GENESEE COUNTY PLANNING BOARD REFERRALS
NOTICE OF FINAL ACTION

GCDP Referral ID	**T-01-ALA-03-26**
Review Date	**3/12/2026**
Municipality	**ALABAMA, T.**
Board Name	**PLANNING BOARD**
Applicant's Name	**Stream U.S. Data Centers, LLC**
Referral Type	**Site Plan Review**
Variance(s)	
Description:	**Site Plan Review to construct three data center buildings on two campuses within the WNY Science, Technology, and Advanced Manufacturing Park (STAMP).**
Location	**Crosby Rd., Alabama**
Zoning District	**Technology Districts 1 (TD-1)**

PLANNING BOARD RECOMMENDS:

APPROVAL

EXPLANATION:

Given that it conforms to the Environmental Impact Statement (EIS) of STAMP, the proposed data center should pose no significant county-wide or inter-community impact. The Board offers the following recommendations: 1)The applicant submits the attached application for 9-1-1 Address Verification to the Genesee County Sheriff's Office to ensure that addresses are assigned that meet Enhanced 9-1-1 standards. 2) The applicant ensure that the proposed buildings will meet the Public Safety Radio System In-Building Coverage Requirement (NYS Fire Code Section 510), and that such requirement be verified post construction by the Code Enforcement Officer or by the Genesee County Sheriff's Office. 3) Given the amount of glass utilized in the façade, the facility utilize bird-friendly glass in order to minimize bird-strikes and reduce its impacts on local bird populations.

Felice A. [illegible]

Director

Thursday, March 12, 2026

Date

If the County Planning Board disapproved the proposal, or recommends modifications, the referring agency shall NOT act contrary to the recommendations except by a vote of a majority plus one of all the members and after the adoption of a resolution setting forth the reasons for such contrary action. Within 30 days after the final action the referring agency shall file a report of final action with the County Planning Board. An action taken form is provided for this purpose and may be obtained from the Genesee County Planning Department.

SEND OR DELIVER TO:
GENESEE COUNTY DEPARTMENT OF PLANNING
3837 West Main Street Road
Batavia, NY 14020-9404
Phone: (585) 815-7901

DEPARTMENT USE ONLY:
GCDP Referral # T-01-ALA-03-26

RECEIVED
By the Genesee County Dept. of Planning at 2:57 pm, Mar 05, 2026

* GENESEE COUNTY * PLANNING BOARD REFERRAL

Required According to:
GENERAL MUNICIPAL LAW ARTICLE 12B, SECTION 239 L, M, N
(Please answer ALL questions as fully as possible)

1. REFERRING BOARD(S) INFORMATION

Board(s) Town of Alabama Planning Board
Address 2218 Judge Rd
City, State, Zip Oakfield, NY 14125
Phone (585) 948 - 9341 Ext.

2. APPLICANT INFORMATION

Name Stream U.S. Data Centers, LLC
Address 2001 Ross Avenue
City, State, Zip Dallas, TX 75201
Phone (917) 283 - 2106 Ext. Email bwells@stream-dc.com

MUNICIPALITY: ☐ City ■ Town ☐ Village of Alabama

3. TYPE OF REFERRAL: (Check all applicable items)

- ☐ Area Variance
- ☐ Use Variance
- ☐ Special Use Permit
- ■ Site Plan Review
- ☐ Zoning Map Change
- ☐ Zoning Text Amendments
- ☐ Comprehensive Plan/Update
- ☐ Other:

Subdivision Proposal
- ☐ Preliminary
- ☐ Final

4. LOCATION OF THE REAL PROPERTY PERTAINING TO THIS REFERRAL:

A. Full Address Crosby Road, Town of Alabama
B. Nearest intersecting road Judge South and Lewiston North
C. Tax Map Parcel Number 10.-1-142.2; 10.-1-42.2; 10.-1-41; 10.-1-8; 10.-1-9; 10.-1-4.2; 10.-1-3; 10.-1-4.112;10.-1-7
D. Total area of the property 90 acres +/- Area of property to be disturbed
E. Present zoning district(s) Technology District 1

5. REFERRAL CASE INFORMATION:

A. Has this referral been previously reviewed by the Genesee County Planning Board?

■ NO ☐ YES If yes, give date and action taken

B. Special Use Permit and/or Variances refer to the following section(s) of the present zoning ordinance and/or law

C. Please describe the nature of this request

6. ENCLOSURES – Please enclose copy(s) of all appropriate items in regard to this referral

- ■ Local application
- ■ Site plan
- ☐ Subdivision plot plans
- ■ SEQR forms
- ☐ Zoning text/map amendments
- ☐ Location map or tax maps
- ■ Elevation drawings
- ■ Agricultural data statement
- ☐ New or updated comprehensive plan
- ☐ Photos
- ☐ Other:

7. CONTACT INFORMATION of the person representing the community in filling out this form (required information)

Name Carl Kumpf Title Planning Board Chair Phone (585) 948 -9341 Ext.
Address, City, State, Zip 2218 Judge Rd Oakfield, NY 14125 Email ckumpf21plngbrd@gmail.com

TOWN OF ALABAMA
APPLICATION FOR SITE PLAN REVIEW

2218 Judge Road, Oakfield, NY 14125

INSTRUCTIONS: Please submit this form, signed and dated, with ten (10) copies of the materials listed on the Site Plan Application Checklist (per Town Law) and the applicable site plan review fee (refer to the current Zoning Fee Schedule) to the Town Clerk. Applications are due three weeks prior to the next scheduled Planning Board meeting. Incomplete applications will not be placed on the agenda.

APPLICANT INFORMATION

Developer Name: **STREAM U.S. DATA CENTERS, L.L.C.**

Name of Contact: **COLM CURRAN**

Email Address: **CCURRAN@STREAM-DC.COM** Phone Number: **929-312-2467**

Mailing Address: **2001 ROSS AVE**

City: **DALLAS** State: **TX** ZIP: **75201**

Property Owner Name(s) (if different): _____

Owner Email Address: _____ Phone Number: _____

Owner Mailing Address: _____

City: _____ State: _____ ZIP: _____

PROJECT INFORMATION

Site Address: **6840 CROSBY RD, ALABAMA, NY 14013**

SBL Number(s): **10.-1-42.2, 10.-1-41, 10.-1-8, 10.-1-9, 10.-1-10, 10.-1-4.2,**

And portion of 10.-1-3, 10.-1-4.112, 10.-1-7

Zoning District(s): **TECHNOLOGY DISTRICT 1 (TD1)**

Detailed Description of Proposed Project:

The Project proposes development on approximately 130-acres within the Genesee County Science, Technology, and Advanced Manufacturing Park (STAMP). The project will include 90 acres of permanent development; 60 acres on the North Campus and 30 acres on the South Campus. The South Campus includes one 2-story data center building, with a footprint of approximately

332,000 square feet (664,000 square feet of gross floor area). The South campus will utilize existing infrastructure previously constructed as part of the Plug-Power Project. This includes the existing on-site substation and stormwater management facility. The North Campus includes two 2-story data center buildings, each with a footprint of approximately 332,000 square feet (664,000 square feet of gross floor area). The North Campus will include the development of a purpose-built on-site substation to serve the facility on the north-west side of the property adjacent to the existing STAMP substation. Each campus will include a guard house, internals driveways, parking areas, stormwater management facilities and related infrastructure. An additional 40 acres will be utilized as temporary construction logistics areas in support of the project.

Current Use of Property: **South Campus: Industrial**
North Campus: Residential & Agricultural

Proposed Use: **North & South Campus: Industrial – Technology Services**

Number of Units (Residential Projects): **N/A**

Square Feet (Non-Residential Projects): **1,992,000**

Number of Parking Spaces: **195**

Construction Time Frame: **2026** to **2030**

Construction in Multiple Phases? Yes ☑ No ☐

CERTIFICATION

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

Signature: Colm Curran

Printed Name: COLM CURRAN

Date: 01/09/2026

TOWN VILLAGE CITY OF Alabama Application #_____
(circle one)

Agricultural Data Statement

Date 3/4/26

Instructions: This form must be completed for any application for a special use permit, site plan approval, use variance or a subdivision approval requiring municipal review that would occur on property within 500 feet of a farm operation located in a NYS Dept. of Ag & Markets certified Agricultural District.

Applicant	Owner if Different from Applicant
Name: Stream U.S. Data Centers, L.L.C. Address: 2001 Ross Ave Dallas, TX 75201	Name: GCEDC Plug Project Holdings Co. LLC Address: 99 Med Tech Dr. 968 Albany Shaker Road Batavia, NY 14020 Latham, NY 12110

Evelyn Green
6596 Crosby Road
Alabama NY 14013

1. Type of Application: ☐Special Use Permit; ☑Site Plan Approval ; ☐Use Variance; ☐Subdivision Approval
(circle one or more)

2. Description of proposed project: The proposed action consists of development on approximately 130 acres within the Genesee County Science, Technology, and Advanced Manufacturing Park (STAMP) in the Town of Alabama, Genesee County New York, including approximately 90 acres of permanent development for a multi-building data center campus and approximately 40 acres for temporary construction logistics.

3. Location of project: Address: Crosby Road, Town of Alabama
Tax Map Number (TMP) See attached.

4. Is this parcel within an Agricultural District? ☑NO ☐YES (Check with your local assessor if you do not know)
5. If YES, Agricultural District Number_____
6. Is this parcel actively farmed? ☑NO ☐YES
7. List all farm operations within 500 feet of your parcel. Attach additional sheets if necessary.

Name: RWNY Properties LLC Address: 980 Lewiston Road (part) 6.-1-73 Is this parcel actively farmed? ☐NO ☑YES	Name: GCIDA Address: Lewiston Road 6.-1-84 & 10.-1-39.122 Is this parcel actively farmed? ☐NO ☑YES
Name: Robert & Anita Goras Address: Crosby Road 10.-1-38.1 Is this parcel actively farmed? ☐NO ☑YES	Name: Address: Is this parcel actively farmed? ☐NO ☐YES

Signature of Applicant

Barclay Damon LLP, by /s/ Corey Auerbach, Authorized Agent
Signature of Owner (if other than applicant)

Reviewed by: _____ 3/4/26
Signature of Municipal Official — Date

NOTE TO REFERRAL AGENCY: County Planning Board review is required. A copy of the Agricultural Data Statement must be submitted along with the referral to the County Planning Department.

Tax Map Numbers (TMP)

- 10.-1-3
- 10.-1-4.112
- 10.-1-7
- 10.-1-8
- 10.-1-9
- 10.-1-10
- 10.-1-4.2
- 10.-1-41
- 10.1-42.1
- 10.-1-42.2
- 10.-1-49

STREAM DATA CENTERS

BUFA – Project Double Reed

GENESEE COUNTY ECONOMIC DEVELOPMENT CENTER
STATE ENVIRONMENTAL QUALITY REVIEW APPLICATION
INITIAL SUBMISSION DECEMBER 12, 2025
REVISED FEBRUARY 18, 2026

SEQR DEVELOPMENT APPLICATION

BUFA - GCEDC Application
Revised February 18, 2026

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I | INTRODUCTION

Company Overview

Since 1999, Stream Data Centers has set new standards for innovation, operational excellence, and sustainability in the data center industry. With over 90% of its inventory leased to Fortune 100 customers, the company has acquired, developed, and managed complex data center projects for the world's most demanding users. From location strategy and site selection to data center construction and operations, Stream focuses on build-to-suit facilities for hyperscale users in major markets across the United States. Additionally, Stream provides energy procurement services with a focus on reducing market risk and providing low-cost renewable energy options. Stream Data Centers is a standalone technical real estate company specializing in hyperscale and enterprise data center solutions. Headquartered in Dallas, Texas, the company is strategically backed by Apollo Global Management-managed funds.

Why Stream?

We possess the financial capacity, technical expertise, and unwavering commitment to bring multi-billion-dollar projects to life, right here in Genesee County.

Our entire approach is defined by a commitment to responsible development and a dedication to achieving the minimal environmental impact, thereby setting a new benchmark for development within the park. We achieve this through the utilization of best-in-class, air-cooled technology, which results in zero consumptive water use for cooling. Furthermore, the project can be accommodated using the approved, existing STAMP infrastructure, ensuring its power needs are well within the planned capacity. Operationally, our footprint is significantly less than comparable facilities, not only in reduced land use but also in a dramatic 90% reduction in on-site electrical generation backup compared to conventional data center designs. This integrated design and operational standard extends to our architecture, where we elevate our solutions above conventional data center designs through thoughtful design and engineered solutions that ensure quiet operations.

By choosing Stream, you are not just selecting one of the best data center development and operational teams you are investing in a future filled with:

- **Job Creation:** Generating high-paying technical and skilled trade positions (including IT, engineering, and security roles) and a commitment to partnering with local programs to ensure these stable, long-term career opportunities are accessible to Genesee County residents.
- **Significant Revenue:** Delivering a major capital investment and substantial, sustained tax revenue to support vital community services and schools without placing a burden on public infrastructure or requiring expensive new services.
- **Community Pride:** A commitment beyond specialized technology infrastructure with a core value in creating tangible, lasting opportunity for the places we now call home. As a 30+ year long-term community partner, we are dedicated to fostering prosperity not just within our facility boundaries, but throughout the wider community—in its schools, businesses, and unique landscape. This means investing directly in schools, land conservation, and agricultural initiatives that are the backbone of this community's identity.

Let us work together to fully realize the opportunity ahead.

II | PROJECT DESCRIPTION

A State-of-the-Art Data Center Campus

Project Double Reed encompasses approximately 90 acres of permanent development; 60 acres on the North Campus and 30 acres on the South Campus. These areas include an approximately 2.2 million-square-foot data center campus, housing three (3) two-story buildings. An additional 40 acres will be utilized as temporary construction logistics areas in support of the project. Stream Data Centers has a long-term commitment to developing projects that benefit local communities and our facilities are designed to be both technologically advanced and aesthetically pleasing. Further, as a leading partner to world-class tech companies, our company is developing this facility to meet their exacting needs, and this project is being undertaken in direct collaboration with a prominent existing tenant, a Fortune 50 company with an S&P credit rating of at least AA-.

Economic Impact and Job Creation

The development of Project Double Reed will significantly contribute to the local economy. Through a revised capital investment to increase by more than 60% from prior filings, in construction and critical infrastructure, the development will generate high-paying jobs in technical and support roles. This includes approximately 125 permanent positions for skilled trade professionals to maintain critical equipment, oversee IT support, and provide physical security and day-to-day assistance in office-like environments. Data centers are a valuable asset to local communities, generating substantial revenue without placing a significant burden on public services.

Infrastructure

To ensure the project's long-term sustainability and minimal environmental impact, Project Double Reed has incorporated a comprehensive infrastructure design. This includes advanced energy strategies, efficient water usage, and acoustic mitigation measures.

- **Energy Strategy:** Advanced cooling technologies will minimize energy consumption and reduce environmental impact. The project will require a connection to the utility power grid (National Grid). The Genesee Economic Development Center (GCEDC) has secured NYISO approval for a 300MW substation and its expansion to 600MW total. The project is estimated to require approximately 500MW of utility power and will utilize existing right-of-way for interconnection and distribution. As such, the project will not result in any additional impact beyond what has been anticipated to establish the STAMP Development.

- **Emergency Backup Power:** 12 Emergency diesel-powered generators will provide backup power, ensuring uninterrupted operations during utility power outages to support critical IT, networking, and house loads, such as lighting and essential health, safety, and security systems. Given the project's connection to high-voltage transmission infrastructure, it is likely that there will be infrequent use of these generators. Air emissions will follow applicable Federal, State, and Local regulations and requirements. The count of 12 generators across 3 buildings is approximately a 90% reduction in generator count over conventional data center designs and a huge reduction in terms of the potential impact of the development.

- **Networking:** Proposed telecommunication infrastructure will establish redundant, high-capacity connectivity between the North and South Campuses. This connection is necessary to support operational continuity, carrier diversity, and long-term scalability across the project's full built out. To achieve this the installation of duct banks housing conduit generally routed along Crosby Road will form a continuous north-south backbone between the campuses. The proposed alignment, shown in the following exhibits, will remain within a defined utility corridor and will be coordinated with the broader STAMP site infrastructure to ensure compatibility with existing and planned utilities, including compliance with required depth separations and utility spacing standards. Utility easements approximately 25-feet in width per alignment will be established to accommodate construction, maintenance access, and long-term operational needs. The proposed alignment was selected to maximize the use of existing disturbed utility and roadway corridors, and the project will coordinate with the U.S. Army Corps of Engineers (USACE) and New York State Department of Environmental Conservation (NYS DEC) to implement construction methodologies designed to avoid or minimize impacts to environmental resources.

- **Water Efficiency and Conservation:** The facility's water and wastewater usage are anticipated to be similar to that of a small office building with a comparable number of occupants. This is assumed to be 20,000 gallons per day (approximately 125 staff over three buildings). Water consumption will primarily be for domestic purposes, such as restroom facilities and limited kitchen preparation. Building cooling will be achieved through the use of air-cooled technology. There will be no consumptive water use in the cooling system; the design being deployed here represents the best-in-class cooling system design for water efficiency.

- **Environmental Management:** The project's main development areas will avoid sensitive environmental resources such as wetlands and streams. Field delineations confirm that no jurisdictional or non-jurisdictional wetlands exist within the proposed property boundaries for the North and South Campuses; all such features are located entirely outside the main development work area and limit of disturbance. Further, best management practices will be implemented to capture, treat, and release rainwater runoff from the site. The preliminary site design includes stormwater management basins for volume control. Stormwater plans are included in the following exhibits, outlining proposed locations for stormwater management features and outfall locations from the project site, which further align with existing observable rainwater surface flow regimes.

  Additionally, the project will utilize Horizontal Directional Drilling (HDD) where utility installation intersects any sensitive environmental resources, employing the same construction methodologies successfully used for existing water and wastewater infrastructure at the STAMP site. This trenchless method will route utilities beneath sensitive features with minimal surface disruption and comply with a comprehensive Inadvertent Return Contingency Plan (IRCP) submitted to jurisdictional authorities. This plan includes real-time pressure monitoring, dedicated on-site inspection, and pre-positioned recovery equipment to ensure the timely detection and management of any fluctuations in the drilling environment.

- **Acoustics Approach**: A noise assessment and model have been completed for the proposed design, demonstrating that the project fully complies with NYS DEC guidelines. To achieve this, specific mitigation measures have been integrated into the project design, focusing on both architectural treatments and strategic equipment siting:

  - *Rooftop Screening:* Architectural treatments are utilized on the building roof to mitigate noise from chillers.

  - *Ground-Level Screening:* Dedicated screening walls are sited at ground level to manage sound from generators.

  - *Strategic Siting:* The project optimizes the placement of point sources (specifically generators) on the site to maximize distance from sensitive receptors.

  Detailed professional acoustical modeling has informed the current site design and equipment selection. As the project progresses into final engineering phases, these findings will be used to further refine standard minimization options—such as silencers and enclosures—to ensure continued alignment with STAMP's intended uses and all permitting requirements.

  Stream remains committed to adhering to all STAMP GEIS requirements, with attention paid to sensitive receptors and sound levels at the park boundary. Additionally, as acoustic models are further calibrated, rooftop screening will be adjusted to reduce overall building height wherever possible while maintaining full regulatory compliance.

Community Integration and Safety

While driving technological advancement, the project is committed to being a good neighbor. Through thoughtful design and careful planning, we aim to enhance the local community.

- **Architectural Design:** The project has incorporated architectural design that enhances the site through landscape, building fenestration, and material detailing, adhering to the Town of Alabama Technology District Design Standards and Guidelines ('TDDSG') which establish design criteria and minimum standards for development within the STAMP area. These interventions are intended to integrate the buildings into their wider context of STAMP, highlighting the innovation being developed.

  Further progressed designs are shown in the following exhibits, which will be refined even further upon final technical requirements of the expected tenant. The design comprises three two-story buildings totaling about 2.2 million square feet, with an expected building height of 54 feet to the parapet and 65 feet to the top of the architectural rooftop screen. The top of the roof screen will be adjusted as needed based on detailed noise models to ensure compliance with noise limits for the park and reduced where possible as additional noise models are refined. Landscape treatments will prioritize an integrated approach, combining visual appeal with environmental sustainability. By incorporating native and adapted plants, the design worked to enhance the building's aesthetics, while also supporting biodiversity and improving stormwater management. The design will focus on creating comfortable outdoor spaces for people while strategically using landscaping elements to screen the development from key perspectives and viewpoints. The proposed buildings are represented in the exhibits labeled "Architectural Renderings." The three views were taken from pedestrian and building entry vantage points.

From a design aesthetic and conceptual standpoint, the building can be understood as comprising two primary components: the Entry and Administration component, and the Data Hall component. Due to security and operational efficiency requirements, the Data Hall does not allow visual connectivity to the interior and therefore places primary emphasis on the building envelope. The proposed solution utilizes a precast concrete skin organized into vertical panels. To mitigate the scale and visual repetition of the approximately 1,000-foot-long façade, these panels incorporate a deliberate composition of reveals and tonal variation. This strategy introduces subtle moments of play and perceived randomness, helping to soften the massing and break down the building's overall length.

The façade articulation is further enhanced by the incorporation of egress stair towers located along the building's flanks. These elements introduce additional vertical and horizontal geometry and provide an opportunity for accentuation through materiality and color. The stair enclosures are envisioned as precast concrete along the sides, creating depth, texture, and visual contrast. Collectively, the use of reveals and the selected palette of natural, stone-inspired and earthy tones align with the STAMP Standards guidelines.

In contrast, the Administration component inverts the Data Hall's sense of opacity and introduces a more open and transparent architectural expression. Large, full-height curtain wall systems establish a strong visual connection between interior administrative spaces and the exterior environment, fostering engagement and openness. The principles of color variation and compositional rhythm remain consistent, with interchangeable precast wall panels interspersed between curtain wall segments to articulate the façade and reinforce its cadence. A more pronounced blue accent is introduced at the underside of the building entrance, signaling arrival and providing a clear visual marker.

The entry experience is further enriched through the use of three-dimensional articulation. The curtain wall façade is recessed approximately eight feet, creating opportunities for integrated shading devices, lighting elements, and shadow play, all of which contribute to a layered, dynamic, and visually compelling entry condition.

- **Public emergency services:** Demand on public emergency services for data centers are low. Data centers directly hire professional emergency and security services for added support of operations, reducing the demand for external services. Further, these advanced facilities have detailed emergency response plans, ensuring that an emergency has detailed and rehearsed scenarios to ensure the health, safety, and welfare of staff and visitors. These plans aide in determining appropriate escalation for emergencies, which rise above the standard operational capabilities of on-site staff and are closely coordinated with local emergency services.

- **Traffic:** Traffic impacts to the local road network during operation are limited to passenger vehicles associated with employees, with limited/infrequent heavy-duty vehicles for delivery/equipment maintenance. Data centers are staffed 24/7 with typically three, eight-hour shifts daily. Nighttime shifts have lower staffing levels compared to daytime shifts, which is expected to result in a proportionally lower PM Peak Hour impact.

- **Construction:** Project Double Reed is dedicated to minimizing disruptions to the public during its initial construction phase. To achieve this, construction activities will primarily occur during normal business hours, reducing impacts on residents and businesses. Noise and dust mitigation measures have been proposed and will be implemented, and traffic flow will be managed safely and efficiently. Dust is managed through routine watering of disturbed areas, limiting exposed soils, and enforcing low-speed limits for construction vehicles. Noise impacts are minimized by restricting work to approved working hours, properly maintaining equipment, and carefully scheduling higher-noise activities to reduce duration and off-site

impacts. The construction logistics plan has been developed and provided in the following exhibits to illustrate how site operations, access, and spatial planning will be implemented. The project will be completed in (3) phases with commencement planned for the first phase in April 2026 and completion of the last phase in December 2030. Average daily water use during construction is anticipated to be 6,000 gallons/day.

- **Community Participation:** Stream Data Centers has already identified multiple local programs for participation and is actively working to establish deep-rooted relationships with local groups to provide tangible, long-term benefits to the community. We are currently engaged in a joint discovery process with the Oakfield-Alabama Central School District to ensure our support addresses specific challenges identified by local educators and families. These foundational initiatives represent just an initial indication of our long-term support and the beginning of a partnership designed to grow alongside our facility's development.

  As a primary example of this commitment, we have established a framework to support high-priority programs within the district. This includes a **Vocational Technology Grant** to provide advanced equipment, such as a CNC Plasma Machine, which modernizes technical training and creates a direct link between students and high-tech industrial career paths. We also committed funds to the **After School Enrichment program**, providing essential childcare and social stability for local families. Furthermore, an **Agri-Tech Internship program** will be established to provide paid student opportunities that focus on regional land sustainability, bridging the gap between the classroom and the region's traditional agricultural pillars.

  To ensure the community remains an active participant in Project Double Reed, Stream Data Centers will utilize regular information sessions. These sessions will serve as a platform for education on the data center's role in the local ecosystem and, more importantly, will facilitate the collection of direct comments and feedback from residents. We believe this proactive, two-way dialogue is essential for maximizing the local benefits of the development.

  The project also is expected to deliver significant economic activity: the construction phase is projected to require over 1,000 workers, while the operational phase (estimated for 2027) will create 120+ direct, full-time technical and professional positions with starting salaries exceeding $75,000. Our primary goal is to leverage the skilled labor available within Genesee County to fill these roles. By viewing this project through a 30-year lens, we are committed to improving the local tax base, infrastructure, and school districts, ensuring that our presence aligns with the Genesee County Economic Development Center (GCEDC) vision for long-term regional prosperity.

  Project Double Reed is poised to deliver a world-class data center facility that aligns with the vision of the Genesee County Economic Development Center (GCEDC). Our commitment remains to sustainability, community integration, and operational excellence.

III | TECHNICAL SUMMARIES AND EXHIBITS

III-a | ARCHITECTURAL MASSING AND ELEVATIONS



02 BUILDING PERSPECTIVE - FRONT VIEW



01 BUILDING PERSPECTIVE - CORNER VIEW

EAGLE BUFA1, LLC

6860 CROSBY DRIVE BASOM, NY 14013

Gensler

dlb associates

ThorntonTomasetti

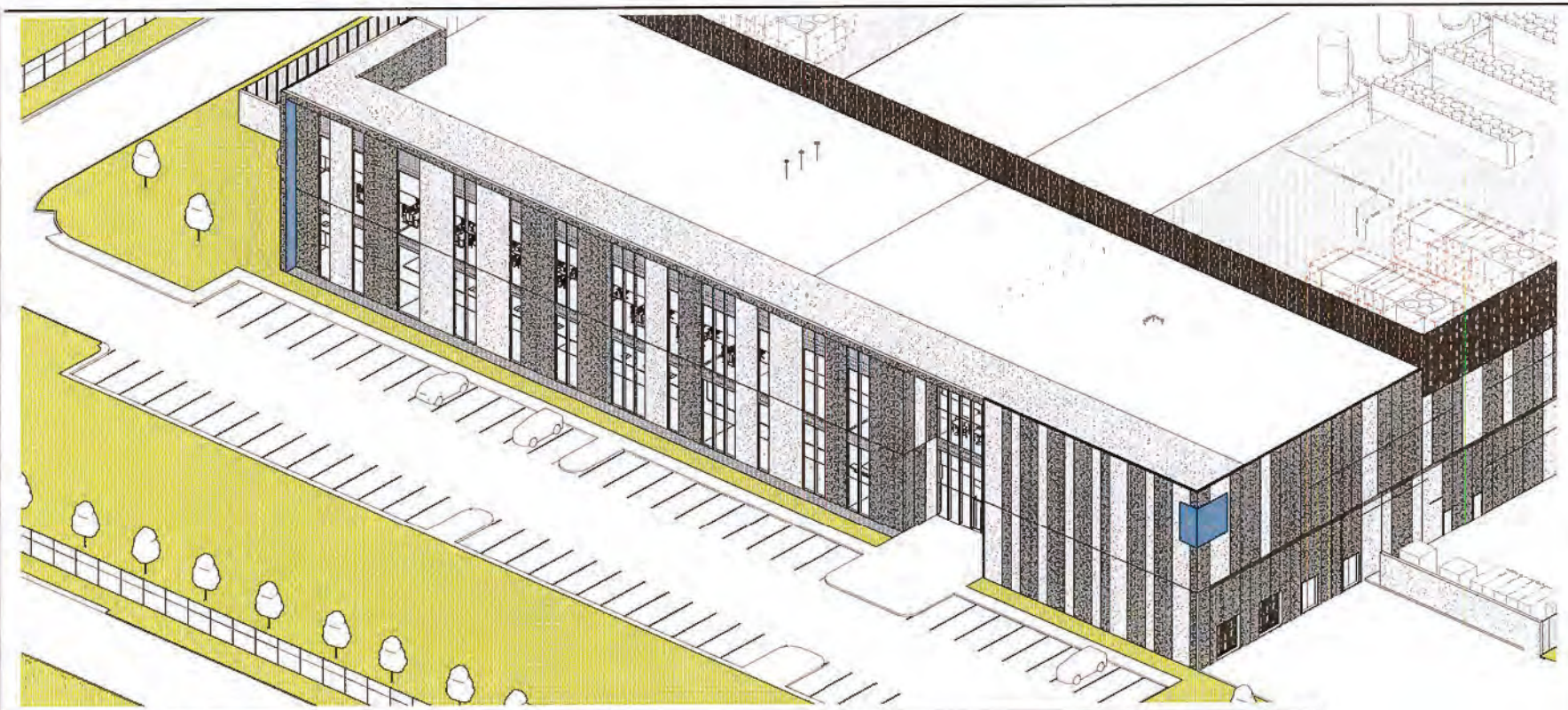
Bowman

PROGRESS SET
NOT FOR
CONSTRUCTION

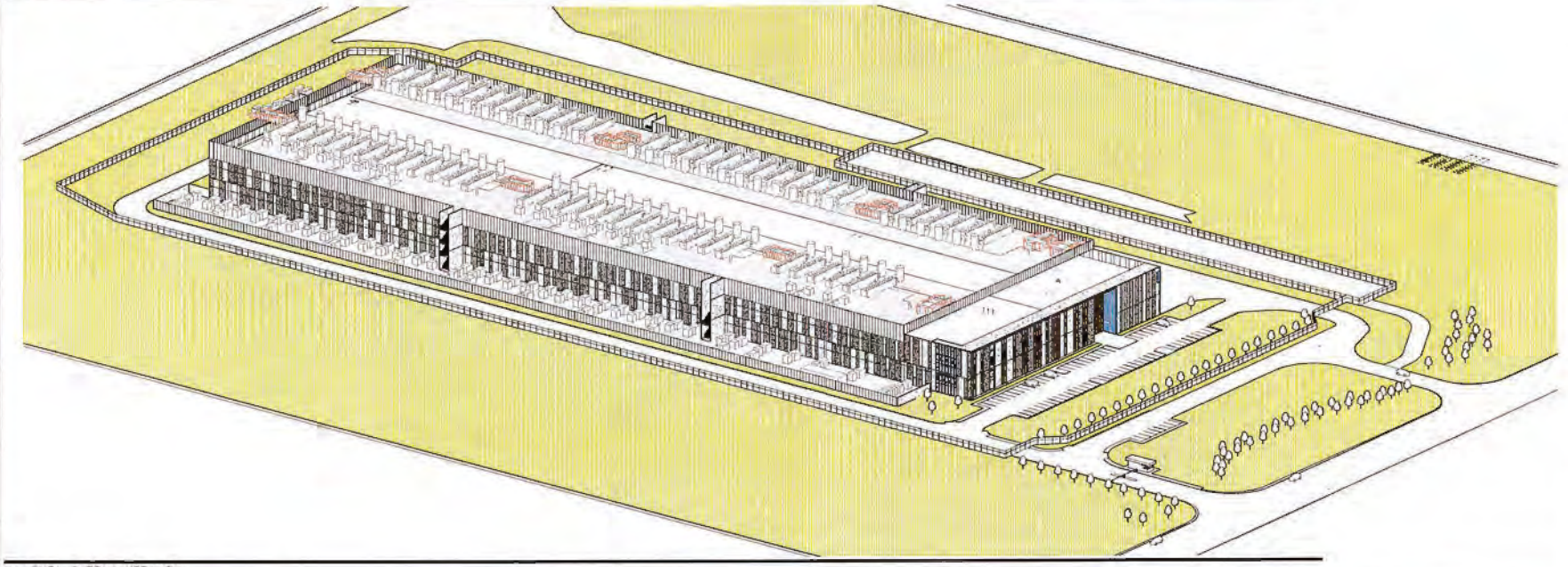
BUFA1

06.7237.000

A0.200-0



02 BUFA - BUILDING ENTRANCE AXON



01 BUFA - OVERALL SITE AXON

EAGLE BUFA1, LLC

6849 CROSBY DRIVE, BASOM, NY 14013

Gensler

dlb associates

Thornton Tomasetti

Bowman

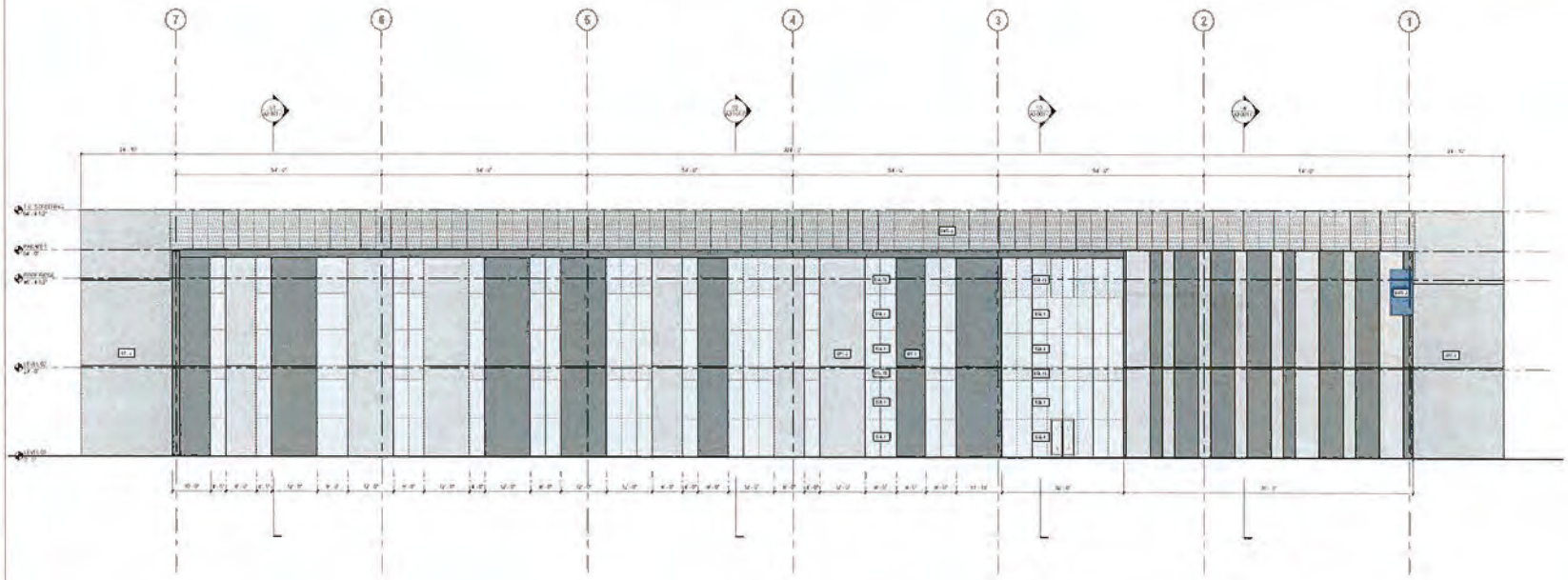
PROGRESS SET
NOT FOR
CONSTRUCTION

BUFA1

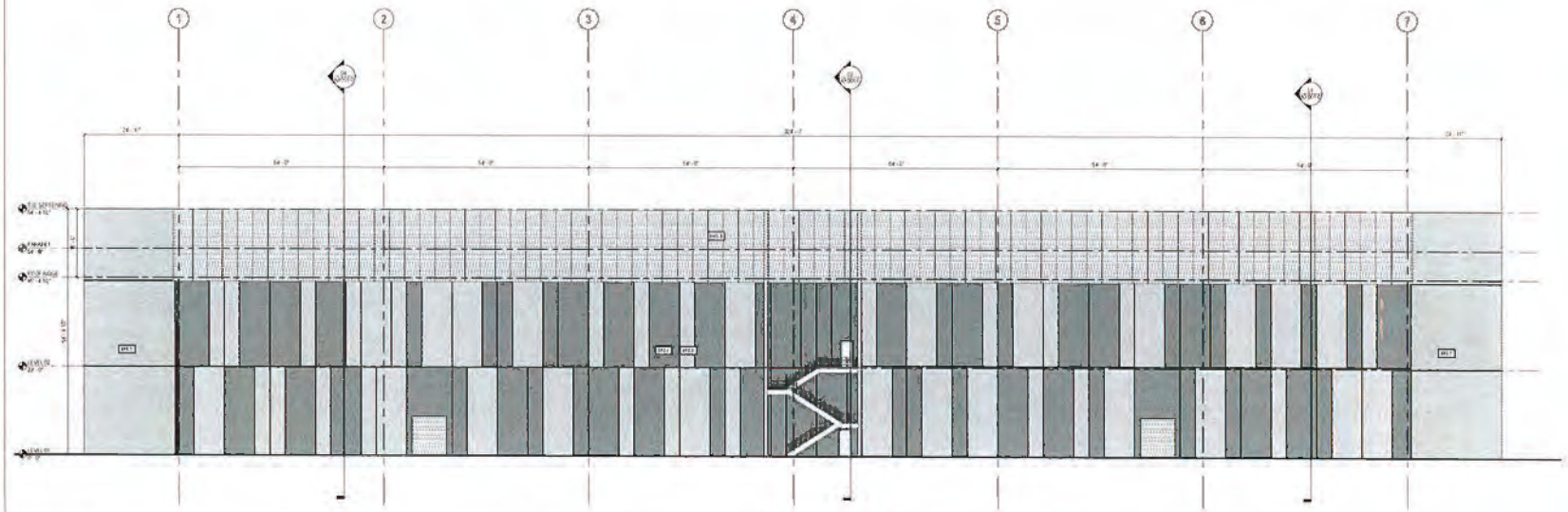
05.7237.000

BUFA BUILDING AXONS

A0.201-0



02 BUILDING EAST ELEVATION - ENLARGED



01 WEST ELEVATION - ENLARGED

GENERAL NOTES

SHEET NOTES

MATERIALS IN ELEVATION

EAGLE BUFA1, LLC
8640 CROSBY DRIVE, BASOM, NY 14013

Gensler

dlb associates

Thornton Tomasetti

Bowman

PROGRESS SET
NOT FOR CONSTRUCTION

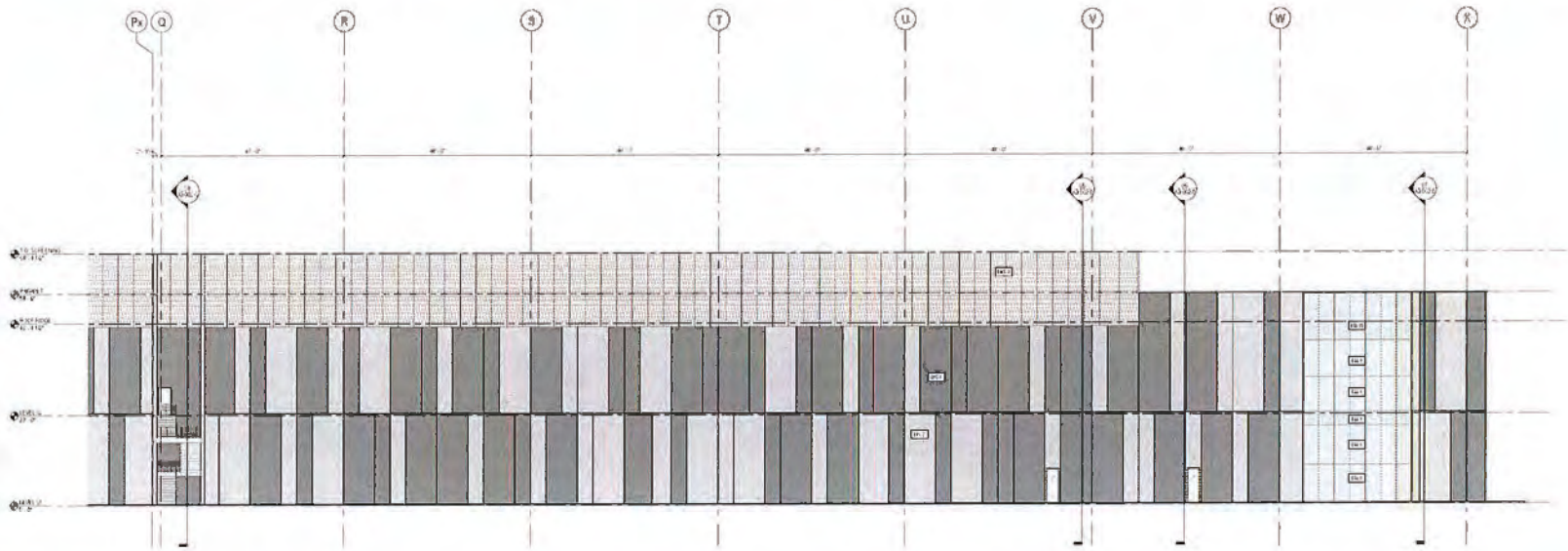
BUFA1

06.7237.000

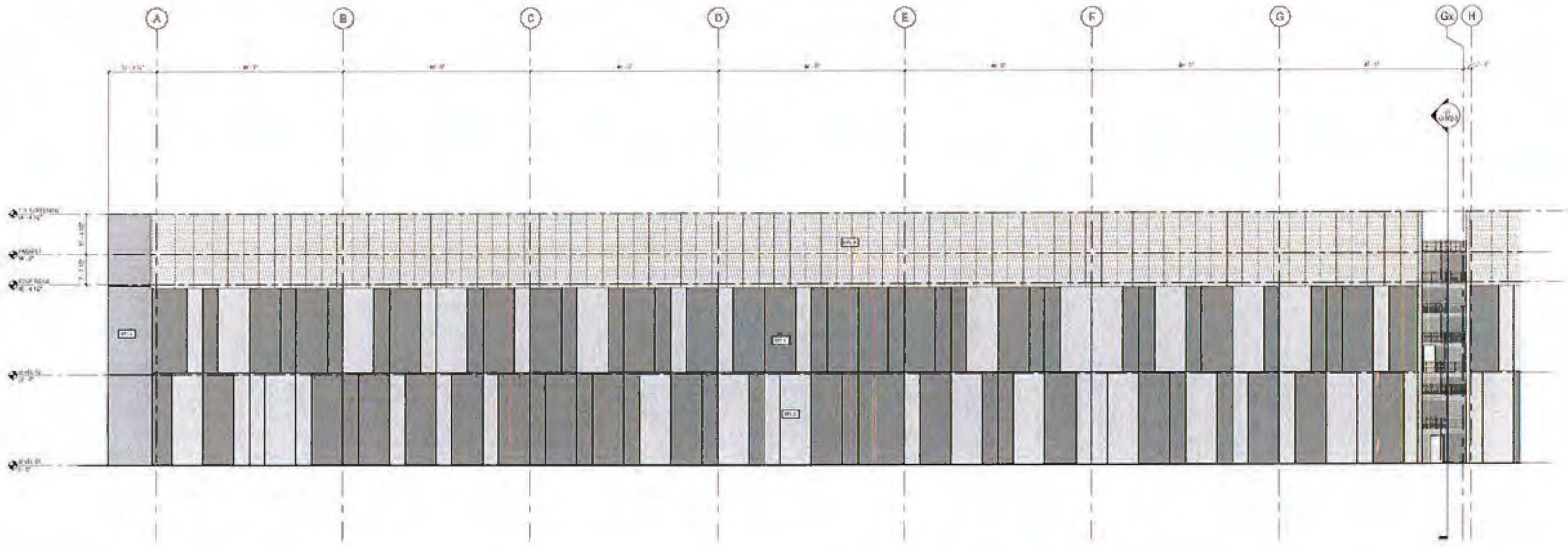
BUILDING ELEVATIONS - ENLARGED

As indicated

A2.003-0



02 BUILDING SOUTH ELEVATION - ENLARGED



01 BUILDING SOUTH ELEVATION - ENLARGED - 2

GENERAL NOTES

SHEET NOTES

MATERIALS IN ELEVATION

EAGLE BUFA1, LLC

6640 CROSBY DRIVE, BASOM, NY 14013

Gensler

dlb associates

TheorntonTomasetti

Bowman

PROGRESS SET NOT FOR CONSTRUCTION

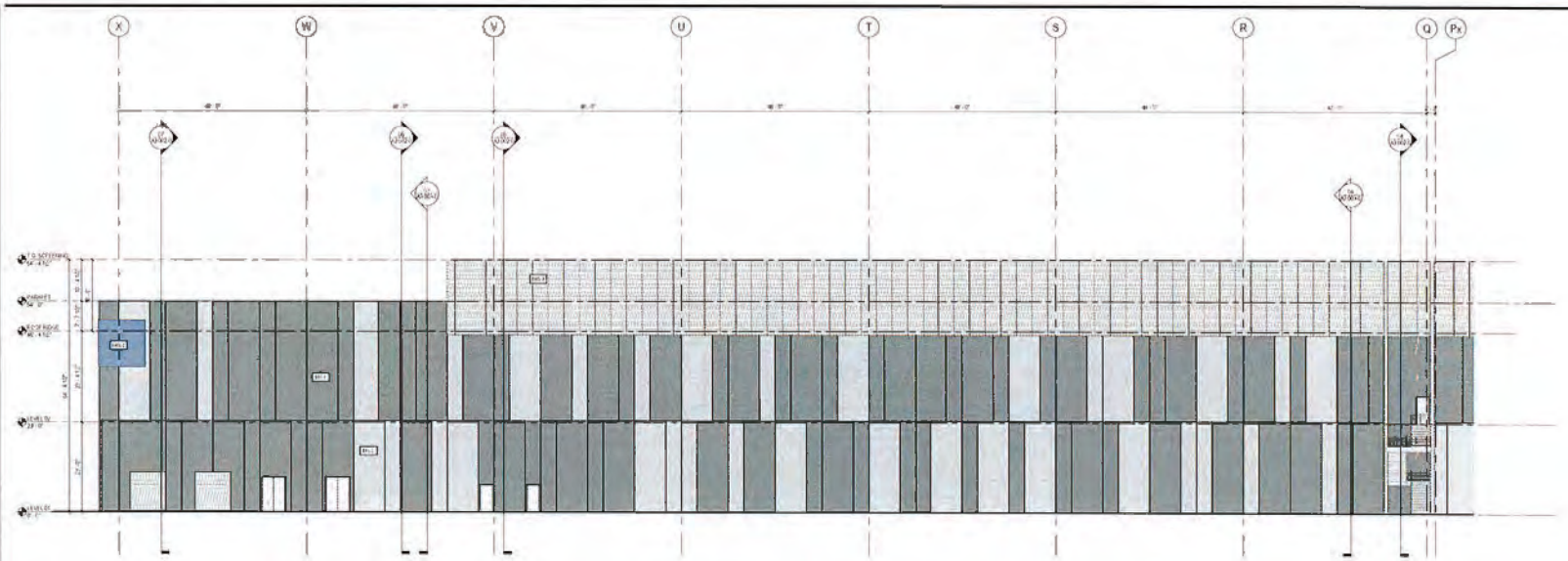
BUFA1

06.7237.000

BUILDING ELEVATIONS - ENLARGED

As indicated

A2.004-0



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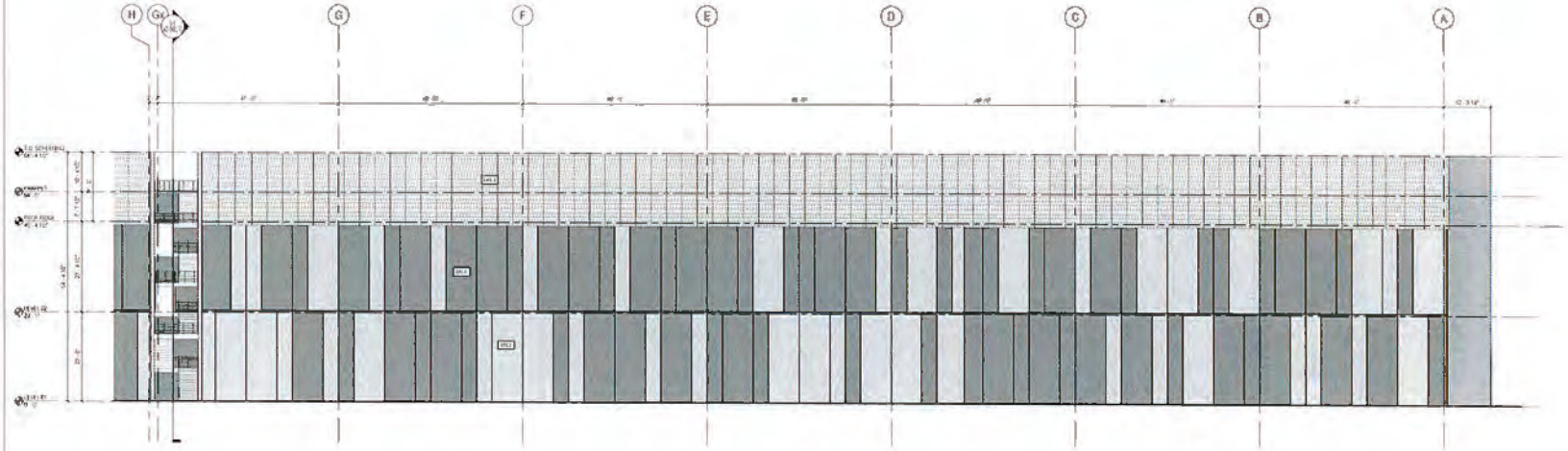
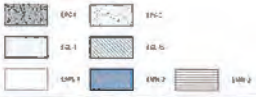


01 BUILDING NORTH ELEVATION - ENLARGED - 2

GENERAL NOTES

SHEET NOTES

MATERIALS IN ELEVATION





EAGLE BUFA1, LLC

6840 CROSSBY DRIVE, BASOM, NY 14013

Gensler

dlb associates

Thornton Tomasetti

Bowman

PROGRESS SET NOT FOR CONSTRUCTION

BUFA1

06.7237.000

BUILDING ELEVATIONS - ENLARGED

As indicated

A2.005-0

III-b | VISUAL IMPACT ANALYSIS TECHNICAL SUMMARY

The Visual Impact Analysis systematically assessed the project's presence across critical viewpoints.

Crosby Road Viewpoints focused on the immediate on-site experience. This analysis defined the project's scale, materiality, and landscaping treatments for the North and South campus sites within the STAMP area. This determines the visual impression for site users.

Lewiston and Alleghany Road Viewpoints evaluated the project's regional presence, specifically its visibility from outside the main STAMP boundaries. This assessed potential visual intrusion into the broader landscape as seen by the traveling public.

The Tonawanda Seneca Reservation Viewpoint provided a dedicated assessment of the visual impact from the adjacent nation's perspective.

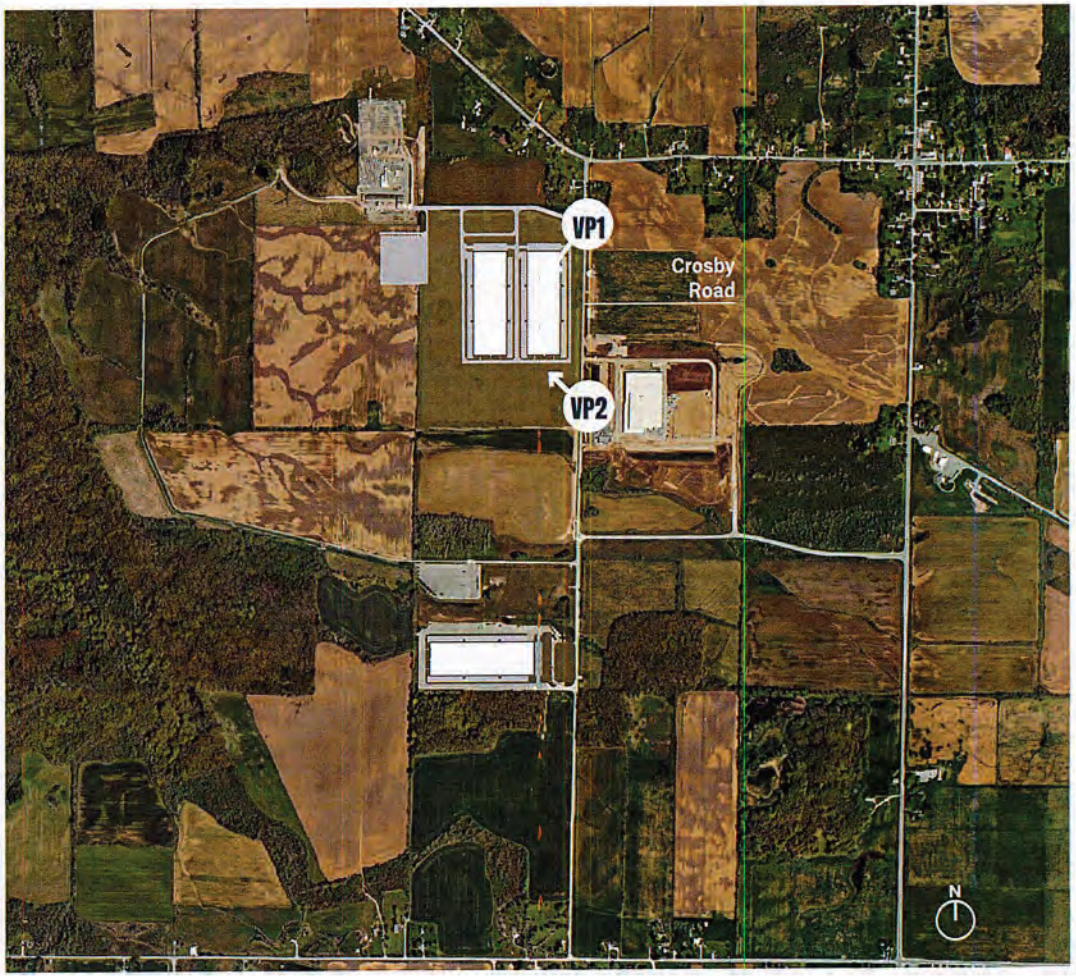
The following localized renderings correspond to the locations shown on the Key Viewpoint Location Map below, which identifies the precise geographic context for each viewpoint rendering.

