETLAND AREAS SHALL RECEIVE A NATIVE WETLAND SEED MIX: ERNST FLOODPLAIN MIX (20 LBS/ACRE) PLUS GRAIN RYE (30 LBS/ACRE), ERNST RIPARIAN BUFFER MIX (20 LBS/ACRE) PLUS GRAIN RYE (30 LBS/ACRE) OR APPROVED EQUAL.
 5. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SEEDED SLOPES STEEPER THAN 3H:1V. SEE SHEET C-048.00 DETAIL 'D' FOR INFORMATION.
 6. SEE SHEET C-033.00 FOR BIORETENTION AREA PLANTINGS.



PHASE 1 EROSION & SEDIMENT CONTROL PLAN

MATCHLINE C-045.00

**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: B. Dea-POMER L.L.P., Wednesday, April 27, 2023 and Date Plotted: Wednesday, May 4, 2023, 10:27:00 PM. Paper Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=20' Plot Style Table: REDUCED.ctb Drawing Name: S:\Location\C:\pwr_f\lowell\mca26263130\C-044.00.dwg

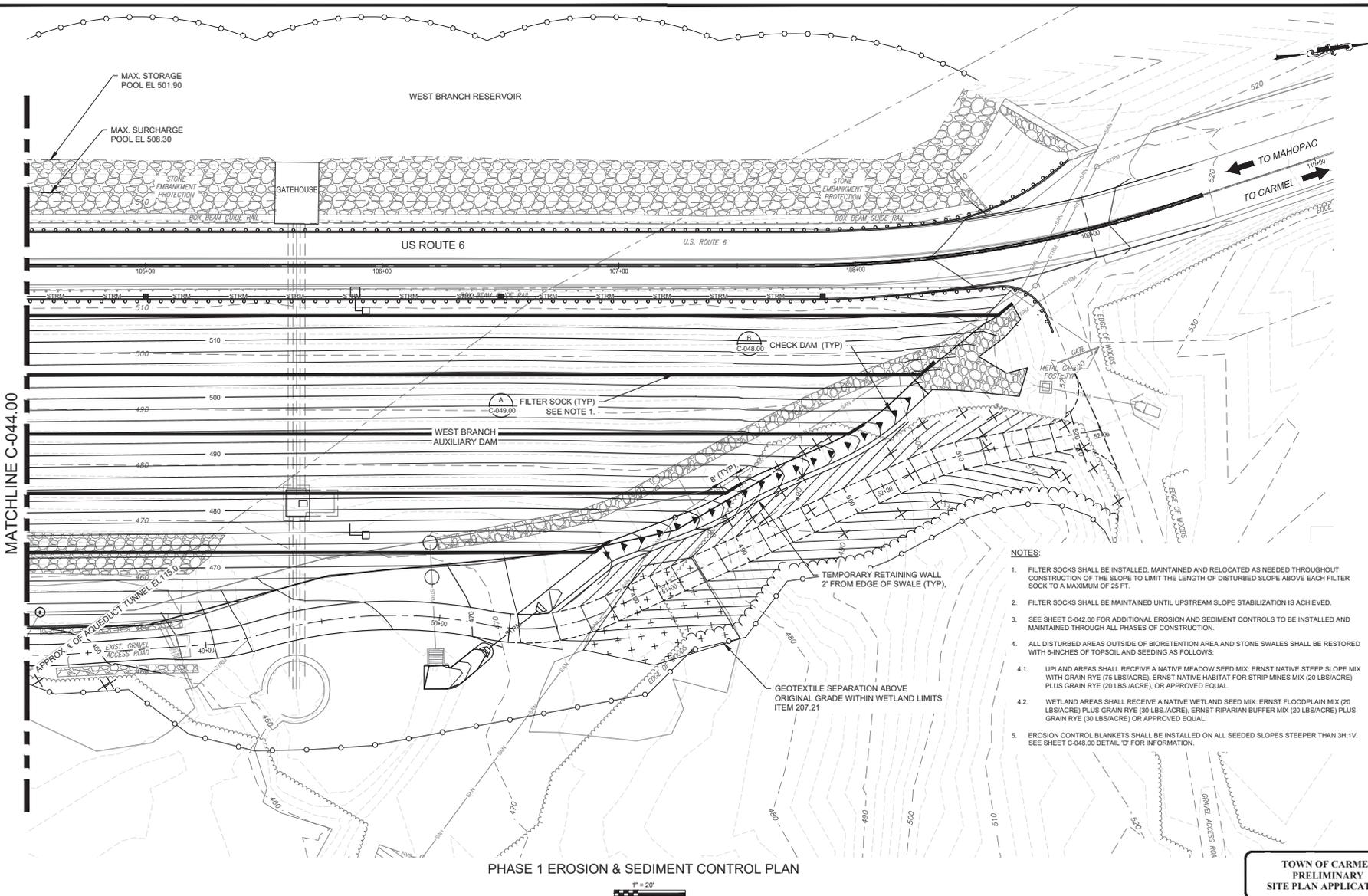
NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY: R. HANES	DRAWN BY: R. HANES
CHECKED BY: E. LECLAR	GDM Smith
DESIGN LEAD: D. ROSENTHAL	11 8100 American Blvd, Suite 200 Latham, NY 12110 Tel: (518) 785-6800
SECTION MANAGER: E. LECLAR	NYC Environmental Protection

APPROVED FOR THE CITY OF NEW YORK	<small>*WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.*</small>
L. SINGH ACCOUNTABLE MANAGER	
P. COSTA PORTFOLIO MANAGER	

NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK PHASE 1 SOIL EROSION & SEDIMENT CONTROL PLAN (1 OF 2)	DATE: 5/5/2022 SCALE: 1"=20' SHEET NO.: 24 OF 49 DRAWING NO.: C-044.00
--	---	---

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:**
1. FILTER SOCKS SHALL BE INSTALLED, MAINTAINED AND RELOCATED AS NEEDED THROUGHOUT CONSTRUCTION OF THE SLOPE TO LIMIT THE LENGTH OF DISTURBED SLOPE ABOVE EACH FILTER SOCK TO A MAXIMUM OF 25 FT.
 2. FILTER SOCKS SHALL BE MAINTAINED UNTIL UPSTREAM SLOPE STABILIZATION IS ACHIEVED.
 3. SEE SHEET C-042.00 FOR ADDITIONAL EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND MAINTAINED THROUGH ALL PHASES OF CONSTRUCTION.
 4. ALL DISTURBED AREAS OUTSIDE OF BIORETENTION AREA AND STONE SWALES SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDING AS FOLLOWS:
 - 4.1. UPLAND AREAS SHALL RECEIVE A NATIVE MEADOW SEED MIX: ERNST NATIVE STEEP SLOPE MIX WITH GRAIN RYE (20 LBS/ACRE), ERNST NATIVE HABITAT FOR STRIP MINES MIX (20 LBS/ACRE) PLUS GRAIN RYE (20 LBS/ACRE), OR APPROVED EQUAL.
 - 4.2. WETLAND AREAS SHALL RECEIVE A NATIVE WETLAND SEED MIX: ERNST FLOODPLAIN MIX (20 LBS/ACRE) PLUS GRAIN RYE (30 LBS/ACRE), ERNST RIPARIAN BUFFER MIX (20 LBS/ACRE) PLUS GRAIN RYE (30 LBS/ACRE) OR APPROVED EQUAL.
 5. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SEEDED SLOPES STEEPER THAN 3H:1V. SEE SHEET C-045.00 DETAIL 'D' FOR INFORMATION.

PHASE 1 EROSION & SEDIMENT CONTROL PLAN



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: B. & B. CONNEL L.L.P., Wednesday, April 27, 2022 and Date Plotted: Wednesday, May 4, 2022, 10:48:52 PM.
 Paper Size: ANSI (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\pwworking\B&B\180-C-044.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY: R. HAINES
 CHECKED BY: E. LECLAR
 DESIGN LEAD: D. ROSENTHAL
 SECTION MANAGER: E. LECLAR

DRAWN BY: R. HAINES

 11 8180 American Blvd., Suite 200
 Luthers, NY 12110
 Tel: (518) 782-6600

APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

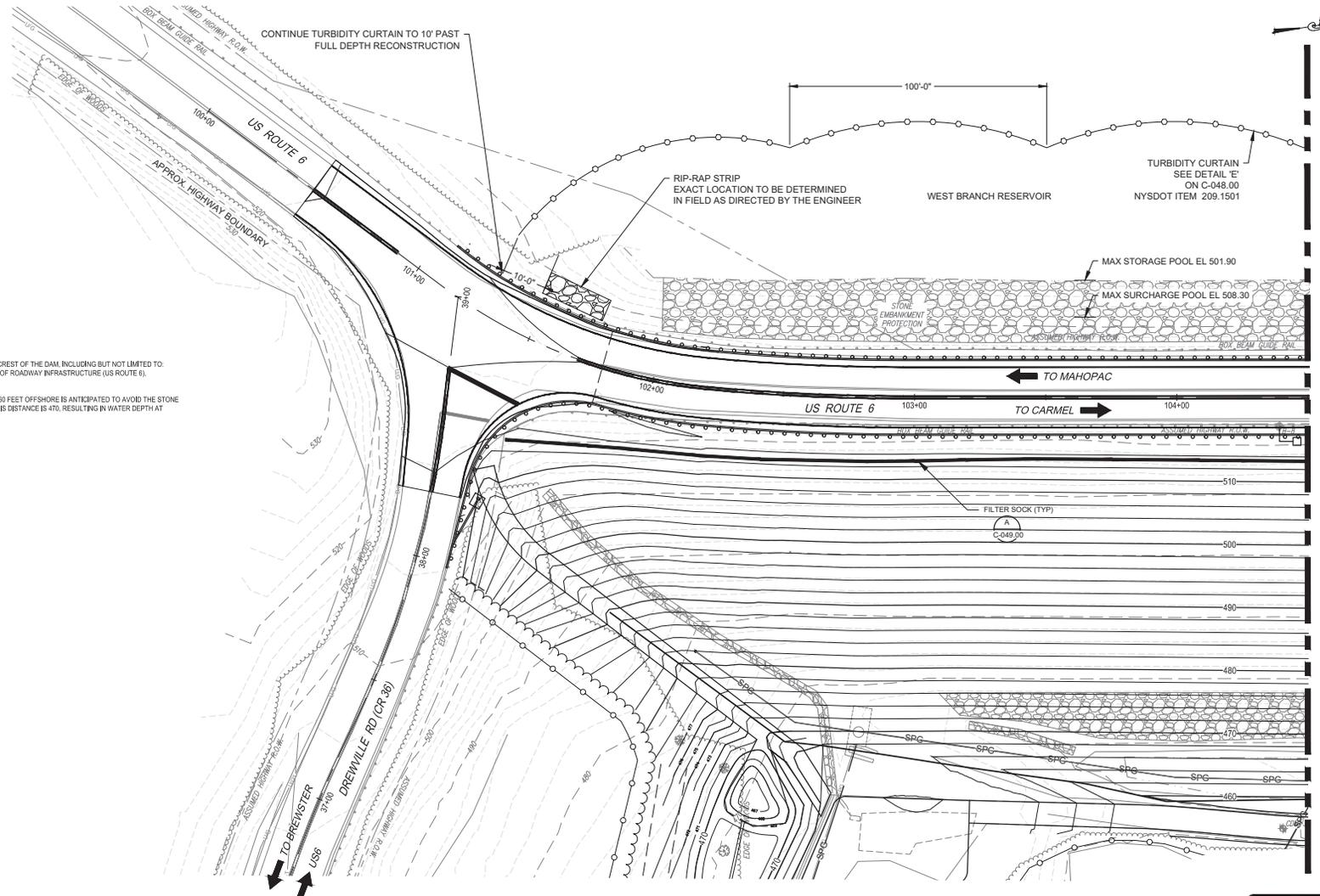
"WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

**NEW YORK CITY
ENVIRONMENTAL PROTECTION**
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-45 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK**
 PHASE 1 SOIL EROSION & SEDIMENT CONTROL PLAN
 (2 OF 2)

DATE: 5/5/2022
 SCALE: 1"=20'
 SHEET NO.: 25 OF 49
 DRAWING NO.: C-045.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:
1. INSTALL TURBIDITY CURTAIN PRIOR TO WORK AT THE CREST OF THE DAM, INCLUDING BUT NOT LIMITED TO: UTILITY POLE RELOCATION, REMOVAL OR PLACEMENT OF ROADWAY INFRASTRUCTURE (US ROUTE 6), PLACEMENT OF FILL AT THE CREST OF THE DAM.
 2. ANCHORING OF TURBIDITY CURTAIN APPROXIMATELY 60 FEET OFFSHORE IS ANTICIPATED TO AVOID THE STONE DAM SLOPE. APPROXIMATE GROUND ELEVATION AT THIS DISTANCE IS 470, RESULTING IN WATER DEPTH AT NORMAL POOL OF APPROXIMATELY 31 FT.

PHASE 2 EROSION & SEDIMENT CONTROL



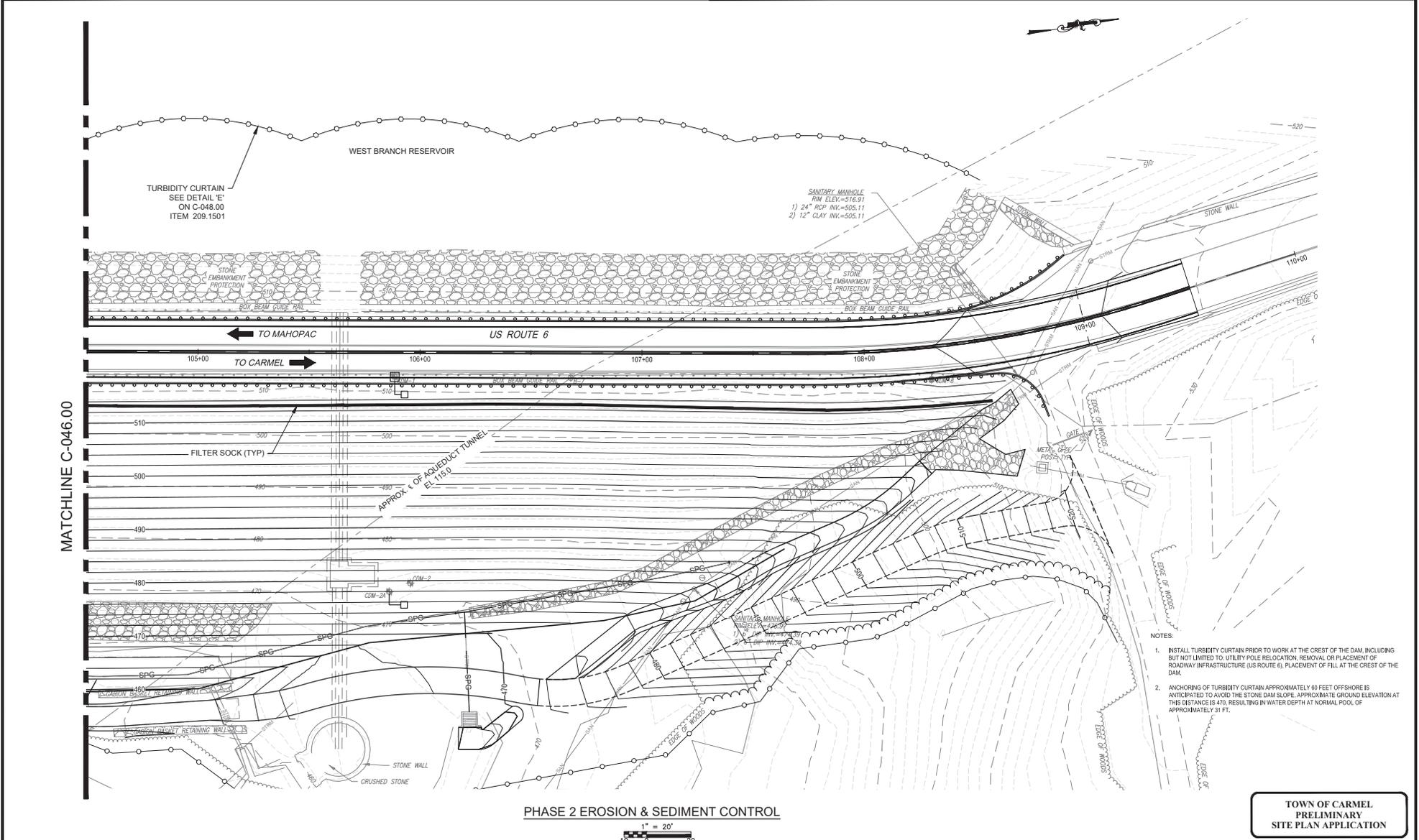
MATCHLINE C-047.00

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: & Date: PAVEL LUD, Wednesday, April 27, 2023 and Date Plotted: Wednesday, May 4, 2023, 10:29:04 AM
Paper Size (ANSI) (D) (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
Drawing Name: & Location: C:\pvc_f1\pavelm\226281180\C-046.00.dwg

DESIGNED BY: R. HAINES CHECKED BY: E. LECLAR DESIGN LEAD: D. ROSENTHAL SECTION MANAGER: E. LECLAR		DRAWN BY: R. HAINES  11 8180 American Blvd, Suite 200 Luthers, NY 12110 Tel: (518) 785-6600				APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER P. COSTA PORTFOLIO MANAGER		<p>NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp</p>		<p>WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK</p> <p>PHASE II SOIL EROSION & SEDIMENT CONTROL PLAN (1 OF 2)</p>		DATE: 5/5/2022 SCALE: 1"=20' SHEET NO.: 26 OF 49 DRAWING NO.: C-046.00	
NO.	DATE	REVISIONS/DESCRIPTION		APPRD.									