STREAM BUFA1 SITE MAP



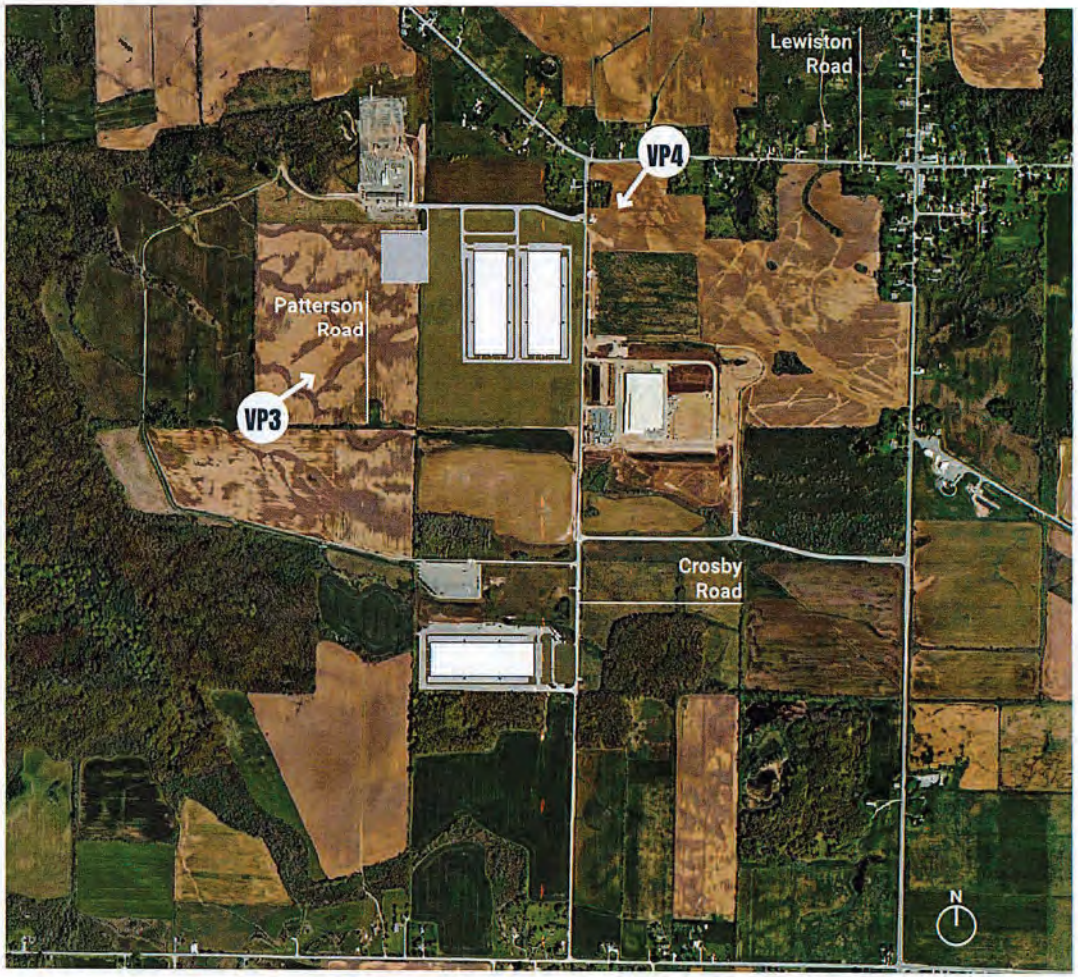

VP1
CROSBY ROAD LOOKING SOUTH


VP2
CROSBY ROAD LOOKING NORTHWEST


VP1
VP2
Crosby
Road
N

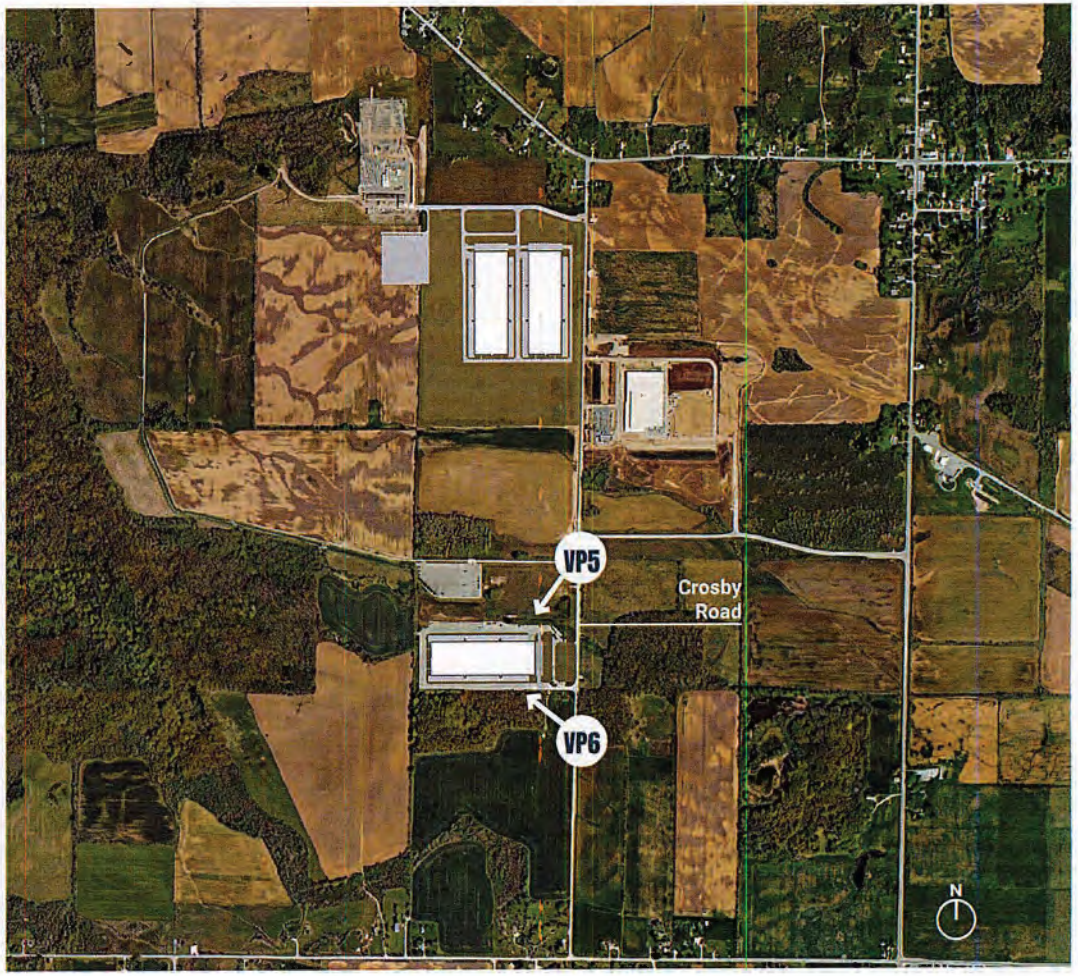

VP3
PATTERSON RD LOOKING NORTHEAST


VP4
LEWISTON RD LOOKING SOUTHWEST


Lewiston Road
VP4
Patterson Road
VP3
Crosby Road
N


VP5
CROSBY ROAD LOOKING SOUTH


VP6
CROSBY ROAD LOOKING WEST


VP5
Crosby
Road
VP6
N

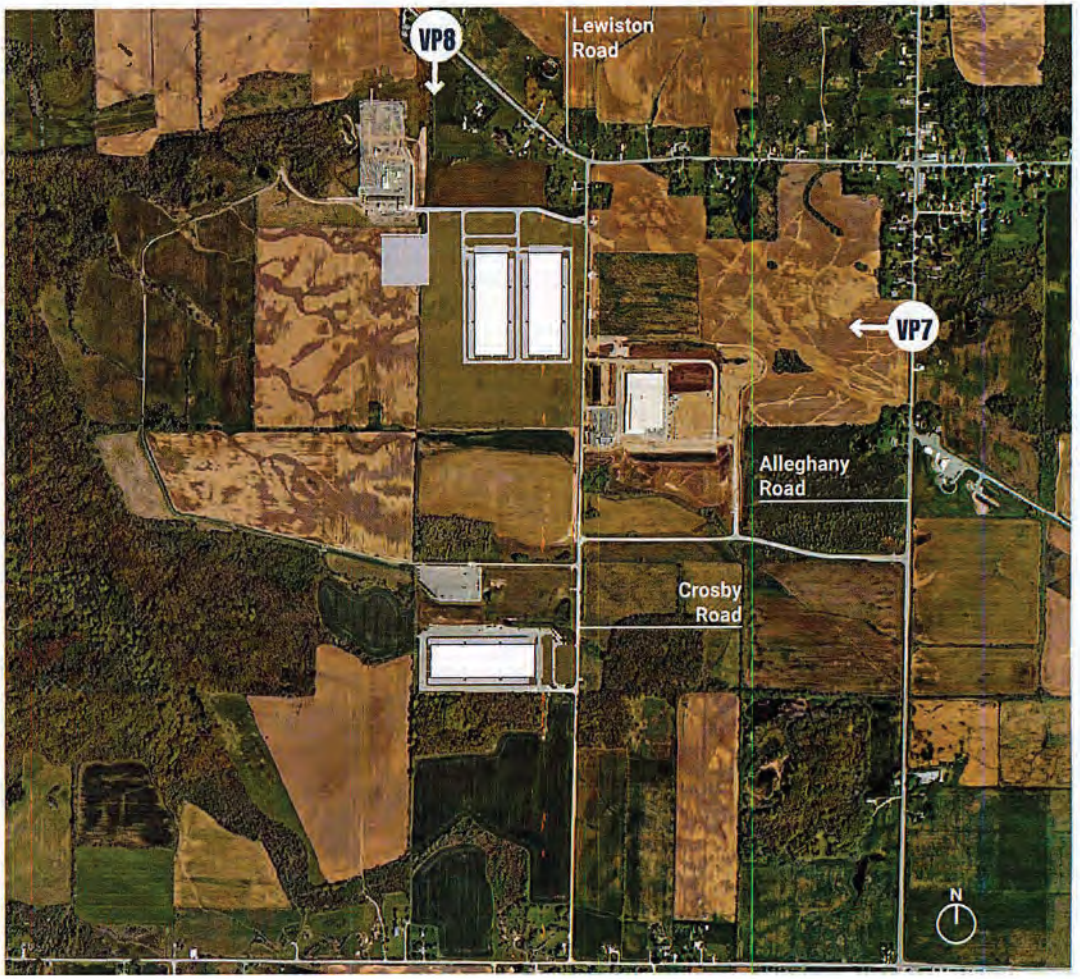

VP9
TONAWANDA SENECA NATION BORDER LOOKING EAST


VP10
PATTERSON ROAD LOOKING SOUTHEAST


Patterson
Road
VP9
VP10
Crosby
Road
Tonawanda
Seneca Nation
Territory
N


VP7


VP8

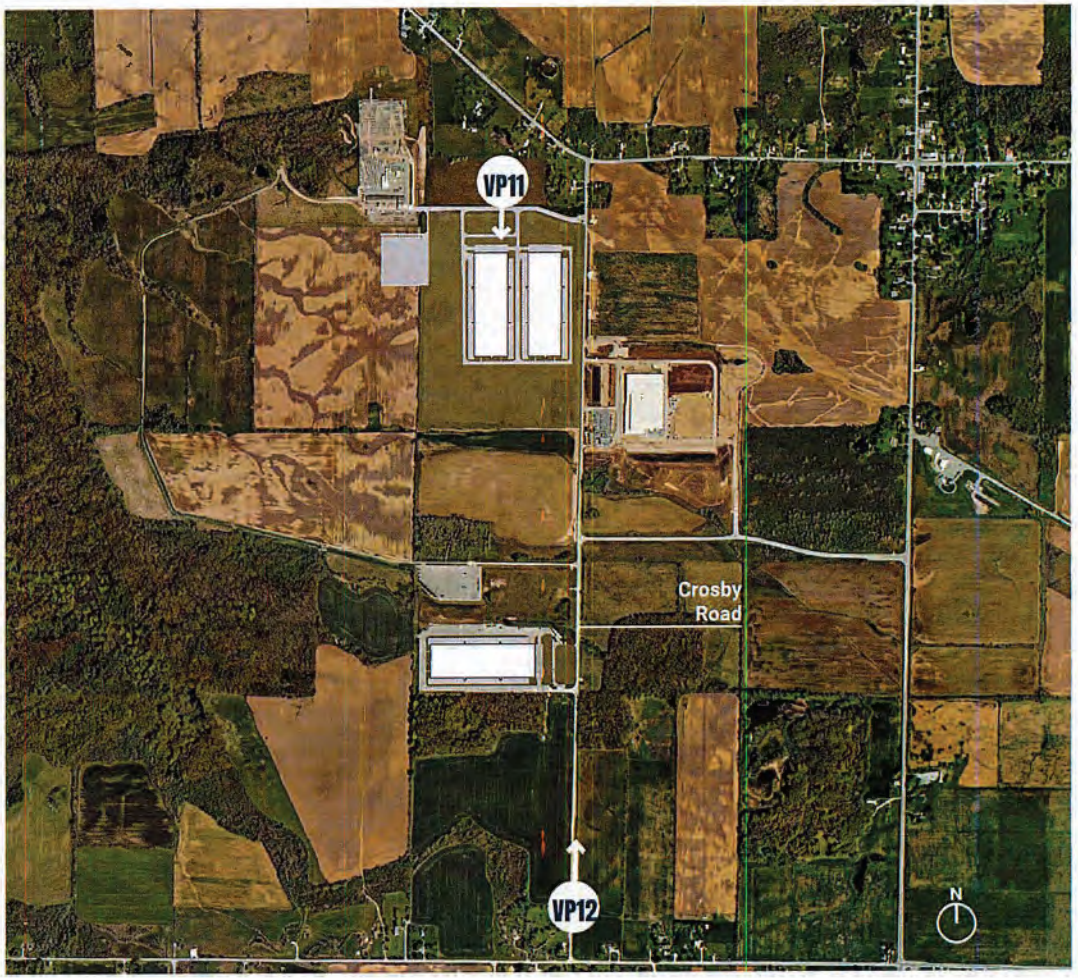

VP8
Lewiston Road
VP7
Alleghany Road
Crosby Road
N


VP13
ALLEGHANY RD LOOKING WEST


Lewiston Road
Alleghany Road
VP13
Crosby Road
N


VP11
NORTH CAMPUS ACCESS ROAD LOOKING SOUTH


VP12
CROSBY ROAD LOOKING NORTH


VP11
Crosby
Road
VP12
N

III-c |SITE PLANS

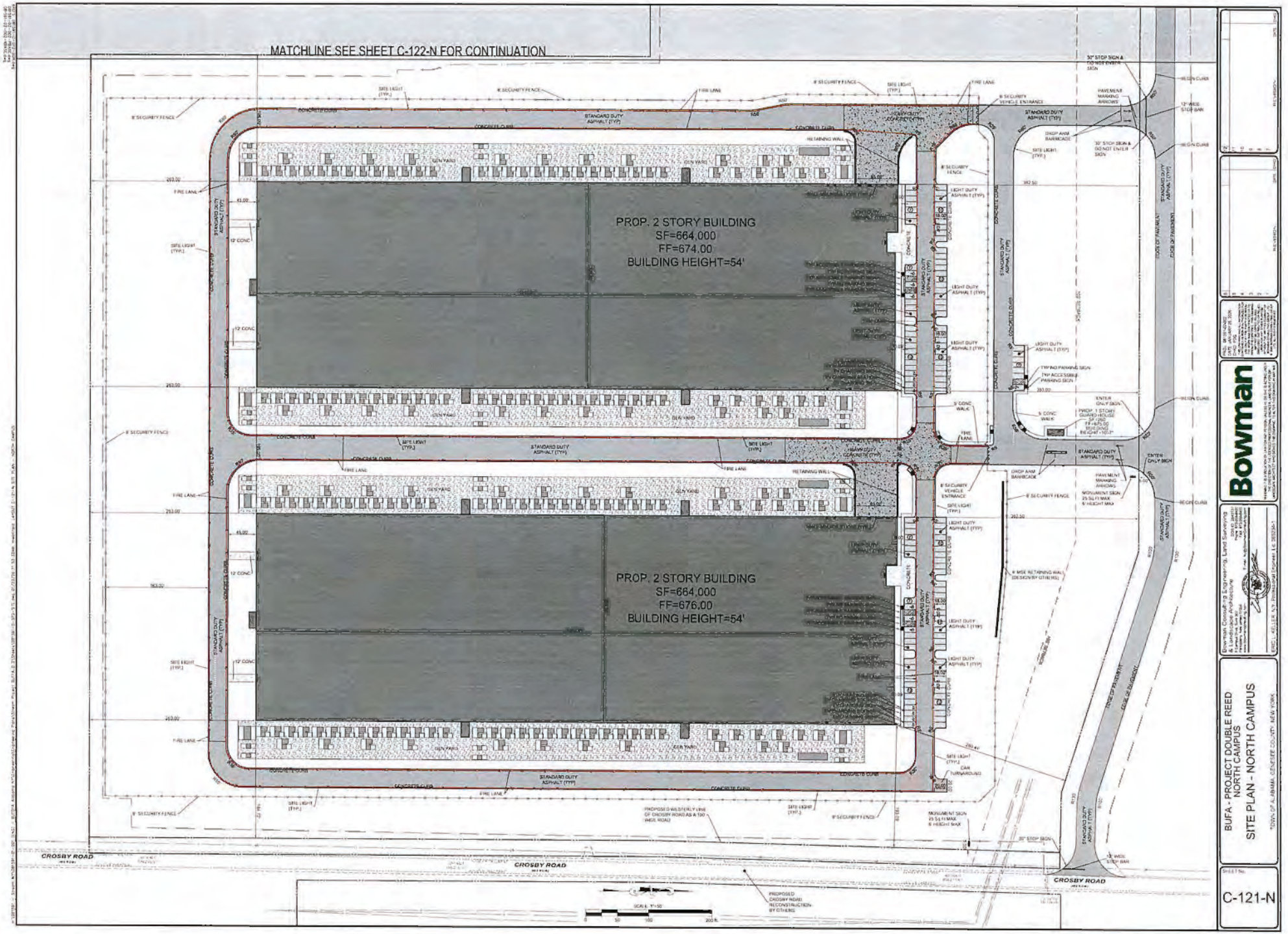
BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
MASTER PLAN

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

Bowman

Bowman Consulting Engineering, Land Surveying & Landscape Architecture

Sheet No.
MP-1



Bowman

Bowman Consulting Engineering, Land Surveying
[illegible]

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
SITE PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

Sheet No.
C-121-N

GENERAL CONSTRUCTION NOTES:

1. UTILITIES AS SHOWN ON THESE DRAWINGS ARE PLOTTED FROM FIELD EVIDENCE AND INFORMATION SUPPLIED BY VARIOUS UTILITY AGENCIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. BOWMAN CONSULTING, P.C. AND ITS ASSIGNS NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND UTILITIES CONTRACTORS MUST CALL DIG-IT-O, AT LEAST TWO WORKING DAYS PRIOR TO ANY EXCAVATION 1-800-962-7962. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT CONSTRUCTION PROCEEDS IN ACCORDANCE WITH THE LATEST REVISION OF THE DESIGN DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS FOUND ON SITE PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL DIG TEST PITS AS NECESSARY TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES. DESIGN ENGINEER, OWNER AND DISTRICT OWNER TO BE NOTIFIED 48 HOURS PRIOR TO DIGGING TEST PITS. ACTUAL ROCK OR UTILITY LOCATIONS AND ELEVATIONS MAY REQUIRE FIELD REVISIONS TO DESIGN PLAN.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ALABAMA CONSTRUCTION SPECIFICATIONS, RULES, AND DETAILS.
4. ALL SANITARY SEWERS AND WATERLINE INSTALLATION AND TESTING MUST CONFORM TO THE LATEST TOWN OF ALABAMA AND GENESEE COUNTY STANDARD SPECIFICATIONS.
5. ALL WATERLINE, STORM SEWER AND SANITARY SEWER SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE NOTES AND DETAILS SHOWN ON THE DETAIL SHEETS.
6. ALL UTILITY LINES UNDER PAVEMENT, DRIVEWAYS, SIDEWALKS, AND WITHIN 5 FEET OF THE BACK OF CURB MUST BE BACKFILLED WITH MECHANICALLY TAMPED AND RUN OF CRUSHED STONE IN MAXIMUM 18 INCH SELECT FILL IS REQUIRED UNDER ALL PAVED AREAS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL PERMITS AND PROVIDE ALL BONDS REQUIRED FOR THIS WORK INCLUDING, BUT NOT LIMITED TO, UTILITY CONNECTIONS AND SITE CONSTRUCTION.
8. ALL AREAS THAT ARE NOT PAVED, GRAVEL, OR LANDSCAPED MUST BE PERMANENTLY VEGETATED WITH A MINIMUM OF 5" OF TOPSOIL AND GRASS SEED AND MAINTAINED AS LAWN.
9. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
10. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL.
11. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SEEPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. ALL FILL TO BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
12. FILL MATERIAL SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED.
13. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISH GRADING.
14. ALL SIGNAGE SHALL BE IN CONFORMANCE WITH THE TOWN OF ALABAMA'S REGULATIONS. ALL SIGNAGE TO BE APPROVED BY THE TOWN OF ALABAMA PRIOR TO INSTALLATION.
15. EXTERIOR LIGHTING FOR PROPOSED BUILDING(S) AND SITE LIGHTING TO BE DARK SKY FRIENDLY LIGHTING WITH A MINIMUM OF 1 FOOT-CANDLE. SEE ARCHITECTURAL PLANS FOR FINAL LOCATIONS AND SPECIFICATIONS. LIGHTS TO BE LOCATED AT BUILDING ENTRANCES AND OVERHEAD DOORS FOR SAFETY.
16. CONTRACTOR TO REFER TO GEOTECHNICAL ENGINEERING REPORT BY WHITESTONE ASSOCIATES, DATED XXXX, REPORT IS INCLUDED IN THE BID PACKAGE. SUBMISSION OF A BID INDICATES THAT THE SITE CONTRACTOR AND THE GENERAL CONTRACTOR HAVE REVIEWED THE FINDINGS OF THE REPORT, TEST PITS AND WILL PROVIDE ALL WORK IN CONFORMANCE WITH ITS RECOMMENDATIONS.
17. THE TOWN OF ALABAMA IS TO BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO STARTING THE CONNECTION FOR THE NEW WATER SERVICE.
18. CHLORINATION OF THE WATERLINE SHALL BE DONE IN ACCORDANCE WITH SPECIFICATIONS AWWA C-651.
19. WATERLINE, OTHER THAN PROCESS WATERLINES CONTAINING GLYCOL, SHALL BE INSTALLED WITH A MINIMUM COVER OF 5.0' FROM PROPOSED GRADE.
20. JOINT RESTRAINTS ARE REQUIRED ON ALL WATERMAIN FITTINGS - SEE RESTRAINT LENGTH TABLES ON WATERLINE DETAIL SHEET.
21. ANCHOR COUPLINGS WILL BE INSTALLED FOR ALL TEES, BENDS, VALVES, AND HYDRANTS.
22. A MINIMUM 10' OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES. WATERLINE TO BE DEFLECTED AS NECESSARY TO PROVIDE MINIMUM OF 18" VERTICAL CLEARANCE.
23. CONTRACTOR SHALL PLACE AND COMPACT MATERIAL AS SPECIFIED TO MAINTAIN A MINIMUM 4.0 FT. (OR MINIMUM ALLOWABLE BY PIPE MANUFACTURER) MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
24. APPROVAL SHALL BE OBTAINED FROM THE GENESEE COUNTY HEALTH DEPARTMENT AND ALL RESPONSIBLE AGENCIES FOR THE BACKFLOW PREVENTION FOR THE WATER CONNECTIONS.
25. SANITARY SEWER SHALL BE INSTALLED WITH A MINIMUM COVER OF 4.0' FROM PROPOSED GRADE.
26. THE TOWN OF ALABAMA SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO STARTING THE CONNECTION FOR THE SANITARY SEWER SERVICE.
27. PVC POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS FOR GRAVITY SEWERS SHALL MEET AND BE CERTIFIED A.S.T.M. SPECIFICATION D-3034 WITH A MINIMUM SDR-35 OR APPROVED EQUAL.
28. ALL PROPOSED ELEVATIONS SHOWN HERE ON ARE FINISHED GRADE ELEVATIONS.
29. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING PROPOSED RIM ELEVATIONS IN RELATION TO PROPOSED GRADE PRIOR TO INSTALLATION AND NOTIFY SITE ENGINEER OF ANY DISCREPANCIES.
30. CONTRACTOR IS TO OBTAIN PERMISSION TO ACCESS UTILITIES WITHIN THE RIGHT-OF-WAY AND/OR UNDER THE AUTHORITY OF OTHERS.
31. STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN ON PLANS OR AS DIRECTED BY OWNER'S REPRESENTATIVE. THE PILE(S) SHALL BE SEEDED IN CONFORMANCE WITH PROJECT EROSION AND SEDIMENT CONTROL PLAN AND DETAILS.
32. BIO-RETENTION AREA PLANTINGS TYPE TO BE OBTAINED FROM TABLE B.5 NATIVE PLANT GUIDE FOR STORMWATER MANAGEMENT AREAS (PP) LOCATED IN APPENDIX B OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL. PLANTINGS MUST BE ZONE 2 COMPLIANT. PLANT SELECTION SHALL BE DIVERSE, LAYOUT SHALL BE RANDOM AND NATURAL. PLANTINGS SHALL BE PLACED APPROX. 18" ON CENTER. - SEE SHEET C-601-N BIO-RETENTION AREA PLANTING PLAN.
33. CONTRACTOR TO KEEP CROSBY ROAD FREE OF DIRT AND DEBRIS AT ALL TIMES DURING CONSTRUCTION.
34. JOB BENCHMARK AS NOTED ON PLANS.
35. GEOTEXTILE IS REQUIRED OVER STORM SEWER ROADWAY CROSSINGS FOR TEN (10) FEET ON EITHER SIDE OF PIPE, TO PROTECT AGAINST SETTLEMENT.
36. ELEVATIONS AS SHOWN ARE BASED ON NAVD 88, AS ESTABLISHED FROM THE NEW YORK STATE RTN.
37. CONTRACTOR SHALL DISPOSE OF ANY DEMOLITION OR CONSTRUCTION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
38. EQUIPMENT PADS TO BE DESIGNED BY OTHERS.
39. SEE ARCHITECTURAL PLANS FOR BUILDING HEIGHTS AND ELEVATIONS.
40. PROTECTIVE BOLLARDS TO BE INSTALLED ONE (1) FOOT MIN. OFF PAVEMENT EDGE TO FACE OF BOLLARD AND FIVE (5) FOOT MAX. ON CENTER BOLLARDS TO SPAN CONCRETE DUCT BANK CROSSINGS, WHERE POSSIBLE.
41. GUIDE RAIL TO BE TYPE 30T (BOX BEAM (BGB-6R, BGB-6B)) OR APPROVED EQUAL.

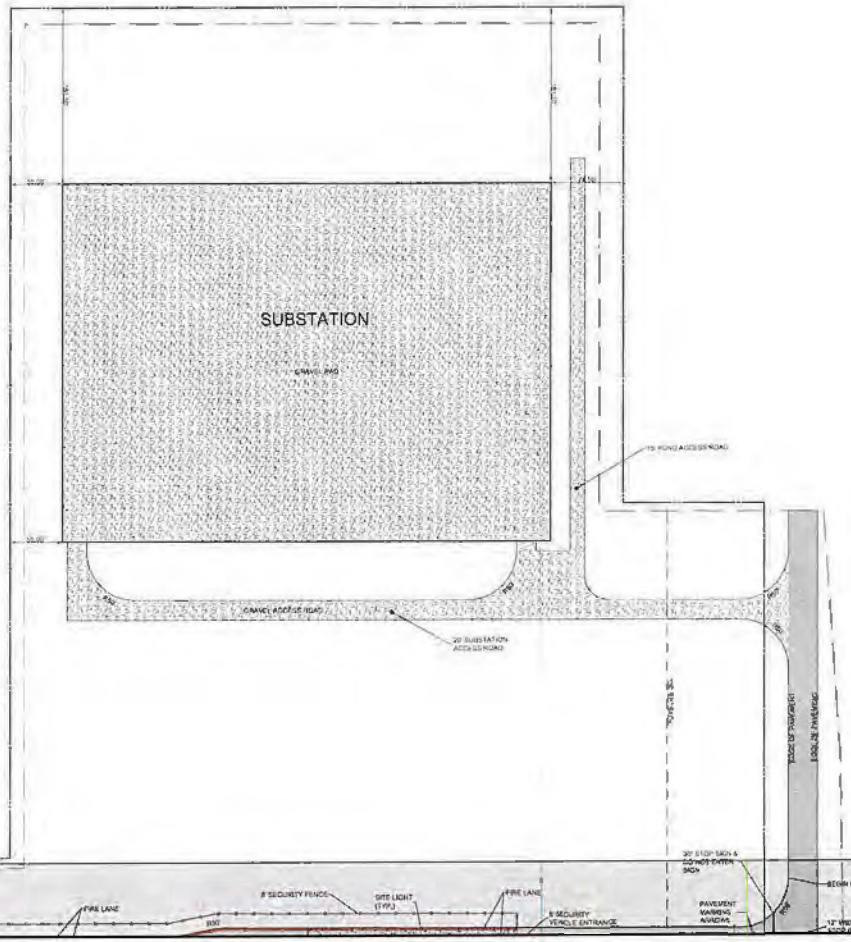
SCALE: 1"=100'

NOTE:

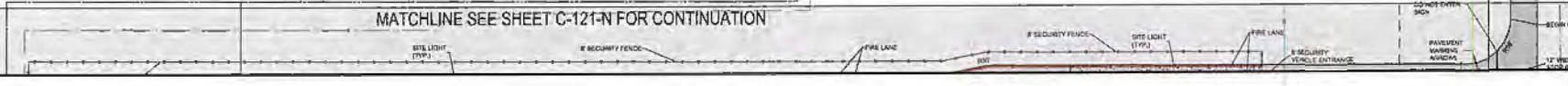
- SEE SHEET C-601-N & C-602-N FOR LANDSCAPE PLANTINGS
- SEE SHEET C-701-N & C-702-N FOR PHOTOMETRIC PLAN

PARKING SCHEDULE:

- 112 REGULAR SPACES
- 7 AMERICANS WITH DISABILITIES ACT (ADA) SPACES
- 8 ELECTRIC VEHICLE CHARGING SPACES



MATCHLINE SEE SHEET C-121-N FOR CONTINUATION

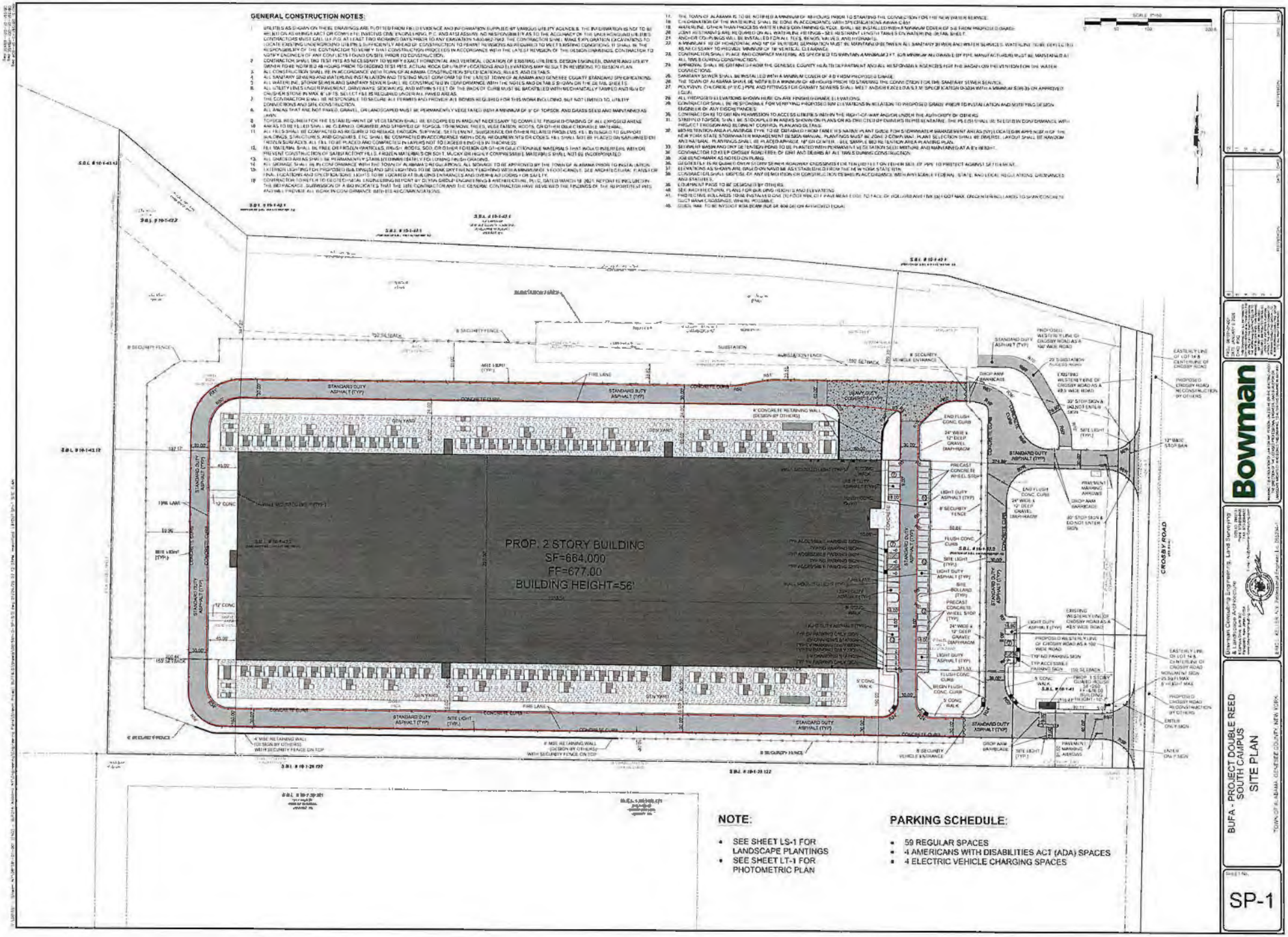


Bowman

Bowman Consulting Engineering, Land Surveying & Landscape Architecture
[illegible]

BUFA - PROJECT DOUBLE REED NORTH CAMPUS
SITE PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-122-N


GENERAL CONSTRUCTION NOTES:
1. UTILITIES AS SHOWN ON THESE DRAWINGS ARE PLOTTED FROM FIELD EVIDENCE AND INFORMATION SUPPLIED BY VARIOUS UTILITY AGENCIES. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. INVERTS ONLY ENCLOSURES, P.C. AND ATS ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND UTILITIES. CONTRACTORS MUST CALL U.F.P.O. AT LEAST TWO WORKING DAYS PRIOR TO ANY EXCAVATION 1-800-962-7962. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT CONSTRUCTION PROCEEDS IN ACCORDANCE WITH THE LATEST REVISION OF THE DESIGN DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS FOUND ON SITE PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL TAKE TEST PITS AS NECESSARY TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES. DESIGN ENGINEER, OWNER AND UTILITY OWNER TO BE NOTIFIED 48 HOURS PRIOR TO DIGGING TEST PITS. ACTUAL ROCK OR UTILITY LOCATIONS AND ELEVATIONS MAY RESULT IN REVISIONS TO DESIGN PLAN.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ALABAMA CONSTRUCTION SPECIFICATIONS, RULES, AND DETAILS.
4. ALL SANITARY SEWERS AND WATERLINE INSTALLATION AND TESTING MUST CONFORM TO THE LATEST TOWN OF ALABAMA AND GENESEE COUNTY STANDARD SPECIFICATIONS.
5. ALL WATERLINE, STORM SEWER AND SANITARY SEWER SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE NOTES AND DETAILS SHOWN ON THE SITE PLANS SHEETS.
6. ALL UTILITY LINES UNDER PAVEMENT, DRIVEWAYS, SIDEWALKS, AND WITHIN 5 FEET OF THE BACK OF CURB MUST BE BACKFILLED WITH MECHANICALLY TAMPED AND RUN OF CRUSHER STONE IN MAX. 8" LIFTS. SELECT FILL IS REQUIRED UNDER ALL PAVED AREAS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL PERMITS AND PROVIDE ALL BONDS REQUIRED FOR THIS WORK INCLUDING, BUT NOT LIMITED TO, UTILITY CONNECTIONS AND SITE CONSTRUCTION.
8. ALL AREAS THAT ARE NOT PAVED, GRAVEL, OR LANDSCAPED MUST BE PERMANENTLY VEGETATED WITH A MINIMUM OF 6" OF TOPSOIL AND GRASS SEED AND MAINTAINED AS LAWN.
9. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL.
11. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SURFACE SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL IS INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. ALL FILL TO BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
12. FILL MATERIAL SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIAL'S OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED.
13. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISH GRADING.
14. ALL STORAGE SHALL BE IN CONFORMANCE WITH THE TOWN OF ALABAMA REGULATIONS. ALL STORAGE TO BE APPROVED BY THE TOWN OF ALABAMA PRIOR TO INSTALLATION.
15. EXTERIOR LIGHTING ON PROPOSED BUILDINGS AND SITE LIGHTING TO BE SAME DIFFUSED TYPE LIGHTING WITH A MINIMUM OF 1 FOOTCANDLE. SEE ARCHITECTURAL PLANS FOR FINAL LOCATIONS AND SPECIFICATIONS. LIGHTS TO BE LOCATED AT BUILDING ENTRANCES AND OVERHEAD DOORS FOR SAFETY.
17. CONTRACTOR TO REFER TO GEOTECHNICAL ENGINEERING REPORT BY D'APPOLONIA ENGINEERING & ARCHITECTURE, P.L.L.C. DATED MARCH 18, 2021. REPORT IS INCLUDED IN THE BID PACKAGE. SUBMISSION OF A BID INDICATES THAT THE SITE CONTRACTOR AND THE GENERAL CONTRACTOR HAVE REVIEWED THE FINDINGS OF THE REPORT, TEST PITS AND WILL PROVIDE ALL WORK IN CONFORMANCE WITH ITS RECOMMENDATIONS.
18. THE TOWN OF ALABAMA IS TO BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO STARTING THE CONNECTION FOR THE NEW WATER SERVICE.
19. CHLORINATION OF THE WATERLINE SHALL BE DONE IN ACCORDANCE WITH SPECIFICATIONS AWWA C651
20. WATERLINE, OTHER THAN PROCESS WATER LINES CONTAINING 6% YCOL, SHALL BE INSTALLED WITH A MINIMUM COVER OF 5'-6" FROM PROPOSED GRADE.
21. JOINT RESTRAINTS ARE REQUIRED ON ALL WATERLINE FITTINGS - SEE RESTRAINT LENGTH TABLES ON WATERLINE DETAIL SHEET.
22. ANCHOR COUPLINGS WILL BE INSTALLED ON ALL TEES, BENDS, VALVES, AND HYDRANTS.
23. A MINIMUM 10' OF HORIZONTAL AND 18" OF INTERFERENCE SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES. WATERLINE TO BE DEFLECTED AS NECESSARY TO PROVIDE MINIMUM OF 18" VERTICAL CLEARANCE.
24. CONTRACTOR SHALL PLACE AND COMPACT MATERIAL AS SPECIFIED TO MAINTAIN A MINIMUM 2 FT. FOR MINIMUM ALLOWABLE OF PIPE MANUFACTURER) MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
25. APPROVAL SHALL BE OBTAINED FROM THE GENESEE COUNTY HEALTH DEPARTMENT AND ALL RESPONSIBLE AGENCIES FOR THE BACKFLOW PREVENTION ON THE WATER CONNECTIONS.
26. SANITARY SEWER SHALL BE INSTALLED WITH A MINIMUM COVER OF 4.0' FROM PROPOSED GRADE.
28. THE TOWN OF ALABAMA SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO STARTING THE CONSTRUCTION OF THE SANITARY SEWER SERVICE.
27. POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS FOR GRAVITY SANITARY SEWERS SHALL MEET AND/OR EXCEED SDR 35 SPECIFICATION D3034 WITH A MINIMUM SDR 35 ON APPROVED EQUAL
28. ALL PROPOSED ELEVATIONS SHOWN HEREON ARE FINISHED GRADE ELEVATIONS.
29. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING PROPOSED SPOT ELEVATIONS IN RELATION TO PROPOSED GRADE PRIOR TO INSTALLATION AND NOTIFYING DESIGN ENGINEER OF ANY DISCREPANCIES.
30. CONTRACTOR IS TO OBTAIN PERMISSION TO ACCESS UTILITIES WITHIN THE RIGHT-OF-WAY AND/OR UNDER THE AUTHORITY OF OTHERS.
31. STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN ON PLANS OR AS DIRECTED BY OWNER'S REPRESENTATIVE. PILES SHALL BE SEEDED IN CONFORMANCE WITH PROJECT EROSION AND SEDIMENT CONTROL PLAN AND DETAILS.
32. BIO-RETENTION AREA PLANTINGS TYPE TO BE OBTAINED FROM TABLE 11 'NATIVE PLANT GUIDE FOR STORMWATER MANAGEMENT AREAS (NY)' LOCATED IN APPENDIX H OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL. PLANTINGS MUST BE ZONE 2 COMPLIANT. PLANT SELECTION SHALL BE DIVERSE, LAYOUT SHALL BE RANDOM AND NATURAL. PLANTINGS SHALL BE PLACED APPROX. 18" ON CENTER - LESS SIMPLE BIO RETENTION AREA PLANTING PLAN.
33. SEEDING OF BASIN AND DRY DETENTION POND TO BE PLANTED WITH PERMANENT VEGETATION SEED MIXTURE AND MAINTAINED AT A 6" HEIGHT.
34. CONTRACTOR TO KEEP CROSSBY ROAD FREE OF DIRT AND DEBRIS AT ALL TIMES DURING CONSTRUCTION.
35. JOB BENCHMARK AS NOTED ON PLANS.
36. GEOTEXTILE IS TO BE DURAFI ONE STORM SEWER ROADWAY CROSSINGS IS TO BE USED TO BE USED ON EITHER SIDE OF PIPE TO PROTECT AGAINST SETTLEMENT.
37. ELEVATIONS AS SHOWN ARE BASED ON NAVD88 AS ESTABLISHED FROM THE NEW YORK STATE RTN.
38. CONTRACTOR SHALL DISPOSE OF ANY DEMOLITION OR CONSTRUCTION DEBRIS IN ACCORDANCE WITH ANY STATE, FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
39. EQUIPMENT PADS TO BE DESIGNED BY OTHERS.
40. SEE ARCHITECTURAL PLANS FOR BUILDING HEIGHTS AND ELEVATIONS.
41. PROTECTIVE BOLLARDS TO BE INSTALLED ONE (1) FOOT MIN. OFF PAVEMENT EDGE TO FACE OF BOLLARD AND FIVE (5) FOOT MAX. ON CENTER BOLLARDS TO SPAN CONCRETE SIDEWALK CROSSINGS, WHERE POSSIBLE.
48. GRADE TAB TO BE INTO CUT ROA BOAR (SUE DE 808.24) OR APPROVED EQUAL
SCALE: 1"=50'
0 50 100 200 ft
PROP. 2 STORY BUILDING
SF=664,000
FF=677.00
BUILDING HEIGHT=56'
CROSSBY ROAD
NOTE:
SEE SHEET LS-1 FOR LANDSCAPE PLANTINGS
SEE SHEET LT-1 FOR PHOTOMETRIC PLAN
PARKING SCHEDULE:
59 REGULAR SPACES
4 AMERICANS WITH DISABILITIES ACT (ADA) SPACES
4 ELECTRIC VEHICLE CHARGING SPACES
Bowman
BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
SITE PLAN
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK
Sheet No.
SP-1

BUFA | Project Double Reed

10-Acre Logistics Area Layout



Key

- Sliding Gate
- High Powerlines
- Perimeter Security Fencing
- Jersey Barrier
- Stone Walkway
- Guard House/ Access Control
- Subcontractor Trailer
- Management Trailer
- Tent
- Employee Parking (888)
- Management Parking (66)
- Concrete Washout
- Dumpster/ Recycling
- Restroom
- Muster Point
- Office Trailer
- Medical Tent

12/29/2025



0 200 400 800 Feet

STREAM - BUFA

TELECOM EXHIBIT

2-18-2026

Bowman

BUFA | Project Double Reed

30-Acre Logistics Area Layout



Key

- Sliding Gate
- Perimeter Security Fencing
- Guardhouse / Access Control
- Staging / Laydown Area
- Undisturbed
- Equipment Storage

12/29/2025

III-d | STORMWATER TECHNICAL SUMMARY

Project Double Reed has committed to sustainable stormwater management practices. The project has incorporated a comprehensive stormwater management system to capture, treat, and release rainwater runoff, minimizing its impact on localized surface and groundwaters.

Key Stormwater Management Features:

- **Stormwater Management Basins:** These basins have been strategically proposed on the site to capture and store stormwater runoff, reducing peak flow rates, and preventing flooding.
- **Permeable Surfaces:** The project has explored opportunities to incorporate permeable paving materials, such as porous asphalt or permeable concrete, in parking areas and walkways to allow rainwater to infiltrate the ground.
- **Green Infrastructure:** Green infrastructure elements, such as rain gardens and bioswales, have been integrated into the site design to filter pollutants, reduce runoff volume, and create attractive green spaces.

The project requires site clearing and preparation, adherence to NYSDEC water quality standards, as well as final acceptance and permit issuance under State Pollutant Discharge Elimination System (SPDES), and subsequent filing of a Stormwater Pollution Prevention Plan (SWPPP). Stormwater Best Management Practices (BMPs) have been incorporated to handle the expected increased peak flows from development and further designed to detain release of surface waters at or below a lower rates.

Stormwater basins and associated outfalls have been aligned with existing observable rainfall surface flow regimes and are depicted on the provided Stormwater Plans. The Stormwater Pollution Prevention Plan (SWPPP) for the South Campus considers the natural hydrology with a bypass swale provided along the southern portion of the property which collects and conveys off-site runoff to the same tributary located along the western portion of the site. The approved and constructed Stormwater Management Programs (SMP's) along the northern portion of the tract collect runoff from the developed portion of the tract and discharge this runoff, after treatment, into the existing tributary along the northern property boundary. The modified design for this project has also added a dry swale east of the parking lot. This dry swale collects runoff that sheet flows off the parking lot and a portion of the bypass driveway, through a gravel diaphragm, and into the swale which is provided with two check dams and an outlet structure. The discharge from this swale is connected to the on-site collection system.

The stormwater design for the North Campus detains stormwater flows within several SMP's and maintains four (4) points of discharge to the existing downstream water courses maintaining the natural hydrology of this portion of STAMP.

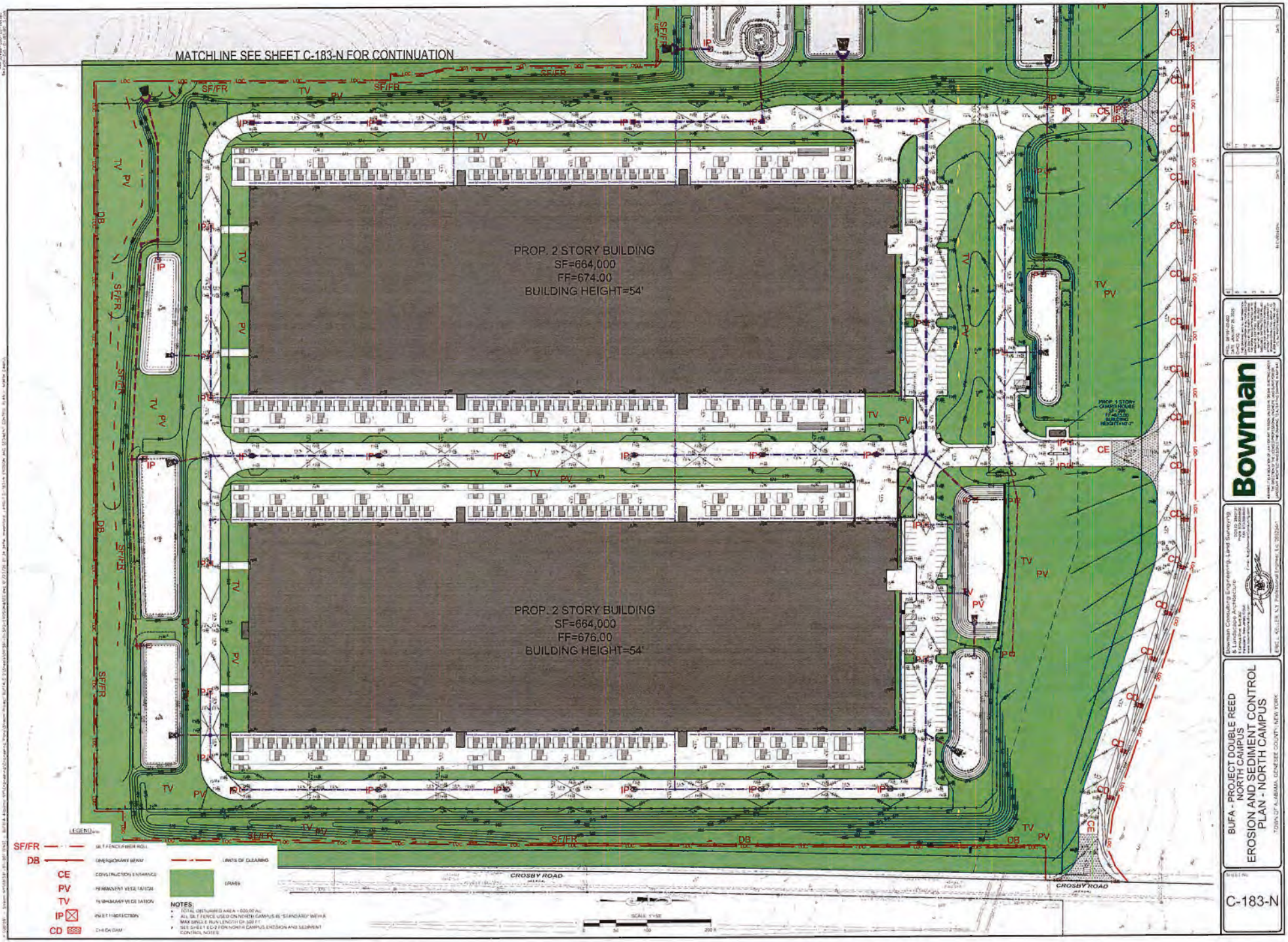
The temporary laydown yard for the South Campus is provided with a construction ditch with check dams along the western side of the property. Silt fence and/or fiber roll is provided along the southern portion of the laydown yard.

Erosion and sediment control for the temporary laydown yard for the North Campus is provided by the following controls: run-on diversion berms to the east where needed based on topography, broad stone lined swales with check dams spaced in accordance with NYSDEC standards, perimeter silt fence/filter sock, a stabilized construction entrance and grass buffer area between the gravel laydown yard and adjacent ditch.

The South Campus has already been fully disturbed as a result of the prior approval and construction that had commenced. A 5-acre waiver will be required for this site. The North Campus (containing approximately 60 acres in total) will be disturbed beginning with the SMP's, which in total will require a 5 acre waiver due to the extent and number of SMP's. The sub-station area will follow, which will also require a waiver as the area exceeds 5 acres. The western building and adjacent driveways will follow though likely will be concurrent with the sub-station construction which will disturb approx. 22 acres (each building alone is almost 8 acres) which will require a waiver as well. The final construction will involve the eastern building and surrounding driveways disturbing approx. 20 acres and will also require a waiver

As per the NYSDEC stormwater regulations, the basins design has incorporated both the 10-year, 24 hour storm event (for overbank flood protection), as well as the 100-year, 24 hour storm (for extreme flooding events). The peak flow attenuation for both the 10 and 100-year storm events have been integrated into the design. Through progression into final design, collaborations with NYSDEC and Civil Engineers/Subject Matter Experts will continue to explore innovative stormwater management techniques.

III-e | STORMWATER PLANS



Bowman

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
EROSION AND SEDIMENT CONTROL
PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

C-183-N

EROSION CONTROL NOTES

1. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP AND THAT CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER OR AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
2. PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL TIMES.
3. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
4. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
5. ALL WASH WATER SHALL BE RETAINED AND PROPERLY TREATED OR DISPOSED.
6. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE, OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
7. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
8. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
9. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY STOPPED SHALL BE TEMPORARILY SEEDED. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED.
11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE SODDED/LANDSCAPED PER PLANS. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PAVED ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
13. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
15. ON-SITE AND OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION.
18. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
19. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THESE PLANS SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR COMPLETED PHASE OF WORK OF FINAL STABILIZATION OF THE SITE. SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF DETERIORATION.
2. ALL SEED/SODDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED, WATERED AND REPAIRED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE.
4. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE EXIT AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN A GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE AREA AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT LEAVING THE SITE SHALL BE CLEANED IMMEDIATELY.
7. ALL INLETS AND STORM DRAINS SHALL BE KEPT CLEAN OF DEBRIS AND SEDIMENT. ANY DEBRIS AND/OR SEDIMENT THAT ENTERS ANY INLET OR STORM DRAIN SHALL BE CLEANED IMMEDIATELY. FLUSHING SHALL NOT BE USED TO CLEAN DEBRIS AND/OR SEDIMENT FROM STORM DRAINS.

CONSTRUCTION SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE TOWN TO DISCUSS EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION PHASING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
3. INSTALL CONSTRUCTION FENCES.
4. PREPARE TEMPORARY PARKING AND STORAGE AREAS.
5. INSTALL INLET PROTECTION, SILT DIKES, AND SILT FENCE ON THE SITE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
6. DEMOLISH EXISTING STRUCTURES, PAVEMENT, AND SPECIFIED UTILITIES.
7. BEGIN GRADING THE SITE.
8. BEGIN CONSTRUCTION OF UTILITIES.
9. BEGIN SUBGRADE PREPARATION AND CONSTRUCTION OF STRUCTURES.
10. BEGIN INSTALLATION OF CURB, GUTTER, AND PAVING.
11. COMPLETE PERMANENT STABILIZATION ON AREAS WHERE CONSTRUCTION HAS COMPLETED.
12. COMPLETE FINAL GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
13. OBTAIN CONCURRENCE FROM THE OWNER AND THE TOWN THAT THE SITE HAS BEEN FULLY STABILIZED.
14. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
15. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

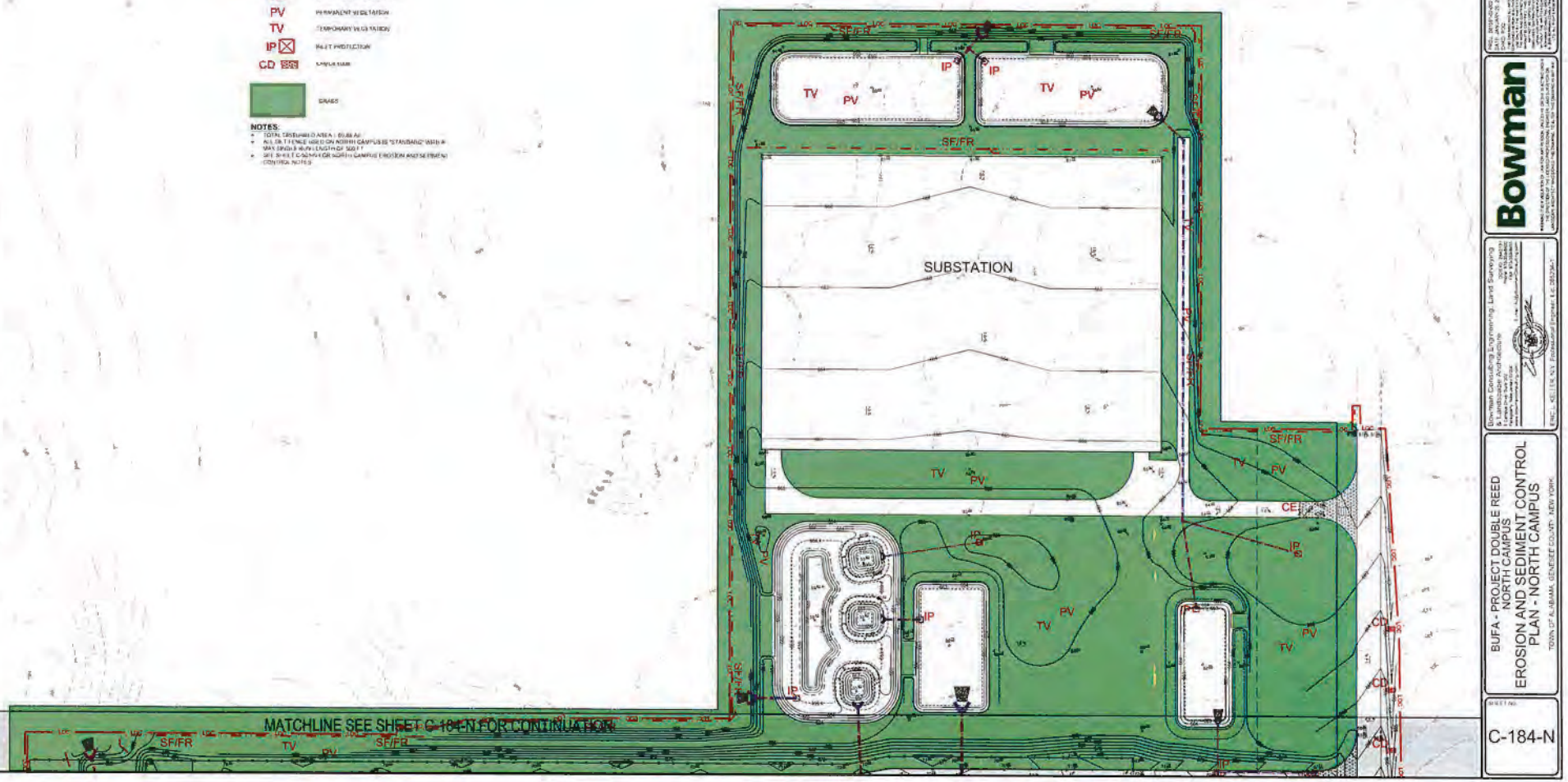
THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE GENERAL CONTRACTOR ON THESE PLANS.

CONSTRUCTION ENTRANCES SHOWN ON PLANS ARE ALL LOCATIONS NEEDED THROUGHOUT ENTIRETY OF PROJECT, DUE TO PHASED NATURE OF CONSTRUCTION NOT ALL CONSTRUCTION ENTRANCES WILL BE PRESENT AT ALL TIMES.

LEGEND

LOC	LIMITS OF CLEARING
SF/FR	SILT FENCE/WATTLE ROLL
DB	DIVERSION/SWALE
CE	CONSTRUCTION ENTRANCE
PV	PERMANENT VEGETATION
TV	TEMPORARY VEGETATION
IP	INLET PROTECTION
CD	CULVERT DRAIN
	GRASS

NOTES:
- TOTAL DISTURBED AREA = 89.84 AC
- ALL SILT FENCE USED ON NORTH CAMPUS IS "STANDARD" WITH A MAX SINGLE RUN LENGTH OF 500 FT
- SEE SHEET C-184N-V FOR NORTH CAMPUS EROSION AND SEDIMENT CONTROL NOTES



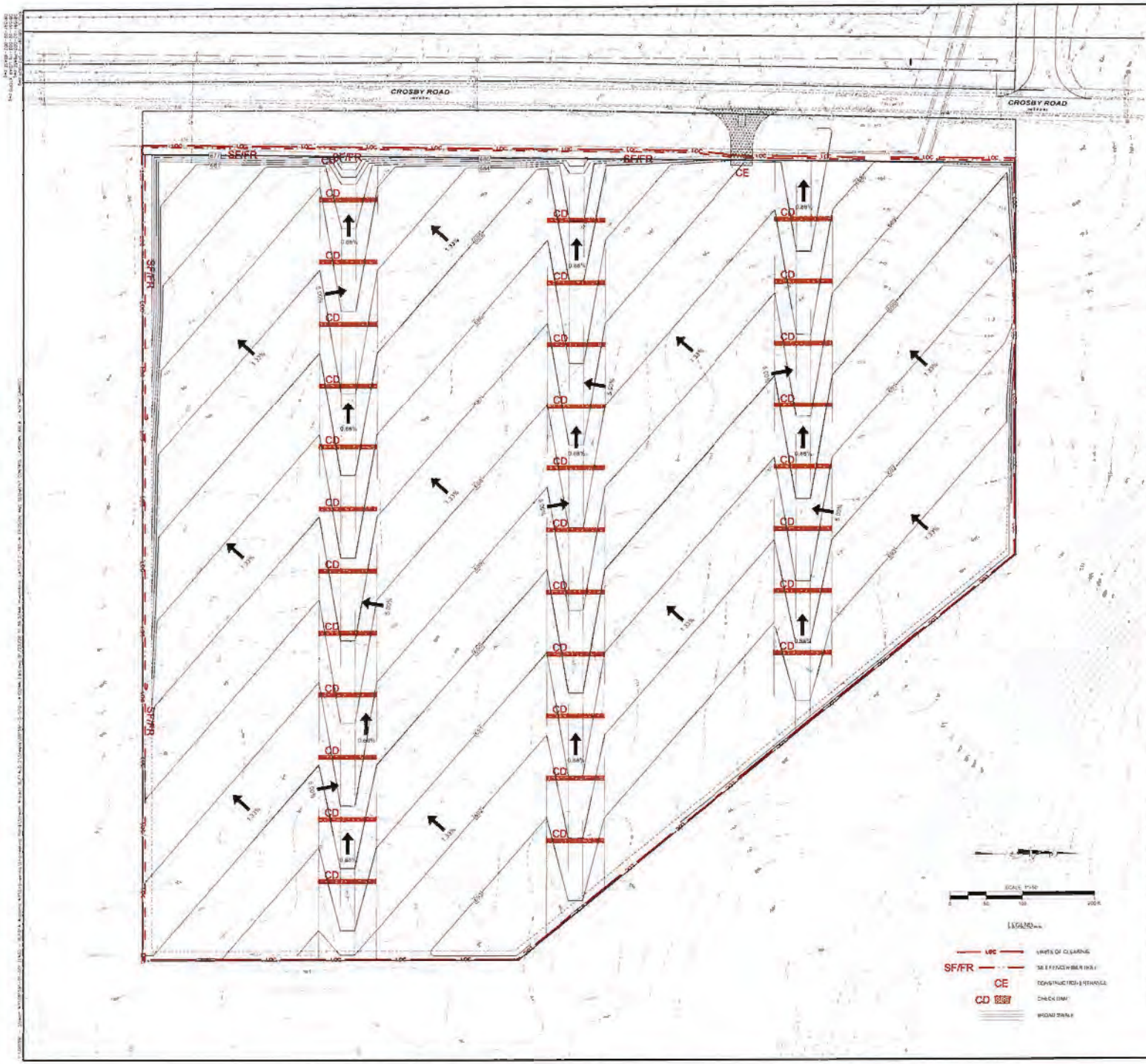
SCALE: 1" = 50'

BUFA - PROJECT DOUBLE REED NORTH CAMPUS
EROSION AND SEDIMENT CONTROL PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET NO.
C-184-N

Bowman Consulting Engineering, Land Surveying & Landscape Architecture

ERIE, KEITH A. SCHMIDT, Licensed Professional Engineer, License No. 085394-1


CROSBY ROAD
CROSBY ROAD
SF/FR
SF/FR
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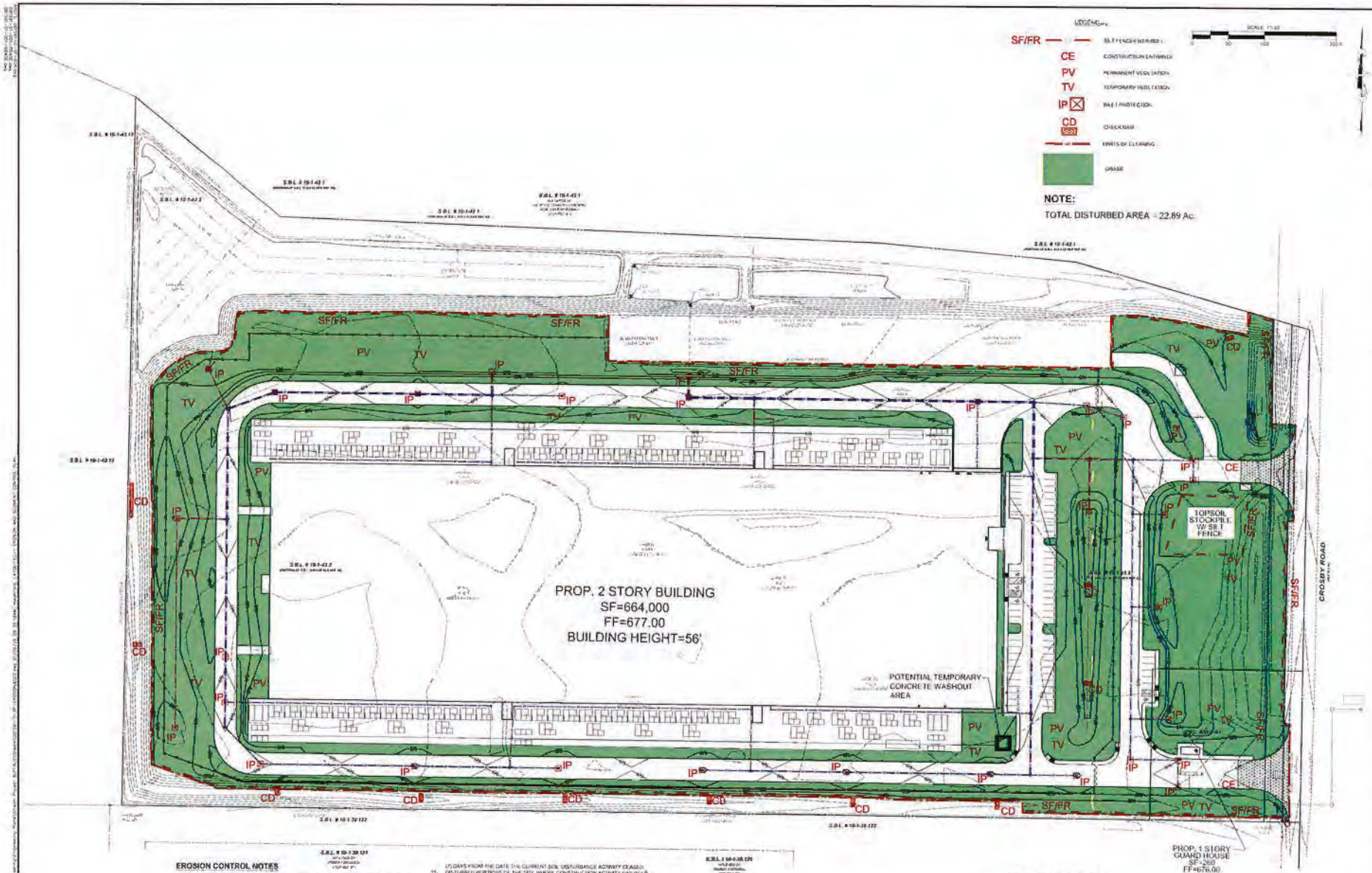


EROSION CONTROL NOTES

1. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP AND THAT CONFORM TO FEDERAL, STATE OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
2. PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL TIMES.
3. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
4. GENERAL CONTRACTOR SHALL DESIGNATE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREAS FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
5. ALL WASH WATER SHALL BE CONTAINED AND PROPERLY TREATED OR DISPOSED.
6. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR IMMEDIATELY AVAILABLE TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS AND LEAKS.
7. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
8. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
9. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY STOPPED SHALL BE TEMPORARILY SEEDED. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED.
11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS BEEN PERMANENTLY STOPPED SHALL BE SODDED OR MULCHED PER PLANS. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
13. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH STABILIZATION OF THE SITE.
15. ON-SITE AND OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATION SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PLANNER REQUIREMENTS.
16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION.
18. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
19. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THESE PLANS SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE SEDIMENT CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF DETERIORATION.
2. ALL SEDIMENT-DEPOSITED AREAS SHALL BE DRESSED REGULARLY TO SEE THAT A GOOD STATE IS MAINTAINED. AREAS SHALL BE FERTILIZED, WATERED AND REPAIRED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE.
4. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE EXIT AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN A GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE AREA AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS, ANY DEBRIS AND/OR SEDIMENT LEAVING THE SITE SHALL BE CLEANED IMMEDIATELY.
7. ALL INLETS AND STORM DRAINS SHALL BE KEPT CLEAN OF DEBRIS AND SEDIMENT. ANY DEBRIS AND/OR SEDIMENT THAT ENTERS ANY INLET OR STORM STORM DRAIN SHALL BE CLEANED IMMEDIATELY. FLUSHING SHALL NOT BE USED TO CLEAN DEBRIS AND/OR SEDIMENT FROM STORM DRAINS.

CONSTRUCTION SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE TOWN TO DISCUSS EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION PHASING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
3. INSTALL CONSTRUCTION FENCES.
4. INSTALL INLET PROTECTION, CHECK DAMS, AND SILT FENCES ON THE SITE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
5. DEMO EXISTING STRUCTURES, SPLICE RELOCATE UTILITIES AND OTHER EXISTING IMPROVEMENTS.
6. BEGIN GRADING THE SITE, INCLUDING DRY VEGETATED SWALE.
7. BEGIN CONSTRUCTION OF UTILITIES.
8. BEGIN SUBGRADE PREPARATION AND CONSTRUCTION OF STRUCTURES.
9. BEGIN INSTALLATION OF CURB, GUTTER, AND PAVING.
10. COMPLETE PERMANENT STABILIZATION ON AREAS WHERE CONSTRUCTION HAS BEEN COMPLETED.
11. COMPLETE FINAL GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVERALL AREAS.
12. OBTAIN CONCURRENCE FROM THE OWNER AND THE TOWN THAT THE SITE HAS BEEN FULLY STABILIZED.
13. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
14. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

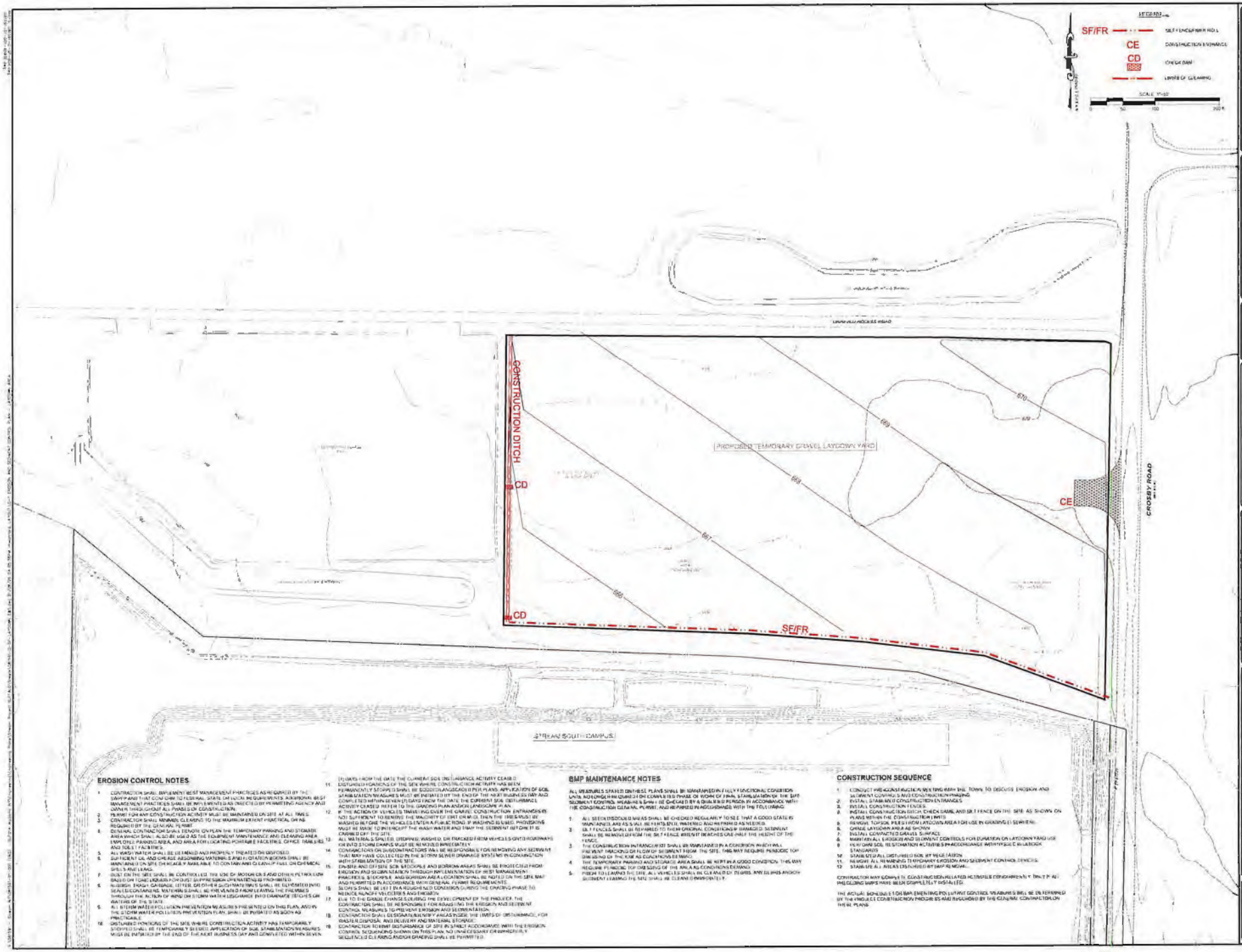
THE ACTUAL SCHEDULE FOR INSTALLING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE GENERAL CONTRACTOR ON THESE PLANS.

Bowman

Bowman Consulting Engineering | Land Surveying
Rochester, New York

BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
EROSION AND SEDIMENT CONTROL PLAN
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
EC-1



EROSION CONTROL NOTES

1. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP AND THAT CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
2. PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL TIMES.
3. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
4. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS AND TOILET FACILITIES.
5. ALL WASH WATER SHALL BE CONTAINED AND PROPERLY TREATED OR DISPOSED.
6. SUFFICIENT OIL AND GREASE ABSORBING MATERIAL (SAWDUST) OR BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS AND LEAKS.
7. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
8. GARBAGE, TRASH, DEBRIS, LITTER, OR OTHER SUCH MATERIALS SHALL BE ELIMINATED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
9. ALL EROSION AND POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INSTALLED AS SOON AS PRACTICABLE.
10. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY STOPPED SHALL BE TEMPORARILY SEEDED. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS BEEN PERMANENTLY STOPPED SHALL BE SODDED/LANDSCAPED AS PER PLANS. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT ON THEM, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS DISCHARGED OFF THE SITE.
13. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH STABILIZATION OF THE SITE.
15. ON-SITE AND OFF-SITE SOIL STOCKPILES AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. A STOCKPILE AND BORROW AREA LOCATION SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION.
18. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
19. CONTRACTOR TO PERMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMMEDIATELY NEGLECTED CLEARING AND/OR GRADING SHALL BE PERMITTED.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THESE PLANS SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED OR UNTIL ON COMPLETED PHASE OF WORK OF FINAL STABILIZATION OF THE SITE. SEDIMENT CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. ALL STEEP SLOPES (3:1 OR AS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STATE IS MAINTAINED, AND AS SHALL BE REPAIRED, REVEGETATED, WATERED, AND REPAIRED AS NEEDED.
2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE.
3. THE CONSTRUCTION ENTRANCE(S) SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE STONE AS CONDITIONS DEMAND.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN A GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE AREA AS CONDITIONS DEMAND.
5. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS, ANY DEBRIS AND/OR SEDIMENT LEAVING THE SITE SHALL BE CLEANED IMMEDIATELY.

CONSTRUCTION SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE TOWN TO DISCUSS EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION PHASING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
3. INSTALL CONSTRUCTION FENCES.
4. INSTALL CONSTRUCTION DITCH, CHECK DAMS, AND SILT FENCE ON THE SITE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
5. REMOVE TOPSOIL PILES FROM LAYDOWN AREA FOR USE IN GRADING ET SEWERS.
6. GRADE LAYDOWN AREA AS SHOWN.
7. INSTALL COMPACTED GRAVEL SURFACE.
8. MAINTAIN ALL EROSION AND SEDIMENT CONTROLS FOR DURATION OF LAYDOWN YARD USE.
9. REMOVE SOIL RESTORATION ACTIVITIES IN ACCORDANCE WITH PSEC REGULATION STANDARDS.
10. STABILIZE ALL DISTURBED SOIL BY VEGETATION.
11. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
12. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING STEPS HAVE BEEN COMPLETED / INSTALLED.

THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROCESS AND REQUIRED BY THE GENERAL CONTRACTOR ON THE PLANS.

Bowman Consulting Engineering, Land Surveying & Landscape Architecture
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ERIC L. KELSEE, PLA, Project Landscape Architect, P.C. 2502347

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BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
EROSION AND SEDIMENT CONTROL PLAN - LAYDOWN AREA
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET NO.
LD-1

III-f | PHOTOMETRIC PLAN

BUFA CAMPUS SITE LIGHTING NARRATIVE

New light fixtures and lighting controls compliant with New York Energy Code will be installed on both the north and south campus of the Stream BUFA campus. Light fixtures proposed to be installed on the campus are all proposed to be new LED fixtures inclusive of:

- Type S1 - 25ft tall LED pole lights with standard Type III distribution installed along roadways. International Dark Sky (IDA) Fixture Seal of Approval Available.
- Type FE - LED Wallpacks installed on building facade over loading dock doors.
- Type ST – LED yoke-mounted flood lights with wide throw distribution installed 25ft high on poles and aimed inwards towards substation transformers.

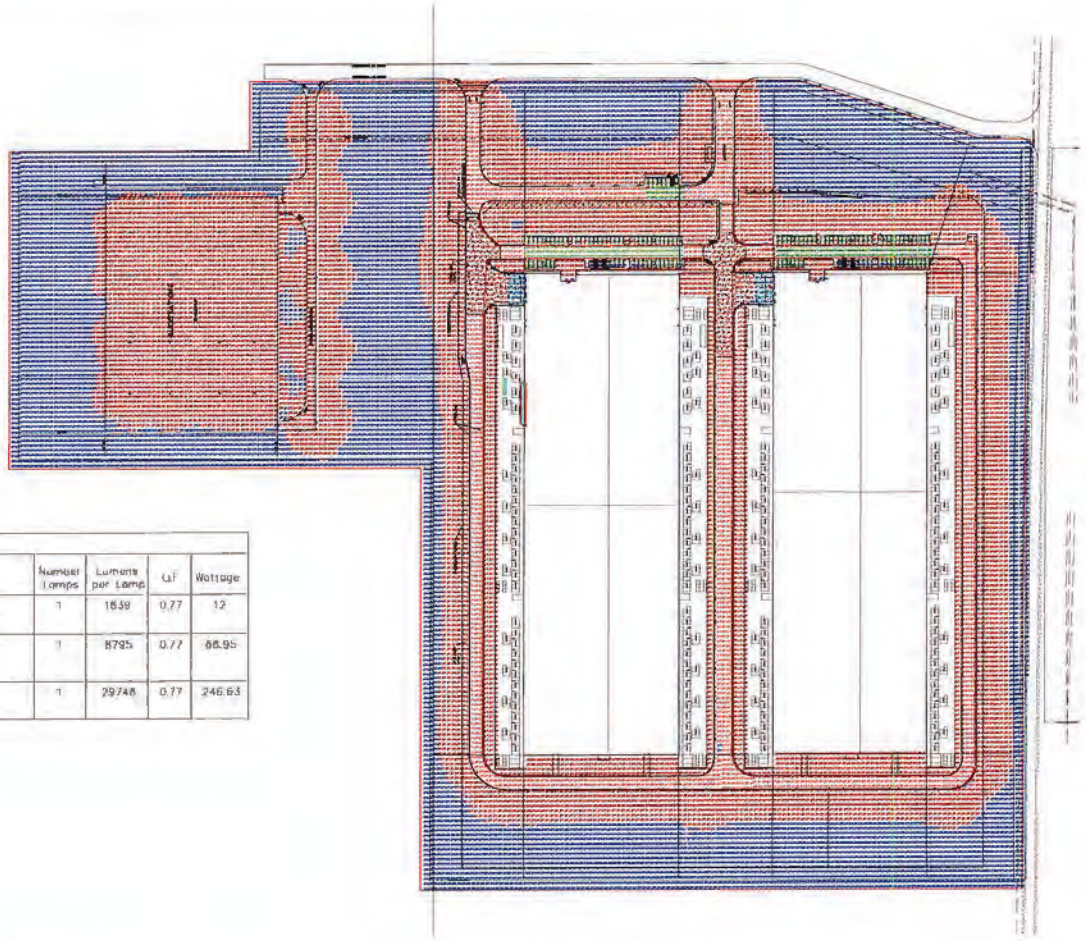
Based upon the proposed lighting plans, the BUFA campus is averaging 2fc along roadways, 3fc at loading docks, and 2.5fc at both the new and existing substations. No illuminance is found along most of the Stream campus property line with roadway entrances/exits experiencing up to 0.6fc from new roadway lighting at the property line.

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Loading Dock Stats	+	3.2 fc	5.8 fc	2.0 fc	2.9:1	1.6:1
Roadway Stats	+	2.0 fc	3.7 fc	0.5 fc	7.4:1	4.0:1
Substation – Stats	+	1.9 fc	9.0 fc	0.0 fc	N/A	N/A

Schedule

Symbol	Label	Manufactory	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
	FE	LITHONIA	6	WST LED P1 40K VF MVOLT	WST LED, Performance package 1, 4000 K, visual comfort forward throw, MVOLT	LED	1	1839	0.77	12
	S1	LITHONIA	143	DSXO LED P3 40K 70CRI T3M	D-Series Size 0 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 3 Medium	LED	1	8795	0.77	88.95
	ST	LITHONIA	21	RSXF2 LED P6 40K WFL	RSXF Flood Fixture Size 2 P6 Lumen Package 4000K CCT Type WFL Distribution	LED	1	29748	0.77	246.63



NORTH CAMPUS

STREAM DATA CENTERS MYRA: **BUFA Photometrics - North Campus**
confidential and proprietary

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DATE: JAN 2026

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BUFA CAMPUS SITE LIGHTING NARRATIVE

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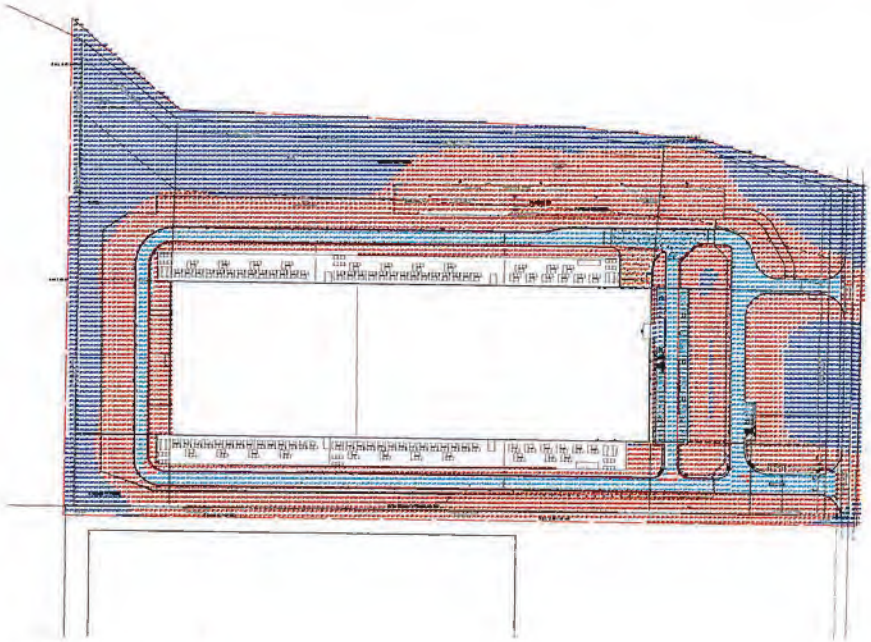
- Type ST – LED yoke-mounted flood lights with wide throw distribution installed 25ft high on poles and aimed inwards towards substation transformers.

Based upon the proposed lighting plans, the BUFA campus is averaging 2fc along roadways, 3fc at loading docks, and 2.5fc at both the new and existing substations. No illuminance is found along most of the Stream campus property line with roadway entrances/exits experiencing up to 0.6fc from new roadway lighting at the property line.



Statistics

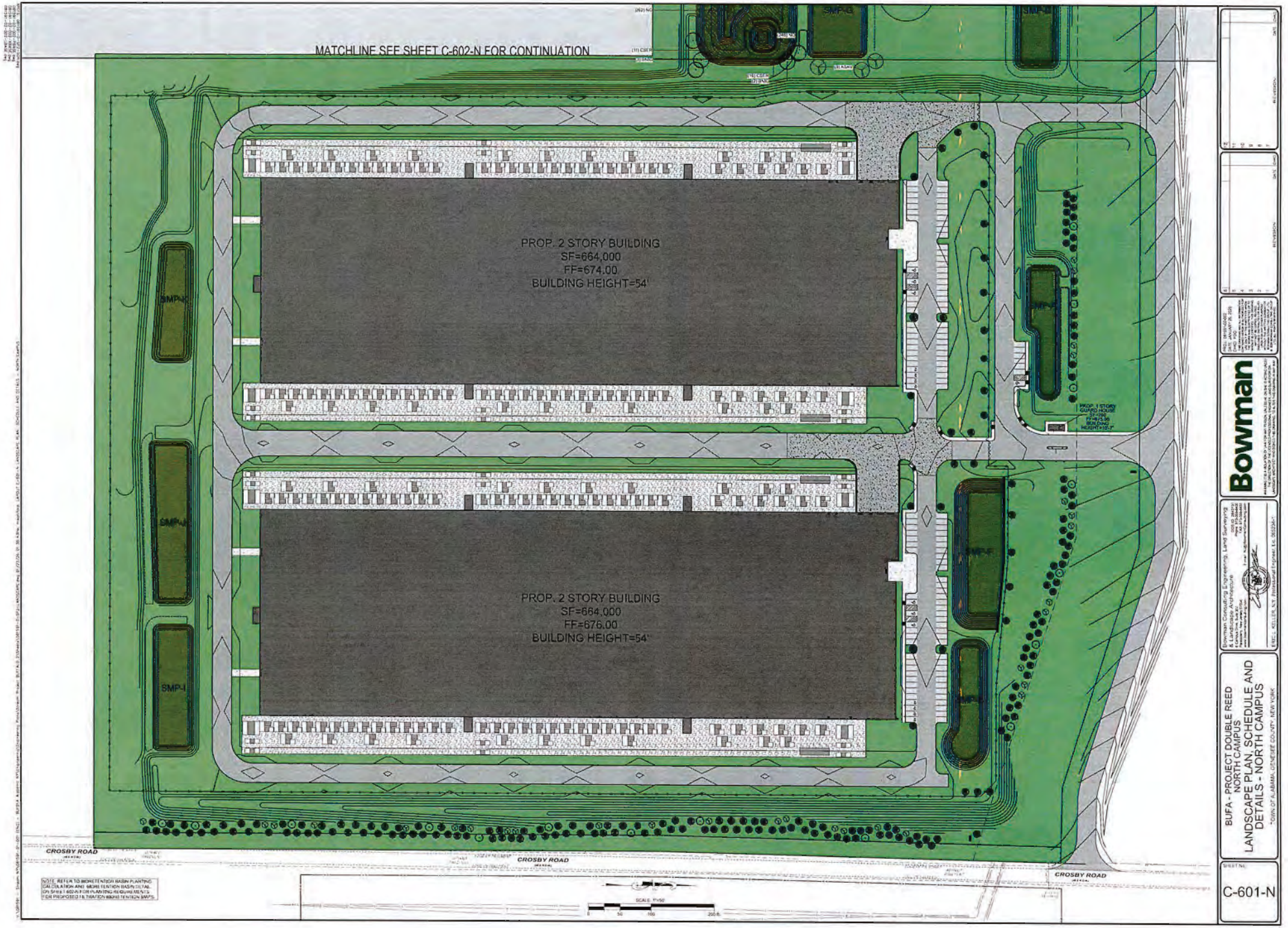
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Loading Dock Stats	+	2.9 fc	5.0 fc	2.0 fc	2.5:1	1.5:1
Roadway Stats	+	2.1 fc	4.2 fc	0.6 fc	7.0:1	3.5:1
Substation - Stats	+	3.7 fc	14.1 fc	0.1 fc	141.0:1	37.0:1

Schedule

Symbol	Label	Manufactory	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
☐	FE	LITHONIA	8	WST LED P1 40K VF MVOLT	WST LED, Performance package 1, 4000 K, visual comfort forward throw, MVOLT	LED	1	1619	0.77	12
☐	S1	LITHONIA	93	DSXO LED P3 40K 70CRI T3M	D-Series Size 0 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 3 Medium	LED	1	8795	0.77	68.95
☐	ST	LITHONIA	12	RSXF2 LED P6 40K WFL	RSXF Flood Fixture Size 2 P6 Lumen Package 4000K CCT Type WFL Distribution	LED	1	29748	0.77	246.63

SOUTH CAMPUS

III-g | LANDSCAPE PLAN



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BUFA - PROJECT DOUBLE REED NORTH CAMPUS
LANDSCAPE PLAN, SCHEDULE AND DETAILS - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE CO., NY, NEW YORK

SHEET NO.
C-601-N

BIORETENTION PLANTING CALCULATION

Bioretention Basin #	SF of Basin	Shrubs (4' to 8' Ø Mature stems per sf)	Shade Trees, ED1 (8 Ø@6' stems per sf)	Ornamental Trees ED1 (3 Ø@2' stems per sf)
SMP-A	8,616	97	23	16
SMP-B	6,883	141	31	21
SMP-C	12,166	276	64	51
SMP-D	17,169	272	64	51
SMP-E	8,529	96	23	17
SMP-F	10,897	155	41	32
SMP-G	15,851	152	38	28
SMP-I	8,912	107	35	23
SMP-J	11,849	167	46	35
SMP-K	3,857	56	22	16
Total	91,941	67	394	294

NOTE: PROPOSED SMP-H IS A WOODED, EXISTING BIORETENTION POND.

BIO-RETENTION TREE PLANTING LIST (ST)

BOTANICAL NAME / COMMON NAME	ROOT	SIZE
ACER RUBRUM RED MAPLE	as req'd	3"
BETULA NIGRA RIVER BIRCH	as req'd	3"
CARPINUS CAROLINIANA EASTERN HORNBEAM	as req'd	3"
CHAMAECYPARIS THYOIDES 'ANDELYENSE' TRIOMF - YEW	as req'd	3"
NYSSA SYLVATICA BLACK GUM	as req'd	3"
QUERCUS MACROCARPA BUR OAK	as req'd	3"
QUERCUS PALUSTRIS PIN OAK	as req'd	3"
TAXODIUM DISTICHUM BALD CYPRESS	as req'd	3"

NOTE: SUBSTITUTED BY ST (SOURCE TREE)

BIO-RETENTION TREE PLANTING LIST (OT)

BOTANICAL NAME / COMMON NAME	ROOT	SIZE
CERCIS CANADENSIS EASTERN REDBUD	as req'd	8'
AMELANCHIER LAEVIS SERVICEBERRY	as req'd	8'
CORNUS FLORIDA FLOWERING DOGWOOD	as req'd	8'
HAMAMELIS VIRGINIANA WITCH HAZEL	as req'd	8'
MAGNOLIA VIRGINIANA SWEETBAY MAGNOLIA	as req'd	8'
OXYDENDRUM ARBOREUM SOURWOOD	as req'd	8'

NOTE: SUBSTITUTED BY OT (ORNAMENTAL TREE)

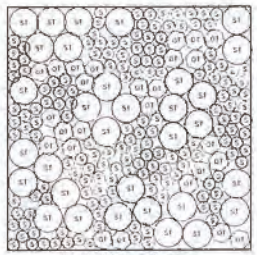
BIO-RETENTION SHRUB PLANTING LIST

BOTANICAL NAME / COMMON NAME	ROOT	SIZE
CLETHRA ALNIFOLIA SWEET PEPPERBUSH	CONTAINER	18"
ILEX VERTICILLATA WINTERBERRY	CONTAINER	18"
ITEA VIRGINICA VIRGINIA SWEETSPIRE	CONTAINER	24"
MYRICA PENSYLVANICA NORTHERN BAYBERRY	CONTAINER	24"
RHODODENDRON CATAWBIENSE	CONTAINER	18"

BIO-RETENTION SEED MIX

CUSTOM SEED MIX

BOTANICAL NAME / COMMON NAME	% OF MIX
ANDROPOGON GERARDII BIG BLUESTEM	20.0%
PANICUM VIRGATUM SWITCHGRASS	20.0%
ELYMUS VIRGINICUS, MADISONVIC ECOTYPE VIRGINIA WILDRYE, MADISONVIC ECOTYPE	15.0%
ASCLEPIAS TUBEROSA, PENNSYLVANIA ECOTYPE BUTTERFLY WEED, PENNSYLVANIA ECOTYPE	10.0%
RUDBECKIA HIRTA BLACK EYED SUSAN	15.0%
ECHINACEA PURPUREA, PA ECOTYPE PURPLE CONEFLOWER, PA ECOTYPE	10.0%
CAREX SCOPARIA, PA ECOTYPE BLUE WINTER SEDGE, PA ECOTYPE	5.0%
JUNCUS EFFUSUS SOFT RUSH	5.0%



BIORETENTION BASIN PLANTING PLAN
100 X 100' TYPICAL

BIO-RETENTION DESIGN / INSTALLATION BASIN NOTES

PLANT MATERIAL INSTALLED IN BIORETENTION BASINS SHALL MEET THE FOLLOWING REQUIREMENTS:

1. ENTIRE WATERQUALITY AREA AS SHOWN ON THE LANDSCAPE / PLANTING PLANS SHALL BE PLANTED WITH A MIXTURE OF TREES, SHRUBS, AND HERBACEOUS PLANTS AS NOTED ON SPECIES & SIZE MIX.
2. BASIN SHALL BE PLANTED WITH A MIXTURE OF DECIDUOUS AND EVERGREEN PLANT STOCK MADE UP OF TREES AND SHRUBS AS SPECIFIED ON THE BIORETENTION TREE & SHRUB PLANT LIST. PER 10' BY 10' BIORETENTION BASINS SHALL BE PLANTED WITH 1 (ONE) STEMS PER ACRE WITH APPROXIMATELY 70% SHRUBS AND 30% TREES.
3. ENTIRE WATERQUALITY AREA AS SHOWN ON THE LANDSCAPE / PLANTING PLANS BY SEVERTSON BASIN SHALL CONTAIN SPECIFIED SEED MIX INSTALLED AS NOTED/SHOWN THROUGHOUT THE ENTIRE BASIN. (SEE BIO RETENTION SEED MIX BELOW FOR MORE DETAILS)
4. COMPACTION TO INSTALLATION PROTECTION FOR ALL WATERSHEDS BIORETENTION BASINS USING HEAVY EQUIPMENT SHALL BE AVOIDED. USING HEAVY ON TURF SOFT TALL BRANCHES (24 APPROVED EQUAL).

BIORETENTION BASIN DETAIL - TYPICAL

N.T.S.

NOTES:
TREES SHALL REST SAME RELATION TO FINISHED GRADE
NEVER CUT LEADER
USE GUY TIE BACK WIRE OF SEASONS FOR TREES OVER 10' TALL
LANDSCAPE MOUND
CUT AND REMOVE BURLAP FROM TOP 1/3 OF TREE BALL
RIVER ROCK LANDSCAPE STONE 1" TO 3" SIZE PEBBLES, 3" DEEP
LANDSCAPE FABRIC
SAUCER AROUND TREE
PLANTING MIX MIX
SCARIFY SUBSOIL TO MIN. 4" DEPTH
2'x2'x1" WOOD CLEAT (MIN. 48" NELSON GRADE) W/ 3 PCS TREE FOR TREES LESS THAN 6" CAL. REMOVE STAKE AFTER 1 YEAR.

PLANTING DETAILS

NOTE: SHRUB SHALL REST SAME RELATION TO FINISHED GRADE
CUT AND REMOVE BURLAP FROM TOP 1/3 OF BARE BALL
RIVER ROCK LANDSCAPE STONE 1" TO 3" SIZE PEBBLES, 3" DEEP
LANDSCAPE FABRIC
PLANTING MIX, MIX
MULCH RING
KNUCKER PLANT BALL
SCARIFY SUBSOIL TO MINIMUM 4" DEPTH
LIMIT OF SHRUB ROOT SPREAD

PLANTING PLAN LEGEND

SHADE TREE
ORNAMENTAL TREE
EVERGREEN TREE
DECIDUOUS SHRUB
EVERGREEN SHRUB
BIORETENTION SHRUB
GROUNDCOVER / PERENNIAL
UPLAND SEED MIX

BIORETENTION/WOODED EXISTING BIORETENTION POND PLANTING SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	CALIPER / HEIGHT	NATIVE		REMARKS
DECIDUOUS TREES							
ACM	11	ACER RUBRUM 'ARMSTRONG II' ARMSTRONG II RED MAPLE	B & B	3 1/2" TO 3" CAL.	YES		SPACE AT 30' O.C. FROM SHRUBS ON SMP-D, STAGGER FROM ACM ON LANDSCAPE PLAN TO MAXIMIZE SHADE COVERAGE OF PARKING LOT
BNG	11	BETULA NIGRA RIVER BIRCH MULTI-STEM	B & B	12' TO 14' HT.	YES		PLANT IN GROUPINGS OF 3 BETWEEN MIN. 5'0 AND MAXIMUM FROM THE SHADE TRUNK, NOT MORE THAN 8' FROM CENTERLINE OF LEVEL TAU OVERFLOW PLANNED
CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	HEIGHT / WIDTH	NATIVE	SPACING	REMARKS
EVERGREEN SHRUBS							
CSE	1	CEPHALOTAXUS HARRINGTONIA 'SEIRYU' SEIRYU PLUM YEW	CONTAINER	36" TO 48"	YES	AS SHOWN	PLANT WELL BRANCHED TOP
CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	SIZE	NATIVE	SPACING	REMARKS
PERENNIALS							
PLANT MIX 1	4,112	RHUS TYPHINA STAGHORN SUMAC	POT	1 GAL	YES	18" o.c.	
	4,112	SCHIZACHYRIUM SCOPARIUM LITTLE BLUESTEM	POT	1 GAL	YES	18" o.c.	
	4,112	SORGHASTRUM NUTANS INDIAN GRASS	POT	1 GAL	YES	18" o.c.	

UPLAND SEED MIX

EASTERN ECOTYPE NATIVE GRASS MIX

BOTANICAL NAME / COMMON NAME	% OF MIX
ANDROPOGON GERARDII 'RAGGEDY' BIG BLUESTEM - RAGGEDY ECOTYPE	33.0 %
SCHIZACHYRIUM SCOPARIUM, TYPE II ECOTYPE PURPLE LOVEGRASS, TYPE II ECOTYPE	30.0 %
PANICUM VIRGATUM, 'SHAWNEE' SWITCH GRASS, 'SHAWNEE'	20.00 %
ELYMUS VIRGINICUS, MADISONVIC ECOTYPE VIRGINIA WILDRYE, MADISONVIC ECOTYPE	15.0 %

NOTE: REFER TO BIORETENTION BASIN PLANTING CALCULATION AND BIORETENTION BASIN DETAIL FOR PLANTING REQUIREMENTS FOR PROPOSED FILTRATION BIORETENTION SMPS.

Bowman Consulting E ngineering, Land Surveying & Landscape Architecture

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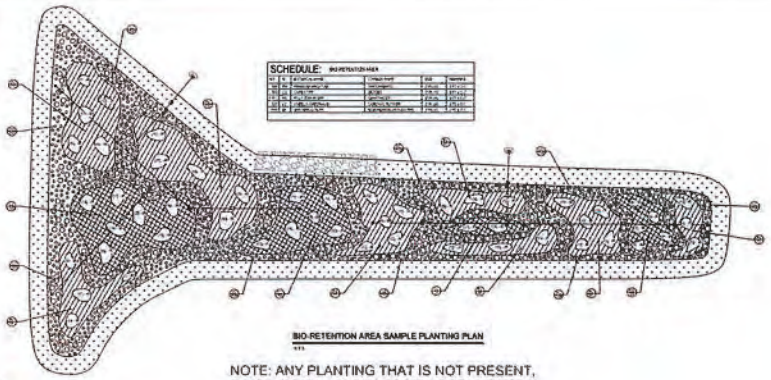
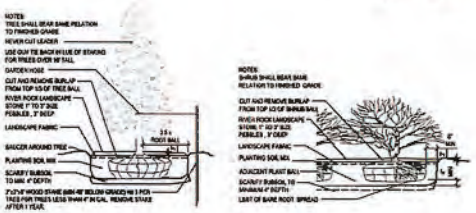
BUFA - PROJECT DOUBLE REED NORTH CAMPUS
LANDSCAPE PLAN, SCHEDULE AND DETAILS - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET NO.
C-602-N



BIO-RETENTION AREA SAMPLE PLANTING PLAN

NOTE: ANY PLANTING THAT IS NOT PRESENT, TO BE INSTALLED IN ACCORDANCE WITH THE BIO-RETENTION SAMPLE PLANTING PLAN AND SCHEDULE.



PLANTING DETAILS

PLANT SCHEDULE

IMG	QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	COMMENT
	84	WC	THUJA OCCIDENTAQLIS	WHITE CEDAR	10-12'HT	BB	
	13	UU	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT UPRIGHT JUNIPER	4' HT	CONT.	
	30	BW	BUXUS 'GREEN MOUNTAIN'	GREEN MOUTAIN GLODE BOXWOOD	3 GAL.	CONT.	
	9	GC	CHAMAECYPARIS PISIFERA 'GOLDEN MOP'	GOLD MOP CYPRESS	1 GAL.	CONT.	

BIO-RETENTION AREA

PROP. 2 STORY BUILDING
SF=664,000
FF=677.00
BUILDING HEIGHT=56'

PROP. 1 STORY GUARD HOUSE
SF=250
FF=676.00
BUILDING HEIGHT=10'-7"

CROSBY ROAD

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ERIC J. KELLER NY Professional Engineer Lic. 092204

BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
LANDSCAPE PLAN, SCHEDULE AND DETAILS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
LS-1

III-h | TRAFFIC TECHNICAL SUMMARY

The proposed data center project is expected to generate a limited amount of traffic, primarily from employee vehicle trips. The data center buildings are expected to be staffed 24/7 with three eight-hour shifts daily. Nighttime shifts typically have lower staffing levels compared to daytime shifts, which is expected to result in a proportionally lower PM Peak Hour generation. Furthermore, most of these trips will be from passenger vehicles, with heavy-duty vehicle traffic for deliveries and maintenance being infrequent. In typical operation, heavy-duty vehicle traffic is anticipated to be limited to 2-3 deliveries a day.

Typical Operations

Based on the *ITE Trip Generation Manual, 12th Edition*, the traffic impact analysis will apply **Land Use Code 160 – Data Center**, as it provides multiple recent data points for trip generation. The estimated site-generated trips during the generator peak hours are as follows:

- **North Campus:**
  - AM Peak Hour: **130 trips**
  - PM Peak Hour: **115 trips**
- **South Campus:**
  - AM Peak Hour: **65 trips**
  - PM Peak Hour: **58 trips**

Total for Entire Site:

- AM Peak Hour: **195 trips**
- PM Peak Hour: **173 trips**

Tables 1 and 2 present the detailed trip generation calculations for the North Campus and South Campus, respectively.

Table 1: North Campus Trips				
ITE Code	160 - Data Center			
Number of 1000 Sq Ft GFA	1,439			
Peak Hour	AM		PM	
Trip Generation Rate	0.09		0.08	
Total Number of Trips	130		115	
Trips	Enter	Exit	Enter	Exit
Directional Distribution	75%	25%	35%	65%
Number of Trips per Direction	97	33	40	75

Table 2: South Campus Trips				
ITE Code	160 - Data Center			
Number of 1000 Sq Ft GFA	720			
Peak Hour	AM		PM	
Trip Generation Rate	0.09		0.08	
Total Number of Trips	65		58	
Trips	Enter	Exit	Enter	Exit
Directional Distribution	75%	25%	35%	65%
Number of Trips per Direction	49	16	20	38

In conclusion, the traffic analysis indicates that Project Double Reed's contribution to overall park traffic is minor. While the STAMP 2016 EIS Update established a threshold exceeding 1,900 PM Peak Hour trips for the full, 1,262-acre STAMP park build-out, the present development is projected to generate only 173 PM Peak Hour trips. This means Project Double Reed accounts for approximately 9.0% of the cumulative traffic volume analyzed in the EIS.

Construction

During construction, temporary traffic management of Crosby Road may be required. The anticipated impact on the overall traffic network is expected to be minimal. All traffic management and temporary traffic control measures, including advance warning signage and the use of trained flaggers to control traffic during deliveries and other construction activities, will be implemented to maintain safe traffic operations for local motorists.

III-i | UTILITY POWER TECHNICAL SUMMARY

The project requires a connection to the utility power grid. GCEDC has obtained approval from the New York Independent System Operator (NYISO) for a 300MW substation with an expected expansion to 600MW. The project is projected to require approximately 500MW of utility power to adequately support critical IT and cooling capacity. The North Campus will receive power from the existing substation; transmission and distribution straight north to south into the North Campus interconnection point. The South Campus will receive power from the existing substation located directly north. The North and South Campuses are connected through an existing right-of-way owned and maintained by National Grid, looping westward away from Crosby Road then back towards the same roadway. Power draw is influenced by several factors, most notably the Critical IT capacity loads, associated losses from cooling and environmental systems, and local climatic conditions.

South Campus:

The project's development on the South Campus will be powered directly from an existing Stream-owned substation on-site. This is an existing high voltage electrical substation located near GPS 43.083791, -78.406254 in Genesee County, NY served by National Grid utility from the New York Power Authority STAMP substation. To ensure reliable power during maintenance or unforeseen events, Stream's on-site substation will receive a secondary feed from the main STAMP substation and will be modified to enable a highly reliable and resilient design as required for critical high performance computing data center operations. When complete, this station will have the ability to continue to support data center operations even after the loss of a source from the incoming utility, the loss of one or more substation transformers, or the loss of certain equipment within the substation which might otherwise result in an extended outage to the data center. The station design includes the following major equipment:

Existing:

- 1ea. 115kV point-of-interconnection (with National Grid utility)
- 1ea. 115kV HV circuit breaker
- 4ea. 115:34.5 kV main power transformers rated at 45/60/75 MVA (with on-load tap changers)
- 4ea. 115 kV HV circuit switchers
- 1ea. 115 kV HV transmission strain bus with associated engineered steel structures, insulators, switches, and appurtenances
- 1ea. complete substation package including 115kV and 34.5kV bus work, structural steel, switches, arresters, and appurtenances.
- 1ea. complete control enclosure including relay panels, SCADA and telecommunications equipment, backup batteries, and associated protection and control devices.