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:
1. INSTALL TURBIDITY CURTAIN PRIOR TO WORK AT THE CREST OF THE DAM, INCLUDING BUT NOT LIMITED TO: UTILITY POLE RELOCATION, REMOVAL OR PLACEMENT OF ROADWAY INFRASTRUCTURE (US ROUTE 6), PLACEMENT OF FILL AT THE CREST OF THE DAM.
 2. ANCHORING OF TURBIDITY CURTAIN APPROXIMATELY 60 FEET OFFSHORE IS ANTICIPATED TO AVOID THE STONE DAM SLOPE. APPROXIMATE GROUND ELEVATION AT THIS DISTANCE IS 470'. RESULTING IN WATER DEPTH AT NORMAL POOL OF APPROXIMATELY 31 FT.

PHASE 2 EROSION & SEDIMENT CONTROL

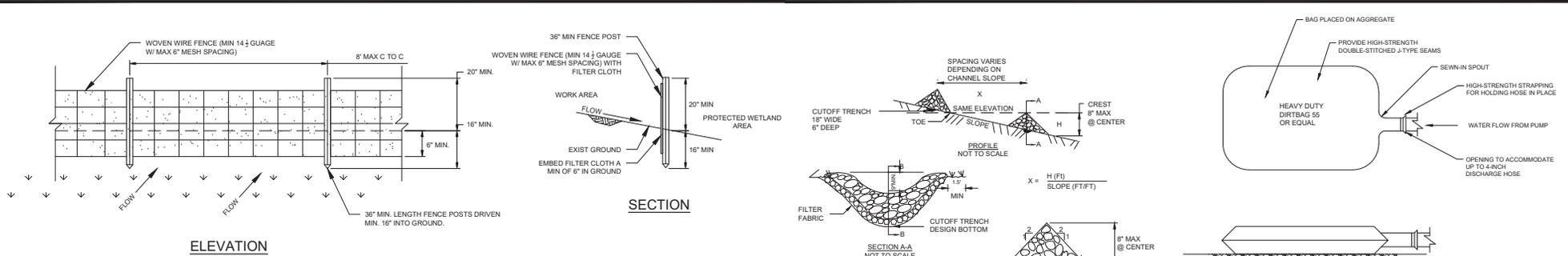


**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: & Date: PDM/ELM/LMD, Wednesday, April 27, 2023 and Date Plotted: Wednesday, May 4, 2023, 10:29:57 AM.
 Paper Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\p\p\1\lowell\mud\26981180\C-046.00.dwg

NO. DATE REVISIONS/DESCRIPTION APPRD.		DESIGNED BY: R. HAINES CHECKED BY: E. LECLAIR DESIGN LEAD: D. ROSENTHAL SECTION MANAGER: E. LECLAIR	DRAWN BY: R. HAINES 11 8100 American Blvd, Suite 200 Luthers, NY 12110 Tel: (518) 765-6800	APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER P. COSTA PORTFOLIO MANAGER	*WARNING! IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.* NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-45 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK PHASE II SOIL EROSION & SEDIMENT CONTROL PLAN (2 OF 2)	DATE: 9/5/2022 SCALE: 1"=20' SHEET NO.: 27 OF 49 DRAWING NO.: C-047.00
---------------------------------------	--	--	--	---	---	--	---

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

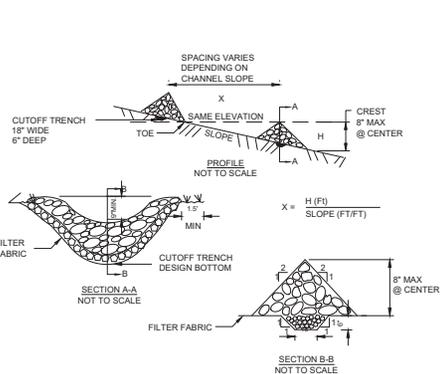


ELEVATION

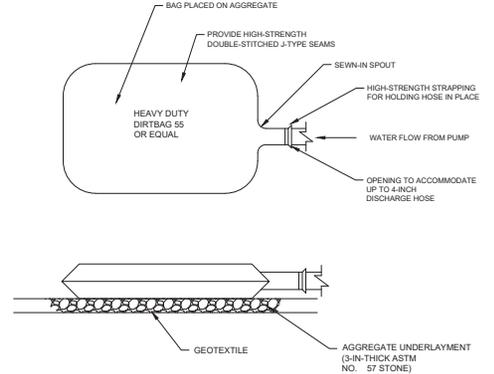
SILT FENCE & TURTLE FENCE
DETAIL A
NTS C-042.00

- TURTLE EXCLUSION FENCE NOTES:**
- PRIOR TO CONSTRUCTION ACTIVITY WITHIN THE WETLAND AREA, WORK AREA SHALL BE INVESTIGATED BY A QUALIFIED/TRAINED INDIVIDUAL (HERPETOLOGIST) TO ENSURE NO BOG TURTLES ARE PRESENT.
 - TURTLE EXCLUSION FENCING (DOUBLE ROW SILT FENCE) SHALL BE INSTALLED AS SHOWN ON THE PLAN AND SPACED 12 INCHES APART.
 - INSPECTION OF THE WORK AREA SHALL TAKE PLACE EACH MORNING BY THE QUALIFIED/TRAINED INDIVIDUAL (HERPETOLOGIST) PRIOR TO CONSTRUCTION ACTIVITIES.

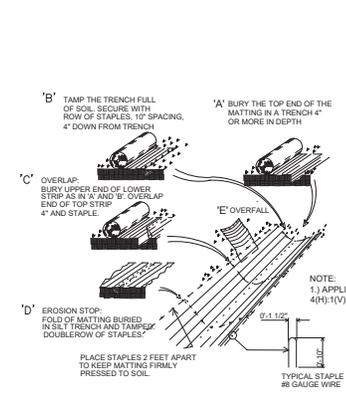
- SILT FENCE NOTES:**
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "I" OR "U" TYPE, OR HARDWOOD.
 - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTERCLOTH SHALL BE EITHER FILTER X, MIRAFL 100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 - PREFABRICATED UNITS SHALL BE GEOFAB, ENVIRONFENCE, OR APPROVED EQUIVALENT.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



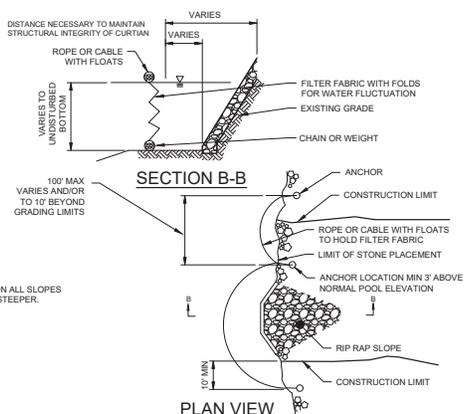
PERMANENT CHECK DAM (ITEM 209.110602)
DETAIL B
NTS C-031.00, C-044.00, C-045.00



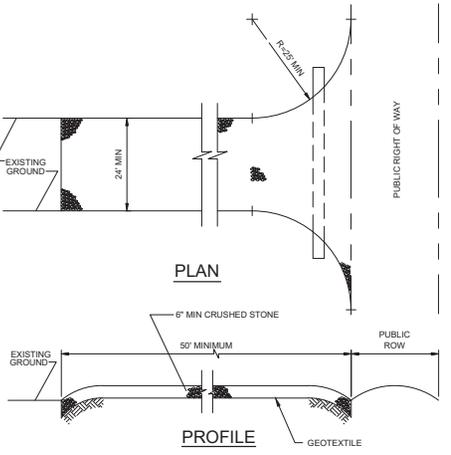
SEDIMENT BAG
DETAIL C
NTS C-042.00



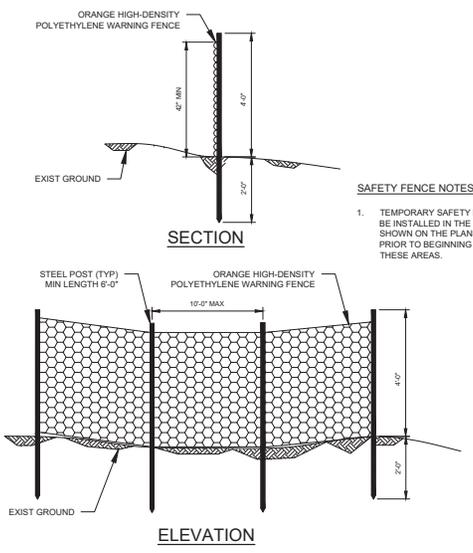
EROSION CONTROL BLANKET
DETAIL D
NTS C-044.00, C-045.00



TURBIDITY CURTAIN (ITEM 209.1501)
DETAIL E
NTS C-042.00, C-045.00, C-047.00



STABILIZED CONSTRUCTION ENTRANCE (ITEM 209.22)
DETAIL F
NTS C-042.00



TEMPORARY SAFETY FENCE
DETAIL G
NTS C-001.00

- SAFETY FENCE NOTES:**
- TEMPORARY SAFETY FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS OR A.C.B.E. PRIOR TO BEGINNING ANY WORK IN THESE AREAS.

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

NYSE: [REDACTED], C. GAGE, C-042.00, 2024, 4500, SITE PLAN (WPT) Images [REDACTED]
 Last saved by PCONVLAB, Time: 4/27/2024 8:45:41 AM
 Project Name: [REDACTED]
 Drawing Name: [REDACTED]

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
R. HAINES
CHECKED BY:
E. LECLAR
DESIGN LEAD:
D. ROSENTHAL
SECTION MANAGER:
E. LECLAR

DRAWN BY:
R. HAINES
GDM Smith
11 8100 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 765-6600



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

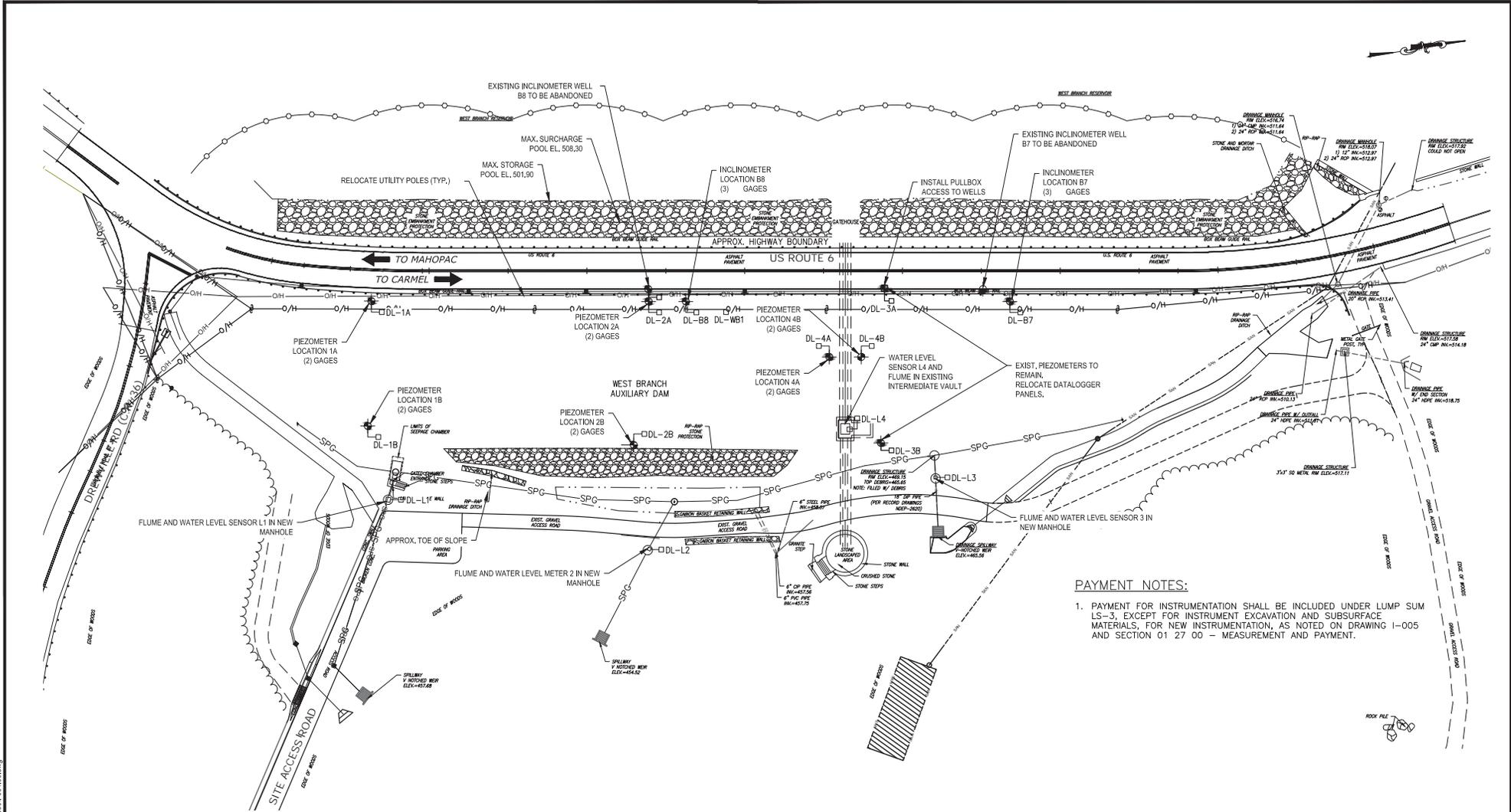
NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
SOIL EROSION & SEDIMENT CONTROL DETAILS
(1 OF 2)

DATE: 9/5/2022
SCALE: N/A
SHEET NO.: 28 OF 49
DRAWING NO. C-048.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: S. Dwyer; ENVINSPD; Thursday, February 01, 2024 and Date Plotted Thursday, May 5, 2024 1:48:40 PM
 Plot Size: (ANSI) D (22.00 X 34.00 INCHES) Plot Scale: 1/8"=1'-0"
 Drawing Name: & Location: C:\pwworking\mca\02866800\4001\001.dwg
 User: S. Dwyer



PAYMENT NOTES:

- PAYMENT FOR INSTRUMENTATION SHALL BE INCLUDED UNDER LUMP SUM LS-3, EXCEPT FOR INSTRUMENT EXCAVATION AND SUBSURFACE MATERIALS, FOR NEW INSTRUMENTATION, AS NOTED ON DRAWING I-005 AND SECTION 01 27 00 - MEASUREMENT AND PAYMENT.

INSTRUMENTATION PLAN



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
 M. POWELL
 CHECKED BY:
 E. LECLAIR
 DESIGN LEAD:
 S. MURPHY
 SECTION MANAGER:
 E. LECLAIR

DRAWN BY:
 N. POWELL

 11 8100 American Blvd, Suite 200
 Lehigh, NY 12110
 Tel: (518) 785-4800



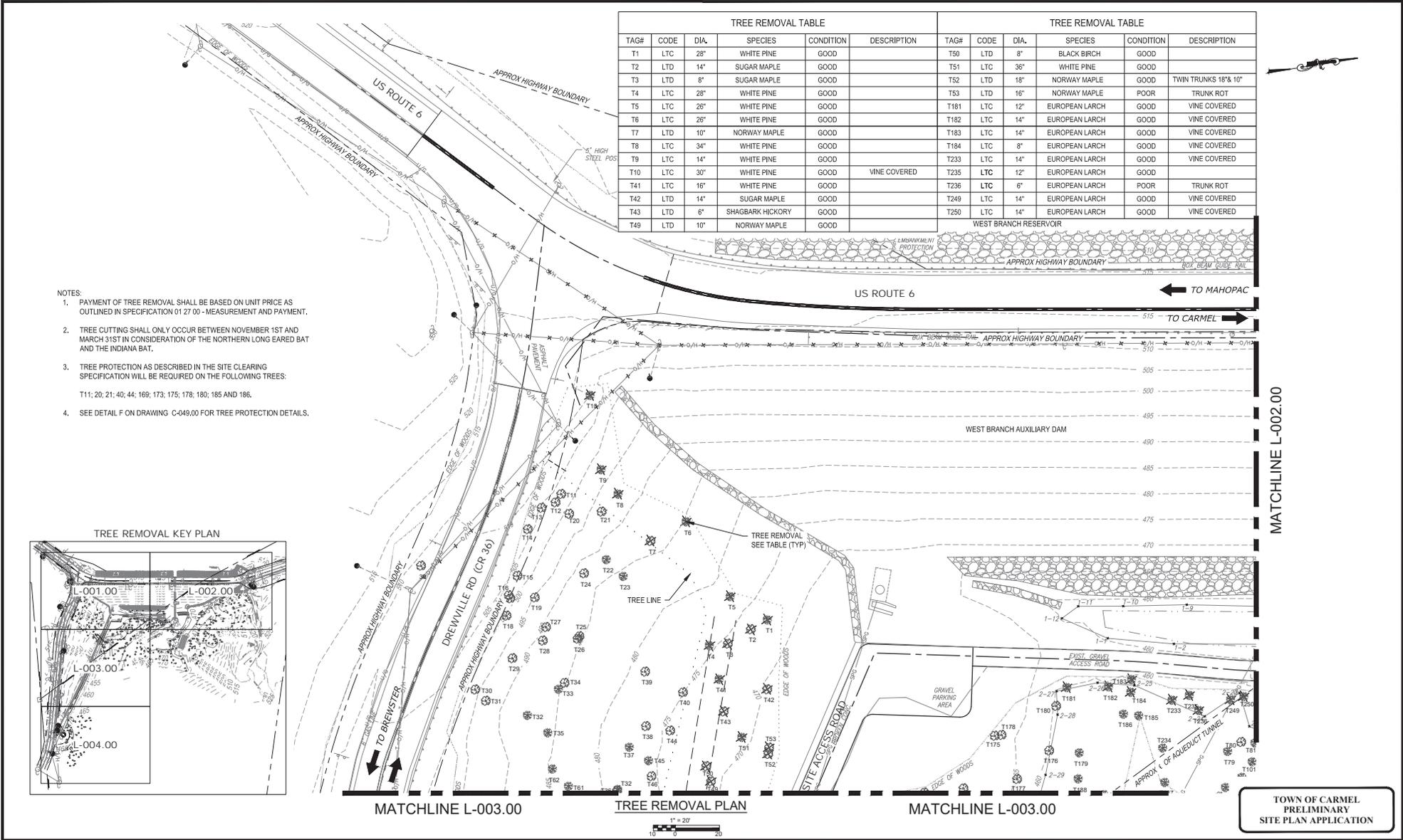
APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 P. COSTA
 PORTFOLIO MANAGER

WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION, LAW, SECTION 7209.2.

**NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION**
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK**
 INSTRUMENTATION PLAN
 DATE: 5/5/2022
 SCALE: 1"=50'
 SHEET NO.:
 30 OF 49
 DRAWING NO.:
 I-001.00

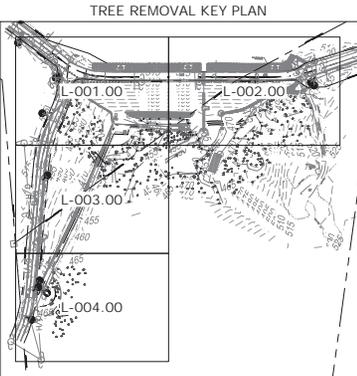
All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



TREE REMOVAL TABLE					
TAG#	CODE	DIA.	SPECIES	CONDITION	DESCRIPTION
T1	LTC	28"	WHITE PINE	GOOD	
T2	LTD	14"	SUGAR MAPLE	GOOD	
T3	LTD	8"	SUGAR MAPLE	GOOD	
T4	LTC	28"	WHITE PINE	GOOD	
T5	LTC	26"	WHITE PINE	GOOD	
T6	LTC	26"	WHITE PINE	GOOD	
T7	LTD	10"	NORWAY MAPLE	GOOD	
T8	LTC	34"	WHITE PINE	GOOD	
T9	LTC	14"	WHITE PINE	GOOD	
T10	LTC	30"	WHITE PINE	GOOD	VINE COVERED
T41	LTC	16"	WHITE PINE	GOOD	
T42	LTD	14"	SUGAR MAPLE	GOOD	
T43	LTD	6"	SHAGBARK HICKORY	GOOD	
T49	LTD	10"	NORWAY MAPLE	GOOD	

TREE REMOVAL TABLE					
TAG#	CODE	DIA.	SPECIES	CONDITION	DESCRIPTION
T50	LTD	8"	BLACK BIRCH	GOOD	
T51	LTC	36"	WHITE PINE	GOOD	
T52	LTD	18"	NORWAY MAPLE	GOOD	TWIN TRUNKS 18" & 10"
T53	LTD	16"	NORWAY MAPLE	POOR	TRUNK ROT
T181	LTC	12"	EUROPEAN LARCH	GOOD	VINE COVERED
T182	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T183	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T184	LTC	8"	EUROPEAN LARCH	GOOD	VINE COVERED
T233	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T235	LTC	12"	EUROPEAN LARCH	GOOD	
T236	LTC	6"	EUROPEAN LARCH	POOR	TRUNK ROT
T249	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED
T250	LTC	14"	EUROPEAN LARCH	GOOD	VINE COVERED

- NOTES:
- PAYMENT OF TREE REMOVAL SHALL BE BASED ON UNIT PRICE AS OUTLINED IN SPECIFICATION 01 27 00 - MEASUREMENT AND PAYMENT.
 - TREE CUTTING SHALL ONLY OCCUR BETWEEN NOVEMBER 1ST AND MARCH 31ST IN CONSIDERATION OF THE NORTHERN LONG EARED BAT AND THE INDIANA BAT.
 - TREE PROTECTION AS DESCRIBED IN THE SITE CLEARING SPECIFICATION WILL BE REQUIRED ON THE FOLLOWING TREES:
T11; 20; 21; 40; 44; 169; 173; 175; 178; 180; 185 AND 186.
 - SEE DETAIL F ON DRAWING C-049.00 FOR TREE PROTECTION DETAILS.



Last Saved By: E. Leclair, Tuesday, October 18, 2022 and Date Plotted: Tuesday, October 18, 2022 1:03:50 PM
 Paper Size (ANSI) (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\pwworking\10268657\1\001.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY

CHECKED BY:
E. LECLAIR

DESIGN LEAD:
S. MURPHY

SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

11 8180 American Blvd, Suite 200
Luthers, NY 12110
Tel: (518) 785-6600

APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

P. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

NEW YORK CITY
ENVIRONMENTAL PROTECTION
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

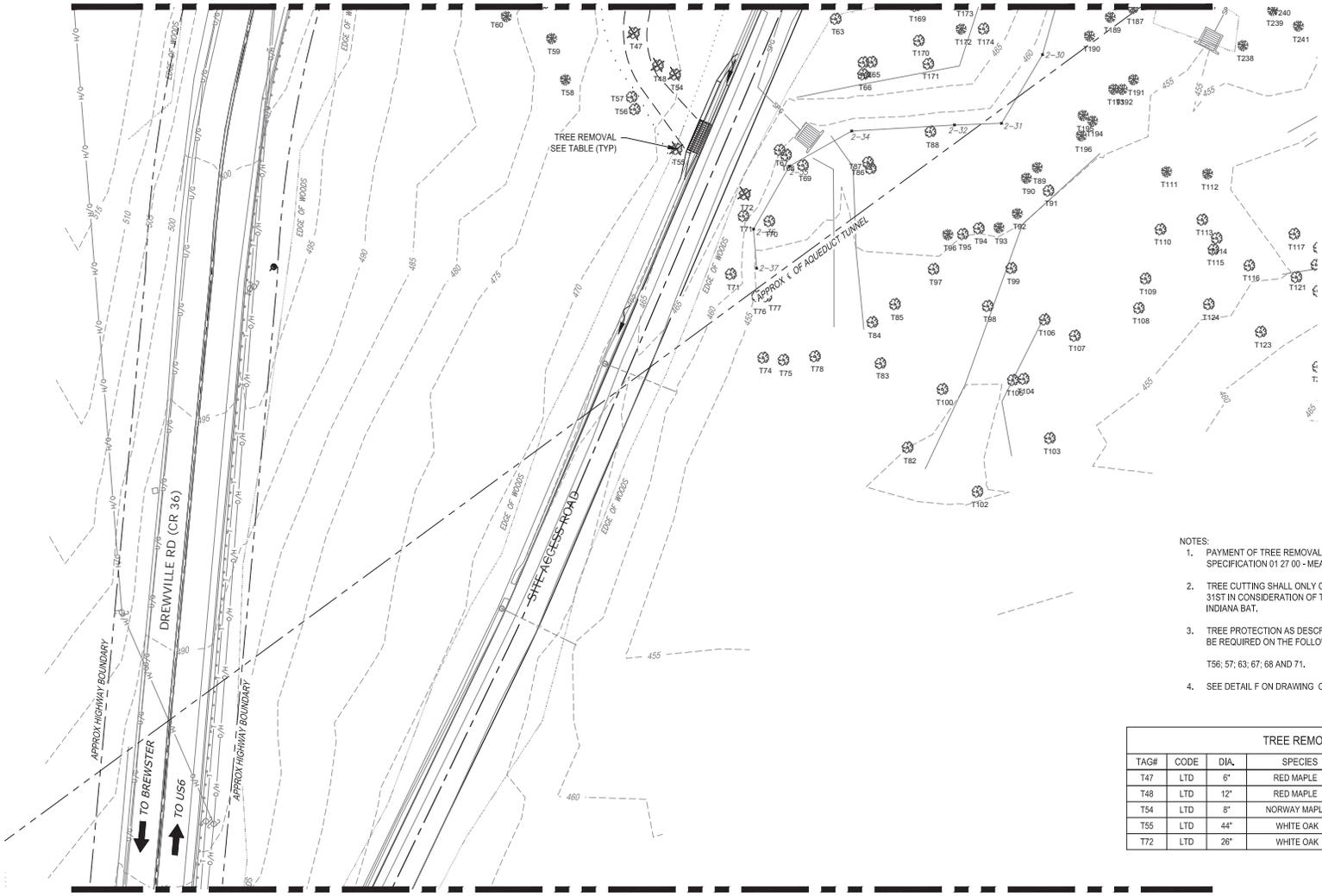
WEST BRANCH AUXILIARY DAM
SLOPE SAFETY IMPROVEMENTS
 SUTNAM COUNTY, NEW YORK

TREE REMOVAL PLAN (1 OF 4)

DATE: 10/17/2022
 SCALE: 1"=20'
 SHEET NO.:
 31 OF 49
 DRAWING NO.:
 L-001.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

MATCHLINE L-001.00



MATCHLINE L-004.00

TREE REMOVAL PLAN



- NOTES:
- PAYMENT OF TREE REMOVAL SHALL BE BASED ON UNIT PRICE AS OUTLINED IN SPECIFICATION 01 27 00 - MEASUREMENT AND PAYMENT.
 - TREE CUTTING SHALL ONLY OCCUR BETWEEN NOVEMBER 1ST AND MARCH 31ST IN CONSIDERATION OF THE NORTHERN LONG EARED BAT AND THE INDIANA BAT.
 - TREE PROTECTION AS DESCRIBED IN THE SITE CLEARING SPECIFICATION WILL BE REQUIRED ON THE FOLLOWING TREES:
T56; 57; 63; 67; 68 AND 71.
 - SEE DETAIL F ON DRAWING C-049.00 FOR TREE PROTECTION DETAILS.

TREE REMOVAL TABLE					
TAG#	CODE	DIA.	SPECIES	CONDITION	DESCRIPTION
T47	LTD	6"	RED MAPLE	GOOD	
T48	LTD	12"	RED MAPLE	GOOD	
T54	LTD	8"	NORWAY MAPLE	GOOD	VINE COVERED
T55	LTD	44"	WHITE OAK	POOR	TRUNK ROT
T72	LTD	26"	WHITE OAK	POOR	TRUNK ROT

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: E. Leclair, Tuesday, October 18, 2022 and Date Plotted: Tuesday, October 18, 2022 1:07:43 PM
 Paper Size: ANSI (D) (24.00 X 34.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: & Location: C:\pwworking\110266657\1\001.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL
GDM Smith
11 8180 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 765-6600



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

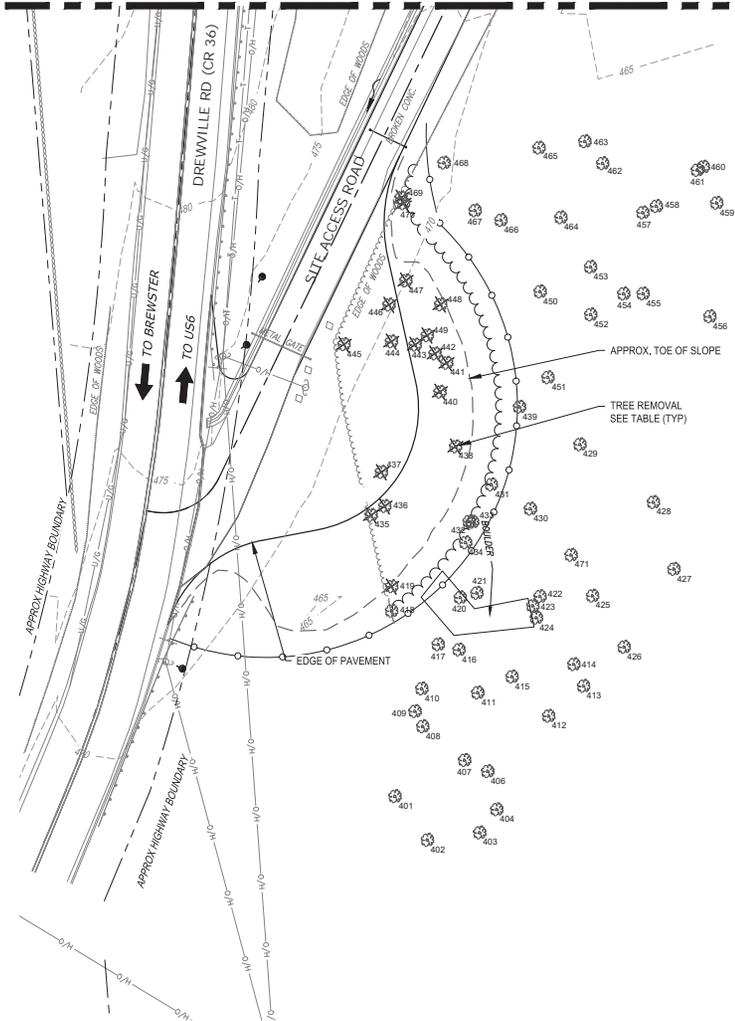
WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS
SUTNAM COUNTY, NEW YORK
TREE REMOVAL PLAN (3 OF 4)
DATE: 10/17/2022
SCALE: 1"=20'
SHEET NO.: 33 OF 49
DRAWING NO. L-003.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

MATCHLINE L-003.00



TREE REMOVAL TABLE					
TAG#	CODE	DIA.	SPECIES	CONDITION	DESCRIPTION
T419	LTD	15"	SUGAR MAPLE	GOOD	
T435	LTD	6"	SUGAR MAPLE	GOOD	
T436	LTD	28"	SUGAR MAPLE	POOR	TRUNK ROT
T437	LTD	5"	SUGAR MAPLE	GOOD	
T438	LTD	5"	SUGAR MAPLE	GOOD	
T440	LTD	8"	RED MAPLE	GOOD	
T441	LTD	16"	WHITE ASH	GOOD	
T442	LTD	5"	HOP HORNBEAM	GOOD	
T443	LTD	4"	SUGAR MAPLE	GOOD	
T444	LTD	9"	SUGAR MAPLE	GOOD	
T445	LTD	7"	AMERICAN ELM	GOOD	
T446	LTD	8"	HOP HORNBEAM	GOOD	
T447	LTD	8"	SUGAR MAPLE	GOOD	
T448	LTD	11"	RED MAPLE	GOOD	
T449	LTD	23"	WHITE ASH	GOOD	
T469	LTD	6"	AMERICAN ELM	GOOD	
T470	LTD	10"	RED MAPLE	GOOD	

- NOTES:
- PAYMENT OF TREE REMOVAL SHALL BE BASED ON UNIT PRICE AS OUTLINED IN SPECIFICATION 01 27 00 - MEASUREMENT AND PAYMENT.
 - TREE PROTECTION AS DESCRIBED IN THE SITE CLEARING SPECIFICATION WILL BE REQUIRED ON THE FOLLOWING TREES:
T418; 420; 421; 431; 432; 433; 434; 439; 450; 451; 466; 467 AND 468.