To be installed:

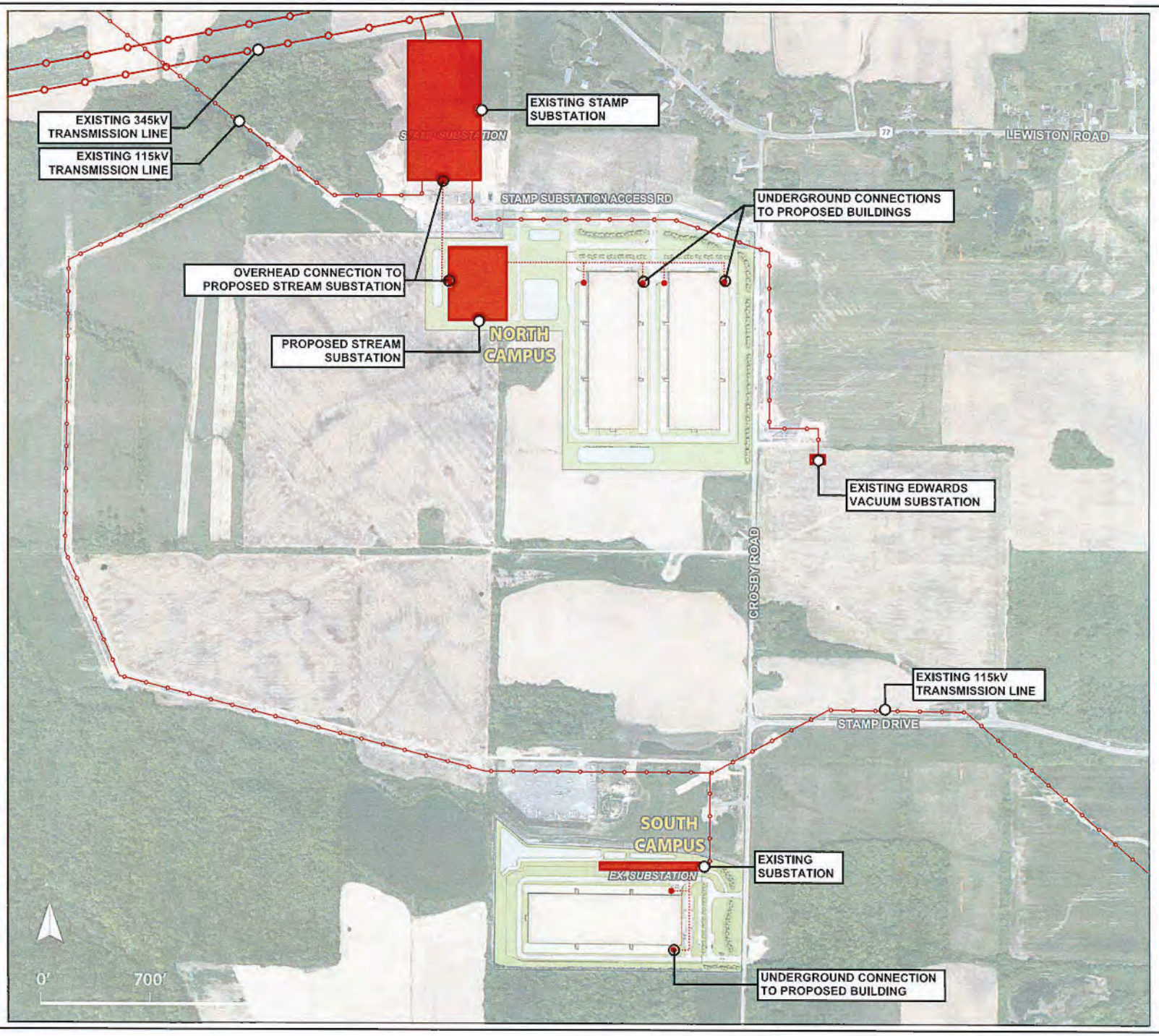
- 1ea. 115kV HV transmission point-of-interconnection (w/National Grid)
- 1ea. 115kV HV circuit breaker
- 1ea. 115 kV HV transmission strain bus with associated engineered steel structures, insulators, switches, and appurtenances
- 4ea. 34.5kV MV main distribution breakers with associated relay panels, MV bus work, and appurtenances.
- 1ea. engineered electrical grounding grid system

North Campus:
The project's development on the North Campus will be powered via a new Stream-owned Substation. This is a new high voltage electrical substation which will be located near GPS 43.094727, -78.410585 in Genesee County, NY served by National Grid utility from the New York Power Authority STAMP substation. It will be designed and constructed to be highly reliable and resilient as required for critical high performance computing data center operations. When complete, this station will have the ability to continue to support data center operations even after the loss of a source from the incoming utility, the loss of one or more substation transformers, or the loss of certain equipment within the substation which might otherwise result in an extended outage to the data center. The station design includes the following major equipment:

To be installed:

- 2ea. 115kV HV transmission points-of-interconnection (w/National Grid)
- 10ea. 115kV HV circuit breakers (2ea for POIs, and 8ea for transformer protection)
- 2ea. 115kV HV transmission strain bus with associated engineered steel structures, insulators, switches, and appurtenances.
- 8ea. 115:34.5kV main power transformers rated at 60/80/100 MVA (with on-load tap changers)
- 8ea. 34.5kV MV main distribution breakers
- 1ea complete substation package including 115kV and 34.5kV bus work, static masts, lighting, structural steel, switches, arresters, and appurtenances.
- 1ea. complete control enclosure including relay panels, SCADA and telecommunications equipment, backup batteries, and associated protection and control devices
- 1ea. engineered electrical grounding grid system

III-j | UTILITY POWER OVERALL INFRASTRUCTURE CONCEPT



Bowman

Bowman Consulting Engineering, Land Surveying

BUFA - PROJECT DOUBLE REED
OVERALL ELECTRICAL INFRASTRUCTURE EXHIBIT
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
EL 1

III-k | BACKUP POWER TECHNICAL SUMMARY

Emergency Backup Power:

The project will utilize diesel backup generation to support essential facility functions. These functions include critical IT networking, lighting, and essential health, safety, control, and security systems.

The generators will be installed in dedicated equipment yards next to the buildings. Each unit is integrated into a large, weathertight enclosure and directly mounted on a manufacturer-designed fuel storage tank. Each tank has a total volume of approximately 9,500 gallons and will be fueled independently. With only limited annual runtimes expected for testing, fueling is projected to be required no more than once per year. The fuel storage tank will meet UL142 standard aboveground steel tank for flammable and combustible liquids. The primary containment tank is contained within a steel secondary containment shell forming an interstitial (annular) space, which will be monitored for leakage from either the interior or exterior walls. The fuel storage tank will be fitted with an overfill prevention valve and fill/spill bucket. A spill prevention, control, and countermeasure (SPCC) plan will be developed for the facility in accordance with SPCC rule, 40 CFR Part 112.

The backup system is designed to prioritize life safety and critical IT and control systems. This will allow the facility to be safely managed and seamlessly restored if utility power is lost. However, due to the project's connection to the high-level utility transmission system, the probability of an outage is low.

III-I | GEOTECHNICAL TECHNICAL SUMMARY

A comprehensive geotechnical investigation was initiated by the GCEDC in December 2017 and expanded through subsequent fieldwork in 2021 focusing on the southern campus. These evaluations involved a series of 25 test borings, the installation of five groundwater observation wells, and seismic shear wave surveys. Laboratory testing was also performed on soil and bedrock samples to determine the site's mechanical properties.

Subsurface Conditions and Composition

The investigations reveal a consistent and favorable subsurface profile for large-scale development. The site is primarily underlain by medium-firm to hard, low-plasticity clay. This layer eventually transitions into weathered dolomite bedrock, typically encountered at depths below 30 feet. Groundwater levels are generally expected to be found between 10 and 15 feet below grade.

Engineering and Seismic Specifications

The subsurface data supports the following design parameters:

- Foundation Support: Preliminary allowable bearing capacities range from 3 ksf to 5.5 ksf, making the site suitable for conventional spread foundations and slab-on-grade construction.
- Settlement: Soils are expected to behave in an elastic manner, with settlement typically concluding within 1 to 3 months following the placement of new fills.
- Seismic Classification: The site is classified as Seismic Class "C" based on measured shear wave profiles, indicating moderate seismic ground motion.
- Hazard Mitigation: Analysis indicates a low potential for liquefaction and negligible risk regarding soil corrosion or sulfate attack on buried concrete and metal components.

Ongoing and Future Evaluations

While the 2017 and 2021 studies confirm that the underlying geotechnical makeup supports the project's foundational requirements, further work is ongoing. Additional geotechnical investigations for both the northern and southern campuses are currently underway. These localized studies will refine the final structural engineering and allow for the development of tailored construction methodologies specific to individual buildings and infrastructure.

Localized Dewatering for Construction

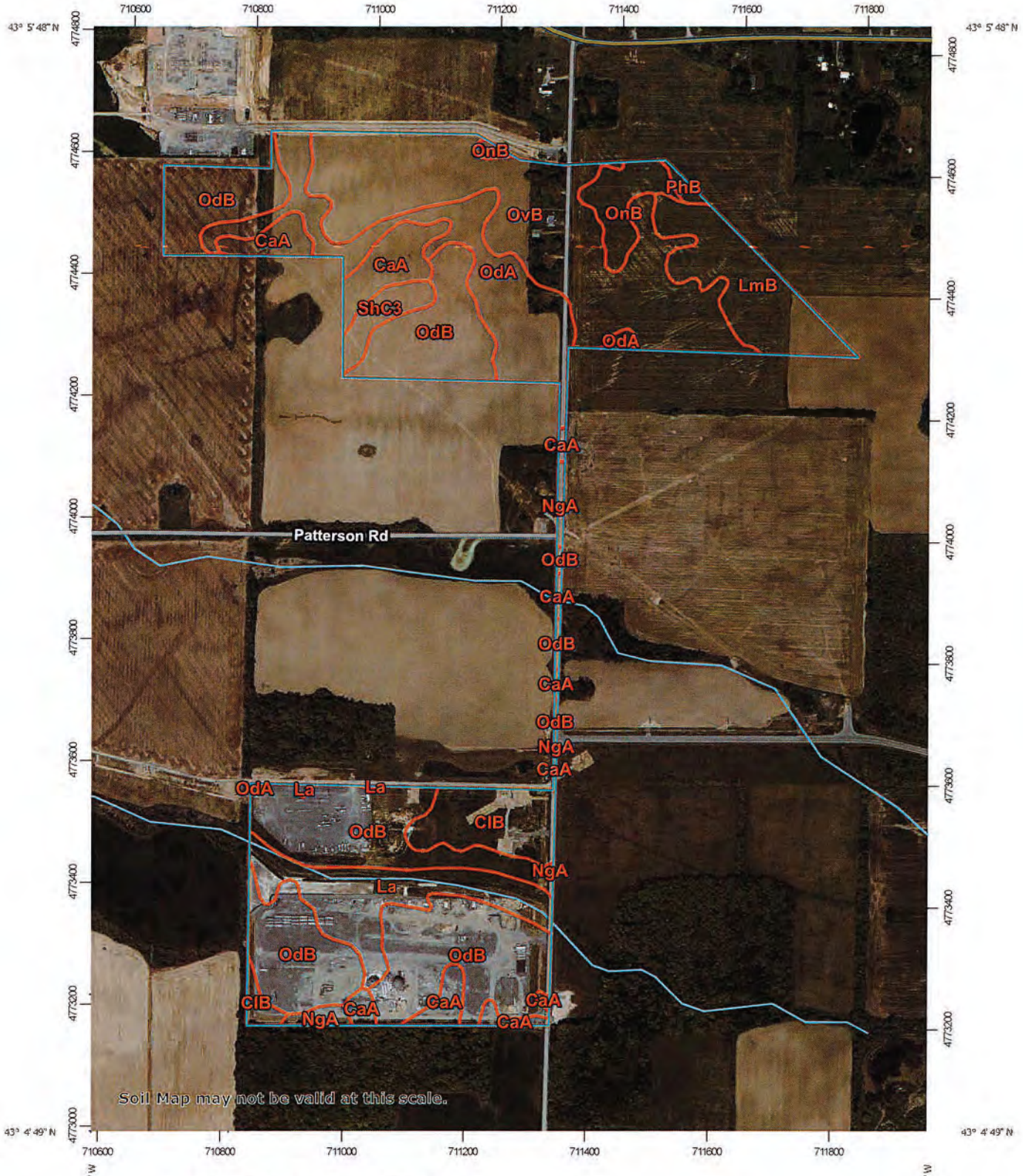
Construction-related dewatering is not anticipated to have a significant adverse impact on the groundwater table, private water wells, or the downstream ecosystems of the Tonawanda Seneca Nation.

The documented subsurface profile consisting of low-plasticity clay and dolomite bedrock typically encountered below 30 feet establishes a favorable environment for hydraulic containment. The site's geological makeup provides high confidence that the "cone of depression" from localized pumping will remain well within the project boundaries and will not affect distant residential water supplies.

Furthermore, while the site naturally drains into streams and wetlands on the Nation's territory, the low-permeability clay prevents the sub-surface "draining" of these features. To ensure the continued protection of downstream resources, the project will utilize Best Management Practices (BMPs), including sedimentation basins and monitored filtration. These measures are designed to ensure that the volume and quality of water discharged from the site remain consistent with natural, pre-construction conditions.

III-m | USDA NRCS WEB SOIL SURVEYS

Soil Map—Genesee County, New York
(WSS Overview)



Map Scale: 1:8,830 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Genesee County, New York
Survey Area Data: Version 26, Sep 2, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 13, 2023—May 27, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol		Map Unit Name	Acres in AOI	Percent of AOI
CaA		Canandaigua silt loam, 0 to 2 percent slopes	7.9	6.4%
CIB	Moderate	Collamer silt loam, 2 to 6 percent slopes	6.6	5.4%
La		Lakemont silty clay loam, 0 to 3 percent slopes	9.6	7.8%
LmB	Moderate	Lima silt loam, 3 to 8 percent slopes	8.8	7.1%
NgA		Niagara silt loam, 0 to 2 percent slopes	1.1	0.9%
OdA		Odessa silt loam, 0 to 3 percent slopes	13.4	11.0%
OdB		Odessa silt loam, 3 to 8 percent slopes	42.3	34.5%
OnB	Well	Ontario loam, 3 to 8 percent slopes	3.5	2.9%
OvB		Ovid silt loam, 3 to 8 percent slopes	26.9	21.9%
PhB	Well	Palmyra gravelly loam, 3 to 8 percent slopes	0.5	0.4%
ShC3	Moderate	Schoharie silty clay loam, 6 to 12 percent slopes	2.1	1.8%
Totals for Area of Interest			**122.6**	**100.0%**

Well Drained - 3.3%
Moderately Well Drained - 14.3%
Poorly Drained - 82.4%

0-10% - 98.2%
10-15% - 1.8%

III-n | AIR EMISSIONS TECHNICAL SUMMARY

The project's primary source of air emissions will be stationary diesel backup generators. The facility will install up to **twelve (12) Tier 2 certified diesel backup generators rated at 2.7 megawatts (MW) each**. Air emission estimates were conducted to ensure compliance with Federal, State, and Local air quality regulations, specifically targeting the National Ambient Air Quality Standards (NAAQS).

Regulatory Compliance and Permitting

Conservatively estimating the project's size and operational characteristics, it will not require permitting under Title IV (Acid Rain Program) or Title V (Operating Permits) of the Federal Clean Air Act. Because the project is located within the Ozone Transport Region, the facility will qualify for a Minor Facility Registration (AFR) in New York State by restricting emissions to less than 50% of the major source threshold. Specifically, the facility will "cap by rule" in accordance with 6 NYCRR 201-4.5, limiting Oxides of Nitrogen (NOx) to 49.9 tons per year.

Operational Maintenance and Limits

Generators require regular maintenance to ensure emergency readiness. While Federal regulations (40 CFR 60 Subpart IIII) allow up to 100 hours per year for maintenance and testing, the facility is requesting an enforceable limitation of 500 hours per year per unit for all operating categories (emergency, maintenance, and commissioning) to ensure total site emissions remain under the 49.9 tpy (NOx) cap.

Generator operating time will be tracked through the use of a non-resettable hour meter installed on each engine, as required by federal air regulations applicable to internal combustion engines. Readings will be recorded from the non-resettable hour meters at the beginning and end of each engine run to determine the total length of each run.

Estimated Annual Emissions (Total Campus)

Pollutant	Project Estimated Emissions (Actual)	STAMP DGEIS / Major Source Threshold
Oxides of Nitrogen (NOx)	**< 49.9 tpy**	100 tpy (DGEIS Impact Threshold) / 50 tpy (AFR Cap)
Carbon Monoxide (CO)	**~10.5 tpy***	100 tpy
Particulate Matter ($PM_{10}/PM_{2.5}$)	**~0.85 tpy***	100 tpy
Volatile Organic Compounds (VOC)	**~1.2 tpy***	50 tpy
Sulfur Dioxide (SO_2)	**< 0.1 tpy**	100 tpy
Hazardous Air Pollutants (HAPs)	**0.048 tpy**	25 tpy (Aggregate) / 10 tpy (Individual)
Greenhouse Gases (CO_2)	**5,333 tons**	25,000 metric tons (Reporting Threshold)

*Projected based on 500-hour enforceable run-time limit and Tier 2 emission factors.

Additional Note: Diesel generators do not emit perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), or sulfur hexafluoride (SF_6). Detailed analysis confirms that NOx emissions—the primary pollutant of concern—will be limited to a level that equates to approximately 134 hours of full-load operation per generator annually, providing a significant safety buffer relative to GEIS air quality thresholds.

Table C-1 - Summary of Actual and Potential Emissions for Generators
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, New York

Number of Emergency Back-up Generator Engines (Site-Wide)

Kohler 2.7MW Emergency Back-up Generators	12
Total	**12**

Power Output by Load

	Power Output									
	(bhp/gen)[1]					(MMBtu/hr/gen)[2]				
Engines Group	**10% Load**	**25% Load**	**50% Load**	**75% Load**	**Full Standby**	**10% Load**	**25% Load**	**50% Load**	**75% Load**	**Full Standby**
Kohler 2.7MW	362	905	1,810	2,716	3,621	2.5	6.3	12.7	19.0	25.3

Notes:
[1] Per the manufacturer specification sheets and performance data for the engine model.
[2] Engine horsepower was converted to heat input based on the Brake-Specific Fuel Consumption (BSFC) from the USEPA's AP-42, Section 3.4, Large Stationary Diesel and All Stationary Dual-fuel Engines, Table 3.4-1, footnote e (October 1996):

BSFC = 7,000 Btu/hp-hr

	Uncontrolled Emission Factors for Kohler 2.7 MW Engines[1] (g/bhp-hr)				
Pollutant	**10% Load**	**25% Load**	**50% Load**	**75% Load**	**Full Standby**
NO_x	6.3	4.8	4.3	4.3	7.8
CO	3.1	1.3	0.45	0.60	0.22
VOC[2]	2.1	0.81	0.45	0.24	0.20
Filterable PM[3]	0.35	0.30	0.13	0.19	0.037

Notes:
[1] Refer to enclosed manufacturer performance data for the engine model. Emission factors are conservatively based on the manufacturer's not-to-exceed emissions data.
[2] Assumes that all hydrocarbons (HC) are VOC.
[3] Assumes that all filterable PM is less than 2.5 microns in diameter (i.e., PM = PM_{10} = $PM_{2.5}$).

Conversions:
1.34102 hp/kW

Table C-1 - Summary of Actual and Potential Emissions for Generators
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, New York

AP-42 Emission Factors

Pollutant	Emission Factor[1] (lb/MMBtu)
SO_2[2]	1.52E-03
Condensable PM	7.70E-03
Benzene	7.76E-04
Toluene	2.81E-04
Xylenes	1.93E-04
Naphthalene	1.30E-04
Formaldehyde	7.89E-05
Acetaldehyde	2.52E-05
Acrolein	7.88E-06
Total PAH[3]	2.12E-04
Benzo(a)pyrene	*2.57E-07*
Dibenz(a,h)anthracene	*3.46E-07*
Benz(a)anthracene	*6.22E-07*
Acenaphthene	*4.68E-06*
Phenanthrene	*4.08E-05*
Fluorene	*1.28E-05*
Anthracene	*1.23E-06*
Pyrene	*3.71E-06*
Benzo(g,h,i)perylene	*5.56E-07*
Indeno(1,2,3-cd)pyrene	*4.14E-07*
Benzo(b)fluoranthene	*1.11E-06*
Fluoranthene	*4.03E-06*
Benzo(k)fluoranthene	*2.18E-07*
Acenaphthylene	*9.23E-06*
Chrysene	*1.53E-06*

Notes:
[1] AP-42 emission factors are from the U.S. EPA's AP-42, Section 3.4, Large Stationary Diesel And All Stationary Dual-fuel Engines, Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.
[2] SO_2 emission factor assumes that all sulfur in the fuel is converted to SO_2 and is calculated based on the maximum allowable diesel fuel sulfur content under NSPS Subpart IIII:
Diesel Sulfur Content = 0.0015 wt.% Sulfur
[3] PAH = Polycyclic Aromatic Hydrocarbons

Table C-1 - Summary of Actual and Potential Emissions for Generators
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, New York

GHG Emission Factors

Pollutant	Emission Factor - Heat Input-Based (lb/MMBtu)[1]
CO_2	163
CH_4	0.0066
N_2O	0.0013
CO_2e[2]	164

Notes:
[1] Per 40 CFR 98, Subpart C, Tables C-1 and C-2 for No. 2 distillate fuel oil combustion. The emission factors were converted from kg/MMBtu to lb/MMBtu.
[2] CO_2e emission factor is calculated as the sum of each GHG pollutant multiplied by its global warming potential, per 40 CFR 98, Subpart A, Table A-1:

CO_2: 1
CH_4: 28
N_2O: 265

Table C-1 - Summary of Actual and Potential Emissions for Generators
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, New York

Hourly Emission Rates

Pollutant	Kohler 2.7 MW Engines - Hourly Emission Factors (lb/hr/gen) [1],[2]					
	10% Load	25% Load	50% Load	75% Load	Full Standby	Maximum
Criteria Pollutants						
NO_x	5.0	10	17	25	62	**62**
CO	2.4	2.5	1.8	3.6	1.8	**3.6**
VOC	1.7	1.6	1.8	1.4	1.6	**1.8**
Filt. PM[3]	0.28	0.60	0.51	1.1	0.30	**1.1**
$PM/PM_{10}/PM_{2.5}$[3]	0.30	0.64	0.60	1.3	0.49	**1.3**
SO_2	0.0038	0.010	0.019	0.029	0.038	**0.038**
Hazardous Air Pollutants						
Benzene	1.97E-03	4.92E-03	9.83E-03	1.48E-02	1.97E-02	**1.97E-02**
Toluene	7.12E-04	1.78E-03	3.56E-03	5.34E-03	7.12E-03	**7.12E-03**
Xylenes	4.89E-04	1.22E-03	2.45E-03	3.67E-03	4.89E-03	**4.89E-03**
Naphthalene	3.29E-04	8.24E-04	1.65E-03	2.47E-03	3.29E-03	**3.29E-03**
Formaldehyde	2.00E-04	5.00E-04	1.00E-03	1.50E-03	2.00E-03	**2.00E-03**
Acetaldehyde	6.39E-05	1.60E-04	3.19E-04	4.79E-04	6.39E-04	**6.39E-04**
Acrolein	2.00E-05	4.99E-05	9.99E-05	1.50E-04	2.00E-04	**2.00E-04**
Total PAH	5.37E-04	1.34E-03	2.69E-03	4.03E-03	5.37E-03	**5.37E-03**
Benzo(a)pyrene	*6.51E-07*	*1.63E-06*	*3.26E-06*	*4.89E-06*	*6.51E-06*	*6.51E-06*
Dibenz(a,h)anthracene	*8.77E-07*	*2.19E-06*	*4.38E-06*	*6.58E-06*	*8.77E-06*	*8.77E-06*
Benz(a)anthracene	*1.58E-06*	*3.94E-06*	*7.88E-06*	*1.18E-05*	*1.58E-05*	*1.58E-05*
Acenaphthene	*1.19E-05*	*2.97E-05*	*5.93E-05*	*8.90E-05*	*1.19E-04*	*1.19E-04*
Phenanthrene	*1.03E-04*	*2.59E-04*	*5.17E-04*	*7.76E-04*	*1.03E-03*	*1.03E-03*
Fluorene	*3.24E-05*	*8.11E-05*	*1.62E-04*	*2.43E-04*	*3.24E-04*	*3.24E-04*
Anthracene	*3.12E-06*	*7.79E-06*	*1.56E-05*	*2.34E-05*	*3.12E-05*	*3.12E-05*
Pyrene	*9.40E-06*	*2.35E-05*	*4.70E-05*	*7.05E-05*	*9.40E-05*	*9.40E-05*
Benzo(g,h,i)perylene	*1.41E-06*	*3.52E-06*	*7.05E-06*	*1.06E-05*	*1.41E-05*	*1.41E-05*
Indeno(1,2,3-cd)pyrene	*1.05E-06*	*2.62E-06*	*5.25E-06*	*7.87E-06*	*1.05E-05*	*1.05E-05*
Benzo(b)fluoranthene	*2.81E-06*	*7.03E-06*	*1.41E-05*	*2.11E-05*	*2.81E-05*	*2.81E-05*
Fluoranthene	*1.02E-05*	*2.55E-05*	*5.11E-05*	*7.66E-05*	*1.02E-04*	*1.02E-04*
Benzo(k)fluoranthene	*5.53E-07*	*1.38E-06*	*2.76E-06*	*4.14E-06*	*5.53E-06*	*5.53E-06*
Acenaphthylene	*2.34E-05*	*5.85E-05*	*1.17E-04*	*1.75E-04*	*2.34E-04*	*2.34E-04*
Chrysene	*3.88E-06*	*9.69E-06*	*1.94E-05*	*2.91E-05*	*3.88E-05*	*3.88E-05*
Total HAP	4.32E-03	1.08E-02	2.16E-02	3.24E-02	4.32E-02	**4.32E-02**

Table C-1 - Summary of Actual and Potential Emissions for Generators
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, New York

Hourly Emission Rates *(Continued)*

Pollutant	Kohler 2.7 MW Engines - Hourly Emission Factors (lb/hr/gen) [1],[2]					
	10% Load	25% Load	50% Load	75% Load	Full Standby	Maximum
Greenhouse Gases						
CO_2	413	1,033	2,066	3,099	4,133	**4,133**
CH_4	0.017	0.042	0.084	0.13	0.17	**0.17**
N_2O	0.0034	0.0084	0.017	0.025	0.034	**0.034**
CO_2e	415	1,037	2,073	3,110	4,146	**4,146**

Notes:

[1] For engine-specific emission factors:
Hourly Emissions at Load *X* (lb/hr/gen) = Emission Factor at Load *X* (g/hp-hr) x Engine Power at Load *X* (bhp/gen) / (453.6 g/lb)

[2] For AP-42 & GHG emission factors:
Hourly Emissions at Load *X* (lb/hr/gen) = Emission Factor (lb/MMBtu) x Heat Input at Load *X* (MMBtu/hr/gen)

[3] Total $PM/PM_{10}/PM_{2.5}$ is the sum of filterable $PM/PM_{10}/PM_{2.5}$ and condensable PM.

Hours of Operation per Generator

Engine Group	Actual Operating Hours per Generator[1] (hr/yr/gen)	Potential Operating Hours per Generator[2] (hr/yr/gen)
12 Kohler 2.7 MW Engines	134	500

Notes:

[1] Actual Operating Hours are based on the facility-wide requested emissions cap on NO_x and are presented here for illustrative purposes. Stream Data Centers requests that this not be enforced as a limit on a per engine basis. All other pollutants will be inherently limited below applicable thresholds.

[2] Potential Operating Hours for the emergency generators are assumed to be 500 hr/yr/gen consistent with 6 NYCRR 200.1(cq).

Table C-1 - Summary of Actual and Potential Emissions for Generators
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, New York

Actual and Potential Emissions - Diesel Generators

Pollutant	Maximum Hourly Emission Rate (lb/hr/gen)	Actual Emissions from All Generators[1] (lb/yr)	Actual Emissions from All Generators[1] (tons/yr)	Potential Emissions from All Generators[2] (lb/yr)	Potential Emissions from All Generators[2] (tons/yr)
Criteria Pollutants					
NO_x	62	99,800	49.9	371,435	185.7
CO	3.6	5,758	2.9	21,429	10.7
VOC	1.8	2,879	1.4	10,714	5.4
Filt. PM	1.1	1,799	0.9	6,697	3.3
$PM_{10}/PM_{2.5}$	1.3	2,035	1.0	7,575	3.8
SO_2	0.038	62	0.03	230	0.1
Hazardous Air Pollutants					
Benzene	1.97E-02	31.7	1.59E-02	118.0	5.90E-02
Toluene	7.12E-03	11.5	5.74E-03	42.7	2.14E-02
Xylenes	4.89E-03	7.9	3.94E-03	29.3	1.47E-02
Naphthalene	3.29E-03	5.3	2.66E-03	19.8	9.88E-03
Formaldehyde	2.00E-03	3.2	1.61E-03	12.0	6.00E-03
Acetaldehyde	6.39E-04	1.0	5.15E-04	3.8	1.92E-03
Acrolein	2.00E-04	0.3	1.61E-04	1.2	5.99E-04
Total PAH	5.37E-03	8.7	4.33E-03	32.2	1.61E-02
Benzo(a)pyrene	*6.51E-06*	*0.01*	*5.25E-06*	*0.04*	*1.95E-05*
Dibenz(a,h)anthracene	*8.77E-06*	*0.01*	*7.07E-06*	*0.05*	*2.63E-05*
Benz(a)anthracene	*1.58E-05*	*0.03*	*1.27E-05*	*0.09*	*4.73E-05*
Acenaphthene	*1.19E-04*	*0.19*	*9.56E-05*	*0.71*	*3.56E-04*
Phenanthrene	*1.03E-03*	*1.67*	*8.34E-04*	*6.20*	*3.10E-03*
Fluorene	*3.24E-04*	*0.52*	*2.62E-04*	*1.95*	*9.73E-04*
Anthracene	*3.12E-05*	*0.05*	*2.51E-05*	*0.19*	*9.35E-05*
Pyrene	*9.40E-05*	*0.15*	*7.58E-05*	*0.56*	*2.82E-04*
Benzo(g,h,i)perylene	*1.41E-05*	*0.02*	*1.14E-05*	*0.08*	*4.23E-05*
Indeno(1,2,3-cd)pyrene	*1.05E-05*	*0.02*	*8.46E-06*	*0.06*	*3.15E-05*
Benzo(b)fluoranthene	*2.81E-05*	*0.05*	*2.27E-05*	*0.17*	*8.44E-05*
Fluoranthene	*1.02E-04*	*0.16*	*8.23E-05*	*0.61*	*3.06E-04*
Benzo(k)fluoranthene	*5.53E-06*	*0.01*	*4.45E-06*	*0.03*	*1.66E-05*
Acenaphthylene	*2.34E-04*	*0.38*	*1.89E-04*	*1.40*	*7.02E-04*
Chrysene	*3.88E-05*	*0.06*	*3.13E-05*	*0.23*	*1.16E-04*
Total HAP	4.32E-02	69.6	3.48E-02	259.1	1.30E-01

Table C-1 - Summary of Actual and Potential Emissions for Generators
Stream U.S. Data Centers, LLC - BUFA Site
Alabama, New York

Actual and Potential Emissions - Diesel Generators *(Continued)*

Pollutant	Maximum Hourly Emission Rate	Actual Emissions from All Generators[1]		Potential Emissions from All Generators[2]	
	(lb/hr/gen)	(lb/yr)	(tons/yr)	(lb/yr)	(tons/yr)
Greenhouse Gases					
CO_2	4,133	6,662,349	3,331	24,795,877	12,398
CH_4	0.17	270	0.14	1,006	0.50
N_2O	0.034	54	0.03	201	0.10
CO_2e	4,146	6,684,239	3,342	24,877,345	12,439

Notes:
[1] Actual Emissions (lb/yr) = Number of Generators (Number) x Maximum Hourly Emission Rate (lb/hr/gen) x Actual Operating Hours (hr/yr/gen)
Actual Emissions (ton/yr) = Actual Emissions (lb/yr) ÷ 2,000 (lb/ton)
[2] Potential Emissions (lb/yr) = Number of Generators (Number) x Maximum Hourly Emission Rate (lb/hr/gen) x Potential Operating Hours (hr/yr/gen)
Potential Emissions (ton/yr) = Potential Emissions (lb/yr) ÷ 2,000 (lb/ton)

III-o | ACOUSTICS TECHNICAL SUMMARY

Project Double Reed's North and South Campuses are committed to minimizing sound levels at surrounding areas and aligning our development with STAMP's intended uses.

Acoustic Modeling and Compliance

Modeling was performed using Cadna/A software implementing ISO 9613-2 environmental sound propagation algorithms. The assessment accounts for distance attenuation, barrier effects from buildings/topography, and atmospheric absorption.

The project achieves full compliance with the New York State Department of Environmental Conservation (NYSDEC) guidelines, which are the most stringent criteria applicable to the site:

- Daytime Limit: 65 dBA at the property boundary.
- Nighttime Limit: 45 dBA at the property boundary.

Modeling confirmed that sound levels at proximate noise-sensitive areas—including residential receptors to the north and south and the Tonawanda Reservation boundary—remain well within these limits across all standard operating profiles.

Operational Acoustic Scenarios

For facilities of this type, the typical operational acoustic profile is covered by three main scenarios:

- **Peak Operations** This represents the facility's typical 24/7 operational profile.
- **Generator Maintenance:** A periodic scenario involving the testing of a limited number of generators during daytime hours for short durations, in conjunction with the equipment operating under the Constant Mechanical profile.
- **Emergency Backup:** An emergency scenario where all generators are operational, this is anticipated to be extremely infrequent, maybe once or twice every 3 to 5 years for short durations based on the reliability of the supporting grid infrastructure. As such, this impact is typically not considered when completing detailed noise models as the events are extremely infrequent and typically of a short duration when they do occur.

Integrated Design Measures

Compliance is achieved through primary architectural and engineering controls integrated into the site plan:

- **Rooftop Screening:** Each of the three data centers (housing 66 chillers each) includes full-perimeter solid rooftop screens extending 18 feet above the roofline (64 feet total height) to mitigate chiller noise.
- **Generator Barriers:** Ground-level generator yards include solid noise barriers—30 feet high for the South Campus and 20 feet high for the North Campus.
- **Operational Tuning:** Chillers are programmed to operate at reduced fan speeds (55%) during nighttime hours to further minimize the acoustic footprint.

Sound Measurement Methodology

The most common metric is the overall A-weighted sound level measurement adopted by Regulatory Agencies worldwide. Analysis of the project will focus on the A-weighted level consistent with the requirements established for STAMP. The A-weighting network mimics the human ears response to typical environmental sounds. There is consensus that A-weighting is appropriate for estimating the hazard of noise-induced hearing loss. With respect to other effects, such as annoyance, A-weighting is acceptable for typical sounds which are dominated by middle- and high-frequencies. However, if the noise is unusually high at low frequencies or contains prominent low-frequency tones, the A-weighting may not give a valid measure. The equipment associated with this project does not typically exhibit unusually high frequencies or contain low-frequency tones. Temporary point sources such as generators will be housed in acoustical enclosures, include mitigation measures such as silencers or mufflers, and located in dedicated equipment yards with screening where required.

Further, the project utilizes solid screening with a minimum surface mass of 4 lbs./sq. ft. to ensure effective transmission loss across the audible spectrum. This surface mass provides the physical density necessary to attenuate noise based on frequency-dependent propagation characteristics. For high-frequency sound, the dense material serves as a rigid barrier to block the transmission of shorter wavelengths. For low-frequency sound, the mass of the screening provides the requisite inertia to resist the passage of longer wavelengths, which typically require greater material density for effective mitigation.

By implementing screening with this specific surface mass in conjunction with the modeled barrier heights, the project achieves a comprehensive acoustic shadow. This design ensures that sound energy is attenuated both through the material itself and by the increased diffraction path over the top of the structures, resulting in a controlled acoustic footprint at the property boundary.

Intended for
Stream Data Centers

Date
February 12, 2026

PROJECT DOUBLE REED STAMP SITE GENESEE COUNTY, NY

NOISE MODELING RESULTS

RAMBOLL Bright ideas. Sustainable change.

Project Double Reed
STAMP Site
Genesee County, NY
Noise Modeling Results

Project name	**Project Double Reed – STAMP Site - Noise Modeling Results**
Recipient	**Bradley Wells – Stream Data Centers**
Date	**2026-02-12**
Description	**Noise Modeling Results**

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Confidential

1. Introduction

Ramboll has completed an environmental noise assessment for the proposed Project Double Reed within the Science Technology and Advanced Manufacturing Park (STAMP) site located in the Town of Alabama, Genesee County, New York. The assessment includes a summary of the proposed data center, site configuration, relevant acoustic criteria, noise sensitive receptors and noise model results and presents the conservative, worst-case evaluation. The following documents presents our key findings and comments.

2. Subject Site and Data Center Description

2.1 Site Description and Surrounding Area

The site is located in the Town of Alabama, Genesee County, New York. The site is divided into two campuses, with both campuses located directly west of Crosby Road, and approximately 600 feet south of Highway 77 and 2600 feet north of Judge Road, respectively.

The site and surrounding parcels are zoned as Technology District 1 by the town. Other nearby land uses include Agricultural Residential to the north and south, Technology District 2 and Technology District 3 to the east. The Tonawanda Reservation is located to the south-west of the site. However, no zoning determination is applicable for the Reservation.

Nearby noise sensitive receivers include various scattered residences to north and south of the site. The nearest of which is approximately 450 feet from the northern property boundary to the residential dwelling.

Figure 1 below presents the approximate site location and county land zoning classifications.

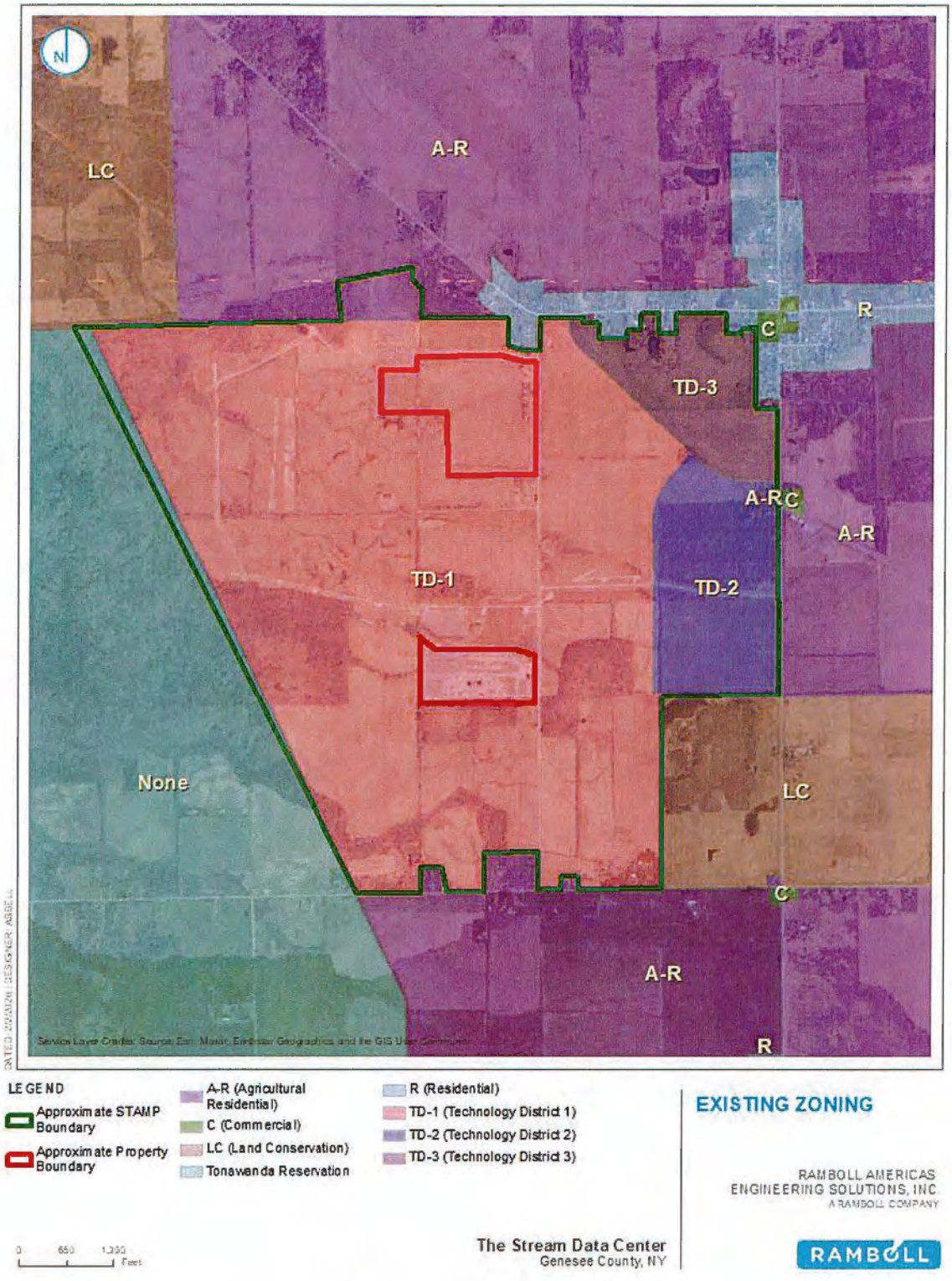

Figure 1: Site Location and County Zoning

2.2 Data Center Description

The site is proposed to include 2 data center buildings in the northern campus and 1 data center building in the southern campus. Each building will include 66 chillers per building. 5 generators are included for the northern campus and 7 generators for the southern campus.

The data center will operate 24 hours a day, 7 days a week. It is likely all chillers will operate simultaneously, and each building will require periodic generator maintenance testing. Specific operating details on quantity and testing configurations have been provided and are discussed below. Additionally, emergency power generators are likely to be used during emergency power outages only, which is expected to be infrequent given the projects connection to transmission level power infrastructure.

The proposed site plan is presented below in Figure 2.



Figure 2: Proposed Site Plan

3. Acoustical Criteria

3.1 State of New York

No state-specific mandatory noise requirements applicable to the Site were identified. However, compliance with the State Environmental Quality Review Act will be required for any discretionary state or local approvals, which is anticipated to include an assessment of potential noise impact.

The GEIS/Findings for (STAMP) Project evaluated noise limits at the STAMP boundary to an Leq of 65 dBA during the day and 45 dBA at night. As noted there, these property line requirements of 65 dBA during the day and 45 dBA at night will ensure that the 65 NYSDEC guidelines for non-industrial areas are not exceeded. According to the GEIS/Findings, these levels are also "consistent with other technology manufacturing sites, including the Luther Forest Technology Campus in Malta, NY. It should also be noted that given the 65 dBA / 45 dBA (day/nighttime) limit proposed at the property line, lower levels would be realized at receptors which are not located immediately adjacent to the property boundary."

3.2 Genesee County

No county-specific noise requirements applicable to the Site were identified.

3.3 Town of Alabama

No quantifiable noise requirements applicable to the Site were identified within the Town of Alabama. However, the Town of Alabama Zoning law provides non-quantifiable noise requirements and are presented below.

> *'Section 104 Application of Regulations*
>
> *No building shall be erected, constructed, moved, altered, rebuilt or enlarged, nor shall any land, water or building be used, designed or arranged to be used for any purpose except in conformity with this Local Law. No buildings, structure, or premises shall be used, and no building or other structure shall be erected which is intended, arranged or designed to be used for any trade, industry, business or purpose of any kind, that is noxious by reason of the emission of odor, dust refuse matter, garbage, smoke, fumes, gas, noise or vibration, or that is dangerous to the health or safety of the community.'*
>
> Town of Alabama Zoning Law

The modeled noise levels described below demonstrate that the Project is not anticipated to emit noise of a character or magnitude that would be considered 'noxious' within the meaning of the Town's Zoning Law.

4. Noise Modeling

The following subsections present a summary of the noise model methodology, operating scenarios and equipment sound levels, assessment locations, and a modeling results summary.

4.1 Methodology

The noise emissions assessment for the STAMP site has been completed using a sound prediction software package, Cadna/A, published by Datakustik GmbH, which is configured to implement the ISO 9613-2 environmental sound propagation algorithms and has an accuracy of + / - 1 dB. It allows for the creation of complex acoustical models and predicts sound pressure levels due to sound emissions from a specific source(s). The modelling considers the following factors:

- Source sound level and directivity,
- Distance attenuation,
- Source-receptor geometry, including heights and elevations,
- Barrier effects of buildings and topography, and
- Ground and atmospheric attenuation.

4.2 Assessment of Regulatory Compliance

Regulatory compliance is based solely on dBA noise levels, which are designed to reflect how the human ear perceives sound across different frequencies. As the existing framework does not incorporate dBC or C-weighted metrics for this specific evaluation, our compliance process remains focused on the A-weighted criteria defined by the governing body.

4.3 Operating Scenarios and Equipment Sound Levels[1]

As discussed in Section 2.2, the site is proposed to include 2 data center buildings in the northern campus, and 1 data center building in the southern campus. Each building will include 66 chillers per building, positioned on platforms 12 feet above roof level. 5 generators are included for the northern campus and 7 generators for the southern campus and are located at ground level.

The data center buildings are understood to be 46 feet high and include a full perimeter rooftop screen. Extending 18 feet above roof level (top of screen 64 feet). For the purposes of the assessment, the rooftop screens have been assumed to be solid (minimum 4 lbs. per square foot) and containing sufficient enough density to prevent noise transmission through the barrier. We note that the specific details of the rooftop screen may change as the design progresses.

Additionally, generator yards are to include full perimeter solid noise barriers (minimum 4 lbs. per square foot). The barriers are to be 30 feet high for the southern campus and 20 feet high for the northern campus.

[1] To assess potential noise impacts at sensitive receptors, the modeling performed for this report has been compared to existing ambient noise level measurements of some of the areas surrounding the site, which were previously undertaken for the Town of Alabama on November 15th, 2023. Ramboll has been provided with a summary of results in the document entitled "STAMP Sound Study 12 23 for TB Review" for review. We note that Ramboll cannot independently verify the validity or the accuracy of these measurement results.

A schematic markup of the rooftop screen (yellow) and generator yard barrier (blue) locations are presented below in Figure 3.

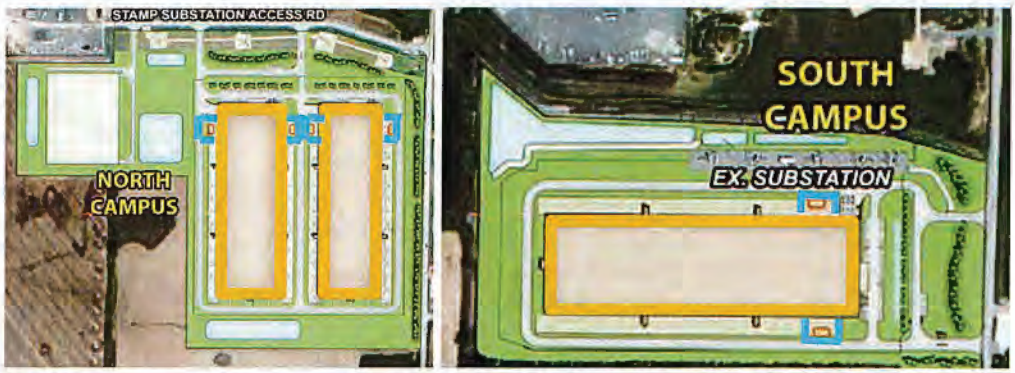

Figure 3: Barrier Details

Based on discussions with the client and design team, the data center will operate under 3 typical scenarios. The 3 operating scenarios are summarized below:

Constant Mechanical

Under the Constant Mechanical operating scenario, all chillers will operate simultaneously. This is considered the typical operating scenario, 24 hours per day, 7 days per week.

Chiller equipment specifications use two distinct atmospheric data scenarios representing the highest thermal stress the equipment will face during its respective time periods:

- Daytime 100% Load / 97.2 °F Ambient / 70% Fan Speed, and
- Nighttime 100% Load / 85.5 °F Ambient / 55% Fan Speed.

Both daytime and nighttime conditions have been assessed. Additionally, we note that at no time during nighttime hours will chillers operate at full speed.

Generator Maintenance

Under the periodic Generator Maintenance operating scenario, 1 generator per building will operate in conjunction with the equipment associated with a Constant Mechanical operating scenario. We note that generator maintenance is to be limited to daytime hours only.

Emergency Generator

Emergency power generators are likely to be used during emergency power outages. It is assumed all generators operating in conjunction with the equipment associated with a Constant Mechanical operating scenario.

A summary of the operating scenarios and associated equipment for each scenario is presented below. The summary includes source sound level data provided by the client. Full details are included in the Appendix.

Table 1: Operating Scenarios and Equipment Source Sound Levels

Operating Scenario	Noise Source	Sound Level, dBA	Quantity and Location
Constant Mechanical	Chillers[1]	Day - 95 L_W[1] Night - 92 L_W[1]	66 Rooftop chillers per building (198 total)
Generator Maintenance (Includes Constant Mechanical)	Generator	75 dBA @ 7m L_P[2]	1 Generator per building (3 total)
Emergency (Includes Constant Mechanical)	Generators	75 dBA @ 7m L_P[2]	5 Generators north campus 7 Generators south campus (12 total)

Notes:
1 – C28 SOUND DATA BUF – rev2 min fan speed. Daytime 100% load @ 70% fan speed. Nighttime 100% load @ 55% fan speed.
2 – Kohler KD2500-A KH07801T04D.

4.4 Assessment Locations

The location of nearby noise sensitive receptors that have been adopted as the assessment locations are presented in Figure 4.

Assessment locations R5 to R7 and R16 to R19 are zoned as Residential. Assessment locations R8 and R9 are on the boundary of the Tonawanda Reservation. Assessment locations R1 to R4 and R11 to R14 are property boundary locations for the north and south campuses respectively and are zoned as Technology Districts. Assessment location R10 is an onsite location (within site boundary) and has been included for information purposes only.

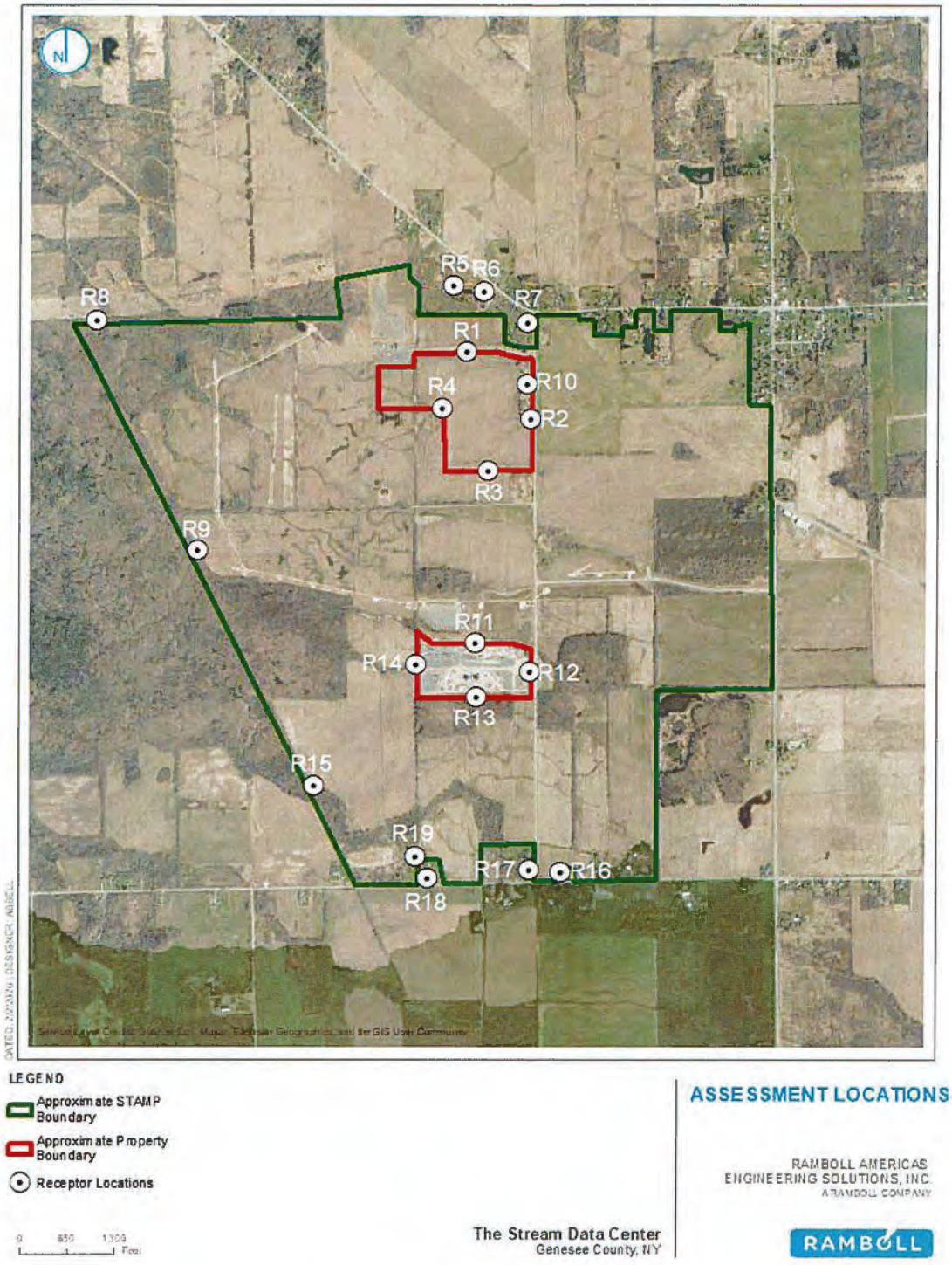

Figure 4: Assessment Receptor Locations

4.5 Noise Model Results

4.5.1 Constant Mechanical

The noise model results for the Day/Night Constant Mechanical operating scenarios are presented below in Table 2,Figure 5 and Figure 6 below. The results have been compared to the threshold criteria established by the GEIS/Findings for the STAMP site. The results are predicted to comply with the threshold criteria. Additionally, with consideration to the existing ambient, cumulative noise levels (predicted + ambient) are also anticipated to be below the GEIS/Findings for the STAMP site.

Table 2: Noise Model Results – Constant Mechanical

Receptor	Zoning Classification	Predicted Noise Level, dBA		GEIS/Findings, dBA	
		Daytime	Nighttime	Daytime	Nighttime
R1	Technology District	48	44	65[1]	45[1]
R2	Technology District	48	44	65[1]	45[1]
R3	Technology District	46	42	65[1]	45[1]
R4	Technology District	46	42	65[1]	45[1]
R5	Residential	44	40	65	45
R6	Residential	45	41	65	45
R7	Residential	47	43	65	45
R8	Tonawanda Reservation	31	27	65	45
R9	Tonawanda Reservation	35	31	65	45
R10[2]	Technology District	48	43	N/A	N/A
R11	Technology District	47	43	65[1]	45[1]
R12	Technology District	43	39	65[1]	45[1]
R13	Technology District	46	42	65[1]	45[1]
R14	Technology District	43	39	65[1]	45[1]
R15	Tonawanda Reservation	37	33	65	45
R16	Residential	36	31	65	45
R17	Residential	36	32	65	45
R18	Residential	36	32	65	45
R19	Residential	37	33	65	45

Notes:
1 – Property boundary location zoned as Technology District has been conservatively compared to GEIS/Findings' night threshold/criteria. Locations are adjacent to less sensitive roadways and rural farmland.
2 – Onsite location (within site boundary) and has been included for information purposes only.

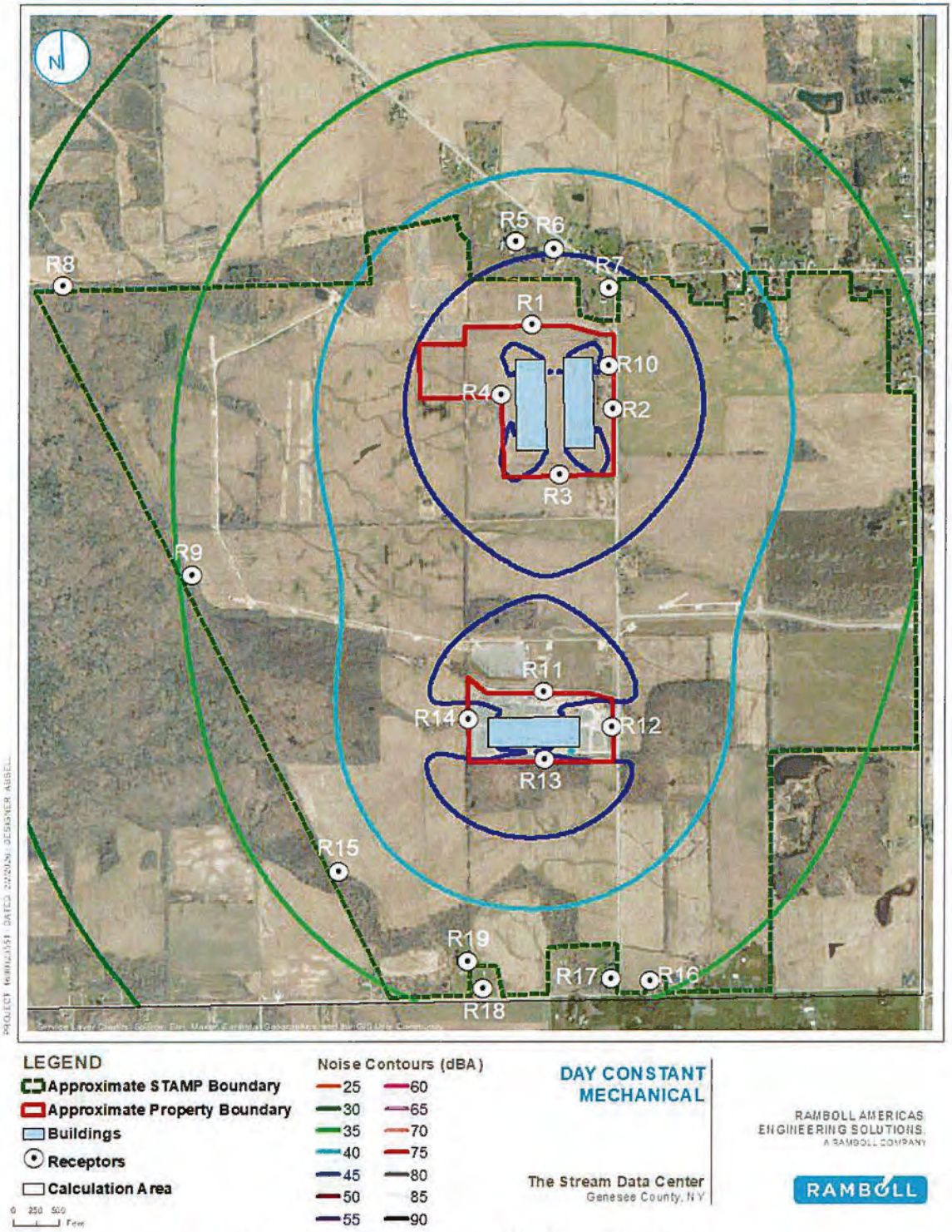

Figure 5: Noise Model Results – Day Constant Mechanical

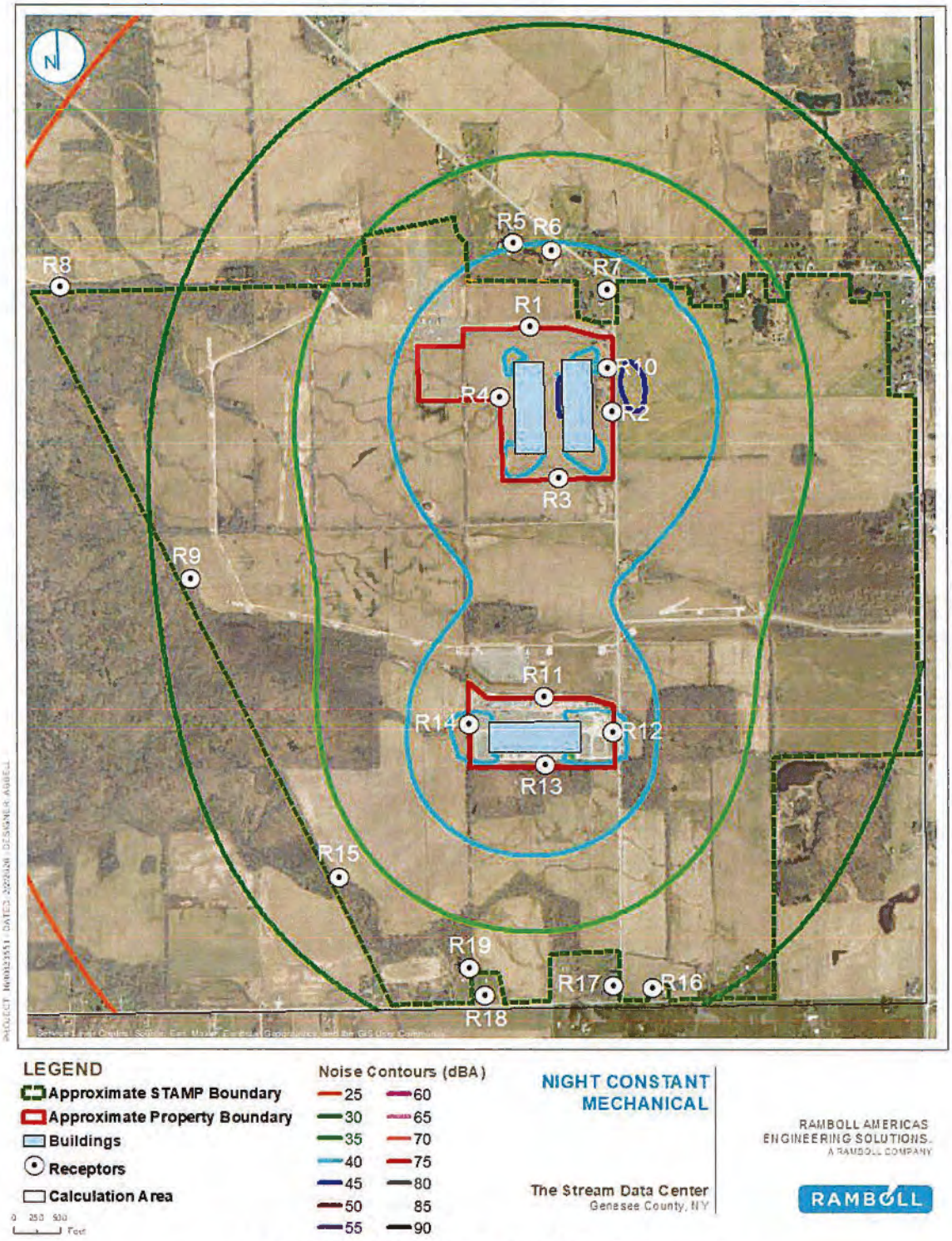

Figure 6: Noise Model Results – Night Constant Mechanical

4.5.2 Generator Maintenance

The noise model results for the Generator Maintenance operating scenario are presented below in Table 3 and Figure 7. The results have been compared to the daytime threshold criteria established by the GEIS/Findings for the STAMP site due to generator maintenance being limited to daytime hours. The results are predicted to comply with the guidelines. Additionally, with consideration to the existing ambient, cumulative noise levels (predicted + ambient) are also anticipated to be below the GEIS/Findings for the STAMP site.

Table 3: Noise Model Results – Generator Maintenance

Receptor	Zoning Classification	Predicted Noise Level, dBA	GEIS/Findings, dBA
			Daytime
R1	Technology District	48	65[1]
R2	Technology District	48	65[1]
R3	Technology District	46	65[1]
R4	Technology District	46	65[1]
R5	Residential	44	65
R6	Residential	45	65
R7	Residential	47	65
R8	Tonawanda Reservation	31	65
R9	Tonawanda Reservation	35	65
R10[2]	Technology District	48	N/A
R11	Technology District	47	65[1]
R12	Technology District	43	65[1]
R13	Technology District	46	65[1]
R14	Technology District	43	65[1]
R15	Tonawanda Reservation	37	65
R16	Residential	36	65
R17	Residential	36	65
R18	Residential	36	65
R19	Residential	37	65

Notes:
1 – Property boundary location zoned as Technology District has been conservatively compared to GEIS/Findings' day threshold criteria. Locations are adjacent to less sensitive roadways and rural farmland.
2 – Onsite location (within site boundary) and has been included for information purposes only.

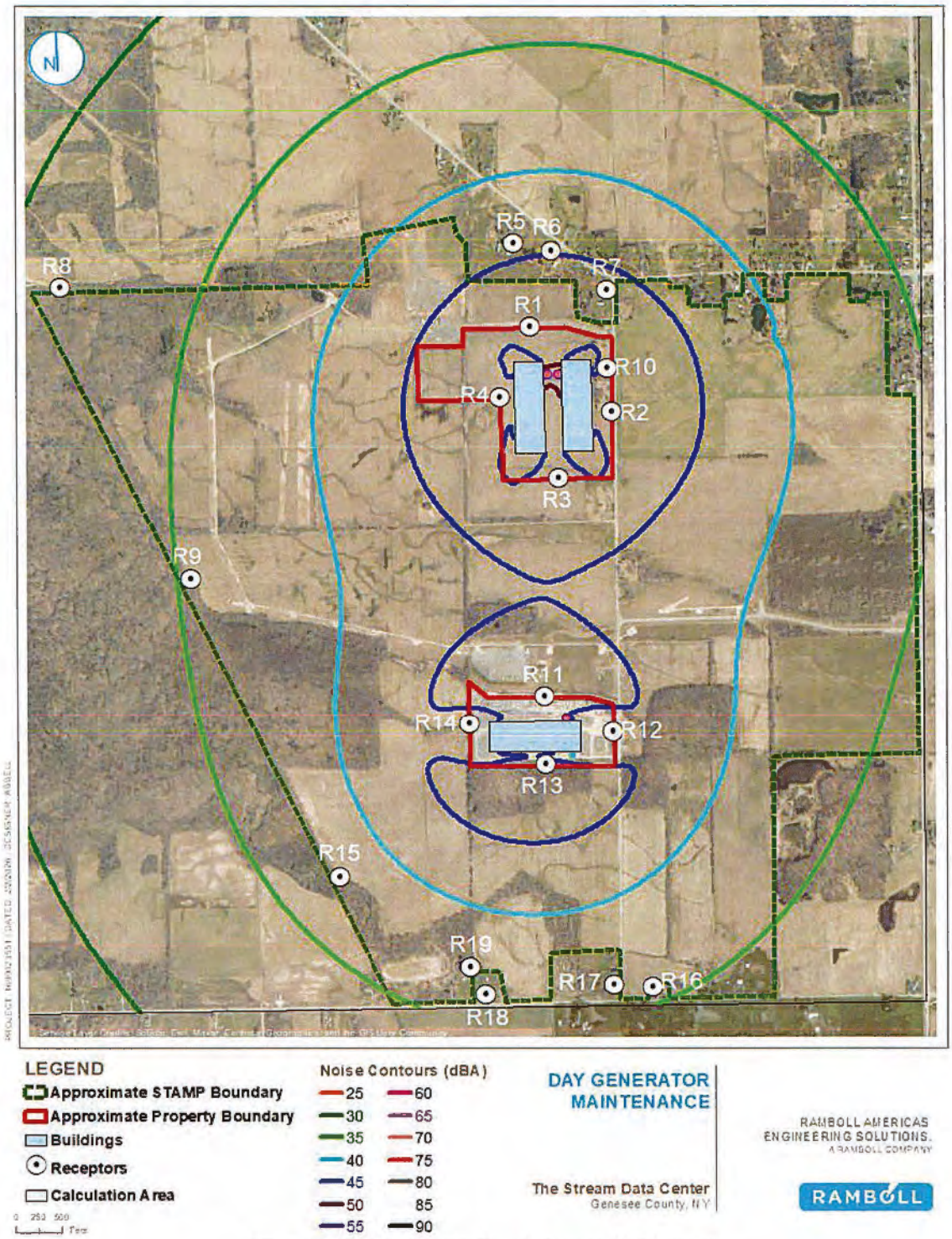

Figure 7: Noise Model Results – Generator Maintenance

4.5.3 Emergency Generator

The noise model results for the Day/Night Emergency operating scenario are presented below in Table 4, Figure 8 and Figure 9. As discussed above, the chillers are to operate at a lower fan speed during nighttime hours, which result in lower cumulative levels during this period. Additionally, no significant level variation is projected between Constant Mechanical and Emergency due to the inclusion of generator yard noise barriers.

The results have been compared to the threshold criteria established by GEIS/Findings for the STAMP site. The results are predicted to comply with the threshold criteria. Additionally, with consideration to the existing ambient, cumulative noise levels (predicted + ambient) are also anticipated to be below the GEIS/Findings for the STAMP site. Emergency generator operation is infrequent and temporary in nature and is generally treated differently from routine operational noise for enforcement purposes.

Table 4: Noise Model Results – Emergency Generator

Receptor	Zoning Classification	Predicted Noise Level, dBA		GEIS/Findings, dBA	
		Daytime	Nighttime	Daytime	Nighttime
R1	Technology District	48	44	65[1]	45[1]
R2	Technology District	48	44	65[1]	45[1]
R3	Technology District	46	42	65[1]	45[1]
R4	Technology District	47	44	65[1]	45[1]
R5	Residential	44	40	65	45
R6	Residential	45	41	65	45
R7	Residential	47	43	65	45
R8	Tonawanda Reservation	32	27	65	45
R9	Tonawanda Reservation	35	31	65	45
R10[2]	Technology District	49	46	N/A	N/A
R11	Technology District	48	44	65[1]	45[1]
R12	Technology District	44	39	65[1]	45[1]
R13	Technology District	46	42	65[1]	45[1]
R14	Technology District	43	39	65[1]	45[1]
R15	Tonawanda Reservation	37	33	65	45
R16	Residential	36	32	65	45
R17	Residential	36	32	65	45
R18	Residential	36	32	65	45
R19	Residential	37	33	65	45

Notes:
1 – Property boundary location zoned as Technology District has been conservatively compared to GEIS/Findings' night threshold criteria. Locations are adjacent to less sensitive roadways and rural farmland.
2 – Onsite location (within site boundary) and has been included for information purposes only.

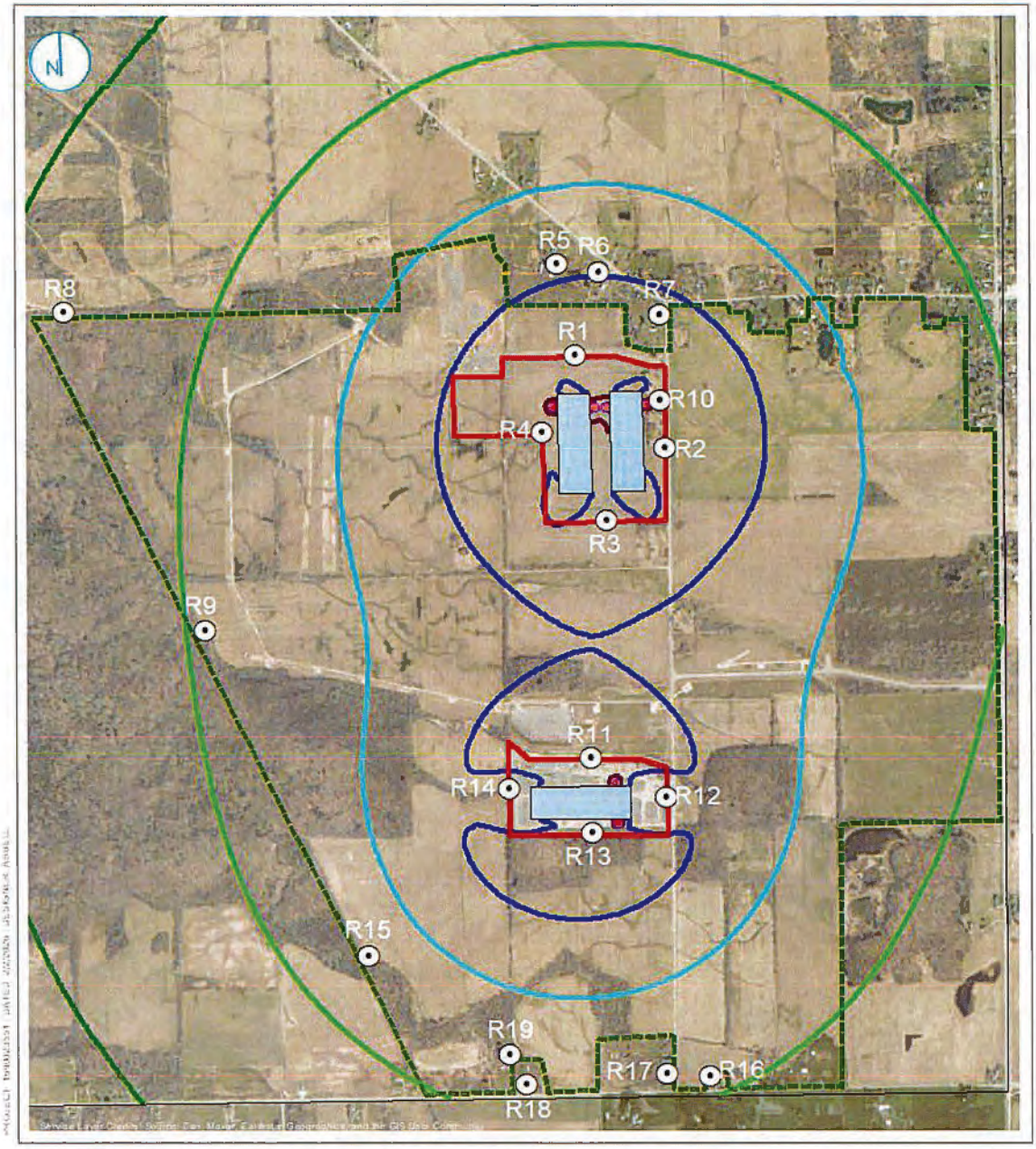

Figure 8: Noise Model Results – Day Emergency Scenario

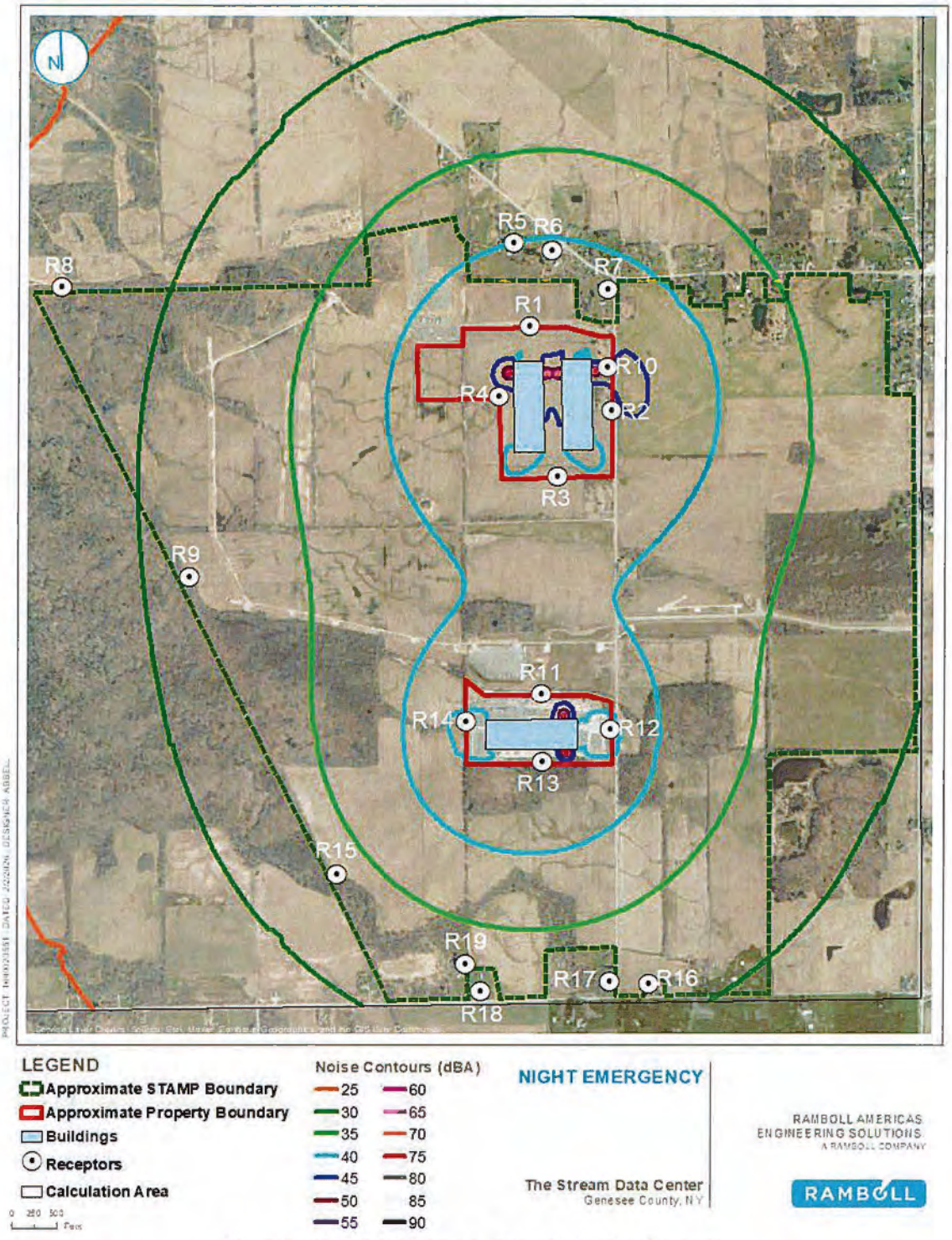

Figure 9: Noise Model Results – Night Emergency Scenario

Based on the modeling for the proposed data center, the threshold criteria for the STAMP site are not projected to be fully consumed by the proposed data center. Future development within the STAMP site is projected to be permitted. The nature and extent of which will depend on the specifics of future tenants, including their footprint within STAMP as well as their anticipated noise sources and levels.

5. Conclusion

Ramboll has completed an environmental noise assessment for the proposed Stream Data Centers Science Technology and Advanced Manufacturing Park (STAMP) site located in the Town of Alabama, Genesee County, New York. The assessment includes a summary of the proposed data center, site configuration, relevant acoustic criteria, noise sensitive receptors and noise model results.

The key findings of the assessment were as follows:

- No independent state, county or town numerical noise limits apply to the Site. However, the STAMP GEIS/Findings established maximum noise levels of 65 dBA during the day, and 45 dBA during the night at the STAMP boundary in non-industrial areas, which are treated as the controlling criteria for this assessment.
- Project generated noise levels at the proposed Projects property boundaries are expected to remain below 65 dBA during the day and 45 dBA during the night.
- Noise levels during a Day/Night Constant Mechanical operating scenario are projected to be consistent with the GEIS/Findings.
- Noise levels during a Generator Maintenance operating scenario are projected to be consistent with the GEIS/Findings. Generator Maintenance testing is to be undertaken during daytime hours.
- Noise levels during a Day/Night Emergency operating scenario are projected to be consistent with the GEIS/Findings.

Appendix

Manufacturer Sound Data

Chiller

MINIMUM POSSIBLE FANS SPEED

SOUND POWER OCTAVE BAND	Hz	63	125	250	500	1000	2000	4000	8000	Pressure	Power
4D C28 13 1W 97.2°F 100%load fans70% 150ft	dB(A)	63.3	76.4	85.0	88.1	91.3	89.5	85.1	76.2	50.8	95.5
4D C28 13 1W 97.2°F 75%load fans40% 150ft	dB(A)	49.6	63.3	74.2	79.9	85.5	83.7	80.3	72.5	44.8	89.5
4D C28 13 1W 97.2°F 50%load fans30% 150ft	dB(A)	48.6	61.8	72.2	78.9	84.5	82.7	79.3	71.5	43.8	88.5
4D C28 13 1W 97.2°F 25%load fans25% 150ft	dB(A)	46.6	59.8	69.2	73.6	79.1	78.1	73.7	67.0	38.5	83.2
4D C28 13 1W 85.5°F 100%load fans55% 150ft	dB(A)	56.4	69.5	78.7	83.3	88.0	86.2	82.5	74.9	47.5	92.1
4D C28 13 1W 85.5°F 75%load fans35% 150ft	dB(A)	48.7	62.3	73.4	79.3	85.0	83.2	79.8	72.0	44.3	89.0
4D C28 13 1W 85.5°F 50%load fans25% 150ft	dB(A)	46.6	60.1	71.2	78.5	84.3	82.5	79.2	71.3	43.6	88.3
4D C28 13 1W 85.5°F 25%load fans20% 150ft	dB(A)	46.0	59.2	68.7	73.3	78.9	78.0	73.6	66.8	38.4	83.0
4D C28 13 1W 97.2°F 100%load fans70% 122ft	dB(A)	63.3	76.4	85.0	88.1	91.3	89.5	85.1	76.2	52.5	95.5
4D C28 13 1W 97.2°F 75%load fans40% 122ft	dB(A)	49.6	63.3	74.2	79.9	85.5	83.7	80.3	72.5	46.5	89.5
4D C28 13 1W 97.2°F 50%load fans30% 122ft	dB(A)	48.6	61.8	72.2	78.9	84.5	82.7	79.3	71.5	45.5	88.5
4D C28 13 1W 97.2°F 25%load fans25% 122ft	dB(A)	46.6	59.8	69.2	73.6	79.1	78.1	73.7	67.0	40.2	83.2
4D C28 13 1W 85.5°F 100%load fans55% 122ft	dB(A)	56.4	69.5	78.7	83.3	88.0	86.2	82.5	74.9	49.1	92.1
4D C28 13 1W 85.5°F 75%load fans35% 122ft	dB(A)	48.7	62.3	73.4	79.3	85.0	83.2	79.8	72.0	46.0	89.0
4D C28 13 1W 85.5°F 50%load fans25% 122ft	dB(A)	46.6	60.1	71.2	78.5	84.3	82.5	79.2	71.3	45.3	88.3
4D C28 13 1W 85.5°F 25%load fans20% 122ft	dB(A)	46.0	59.2	68.7	73.3	78.9	78.0	73.6	66.8	40.0	83.0

Generator

NOTES:

1. GENERATOR, KOHLER KD2500-A KH07801TO4D
   DIMENSIONS: 244.7"L x 128.6"W x 130.1"H
   WEIGHT: 52,000 LBS
   DRAWING # : ADV-9824 REV -
2. TOTAL AIRFLOW REQUIRED: 107500 CFM
3. SOUND ATTENUATION LEVEL: 75 DBA@ 7M
4. INSULATION: DOUBLE LAYER OF 2" MINERAL WOOL
5. LINING: MILL-FINISH PERFORATED ALUMINUM
6. ENCLOSURE WALLS: 4" ALUMINUM TUBE WELDED FRAME
7. ENCLOSURE ROOF: 2" X 3" X ¼" ALUMINUM TUBE WELDED FRAME
8. ENCLOSURE DIMENSIONS: 542"L x 140"W x 161"H
9. ENCLOSURE WEIGHT (APPROX.): 21,000 LBS
10. ENCLOSURE COLOR: RAL 7042 TRAFFIC GRAY
11. ENCLOSURE SHALL BE PROVIDED w / 4-POINT LIFTING LUGS

III-p | EMERGENCY SERVICES CONFIRMATION TECHNICAL SUMMARY

The project team has initiated outreach to the following local emergency service providers to foster collaboration and ensure effective emergency response. The goal of these initial outreach efforts is to inform these agencies about the project scope, understand their current level of service capabilities, and establish strong working relationships. These connections will be crucial in developing comprehensive emergency response plans and protocols, which is site specific for each facility's unique resources. Exhibits demonstrate the geographic proximity of these emergency services to the project site, showcasing distances in both miles and estimated drive times.

Genesee County Sheriff's Office

On January 23, 2026 the project team met with Genesee County Sheriff Joseph Graff. This session was a follow-up to prior project briefings, intended to confirm that the Sheriff's Office remains fully informed of the project's evolution. Sheriff Graff reaffirmed his understanding of the project's size and scope, specifically noting that while the project is substantial, the potential for increased calls related to commercial traffic and expanded patrol areas is possible.

To ensure the project maintains a "minimal impact" on county law enforcement resources, the following components of the project act as primary mitigations for the Sheriff's focus areas:

- **Traffic Management:** To mitigate the potential for traffic-related calls from increased commercial vehicle volume, the site features a permanently staffed security booth with dedicated 'rejection' pathways. This team is tasked with directing visitors and commercial traffic, ensuring that ingress and egress remain fluid and do not impact public roadway safety.
- **Proactive Site Security:** To prevent the need for additional county patrol areas, the project utilizes a private, 24/7 security presence. This team provides around-the-clock monitoring of the site, which is fully fenced and supported by advanced camera systems and early-detection technology.
- **Internal Incident Response:** By maintaining a secure, monitored perimeter and on-site staff, the facility is designed to manage routine security and traffic oversight internally, thereby avoiding an increase in law enforcement dispatch requests.

Location Exhibit:



Alabama Volunteer Fire Department

The project team has maintained engagement with the Town of Alabama Fire Department regarding the STAMP site. This dialogue began with the initial project phase and has been sustained through subsequent interim updates. On January 21, 2026, the team provided an updated project brief to Chief Terry Thompson to address specific requests for information regarding the current development's scale and hazards.

Chief Thompson confirmed his ongoing understanding of the project's scope. This consultation included a review of the following details, which formed the technical basis for the Department's determination that the project will not adversely impact emergency service levels:

- **Infrastructure & Hazards:** The specific configuration of Uninterruptible Power Supply (UPS) battery backups and diesel-powered generators. The Chief identified no "unusual hazards" associated with these systems.
- **Access Design:** The inclusion of integrated stair towers, which the Chief noted will significantly assist personnel with emergency access and vertical movement within the facility.
- **Operational Impact:** An assessment of call volume, which is expected to increase only by a "negligible amount," primarily for false alarms or EMS support.

Chief Thompson indicated that the Department feels they currently possess adequate equipment to respond to site emergencies, supplemented by participating fire companies through established mutual aid agreements.

The Alabama Volunteer Fire Department has Emergency Support Facilities at the following locations, within 2–6-minute drive time of the proposed development, with support apparatus split between the two locations:

- **Fire Station 1 – 2230 Judge Road**
  - Engine 1 – International 4900
  - Tanker 5 – International
- **Fire Station 2 – 1717 Lewiston Road**
  - Engine 2 – Spartan Metro Star
  - Squad 4 – 2015 Ford Expedition
  - Rescue 19 – International 4900 Rescue Walk In

Location Exhibit:



Mercy Flight EMS

The project team has maintained ongoing consultation with Mercy Flight EMS to evaluate potential impacts on emergency services resulting from the construction and operation of the proposed development. This dialogue builds upon previous outreach conducted for the prior project version; the team has since reaffirmed project details with Mercy Flight to account for the updated scope and scale.

On January 22, 2026, the project team met with Scott Wooton (CFO) and Mike Gugliuzza (Director of Medical Operations). Having been briefed on both the previous and current iterations of the site, both representatives confirmed a full understanding of the project's expanded size and technical requirements.

- **Basis of Determination:** The team provided technical specifications on site density and infrastructure, allowing Mercy Flight to determine the facility poses "no significant risks" once operational.
- **Risk Profile:** Feedback indicated that while the construction phase carries the standard elevated risks associated with large-scale builds, Mercy Flight maintains sufficient resources to manage these contingencies. Once operational, the health and safety risks are considered negligible due to the low-occupancy nature of data center halls. This low-risk profile is driven by Stream Data Centers' Emergency Response Protocols, which utilize 24/7 on-site staffing, specialized Methods of Procedure (MOP) for electrical safety, and advanced detection systems to resolve issues before external intervention is required.
- **Future Coordination:** As part of this ongoing consultation, the project team will provide and coordinate the final, site-specific Emergency Action Plan (EAP) with Mercy Flight EMS to ensure their flight and ground crews are fully integrated with the facility's safety protocols.

Mercy Flight EMS provides comprehensive local coverage via ground ambulance and air ambulance services. Their air ambulance base is located at the Genesee County Airport, positioned within 0.5 miles of their ground service station, allowing for rapid mobilization to the project site.

Response capabilities are further bolstered by a tiered mutual-aid system including Alabama Volunteer Fire Department which provides essential Emergency Medical Services and collaborates closely with Mercy Flight on regional dispatch calls.

Location Exhibit:



Genesee County Office of Emergency Management

On January 21, 2026, the project team conducted a follow-up consultation with Timothy Yaeger, Director of the Genesee County Office of Emergency Management. The project team provided an updated scope to Director Yaeger, ensuring that the agency's assessment is based on the most current site designs and technical specifications.

Director Yaeger confirmed that the Office does not see any 'unusual hazards' associated with the project. While data centers involve specific risks—primarily related to electrical equipment and fuel storage—the agency noted that these are well-understood industrial risks. The project is viewed as low risk, with the most likely calls for service involving routine EMS assistance for employees or standard traffic management rather than specialized industrial emergencies.

Response capabilities are bolstered by a tiered mutual-aid system, ensuring the facility is protected by both local and regional assets:

- **Local EMS & Coordination:** The Alabama Volunteer Fire Department provides essential Emergency Medical Services (EMS) and works in close collaboration with Mercy Flight on regional dispatch calls, ensuring rapid air-medical transport if required.
- **Specialized Fire Suppression:** It is our understanding that the STAMP site is covered by a mutual aid network capable of deploying specialized foam apparatus. These units are specifically designed to suppress Class B fires (flammable liquids) and high-voltage electrical fires, providing a critical layer of protection for the facility's power infrastructure and fuel storage.
- **Integrated Readiness:** This combination of dedicated local EMS and regional industrial firefighting resources ensures a comprehensive response to both routine medical needs and specialized technical incidents.

The determination that the project will have no significant impact on emergency service levels is based on the director's review of the following updated project details:

- **Operational Training and Preparedness:** Stream Data Centers' Emergency Response Protocols, which utilize 24/7 on-site staffing, specialized Methods of Procedure (MOP) for electrical safety, and advanced detection systems to resolve issues before external intervention is required.
- **Design Mitigations:** The inclusion of stair towers, which Director Yaeger specifically noted would significantly aid emergency personnel in gaining access to the facility during an incident.
- **Resource Adequacy:** The Director confirmed that the Town of Alabama and its mutual aid network are sufficiently equipped to support the facility's operations.

III-q | EMERGENCY RESPONSE PROCEDURES TECHNICAL SUMMARY

Stream Data Centers Emergency Response Protocols

Stream Data Centers is committed to ensuring the safety and well-being of its personnel, visitors, and surrounding communities through comprehensive emergency preparedness. Due to their robust design, 24/7 on-site expert staffing, and lack of waste-generating operations, Stream's data center facilities maintain an extremely low risk profile.

Our rigorous Emergency Response Protocols are a systematic approach that incorporates superior facility engineering, high maintenance standards, robust operator training, and pre-established procedures tailored for the unique operational environment of a data center.

Hazardous materials in modern data centers are strictly limited and handled with specialized care. They are typically confined to uninterruptible power supply (UPS) batteries, backup generator fuel, and common, low-volume office materials (e.g., cleaners). These materials are stored and handled via strict safety protocols, specialized storage, and continuous monitoring, ensuring they are not present in large quantities or in a form that poses a high inherent risk.

Uninterruptible Power Supplies (UPS) batteries within these facilities pose specific risks primarily related to electrical hazards, such as arc flash and shock. These hazards are mitigated through a rigorous manufacture-specific and Stream developed **Method of Procedure (MOP)** that mandates the use of specialized personal protective equipment (PPE)—specifically Category 2 arc flash clothing—and requires "dual-custody" verification for all critical switching evolutions.

To ensure continuous system integrity, Operations performs manufacturer-recommended **Quarterly Preventative Maintenance (QPM)** to monitor battery health and capacity, identifying potential electrical failures before they escalate. In the event of a thermal incident, these proactive maintenance protocols are backed by a **Site Emergency Action Plan (EAP)** specifically designed for fire suppression and containment in critical power environments.

Fuel Storage and Spill Preparedness in modern data centers are mainly focused on backup generators, where fuel is stored in self-contained manufacturer-designed double wall tanks which have regular inspections by 24/7 on-site technicians. Fuel spills are extremely rare due to these preventative measures, and on the rare occasion they occur, they are contained within engineered secondary containment barriers. For Project Double Reed, the risk is even lower given the limited number of generators, significantly reducing the volume of stored fuel compared to facilities of similar size. Further, the site will comply with both Federal SPCC (Spill Prevention, Control, and Countermeasure) standards and New York State Department of Environmental Conservation (NYSDEC) petroleum bulk storage requirements. Additionally, as per **6 NYCRR Part 613**, all petroleum storage tanks exceeding state-defined capacity thresholds (1,100 gallons) are registered with the NYSDEC. Compliance is maintained through mandatory monthly inspections by 24/7 on-site technicians and formal periodic integrity testing.

Secondary Containment and Environmental Protections

The secondary containment strategy utilizes both engineered physical barriers and temporary tactical measures:

- **Engineered Barriers:** Federal law requires that all bulk storage containers (such as the generator tanks and main storage) provide a secondary means of containment. The facility utilizes double-walled, manufacturer-designed tanks where the outer wall serves as the secondary barrier, capable of holding the entire capacity of the primary tank.

- **Tactical Environmental Protection:** During refueling operations, technicians are required to apply magnetic storm drain covers to all nearby drains. This creates an immediate, temporary seal that prevents any accidental surface spill from entering the local water system.
- **Point-of-Connection Containment:** The "Generator Refueling Method of Procedure" (MOP) mandates the use of **absorbent mats** under every hose connection point to catch drips and the deployment of a **spill kit** directly adjacent to the generator receiving fuel for immediate response.

Spill Preparedness and Mitigation Protocols

Stream maintains a state of constant readiness through specific procedural requirements defined in the site-specific MOP developed for each site:

- **Pre-Fueling Verification:** Technicians must establish a safety ground between the fueling equipment and the generator to prevent static ignition and verify fuel levels using manual measurements to prevent overfilling.
- **Active Monitoring:** Refueling is treated as a Critical Step, requiring technicians to monitor for leaks continuously. If a leak is discovered, the Back-Out Plan dictates the immediate cessation of the fueling process and the commencement of cleanup using petroleum-safe PPE and on-site kits.

Staff Training: All personnel involved are trained in the use of high-visibility safety equipment, fire extinguishers (Class B), and the specific location of emergency shut-off valves and spill response materials.
Fire Suppression Technology: Our facilities integrate advanced fire detection and suppression systems which do not utilize chemical foams or hazardous chemical agents. Instead, we rely on environmentally safer, non-chemical methods as the first line of defense, backed by water-based systems, to safeguard individuals and critical infrastructure. Fire detection and suppression in our facilities are controlled by:

Early Detection: We utilize highly sensitive systems, such as Very Early Smoke Detection Apparatus (VESDA), which continuously sample the air for microscopic combustion particles. This provides warning of a potential incident well before visible smoke or heat are present, enabling operators to intervene.

Non-Chemical Suppression (Primary): The first line of defense is often a localized response (e.g., portable fire extinguishers, per **NFPA 10**) guided by our 24/7 on-site staff. We do not use chemical foams or gaseous agents that pose a respiratory or environmental hazard.

Water-Based Suppression (Secondary): If primary containment cannot be achieved, an automated suppression system (typically a pre-action sprinkler system) activates. This system is the safest water-based approach for critical IT environments.

System Integrity: All emergency systems are subject to stringent testing, comply with or exceed best practices, and are supported by redundant power supplies and backup generation. This includes, for example, monitoring of potential fire, equipment failure, or fuel spills—allowing for immediate, controlled responses.
Remote monitoring mechanisms across all critical infrastructure components automatically alert local emergency responders and/or SDC's security and operations teams, who maintain 24/7 on-site coverage to facilitate a prompt and coordinated response.

Rigorous Training: The organization upholds rigorous training standards and detailed accident response procedures. Employees are thoroughly trained in the use and location of all emergency equipment and protocols, including water and fuel shutoff valves as well as fire safety systems.

Operational Readiness: To maintain a high level of operational readiness, SDC conducts daily site inspections and routine emergency drills that replicate real-world conditions, evaluating both procedural effectiveness and employee preparedness.

Proven Safety: Our commitment to these safety measures is proven. SDC maintains a strong safety record, with an internal operational safety record showing an extremely low incident rate, well below industry averages for comparable mission-critical facilities.
With these rigorous training standards, continuous monitoring, and maintenance, data center facilities have an extremely low incident rate, supporting their classification as a low-risk environment.

III-r | DISADVANTAGED COMMUNITIES (DAC) BURDEN ASSESSMENT

Project Double Reed

Disadvantaged Communities Burden Assessment

December 2025
Updated January 2026

Project Double Reed

Genesee County Science, Technology, and Advanced Manufacturing Park
Alabama, New York

Disadvantaged Communities Burden Assessment

December 2025
Updated January 2026

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List of Acronyms

AFR	Air Facility Registration
CJWG	New York's Climate Justice Working Group
CLCPA	Climate Leadership and Community Protection Act
DAC	Disadvantaged Communities
ECL	Environmental Conservation Law
EMS	Emergency Medical Services
FGEIS	Final Generic Environmental Impact Statement
GCEDC	Genesee County Economic Development Center
GHG	Greenhouse Gas
GPD	Gallons per Day
IT	Information Technology
ITE	Institute of Transportation Engineers
MW	Megawatt
NYC	New York City
NYDEC	New York State Department of Environmental Conservation
PPP	Public Participation Plan
SEQRA	State Environmental Quality Review Act
SPDES	State Pollutant Discharge Elimination System
STAMP	Science, Technology, and Advanced Manufacturing Park
Stream	Stream US Data Centers, LLC

1.0 Introduction

This Disadvantaged Communities (DAC) Burden Assessment has been prepared to meet the requirements of Environmental Justice Siting Law (EJ Siting Law), to the extent it applies, for the Project Double Reed. This report assesses potential impacts associated with the operation of Project Double Reed, particularly those affecting a Disadvantaged Community (DAC).

The EJ Siting Law requires lead agencies under the State Environmental Quality Review Act (SEQRA) to consider whether an action may cause or increase a disproportional pollution burden on a DAC as part of the determination of significance for a proposed project and include an evaluation of whether the proposed action causes or increases any disproportionate pollution burden in a DAC where an environmental impact statement is required. DACs were first identified as a result of the Climate Leadership and Community Protection Act (CLCPA) to ensure that New York State's investments and actions to advance the Climate Law will benefit all communities and address climate inequities. For the purposes of this program, communities are evaluated by their census tract, which is a geographic unit defined by the U.S. Census Bureau. New York's Climate Justice Working Group (CJWG), comprised of representatives from State Agencies and Environmental Justice groups across the State, was formed to identify DACs. The CJWG plans to review the disadvantaged communities' criteria annually and make updates where necessary.

2.0 Description of Proposed Action

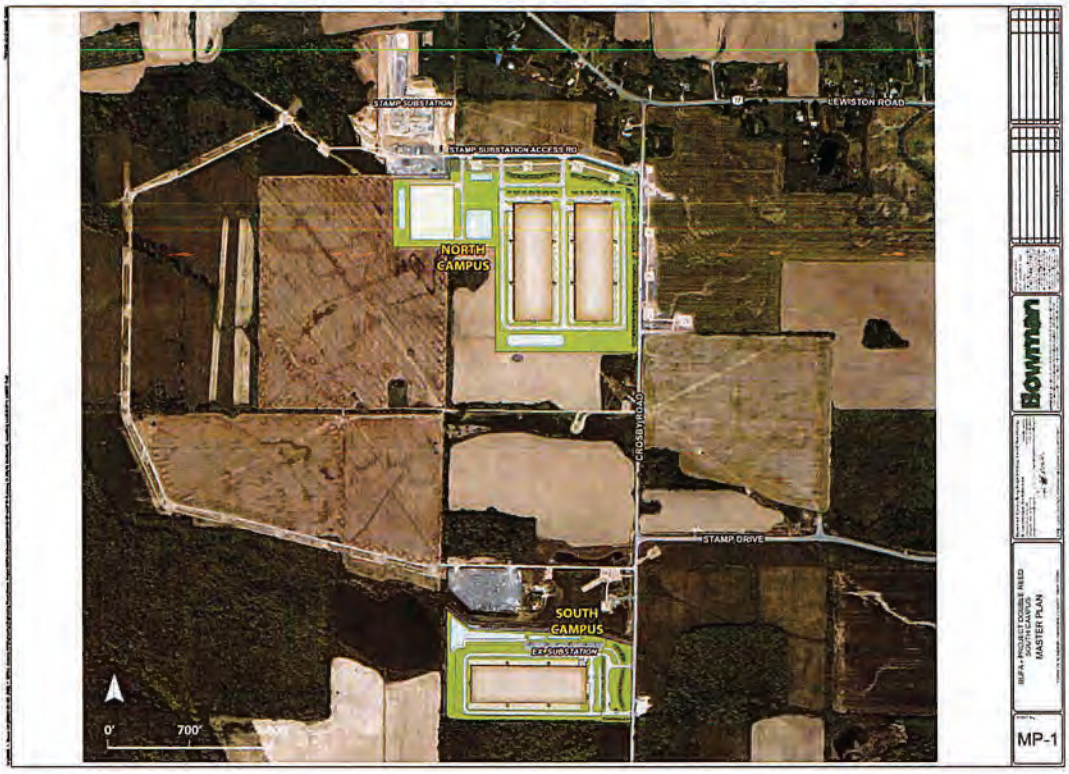
2.1. Overview

Stream US Data Centers, LLC (Stream) proposes to construct a data center within the Genesee County Science, Technology, and Advanced Manufacturing Park (STAMP) in the Town of Alabama, Genesee County, New York. The project will occupy 90 acres with 40 acres of STAMP land temporarily utilized for construction logistics area. The project includes three (3) two-story buildings totaling approximately 2.2 million square feet, along with associated roadways, campus security features, on-site circulation and parking areas, utility services and infrastructure, equipment storage areas, and operational yards. Stormwater management facilities will also be constructed to control and treat on-site runoff. The proposed project will be referred to as *Project Double Reed* throughout this report.

Project Double Reed was selected by the Genesee County Economic Development Center (GCEDC) through a competitive development application process to propose a data center on the STAMP site. A Final Resolution by the GCEDC Board was approved on March 6, 2025; however, Stream identified an opportunity to secure additional capacity and increase the scale of the project, requiring the GCEDC to rescind the Final Resolution and await an amended application from Stream. This report reflects the changes to the project.

Project Double Reed is located on the west side of Crosby Road, approximately 660 feet south of its intersection with Lewiston Road (Highway 77) as shown on Figure 1-1.

Figure 1-1: Site Plan



The full STAMP site underwent a previous SEQRA review, as outlined in the Final Generic Environmental Impact Statement (FGEIS) dated January 2012 and an Amended Findings Statement in July 2016. There are currently no air emission sources or stormwater SPDES outfalls on the property. Project Double Reed requires the submittal of applications to the New York State Department of Environmental Conservation (NYSDEC) for both an Air Facility Registration (AFR) and a State Pollutant Discharge Elimination System (SPDES) permit to support facility operations.

2.2. Nature of Proposed Action

As previously noted, Project Double Reed is the proposed development of portions of the STAMP site to construct a new data center. To support this development, Project Double Reed is seeking an AFR for the project's primary stationary emission sources: backup generators used to support critical IT functions and essential building loads such as lighting and health, safety, and security systems. These generators will operate on diesel fuel stored in integrated belly tanks, each with an estimated capacity of approximately 9,500 gallons. Routine generator use will be limited to periodic testing and maintenance, while emergency operation during utility outages is expected to be infrequent due to the project's connection to high-voltage transmission infrastructure.

Project Double Reed will also require both a construction SPDES permit and an industrial SPDES permit to support construction activities and long-term site operations. The project design includes three stormwater management areas to control and dissipate runoff from new impervious surfaces. Construction will create new stormwater outfalls, which will be covered under the industrial SPDES permit.

Under current conditions, stormwater in the project area sheet-flows along natural drainage pathways (e.g., ravines) toward wetlands located west of the site. Following development, stormwater from impervious surfaces will be captured, conveyed to the constructed stormwater features, and discharged accordingly.

Project Double Reed encompasses approximately 90 acres of permanent development area; 60 acres on the North Campus and 30 acres on the South Campus. This area includes an approximately 2.2 million-square-foot data center campus, housing three (3) two-story buildings. It will require approximately 500 MW of electrical power from the grid, utilize 12 backup generators for emergency purposes, and use approximately 20,000 gallons per day (GPD) of water/wastewater. An additional 40 acres will be used as temporary construction logistics areas in support of the project.

As a key tenant within the STAMP site, Project Double Reed will contribute to the broader goals of the STAMP development and support positive economic impacts for existing businesses and future development initiatives. In addition, the financial benefits generated by the project will help fund infrastructure improvements throughout Genesee County, providing value to both economic development projects and the community as a whole.

2.3. Project Alternatives

As detailed in the DGEIS, several alternatives were proposed for the STAMP site, but ultimately the Preferred Alternative (the STAMP site) was selected because it offered the optimal combination of factors in terms of manageable environmental impact, minor agricultural and farmland impact, likelihood for land assembly success, community support, utilities, transportation access, workforce, and the likelihood for the lowest cost of development given proximity to industrial class infrastructure to achieve the basic and overall purposes of the Project.

Additionally, the GCEDC received, reviewed, and considered three proposals for the data center at STAMP, as further detailed in the Final Resolution dated March 6, 2025. The evaluation concluded that Project Double Reed was "the most advantageous to the State, price and other factors considered, including, among other things, because the Company has provided more compelling substantiation for its proposal's anticipated profitability, and because minimizes impacts on the environment..."

3.0 Location of Disadvantages Communities

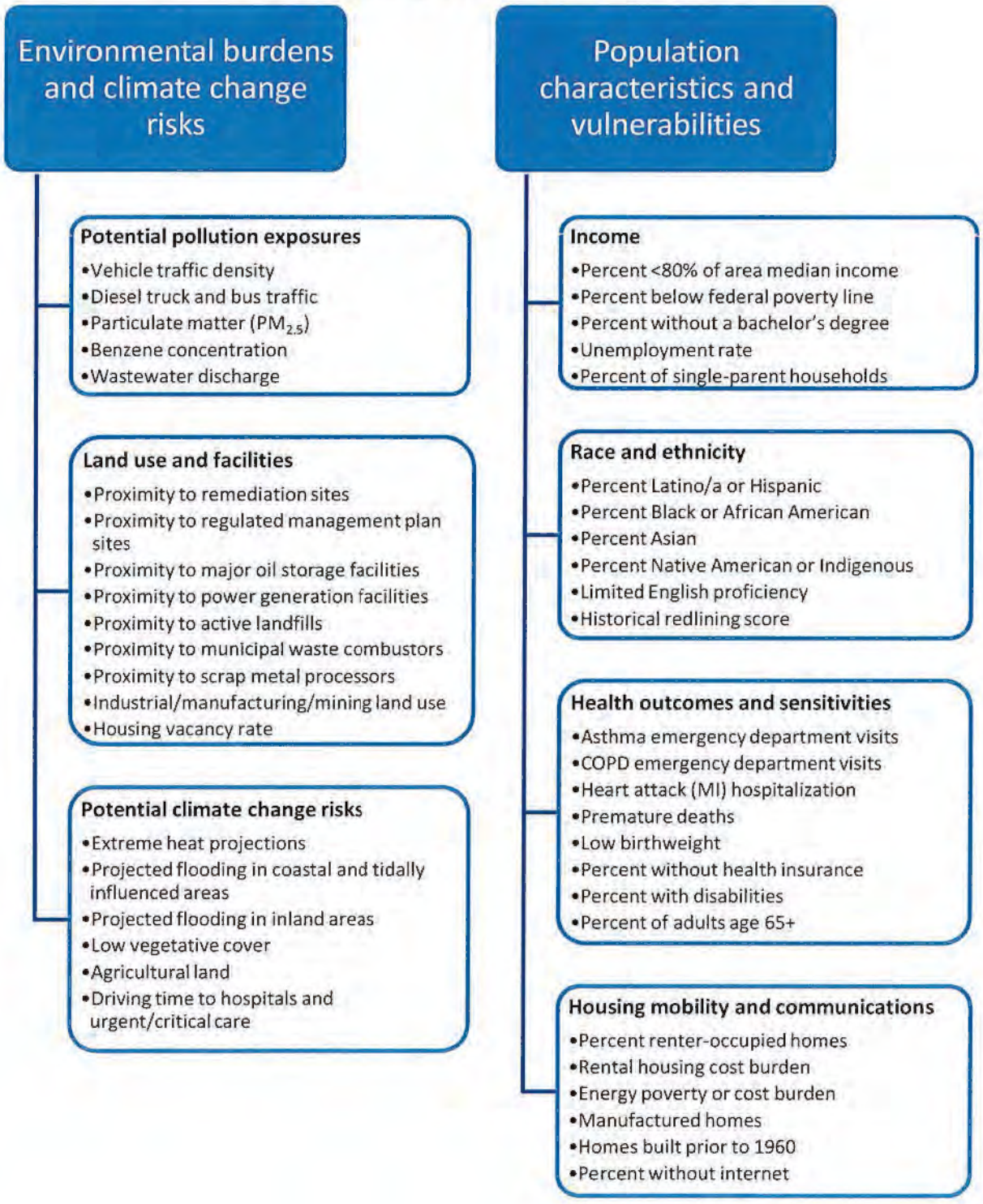
In identifying DACs, CJWG considers forty-five indicators within seven factors within two components. Figure 3-1 is intended to serve as a visual reference for the grouping of these considerations.