TREE REMOVAL PLAN
1" = 20'
0 10 20

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: E. Leclair; Date: 05/27/2022 11:05:57 AM; File Name: C:\Users\E. Leclair\Documents\269813001_00.dwg; Drawing Name: & Location: C:\Users\E. Leclair\Documents\269813001_00.dwg; Plot Style Table: BDDC_Drawing.ctb; Paper Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=20'

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL

11800 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 762-6800

APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

D. COSTA
PORTFOLIO MANAGER

WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

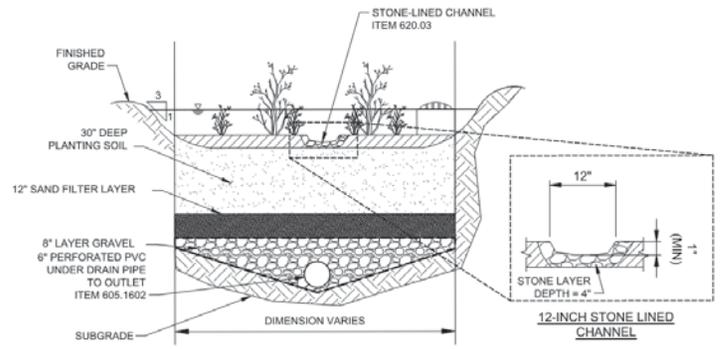
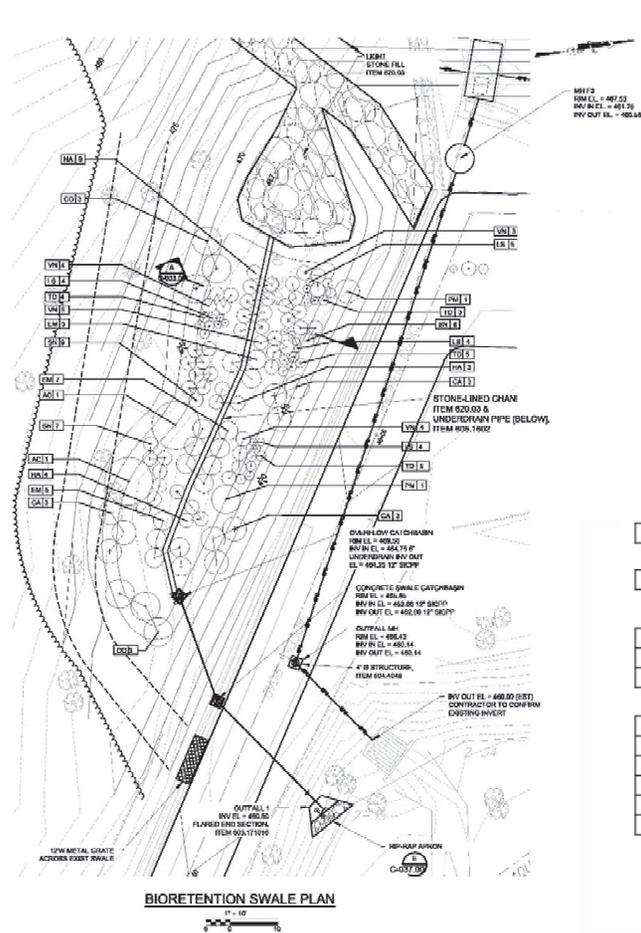
WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

TREE REMOVAL PLAN (4 OF 4)

DATE: 5/5/2022
SCALE: 1"=20'
SHEET NO.:
34 OF 49
DRAWING NO.:
L-004.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: P. JENKINS Tuesday, February 01, 2022 12:27:43 PM
 Plot Size: ANSI D (24.00 X 36.00 INCHES) Plot Scale: 1" = 30'
 Drawing Name: & Location: C:\pwr_gf1\pwwel\mcd\02666901\001_00.dwg



BIORETENTION AREA
DETAIL A
 N.T.S. C-033.00

PLANT SCHEDULE

QTY	SYM	BOTANICAL NAME	COMMON NAME	COND	SIZE
TREES					
2	AC	AMELANCHIER CANADENSIS	SERVICEBERRY	B&B	4 - 5'
SHRUBS					
9	CA	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	CONT.	2 GALLON
6	CO	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	CONT.	2 GALLON
2	PM	PHOTINIA MELANOCARPA	BLACK CHOKEBERRY	CONT.	2 GALLON
PERENNIALS					
15	EM	EUTROCHIMUM MACULATUM	JOE PYE WEED	CONT.	1 GALLON
16	HA	HELENIUM AUTUMNALE	SNEEZEWEED	CONT.	1 GALLON
17	LS	LOBELIA SIPHILITICA	PURPLE CONEFLOWER	CONT.	1 GALLON
24	SN	SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	CONT.	1 GALLON
17	TD	THALICTRUM DIOICUM	EARLY MEADOW-RUE	CONT.	1 GALLON
16	VN	VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED	CONT.	1 GALLON

NOTES:

1. THE PLANTING SCHEDULE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. NYCDEP BWS NATURAL RESOURCES STAFF TO PROVIDE PLANTINGS LOCATION IN THE FIELD AT TIME OF INSTALLATION.
2. THE PLANTINGS ARE BROKEN INTO TWO SEPARATE AREAS: THE UPPER FLATTENED AREA OF THE WIDENED ENTRANCE, AND THE LOWER SLOPED FILL AREA.
3. TREES WITHIN 15' OF THE WORK SHALL BE PROTECTED AS OUTLINED IN SPECIFICATION 31 10 - SITE CLEARING.
4. ALL PLANTINGS SHALL BE VERIFIED BY THE TOWN OF CARMEL WETLANDS INSPECTOR PRIOR TO INSTALLATION.
5. ALL PLANTINGS SHALL BE INSTALLED PER §142 OF THE TOWN OF CARMEL TOWN CODE.

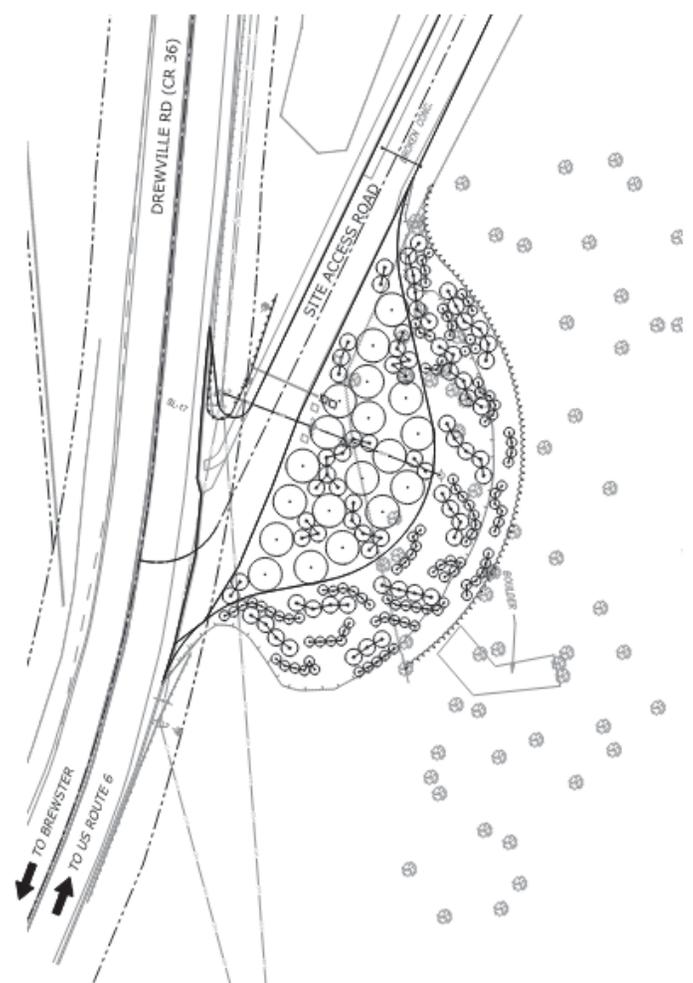
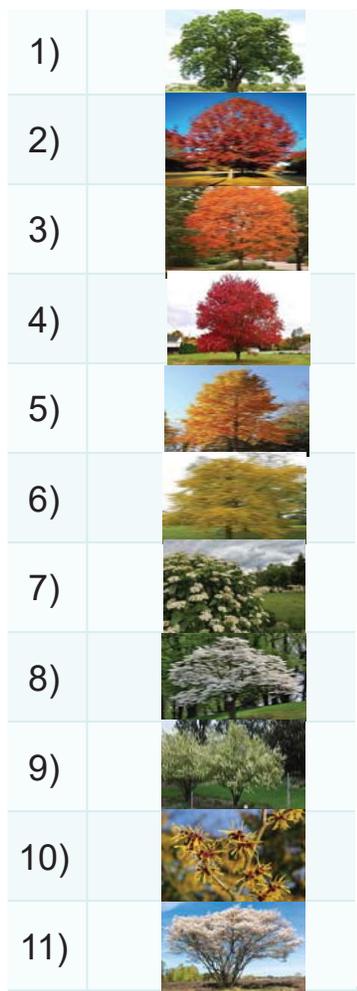
TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

BIORETENTION PLANTING

	DESIGNED BY: P. JENKINS CHECKED BY: J. LAROSA DESIGN LEAD: P. JENKINS SECTION MANAGER: E. LECLAIR	DRAWN BY: P. JENKINS  11500 American Blvd, Suite 200 Luthers, NY 12110 Tel: (518) 782-6800		APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER P. COSTA PORTFOLIO MANAGER	<small>*WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY, IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.*</small> NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK BIORETENTION PLANTING	DATE: 9/5/2022 SCALE: 1" = 30' SHEET NO.: 35 OF 49 DRAWING NO.: L-005.00
--	--	--	---	---	---	--	---

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: P. JENKINS Tuesday, February 01, 2022 12:27:43 PM
 Paper Size (ANSI) (D) (24.00 X 36.00 INCHES) Plot Scale: 1" = 30'
 Drawing Name: & Location: C:\w_p\11\owell\mcd\02666901\001_00.dwg



PLANT SCHEDULE - UPPER FLATTENED AREA

QTY	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE (GALLONS)
TREES			
3	QUERCUS ALBA	WHITE OAK	#5 OR LARGER
3	QUERCUS RUBRA	RED OAK	#5 OR LARGER
3	ACER SACCHARUM	SUGAR MAPLE	#5 OR LARGER
3	ACER RUBRUM	RED MAPLE	#5 OR LARGER
3	LIRIODENDRON TULIPIFERA	TULIP POPLAR	#5 OR LARGER
4	BETULA LENTA	SWEET BIRCH	#5 OR LARGER

SHRUBS			
6	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	(3) #2 & (3) #3
6	CORNUS FLORIDA	FLOWING DOGWOOD	(3) #2 & (3) #3
6	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM	(3) #2 & (3) #3
6	HAMAMELIS VIRGINIANA	AMERICAN WITCH HAZEL	(3) #2 & (3) #3
5	AMELANCHIER CANADENSIS	SERVICEBERRY	(3) #2 & (2) #3

SEED MIX	
20 LB/ACRE	ERNMX-123 NATIVE UPLAND FORAGE & COVER MIX

PLANT SCHEDULE - LOWER SLOPED FILL AREA

QTY	BOTANICAL NAME	COMMON NAME	
SHRUBS			
9	VIBURNUM DENTATUM	SOUTHERN ARROWWOOD	(5) #2 & (4) #3
9	CORNUS FLORIDA	FLOWING DOGWOOD	(5) #2 & (4) #3
6	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM	(5) #2 & (4) #3
9	HAMAMELIS VIRGINIANA	AMERICAN WITCH HAZEL	(5) #2 & (4) #3
9	AMELANCHIER CANADENSIS	SERVICEBERRY	(5) #2 & (4) #3

HERBACEOUS SHRUBS			
50	POLYSTICHUM ARISTICHOIDES	CHRISTMAS FERN	(25) #2 & (25) #3
50	PARTHENOCISSUS QUIQUEFOLIA	VIRGINIA CREEPER	(25) #2 & (25) #3

SEED MIX	
30 LB/ACRE	ERNMX-123 NATIVE UPLAND FORAGE & COVER MIX

NOTES:

1. THE PLANTING SCHEDULE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. NYC DEP BWS NATURAL RESOURCES STAFF TO PROVIDE PLANTINGS LOCATION IN THE FIELD AT TIME OF INSTALLATION.
2. THE PLANTINGS ARE BROKEN INTO TWO SEPARATE AREAS: THE UPPER FLATTENED AREA OF THE WIDENED ENTRANCE, AND THE LOWER SLOPED FILL AREA.
3. TREES WITHIN 15' OF THE WORK SHALL BE PROTECTED AS OUTLINED IN SPECIFICATION 31 10 10 - SITE CLEARING.
4. ALL PLANTINGS SHALL BE VERIFIED BY THE TOWN OF CARMEL WETLANDS INSPECTOR PRIOR TO INSTALLATION.
5. ALL PLANTINGS SHALL BE INSTALLED PER §142 OF THE TOWN OF CARMEL TOWN CODE.

SITE ENTRANCE PLANTING

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
P. JENKINS
CHECKED BY:
J. LAROSA
DESIGN LEAD:
P. JENKINS
SECTION MANAGER:
E. LECLAIRE

DRAWN BY:
P. JENKINS
GDM Smith
11500 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 765-6800



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

WARNING! IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION, LAW, SECTION 7209.2.

NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

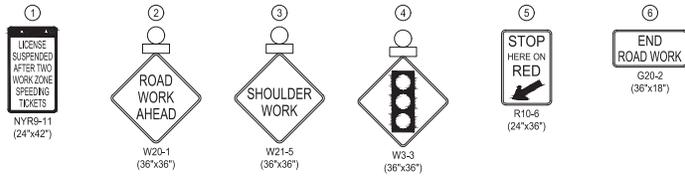
WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK

SITE ENTRANCE PLANTING

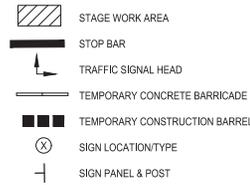
DATE: 9/5/2022
SCALE: 1" = 30'
SHEET NO.:
36 OF 49
DRAWING NO.
L-006.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

SIGN LEGEND

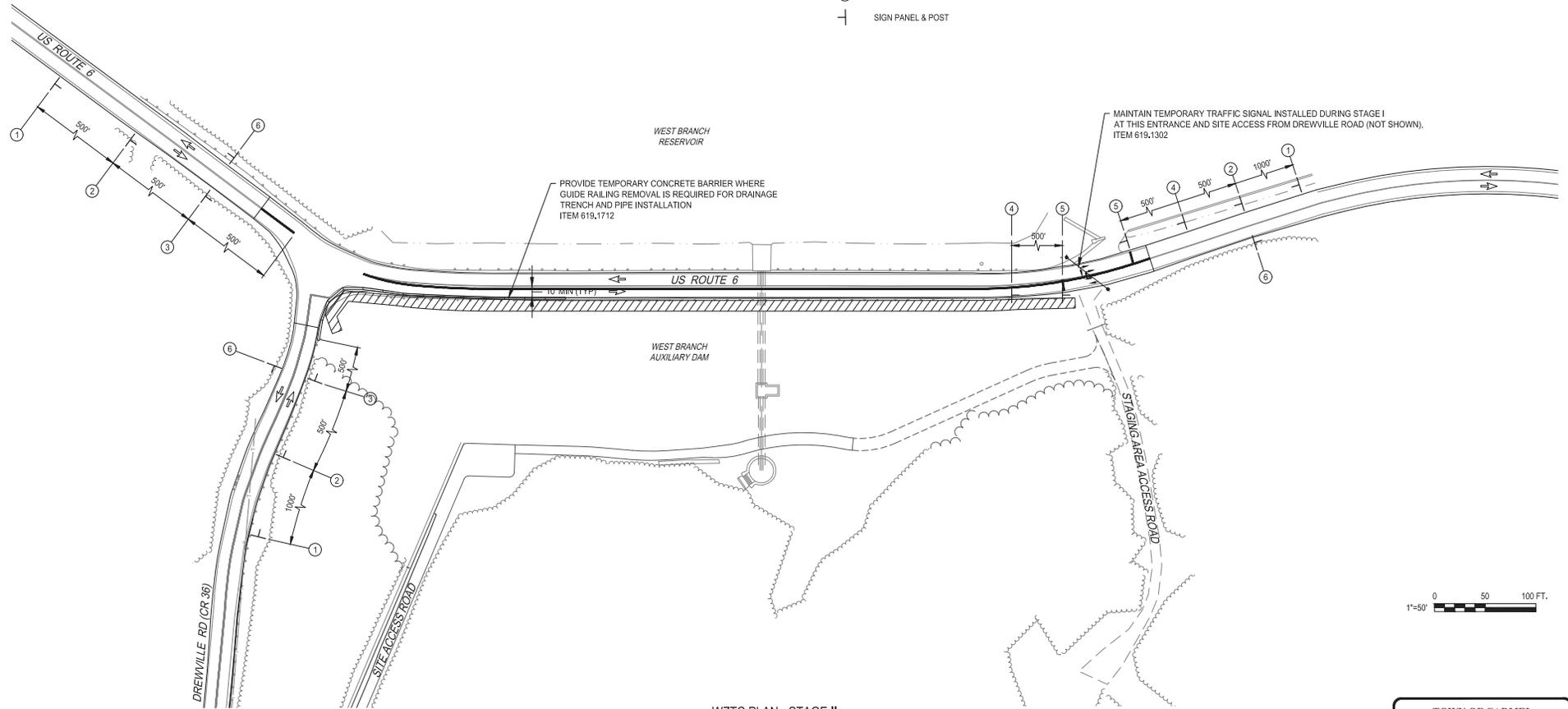


LEGEND



NOTE:

ALL WORK RELATED TO WORK ZONE TRAFFIC CONTROL, INCLUDING BUT NOT LIMITED TO CONSTRUCTION SIGNS, STOP BARS AND TEMPORARY CONSTRUCTION BARRELS ARE INCLUDED IN THE PRICE BID FOR ITEM 619.01 - BASIC WORK ZONE TRAFFIC CONTROL.



WZTC PLAN - STAGE II
SCALE: 1"=50'



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: 6 Data/POWER/UMD, Wednesday, April 27, 2022 and Date Plotted/Thursday, May 4, 2023 9:16:51 PM
 Paper Size/ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=50'
 Drawing Name: & Location: C:\pwr_01\pwr\mcd\26981\800\c-021.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY: S. MURPHY	DRAWN BY: S. MURPHY
CHECKED BY: E. LECLAIR	ACCOUNTABLE MANAGER: L. SINGH
DESIGN LEAD: S. MURPHY	PORTFOLIO MANAGER: D. COSTA
SECTION MANAGER: E. LECLAIR	

GDM Smith
 11 8180 American Blvd, Suite 200
 Latham, NY 12110
 Tel: (518) 765-6800



APPROVED FOR THE CITY OF NEW YORK

L. SINGH
ACCOUNTABLE MANAGER

D. COSTA
PORTFOLIO MANAGER

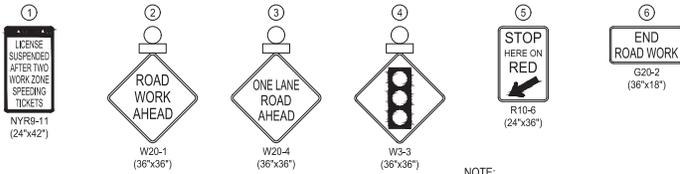
WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION, LAW, SECTION 7209.2.