For each indicator, each census tract is assigned a value from the source dataset. Details on the scoring of the 45 indicators, including definition, data source, calculation method, and potential limitations, are available in Section 6.2 of the Technical Documentation[1]. As every indicator's raw data is measured in different units, a common scale is needed to combine and compare data across indicators.

Data is re-scaled by calculating a percentile rank for each census tract on each indicator; the results are the 45 indicator scores. Next, the seven factor scores are calculated as the weighted average of the indicator scores within each factor. Similarly, the two component scores are calculated as the weighted average of the factor scores within each component. All of the factors are weighted equally except for potential climate change risks, which is weighted double; the CJWG decided that environmental considerations should have the same weight as potential climate change risks. A combined score is calculated for each tract as the sum of the two component scores. Each tract is then assigned a combined score percentile rank. A tract's combined score percentile rank is defined as either its statewide combined score percentile rank, or its regional (NYC or rest-of-state) combined score percentile, whichever is highest. If the tract's combined score percentile rank is greater than 71.7, then that tract is designated as a DAC.

[1] https://climate.ny.gov/-/media/Project/Climate/Files/Disadvantaged-Communities-Criteria/Technical-Documentation-on-the-Disadvantaged-Communities-Criteria---Final-Version.pdf

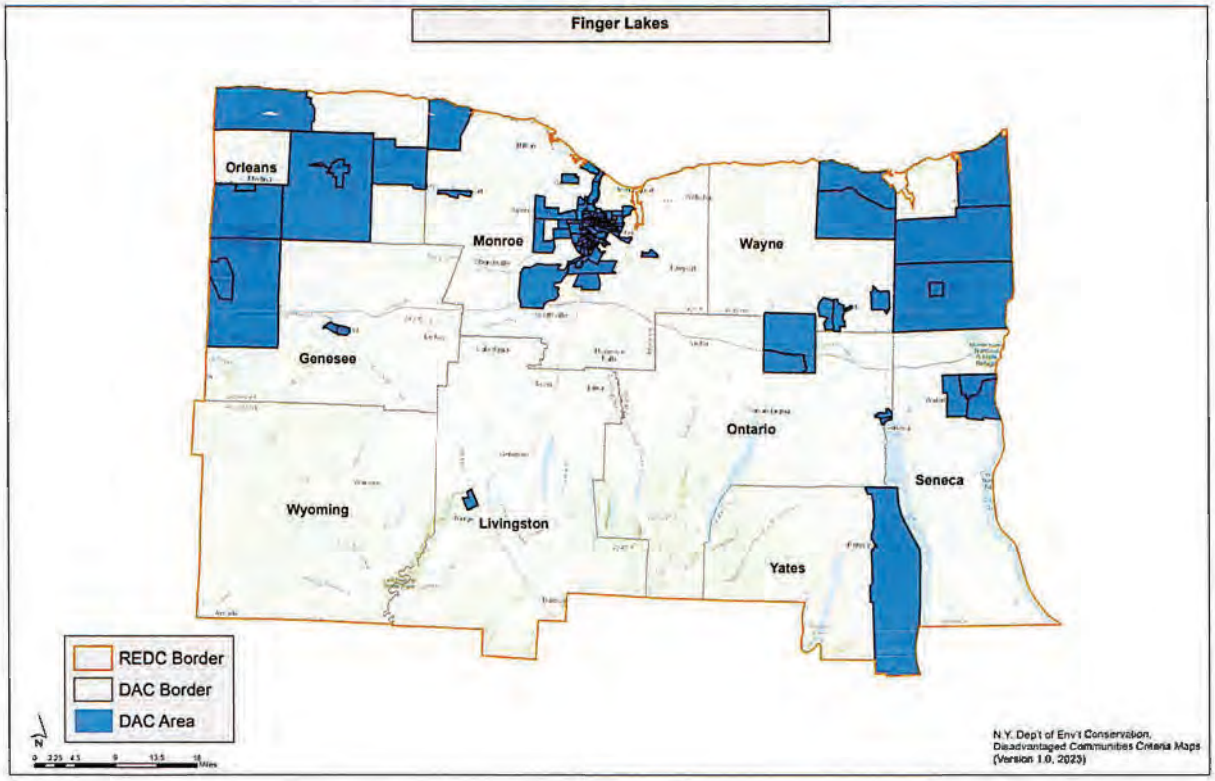
Figure 3-1: DAC Considerations Grouping



3.1. Spatial Data

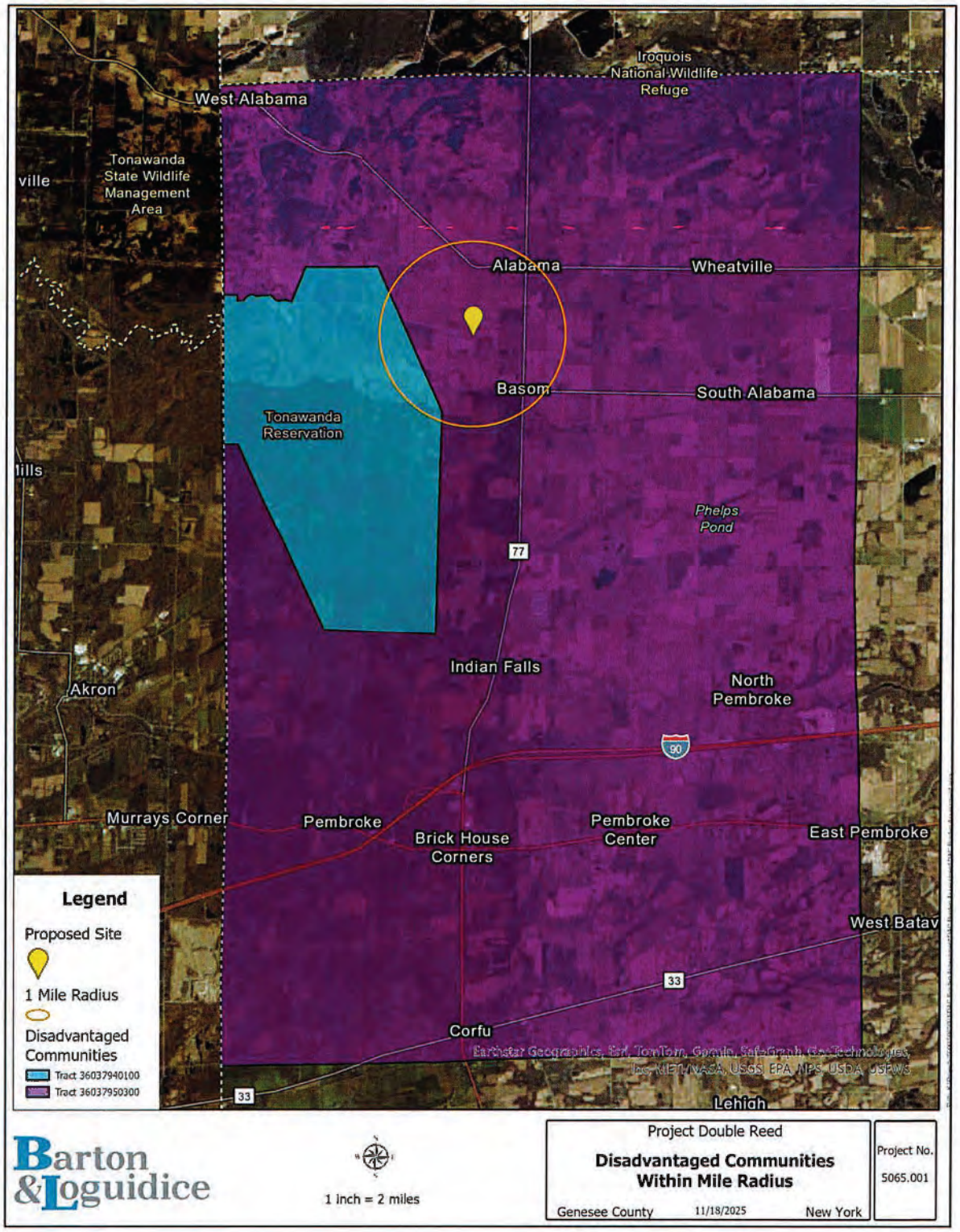
Figure 3-2 shows the DACs that the CJWG has identified within the Finger Lakes region.

Figure 3-2: Finger Lakes Region DACs



Project Double Reed is located in Census Tract 36037950300, which has a population of 6,046 and has been designated as a DAC by the CJWG. Within a one-mile radius of the proposed site, one additional Census Tract has also been identified as a DAC: Census Tract 36037940100, which has a population of 458. Figure 3-3 shows the areas included in Census Tracts 36037950300 and 36037940100. It should be noted that in past communications with the Tonawanda Seneca Nation, the Nation does not characterize itself as "disadvantaged" but has acknowledged that the term is used in reference to the Environmental Justice Site Law.

Figure 3-3: DACs Within One Mile of Project Double Reed Site



3.2. Census Tract 36037950300 Baseline Data

Table 3-1 outlines the baseline data and risk factors for Census Tract 36037950300.

Table 3-1: Census Tract 36037950300 Indicator Percentiles

Environmental burdens and climate change risks	
Potential pollution exposures	
Vehicle traffic density	15.1
Diesel truck and bus traffic	86.6
Particulate matter	40.1
Benzene concentration	10.0
Wastewater discharge	39.7
Land use and facilities	
Proximity to remediation sites	57.4
Proximity to regulated management plan sites	25.6
Proximity to major oil storage facilities	0.0
Proximity to power generation facilities	0.0
Proximity to active landfills	0.0
Proximity to municipal waste combustors	0.0
Proximity to scrap metal processors	96.5
Industrial/manufacturing/mining land use	44.6
Housing vacancy rate	48.9
Potential climate change risks	
Extreme heat projections	48.1
Projected flooding in coastal and tidally influenced areas	0.0
Projected flooding in inland areas	0.0
Low vegetative cover	8.4
Agricultural land	95.3
Driving time to hospitals and urgent/critical care	94.6

Population characteristics and vulnerabilities	
Income	
Percent <80% of area median income	32.1
Percent below federal poverty line	44.8
Percent without a bachelor's degree	73.0
Unemployment rate	62.9
Percent of single-parent households	33.7
Race and ethnicity	
Percent Latino/a or Hispanic	3.9
Percent Black or African American	30.6
Percent Asian	4.3
Percent Native American or Indigenous	73.5
Limited English proficiency	8.0
Historical redlining score	No Data
Health outcomes and sensitivities	
Asthma emergency department visits	27.3
COPD emergency department visits	81.8
Heart attack (MI) hospitalization	84.7
Premature deaths	73.7
Low birthweight	53.3
Percent without health insurance	50.1
Percent with disabilities	72.8
Percent of adults age 65+	67.8
Housing mobility and communications	
Percent renter-occupied homes	26.8
Rental housing cost burden	13.6
Energy poverty or cost burden	82.5
Manufactured homes	60.8
Homes built prior to 1960	40.2
Percent without internet	54.9

3.3. Census Tract 36037940100 Baseline Data

Table 3-2 outlines the baseline data and risk factors for Census Tract 36037940100.

Table 3-2: Census Tract 36037940100 Indicator Percentiles

Environmental burdens and climate change risks	
Potential pollution exposures	
Vehicle traffic density	1.1
Diesel truck and bus traffic	0.0
Particulate matter	41.6
Benzene concentration	10.8
Wastewater discharge	29.8
Land use and facilities	
Proximity to remediation sites	0.0
Proximity to regulated management plan sites	29.8
Proximity to major oil storage facilities	0.0
Proximity to power generation facilities	0.0
Proximity to active landfills	0.0
Proximity to municipal waste combustors	0.0
Proximity to scrap metal processors	0.0
Industrial/manufacturing/mining land use	0.0
Housing vacancy rate	0.9
Potential climate change risks	
Extreme heat projections	17.7
Projected flooding in coastal and tidally influenced areas	0.0
Projected flooding in inland areas	0.0
Low vegetative cover	1.0
Agricultural land	68.3
Driving time to hospitals and urgent/critical care	95.1

Population characteristics and vulnerabilities	
Income	
Percent <80% of area median income	74.3
Percent below federal poverty line	61.3
Percent without a bachelor's degree	96.3
Unemployment rate	0.0
Percent of single-parent households	50.4
Race and ethnicity	
Percent Latino/a or Hispanic	12.4
Percent Black or African American	0.0
Percent Asian	38.8
Percent Native American or Indigenous	99.9
Limited English proficiency	45.3
Historical redlining score	No Data
Health outcomes and sensitivities	
Asthma emergency department visits	27.3
COPD emergency department visits	81.8
Heart attack (MI) hospitalization	84.7
Premature deaths	73.7
Low birthweight	53.3
Percent without health insurance	92.1
Percent with disabilities	96.4
Percent of adults age 65+	95.0
Housing mobility and communications	
Percent renter-occupied homes	40.3
Rental housing cost burden	0.0
Energy poverty or cost burden	99.8
Manufactured homes	98.9
Homes built prior to 1960	34.3
Percent without internet	98.4

4.0 Disadvantaged Communities Burden Analysis

According to the CJWG's data and analysis, Census Tract 36037950300 exceeds the state median for several environmental burden and climate risk indicators. These include diesel truck and bus traffic (86.6%), proximity to remediation sites (57.4%), proximity to scrap metal processors (96.5%), agricultural land use (95.3%), and driving time to hospitals (94.6%). These indicators were considered in the DGEIS and are further discussed below. Additionally, the project is not expected to result in any increase in traffic and the project anticipates that the local emergency services will be able to handle this development. Further information detailing these assessments is provided below.

Traffic:

Project Double Reed is expected to generate a limited amount of traffic, primarily from employee vehicle trips. The data center buildings are expected to be staffed 24/7 with three eight-hour shifts daily. Nighttime shifts typically have lower staffing levels compared to daytime shifts, which is expected to result in a proportionally lower PM Peak Hour generation. Furthermore, most of these trips will be from passenger vehicles, with heavy-duty vehicle traffic for deliveries and maintenance being infrequent. In typical operation, heavy duty vehicle traffic is anticipated to be limited to 2-3 deliveries a day.

Based on the *ITE Trip Generation Manual, 12th Edition*, the traffic impact analysis will apply **Land Use Code 160 – Data Center**, as it provides multiple recent data points for trip generation. The estimated site-generated trips during the generator peak hours are as follows:

- **North Campus:**
  - AM Peak Hour: **130 trips**
  - PM Peak Hour: **115 trips**
- **South Campus:**
  - AM Peak Hour: **65 trips**
  - PM Peak Hour: **58 trips**

Total for Entire Site:

- AM Peak Hour: **195 trips**
- PM Peak Hour: **173 trips**

Tables 1 and 2 present the detailed trip generation calculations for the North Campus and South Campus, respectively.

Table 1: North Campus Trips				
ITE Code	160 - Data Center			
Number of 1000 Sq Ft GFA	1,439			
Peak Hour	AM		PM	
Trip Generation Rate	0.09		0.08	
Total Number of Trips	130		115	
Trips	Enter	Exit	Enter	Exit
Directional Distribution	75%	25%	35%	65%
Number of Trips per Direction	97	33	40	75

Table 2: South Campus Trips				
ITE Code	160 - Data Center			
Number of 1000 Sq Ft GFA	720			
Peak Hour	AM		PM	
Trip Generation Rate	0.09		0.08	
Total Number of Trips	65		58	
Trips	Enter	Exit	Enter	Exit
Directional Distribution	75%	25%	35%	65%
Number of Trips per Direction	49	16	20	38

In conclusion, the traffic analysis indicates that Project Double Reed's contribution to overall park traffic is minor. While the STAMP 2016 EIS Update established a threshold exceeding 1,900 PM Peak Hour trips for the full, 1,262-acre STAMP park build-out, the present development is projected to generate only 173 PM Peak Hour trips. This means Project Double Reed accounts for approximately 9.0% of the cumulative traffic volume analyzed in the EIS.

The STAMP Master Plan envisions a bypass road connecting Stamp Drive to Crosby Road near Route 77. To accommodate this future connection, the intersection of Crosby Road and Route 77 is slated for reconstruction into a roundabout. While this intersection currently doesn't pose significant traffic concerns, a roundabout would address geometric challenges and enhance traffic flow. Roundabouts are proven to significantly reduce accidents compared to traditional intersections. The location of our project and anticipated improvements to Crosby Road will be coordinated closely with these future improvements.

It's important to note that most STAMP-related traffic is anticipated to originate and terminate near I-90, south of the site. Consequently, the impact of STAMP traffic on the Crosby Road and Route 77 intersection is expected to be negligible. In addition, the

impact of the STAMP traffic, including Project Double Reed, will not negatively impact the Tonawanda Seneca Nation or Census Tract 36037940100. As previously reported, the majority of the traffic will come from the south utilizing the New York State Thruway (I-90) to Route 77 to Stamp Drive to Crosby Road as shown on Figure 4-1. It is very unlikely that traffic associated with Project Double Reed will traverse the Tonawanda Seneca Nation or Census Tract 36037940100. Traffic associated with the project is expected to have a negligible impact on the Disadvantaged Community Census Tract 36037950300. The expected traffic routes prioritize high-capacity corridors, routing the majority of vehicles via the New York State Thruway and Route 77. By utilizing these established state highways, the project minimizes additional volume on local residential roads and ensures existing regional infrastructure handles the primary flow."

Figure 4-1: Traffic Access



Remediation Sites and Scrap Metal Processors

These factors are not applicable to Project Double Reed as they will not be further impacted by this project.

Agricultural Land Use

The DGEIS considered that the full build-out of STAMP would result in the loss of approximately 615 acres of agricultural lands, about 46% of the total 1,337.20-acre Project Site. Based on available information, approximately 950 acres of the STAMP site were being used for farming prior to 2011. The DGEIS further stated the potential loss of future agricultural use at the STAMP Site represented less than 1% of the total cropland acres located in Genesee County, and approximately 1.7% of total cropland acres located in Ag District No. 2. The impact of which would be far outweighed by the economic development spurred by STAMP. The maximum amount of land considered for development of the proposed Project Double Reed is 130 acres, which remains well below (<10%) the contemplated full build-out under the DGEIS. The DGEIS stated that approximately 148,584.3 acres of cropland was located in Genesee County, so the 130-acres associated with Project Double Reed account for less than 0.08% of the total located in Genesee County. Accordingly, Project Double Reed would not have any significant adverse impacts on agricultural land resources that were not analyzed in the STAMP DGEIS.

Emergency Services:

The project team initiated outreach to the following local emergency service providers to foster collaboration and ensure effective emergency response. The goal of these initial outreach efforts is to inform these agencies about the project scope, understand their current level of service capabilities, and establish strong working relationships.

Genesee County Sheriff's Office

On January 23, 2026 the project team met with Genesee County Sheriff Joseph Graff. This session was a follow-up to prior project briefings, intended to confirm that the Sheriff's Office remains fully informed of the project's evolution. Sheriff Graff reaffirmed his understanding of the project's size and scope, specifically noting that while the project is substantial, the potential for increased calls related to commercial traffic and expanded patrol areas is possible.

To ensure the project maintains a "minimal impact" on county law enforcement resources, the following components of the project act as primary mitigations for the Sheriff's focus areas:

- **Traffic Management:** To mitigate the potential for traffic-related calls from increased commercial vehicle volume, the site features a permanently staffed security booth with dedicated 'rejection' pathways. This team is tasked with directing visitors and commercial traffic, ensuring that ingress and egress remain fluid and do not impact public roadway safety.
- **Proactive Site Security:** To prevent the need for additional county patrol areas, the project utilizes a private, 24/7 security presence. This team provides around-the-clock monitoring of the site, which is fully fenced and supported by advanced camera systems and early-detection technology.

- **Internal Incident Response:** By maintaining a secure, monitored perimeter and on-site staff, the facility is designed to manage routine security and traffic oversight internally, thereby avoiding an increase in law enforcement dispatch requests.

The following exhibit demonstrates the geographic proximity of these emergency services to the project site, showcasing distances in both miles and estimated drive times.

Location Exhibit:



Alabama Volunteer Fire Department

The project team has maintained engagement with the Town of Alabama Fire Department regarding the STAMP site. This dialogue began with the initial project phase and has been sustained through subsequent interim updates. On January 21, 2026, the team provided an updated project brief to Chief Terry Thompson to address specific requests for information regarding the current development's scale and hazards.

Chief Thompson confirmed his ongoing understanding of the project's scope. This consultation included a review of the following details, which formed the technical basis for the Department's determination that the project will not adversely impact emergency service levels:

- **Infrastructure & Hazards:** The specific configuration of Uninterruptible Power Supply (UPS) battery backups and diesel-powered generators. The Chief identified no "unusual hazards" associated with these systems.
- **Access Design:** The inclusion of integrated stair towers, which the Chief noted will significantly assist personnel with emergency access and vertical movement within the facility.

- **Operational Impact:** An assessment of call volume, which is expected to increase only by a "negligible amount," primarily for false alarms or EMS support.

Chief Thompson indicated that the Department feels they currently possess adequate equipment to respond to site emergencies, supplemented by participating fire companies through established mutual aid agreements.

The Alabama Volunteer Fire Department has Emergency Support Facilities at the following locations, within 2–6-minute drive time of the proposed development, with support apparatus split between the two locations:

- Fire Station 1 – 2230 Judge Road
  - o Engine 1 – International 4900
  - o Tanker 5 – International
- Fire Station 2 – 1717 Lewiston Road
  - o Engine 2 – Spartan Metro Star
  - o Squad 4 – 2015 Ford Expedition
  - o Rescue 19 – International 4900 Rescue Walk In

The following exhibit demonstrates the geographic proximity of these emergency services to the project site, showcasing distances in both miles and estimated drive times.

Location Exhibit



Mercy Flight EMS

The project team has maintained ongoing consultation with Mercy Flight EMS to evaluate potential impacts on emergency services resulting from the construction and operation of the proposed development. This dialogue builds upon previous outreach

conducted for the prior project version; the team has since reaffirmed project details with Mercy Flight to account for the updated scope and scale

On January 22, 2026, the project team met with Scott Wooton (CFO) and Mike Gugliuzza (Director of Medical Operations). Having been briefed on both the previous and current iterations of the site, both representatives confirmed a full understanding of the project's expanded size and technical requirements.

- **Basis of Determination:** The team provided technical specifications on site density and infrastructure, allowing Mercy Flight to determine the facility poses "no significant risks" once operational.
- **Risk Profile:** Feedback indicated that while the construction phase carries the standard elevated risks associated with large-scale builds, Mercy Flight maintains sufficient resources to manage these contingencies. Once operational, the health and safety risks are considered negligible due to the low-occupancy nature of data center halls. This low-risk profile is driven by Stream Data Centers' Emergency Response Protocols, which utilize 24/7 on-site staffing, specialized Methods of Procedure (MOP) for electrical safety, and advanced detection systems to resolve issues before external intervention is required.
- **Future Coordination:** As part of this ongoing consultation, the project team will provide and coordinate the final, site-specific Emergency Action Plan (EAP) with Mercy Flight EMS to ensure their flight and ground crews are fully integrated with the facility's safety protocols.

Mercy Flight EMS provides comprehensive local coverage via ground ambulance and air ambulance services. Their air ambulance base is located at the Genesee County Airport, positioned within 0.5 miles of their ground service station, allowing for rapid mobilization to the project site.

Response capabilities are further bolstered by a tiered mutual-aid system including Alabama Volunteer Fire Department which provides essential Emergency Medical Services and collaborates closely with Mercy Flight on regional dispatch calls.

Location Exhibit:



Genesee County Office of Emergency Management

On January 21, 2026, the project team conducted a follow-up consultation with Timothy Yaeger, Director of the Genesee County Office of Emergency Management. The project team provided an updated scope to Director Yaeger, ensuring that the agency's assessment is based on the most current site designs and technical specifications.

Director Yaeger confirmed that the Office does not see any 'unusual hazards' associated with the project. While data centers involve specific risks—primarily related to electrical equipment and fuel storage—the agency noted that these are well-understood industrial risks. The project is viewed as low risk, with the most likely calls for service involving routine EMS assistance for employees or standard traffic management rather than specialized industrial emergencies.

Response capabilities are bolstered by a tiered mutual-aid system, ensuring the facility is protected by both local and regional assets:

- **Local EMS & Coordination:** The Alabama Volunteer Fire Department provides essential Emergency Medical Services (EMS) and works in close collaboration with Mercy Flight on regional dispatch calls, ensuring rapid air-medical transport if required.
- **Specialized Fire Suppression:** It is our understanding that the STAMP site is covered by a mutual aid network capable of deploying specialized foam apparatus. These units are specifically designed to suppress Class B fires (flammable liquids) and high-voltage electrical fires, providing a critical layer of protection for the facility's power infrastructure and fuel storage.
- **Integrated Readiness:** This combination of dedicated local EMS and regional industrial firefighting resources ensures a comprehensive response to both routine medical needs and specialized technical incidents.

The determination that the project will have no significant impact on emergency service levels is based on the director's review of the following updated project details:

- **Operational Training and Preparedness:** Stream Data Centers' Emergency Response Protocols, which utilize 24/7 on-site staffing, specialized Methods of Procedure (MOP) for electrical safety, and advanced detection systems to resolve issues before external intervention is required.
- **Design Mitigations:** The inclusion of stair towers, which Director Yaeger specifically noted would significantly aid emergency personnel in gaining access to the facility during an incident.
- **Resource Adequacy:** The Director confirmed that the Town of Alabama and its mutual aid network are sufficiently equipped to support the facility's operations.

Town of Alabama

In addition to the above outreach, the Town of Alabama responded to a request from the Genesee County Economic Development Center on February 28, 2025, following a January 30, 2025, letter from the Tonawanda Seneca Nation, which expressed concern that emergency services would be inadequate to support a data center project at STAMP. The Town of Alabama reiterated that a detailed Emergency Plan must be submitted to the Town for any large projects, which will be evaluated by both the Alabama Fire Department and the Town as part of the site plan review process. They further noted that the Alabama Fire Department maintains specialized firefighting equipment, including a foam suppression truck. Currently, the only fire departments in this area with this specialized capability are those of Barre, Shelby, and Alabama. The Town further stated "To ensure readiness for any potential incidents, a foam task force has been established, consisting of the three fire departments, along with the New York State Division of Homeland Security and Emergency Services, as well as Genesee and Orleans County Emergency Services. These agencies collaborate and train together to ensure effective response capabilities." Based on this correspondence as well as the other outreach efforts, adequate emergency services are available for Project Double Reed.

<u>Acoustic Impacts:</u>

Although not identified as an environmental burden, Project Double Reed is committed to minimizing noise impacts on surrounding areas and aligning the proposed development with STAMP's intended uses. To this end, noise modeling was developed to predict potential noise levels from the facility. The full report was completed in January 2026, by Ramboll.

Modeling was performed using Cadna/A software implementing ISO 9613-2 environmental sound propagation algorithms. The assessment accounts for distance attenuation, barrier effects from buildings/topography, and atmospheric absorption.

Operational Acoustic Scenarios
For facilities of this type, the typical operational acoustic profile is covered by three main scenarios:

- **Peak Operations** This represents the facility's typical 24/7 operational profile.
- **Generator Maintenance:** A periodic scenario involving the testing of a limited number of generators during daytime hours for short durations, in conjunction with the equipment operating under the Constant Mechanical profile.
- **Emergency Backup:** An emergency scenario where all generators are operational, this is anticipated to be extremely infrequent, maybe once or twice every 3 to 5 years for short durations based on the reliability of the supporting grid infrastructure. As such, this impact is typically not considered when completing detailed noise models as the events are extremely infrequent and typically of a short duration when they do occur.

Integrated Design Measures
Compliance is achieved through primary architectural and engineering controls integrated into the site plan:

- **Rooftop Screening:** Each of the three data centers (housing 66 chillers each) includes full-perimeter solid rooftop screens extending 18 feet above the roofline (64 feet total height) to mitigate chiller noise.
- **Generator Barriers:** Ground-level generator yards include solid noise barriers—30 feet high for the South Campus and 20 feet high for the North Campus.
- **Operational Tuning:** Chillers are programmed to operate at reduced fan speeds (55%) during nighttime hours to further minimize the acoustic footprint.

Sound Measurement Methodology
The most common metric is the overall A-weighted sound level measurement adopted by Regulatory Agencies worldwide. Analysis of the project will focus on the A-weighted level consistent with the requirements established for STAMP. The A-weighting network mimics the human ears response to typical environmental sounds. There is consensus that A-weighting is appropriate for estimating the hazard of noise-induced hearing loss. With respect to other effects, such as annoyance, A-weighting is acceptable for typical sounds which are dominated by middle- and high-frequencies. However, if the noise is unusually high at low frequencies or contains prominent low-frequency tones, the A-weighting may not give a valid measure. The equipment associated with this project does not typically exhibit unusually high frequencies or contain low-frequency tones. Temporary point sources such as generators will be housed in acoustical enclosures, include mitigation measures such as silencers or mufflers, and located in dedicated equipment yards with screening where required.

Further, the project utilizes solid screening with a minimum surface mass of 4 lbs./sq. ft. to ensure effective transmission loss across the audible spectrum. This surface mass provides the physical density necessary to attenuate noise based on frequency-dependent propagation characteristics. For high-frequency sound, the dense material

serves as a rigid barrier to block the transmission of shorter wavelengths. For low-frequency sound, the mass of the screening provides the requisite inertia to resist the passage of longer wavelengths, which typically require greater material density for effective mitigation.

By implementing screening with this specific surface mass in conjunction with the modeled barrier heights, the project achieves a comprehensive acoustic shadow. This design ensures that sound energy is attenuated both through the material itself and by the increased diffraction path over the top of the structures, resulting in a controlled acoustic footprint at the property boundary.

The key findings of the environmental noise assessment were as follows:

- No independent state, county or town numerical noise limits apply to the Site. However, the STAMP GEIS/Findings established maximum noise levels of 65 dBA during the day, and 45 dBA during the night at the STAMP boundary in non-industrial areas, which are treated as the controlling criteria for this assessment.
- Project generated noise levels at the proposed Projects property boundaries are expected to remain below 65 dBA during the day and 45 dBA during the night.
- Noise levels during a Day/Night Constant Mechanical operating scenario are projected to be consistent with the GEIS/Findings.
- Noise levels during a Generator Maintenance operating scenario are projected to be consistent with the GEIS/Findings. Generator Maintenance testing is to be undertaken during daytime hours.
- Noise levels during a Day/Night Emergency operating scenario are projected to be consistent with the GEIS/Findings

Based on the findings of the noise assessment and modeling and the use of the GEIS/Findings for the STAMP project, Project Double Reed is not anticipated to impact the nearby residential receptors or the Tonawanda Seneca Nation and therefore, will not have any disproportionate burden.

Air Emissions:

Although not identified as an environmental burden, Project Double Reed is committed to minimizing air impacts on surrounding areas and aligning the proposed development with STAMP's intended uses. The project's primary source of air emissions will be stationary diesel backup generators. The facility will install up to twelve (12) Tier 2 certified diesel backup generators rated at 2.7 megawatts (MW) each. Air emission estimates were conducted to ensure compliance with Federal, State, and Local air quality regulations, specifically targeting the National Ambient Air Quality Standards (NAAQS).

Regulatory Compliance and Permitting

Conservatively estimating the project's size and operational characteristics, it will not require permitting under Title IV (Acid Rain Program) or Title V (Operating Permits) of the Federal Clean Air Act. Because the project is located within the Ozone Transport Region, the facility will qualify for a Minor Facility Registration (AFR) in New York State by restricting emissions to less than 50% of the major source threshold. Specifically, the facility will "cap by rule" in accordance with 6 NYCRR 201-4.5, limiting Oxides of Nitrogen (NOx) to 49.9 tons per year.

Operational Maintenance and Limits

Generators require regular maintenance to ensure emergency readiness. While Federal regulations (40 CFR 60 Subpart IIII) allow up to 100 hours per year for maintenance and testing, the facility is requesting an enforceable limitation of 500 hours per year per unit for all operating categories (emergency, maintenance, and commissioning) to ensure total site emissions remain under the 49.9 tpy (NOx) cap.

Generator operating time will be tracked through the use of a non-resettable hour meter installed on each engine, as required by federal air regulations applicable to internal combustion engines. Readings will be recorded from the non-resettable hour meters at the beginning and end of each engine run to determine the total length of each run.

Estimated Annual Emissions (Total Campus)

Pollutant	Project Estimated Emissions (Actual)	STAMP DGEIS / Major Source Threshold
Oxides of Nitrogen (NOx)	**< 49.9 tpy**	100 tpy (DGEIS Impact Threshold) / 50 tpy (AFR Cap)
Carbon Monoxide (CO)	**~10.5 tpy***	100 tpy
Particulate Matter ($PM_{10}/PM_{2.5}$)	**~0.85 tpy***	100 tpy
Volatile Organic Compounds (VOC)	**~1.2 tpy***	50 tpy
Sulfur Dioxide (SO_2)	**< 0.1 tpy**	100 tpy
Hazardous Air Pollutants (HAPs)	**0.048 tpy**	25 tpy (Aggregate) / 10 tpy (Individual)
Greenhouse Gases (CO_2)	**5,333 tons**	25,000 metric tons (Reporting Threshold)

*Projected based on 500-hour enforceable run-time limit and Tier 2 emission factors.

Diesel generators do not emit perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), or sulfur hexafluoride (SF_6). Detailed analysis confirms that NOx emissions—the primary pollutant of concern—will be limited to a level that equates to approximately 134 hours of full-load operation per generator annually, providing a significant safety buffer relative to GEIS air quality thresholds.

Project Double Reed's proposed design shows a demonstrated commitment to reducing reliance on fossil fuels through the minimization of fossil fuel backup power resources. Further, the Project will draw power from the STAMP substation, which itself is interconnected to the Western New York power grid (NYISO Zone A) which, according to 2024-2025 NYISO data, is consistently low-emission, drawing from 85% to 95% renewable rather than non-renewable sources.

Water Pollutants:

Although not identified as an environmental burden, Project Double Reed is committed to minimizing water impacts on surrounding areas and aligning the proposed development with STAMP's intended uses. To this end, Project Double Reed will be required to obtain both a construction SPDES permit and an industrial SPDES permit to support construction activities and long-term site operations. The project design includes four (4) stormwater management facilities on the South Campus. Three (3) were approved as part of the prior development approval plus a dry swale. This site has been evaluated for and complies with the drainage requirements of the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity.

The North Campus will be provided with twelve (12) post-construction stormwater management practice facilities and will maintain stormwater discharges to four (4) existing points of discharge from the property. These proposed stormwater facilities include filtration bioretention facilities and a micropool extended detention pond to meet the requirements of the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity for new development.

The site is tributary to Whitney Creek, which is identified as being in the HUC-12/HUC-8 of Oak Orchard Creek. It is noted that there are other documents previously submitted for the overall STAMP project that indicate that these 2 sites are tributary to Tonawanda Creek. The sites are provided with compliant stormwater management facilities for water quality controls as well as runoff controls. Runoff from these sites once it is discharged from the properties, flows into wetland complexes in the western portion of STAMP. Regardless, the 90 acres associated with this development represent 0.40% of the entire HUC-12 watershed and will have a negligible effect on water quality.

5.0 Proposed Project Burden Analysis

As discussed in the previous sections, the Proposed Project would not place a disproportionate burden on any disadvantaged community. Additionally, the operation of Project Double Reed yields significant benefits for the local host community and nearby DACs.

The development of this data center will significantly contribute to the local economy. It will generate substantial investment in construction and critical infrastructure, creating numerous skilled, high-paying jobs in technical and support roles. This includes permanent positions for skilled trade professionals to maintain critical equipment, oversee IT support, and provide physical security and day-to-day assistance in office-like environments. The project is expected to sustain a workforce of approximately 120 employees. Data centers are a valuable asset to local communities, generating substantial revenue without placing a significant burden on public services.

5.1 DAC Benefits

Project Double Reed has demonstrated that it has the experience and financial capabilities to execute, develop, and deliver its project in a timely manner. It is backed by a proven developer with an impressive client base and a multitude of similar projects under its belt. In addition, Project Double Reed has a soft commitment from a Fortune 50 company to utilize 100% of the data center capacity.

The development of Project Double Reed will significantly contribute to the local economy. Through a revised capital investment to increase by more than 60% from prior filings, in construction and critical infrastructure, the development will generate high-paying jobs in technical and support roles. Project Double Reed will pay sales tax and property taxes, which will be allocated to Genesee County, the Town of Alabama, and its school district on an annual basis, subject to an escalator that will result in a sizable payment being paid on an annual basis at the end of the PILOT for the project. It is anticipated that this revenue will have a critical impact on the County's ability to undertake vital updates to the county's infrastructure, thereby improving the health and welfare of all members of the community. In addition, Project Double Reed will pay to finance construction of the STAMP Substation and to reimburse GCEDC for costs associated with prior investment made to the same, while also paying GCEDC for the 90 acres it will purchase for the Project.

Project Double Reed will have the smallest environmental impact and will best address concerns voiced by the Territory of the Tonawanda Seneca Nation with respect to visual and noise impacts, all while providing local benefits over the life of the PILOT.

Project Double Reed will play a critical role as a tenant of the STAMP Site in supporting the overall goals of the development of STAMP and the positive impacts that will result

for existing businesses and other economic development projects. Further, the financial benefits to the community will be utilized to fund infrastructure improvements throughout the County which will benefit economic development projects (both existing and future) as well as the community at large.

6.0 Public Participation

Project Double Reed prepared a Public Participation Plan (PPP) to fulfill and comply with NYSDEC requirements and also to help ensure meaningful and effective public participation for stakeholders to be informed about and involved during the environmental review of the Proposed Project. The PPP has been prepared under separate cover and will be reviewed and approved by NYSDEC prior to implementation. Public participation will be recorded and documented in accordance with the PPP. These outreach efforts will be in addition to any notice and publication requirements required by law.

7.0 Conclusion

Project Double Reed has demonstrated a consistent commitment to complying with the requirements of SEQRA and the EJ Siting Law. Through this evaluation, several key components underscore the Facility's adherence to environmental standards and its proactive approach to mitigating potential impacts on DAC.

- **Job Creation:** Skilled, high-paying jobs that stimulate the local economy.
- **Significant Revenue:** Substantial tax revenue to support essential community services.
- **Community Pride:** Development that positions Genesee County as a hub for innovation and technology.

Stream has been at the forefront of the data center industry since its beginnings, transforming communities and driving economic growth. Project Double Reed's vision aligns seamlessly with the goals of the STAMP as the heart of the Buffalo-Rochester Tech Corridor. The proposed project possesses the financial capacity, technical expertise, and unwavering commitment to bring multi-billion-dollar projects to life, right here in Genesee County.

The findings of this DAC Evaluation affirm that Project Double Reed aligns with the principles of the EJ Siting Law, ensuring that disadvantaged communities are protected, and that the state's environmental and public health goals are advanced.

III-s |NEW YORK STATE SEQR EAF Part 1

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

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

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

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

A. Project and Applicant/Sponsor Information.

Name of Action or Project: BUFA - Project Double Reed		
Project Location (describe, and attach a general location map): Genesee County Science, Technology, and Advanced Manufacturing Park (STAMP), Town of Alabama, Genesee County, New York		
Brief Description of Proposed Action (include purpose or need): The proposed action involves the development on approximately 130-acres within the Genesee County Science, Technology, and Advanced Manufacturing Park (STAMP) in the Town of Alabama, Genesee County, New York. The proposed actions will include 90 acres of permanent development; 60 acres on the North Campus and 30 acres on the South Campus. These areas include an approximately 2.2 million-square-foot data center campus, housing three (3), two-story buildings. An additional 40 acres will be utilized as temporary construction logistics areas in support of the project. The proposed location of the site is along the west side of Crosby Road, starting directly southwest, 600 linear feet south of the Lewiston Road (Highway 77)/Crosby Road intersection. The entire STAMP complex was subject to previous SEQRA review per the DGEIS dated April 14, 2011, FGEIS accepted by Genesee County Economic Development Center (GCEDC) on January 19, 2012, Findings Statement issued by GCEDC on March 12, 2012.		
Name of Applicant/Sponsor: Stream U.S. Data Centers, LLC	Telephone: 214.267.0400 E-Mail: info@stream-dc.com	
Address: 2001 Ross Avenue		
City/PO: Dallas	State: TX	Zip Code: 75201
Project Contact (if not same as sponsor; give name and title/role): Bradley Wells, Site Selection and Development Manager	Telephone: E-Mail: bwells@stream-dc.com	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Genesee County Industrial Development Center d/b/a Genesee County Eco Dev Center	Telephone: 585-343-866, ext. 17 E-Mail: mmase@gcedc.com	
Address: 99 MedTech Drive, Suite 106		
City/PO: Batavia	State: NY	Zip Code: 14020

B. Government Approvals

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

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Town of Alabama Planning Board: Site Plan, Subdivision, Grading Plan	
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☑Yes☐No	Local Fire Review; Town of Alabama: Bldg. Permit, Certif. of Occupancy	
e. County agencies ☑Yes☐No	Genesee County Planning Board GML Review; GCEDC: Utility Review, Host Agreement	
f. Regional agencies ☐Yes☑No		
g. State agencies ☑Yes☐No	NYSDEC: Stormwater/SPDES, Chemical Storage, Air Quality	
h. Federal agencies ☐Yes☑No		

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

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

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

C. Planning and Zoning

C.1. Planning and zoning actions.

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

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

C.2. Adopted land use plans.

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

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

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

If Yes, identify the plan(s):

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

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Technology District - 1

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

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? Not Applicable

C.4. Existing community services.

a. In what school district is the project site located? Oakfield - Alabama CSD

b. What police or other public protection forces serve the project site?
Genesee County Sheriff's Office / New York State Police

c. Which fire protection and emergency medical services serve the project site?
Town of Alabama Volunteer Fire Dept.; Genesee County Emerg. Mgt. Services; Mercy Flight Service

d. What parks serve the project site?
Town of Alabama wildlife conservation areas located near North Campus include the NYSDEC's Tonawanda and John White Wildlife Management Areas, and the Federal Iroquois National Wildlife Refuge. No direct impacts are proposed to these parks as part of the project.

D. Project Details

D.1. Proposed and Potential Development

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

b. a. Total acreage of the site of the proposed action? 135.0* acres
b. Total acreage to be physically disturbed? 135.0* acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 135.0* acres

**Note*
90 acres Permanent Development
40 acres Temp Construction Logistics
5 acres Off site Easement

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

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

e. Will the proposed action be constructed in multiple phases? ☑ Yes ☐ No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated 3
- Anticipated commencement date of phase 1 (including demolition) 04 month 2026 year
- Anticipated completion date of final phase 04 month 2030 year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

Construction will begin with South Campus Building 1 while North Campus site preparation occurs concurrently, after which trades will mobilize to Buildings 2 and 3 in a sequential progression as work on each preceding building is completed.

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

If Yes, show numbers of units proposed.

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

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

If Yes,

i. Total number of structures 3

ii. Dimensions (in feet) of largest proposed structure: 75 height; 338+/- width; and 1073+-/ length

iii. Approximate extent of building space to be heated or cooled: 2,200,000 square feet

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

If Yes,

i. Purpose of the impoundment: Constructed basin(s) designed to temporarily store and control the release of stormwater runoff (see narrative).

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑Other specify: Stormwater runoff

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

iv. Approximate size of the proposed impoundment. Volume: 1.75+/- million gallons; surface area: 5.55+/- acres

v. Dimensions of the proposed dam or impounding structure: varies height; varies length

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

Excavated earth used to form embankments of square basin, with concrete outlet structures to manage stormwater, added vegetation for slope

D.2. Project Operations

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

If Yes:

i. What is the purpose of the excavation or dredging?

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

- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No

If yes, describe.

v. What is the total area to be dredged or excavated? acres

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

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

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

ix. Summarize site reclamation goals and plan:

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

If Yes:

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

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

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☑No
If Yes, describe:

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

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

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

i. Total anticipated water usage/demand per day: 20,000 gallons/day

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

- Name of district or service area: STAMP Water Works, Inc.
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☐Yes ☑No

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

- Describe extensions or capacity expansions proposed to serve this project:
  Waterline extension to property line served by STAMP Water Works, Inc., located on Crosby Road.
- Source(s) of supply for the district: Genesee County

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

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

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

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

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

i. Total anticipated liquid waste generation per day: 12,500 gallons/day

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

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

- Name of wastewater treatment plant to be used: STAMP Sewer Works via agreement with Oakfield WWTP
- Name of district: STAMP Sewer Works, Inc.
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

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

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: A new force main and pump station is currently being designed and will be constructed in 2025. Route is direct from STAMP site to Oakfield WWTP

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

If Yes:

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

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

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: No recycling or reuse of liquid waste is planned. All waste generated on the site will be captured via traditional sanitary sewer piping and piped to the STAMP main pump station for disposal.

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

If Yes:

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

_____ Square feet or 90 acres (impervious surface)

_____ Square feet or 90 acres (parcel size)

ii. Describe types of new point sources: Rainwater runoff from parking areas, roadways, building roofs and associated walking paths and equipment yards.

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

On-site stormwater management facilities that will outlet to suitable outfall points at the northwestern boundaries of the project site.

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

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

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

If Yes, identify:

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

Air emissions from heavy construction equipment, passenger vehicles (Permanent Employees and Temporary Construction), Electrical Generation

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

_____

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

Twelve (12) Generators, 2.7 MW/each. The total number of generators are five [5] for the North Campus and seven [7] for the South Campus.

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

If Yes:

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

ii. In addition to emissions as calculated in the application, the project will generate:

- 5,333 Tons/year (short tons) of Carbon Dioxide (CO_2)
- 0.0013 Tons/year (short tons) of Nitrous Oxide (N_2O)
- N/A Tons/year (short tons) of Perfluorocarbons (PFCs)
- N/A Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- N/A Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- 0.048 Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

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

If Yes:

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

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

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

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

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

If Yes:

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

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): 0-3 truck deliveries/day

iii. Parking spaces: Existing 0 Proposed 194 Net increase/decrease +194 (127 North, 67 South)

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

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
The internal private drive network will loop and have access points onto Crosby Road or via easement agreements

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

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

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

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

If Yes:

i. Estimate annual electricity demand during operation of the proposed action:
500 MW

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
Transmitted by New York Power Authority (NYPA) and delivered by National Grid (NG).

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

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

i. During Construction:
- Monday - Friday: 7:00 AM - 5:00 PM
- Saturday: 7:00 AM - 5:00 PM
- Sunday: Not Applicable
- Holidays: Not Applicable

ii. During Operations:
- Monday - Friday: Continuous (24 hours)
- Saturday: Continuous (24 hours)
- Sunday: Continuous (24 hours)
- Holidays: Continuous (24 hours)

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

If yes:

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

Construction: Heavy equipment operation, materials bending and dumping, possible riveting and jackhammering - 7 AM to 5 PM Mon-Sat;
Operations: Emergency Electric Generation during Power Outages (infrequent) and Equipment Cooling

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

Describe: _____

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

If yes:

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

Exterior lighting/fixtures on new buildings, parking areas, and access drives. Perimeter lighting will include shield to prevent spill onto adjacent properties.

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

Describe: _____

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

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

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

If Yes:

i. Product(s) to be stored Diesel [In Gallons]

ii. Volume(s) 114,000 per unit time year (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

Electric Generators with integrated tank storage

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

If Yes:

i. Describe proposed treatment(s):

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

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

If Yes:

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

- Construction: 0-1 tons per monthly (unit of time)
- Operation : 0-4 tons per monthly (unit of time)

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

- Construction: All commercially feasible options for minimization, recycling, or reuse to avoid disposal will be undertaken, including source reduction, material reuse, recycling, and composting to divert waste from landfills. Recycling and use of material for clean fill.
- Operation: All commercially feasible options for minimization, recycling, or reuse to avoid disposal will be undertaken, including source reduction, material reuse, recycling, and composting to divert waste from landfills. Recycling and use of material for clean fill.

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

- Construction: Solid waste generated on-site will be collected in clearly marked and designated containers, dependent on local regulations and waste type, and then disposed of at permitted landfills, recycled, or composted.
- Operation: Solid waste generated on-site will be collected in clearly marked and designated containers, dependent on local regulations and waste type, and then disposed of at permitted landfills, recycled, or composted.

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

If Yes:

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

ii. Anticipated rate of disposal/processing:

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

iii. If landfill, anticipated site life: _____ years

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

If Yes:

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

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

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

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

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

If Yes: provide name and location of facility: _____

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

E. Site and Setting of Proposed Action

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

a. Existing land uses.

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

☐ Urban ☑ Industrial ☐ Commercial ☐ Residential (suburban) ☑ Rural (non-farm)
☐ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

The site is situated within a developing industrial park, which is comprised of legacy agricultural uses, as well as two roadway corridors.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	2.5	90.0	+87.5
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	35.24	+35.24
• Agricultural (includes active orchards, field, greenhouse etc.)	127.5	0	-127.5
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Stormwater Management	0	4.76	+4.76

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

i. If Yes: explain: _____

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

If Yes,

i. Identify Facilities:

_____

_____

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

If Yes:

i. Dimensions of the dam and impoundment:

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

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

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

If Yes:

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

- If yes, cite sources/documentation: _____

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

_____

_____

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

_____

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

If Yes:

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

_____

_____

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

If Yes:

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

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

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

☐ Neither database

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

_____

_____

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

If yes, provide DEC ID number(s): _____

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

_____

_____

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

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

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >30 feet

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

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

Odessa silt loam, 0-8% slopes	45.5 %
Ovid silt loam, 3-8% slopes	21.9 %
Lakemont silt loam, 0-3% slopes	7.8 %

d. What is the average depth to the water table on the project site? Average: >14 feet

e. Drainage status of project site soils:

☑ Well Drained:	3.3 % of site
☑ Moderately Well Drained:	14.3 % of site
☑ Poorly Drained	82.4 % of site

f. Approximate proportion of proposed action site with slopes:

☑ 0-10%:	98.2 % of site
☑ 10-15%:	1.8 % of site
☐ 15% or greater:	% of site

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

h. Surface water features.

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

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

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

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

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

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Wetland 10, 15, 16 (not mapped by NYSDEC ERM), 34, 36 Approximate Size 11,000 square feet +/-
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No
If yes, name of impaired water body/bodies and basis for listing as impaired: _____

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

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

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

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

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Whitetail Deer | Common Rodents | passerine birds, raptors,woodpeckers
Painted turtles, garter snakes | | game birds
(Source: STAMP DGEIS)

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑Yes ☐No
If Yes:
i. Species and listing (endangered or threatened): _____
Heartleaf Plantain, Least Bittern (Source: STAMP DGEIS) Short-eared Owl, Northern Harrier, Bald Eagle, Northern Long Eared Bat. Note: Tricolored Bat and Monarch Buttery have been proposed for federal listing as threatened, although proposed 4(d) rule likely makes project exempt from possible monarch restrictions.

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☑Yes ☐No
If Yes:
i. Species and listing: _____
Horned Lark (Source: STAMP DGEIS) Sharp-Shinned Hawk, Cooper's Hawk.

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☑Yes ☐No
If yes, give a brief description of how the proposed action may affect that use: _____
Increased noise, traffic, security fencing, and human presence

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

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

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

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

If Yes:

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

ii. Name: _____

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

_____

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

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

If Yes:

i. Describe possible resource(s): Indigenous Tribal Communities. Phase I,II, and III arch. investigation conducted on all but 1 site...see below.

ii. Basis for identification: All sites investigated & cleared but 1 small resi. parcel; will conduct arch investigation before development

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

If Yes:

i. Identify resource: Tonawanda Wildlife Management Area, John White Wildlife Management Area, Iroquois National Federal Wildlife Refuge

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): State and Federal Wildlife Management Areas

iii. Distance between project and resource: 1.0 mi / 0.66 mi / 0.66 miles.

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

If Yes:

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

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

F. Additional Information

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

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

G. Verification

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

Applicant/Sponsor Name Project Double Reed Date February 18, 2026

Signature  Title Site Selection and Development Manager

PRINT FORM

BUFA - Project Double Reed 1/27/2026 081591-01-001

New York State SEQR EAF Section D.1.h

BASIN ID	SIZE OF IMPOUNDMENT(iv) VOLUME (GAL.)	SURFACE AREA (Ac.)	DIMENSIONS OF DAM/IMPOUNDING STRUCTURE (v) HEIGHT (Ft.)	LENGTH (Ft.)	CONSTRUCTION METHOD/MATERIALS (vi)
South Campus					
Bio-Retention Basin	537700	1.42	1.5	727	Excavated earth used to form embankments of bio-retention basin, with underdrains and stone spillway, entire basin bottom is planted
Sediment Basin	29000	0.16	0.65	61	Excavated earth used to form embankments of sediment basin, with earth spillway and storm pipe level spreaders to bio-retention basin
Dry Pond	365300	0.34	3.44	319	Excavated earth used to form embankments of dry basin, with stone spillways to sediment basin and to adjacent watercourse
SMP-A (Dry Swale)	7400	0.2	2.1	285	Excavated earth used to form embankments of dry swale, with concrete outlet structure to manage runoff to storm conveyance system, side slopes are grassed
North Campus					
SMP-A (Filtration Bio-Retention Basin)	39400	0.14	1.9	550	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-B (Filtration Bio-Retention Basin)	29900	0.16	1.9	498	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-C (Filtration Bio-Retention Basin)	79400	0.39	2	727	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-D (Filtration Bio-Retention Basin)	59600	0.39	1.6	705	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-E (Filtration Bio-Retention Basin)	47500	0.13	2	464	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-F (Filtration Bio-Retention Basin)	81000	0.24	1.8	523	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-G (Filtration Bio-Retention Basin)	77400	0.25	2.05	543	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-H (Micro-pool Extended Detention Basin)	193700	1.13	7.6	806	Excavated earth used to form embankments of forebays and micropool with permanent pools, impermeable liners (if needed) to maintain water levels and grassed spillway
SMP-I (Filtration Bio-Retention Basin)	66600	0.2	2.2	488	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-J (Filtration Bio-Retention Basin)	89700	0.27	2.3	622	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted
SMP-K (Filtration Bio-Retention Basin)	50200	0.13	2.3	500	Excavated earth used to form embankments of bio-retention basin, with underdrains and grass spillway, entire basin bottom is planted

BARCLAY DAMON LLP

Corey A. Auerbach
Partner

January 12, 2026

BY HAND DELIVERY AND ELECTRONIC MAIL

Carl Krumpf
Chairman
Town of Alabama Planning Board
c/o Rebecca L. Borkholder, Town Clerk
Town Hall
2218 Judge Road
Oakfield, NY 14125

Re: Stream U.S. Data Centers, LLC
Site Plan - BUFA Project Double Reed
Tax Parcels (SBL): 10.-1-42.2; 10.-1-41; 10.-1-8; 10.-1-9; 10.-1-10; 10.-1-4.2; and portions of 10.-1-3; 10.-1-4.112; 10.-1-7

Dear Chairman Krumpf and Members of the Planning Board:

Barclay Damon LLP represents Stream U.S. Data Centers, L.L.C. ("Stream"), the applicant and developer for the above-referenced project and the contract purchaser of certain real property located within the Genesee County Science, Technology and Advanced Manufacturing Park ("STAMP") in the Town of Alabama (the "Project Site"). On behalf of Stream, we respectfully submit this Site Plan Review Application for the BUFA – Project Double Reed (the "Project") and request the Planning Board's review and approval.