**NEW YORK CITY
ENVIRONMENTAL PROTECTION**
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK WORK ZONE TRAFFIC CONTROL PLAN - STAGE II	DATE: 9/5/2022
	SCALE: 1"=50'
	SHEET NO.: 39 OF 49
	DRAWING NO. C-021.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

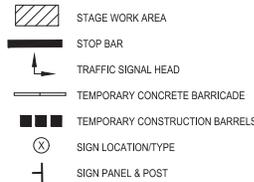
SIGN LEGEND



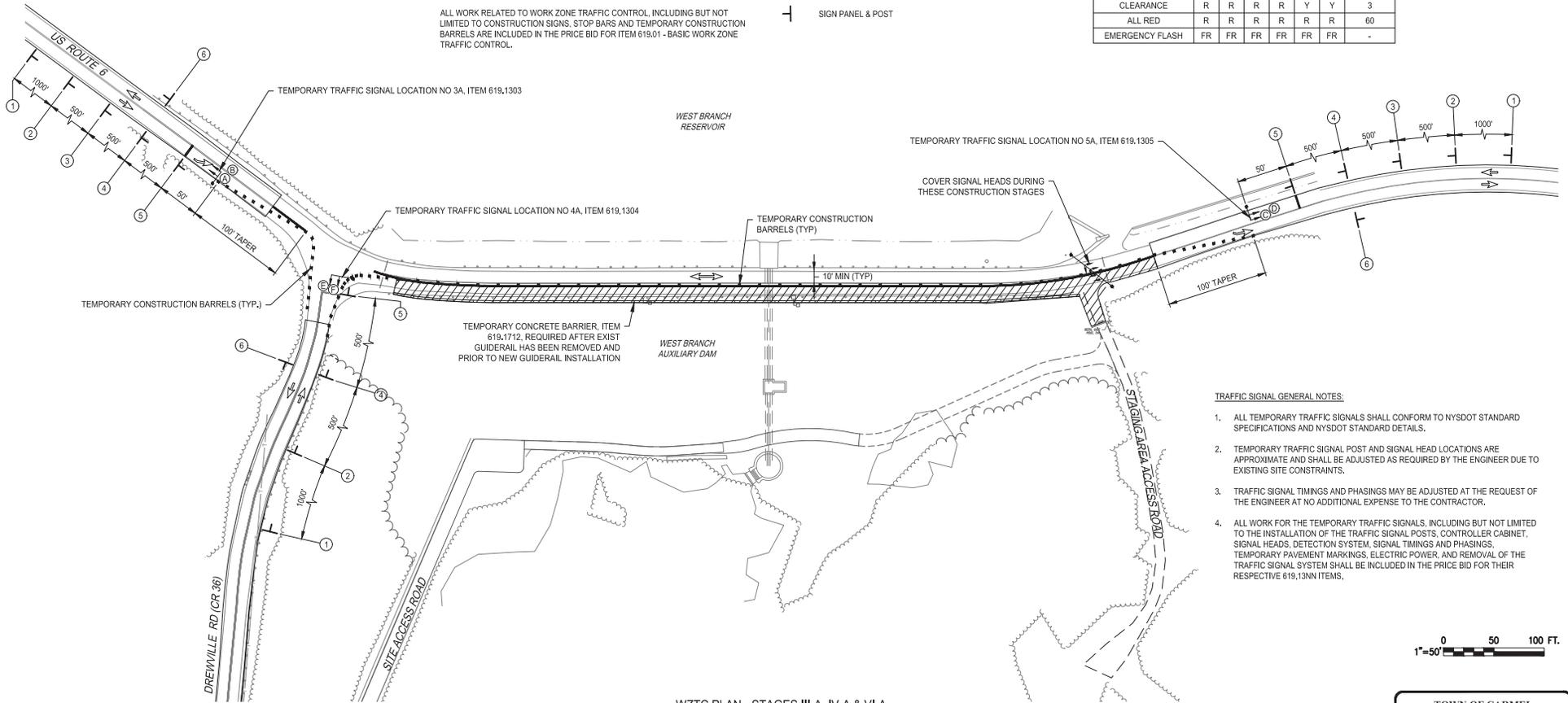
NOTE:

ALL WORK RELATED TO WORK ZONE TRAFFIC CONTROL, INCLUDING BUT NOT LIMITED TO CONSTRUCTION SIGNS, STOP BARS AND TEMPORARY CONSTRUCTION BARRIERS ARE INCLUDED IN THE PRICE BID FOR ITEM 619.01 - BASIC WORK ZONE TRAFFIC CONTROL.

LEGEND



OPERATION SCHEDULE FOR TEMPORARY TRAFFIC SIGNALS								
PHASE	FACE	(A)	(B)	(C)	(D)	(E)	(F)	TIME (S)
1	G	G	R	R	R	R	R	75
	CLEARANCE	Y	Y	R	R	R	R	3
2	ALL RED	R	R	R	R	R	R	60
	CLEARANCE	R	R	G	G	R	R	75
3	ALL RED	R	R	R	R	R	R	60
	CLEARANCE	R	R	R	R	Y	Y	3
EMERGENCY FLASH	FR	FR	FR	FR	FR	FR	FR	-



TRAFFIC SIGNAL GENERAL NOTES:

- ALL TEMPORARY TRAFFIC SIGNALS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATIONS AND NYSDOT STANDARD DETAILS.
- TEMPORARY TRAFFIC SIGNAL POST AND SIGNAL HEAD LOCATIONS ARE APPROXIMATE AND SHALL BE ADJUSTED AS REQUIRED BY THE ENGINEER DUE TO EXISTING SITE CONSTRAINTS.
- TRAFFIC SIGNAL TIMINGS AND PHASINGS MAY BE ADJUSTED AT THE REQUEST OF THE ENGINEER AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.
- ALL WORK FOR THE TEMPORARY TRAFFIC SIGNALS, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF THE TRAFFIC SIGNAL POSTS, CONTROLLER CABINET, SIGNAL HEADS, DETECTION SYSTEM, SIGNAL TIMINGS AND PHASINGS, TEMPORARY PAVEMENT MARKINGS, ELECTRIC POWER, AND REMOVAL OF THE TRAFFIC SIGNAL SYSTEM SHALL BE INCLUDED IN THE PRICE BID FOR THEIR RESPECTIVE 619.13(NN) ITEMS.

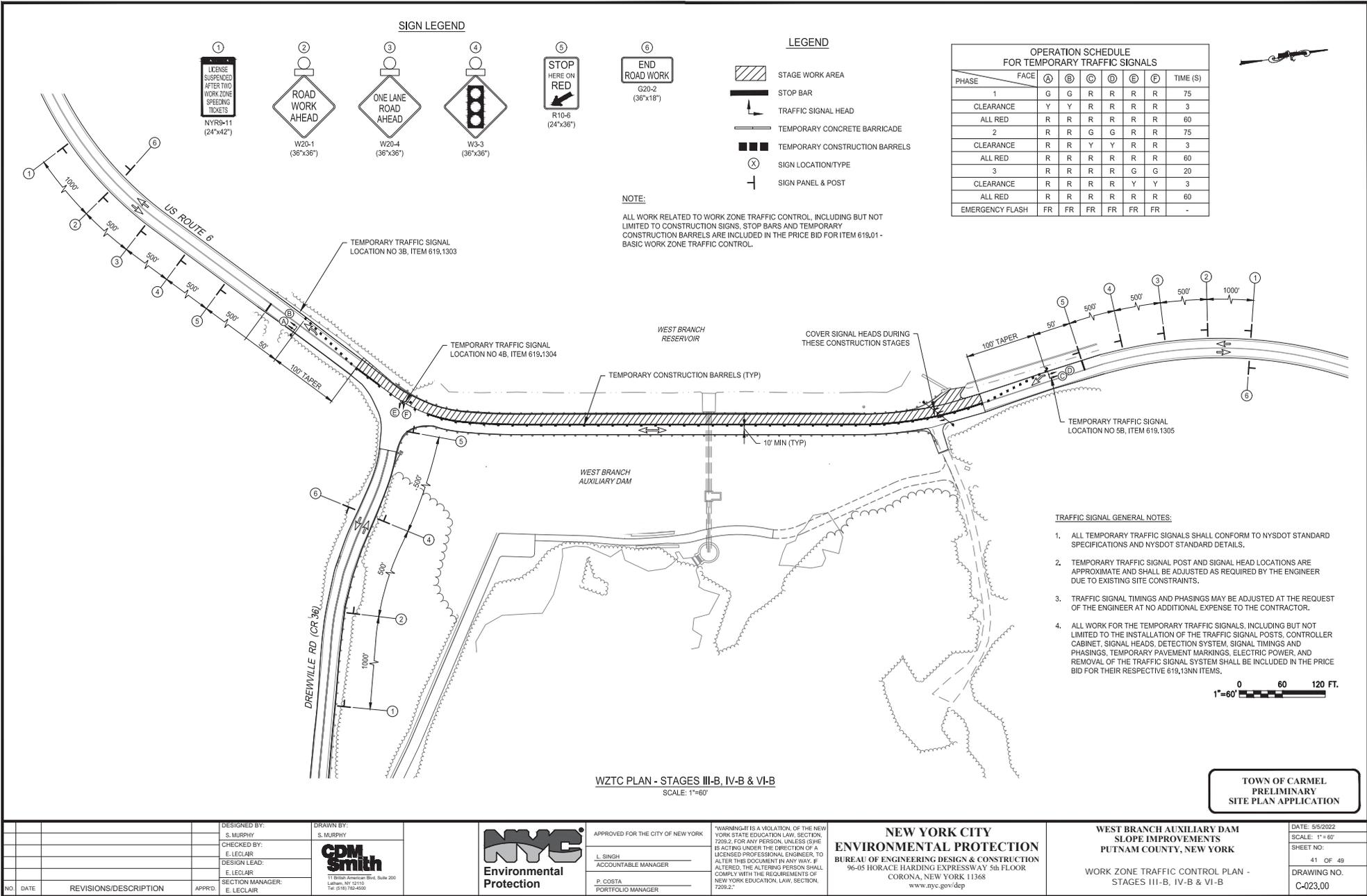
WZTC PLAN - STAGES III-A, IV-A & VI-A
SCALE: 1"=50'

**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: & Date: PAVEL LUD, Wednesday, April 27, 2023 and Date Plotted: Wednesday, May 4, 2023 8:44:04 PM
 Paper Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=50'
 Drawing Name: & Location: C:\pvc_f1\lowellmca\26931\30\c-022_03.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.	DESIGNED BY: S. MURPHY	DRAWN BY: S. MURPHY	APPROVED FOR THE CITY OF NEW YORK: L. SINGH ACCOUNTABLE MANAGER	*WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.*	NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK WORK ZONE TRAFFIC CONTROL PLAN - STAGES III-A, IV-A & VI-A	DATE: 5/5/2022
			CHECKED BY: E. LECLAIR	DESIGN LEAD: S. MURPHY	P. COSTA PORTFOLIO MANAGER	SCALE: 1"=50'				SHEET NO.: 40 OF 49
			SECTION MANAGER: E. LECLAIR	11 8100 American Blvd, Suite 200 Luthers, NY 12110 Tel: (518) 765-6800				DRAWING NO. C-022_00		

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAR
DESIGN LEAD:
E. LECLAR
SECTION MANAGER:
E. LECLAR

DRAWN BY:
S. MURPHY
GDM Smith
11 8100 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 765-6800



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

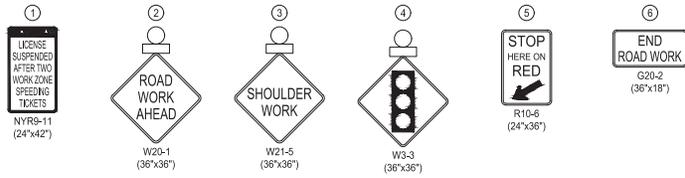
NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
WORK ZONE TRAFFIC CONTROL PLAN -
STAGES III-B, IV-B & VI-B

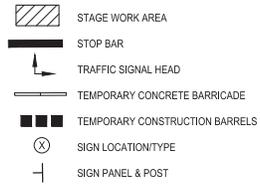
DATE: 9/5/2022
SCALE: 1" = 60'
SHEET NO.:
41 OF 49
DRAWING NO.:
C-023,00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

SIGN LEGEND

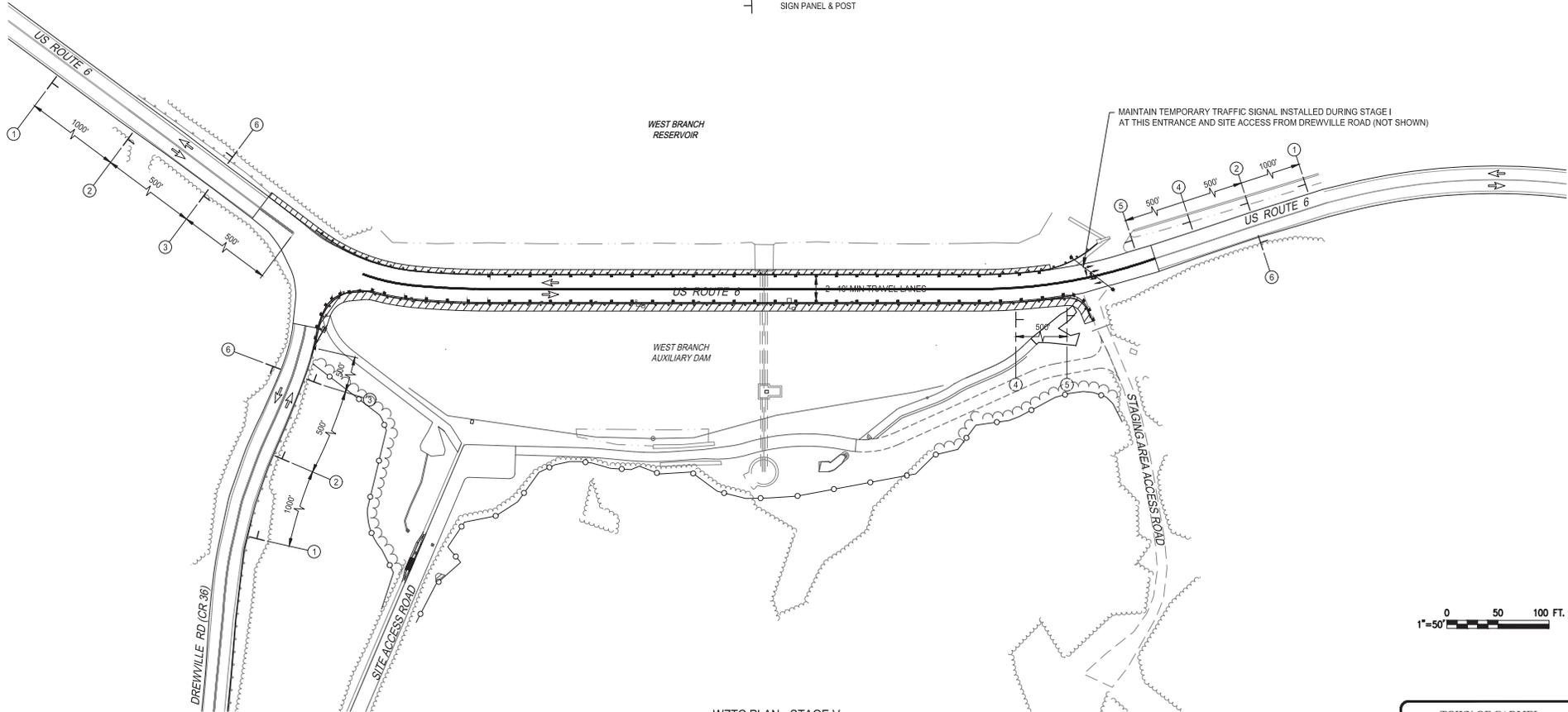


LEGEND

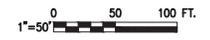


NOTE:

ALL WORK RELATED TO WORK ZONE TRAFFIC CONTROL, INCLUDING BUT NOT LIMITED TO CONSTRUCTION SIGNS, STOP BARS AND TEMPORARY CONSTRUCTION BARRELS ARE INCLUDED IN THE PRICE BID FOR ITEM 619.01 - BASIC WORK ZONE TRAFFIC CONTROL.