Contemporaneously with this submission, Stream has initiated payment of the required initial, non-refundable filing fee in the amount of Ten Thousand Dollars ($10,000) via ACH/wire transfer, submitted pursuant to the Town Code as compensation for the Town's preliminary review of the Application. Stream understands that, within thirty (30) days of submission, the Town will review the Application for completeness and will notify the Applicant of any additional application fee due, which shall be promptly paid upon notice.

Also submitted with this filing are the following materials, provided in support of the Application:

Exhibit A – Town of Alabama Application for Site Plan Review
Exhibit B – Site Plan Checklist
Exhibit C – Technology District Design Standards & Guidelines Checklist

Exhibit D – Stormwater Pollution Prevention Plan & Drainage Report
Exhibit E – Engineering Report
Exhibit F – Civil Plan Set
Exhibit G – Architectural Plan Set

As described below in the Project Description, the materials submitted herewith primarily relate to the South Campus and are intended to initiate comprehensive site plan review, with corresponding North Campus materials to follow and be reviewed together as part of the unified Project.

Project Description

The Project proposes development on approximately 130 acres within STAMP, including approximately 90 acres of permanent development comprised of a South Campus and a North Campus, together with associated infrastructure and improvements.

The South Campus, located on approximately 30 acres, includes one two-story data center building with an approximate 332,000 square-foot footprint (approximately 664,000 square feet of gross floor area). The South Campus will utilize existing infrastructure constructed as part of the Plug Power project, including the on-site electrical substation and stormwater management facilities.

The North Campus, located on approximately 60 acres, includes two two-story data center buildings, each with an approximate 332,000 square-foot footprint (approximately 664,000 square feet of gross floor area). The North Campus will include construction of a purpose-built on-site substation situated on the northwest portion of the Project Site, adjacent to the existing STAMP substation.

Each campus will include a guard house, internal driveways, parking areas, stormwater management facilities, and related site infrastructure. In addition, approximately 40 acres of the Project Site will be utilized temporarily for construction logistics and staging activities in support of the Project.

Stream is commencing site plan review by submitting comprehensive civil plans and building elevations for the South Campus to facilitate prompt and efficient review. Complete site plan and architectural materials for the North Campus will be submitted shortly thereafter and incorporated into the Planning Board's review, such that the South Campus and North Campus will be reviewed together as part of the overall Project.

Site Plan Review

The Zoning Law of the Town of Alabama ("Zoning Law") provides that non-residential development within the Town's Technology District 1 (TD1) zoning district is subject to site

plan approval by the Planning Board following a public hearing. The Project is a permitted use within TD1 and is therefore properly before the Planning Board for review pursuant to Zoning Law § 808.

The Application has been coordinated with the Town Board through the Supervisor's office, and a sketch plan meeting was held with the Planning Board on January 5, 2026. The instant submission builds upon that coordination and reflects feedback received to date.

Zoning Law § 808(C)(7) sets forth the site plan review criteria the Planning Board is required to consider in evaluating an application. Those criteria are addressed below, together with an explanation of how the Project satisfies each applicable standard.

The Town Planning Board shall review the site plan and supporting data/information before approval, approval with modifications or conditions, or disapproval of such site plan, taking into consideration the following:

a. Harmonious relationship between proposed uses and existing adjacent uses.

The proposed data center campus is consistent with the character, scale, and function of existing and planned development within STAMP. Building placement, access, service areas, and security features are designed to internalize operational activity and limit off-site effects. The proposed buildings are set back a substantial distance from Crosby Road and are visually buffered by a landscaped berm along the frontage, layered landscaping between the roadway and buildings, and the placement of parking areas well removed from the public right-of-way. The site's stormwater management features along the north side of the Project further contribute to visual separation. Adjacent parcels are designated within the STAMP master plan for utility and future STAMP-related development, and wetlands on the adjacent parcel to the south provide an additional natural buffer. These combined setbacks, buffers, and internalized site features ensure that the Project remains visually and operationally self-contained within STAMP, reinforcing a harmonious relationship with surrounding land uses.

From an architectural standpoint, the building design further mitigates scale and visual monotony by organizing the primary data hall façade into modular precast concrete panels with integrated reveals and tonal variation. This articulation breaks down the length of the building elevation and reduces the perceived mass of the structure when viewed from off-site locations. Egress stair towers located along the building flanks introduce additional vertical and horizontal relief through changes in materiality and color, further softening the building form and contributing to a composed and intentional architectural expression rather than a monolithic appearance.

This approach aligns with the land use and economic development objectives set forth in the Town of Alabama 2017 Comprehensive Plan Update ("Comprehensive Plan"), which directs

high-intensity development to designated areas such as STAMP while protecting agricultural, residential, and hamlet areas elsewhere in the Town.

b. Maximum safety of vehicular circulation between the site and street, including emergency vehicle access. This consideration will include input from the fire department.

Vehicular access to the Project Site is provided via the established STAMP roadway network and Crosby Road. The site plan provides two separate driveways designed for one-way flow, with the southern driveway serving inbound traffic and the northern driveway serving all exiting traffic. The guard house is set back a sufficient distance from the roadway to accommodate vehicle queuing without encroaching into the public right-of-way, and the access control system includes two lanes to facilitate efficient ingress. Curb radii at the driveway intersections with Crosby Road are designed to accommodate WB-67 tractor trailers and therefore accommodate the largest fire and emergency vehicles. The circulation design prioritizes emergency access and operational safety while avoiding unnecessary interaction with Town roadways, advancing the transportation and infrastructure objectives articulated in the Comprehensive Plan. Emergency access routes are clearly identified and will be coordinated with the fire department and other emergency service providers as part of the review process.

c. Adequacy of interior circulation, parking and loading facilities with particular attention to pedestrian safety and emergency vehicle access.

The interior circulation system is designed as a continuous, redundant loop capable of accommodating both the largest service vehicles and emergency apparatus throughout the site without conflict. The Project's internal circulation system provides a clear hierarchy separating employee and visitor traffic from service and loading operations. Internal driveways are a minimum of 30 feet in width, accommodating WB-67 tractor trailers and providing continuous access for emergency vehicles around the entire building. A bypass driveway is provided to direct vehicles not granted site access back to the exiting driveway, while secured areas are accessed through controlled security gates. Sidewalks connect the building entrance, parking areas, and guard house, with crosswalks provided where pedestrian routes intersect internal driveways. This internalization of vehicular and pedestrian circulation reflects the Comprehensive Plan's vision for STAMP as a self-contained technology district and minimizes the potential for conflicts between pedestrians, employees, service vehicles, and emergency responders.

d. Adequacy of landscaping and setbacks to achieve compatibility with and protection of adjacent residential uses.

The Project Site is located within STAMP and does not adjoin residential uses. Nevertheless, substantial setbacks, berms, landscaped areas, stormwater features, and natural buffers are incorporated into the site design to manage views, soften building massing, and reinforce

compatibility with surrounding land uses. Although no residential uses are immediately adjacent, the landscaping and setback strategy reflects a conservative approach consistent with Town planning policy, ensuring that high-intensity development within STAMP does not visually or functionally encroach upon areas outside the designated development zone. This treatment reflects Comprehensive Plan guidance that development within STAMP be visually contained to protect the Town's predominantly rural and agricultural character beyond designated growth areas.

e. Adequacy of municipal facilities to serve the proposed development, including streets, water supply and wastewater treatment systems, storm water control systems and fire protection.

The Project's location within STAMP is central to its ability to be adequately served by existing and planned municipal facilities without adverse impacts elsewhere in the Town. The Project is served by infrastructure constructed as part of the STAMP development program, which includes significant public investment to support large-scale development. The site will be served by public water and sanitary sewer services. The Genesee County Economic Development Center ("GCEDC") is completing installation of a two-million-gallon water storage tank just north of the Project Site, enhancing water supply and fire protection capacity. Sewage flows will be initially accommodated by an existing holding tank east of Crosby Road, to be replaced by a sanitary pump station conveying flows to the Oakfield wastewater treatment plant, for which capacity has been reserved. This coordinated infrastructure planning exemplifies the infrastructure-first growth strategy emphasized in the Comprehensive Plan, allowing substantial development to proceed without burdening municipal systems serving other areas of the Town.

f. Types of lighting and its impacts (dark sky compliant issues).

Exterior lighting has been designed to balance operational safety with minimization of off-site impacts, consistent with the Town's broader policy objectives. Site lighting consists of LED fixtures with a 4000K color temperature, selected to provide effective illumination while minimizing glare and uplight. Fixtures are nighttime-friendly, shielded, and directed toward internal driveways and pedestrian areas. Illumination beyond the Project Site is limited to driveway access points along Crosby Road. Average illumination levels across the site range from approximately 1.5 to 2.1 footcandles, with localized higher levels at loading areas. By confining lighting impacts within the STAMP campus, the Project advances Comprehensive Plan objectives to preserve dark skies and rural character outside designated development areas while accommodating functional lighting where planned industrial uses are intended.

g. Adequacy of stormwater and drainage facilities in preventing flooding, erosion, and improper obstruction of drainage ways.

Stormwater management for the Project is designed as part of an integrated STAMP-wide drainage strategy rather than a stand-alone system. Previously approved and constructed

bioretention, sedimentation, and dry detention basins associated with the Plug Power development are supplemented by additional facilities, including a dry swale along the east side of the building to manage runoff from parking areas and internal driveways. All facilities comply with the 2024 New York State Stormwater Design Guidelines and are designed to prevent flooding, erosion, and downstream impacts. This approach directly supports Comprehensive Plan policies emphasizing responsible stormwater management through coordinated infrastructure in appropriate development locations.

h. Conformance with design standards established within specified zoning districts, such as TD1, TD2 and TD3.

The Project has been designed to conform to the applicable design standards for the TD1 zoning district, including requirements related to building placement, circulation, screening, setbacks, and site organization. Architectural and site design elements are coordinated with STAMP guidelines, as documented in the Technology District Design Standards and Guidelines Checklist dated January 9, 2026.

Consistent with those standards, the building architecture clearly expresses two primary components: a secure data hall component designed to prioritize operational efficiency and security, and a separate entry and administration component that introduces transparency and visual engagement through the use of full-height curtain wall systems. The entry sequence is defined through a recessed façade condition that creates depth, shadow, and integrated lighting opportunities, while color accents at the building entrance signal arrival and provide a clear visual marker for visitors and employees. This consistency reinforces the Comprehensive Plan's directive that STAMP function as a cohesive, planned district for advanced technology and industrial development, rather than a collection of isolated projects.

i. Conformance with zoning and other Town regulations, or as established by the Planning Board.

The Project is a permitted use within the TD1 zoning district and is generally consistent with applicable provisions of the Zoning Law. A waiver from standard parking requirements is requested, as the zoning code would otherwise require 664 spaces, while 67 spaces are proposed, per building. The proposed parking supply reflects the operational characteristics of the facility and anticipated on-site parking demand, consistent with industry practice for data center campuses. Neither the Institute of Transportation Engineers Parking Generation Manual nor other standard references provide prescriptive parking ratios for data centers, and Urban Land Institute guidance supports tailoring parking to actual operational needs. The site layout allows for additional parking if ever required, providing flexibility without overbuilding impervious surface inconsistent with Town planning objectives. Approval of the Project would therefore be consistent with the Town's zoning framework and with the land use, infrastructure, and economic development policies set forth in the Comprehensive Plan.

SEQRA / STAMP GEIS Coordination

As the Planning Board is aware, the STAMP has previously been the subject of a Generic Environmental Impact Statement ("GEIS") process undertaken pursuant to the State Environmental Quality Review Act ("SEQRA"). That GEIS framework was established to evaluate and address environmental impacts associated with development within STAMP on a programmatic basis. In keeping with that framework, GCEDC has evidenced its intent to serve as Lead Agency for SEQRA review of the Project and has initiated the lead agency coordination process accordingly.

As part of that lead agency coordination process, environmental materials submitted to date for the Project have been distributed to the Town as an Involved Agency. Those materials include the environmental submissions prepared in connection with the Project and are intended to inform a coordinated SEQRA review that builds upon, and is guided by, the prior STAMP GEIS findings and determinations, rather than duplicating analysis already undertaken at the programmatic level.

In its role as an Involved Agency, the Planning Board will consider the Project for consistency with the findings and determinations previously adopted as part of the STAMP GEIS process. To facilitate that review, the Town has identified use of a SEQRA Findings Statement Checklist as the mechanism for evaluating consistency with its prior findings. Stream will continue to cooperate with the Planning Board by providing additional environmental information as may be reasonably requested to support that consistency determination.

Nothing herein is intended to alter or diminish the Planning Board's authority under SEQRA or the Zoning Law. Rather, the Project is being advanced in a manner intended to support coordinated review within the existing STAMP environmental framework while preserving the Town's independent review responsibilities.

General Municipal Law § 239-m Referral

General Municipal Law § 239-m requires referral of the Project to the Genesee County Planning Board. Accordingly, Stream respectfully requests that the Planning Board, or Town staff at the Planning Board's direction, make any required referral pursuant to General Municipal Law § 239-m upon determination that the site plan submission is complete. Stream will cooperate as necessary to facilitate any required referral and to provide copies of submitted materials or supplemental information requested in connection with county review.

Conclusion

As detailed above, the Project is a permitted use within the Town's TD1 zoning district and has been designed to satisfy the Town's site plan review criteria, align with the established STAMP

environmental framework, and advance the land use and infrastructure objectives set forth in the Comprehensive Plan.

On behalf of Stream, we respectfully request that the Planning Board formally commence site plan review of the Application at its next regularly scheduled meeting on February 2, 2026, including review of the South Campus materials submitted herewith and coordinated consideration of the North Campus materials to be submitted shortly thereafter as part of a unified review of the overall Project.

Stream appreciates the Planning Board's time and attention and looks forward to working cooperatively as the review process proceeds. Please do not hesitate to contact the undersigned if the Planning Board has any questions or requires additional information.

Very truly yours,



Corey A. Auerbach

cc: Robert Crosson, Town Supervisor
Robert Klavoon, Wendel Companies

DESIGN STANDARDS CHECKLIST
TD-1 & TD-2 districts
Town of Alabama, NY
Project: BUFA – Project Double Reed North Campus
Date: January 23, 2026

A. Purpose

The Town of Alabama Technology District Design Standards and Guidelines ('TDDSG') establish design criteria and minimum standards for development within the Western New York Science & Technology Advanced Manufacturing Park (STAMP) area. These standards and guidelines can be referenced in the zoning code regulating the Town's Technology Districts (TD-1 and TD-2), the Long Term Management Plan, and the Draft Environmental Impact Statement. This document focuses on TD-1 and TD-2. The purpose of the TDDSG is to:

1. Provide an understanding of the Town's expectations and assistance in regards with the nature of development that the Town of Alabama desires to encourage with in the STAMP area; and
2. Maintain high quality development within the STAMP area, built in a manner consistent with the conclusions in the Environmental Impact Statement (EIS) prepared and approved for the site; and
3. Protect and promote long term economic vitality through design standards, encouraging and rewarding high quality development; and
4. Minimizing the negative impacts of vehicular circulation within the STAMP area and surrounding community; and
5. Enhance and protect the quality of life and community image through clearly articulated goals and policies, design guidelines, and minimum standards.

B. Applicability

The provisions of the TDDSG shall apply to the development in Technology Districts TD-1 and TD-2, within the STAMP area (generally bounded by NY SR 77/63 to the east, Judge Road to the south, Tonawanda Seneca Nation to the west and Lewiston Road (SR 77) to the north. All projects within the designated STAMP site submitted for approval by the Town of Alabama shall be subject to these guidelines. The Planning Board may modify these guidelines with respect to individual applications. This checklist is provided to facilitate evaluation of whether the proposed project meets the design standards of the Technology District Design Standards.

C. Desirable Elements of Design

As general guidance, the following design features are encouraged within the STAMP area:

- Land is designed in a campus setting (complements natural landscape)
- Landscape buffers are provided between development and adjacent properties
- Project design respects existing viewshed and rural setting
- Wetlands are preserved and enhanced, connected to open space system throughout sit
- Design is visually integrated into rural setting
- Larger technology manufacturing: generally located at western side of site; smaller-scale support businesses on eastern portion to provide transition to surrounding uses
- Existing trees, hedgerows and natural features retained where feasible
- All buildings landscaped with plants
- Exterior lighting is dark-sky compliant
- Buildings, structures, signs and streetscape of high-quality (refer to Town's Design Guidelines)

D. Undesirable Elements of Design

In general, the follower features are **discouraged** within the STAMP areas of Technology District 1 and 2:

- Poorly defined site access points.
- Disjointed parking areas, or confusing or unsafe circulation pattern.

- Large, blank, unarticulated wall surfaces visible to the public.
- Highly reflective surfaces that result in glare visible to surrounding properties.
- Metal siding used as a primary exterior façade treatment.
- Outdoor storage, loading, and equipment areas visible from the public roadway.
- Signage that is redundant or out of scale with building architecture.

E. How to use the TDDSG

The TDDSG is generally organized in a descending order of scale, from overall site planning concerns to circulation issues, to buildings, and site details. When first developing overall planning concepts for a parcel, the earliest chapters will be the most relevant. At advanced stages of design, when architectural details and specific landscaping ideas are being developed, chapters appearing later in the document will be most relevant. Each section will mention specifics that will vary between each Technology District. When no District is mentioned, the standard or guideline shall be for TD-1 and TD-2. Each chapter has four basic components:

1. A goal statement, which sets forth the Town's overall design goal to be achieved in the development plan review process, with regard to the subject matter of the chapter.
2. A policy statement, which establishes a more specific design goal with regard to a more specific subject matter.
3. The statements of standards¸ indicated with an (S), and guidelines, indicated with a (G), which establish the specific design standards which with compliance is mandatory, and the design guidelines with which compliance is strongly encouraged. A failure to meet a mandatory standard may be the basis for denial of an application or the need for a variance/waiver
4. Illustrations showing one or more suggested design solutions that would be appropriate or inappropriate with respect to the standards and guidelines. These may be photographs or sketches. In the event of conflict between an illustration and the text of the TDDSG, the text shall control.

Design standards shall by incorporated into any project plans submitted to the Town Planning Board for site plan review in the STAMP project. The Planning Board shall review all design standards incorporated in such project plans to ensure compliance with their requirements, intent, and spirt.

Site plan and design review by the Planning Board shall be required for all proposed uses in the STAMP project site. As part of its site plan submitted for Planning Board review, the applicant shall submit a design plan which addresses each criterion set forth in the Town's design standards (this code).

The design shall justify any deviation from the criteria specified in the design standards. The Planning Board may, prior to site plan approval, require revision of the design plan. The design plan shall, at a minimum, comply with the mandatory standards of the design standards; however, the design guidelines referenced in this chapter are not provisions requiring strict compliance. The Planning Board shall condition site plan approval on conformance with the design plan, which shall be incorporated in the approved site plan.

Whenever the Planning Board shall determine, pursuant to evidence and documentation submitted by the developer, that extreme difficulties are encountered which prohibit strict conformance to the design standards, the Planning Board may, in its discretion, but shall not be required to, vary the provisions set forth in said section of the design standards, provided that the applicant shall, to the maximum extent practicable, mitigate against any failure to comply with the site development standards established by this

law. The provisions of this section shall not be mandatory on the Planning Board, and if the Planning Board shall not allow such deviation, the sole remedy of the applicant shall be pursuant of a variance by the Zoning Board of Appeals.

DESIGN STANDARDS

1. Site Planning

Goal: *Locate buildings within TD-1 and TD-2 to maximize the presentation of primary building entries to main roadways, to provide clear orientation and access for vehicles. Structures should be respectful of the rural surroundings and maintain an overall campus appearance with appropriate setbacks and greenspace usage. Placement of structures should take into consideration the relationship to any existing buildings or structures, the location of adjoining uses, future site development, and the location of roads. TD-1 contains a low-density layout, with an emphasis on the screening of buildings and support facilities. TD-2 will be much more visible, with a medium density layout. Usage and integration of the proposed +/- 640 acres of greenspace and recreational areas should be respected throughout the siting process.*

1.1 Building Siting and Orientation

Policy: To the maximum extent feasible buildings should be sited so that the character of existing landforms and site features is enhanced; the relationships between buildings are strengthened.

Standards (S) and Guidelines (G):

X	Pedestrian connections are provided from building entries and exits to public walkways. (S)
X	Clear primary entrance is provided. (S)
X	Buildings are oriented to preserve appropriate viewsheds and maximize greenspace. (G)
X	Position entries so they are easily identifiable from adjoining roadway. (G)

The primary entrance is located on the eastern facade of the building and is distinguished by different façade materials and a recess accommodating the entranceway. In the parking area, there is a large plaza area adjacent to the building entry. The building is oriented with the short axis facing Crosby Road with a significant green space area between the street and the building. The front building setback is approximately 375 feet from the proposed right of way (100 foot width) of Crosby Road.

1.2 Green Space and Recreational Areas

Policy: Open space and landscaped areas are valued amenities. Approximately 640 acres of the Project Site shall be maintained as open space and/or landscaped areas to provide greenspace and recreational areas. These areas will be appropriately maintained as specified in the Long-Term Land Management Plan (LTMP) to foster public safety and an aesthetic environment. Approximately 174 acres will be set aside as conservation lands, including forested wetlands, emergent wetlands, streams in riparian areas, shrub wetlands, upland forests, shrub lands and small grass lands. Building, parking, and driveway site coverage within each parcel should be limited.

Standards (S) and Guidelines (G):

X Development is consistent with LTMP, which specifies habitat management goals and objectives, forestry management, appropriate levels of maintenance for different landscape types, and proposed restoration and enhancement activities. (S)

N/A Site plan clearly shows connections to STAMP's dedicated open space areas (if included in LTMP). (S)

N/A Individual patches of conservation land are connected by conservation or open-space corridors, in accordance with the LTMP. (G)

NONE On-site wetlands are preserved and mitigated in accordance with DGEIS. (S)

N/A Proposed trails throughout the site complement and connect with existing pedestrian and recreational areas. (G)

N/A If recreational areas are provided, they are encouraged to include activities such as fishing ponds, bird watching, bike riding, and hiking. (G)

There are no wetlands on the subject property and the proposed stormwater system will provide water quality measures to protect downstream wetland areas. The proposed on-site sidewalk system could easily be extended to Crosby Road to connect with any sidewalk system along Crosby Road.

1.3 Pedestrian Amenities

Policy: In the event that plazas, courtyards, or similar visitor and employee amenities are incorporated into both overall and individual site development plans, these areas should be easily accessible and comfortable for a reasonable part of the year.

Standards (S) and Guidelines (G):

N/A Where there are courtyards or similar spaces, they are furnished with pedestrian amenities such as benches, landscaping, and/or access to trails and other recreational areas. (G)

N/A Where seating is provided, it is useable year-round. (S)

N/A Seating should be positioned so it is buffered from exposed areas and takes advantage of sunny locations. (G)

No such facilities are contemplated for this project.

1.4 Utilities, Mechanical, and Telecommunications Equipment

Policy: The visual and noise impacts of utilities, mechanical equipment, data transmission dishes, towers, and similar antennas and equipment should be mitigated.

Standards (S) and Guidelines (G):

X Install permanent utility lines underground, where feasible. (G)

X Locate transformers away from major pedestrian routes and outdoor seating areas. (G)

X Transformers, telecommunications devices, equipment switching boxes, and other utility cabinets visible to the public zones (street and pedestrian areas) are buffered with landscaping or architectural screens. (S)

X Do not leave meters exposed where visible to the public. (S)

N/A Locate exterior mechanical equipment associated with industrial processing or manufacturing operations to minimize visual and auditory impacts to adjacent property and public streets. If visible from public areas, mitigate with structural or landscape screening and buffering. (G)

The gen yards are located along the north and south sides of the building, in excess of 400 feet from Crosby Road. A screen wall extends around all four (4) sides of all equipment located on the roof of the building. There is a berm and landscaping along the majority of the frontage of the site except at the site driveways.

1.5 Service, Delivery and Storage Areas

Policy: Service, delivery and storage areas should not be visually obtrusive. The visual impact of service and delivery areas should be minimized, especially views of such areas from public roadways and along designated view corridors.

Standards (S) and Guidelines (G):

X Locate loading docks, outside storage, and service areas in areas of low visibility such as the side or at the rear (non-street side) of buildings so that they are not prominently visible from adjacent primary public roadways. (S)

X Outside storage is not located in public street rights of way, building setbacks or easement areas. (S)

N/A With the exception of outside storage areas, when it is not possible to locate loading facilities and service areas on a non-street side of a building, loading docks and doors shall not dominate the building frontage and must be screened from all adjoining public rights of way. Loading and service facilities shall be offset from driveway openings. (S) In no case may outside storage areas be located in front of a building. (S)

N/A In TD-2, combined loading docks and service areas between multiple sites are encouraged. (G) Screen from public view with fencing, walls, other structures, and/or landscaping, as necessary.

X Service entrances are clearly defined with signs to discourage the use of main entrances for deliveries. (G)

X Service and refuse areas do not encroach into the parking setback. (S)

X Such areas are screened from the public right-of-way with a minimum six-foot wall height enclosure (as measured from finished grade). (S)

X Service and outside storage enclosures are constructed of materials to match or complement the building material. No enclosure visible to the general public shall be made of any form of chain link. Gates and/or access doors may be constructed of materials different from the actual enclosure material to facilitate operation of the gates or access doors. (S)

N/A Trash enclosures enclose an area large enough to accommodate the peak needs of varied potential industrial users of the building. (S)

N/A Outside storage areas visible to the public are fully screened by screen wall enclosures. (S) Screen walls shall have a minimum height of 6-feet, and a maximum height of 10-feet.

N/A Stored materials are not visible to the public above the enclosure height. (S)

N/A Storage areas are finished with an impervious surface of asphalt or concrete or an approved pervious pavement in accordance with the Green standards and designed in accordance with required fire access, and fire lane requirements. (S)

X Trash compaction and recycling are strongly encouraged and should be accommodated in the project design. (G)

X Sites shall not be designed to accommodate ongoing storage of truck trailers or other storage trailers in areas visible from the public right-of-way. (S)

The service and delivery area is located on the north side of the building with a recessed dock bay. The layout of the building and proposed landscaping limits the visibility of this area from the public right-of-way.

1.6 Screening

Goal: *Visible areas of the site from the public will either be subjected to higher level of design criteria or require screening. Natural screening is preferred and existing vegetation should be preserved whenever possible. Landscaping guidelines are provided at a later section. When visible, fences and walls should be decorative and contribute to the visual quality of the project and the overall development. When not required for security, screening, or grade transitions, the size of walls and fences should be minimized. When required, however, fencing should be as inconspicuous as possible, screened whenever possible, and walls should be low.*

Policy: Visible fencing and walls shall be constructed of materials that are compatible with the adjacent building architecture and their appearances softened with landscape materials.

Standards (S) and Guidelines (G):

N/A Incorporate architectural treatment on both sides of perimeter walls (see Design Guidelines for additional direction). (S)

X Provide landscaping in combination with walls and fences to soften their appearance. (G)

N/A Chain-link fencing with or without wood slating is not an acceptable screen material in **TD-2**. It will be permitted in the non-visible or screened areas of **TD-1**. (S)

N/A Break up long expanses of fences or walls with periodic columns, insets, landscape pockets or changes in materials if visible to the public. (S)

X Construct walls and fences from durable materials such as wood, stone, brick, or metal with dark finishes (wrought iron or similar), or a combination of these materials. (G)

N/A These walls must be maintained in good condition (see Design Guidelines for additional information). (S)

N/A Concrete walls are permitted if faced with masonry or stone, or if the surface is scored or textured. (G)

N/A Fence or wall runs greater than 50 linear feet shall be articulated with architectural offsets and incorporate landscape pockets in the public zone. (S)

N/A Bring berms up to the outside of a screening wall or reduce the grade on the inside to minimize its visibility. (G)

The entire site is enclosed within a security fence which is setback significantly from Crosby Road and also from the side and rear property lines. There is a berm and landscaping along the frontage of the site to buffer the view of the project. The only retaining wall is proposed along the existing swale on the south side of the property and has a maximum height of approximately five feet, but most is approximately two feet in height. This wall is not visible to the public.

2. Vehicular Circulation

Goal: *The on-site vehicular circulation and parking system is a critical factor in the safety and success of all STAMP related development. The parking/access/circulation system should provide for the safe, efficient, convenient, and functional movement of multiple modes of transportation both on and off the site where pedestrian/bicycle/vehicle conflicts are minimized. The site planning process should make provisions for alternate modes of transportation, including bicycles and pedestrians throughout all three technology districts.*

2.1 Vehicular Access and Circulation

2.1.1 Vehicular Access

Policy: Promote the safety and mobility of through traffic by minimizing the number of access points to private property from public streets.

Standards (S) and Guidelines (G):

X The intersections of entrance drives with arterial and collector streets are clearly marked by incorporating elements such as signs, accent paving, special landscaping and lighting. (S)

N/A All new public roadways constructed to serve development are built to the technical specifications for roadways established by the County of Genesee. (S)

X Materials used for entry features shall be consistent with other materials used throughout the STAMP area. (S)

N/A When possible, shared driveways located on the property line of two building sites are encouraged. (G)

X Overall design should incorporate common driveways that serve more than one site or development. (G)

N/A If incorporated into the improvements, the Town will require evidence that an access easement is in place providing joint use of the shared driveway. (S)

N/A Entrances that lead directly into head-in parking are not allowed off public roads. (S)

There is one entrance/exit driveway with a guard house off of Crosby Road at the southeast corner of the site. The northern driveway provides access to the sub-station (which is outside the site's security fence and also accommodates exit movements from the site. Signage will be used to mark these entrances.

2.1.2 Vehicular Circulation

Policy: Projects with multiple building sites or parcels should include a hierarchy of internal roadways, including the following: 1) internal collector, 2) internal private drives serving multiple buildings and parcels, 3) parking aisles, and 4) service drives and truck routes. This hierarchy should be implemented by engineering and landscape treatments. The street, access and parking network shall provide for the smooth, safe, convenient and functional movement of all modes of transportation, including vehicles, bikes and pedestrians, with priority to pedestrians.

This site does not provide multiple buildings and therefore there is no hierarchy of internal roadways required.

Standards (S) and Guidelines (G):

X Provide separate and safe vehicular and pedestrian circulation systems. (G)
N/A For large parking lots, separate parking aisles from truck circulation routes and entry drives. (G)
N/A The need for trucks and vehicles backing from a public street onto the site for loading or any other purpose is prohibited. (S)
N/A Vehicle circulation routes requiring movement onto a public street in order to move from one area to another on the same parcel are prohibited. (G)

Truck access to the loading/service area is separate from the parking area.

2.1.3 Service/Delivery, Emergency and Utility Access

Policy: Routes for service, emergency and utility access should be clearly marked. Service circulation within a development shall be designed to provide safe movements for all anticipated vehicles. The design of individual parcels to accommodate truck access shall meet all regulatory requirements for turning radii without sacrificing other important goals and policies of the TDDSG.

Standards (S) and Guidelines (G):

X Meet all Town of Alabama Fire Protection District regulations in the design and provision of emergency access to buildings for fire suppression, police, ambulance and other emergency vehicles. (S)
N/A Avoid the creation of public 'blind areas' that cannot be patrolled by police or security staff. (G)
N/A Provide shared service and delivery access ways between adjacent parcels and/or buildings. (G)

The Town Engineer will review compliance with the Town of Alabama Fire Protection District regulations.

3. Pedestrian & Bicycle Circulation

Goal: *The Town encourages the development of pedestrian and bicycle systems, when possible, to be included into developments and designed to be safe and invite walking and bicycling throughout the STAMP area. Individual parcels and sites should be consistent with the Long-Term Land Management Plan (LTMP), integrating the hamlet of Alabama, open areas and adjacent properties to complement the comprehensive system and to provide convenient access to areas of interest, as well as the area trail system.*

Standards (S) and Guidelines (G):

X Locate buildings and design on-site circulation to minimize pedestrian/vehicle conflicts. (G)
X Separate pedestrian and vehicle movements with the use of landscaping, barriers or other appropriate design solutions. (G)
N/A Differentiate areas of pedestrian and bicycle/vehicle interface with accent pavement and signage to alert drivers to potential conflicts. (G)
N/A Clearly defined pedestrian connections should be provided through large parking areas and between parking lots and building entrances. (G)
N/A Provide well-identified connections from the primary pedestrian and bicycle paths within the development to the trails and connections to the Hamlet. (G)

N/A___ Functional and attractive bike parking can be provided in convenient locations and in adequate numbers for employees and locals, to promote the usage of the integrated trail system. (G)

Crosswalks are provided where curb ramps/sidewalks intersect with internal driveways. No bicycle parking/facilities are proposed.

4. Architectural Design

Goal: *Attracting a world class technology center within a rural community requires careful and deliberate attention to detail. The three tiers of density each have different guidelines and standards, reflecting the visibility towards the community and the nature of the STAMP site. The large scale structures planned within TD-1 will typically not be visible to the public. These buildings shall respect the general guidelines of public view, but understandably will vary depending on the nature of the industry. TD-2 is considered a lighter conventional industrial zone characterized by simple structures, with a relatively low profile, simple shapes and a strong element of continuity throughout.*

Architectural design throughout the project should seek to add to community character, while providing flexibility to avoid rigid uniformity of design. While a wide variety of design techniques may be utilized, a basic harmony of architecture within the districts shall be developed to promote the quality and attractiveness of the business environment. All elements including the scale and mass of buildings, materials, colors, roof styles, door and window openings, and details should be responsive to functional architectural design and promote a cohesive design statement within each respective district. All buildings should be energy efficient to conserve natural resources.

Prominent buildings should respond to a 'human scale' with materials and details that are proportionate to human height and provide visual interest at the street and sidewalk level. Buildings in visible locations should be reduced in apparent mass or articulated to avoid large monolithic, box-like shapes (see Design Guidelines for additional direction).

4.1 Visible Areas

Policy: Areas visible to the public require a higher level of design. These areas will need to emphasize a cohesion of STAMP within the Town of Alabama. In visible areas, higher quality materials shall be used alongside a higher level of architectural design. The intent is to create a campus setting, particularly in TD-2. Please refer to the illustrations of building types in the Town's Design Guideline package as samples of acceptable architecture in visible areas.

Standards (S) and Guidelines (G):

X___ Any wall visible from the public right of way, unless screened with landscaping, fencing, or other means shall incorporate significant architectural features and treatments to diminish the building mass. (S)

X___ Use appropriate techniques to be reviewed by the Planning Board for any areas that are visible from the public right of way. (S)

X___ Variations in façade elements can reduce perceived mass and scale. Acceptable techniques to vary façade elements include:

i. Variations in color and/or texture

ii. Step downs and step backs should follow the terrain and be tiered and reinforced by landscape elements.
iii. Compositions that express rhythms and patterns of windows, columns, and other architectural features are encouraged.

X Avoid blank walls at ground-floor levels. (G)

X Use windows, trellises, wall articulation, arcades, material changes, awnings, canopies, clerestory, or other features. (G)

X Architectural features such as columns, pilasters, canopies, porticos, awnings, brackets or arches should be included. (G)

X Long unbroken horizontal facades are discouraged. Use of features such as columns, arcades, divided glazed surfaces or other details to break up the façade are encouraged. (G)

X Building exterior materials shall be factory finished, stained, integrally colored or otherwise suitably treated (see Design Guidelines for additional direction). (S)

- In TD-1 these may include: Concrete, masonry, steel, stone, metal or glass. Use of EFIS at the pedestrian level is discouraged.
- In TD-2 these may include: Concrete, masonry, steel, stone, glass, brick, architectural pre-cast materials, wood clapboard, cement board, or other similar high quality traditional siding materials are acceptable. EFIS, corrugated metal siding, large expanses of concrete block, highly reflective wall treatments, wood panel type products such as T-111 or EFIS are strongly discouraged.

The primary exterior material proposed is precast concrete with a deliberate composition of reveals and tonal variation. The front (north) façade of each building features a recessed, large full-height curtain wall system with interchangeable precast wall panels interspersed between curtain wall segments.

4.2 Roof Forms and Materials

Policy: Rooftops should contribute to the unified appearance of each development and should be considered as seen from public roadways.

Standards (S) and Guidelines (G):

X Avoid roof/parapet lines running in continuous planes absent variations in the building footprint. Building architecture may incorporate variation in parapet heights. (G)

X For buildings visible from the public right-of-way, mechanical, electrical, optical, and electronic equipment attached to or mounted on the building roof shall be set a minimum of 20-feet from the building parapet, if feasible. (G)

X Roof-mounted equipment visible from the public roadway should be designed to be unobtrusive or be screened. Screen materials shall be compatible with materials and colors utilized on the building and shall be specified with a detail on the design plans. (S)

N/A Design visible roof forms to correspond to and denote visible building elements and functions such as entrances, arcades, and porches. (G)

X Roof colors and materials shall be compatible with the façade and should not be of a material which may produce glare. (G)

Roof-mounted equipment will not be visible from the public right-of-way. There is a screenwall to prevent visibility of rooftop equipment.

4.3 Energy Conservation Measures

Policy: Buildings should be designed and sited to maximize the use of solar gain for energy savings and respect the solar access requirements of adjacent (existing and proposed) buildings.

Standards and Guidelines:

X Applicants are encouraged to consider energy conserving design concepts, including but not limited to the following: (G)

1. Types of materials and their insulation characteristics.
2. Proper orientation and clustering of buildings to take advantage of summer winds and to buffer against adverse winter wind conditions.
3. The arrangement and design of windows and doors.
4. Direct solar or photovoltaic energy.
5. Day-lighting concepts.
6. Natural ventilation of outdoor, indoor and attic spaces.

The intention is for the building to be LEED certified, thus complying with energy conservation measures.

5. Landscape Design

Standards (S) and Guidelines (G):

X A complete landscape plan, including the types of trees and shrubs to be planted, shall be submitted as part of the site plan application for any development.

X Landscaping shall incorporate a combination of trees, shrubs, ground cover and other vegetation.

N/A To the maximum extent feasible, existing trees should be preserved and incorporated into the overall landscaping plan for each development property.

X All plantings shall be maintained in a healthy condition; diseased, unhealthy or dead plantings shall be replaced as necessary in a timely manner. The Town will inspect the plantings two years after the conditional Certificate of Occupancy is issued and determine which plantings specifically need to be replaced.

X Plantings shall be species suitable to the soil type and the hardiness zone classification for the Town of Alabama (see Design Guidelines for a sample list of suitable plantings).

X Landscaped islands or medians shall be designed with adequate room for the proper growth of vegetation.

X Plantings within the landscaped islands shall include at least one large deciduous tree, along with understory planting of shrubs and/or perennials. The Planning Board, at their discretion, may approve the substitution of two ornamental trees for each deciduous tree.

X All new deciduous trees, other than ornamentals, shall have a minimum caliper of two and one-half inches, measured six inches above the ground. All new ornamental trees shall have a minimum caliper of one and three-quarters inches measured six inches above the ground.

N/A Areas that are natural gathering spots, such as linkages to trails, walks, and drop-off points shall be landscaped in a manner that promotes attractive areas for gathering and provides shade for pedestrians.

Most of the proposed landscaping is located between Crosby Road and the eastern building, throughout the parking lots (landscaped islands), and along the front (north) façade of the building. Landscaping is not

proposed within the electric transmission easement area in accordance with utility company restrictions. Each of the landscaped islands includes at least one large shade tree (deciduous). The proposed plantings are suitable for the Town's climate and native to the region.

6. Signage

Standards (S) and Guidelines (G):

X All development must comply with the Town of Alabama signage regulations.
N/A Signs that dominate the building or the landscape are not permitted.
N/A A monument entrance sign may be erected at the entrance of STAMP to direct visitors to businesses within the District.
X Individual facility owners within the District may use monument signs or building signs to identify their premises. Signage for each individual facility must be located on the parcel for that building.
X Signs may be illuminated, providing that such signs are consistent with the lighting standards in Subsection 7, below.
N/A Pole signs are prohibited.

A monument sign is proposed on Crosby Road, near the shared access driveway.

7. Lighting

Goal: *Exterior lighting should be used to provide illumination for the security and safety of entry drives, parking, service and loading areas, pathways, courtyards and plazas, without intruding on adjacent properties. Site lighting shall be architecturally compatible and consistent in design between sites. All lighting fixtures will be focused with Dark Sky Ordinance compliant installation in a horizontal position to prevent upward reflection or glow to night skies and reduce the amount of light pollution beyond the edges of illuminated areas.*

X Site and exterior lighting shall be integrated into the design of the development. (S)
X Outdoor lighting shall be installed so as to minimize the lighting of the sky above the campus. No outdoor light shall be installed, modified or permitted to be used which casts a beam of light above a plane horizontal with the earth, other than temporary construction lighting. (S)
X All outdoor lighting, excluding temporary lighting, shall be consistent with the following criteria:

1. The light levels in parking and pedestrian areas shall be in accordance with Illuminating Engineering Society of North America standards. (S)
2. Fixtures and design will be selected to optimize energy efficiency consistent with the Energy Conservation Construction Code of New York State. (S)
3. All lighting fixtures will be focused with Dark Sky Ordinance compliant installation in a horizontal position to prevent upward reflection or glow to night skies and reduce the amount of light pollution beyond the edges of illuminated areas. (S)

4. Lighting fixtures will be set at a height which will limit the amount of light trespass. Lighting fixtures shall be set back from the development site boundaries to mitigate glare to surrounding properties. (S)
5. Low-level lighting shall be used at each roadway and along boulevards for safety and security. Light fixtures shall be selected to prevent upward reflection or glow and prevent light trespass outside of road rights-of-way. (S)
6. Security lighting at or near buildings will be lit down and inward toward the building to mitigate outward glare and reflection. Flood lighting shall be permitted only when no adequate substitute is available. (S)
7. Signs may be externally or internally lit. Externally lit signs will have shielded fixtures to prevent glare and/or light trespass. (S)
8. Adjacent to residential properties, no direct-light source will be visible at the edge of the development area. (S)
9. After business hours, only safety and security lighting and lighting of signage may remain lit. (S)
10. Up-lighting of facades is prohibited. (S)

State Environmental Quality Review

SUPPLEMENTAL FINDINGS STATEMENT
PROJECT EVALUATION FORM

WNY Science & Technology Advanced Manufacturing Park

STAMP

Town of Alabama, Genesee County, NY

State Environmental Quality Review

FINDINGS STATEMENT
PROJECT EVALUATION FORM
For INDIVIDUAL PROJECTS

WNY Science & Technology Advanced Manufacturing Park

STAMP

Town of Alabama, Genesee County, NY

Pursuant to Article 8 (State Environmental Quality Review Act – SEQR) of the Environmental Conservation Law and 6 NYCRR Part 617, the Town of Alabama Town Board has evaluated the project listed below for conformance to the Final Generic Environmental Impact Statement (January 2012) and the Findings Statement (issued August 2012 by the Town of Alabama and the Amended Findings issued on June 27th, 2017) prepared for the WNY Science & Technology Manufacturing Park.

PROPOSED PROJECT NAME: **BUFA – Project Double Reed**

Using the attached form and the materials submitted by the applicant and their representatives, the following determination was made by unanimous vote of the Alabama Planning Board on **DATE,** for the proposed **BUFA – Project Double Reed** project within the STAMP project site:

Decision: NO FURTHER REVIEW

No further review under SEQR is necessary as it has been determined that the current project conforms to the conditions and thresholds established in the GEIS and Town's Findings Statement completed in August 2012 and the Town's Amended Findings Statement issued on June 27, 2017 for the STAMP project.

– No Further Town Action required.

Town of Alabama Planning Town Board
Name of Agency

Name of Responsible Officer

Chair, Planning Board
Title of Responsible Official

Signature of Responsible Official

Date

Town of Alabama, 2218 Judge Road, Alabama, New York 14125
Address of Agency

State Environmental Quality Review
Planning Board's Findings Statement
Amended to make a Findings Form
For Review of Projects

Date: _____

Pursuant to 6 NYCRR Part 617 pertaining to Article 8 of the Environmental Conservation Law (State Environmental Quality Review [SEQR]), The Town of Alabama Planning Board, as a SEQR Involved Agency, issued the following Findings:

Name of Action: Western New York Science & Technology Advanced Manufacturing Park (STAMP) and Roadway Construction

Applicant and Project Sponsor: Genesee County Economic Development Center (GCEDC), and its affiliate The Genesee Gateway Local Development Corporation (GGLDC), their successor and assigns, hereinafter referred to as Project Sponsor
99 MedTech Drive, Suite 106
Batavia, NY 14020

SEQR Status: Type 1 Action, Positive Declaration; Generic Environmental Impact Statement (GEIS) completed

Lead Agency: Genesee County Economic Development Center

Description of Overall Action: The proposed action includes Incentive Zoning Approval (including creation of new zoning districts and rezoning of land to these zoning districts), a Comprehensive Plan Update, to enable build-out of over 6 million square feet of advanced technology manufacturing and related uses providing direct employment to over 9,000 people. Phase I consists of attracting an anchor technology manufacturing facility potentially comprised up to 1 million square feet. Once secured, it is envisioned that the anchor facility would attract a variety of technology manufacturing support uses and commercial enterprises. The Project will require water, sewer, gas, and telecommunication infrastructure extension to support the advanced manufacturing facilities. Phase I access is now planned with a site driveway extended to SR 77/ 63. Other roads needed to access and connect the development parcel will be built as needed. The Project would preserve over 640 acres of open space and environmentally sensitive areas, including a 400-foot buffer around the perimeter of the Project Site, with appropriate buffers along the western boundary adjoining the Tonawanda Seneca Nation.

Location: STAMP is proposed to be located on 1,243.40 acres of land on either side of Crosby Road and bound by State Route 77/ 63 to the east, Judge Road to the south, Tonawanda Seneca Nation to the west, and Lewiston Road (State Route 77) to the north, in the Town of Alabama, County of Genesee, State of New York (STAMP Site).

Date FGEIS Accepted as Complete: January 19, 2012

Alabama Planning Board Findings Issued: November 2016

Contact: Ron Gilbert, Planning Board Chairman (at the time of the Findings)

Carl Kumpf, Planning Board Chairman (This project)
2218 Judge Road
Oakfield, NY 14125
(585) 948-9341

Name of Proposed Action/ Project:

BUFA – Project Double Reed

Description of the Proposed Action:

The South Campus was previously approved for and construction commenced for a hydrogen production facility operated by Plug Power. The current South Campus project consists of developing this parcel for a 664,000 square foot data center. The on-site substation that was previously constructed as part of the Plug Power project will remain and be completed to serve the proposed data center. In addition to the three (3) stormwater facilities, a fourth stormwater facility will be constructed on the east side of the site.

The North Campus project consists of the construction of two (2) 664,000 square foot data centers with an on-site sub-station. Access will be provided from the STAMP sub-station access road. This project site will be provided with twelve (12) post-construction stormwater management practice (SMP) facilities, which will meet the applicable design requirements.

Location of the Proposed Action:

See map below. The two project sites are located on the west side of Crosby Road



Please list any previous Projects approved under the GEIS for the STAMP site:

Plug Power – replaced by the within application for the South Campus

Edwards Vacuum

Infrastructure Improvements

7.0 Findings and Conclusions Supporting the Town of Alabama's Decision:

Pursuant to SEQR, no involved agency may make a final decision to undertake, fund, approve, or disapprove an action that has been the subject of a Final EIS until the agency has issued their own Findings. This document serves as the Findings for the Town of Alabama Planning Board, as an Involved Agency, for this proposed action. The Town of Alabama Planning Board has utilized the Findings developed by the Alabama Town Board as the basis of their Findings and has focused their Findings on Site Plan issues and on the project (road construction) that was before the Board at that time.
These Findings:

1. Consider the relevant environmental, economic, and social impacts, facts, and conclusions disclosed in the DGEIS and FGEIS for the proposed WNY STAMP;
2. Weigh and balance relevant environmental impacts with social, economic, and other considerations;
3. Provide a rationale for the Town of Alabama Planning Board's decision regarding the proposed action;
4. Certify that the requirements of SEQR have been met; and,
5. Certify that consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating, as conditions to the decision, those mitigation measures that were identified as practicable.

7.1 Geology and Topography

7.1.1 Discussion of Potential Impacts

For the South Campus portion of Project Double Reed, the topographic conditions will generally follow those proposed for Plug Power. However, the first floor of the proposed building will be raised to meet grading requirements for this use and the stormwater management system. This will involve the importation of approximately 69,500 cubic yards of suitable fill materials. This will require the installation of a retaining wall along the southwesterly portion of the site (approx. 670 feet), no more than four feet (4') in height.

The topography of the North Campus will generally follow the existing site topography with the northeastern portion of the site requiring excavation of the property and the majority of the balance of the site requiring the importation of fill to create a generally level pad for the two buildings. The four (4) existing discharge points of the site will be maintained for stormwater management controls. The North Campus will require the importation of approximately 322,600 cubic yards of suitable fill materials.

Neither project is anticipated to require the removal of bedrock from the proposed construction activities. Also, there are no wetlands on either project site and there will be no impacts to wetlands.

To achieve the required design grades, site topography within the internal road grades will be slightly altered. Nevertheless, the Project Site's natural topography will be largely maintained and utilized in order to provide enhanced minimization of the potential visual impacts the Project may have on the surrounding properties.

It is further anticipated that grading both on and off the Project Site will be balanced such that the amount of cut is approximately equal to the amount of fill for any given component of the Project. The road project balances the cut and fill associated with this project. Topography will thus not be significantly altered by this approach. Additionally, there will not be any significant bedrock removal resulting from construction activities. Moreover, there will not be any significant removal of surficial geologic materials resulting from the Project. Implementation of the Project will result in local redistribution of some surficial geologic deposits on the Project Site consistent with future grading plans.

Soils within the targeted development areas of the Project Site do not present any unusual or unanticipated conditions for construction activities. During all phases of construction, topsoil will be segregated and stored for landscaping around the developed areas.

Surficial soils will be affected by excavation and grading work done on the Project and within any potential off-site improvement areas. Native soils will be rearranged on the Project Site, and additional fill, as needed, will be brought to the Project Site to create a level surface for construction of buildings, roadways, and parking lots within the development areas. Potential impacts of soil resources may include removal of hydric soils in isolated wetlands and on- and off-site erosion and sedimentation that may potentially occur during and after construction.

7.1.2 Minimization and Mitigation Measures

Project Double Reed will comply with the overall minimization and mitigation measures identified for the overall STAMP site, as applicable to the conditions found on each campus.

During the future development of a Project-specific use, the following best management practices shall be implemented by the Project Sponsor at the Project Site to avoid and minimize potential impacts to soils in adjacent undisturbed areas to the maximum extent practicable:

- Temporary erosion and sedimentation controls such as silt fences and hay bales will be installed at the perimeter of the construction area and around any wetland and other waters of the United States that are to remain undisturbed.
- Silt fences will be monitored regularly and reinforced with hay bales in areas where white water flow is observed to be concentrated.
- When feasible, excavated native soils will be used elsewhere on the Project Site for filling and berm construction where appropriate.
- Stockpiled soils will be maintained inside the construction area and may be encircled with silt fences as needed.

- In wetland areas, the top 6 to 12 inches of hydric soils will be segregated and stockpiled. Once the construction activities are complete, the soils will be replaced in the original layer.
- Sediment traps will be constructed where necessary to impound storm water and allow for the settlement of suspended soils. Water will dissipate gradually from sediment traps to minimize the potential for erosion.
- Rip/rap aprons will be established at the outlets of all storm water pipes to dissipate the water's energy and minimize scour.
- Temporary erosion and sediment controls will be monitored regularly and required as needed. Erosion and sediment controls will be maintained until soils are stabilized.
- All disturbed areas on-site will be stabilized, seeded, and mulched. Stabilization will include final grading and the placement of erosion controls as needed. The Natural Resource Conservation Service will be contacted before commencement of the Project to obtain recommendations on appropriate seed mixtures, soil amendments, and mulch to be used on-site.

7.1.3 Additional Mitigation Measures

The Town of Alabama Planning Board, as an involved agency, agrees with the following additional mitigation measures to be incorporated into the Project:

- No clearing or grading, other than for site infrastructure, shall occur on the STAMP site until site plan approval has been granted.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS:

The Project Double Reed site plans do not impact on the various mitigation measures, as applicable.

7.1.4 Findings

With the mitigation measures set forth above by both the Lead Agency and the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to geology and topography resources to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS:

7.2 Water Resources

7.2.1 Discussion of Potential Impacts

The Project Double Reed project does not impact water resources. There are no wetlands on either Campus. The proposed stormwater management design for both campuses maintain the natural hydrology of the surrounding area and the design is compliant with the SPDES General Permit for Stormwater Discharges from Construction Activity and the 2024 New York State Stormwater Management Design Manual. Further, there are no impacts to the groundwater.

The Project has been designed to avoid and/or minimize, to the maximum extent possible, adverse impacts to water resources, and although impacts will result from the Project, preservation of large amounts of wetlands and other water resources have been provided, which offset such impacts.

Aquatic resources on the Project Site were identified, evaluated, and considered throughout the design process. The first consideration was to determine if wetland and stream impacts could be avoided entirely. The second consideration was to minimize potential impacts in terms of both quantity and quality to the maximum extent practicable. The third consideration was to develop a mitigation strategy that would compensate for all unavoidable impacts.