WZTC PLAN - STAGE V
SCALE: 1"=50'



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: 6 Data/POWER/LLMD, Wednesday, April 27, 2022 and Date Plotted/Thursday, May 4, 2023 8:50:37 PM
 Paper Size/ANSI (D) (24.00 X 34.00 INCHES) Plot Scale: 1"=50'
 Drawing Name: & Location: C:\pwr_01\power\mca26381\00\c-024\00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
S. MURPHY
**GDM
Smith**
11 8180 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 765-6800



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

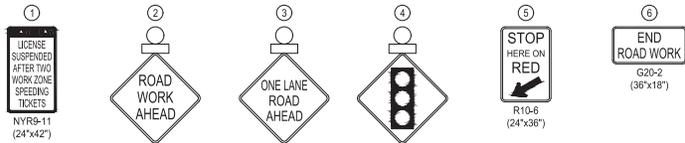
**NEW YORK CITY
ENVIRONMENTAL PROTECTION**
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK**
WORK ZONE TRAFFIC CONTROL PLAN - STAGE V

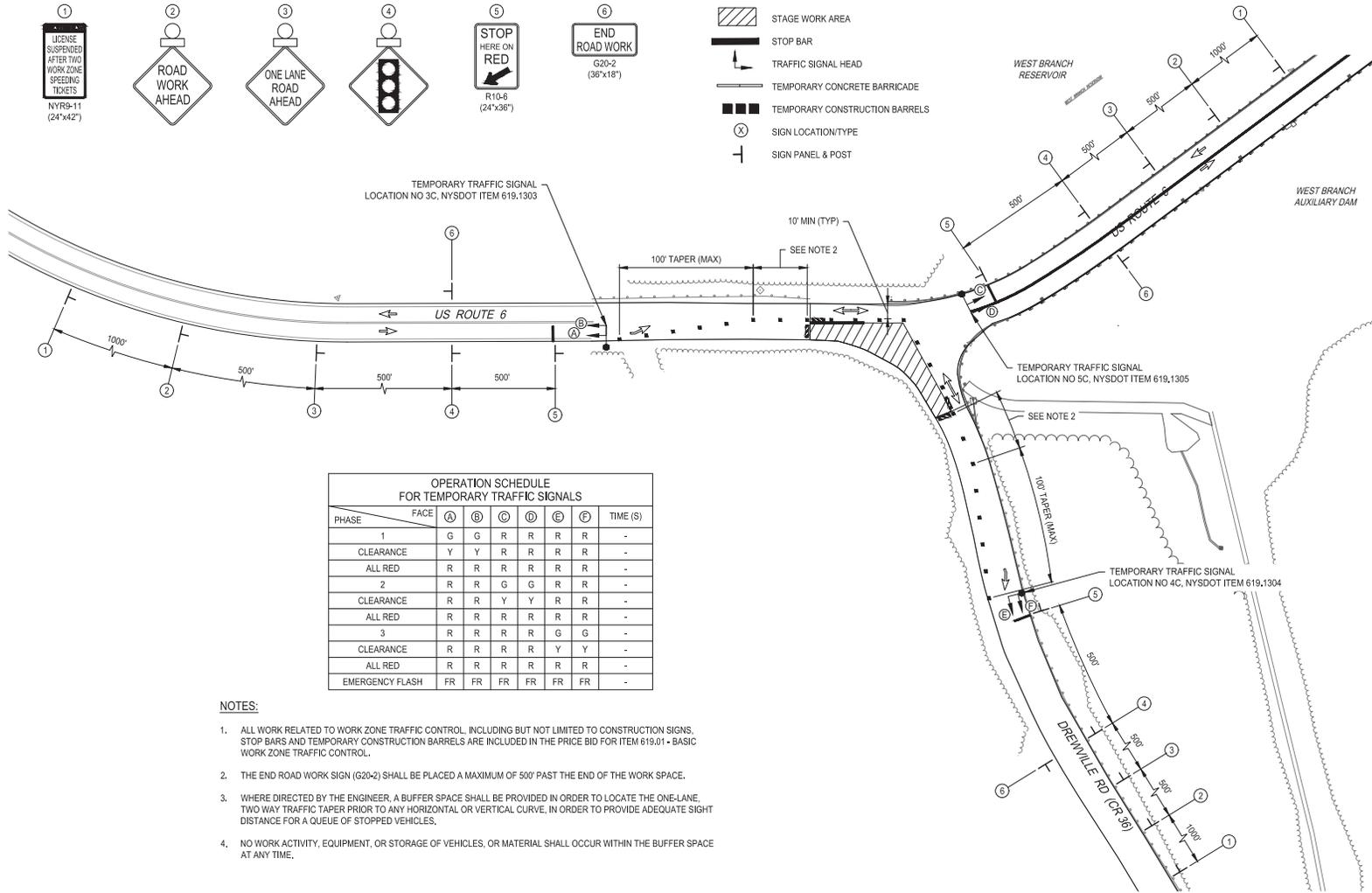
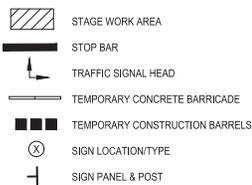
DATE: 9/5/2022
SCALE: 1"=50'
SHEET NO.:
42 OF 49
DRAWING NO.
C-024,00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

SIGN LEGEND



LEGEND



OPERATION SCHEDULE FOR TEMPORARY TRAFFIC SIGNALS

PHASE	FACE	A	B	C	D	E	F	TIME (S)
1	G	G	R	R	R	R	R	-
CLEARANCE	Y	Y	R	R	R	R	R	-
ALL RED	R	R	R	R	R	R	R	-
2	R	R	G	G	R	R	R	-
CLEARANCE	R	R	Y	Y	R	R	R	-
ALL RED	R	R	R	R	R	R	R	-
3	R	R	R	R	G	G	-	-
CLEARANCE	R	R	R	R	Y	Y	-	-
ALL RED	R	R	R	R	R	R	-	-
EMERGENCY FLASH	FR	FR	FR	FR	FR	FR	-	-

NOTES:

- ALL WORK RELATED TO WORK ZONE TRAFFIC CONTROL, INCLUDING BUT NOT LIMITED TO CONSTRUCTION SIGNS, STOP BARS AND TEMPORARY CONSTRUCTION BARRELS ARE INCLUDED IN THE PRICE BID FOR ITEM 619.01 - BASIC WORK ZONE TRAFFIC CONTROL.
- THE END ROAD WORK SIGN (G20-2) SHALL BE PLACED A MAXIMUM OF 500' PAST THE END OF THE WORK SPACE.
- WHERE DIRECTED BY THE ENGINEER, A BUFFER SPACE SHALL BE PROVIDED IN ORDER TO LOCATE THE ONE-LANE, TWO WAY TRAFFIC TAPER PRIOR TO ANY HORIZONTAL OR VERTICAL CURVE, IN ORDER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR A QUEUE OF STOPPED VEHICLES.
- NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.

WZTC PLAN - STAGE VI-C
SCALE: 1"=40'



**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved: B:\Data\POWER\LUD_Web\2022\April 27, 2022 and Drewville Road\WZTC.dwg, May 4, 2022, 9:51:15 PM
 Plot Size: ANSI D (22.00 X 34.00 INCHES) Plot Scale: 1"=40'
 Drawing Name & Location: C:\wztc_p11\powell\mtd\2685130\c-025.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
S. MURPHY
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
S. MURPHY
GDM Smith
11500 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 762-6900



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING! THIS IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

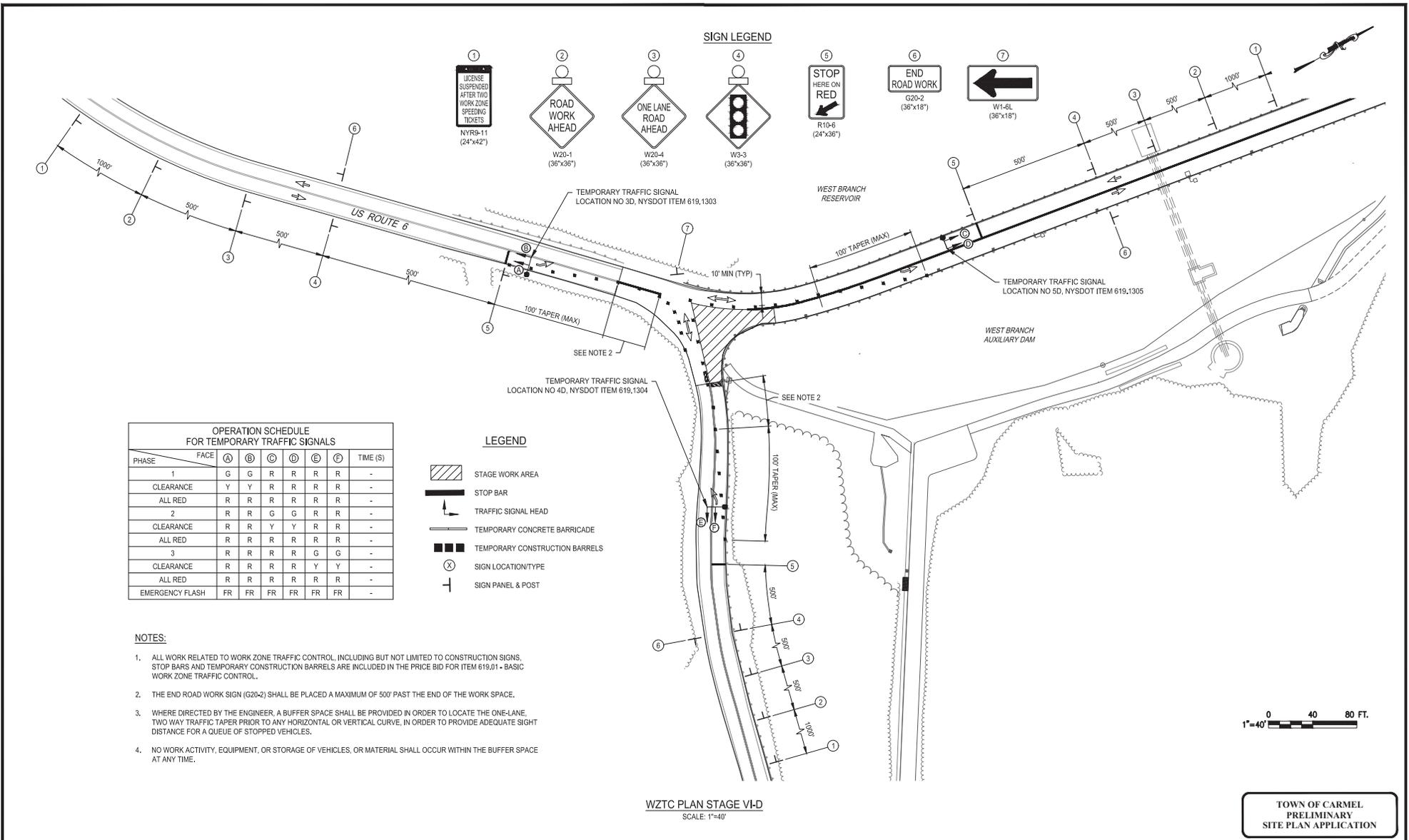
**NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION**
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

**WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK**
WORK ZONE TRAFFIC CONTROL PLAN - STAGE VI-C

DATE: 5/5/2022
SCALE: 1"=40'
SHEET NO.:
43 OF 49
DRAWING NO.:
C-025.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: B. & B. PAVONE L.L.P., Wednesday, April 27, 2022 and Date Plotted: Wednesday, May 4, 2022 9:59:31 PM
 Paper Size (ANSI): D (24.00 X 36.00 INCHES) Plot Scale: 1"=40'
 Drawing Name: & Location: C:\p\c\p\110\work\mca\2638130\C-026.00.dwg



OPERATION SCHEDULE FOR TEMPORARY TRAFFIC SIGNALS

PHASE	FACE	(A)	(B)	(C)	(D)	(E)	(F)	TIME (S)
1	G	G	R	R	R	R	R	-
CLEARANCE	Y	Y	R	R	R	R	R	-
ALL RED	R	R	R	R	R	R	R	-
2	R	R	G	G	R	R	R	-
CLEARANCE	R	R	Y	Y	R	R	R	-
ALL RED	R	R	R	R	R	R	R	-
3	R	R	R	R	G	G	-	-
CLEARANCE	R	R	R	R	Y	Y	-	-
ALL RED	R	R	R	R	R	R	-	-
EMERGENCY FLASH	FR	FR	FR	FR	FR	FR	-	-

- NOTES:**
- ALL WORK RELATED TO WORK ZONE TRAFFIC CONTROL, INCLUDING BUT NOT LIMITED TO CONSTRUCTION SIGNS, STOP BARS AND TEMPORARY CONSTRUCTION BARRIERS ARE INCLUDED IN THE PRICE BID FOR ITEM 619.01 - BASIC WORK ZONE TRAFFIC CONTROL.
 - THE END ROAD WORK SIGN (G20-2) SHALL BE PLACED A MAXIMUM OF 500' PAST THE END OF THE WORK SPACE.
 - WHERE DIRECTED BY THE ENGINEER, A BUFFER SPACE SHALL BE PROVIDED IN ORDER TO LOCATE THE ONE-LANE, TWO WAY TRAFFIC TAPER PRIOR TO ANY HORIZONTAL OR VERTICAL CURVE, IN ORDER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR A QUEUE OF STOPPED VEHICLES.
 - NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.

WZTC PLAN STAGE VI-D
SCALE: 1"=40'

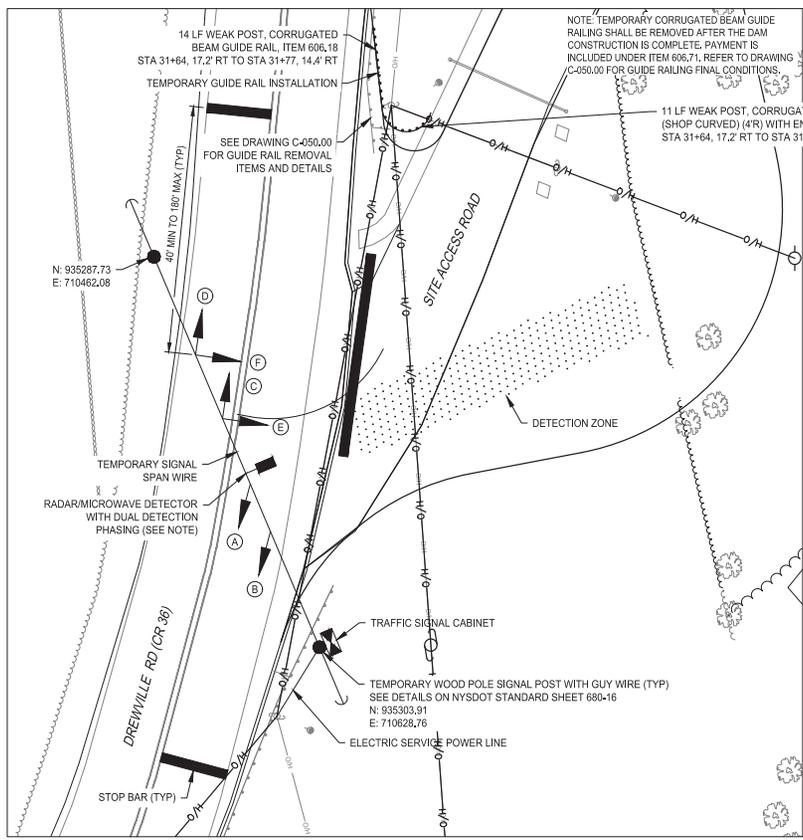


**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

	DESIGNED BY: S. MURPHY CHECKED BY: E. LECLAIR DESIGN LEAD: S. MURPHY	DRAWN BY: S. MURPHY 11 8100 American Blvd, Suite 200 Luben, NY 12110 Tel: (518) 785-6800	APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER P. COSTA PORTFOLIO MANAGER	*WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.* NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK WORK ZONE TRAFFIC CONTROL PLAN - STAGE VI-D DATE: 5/5/2022 SCALE: 1"=40' SHEET NO.: 44 OF 49 DRAWING NO. C-026.00
--	---	--	---	--	--

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: B. Bona-POMERLEU, Wednesday, Aug 17, 2023 at 5:41:53 PM
 Plot Size: ANSI (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=10'
 Drawing Name: S:\Location\C:\pvc_f\lowell\mcd26931180\C-027.dwg



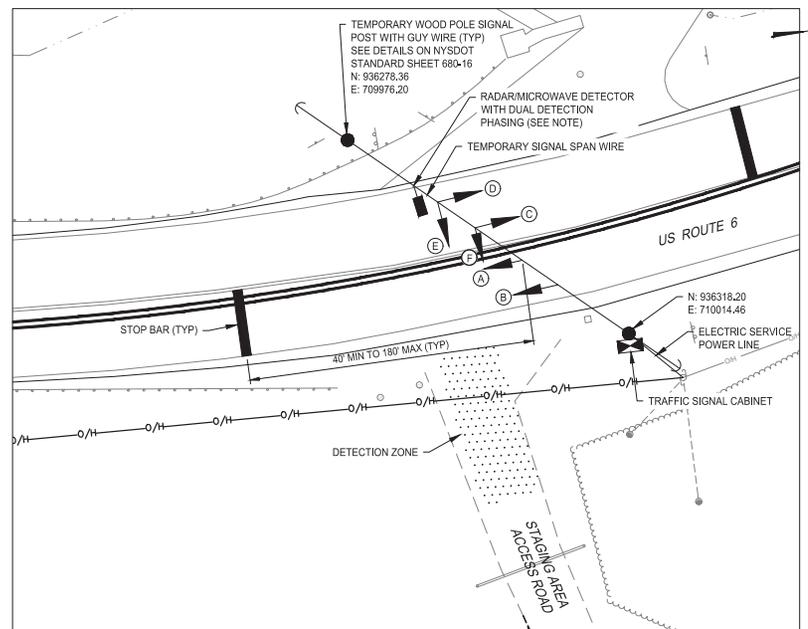
DETAIL 'A' - TEMPORARY TRAFFIC SIGNAL LOCATION NO. 1 - ITEM 619.1301
SCALE: 1"=10'

TRAFFIC SIGNAL GENERAL NOTES:

1. ALL TEMPORARY TRAFFIC SIGNALS SHALL CONFORM TO NYS DOT STANDARD SPECIFICATIONS AND NYS DOT STANDARD DETAILS.
2. TEMPORARY TRAFFIC SIGNAL POST AND SIGNAL HEAD LOCATIONS ARE APPROXIMATE AND SHALL BE ADJUSTED AS REQUIRED BY THE ENGINEER DUE TO EXISTING SITE CONSTRAINTS.
3. TRAFFIC SIGNAL TIMINGS AND PHASINGS MAY BE ADJUSTED AT THE REQUEST OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
4. ALL WORK FOR THE TEMPORARY TRAFFIC SIGNALS, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF THE TRAFFIC SIGNAL POSTS, CONTROLLER CABINET, SIGNAL HEADS, DETECTION SYSTEM, SIGNAL TIMINGS AND PHASINGS, TEMPORARY PAVEMENT MARKINGS, ELECTRIC POWER, AND REMOVAL OF THE TRAFFIC SIGNAL SYSTEM SHALL BE INCLUDED IN THE PRICE BID FOR THEIR RESPECTIVE 619.1301 ITEMS.

TRAFFIC SIGNAL DETECTION NOTES:

5. CONTRACTOR SHALL INSTALL DETECTION SYSTEM USING CONTRACTOR'S OPTION OF RADIO OR MICROWAVE DETECTION. CONTRACTOR MAY ELECT TO USE VIDEO DETECTION AT NO ADDITIONAL COST. LOOP DETECTION IS NOT ACCEPTABLE.
6. DETECTION SHALL HAVE DELAY FEATURE WITH DELAY DETECTION OF 10 SECONDS AFTER INITIAL DETECTION (DREWWILLE ROAD SITE ACCESS) AND 5.0 SECONDS (US ROUTE 6 CONTRACTOR STAGING AREA ENTRANCE).



DETAIL 'B' - TEMPORARY TRAFFIC SIGNAL LOCATION NO. 2 - ITEM 619.1302
SCALE: 1"=10'

LEGEND	
	TRAFFIC SIGNAL POST WITH GUY WIRE
	TRAFFIC SIGNAL HEAD
	TRAFFIC SIGNAL DETECTOR
	TRAFFIC SIGNAL CABINET
	TRAFFIC SIGN FACE

OPERATION SCHEDULE FOR TEMPORARY TRAFFIC SIGNALS - LOCATION NO. 1									
PHASE	FACE	A	B	C	D	E	F	TIME (S)	
1	G	G	G	G	R	R	R	-	
CLEARANCE		Y	Y	Y	Y	R	R	3	
ALL RED		R	R	R	R	R	R	3	
2	R	R	R	R	G	G	G	20	
CLEARANCE		R	R	R	R	Y	Y	3	
ALL RED		R	R	R	R	R	R	3	
EMERGENCY FLASH		FR	FR	FR	FR	FR	FR	-	

OPERATION SCHEDULE FOR TEMPORARY TRAFFIC SIGNALS - LOCATION NO. 2									
PHASE	FACE	A	B	C	D	E	F	TIME (S)	
1	G	G	G	G	R	R	R	-	
CLEARANCE		Y	Y	Y	Y	R	R	3	
ALL RED		R	R	R	R	R	R	3	
2	R	R	R	R	G	G	G	12	
CLEARANCE		R	R	R	R	Y	Y	3	
ALL RED		R	R	R	R	R	R	3	
EMERGENCY FLASH		FR	FR	FR	FR	FR	FR	-	

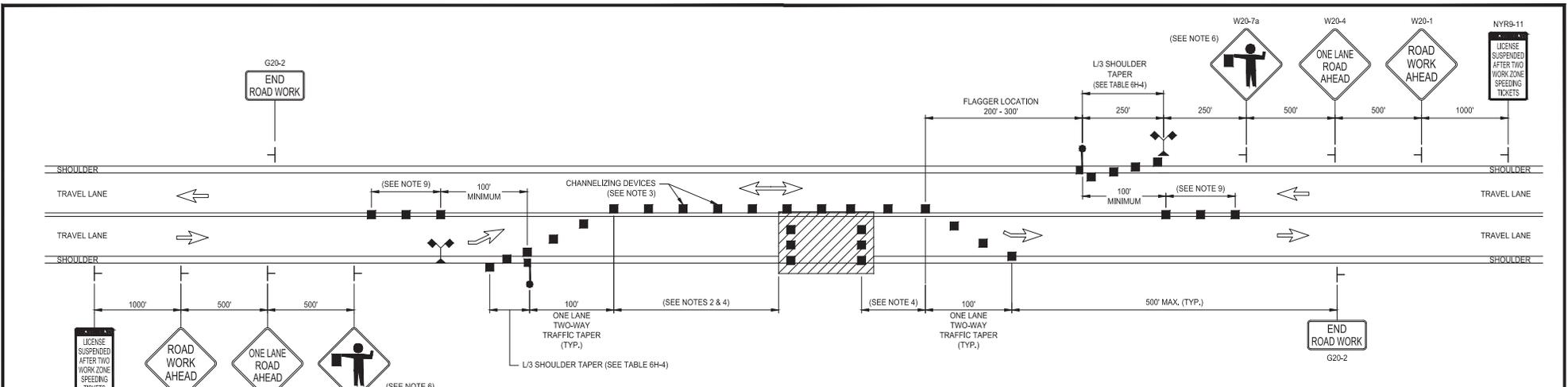


**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

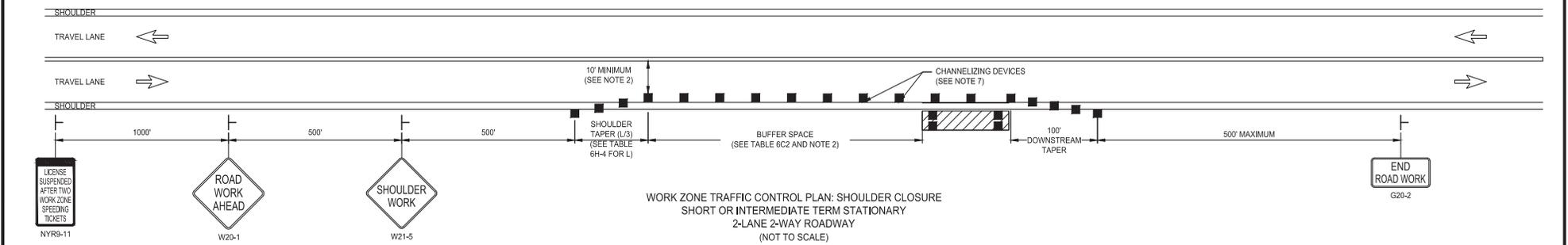
DESIGNED BY: E. LECLAR	DRAWN BY: S. MURPHY		APPROVED FOR THE CITY OF NEW YORK	<small>*WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.*</small>	NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK WORK ZONE TRAFFIC CONTROL - TEMPORARY TRAFFIC SIGNAL PLAN	DATE: 9/5/2022
CHECKED BY: E. LECLAR	SECTION MANAGER: E. LECLAR		L. SINGH ACCOUNTABLE MANAGER				SCALE: 1"=10'
DESIGN LEAD: S. MURPHY		D. COSTA PORTFOLIO MANAGER	45 OF 49				
NO.	DATE	REVISIONS/DESCRIPTION	APPRD.				DRAWING NO. C-027_00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: B. Bona-POMELLI, Wednesday, April 27, 2022 and Date Plotted: Wednesday, May 4, 2022 5:56:46 PM
 Paper Size (ANSI): D (22.00 X 34.00 INCHES) Plot Scale: N/A
 Plot Style Table (PLOT): Default.ctb
 Drawing Name & Location: C:\pwworking\26361180\C-028.00.dwg



WORK ZONE TRAFFIC CONTROL PLAN: FLAGGING OPERATION
 SHORT OR INTERMEDIATE TERM STATIONARY
 LANE CLOSURE ON 2-LANE 2-WAY ROADWAY
 (NOT TO SCALE)



WORK ZONE TRAFFIC CONTROL PLAN: SHOULDER CLOSURE
 SHORT OR INTERMEDIATE TERM STATIONARY
 2-LANE 2-WAY ROADWAY
 (NOT TO SCALE)

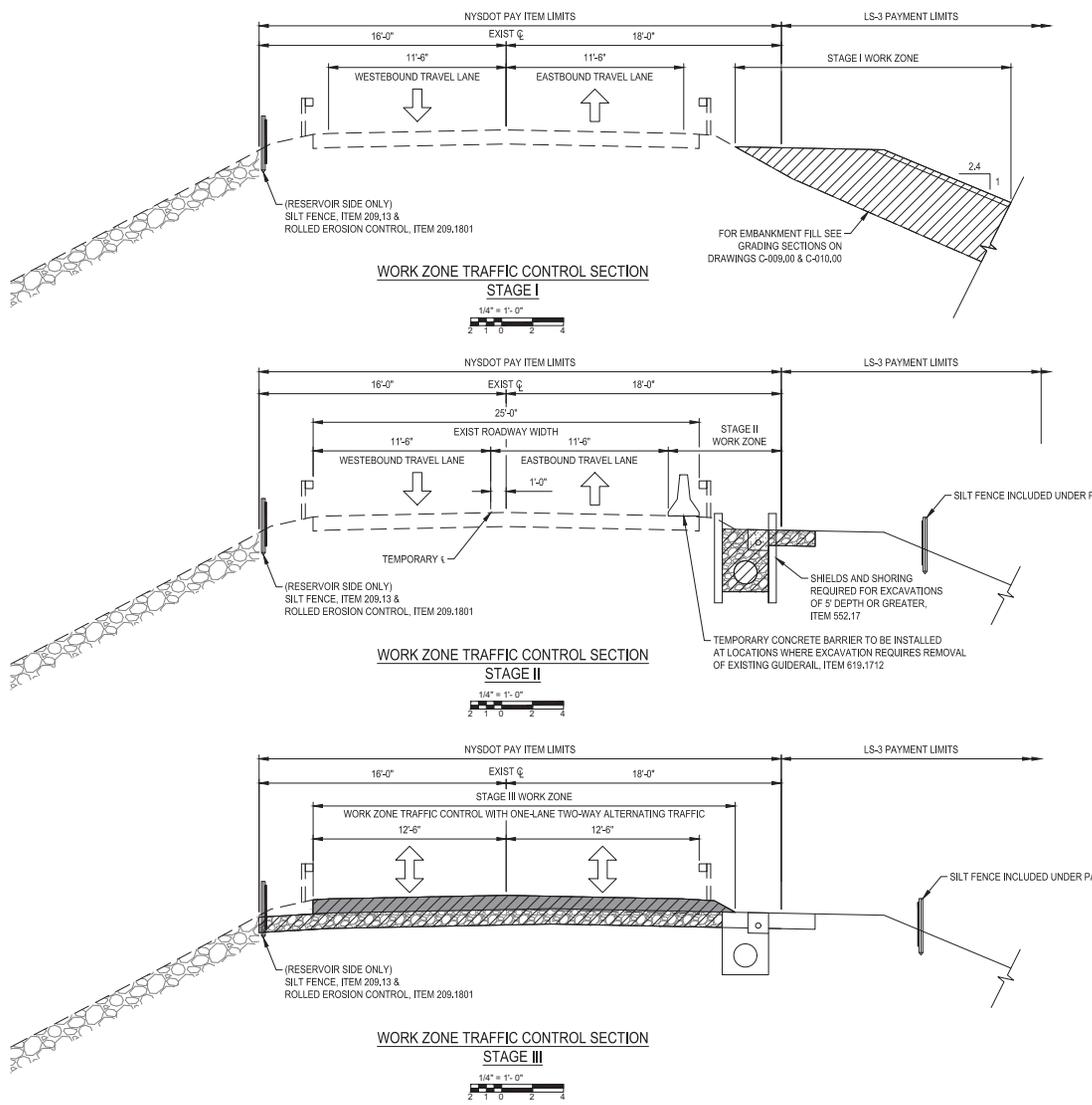
NOTES:

- WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE ROADWAY WITHIN A WORK ZONE TRAFFIC CONTROL AREA, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AND/OR FLAGGERS SHALL BE PLACED AS NEEDED. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK SPACE.
- NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
- CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
- WHERE DIRECTED BY THE ENGINEER, A BUFFER SPACE SHALL BE PROVIDED IN ORDER TO LOCATE THE ONE-LANE, TWO-WAY TRAFFIC TAPER PRIOR TO ANY HORIZONTAL OR VERTICAL CURVE, IN ORDER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND/OR A QUEUE OF STOPPED VEHICLES.
- THE FLAG TREE SHALL BE LOCATED ON THE SHOULDER, AT APPROXIMATELY 1/2 THE DISTANCE BETWEEN THE FLAGGER SIGN (W20-7a) AND THE FLAGGER.
- FLAGGER SIGN (W20-7a) AND ONE LANE ROAD AHEAD SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
- FLAGGER AND FLAG TREE SHALL BE ILLUMINATED TO LEVEL II ILLUMINATION DURING NIGHT TIME OPERATIONS.
- ALL FLAGGERS SHALL USE 24" (MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6" STAFF.
- CENTERLINE CHANNELIZING DEVICES ARE OPTIONAL AND MAY BE ELIMINATED WHERE SPACE CONSTRAINTS EXIST.

TOWN OF CARMEL
 PRELIMINARY
 SITE PLAN APPLICATION

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.	DESIGNED BY: S. MURPHY	DRAWN BY: S. MURPHY	APPROVED FOR THE CITY OF NEW YORK L. SINGH ACCOUNTABLE MANAGER	"WARNING! IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."	NEW YORK CITY ENVIRONMENTAL PROTECTION BUREAU OF ENGINEERING DESIGN & CONSTRUCTION 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR CORONA, NEW YORK 11368 www.nyc.gov/dcp	WEST BRANCH AUXILIARY DAM SLOPE IMPROVEMENTS PUTNAM COUNTY, NEW YORK WORK ZONE TRAFFIC CONTROL - MISCELLANEOUS DETAILS	DATE: 5/5/2022 SCALE: N/A SHEET NO.: 48 OF 49 DRAWING NO. C-028,00
-----	------	-----------------------	---------	---------------------------	------------------------	--	--	--	--	---

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



- NOTES:**
- REFER TO GENERAL NOTES ON DRAWING G-003.00 FOR RECOMMENDED CONSTRUCTION STAGING.
 - STAGE III TO VI BE COMPLETED DURING NIGHTTIME WORK HOURS (8PM TO 6AM).

LEGEND

STAGE WORK AREA

Last Saved By: & Date: PDM@ENVIRONMENTALPROTECTION.NYC.GOV, 11/11/2023 8:12:51 PM
 Plot Style: TableBECOC_Drawing.ctb
 Plot Scale: 1/4" = 1'-0"
 Drawing Name: & Location: C:\pwworking\env\11\0229\00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY:
S. MURPHY

CHECKED BY:
E. LECLAIR

DESIGN LEAD:
S. MURPHY

SECTION MANAGER:
E. LECLAIR

DRAWN BY:
S. MURPHY

GDM Smith

11 8100 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 735-6500

APPROVED FOR THE CITY OF NEW YORK

NYC Environmental Protection

L. SINGH
ACCOUNTABLE MANAGER

P. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

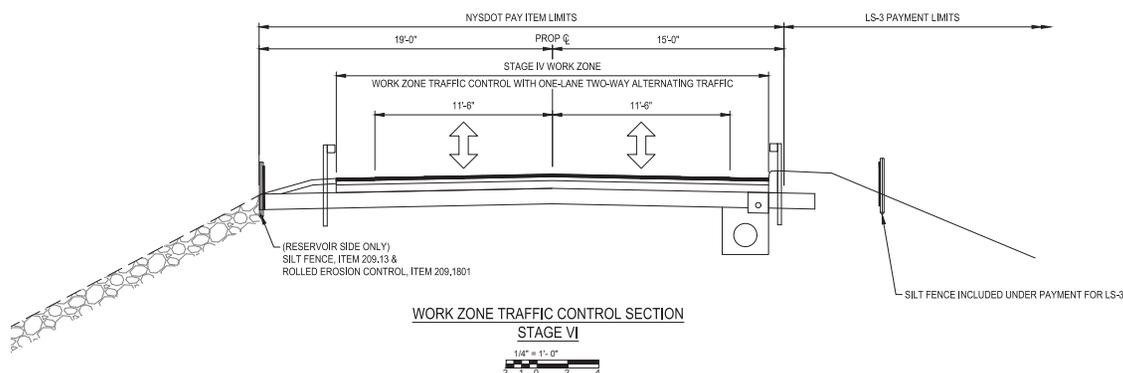
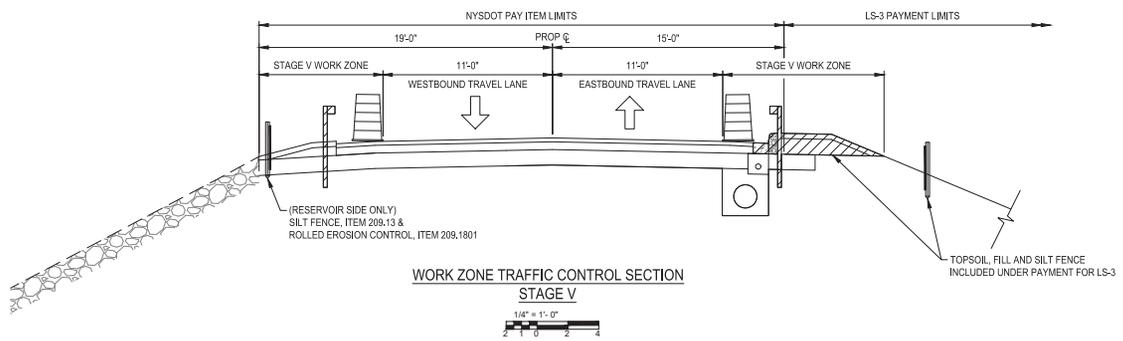
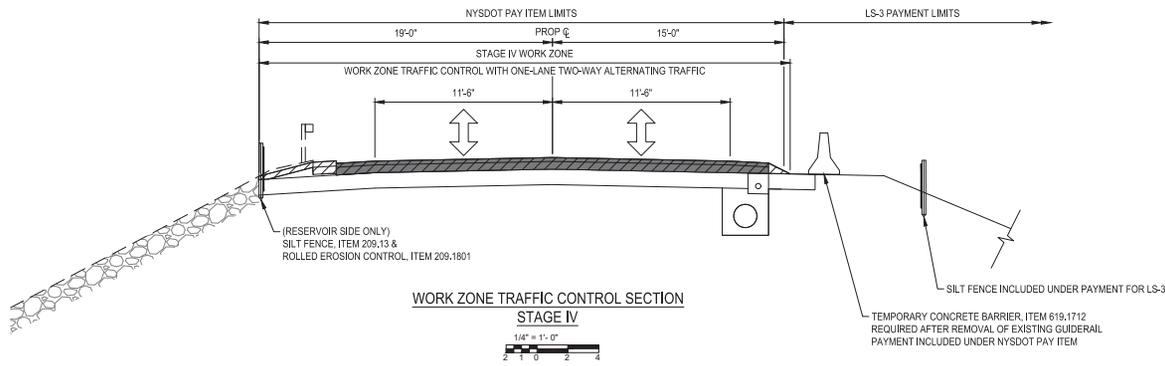
NEW YORK CITY ENVIRONMENTAL PROTECTION
 BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS
 PUTNAM COUNTY, NEW YORK

WORK ZONE TRAFFIC CONTROL STAGING SECTIONS
 (1 OF 2)

TOWN OF CARMEL PRELIMINARY SITE PLAN APPLICATION

DATE: 11/11/2023
 SCALE: 1/4"=1'-0"
 SHEET NO.: 47 OF 49
 DRAWING NO.: C-029.00



NOTES:

1. REFER TO GENERAL NOTES ON DRAWING G-003.00 FOR RECOMMENDED CONSTRUCTION STAGING.
2. STAGES III THRU VI TO BE COMPLETED DURING NIGHTTIME WORK HOURS (8PM TO 6AM).
3. CONTRACTOR SHALL PHASE ONE-LANE TWO-WAY ALTERNATING TRAFFIC INTO TWO SUBSTAGES (PHASES) AS SHOWN ON DRAWINGS C-022.00 AND C-023.00 WITH THE PHASE "A" REFERRING TO RECONSTRUCTION OF THE EASTBOUND LANE AND PHASE "B" REFERRING TO RECONSTRUCTION OF THE WESTBOUND LANE.
4. CONTRACTOR SHALL PHASE ONE-LANE TWO-WAY ALTERNATING TRAFFIC FOR STAGE VI AT THE INTERSECTION OF ROUTE 6 AND DREWVILLE ROAD INTO TWO PHASES (VI-C & VI-D) AS SHOWN ON DRAWINGS C-025.00 AND C-026.00.
5. CONTRACTOR MAY ELECT TO CONTRUCT STAGE V IN TWO PHASES IN ORDER TO MAXIMIZE THE AVAILABLE WORK ZONE AREA, TWO 10' MIN WIDE TRAVEL LANES MUST BE OPEN TO TRAFFIC AT ALL TIMES DURING THIS STAGE.

LEGEND

STAGE WORK AREA

**TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION**

Last Saved By: R. & Dave PAVANELLO, Wednesday, January 11, 2023 11:45:56 AM
 Plot Size: 14" x 11" (ANSI) D (22.00 X 34.00 INCHES) Plot Scale: 1/4" = 1'-0"
 Drawing Name: & Location: C:\pwworking\102686577\C-023.00.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPRD.

DESIGNED BY: S. MURPHY	DRAWN BY: S. MURPHY
CHECKED BY: E. LECLAIR	ACCOUNTABLE MANAGER: L. SINGH
DESIGN LEAD: S. MURPHY	PORTFOLIO MANAGER: D. COSTA
SECTION MANAGER: E. LECLAIR	

GDM Smith
 11 8100 American Blvd, Suite 200
 Latham, NY 12110
 Tel: (518) 752-6500

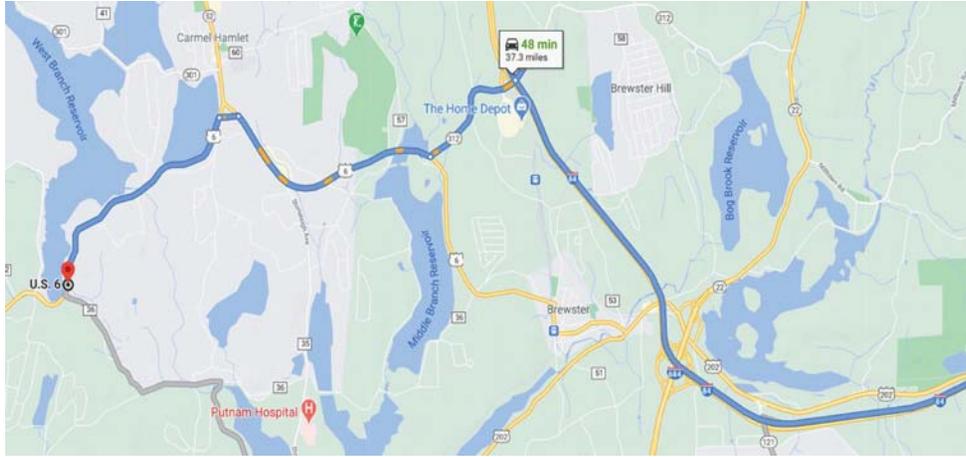
NYC Environmental Protection

APPROVED FOR THE CITY OF NEW YORK
 L. SINGH
 ACCOUNTABLE MANAGER
 D. COSTA
 PORTFOLIO MANAGER

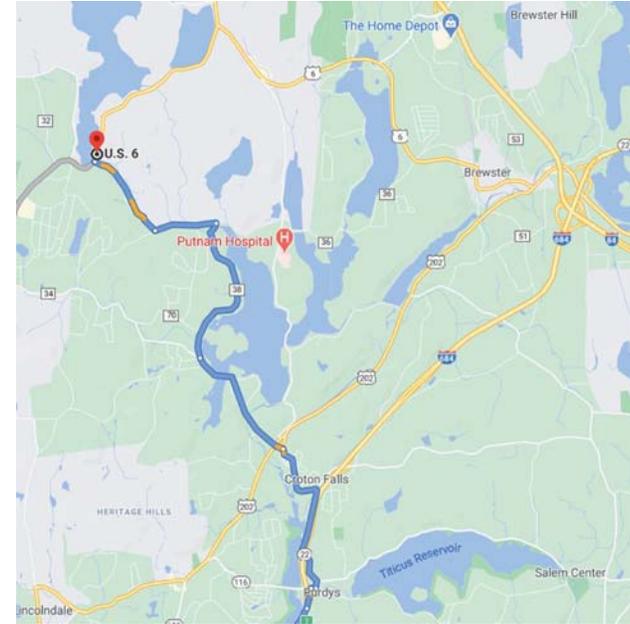
"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

**NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION**
 96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
 CORONA, NEW YORK 11368
 www.nyc.gov/dcp

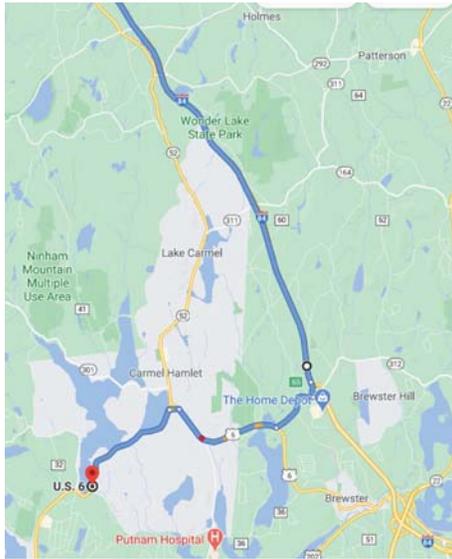
WEST BRANCH AUXILIARY DAM SLOPE SAFETY IMPROVEMENTS PUTNAM COUNTY, NEW YORK	DATE: 1/11/2023 SCALE: 1/4"=1'-0" SHEET NO.: 48 OF 49
WORK ZONE TRAFFIC CONTROL STAGING SECTIONS (2 OF 2)	DRAWING NO. C-030.00



TRUCK ROUTES FROM THE EAST



TRUCK ROUTES FROM THE SOUTH



TRUCK ROUTES FROM THE NORTH

- NOTES:
- 1) REGIONAL SOIL/FILL QUARRY SOURCES ARE TO BE LOCATED WITHIN 50 MILES OF THE PROJECT SITE.
 - 2) TRUCKS ARE ASSUMED TO USE INTERSTATES I-84 AND I-684 TO REDUCE DELIVERY TIMES.

TOWN OF CARMEL
PRELIMINARY
SITE PLAN APPLICATION

Last Saved By: B. Bohn-POMERLEAU, Friday, April 22, 2022 and Date Plotted: Wednesday, May 4, 2022, 1:14:14 PM
 Plot Style Table: BEDC_Drawing.ctb
 Paper Size: ANSI (D) (24.00 X 36.00 INCHES) Plot Scale: 1"=20'
 Drawing Name: S:\Location\C:\w_p\l\lowellm\226261\20\Parcel_Map.dwg

NO.	DATE	REVISIONS/DESCRIPTION	APPROD.

DESIGNED BY:
M. POWELL
CHECKED BY:
E. LECLAIR
DESIGN LEAD:
S. MURPHY
SECTION MANAGER:
E. LECLAIR

DRAWN BY:
M. POWELL
GPM Smith
11 8100 American Blvd, Suite 200
Latham, NY 12110
Tel: (518) 752-6500



APPROVED FOR THE CITY OF NEW YORK
L. SINGH
ACCOUNTABLE MANAGER
D. COSTA
PORTFOLIO MANAGER

"WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2."

NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dcp

WEST BRANCH AUXILIARY DAM
SLOPE IMPROVEMENTS
PUTNAM COUNTY, NEW YORK
TRUCK ROUTES

DATE: 5/5/2022
SCALE:
SHEET NO:
49 OF 49
DRAWING NO.

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



January 12, 2023

Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, New York 10541

RE: G&F Subdivision
Gateway Drive

Dear Chairman Paepre and Members of the Board:

As the Board is aware, subdivision approval for the subject project was extended to mid February of this year. Road work for the G&F Subdivision road is well underway and expected to be completed this spring / summer. Otherwise, there has been no substantial change in the condition of the site and/or its environs. Also note there are no proposed changes to the previously approved plat.

The applicant feels it is in the overall best interests to delay the filing of the map until after the road is completed by this summer, and therefore requests re-approval of the subdivision. Please place this item on the Board's upcoming meeting agenda for consideration of the re-approval.

A check is enclosed for the \$2,500.00 fee.

Should you have any questions or comments regarding this information, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By: 

Jeffrey J. Contelmo, PE
Senior Principal Engineer

JJC/dlm

cc: Paul Camarda, CRI

Insite File No. 04232.100



445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
T 914 761 1300
F 914 761 5372
cuddyfeder.com

Michael V. Caruso
mcaruso@cuddyfeder.com

January 13, 2022

Town of Carmel Planning Board
c/o Joseph Charbonneau, Esq.
60 McAlpin Avenue
Carmel, New York 10512

Via email: JCharbEsq@aol.com

Re: Pulte Homes of New York, LLC ("Pulte")
Lot 4 performance bond of \$4,196,104.50 ("Lot 4 Bond")
Lot 5 performance bond of \$872,660.75 ("Lot 5 Bond")

Dear Joe:

I have reviewed correspondence from Paul M. Lynch, P.E., dated October 28, 2022, copies of which are attached. In it, Paul represents that all bond release conditions have been met. Additionally, I have reviewed correspondence between your office and the Town Engineer that you recently provided to me as a courtesy. Those communications reference Punch List Item Nos. 13-20 having been completed. Further, as I emailed to you earlier today, the Town Engineer's belief that Terrace Drive improvements and conditions for road acceptance are "intertwined" with the release of individual lot performance bonds is unsupported. Town Code § 128-45(B) entitled "Plans and profiles; final acceptance" codifies a mutually exclusive review process for road acceptance by the Town Board, which is independent from review and recommendation as to site plan or subdivision performance bond conditions. This process does not change regardless of whether the improvements and their location(s) have physical commonality.

It is very clear that Pulte has satisfied the conditions for a full release of both the Lot 4 Bond and Lot 5 Bond long ago per their terms and that of the Code. Please calendar and direct the Planning Board Secretary to notice the Lot 4 Bond and Lot 5 Bond for full release at the next available Planning Board meeting. Please do not hesitate to contact me with any questions.

Very truly yours,

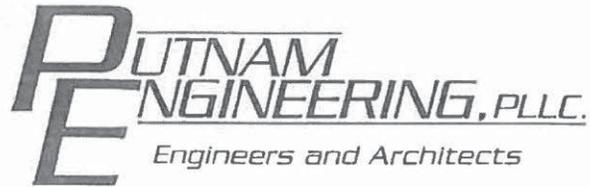
Cuddy & Feder LLP

By: /s/ Michael V. Caruso
Michael V. Caruso



January 13, 2023
Page 2

cc: Rose Trombetta, Planning Board Secretary (Rtrombetta@ci.carmel.ny.us)
John Evans, Division President for Pultegroup
James P. Mullen, Esq., Director, Northeast Corridor Division
Joshua J. Grauer, Esq.



October 28, 2022

Mr. Craig Paeprer, Chairman
Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, NY 10541

Re: Pulte Homes
Lot 4
Bond Return

Dear Chairman Paeprer and Members of the Board:

The original bond was set at \$4,196,104.50 and was reduced to \$840,000.00. We ask that the bond be reduced in full at this time as Pulte House believes all punch list items were addressed.

Sincerely,

PUTNAM ENGINEERING, PLLC

A handwritten signature in black ink, appearing to read 'Paul M. Lynch, P.E.' with a stylized flourish at the end.

Paul M. Lynch, P.E.
PML/rrm

L2054



445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
T 914 761 1300
F 914 761 5372
cuddyfeder.com

Michael V. Caruso
mcaruso@cuddyfeder.com

January 13, 2022

Town of Carmel Planning Board
c/o Joseph Charbonneau, Esq.
60 McAlpin Avenue
Carmel, New York 10512

Via email: JCharbEsq@aol.com

Re: Pulte Homes of New York, LLC ("Pulte")
Lot 4 performance bond of \$4,196,104.50 ("Lot 4 Bond")
Lot 5 performance bond of \$872,660.75 ("Lot 5 Bond")

Dear Joe:

I have reviewed correspondence from Paul M. Lynch, P.E., dated October 28, 2022, copies of which are attached. In it, Paul represents that all bond release conditions have been met. Additionally, I have reviewed correspondence between your office and the Town Engineer that you recently provided to me as a courtesy. Those communications reference Punch List Item Nos. 13-20 having been completed. Further, as I emailed to you earlier today, the Town Engineer's belief that Terrace Drive improvements and conditions for road acceptance are "intertwined" with the release of individual lot performance bonds is unsupported. Town Code § 128-45(B) entitled "Plans and profiles; final acceptance" codifies a mutually exclusive review process for road acceptance by the Town Board, which is independent from review and recommendation as to site plan or subdivision performance bond conditions. This process does not change regardless of whether the improvements and their location(s) have physical commonality.

It is very clear that Pulte has satisfied the conditions for a full release of both the Lot 4 Bond and Lot 5 Bond long ago per their terms and that of the Code. Please calendar and direct the Planning Board Secretary to notice the Lot 4 Bond and Lot 5 Bond for full release at the next available Planning Board meeting. Please do not hesitate to contact me with any questions.

Very truly yours,

Cuddy & Feder LLP

By: /s/ Michael V. Caruso
Michael V. Caruso



January 13, 2023
Page 2

cc: Rose Trombetta, Planning Board Secretary (Rtrombetta@ci.carmel.ny.us)
John Evans, Division President for Pultegroup
James P. Mullen, Esq., Director, Northeast Corridor Division
Joshua J. Grauer, Esq.



October 28, 2022

Mr. Craig Paeprrer, Chairman
Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, NY 10541

Re: Pulte Homes
Lot 5
Bond Return

Dear Chairman Paeprrer and Members of the Board:

The original bond amount for the Lot 5 development was \$872,660.75. The site work has been completed and we are unaware of any outstanding punch list items. We therefore ask that the bond be returned in full at this time.

Should there be any outstanding punch list items, then we request that the bond be reduced 80% and a new bond be set at \$174,532.15. It is our understanding that the May 28, 2020 memorandum that outlined open punch list items has been completed with the exception of one item that dealt with the walking trail that we do not believe is warranted.

The Town of Carmel Engineering Department decided that the Town (P.B.) approved granular walking trail surface for Lots 3 and 5 should be paved to eliminate maintenance issues. Pulte agreed to do this if it were possible. Changing from a pervious surface to impervious surface required that the Stormwater Pollution Prevention Plan had to be revised and resubmitted to N.Y.C.D.E.P. for their approval.

It should be noted that there is a perennial stream running through Lot 5. The N.Y.C.D.E.P. does not allow for new impervious surfaces to be installed within 100 feet of a watercourse. To do so would require a D.E.P. approved variance and stormwater treatment for the impervious surface would have to occur.

Putnam Engineering was able to revise the S.W.P.P.P. and obtain approval from the N.Y.C.D.E.P. to pave the walking trail on Lot 3 and part of Lot 5. It was an arduous task.

The effort, analysis, study, computations, testing, etc., that would be required to try to justify paving the approximate 400 linear feet of walking trail within 100 feet of the stream is a very expensive proposition for something that may or may not get approved as it requires the D.E.P. variance. The request for a variance would require proving hardship which in our opinion would be very difficult to do. Pulte's approved site plan which they were obligated to construct was completed. That the walking trail would require maintenance was a known fact. As a result, Pulte

L2051

has informed the Engineering Department that they will not pave (and their approval does not require them to do so) that portion of the walking trail but offered instead to install and roll asphalt millings.

The offer to install millings, which are acceptable to D.E.P., as they consider them porous, was turned down.

We do not believe the bond return should be held up for an item of work that Pulte is not obligated to install.

Sincerely,

PUTNAM ENGINEERING, PLLC

A handwritten signature in black ink, appearing to read 'Paul M. Lynch', with a large, sweeping flourish extending to the right.

Paul M. Lynch, P.E.
PML/rrm

L2051

PUTNAM ENGINEERING, PLLC. Engineers and Architects

4 OLD ROUTE 6, BREWSTER, NEW YORK 10509 • (845) 279-6789 • FAX (845) 279-6769