Design iterations to the Project Site ultimately reduced potential wetland impacts from approximately 69 acres to 9.54 acres. In addition to reducing total acreage of impacts, wetland location and quality were taken into consideration. The wetlands potentially impacted are low-to-medium quality wetlands, some of which are isolated and not currently regulated. Wetlands potentially impacted by the Preferred Alternative are listed by wetland identification number, along with the community type, total size, potential impact acres, preliminary jurisdiction, and condition rating in Table 6-1 of the FGEIS. With the possible exception of development of a recreational trail in adjacent areas, no wetlands or adjacent areas likely to be regulated by the New York State Department of Environmental Conservation ("NYSDEC") under Article 24 of the Freshwater Wetland Act will be impacted. The Road design primarily avoided the wetland areas and only impacted quantities requiring a Nationwide Permit.

A minimum buffer of 100 feet shall be established on either side of Whitney Creek to avoid impacts and allow for stream buffer enhancement opportunities. The second drainage corridor to the north of Whitney Creek (also referred to as Unnamed Stream No. 2) has also been preserved along with a proposed conservation buffer. The Project will require that the third drainage way (Unnamed Stream No. 1) be re-routed into the second corridor (Unnamed Stream No. 2) to accommodate flow and provide hydrology to enhance and restore wetlands and streams in the protected corridor.

A total of 24,304.89 linear feet of stream, ditches and drainage ways will be preserved and enhanced as a result of the Project. Approximately 9,595 linear feet of ditches and drainage ways will be impacted as a result of the development at the Project Site. The roadway project impacted a couple of these waterways and were handled through culvert systems.

No groundwater will be withdrawn, excavations for buildings will not extend into the groundwater table, and no groundwater discharge is associated with the Project. In addition, stormwater management for each specific use shall be required to manage surface water flow and allow groundwater infiltration. Lastly, the storage of chemicals and petroleum shall be done in strict accordance with applicable state and federal regulations to ensure the avoidance of potential releases to groundwater and/or surface waters.

The Stormwater Management Preliminary Report, attached as Appendix E to the DGEIS, evaluated the Project to full build-out and the impact that the development may have on the Project Site. At full build-out, the Project translates to an increase in impervious surface areas of approximately 490 acres as compared to existing conditions. Impervious surfaces will be generally introduced in the forms of buildings, roads, and parking lots. For the road project, the drainage was handled through a series of infiltration swales, dry ponds and a wet pond. These were designed to meet NYS standards.

On the other hand, the Project will provide significant benefits to existing water resources including the enhancement and protection of approximately 97 acres of wetlands and 24,000 linear feet of streams and upland buffers, as well as offsite wetland stream and buffer mitigation in the southeastern portion of the Whitney Creek watershed, including wetland restoration, invasive species eradication/control, planting of native vegetation, establishment of forested stream buffers, and the creation of legal mechanisms for permanent control.

From a watershed perspective, preservation of existing, high-quality resources that secure connectivity between existing habitat and preservation areas is most important on the Project Site. Restoration of wetlands and stream buffers is a priority in the upper reaches of the watershed that is southeast of the Project Site where greater impacts to aquatic resources have already occurred. The mitigation strategies outlined below will yield the greatest benefit to the function of the watershed as a whole through protected enhancement of headwater streams, wetlands and stream buffers on-site and in the lower reaches, as well as restoration of wetlands and stream buffers in the highly fragmented upper reaches of the Whitney Creek watershed.

7.2.2 Minimization and Mitigation Measures

Project Double Reed will comply with the overall minimization and mitigation measures identified for the overall STAMP site, as applicable to the conditions found on each campus.

Surface water resources potentially impacted by the Project are avoided, minimized, and/or mitigated to the maximum extent practicable. Design revisions made to the Project have significantly reduced potential wetland impacts from approximately 69 acres to 9.54 acres. In order to minimize and avoid impacts to surface water resources and allow for stream buffer enhancement opportunities, a minimum buffer of 100 feet shall be established on either side of Whitney Creek. In addition, the third drainage way (Unnamed Stream No. 1) shall be re-routed into the second corridor (Unnamed Stream No. 2) to accommodate flow

and to provide hydrology for the enhancement and the restoration of wetlands and streams in the protected corridor.

Best management practices shall be employed in order to minimize impacts to streams in other waters within the Project Site during proposed construction, utility installation, and transportation facilities. The following best management practices will be implemented by the Project Sponsor:

- Work within streams and other waters of the U.S. shall be scheduled during periods of low flow conditions. No work shall be conducted during or immediately after storm events.
- Work within streams shall be conducted in one continuous operation. Stream beds and banks will be stabilized immediately following construction activities using rip-rap or mulching and revegetation techniques.
- Silt fence and/or straw bales shall be installed along the edges of the stream to prevent the flow of sediment into the stream and to minimize erosion of stream banks.
- Flume pipes or the dame and pump method will be used, as necessary, to divert water flow during construction activities.
- Spoil piles and construction debris shall be temporarily stored outside of the stream corridor.
- Equipment shall cross streams using temporary bridges. No streams shall be forded by construction equipment.
- Construction staging areas will be located at least 50 feet away from all streams, and storage of chemicals, washing or refueling equipment, and mixing of concrete shall be conducted more than 100 feet away from streams.

In addition to the implementation of the above-mentioned best management practices, all potential stream disturbance activities shall be completed in accordance with applicable NYSDEC requirements.

To offset the potential impacts to 9.54 acres of wetlands, approximately 97 acres of wetlands and 24,300 linear feet of stream and upland buffer surrounding wetlands and streams shall be enhanced, restored, and protected in perpetuity on the Project Site. An additional appropriate amount of wetland, stream, and buffer habitat will be mitigated off site targeting the southeastern portion of the Whitney Creek watershed. Mitigation measures shall include restoration of wetlands that have been drained, enhancement of existing wetlands through invasive species eradication and control, including planting of native vegetation, establishment of forested stream buffers, and a legal mechanism for permanent protection of all mitigation areas.

All potential future impacts to wetlands shall be contingent upon the completion of a separate Joint Permit Application process, as needed, involving the U.S. Army Corps of Engineers, NYSDEC, and all other applicable regulatory agencies. Prior to the future

development of any Project-specific site, this permit process will develop a final mitigation strategy to protect, restore, and enhance aquatic resource functions and services. For the first phase road project, the applicants completed a wetlands delineation and the road alignment was modified to minimize impacts. New development within the proposed drainage catchment areas to be located at the Project Site shall require stormwater runoff mitigation, including the best management practices outlined above. All stormwater pond designs shall have a forebay and permanent pool to treat water quality and additional storage volume to handle water quantity. As the Project development proceeds, in addition to a main stormwater pond facility to be located in each catchment area, point source treatment practices shall be implemented as required in the pending NYSDEC New York State Stormwater Management Design Manual. Point source treatment practices shall include rain gardens for roof drainage, bioretention swales, and/or infiltration trenches for parking areas. Land buffers for these treatment practices have been incorporated into the Preferred Alternative. The roadway project met these requirements.

7.2.3 Additional Mitigation Measures

The Town of Alabama Planning Board, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project.

- The ownership and maintenance of any stormwater facilities, both on-site and off-site, which are constructed as a result of this Project, shall be owned and maintained by the Project Sponsor, or by a landowner association formed to represent STAMP, and not be the responsibility of the Town of Alabama. Proof of such ownership and maintenance agreement shall be provided to the Town of Alabama prior to construction of any such stormwater facilities.
- All wetland mitigation shall be undertaken either by the Project Sponsor, individual project applicants, or other entities. The Town of Alabama will not be responsible for providing wetland mitigation for the Project. All wetland mitigation shall be reviewed and approved by NYSDEC and shown on site plans to be approved by the Planning Board prior to site development.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS:

7.2.4 Findings

With the mitigation measures set forth above by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to water resources to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.3 Air Resources

The Project Double Reed project will generate minimal traffic volumes, most of which will be automobile/light duty vehicles. Each building is calculated (based upon the ITE Trip Generation Manual, 12th Ed.) to generate 43 AM peak hour trips (31 in/12 out); 33 PM peak hour trips (6 in/27 out); and 457 weekday daily trips. This nominal level of traffic activity will not have any impacts on air resources and are within the parameters of the DGEIS.

7.3.1 Discussion of Potential Impacts

Based on the air screening analysis provided in the Traffic Impact Study, attached as Appendix I to the DGEIS, an air quality analysis for mobile sources is not necessary for the Project since it will not increase traffic volume, reduce source-receptor distances, or change other existing conditions to such a degree as to jeopardize attainment of the National and New York State Ambient Air Quality Standards. The development of the Project will result in some increases in heavy vehicle traffic, however, the majority of the Project Site-generated traffic will be from employees who will travel to-and-from the Project Site using non-diesel vehicles. Therefore, based on the expected vehicle mix and the good level of service that will exist at signalized intersections after the development of the Project during the build conditions, particulate matter exceedances will not likely occur as a result of the Project.

Certain manufacturing to be conducted at the Project Site may require compliance with regulatory requirements as set forth by NYSDEC and the United States Environmental Protection Agency (USEPA) pursuant to the Title V Facility Permit, State Facility Permit, and Air Facility Registration air programs. All manufacturing activities to be conducted at the Project will be subject (as applicable) to these permitting requirements. Nevertheless, each potential manufacturing facility located at the Project is anticipated to have actual emissions less than Major Source thresholds, and thus regulated under a State Facility Permit. Moreover, the construction of up to three (3) contiguous manufacturing facilities under common ownership is also expected to be covered under State Facility Permit programs. Taking into consideration the data provided within the Industry Requirements and Environmental, Health, and Safety Impacts Report (attached as Appendix H to the DGEIS), construction of four (4) or more contiguous facilities under common ownership may result in a Major Source classification for certain air emissions subject to a Title V Permit.

Based upon the emissions data presented within the Industry Requirements and Environmental, Health, and Safety Impacts Report, the estimated annual emissions (potential to emit) of regulated air pollutants from any single stationary source to be constructed within the Project Site is expected to be below the Major Source Threshold, (*i.e.*, less than 100 tons per year (TPY) of any single criteria pollutant) less than 10 TPY of a hazardous air pollutant and/or less than 25 TPY of combined hazardous air pollutants. Nevertheless, facilities seeking to locate at the Project Site will need to satisfy the requirements of NYSDEC's Air Guide-1 (as applicable) in addition to all other permitting requirements.

Temporary air quality impacts are likely to occur during the construction phases of the Project. These impacts will consist mainly of dust being generated and would occur as existing vegetation was removed and soils were moved around for grading and construction purposes. These impacts will be temporary and minor since most of the dust generated will settle out within a short distance of the construction activities. Thus, generation will also be consistent with the existing conditions associated with nearby agricultural uses. Preserved open spaces surrounding development areas will help contain any dust generated during construction activities and will serve to mitigate all potential impacts from occurring off site. The roadway project will result in temporary impacts due to dust, but will not create any other air impacts.

7.3.2 Minimization and Mitigation Measures

Project Double Reed will comply with the overall minimization and mitigation measures identified for the overall STAMP site, as applicable to the conditions found on each campus. Erosion control plans have been prepared for each site and will address applicable requirements.

As discussed above, facilities seeking to locate at the Project Site shall comply with, as necessary, all of the requirements of the NYSDEC, USEPA, and/or the New York State Department of Health pursuant to the Title V Facility Permit, State Facility Permit, or Air Facility Registration programs, as well as NYSDEC's Air Guide-1 requirements. Erosion and sediment control plans and the watering of the roadway during construction will help to reduce dust.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.3.3 Findings

With the mitigation measures set forth by the Lead Agency in Section 7.3, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to air resources to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS:

7.4 Terrestrial and Aquatic Ecology

The Project Double Reed project will not impact upon the terrestrial or aquatic ecology of either site. The South Campus property has already been disturbed in accordance with the approved Plug Power plans and the stormwater design approved will be maintained and supplemented. The North Campus is currently an open field with scattered trees. No wetlands exist on the property.

7.4.1 Discussion of Potential Impacts

There are twelve (12) ecological community types present at the Project Site that are common and well established throughout their range, as are the majority of plant and wildlife species identified at the Project Site. Two (2) species observed at the Project Site that are currently listed as threatened in New York State (heartleaf plantain and least bittern) are located in areas that will be protected from impacts associated with the Project Site development.

The northern harrier (listed as threatened in New York State) was documented at the Project Site on March 16, 2010. A pair of northern harriers were observed flying low over hedgerow and open field habitats and then traveling west toward the Tonawanda Seneca National property. No active sites were found at the Project Site. Based on multiple negative reproduction call playback sessions and the absence of species during the remaining six-month investigation, it was determined that the Project Site is not used as a nesting location and thus the Project will not have an adverse impact on the species.

The horned lark is a species of special concern in New York State, however, no active sites were found during the Project Site surveys. Nevertheless, it appears that the agricultural fields located at the Project Site are utilized by the horned lark. Agricultural fields are abundant in the vicinity of the Project Site, providing abundant habitat for any species displaced as a result of conversion of land use at the Project Site. Farmland protection is proposed as a key component of this Project, so no additional mitigation is required with respect to the horned lark species.

7.4.2 Minimization and Mitigation Measures

Project Double Reed is consistent with the overall minimization and mitigation measures identified for the overall STAMP site. The stormwater design for the North Campus will maintain the natural hydrology and is compliant with applicable design requirements. Both of these sites were identified in the overall STAMP Master Plan for development.

In order to avoid and/or minimize to the maximum extent practicable potential impacts to the terrestrial and aquatic ecologies, a long-term Land Management Plan shall be implemented at the Project Site throughout construction and following Project Site development. In addition to implementation of the Best Management Practices and the Stormwater Mitigation Measures identified in Section 7.2 of this Findings Statement, this Land Management Plan will mitigate potential impacts to wildlife habitat by maximizing ecological functions at the Project Site, to the watershed, and to the surrounding landscape. The long-term Land Management Plan shall include the following criteria:

- Future development areas will be maintained in their current land use until development construction commences. Most of the Project Site acreage falling into this category are currently being farmed, and shall continue to be farmed using Best Management Practices until the lands are developed by specific Project uses.

- Approximately 640 acres of Project Site shall be maintained as open space/landscaped areas manage to provide greenspace and recreational areas within STAMP. These areas will generally be mowed on a regular basis or in the case of natural grasses, street trees, and visual barriers and berms, trimmed to facilitate maintenance, public safety, and aesthetic environment. Wildlife plantings shall occur as needed and include such things as pollinator gardens, fruit producing shrubs, mast producing trees, and similar microhabitats.
- A diverse array of habitat types will be preserved and restored at the Project Site providing habitat for many different species of life. Approximately 174.2 acres of the Project Site will be set aside as conservation lands. These lands will include forested wetlands, emergent wetlands, streams in riparian areas, shrub wetlands, upland forests, shrub lands, and small grass lands. Where feasible, individual patches of conservation land shall be connected to one another by conservation or open-space corridors, riparian areas will be reinforced, and compatible recreational opportunities will be encouraged and maintained.

Specific habitat management objectives will be written as the preservation and restoration activities described above are completed. Generally, forested areas will be preserved and no active management will take place. Some limited tree cutting may occur to protect public safety, such as when a potential falling tree may endanger users of the recreational trails. Tree plantings will occur in forested riparian restoration and enhancement areas.

All restoration activities shall be conducted using standard techniques and assessment methods. All plantings associates with restoration activities will be designed to provide habitat for a broad array of species with additional consideration given to species of conservation concern. Shrubland and grasslands will be maintained in an early successional state through the use of mechanical or chemical means. Mowing shall be generally preferred as a management tool.

7.4.3 Additional Mitigation Measures

Landscape plans are provided for both campuses as part of the site plan documents.
The Town of Alabama, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project:

- The ownership and maintenance of any open space and/or conservation lands shall be owned and maintained by the Project Sponsor, or by a landowner association formed to represent STAMP, and not be the responsibility of the Town of Alabama.
- A Long Term Land Management Plan (LTMP) shall be prepared by the Project Sponsor prior to site plan approval. Copies of this Plan will be provided to the Town of Alabama Town Board and Planning Board for use in the review of future site development for proposed “businesses”. For the roadway/infrastructure project a draft plan has been developed and the roadway project appears to be in accordance with that plan.

- Landscape plans for the development of each site, prepared in accordance with the LTMP, shall be provided to the Town of Alabama Planning Board as a part of the site plan review process for future development on the STAMP property. The roadway plans were submitted, and they did not provide landscape features.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS:

7.4.4 Findings

With the mitigation measures set forth above by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to terrestrial and aquatic ecology to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.5 Technology Industry Health and Safety

Project Double Reed involves the construction of three (3) buildings operating as data centers. No manufacturing is proposed on either campus. These operations will not produce any process by-products.

7.5.1 Discussion of Potential Impacts (by the Lead Agency)

GCEDC intends to develop the Project Site to enable advanced technology and manufacturing operations in the following areas:

- Photovoltaic (PV) manufacturing
- Flat Panel Display (FPD) manufacturing (including medical imaging display (MID))
- Biopharmaceutical/Nanotechnology – enabled industries (Bio-Pharm/Nano)
- Semiconductor Manufacturing

These technologies are described in greater detail in the Industry Requirements and Environmental Health and Safety Impacts Report, attached as Appendix A to the DGEIS. These manufacturing technologies are emergent and may include a wide range of manufacturing activities, each with its own unique requirements for process chemistry. However, even though the specific chemical used within the facilities will vary, each facility will tend to utilize similar categories of chemicals and maintain similar health and safety best management practices.

The leaders of the technology manufacturing industry are pioneering new process chemistries and technologies in efforts to reduce the quantity of chemicals used per unit of production, as well as the toxicity of the chemicals utilized. There are many reasons why the industry leaders are so vigorously pursuing these efforts. First, process chemicals represent a significant portion of the manufacturing cost, and improvements that reduce the quantity of chemicals required will positively impact revenue. Second, substituting less hazardous materials when possible reduces the potential impacts associated with worker exposure or chemical release, and allows for simpler handling and management systems. Third, substituting or reducing quantities of chemicals may allow facilities to more easily comply with state and federal health, safety, and environmental requirements. Thus, as a result of industry efforts, technology manufacturing has achieved an excellent health and safety record.

All three (3) of the advanced manufacturing technologies involve a variety of chemical substances, and will have associated Material Safety Data Sheets (MSDS) representing the specific chemicals to be used. MSDS will be made available to employees and agencies. Tables 6-11 through 6-16 of the DGEIS provide the estimated maximum annual chemical and component material consumption rates associated with the various potential manufacturing technologies to be located at the Project Site.

All three (3) of the manufacturing technologies will use similar commercially-proven engineering control systems to allow for the management of hazardous materials in a manner that is protective of human health and the environment. Hazardous process chemicals will be stored and/or used at several locations at a typical facility including outdoor areas, at chemical storage rooms, manufacturing process areas, and other indoor areas. The types and quantities of chemicals stored and used in each of these areas are documented in a Hazardous Materials Inventory Statement, which shall be provided to local fire and other emergency service agencies as part of all safety and emergency planning efforts for the Project.

Hazardous process chemicals will be typically delivered and stored and/or used in the following outdoor areas:

1) Bulk gas yard: The bulk gas yard will consist of steel tanks designed for storing cryogenic gases including argon, nitrogen, hydrogen, and oxygen. The tanks will be located within a fenced area on a concrete pad.

2) Emergency generator area: Emergency standby backup power shall be provided by several diesel emergency engine generators also located in an outdoor yard area. Each generator typically involves several thousand gallons of diesel fuel with secondary containment that consist of a rupture basin size for 125% of the primary storage tank. The storage and use of this volume diesel is regulated by the federal Spill Prevention Control and Countermeasure Rules and NYSDEC's regulations for the bulk storage of the petroleum and hazardous substances.

3) Bulk fuel oil storage area: Future industry tenants at the Project Site may also require bulk storage of fuel oil as a backup fuel supply for boiler systems.

Air pollution control systems, including wet fume scrubbers to control acidic or alkaline vapors, ammonia, or oxides of nitrogen, thermal oxidizers to control VOCs and bag houses, or other filters to control particulates, will be located at the Project Site as necessary. Bulk chemical storage may include raw assets or concentrated acid waste. These materials shall be stored in steel-lined tanks equipped with high level sensors and vented to pollution control systems. Chemical storage rooms will also be located in facilities to store hazardous chemicals typically delivered to essential chemical storage and distribution rooms through a dock facility.

Certain areas of the manufacturing process may also rely on bulk chemical delivery systems as opposed to container (*i.e.*, totes, 55-gallon drums, and bottles) transport and delivery of chemicals. From the chemical storage rooms, bulk chemicals are pumped to the process areas through chemically resistant tubing inside clear secondary containment PVC piping. Secondary containment piping shall be equipped with low point drains and leak detection.

7.5.2 Minimization and Mitigation Measures

Project Double Reed will comply with the overall minimization and mitigation measures identified for the overall STAMP site, as applicable to the conditions found on each campus.

A wide variety of environmental and health and safety laws and regulations shall guide the design, construction, and operation of the advanced technology manufacturing facilities to be located at the Project Site. All future manufacturing activities to be conducted at the Project Site shall be subject to the appropriate NYSDEC regulations including those requirements set forth in the Hazardous Substance Bulk Storage Program (6 N.Y.C.R.R. Parts 595-599) and Petroleum Bulk Storage Program (6 N.Y.C.R.R. Parts 612-614). In addition, all hazardous materials transferred to and from the Project Site shall only be transported in Department of Transportation-approved containers by licensed transporters.

The storage and use of any petroleum and hazardous substances at the Project Site shall be subject to the federal Spill Prevention Control and Countermeasure ("SPCC") rules. Facility system design and daily operations at the Project Site shall also comply with all applicable Uniform Fire and Building Codes and a site-specific Hazardous Material Management Plan shall be prepared and submitted to the Town of Alabama Fire Department for approval prior to the issuance of any Certificates of Occupancy. All employees handling hazardous materials or wastes will be appropriately trained in accordance with applicable Occupational Safety and Health Act (OSHA) and Resource Conservation and Recovery Act (RCRA) regulations.

Multiple environmental health and safety programs shall be implemented at the Project Site in order to comply with the applicable provisions of the Town of Alabama Zoning Law, the Town's SEQR Findings document, RCRA, New York State Department of Labor regulations, the Emergency Planning and Community Right-to-Know Act, and OSHA regulations.

Hazardous process chemicals shall not be stored at any locations at the Project Site without the user of such chemicals first providing a Hazardous Materials Inventory Statement to the

Town of Alabama Fire Department and other local emergency services agencies as part of a comprehensive safety emergency planning effort for the Project. This Planning effort may also include training for the Fire Department. All hazardous materials management practices and engineering controls for the advanced technology and manufacturing facilities to be located at the Project Site shall also be managed consistent with the requirements set forth in Section 6.5.1 of the DGEIS. Lastly, all nanotechnology manufacturing facilities to be located at the Project Site shall comply at all times with applicable USEPA, OSHA, and National Institute for Occupational Safety and Health (NIOSH) requirements (as applicable).

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.5.3 Findings

With the mitigation measures set forth by the Lead Agency in Section 7.5, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential technology industry health and safety impacts to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.6 Traffic and Transportation

The Project Double Reed project will generate minimal traffic volumes, most of which will be automobile/light duty vehicles. Each building is calculated (based upon the ITE Trip Generation Manual, 12th Ed.) to generate 43 AM peak hour trips (31 in/12 out); 33 PM peak hour trips (6 in/27 out); and 457 weekday daily trips. The AM peak hour traffic for Project Double Reed represents 32% and during the PM peak hour 24.6% of the total Phase 1 traffic of STAMP. For the full build-out of STAMP, the trip generation of Project Double Reed represents 6.3% of the AM peak hour and only 3.6% of the PM peak hour.

7.6.1 Discussion of Potential Impacts

GCEDC conducted a Traffic Impact Study, attached as Appendix I to the DGEIS, to review and analyze the potential impacts to existing traffic conditions from Phase 1, 70% of full build-out, and full build-out developments of the Project. The Project shall be constructed in phases over a 20-year planning horizon, with threshold analyses for Phase 1 (1,000,000 square-feet of floor space) and 70% of full build-out the Project Site's trip generation, so that additional evaluations can facilitate the phasing of transportation improvements.

The Project Site is bounded by three (3) roads, with New York Route 77 to the north, New York Route 77/63 Overlap to the east, and Judge Road to the south. A fourth road, Crosby Road, extends north/south through the Project Site. The following study intersections were reviewed and analyzed in the Traffic Impact Study:

- New York Route 63/New York Route 31/New York Route 31A
- New York Route 63/Blair Road/Main Street
- New York Route 77/New York Route 63/Lewiston Road
- New York Route 77/63 Overlap-Ham Road
- New York Route 77/New York Route 63/Judge Road
- New York Route 77/Bloomingdale Road
- New York Route 77/Ledge Road
- New York Route 77/Akron Road
- New York Route 77/I-90 Exit 48A
- New York Route 77/New York Route 5
- New York Route 77/Royalton Center Road
- New York Route 98/Lockport Road
- New York Route 63/Lewiston Road/Park Avenue

Intersection turning movement traffic counts were conducted at the Project Site area intersections during February 2010 and during November 2010. The traffic counts were done during the AM commuter peak from 7:00 to 9:00 a.m. and during the PM commuter peak from 4:00 to 6:00 p.m. A review of the seasonal variations of traffic in the area indicated that there were generally higher traffic volumes during the summer months due primarily to the Project Site's proximity to recreation centers, such as the Darien Lake Amusement Park located south on New York Route 77-63. Therefore, the AM and PM peak hour turning movement counts conducted in February and November were factored to represent average August conditions. The resulting peak hour traffic volumes formed the basis of all traffic forecasts.

An automatic traffic recorder (ATR) was installed by the New York State Department of Transportation (NYSDOT) on NY Route 77 just south of the NY Route 77/NY Route 63/Judge Road intersection to record hourly traffic volumes from August 10, 2010 through August 18, 2010. The following observations are evident based on the existing traffic volume data:

1. The AM peak hour generally occurs from 7:00 to 8:00 a.m. while the PM peak hour generally occurs from 4:00 to 5:00 p.m.
2. The two-way traffic volume on NY Route 77 adjacent to the Project Site is approximately 150 vehicles during the AM peak hour and 200 vehicles during the PM peak hour. The two-way traffic volume on the NY Route 77/63 Overlap adjacent to

the Project Site is approximately 360 vehicles during the AM peak hour and 530 vehicles during the PM peak hour. The two-way traffic volume on Judge Road adjacent to the Project Site is approximately 45 vehicles during the AM peak hour and 105 vehicles during the PM peak hour.

3. Heavy vehicle percentages on the NY Route 77/63 Overlap generally range from 5% to 13% by approach during the AM and PM peak hours. Buses account for less than 1% of the traffic.

Regional transit service available in the Project's vicinity is provided by B-Line – Batavia Bus Service (BBS), which is an operating subsidiary of the Rochester Genesee Regional Transit Authority (RGRTA). BBS provides curb-to-curb service within Genesee County, however, service is limited to three days per week with each day restricted to a specific regional area.

Increased traffic has the potential to impact the Agricultural equipment that utilizes the Town's highway systems and school buses.

The typical AM and PM commuter hours represent the most conservative, "worst case" time periods to calculate potential Project-generated traffic. The trip generation evaluation contained in the Traffic Impact Study indicates that Phase 1 of the Project will generate 403 and 402 new AM and PM peak hour trips respectively, while full build-out of the Project (assumed in Year 2035) will generate approximately 2,034 and 2,749 new AM and PM peak hour trips respectively. The 70% threshold will generate 1,424 and 1,924 new AM and PM peak hour trips.

7.6.2 Minimization and Mitigation Measures

Traffic from Project Double Reed will not impact on the various roadway improvements contemplated as part of STAMP. The proposed traffic volumes are well below the total traffic levels analyzed both for Phase 1 and for full build out.

Various improvements have been identified to mitigate, to the maximum extent practicable, the Project's potential impact to existing traffic patterns and flows. It is noted that the improvements typically include traffic signals and turn lanes at intersections. Based on conversations with NYSDOT by the Project Sponsor, alternative traffic controls, such as roundabouts, shall be considered, and the intersections shall be monitored to determine when the improvements should be installed.

It is recommended that a right-turn lane be constructed on the east bound Judge Road approach of the NY Route 77/NY Route 63 intersection, and that this intersection and the NY Route 77/Ledge Road intersection be monitored for the potential installation of traffic signals during Phase 1 of the Project's development.

After Phase 1, and before the 70% threshold for Project build-out is reached, it is recommended that a bypass road be constructed through the Project Site from NY Route 77/63 Overlap just north of Ham Road to NY Route 77 at the existing location of the intersection of Crosby Road. This connector road will provide access to the Project Site,

and will allow through traffic on NY Route 77 to bypass the Hamlet of Alabama, reducing potential traffic impacts in the Hamlet of Alabama. Designating the bypass road as Route 77 and de-designating existing NY Route 77 though the Hamlet of Alabama will be considered. In addition to the connector road, several new site driveways shall be constructed as needed and in correlation to the phased development of the Project Site. These site access improvements include: two (2) driveways on NY Route 77, two (2) driveways on Judge Road, and two (2) driveways on NY Route 77/63 Overlap (in addition to the bypass road curb cuts).

Traffic capacity improvements shall be completed (as needed) at several off-site intersections including:

- NY Route 77/NY Route 63/Judge Road
- NY Route 77/Bloomingdale Road
- NY Route 77/Ledge Road
- NY Route 77/Akron Road
- NY Route 77/I-90 Exit 48A

The actual timing and necessity of these improvements will be confirmed after completion of Phase 1 development and subject to the review and approval of NYSDOT.

The full build-out analysis of the Preferred Alternative indicates that a majority of the study area intersections will continue to operate adequately. A two-lane capacity analysis of NY Route 77 shows that only the Judge Road to Bloomingdale Road segment may become congested during full build-out conditions.

There are a number of potential level-of-service (LOS) degradations (increases in delay at area intersections) that may result from the full build-out of the Project and, in order to view those potential impacts in a conservative manner, are being considered potential unavoidable impacts associated with the Project Site's traffic generation. Nevertheless, with implementation of the proposed traffic improvements set forth in the Traffic Impact Study, these potential impacts will be mitigated to the maximum extent practicable.

Based on coordination with the N.Y. State Thruway Authority and evaluation of the available capacity at the I-90 Exit 48A Interchange, as well as queuing at the adjacent signal, the Interchange appears capable of accommodating the build-out of the Project by managing the existing lanes, constructing an additional toll lane, or through an employer incentive that encourages EZ-Pass use.

7.6.3 Additional Mitigation Measures

We have provided the expected traffic volumes for this project as described herein based upon data contained in the ITE Trip Generation Manual, 12th Edition.

The Town of Alabama Planning Board, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project:

- For each individual project that is proposed on the STAMP site, the applicant shall provide the Town with the estimated daily and peak hour traffic generation of the project accumulated with traffic counts from previously approved STAMP projects.
- To ensure that no additional potential traffic impacts result from the Project that are not anticipated at the time of this Findings Statement, a supplemental traffic analysis shall be conducted by the Project Sponsor throughout build-out of the Project when the following thresholds are met:
    - When Phase I (or 1 million square feet of building) is completed or when cumulative peak hour trips generated by the Project equals at least 750 trips during either the AM or PM peak hour, whichever happens first;
    - When the Project reaches 70% build-out (4.27 million square feet) or when cumulative peak hour trips generated by the Project equals at least 1,925 trips during either the AM or PM peak hour, whichever happens first.
- The Project Sponsor shall assure that degradation of Town owned and maintained roadways resulting from traffic volumes and/or vehicle classifications brought on by the STAMP Project shall be repaired at no cost to the Town and shall enter into an appropriate road use/ repair agreement with the Town of Alabama and/or explore the conversion of Crosby Road and the portion of Judge Road between the Tonawanda Seneca Nation and State Route 77/63 to Genesee County owned and maintained roadways (this was accomplished through a County and Town road swap).
- The main Project Site access road (proposed to be constructed to State Route 63/77 at 70% build-out) shall be constructed by the Project Sponsor to State Route 63/77 prior to completion of the first development project at STAMP and was the subject of the roadway application to the Planning Board.
- Since several Project Site driveways are proposed to access Crosby Road and because the Town of Alabama (current owner of this road) feels this road is under-built for handling the additional traffic volumes and vehicles classifications brought on by this Project, the Project Sponsor shall improve Crosby Road to the expectations of the owner, unless otherwise agreed upon, at no cost to the Town (the road is being proposed to be turned over to the County).
- All interior roads built within the Project Site shall be owned and maintained by the Project Sponsor, Genesee County, or by a landowner association formed to represent STAMP, and not be the responsibility of the Town of Alabama. Proof of such ownership and maintenance agreement shall be provided to the Town of Alabama prior to construction of interior roadways (the new roadway is owned by the County).
- The Project Sponsor shall include the Town of Alabama in any discussions with the New York State Department of Transportation and/or Genesee County Highway Department regarding improvements to roadways within the Town of Alabama as a result of the STAMP Project.

- During site plan review and upon submission of updated traffic information, the Planning Board shall determine if signage or other features are needed for any proposed or existing bus stop locations (school and others).
- The Farmland Protection Plan currently being completed for the Town and County will need to address the impacts of increased traffic on Farm equipment. A potential mitigation includes wider shoulders in certain areas to accommodate the farm equipment and improved maintenance programs for the roads.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.6.4 Findings

With the mitigation measures set forth above by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential traffic and transportation impacts to the maximum extent practicable. Further, the potential traffic and transportation impacts are outweighed by the significant social and economic benefits of the Project.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.7 Land Use and Zoning

The proposed Project Double Reed is consistent with the TD-1 Zone standards other than it seeks a waiver to construct fewer parking spaces than the ordinance requires, as that level of parking is not necessary for the proposed use as data centers.

7.7.1 Discussion of Potential Impacts

The pattern of land use in the area surrounding the Project Site will be altered through the full build-out of the Project. The Project Site and surrounding areas largely consist of agricultural lands, recreational open spaces, and a limited amount of large lot residential development. The southeast/west corner adjoining the Project Site is part of the John White WMA and the Tonawanda Seneca Nation property borders the Project Site to the west. The Project proposes modern-high technology manufacturing and ancillary uses utilizing less than 49% of the 1,243.40 acres comprising the Project Site. The majority of the remaining acreage at the Project Site will be preserved for open space and the protection of environmentally sensitive resources.

Implementation of the Project will alter the pattern of existing land uses, transforming primarily open space and subprime agricultural land into a modern, advanced technology campus. However, the existing zoning ordinances do not accommodate the development of the Project. The majority of the Project Site is zoned A-R (Agricultural-Residential).

7.7.2 Minimization and Mitigation Measures

As stated above, Project Double Reed is consistent with the zoning adopted for these parcels, except for providing less parking than required.

In order to accommodate the Project, GCEDC is proposing that the Town of Alabama consider implementing the following four (4) land use measures to minimize potential impacts the Project may have on existing land uses and zoning-planning goals:

- Implementation of an Incentive Zoning Agreement pursuant to which GCEDC, in exchange for providing certain public amenities to the Town (which will inure to the benefit of the community as a whole), GCEDC will receive a re-zoning of the Project Site into a newly-created Technology Zoning District in order to address the Project's unique needs.
- Amending the Comprehensive Plan for the Town of Alabama to provide for the development of the Project consistent with the other planning goals of the Town and Village, but accepting the vision of the Project's goal of developing a world-class high technology manufacturing center with a focus on renewable energy.
- Considering the adoption of one or more of the strategies found in the Farmland Protection Strategies Report (FPSR) for the Town of Alabama, New York, which has been prepared with the goal of describing and consolidating the potential strategies for the Town of Alabama to evaluate and consider in preserving farmland. FPSR is provided as one of the proposed mitigation measures for the potential loss of farmland associated with the development of the Project Site.
- Amendment of the Genesee County Smart Growth Plan to include the Project Site within the Hamlet of Alabama Smart Growth development area.

The Project Sponsor has submitted an Incentive Zoning application to the Town of Alabama in furtherance of the potential mitigation measures stated above, and in particular, to request that the Town create a special Technology Zoning District for the Project which will govern all development at the Project Site and the Town has adopted it.

The Technology Zoning District is designed to mitigate off-site impacts potentially associated with the development of the Project Site. The layout of the Technology Zoning District maximizes the benefits of the Project Site layout and incorporates smart design techniques to minimize the potential impacts of the Project. The proposed Technology Zoning District shall also include a 300-foot buffer of open space along any district lot line abutting a Residential (R) or Agricultural-Residential (A-R) District, with the exception of the property in the northeast corner of the Project Site. In addition, a 300-foot buffer will be maintained between zoning districts. Lastly, the proposed Technology Zoning District shall contain an

additional open space buffer. The Town has created these Technology districts and the associated code requirements.

In exchange for granting the zoning incentives set forth in the proposed Technology Zoning District, the Project Sponsor may provide certain amenities identified as priorities by the Town of Alabama, which may include providing potable water, funding and/or acquiring real property nearer to the Hamlet of Alabama for a new town hall, and assisting and delivering broadband services to the Town.

7.7.3 Additional Mitigation Measures

The pattern of land use will be altered by the Project. In addition to the mitigation measures set forth by the Lead Agency in Section 7.7, the Town of Alabama Planning Board, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project to avoid or minimize potential land use impacts to the maximum extent practicable:

- An Incentive Zoning Agreement between the Project Sponsor and the Town of Alabama shall provide that the Project Sponsor will assist the Town of Alabama, as necessary, to ensure that the following measures are completed in a timely fashion: (1) revising and updating the Comprehensive Plan and Smart Growth Plan to provide for the development of the Project consistent with the planning goals of Genesee County, the Town of Alabama, Town of Oakfield, and the Village of Oakfield, and reflecting the Project goal of developing a world class high technology manufacturing center on the subject property; (2) creating new zoning districts; (3) undertaking any required zoning and/or subdivision revisions; and (4) implementing one or more strategies in the Farmland Protection Strategies Report (FPSR). This agreement shall be in place prior to the commencement of any site development on the STAMP Site.
- The GCEDC will assist the Town in developing Architectural and other design requirements for the site's different districts. These were completed and are were amended to address issues of concern. All projects must be in accordance with these design guidelines/requirements.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.7.4 Findings

With the mitigation measures set forth above by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to land use and zoning to the maximum extent practicable. Further, the potential impacts to land use and zoning are outweighed by the significant social and economic benefits of the Project.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.8 Utilities

The Project Site will be served by or have access to all major utility facilities, including water, sewer, electric, natural gas, and telecommunications. While the provision of water and sewer is administered by public authorities, all other utility services are provided by private companies.

7.8.1 Discussion of Potential Impacts

Water Services

Project Double Reed has a relatively low water demand of 19,710 gallons per day (GPD) for all three (3) buildings combined, which comprises a total building area of 1,992,000 square feet. This is well below the anticipated water demand contemplated for Phase 1.

The Water Service Preliminary Report, attached as Appendix N to the DGEIS, evaluates the necessary improvements required to supply the required water services to the Project Site. The analysis considers two (2) construction phases – Phase 1 and full build-out scenarios. Phase 1 anticipates an assumed building development of 1.0 million square feet with a water demand of 1.0 million gallons per day (gpd).

The availability of water resources and large diameter water mains is limited in the vicinity of the Project Site. Therefore, providing the high water demand necessary for the Project Site will require the development of a network with multiple water resources, rather than one or two simple high volume connections. Several alternatives were considered to provide a water service system that would meet the needs of the Project while minimizing the impact to existing water supply systems. The alternatives consist of providing a supply system including new water mains and connections to existing water mains in the surrounding area, as well as on-site storage tanks.

A phased network approach will be required to satisfy the water supply needs of the Project Site while maintaining the current levels of water service to the various communities. The most practical sources of supply appear to be located to the south and west of the Project Site in the Town of Pembroke and Village of Oakfield, and through Genesee County. A Phase 1 water project consisting of the construction of a Route 77 water main with a Pembroke connection, and a Route 63 and South Pearl Road water main project, will be required to meet the demand for the Phase 1 development of the Project. The construction of an on-site water storage tank would provide the required on-site storage for fire flow and peak demands associated with Phase 1 of the Project. The estimated total capital cost of the Phase 1 water project is approximately $17,247,000.00.

The Town of Alabama and Village of Oakfield are planning water projects that are similar to the ones described above. If these municipal projects are completed in advance of the Project Site and the proposed water main materials and sizes were upgraded, the total

capital cost associated with Phase 1 of the Project Site development may be reduced to $14,484,000.00

In addition to the required alternatives constructed for Phase 1 of the Project's development, additional improvements will be required to service the full build-out of the Project Site. Construction of a Maple Street and Galloway Road water main would be required for the full build-out water system. To provide the anticipated 3.0 million gpd to the Project Site at full build-out, significant upgrades will also be required to the Genesee County, Monroe County Water Authority and Erie County water systems. The estimated total capital cost of the full build-out expansion for the Project is $21,405,000.

Wastewater Facilities

Project Double Reed has a relatively low sanitary sewer demand of 9,450 gallons per day (GPD) for all three (3) buildings combined, which comprises a total building area of 1,992,000 square feet. This is well below the anticipated sanitary sewer demand contemplated for Phase 1. The sanitary sewage from Project Double Reed will all flow to the 16,000 gallon hold and haul tank located opposite the South Campus.

The Sewer Service & Wastewater Treatment Facility Preliminary Report, attached as Appendix O to the DGEIS, was prepared to evaluate the necessary improvements required to provide sanitary service to the Project Site. STAMP will generate a combination of conventional domestic wastewater and wastewater from the manufacturing process and process support systems. The preliminary report evaluates several alternatives to provide sanitary service to the Project, considering the two (2): Phase 1 and full build-out. The sewer demand for Phase 1 is estimated to be 1.0 million gpd. The initial construction of the Project Site would include a wastewater treatment facility and infrastructure to convey and treat this volume of flow. For the full build-out scenario, a sewer design demand of 3.0 million gpd was evaluated. This phase will include upgrades to the wastewater treatment facility and infrastructure previously constructed under the Phase 1 development portion of the Project, as well as new infrastructure to meet anticipated demand.

The location and construction of a wastewater treatment facility on the Project Site is the most economical and feasible approach for addressing wastewater treatment resulting from the Project. The construction of an on-site wastewater treatment facility eliminates the need for long sewer forced mains filled with untreated sewage, allows flexibility to upgrade the wastewater treatment facility easily since it is incorporated into the Preferred Alternative, has the lowest estimated capital costs, eliminates the needs for off-site land acquisition, and allows for feasible permitting for the wastewater treatment facility.

The on-site wastewater treatment facility to be constructed within the Project Site would include a discharge of treated wastewater to the Whitney Creek pursuant to a State Pollutant Discharge Elimination System (SPDES) permit issued by the NYSDEC. A SPDES permit establishes stringent performance standards and operating conditions that are designed to protect the State of New York's waters, including Whitney Creek. The SPDES permit shall incorporate water quality standards, sampling analysis, and reporting

requirements, as established by NYSDEC. The sewer service for the Project will also require permitting from the New York State Department of Health, as well as the County of Genesee and the Town of Alabama (if applicable). Based on initial discussions with the NYSDEC, a discharge to Whitney Creek is feasible based on volume and concentration levels for a regulated Intermittent Stream. It must be noted that on-site discharge has been eliminated as an option and other options have been developed (these changes to not impact the construction of this new roadway. Portions of the new roadway include sanitary sewers.

Electrical Power

Anticipated electrical loading requirement for the Project is 185 megawatts. National Grid completed a review of system impact of low connection for the Project Site, which evaluated the ability of National Grid's Genesee Regional Power Structure to provide the megawatt load-age on a five-year horizon for the Project. National Grid considers the Findings and analysis contained in its report to be confidential information, and for both proprietary and security reasons, cannot be disclosed publicly. Nevertheless, several of the levels for the Project Site were considered by National Grid. It was concluded that a 9 megawatt load without reactive compensation or a 30 megawatt load with reactive compensation could be supplied at the Project Site without thermal voltage problems developing for the existing system.

Natural Gas

Estimated annual consumption of natural gas for the combined facilities to be located at the Project is 2,700 MMCF, according to the Gas Service Analysis provided as Appendix P to the DGEIS. The proposed gas distribution plan, set forth in the Gas Service Analysis, contains the main components necessary to satisfy the Project's ultimate service requirements in consideration of the operation's parameters for the existing gas distribution system. The nearest natural gas distribution line is located the distance of approximately five (5) miles from the Project Site, near the intersection of Judge Road and Lewiston Road on the northwest side of the Village of Oakfield. Once the gas main extends the boundary of the Project Site, the available gas pressure will be in the range of 30-80 PSIG.

Telecommunications

The Genesee County website indicates existing fiber optic lines running close to the Project Site in two (2) locations. One line is located at the Lewiston Road-Route 77/63 intersection near the northeast corner of the Project Site, and the other is located at the Judge Road-Route 77/63 intersection near the southeast corner of the Project Site.

7.8.2 Minimization and Mitigation Measures

Water and sanitary sewer demands for Project Double Reed are well within the limits evaluated for Phase 1 of the project. Each project site will be provided with an electric sub-station that will provide the power needs of each project.

The following measure shall be implemented as part of the development of the Project Site in order to minimize potential impacts to existing utility resources to the maximum extent practicable:

a. The improvements determined to be necessary for the Project Site, as outlined in the Water Service Preliminary Report attached as Appendix N to the DGEIS, shall be implemented (as necessary and applicable) on a going-forward basis as part of the Phase 1 and full build-out development phases of the Project, in conformance with any and all applicable requirements of the Counties of Genesee, Erie, Niagara, the Monroe County Water Authority, the Town of Alabama, and the Village of Oakfield.

b. Implementation of the recommendations set forth in the Sewer Service and Wastewater Treatment Facility Preliminary Report, set forth in Appendix O of the DGEIS, shall be implemented (as necessary and applicable) as part of the Phase 1 and full build-out developments of the Project. The construction of an on-site wastewater treatment facility shall be completed with an anticipated discharge to Whitney Creek subject to any and all applicable permitting requirements set forth by NYSDEC and, as applicable, the County of Genesee and the Town of Alabama. Discharge from the wastewater treatment facility to Whitney Creek shall be subject to any and all applicable Intermittent Stream requirements as established by NYSDEC. It should be noted that this alternative for wastewater has been abandoned and the project then envisioned pumping wastewater to Medina, and now the plan is for on-site treatment and pumping to Shelby for discharge.

c. Provision of electrical power to the Project Site shall be completed in conjunction with the recommendations set forth by National Grid and subject to the review and approval (as applicable) by National Grid, Rochester Gas and Electric, the New York Power Authority, and the New York Independent System Operator.

d. Gas services required for the Project Site shall be completed pursuant to the Proposed Gas Distribution Plan, set forth in the Gas Service Analysis attached as Appendix P to the DGEIS. Based on the projected needs of the Project, ample gas pressure will be supplied for future uses at the Project without presenting a potential significant adverse impact to existing natural gas resources.

7.8.3 Additional Mitigation Measures

The Town of Alabama, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project:

- The Project Sponsor, pursuant to the terms of the Incentive Zoning Agreement, shall cover the full cost of installation of the water infrastructure described in the Town's Public Water Feasibility Study at the earliest time practicable once all necessary approvals for the water project have been issued, including formation of necessary water districts, and once installation of the water infrastructure is complete, ownership of the water infrastructure shall be transferred to the Town of Alabama at no cost to the Town.

- The wastewater treatment facility and all associated wastewater infrastructure shall be owned and maintained by the Project Sponsor or by a landowner association formed to represent STAMP. Ownership and maintenance of the wastewater treatment facility and associated infrastructure shall not be the responsibility of the Town of Alabama unless otherwise negotiated with the Town. Proof of such

ownership and maintenance agreement shall be provided to the Town of Alabama prior to construction of wastewater facilities and commencement of site development.

- The Project Sponsor shall request that any communications service providers for the initial phase of the STAMP Project install broadband communications infrastructure in a manner that would facilitate expansion of such service to other portions of the Town of Alabama.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.8.4 Findings

With the mitigation measures set forth above by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to utilities to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.9 Community Facilities

7.9.1 Discussion of Potential Impacts

Project Double Reed will provide their own security controls and facilities regarding access to the each Campus. Each building is provided with a fire protection system that will be supported by emergency responders of the Town, County and State. Solid waste generated by the projected is anticipated to be nominal due to limited employee populations and the type of operations conducted. Further, limited or no hazardous waste will be generated by the project.

Development of the Project will have an impact on the existing level of emergency response services provided in the Town of Alabama. Additional resources required to provide police services at the Project Site, however, are expected to be insignificant. Periodic patrols of the Project Site may be required and those efforts will be coordinated between the Genesee County Sheriff's Office and the New York State Police. The larger entities located at the Project Site will typically provide internal security personnel, so routine police patrols will be able to focus on the Project Site's public access areas such as roads and recreational assistance.

With respect to fire and ambulatory services, technology manufacturing companies that will locate at the Project Site will organize and maintain their own internal fire response capabilities. These systems will be fully coordinated with the emergency response providers

for the Town of Alabama, Genesee County, and the State of New York. The type of incidents requiring response from public fire protection agencies will be similar to those currently maintained by those agencies. Effective responses to the Project Site will necessitate that the technology manufacturing facilities themselves provide training to local responders so that site-specific and chemical-specific knowledge is conveyed to the responders. Depending on the specific needs of the actual facilities located in the Project, it is possible that additional resources and/or training may be required.

Approximately 54,000 tons per year of solid waste and 3,000 tons per year of hazardous waste are estimated at the peak generation during full build-out of the Project. This amount of solid waste can be readily managed by the existing private contractors operating in the region without the specific need for any additional waste management facilities.

Potential impacts to educational facilities are both direct and indirect. Direct impacts occur during construction and operations. However, due to the absence of school buildings in the Project study area and the remote location of the Oakfield-Alabama Central School District building to the Project Site, no adverse impacts are expected on any educational facilities during construction or operation. With regard to indirect impacts, educational facilities in the area are expected to benefit financially from the development of the Project. As noted in the Economic Impact Analysis, provided as Appendix S to the DGEIS, increase in enrollments related to STAMP will be more than offset by potential increased tax revenues.

Moreover, the removal of the John White WMA from the Project Site at this time, coupled with the enhanced 500-foot buffer to exist between the Project Site and the John White WMA, avoids previous impacts reviewed in the DGEIS.

With respect to court services, the activities at the Project Site will be largely manufacturing-related subject to strict compliance with local, state, and federal requirements. As a result, there will not be zoning related matters that may arise before the local court.

7.9.2 Minimization and Mitigation Measures

Project Double Reed will not have any impacts on public lands, recreational facilities or educational facilities. Again, there are limited employee populations for the project as a whole which limits the need for emergency services. Each site will be provided with their own security controls and facilities.

With the removal of the John White WMA at this time from the Project Site, potential impacts to public lands and recreational facilities have been further minimized. Furthermore, potential impacts to the existing waste management, highway maintenance, and court services provided in the community will be mitigated to the maximum extent practicable.

With respect to the potential impacts to the existing educational facilities, GCEDC finds that the Project may have a significant benefit to the educational facilities existing in the community as a result of the potential increased tax revenues generated by the Project. Furthermore, new advances in high tech manufacturing companies locating at STAMP will

likely strengthen science, math, and technology programs in the schools serving the community.

Depending on the specific needs of actual facilities that may locate at the Project Site, it is possible that additional fire and ambulatory resources and/or training may be required. In order to prepare for that possibility, a preliminary study to determine the existing baseline levels of emergency services currently provided by the Town of Alabama Fire Department, the Genesee County Emergency Services, and the Genesee County Sheriff's Department shall be completed. In addition, a facility-specific emergency services impact study shall be prepared for each actual technology manufacturing facility to be located at the Project Site and submitted to an informal committee composed of local and county emergency response representatives to review and provide input on such studies. Each study will identify mitigation measures that may be required for the following factors:

- Potential for increase in police calls
- Potential for increase in court services
- Potential for increase in EMS calls
- Potential for increase in motor vehicle accident calls
- Potential for increase in hazardous materials calls
- Potential for increase in fire calls
- Potential need for fire apparatus
- Potential incentives to attract additional volunteers for the fire department

7.9.3 Additional Mitigation Measures

Project Double Reed will not introduce any manufacturing or other unique needs that may impact upon emergency services personnel.

The Town of Alabama, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project:

- The Project Sponsor shall cover the cost of the completion an emergency service impact study (completed as of the date of this document), which includes emergency response to technology industry proposed to be located on the Project Site.
- The Project Sponsor shall ensure that each actual technology manufacturing facility completes a facility-specific emergency services impact analysis to show that there are no adverse impacts to community services that have not already been evaluated in the GEIS process.
- In order to ensure that emergency service responders are adequately prepared for the potential unique needs of a future use, a facility-specific emergency services impact study (as described above in Section 7.9.2) shall be prepared for each actual technology manufacturing facility to be located at the Project Site and submitted to an informal committee composed of local and county emergency response representatives to review and provide input on such studies. Moreover, to ensure

the adequacy of these future studies, a baseline study shall be completed to determine the current baseline levels of services provided by local and county emergency service providers.

- The recreational trail system shall be owned and maintained by the Project Sponsor, or by a landowner association formed to represent STAMP. Ownership and maintenance of the recreational trail system shall not be the responsibility of the Town of Alabama unless otherwise negotiated with the Town. Proof of such ownership and maintenance agreement shall be provided to the Town of Alabama prior to commencement of trail development.
- Parts of this recreational trail system shall be open and available for public use.
- The STAMP project will accommodate and improve upon the existing snowmobile trail system in the area.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.9.4 Findings

With the mitigation measures set forth above by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to community to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.10 Community Character and Demographics

Project Double Reed does not share property boundaries with any existing residential areas. The only interface with public roadways is along Crosby Road and extensive landscape buffers are provided along the frontages of each Campus. The setbacks and height of the proposed buildings are compliant with the zoning requirements of the TD-1 Zone. The noise impacts of the proposed use have been fully analyzed and will comply with applicable standards.

7.10.1 Discussion of Potential Impacts

The Project has been designed in a low density campus setting, meaning that development is respectful of and complements its natural landscape. Landscape buffers shall surround

the Project along property lines shared with the existing houses, roads, and the Hamlet of Alabama in order to maintain existing view sheds as well as the rural character of the area surrounding the Project. In addition, the ridge line that runs the existing Hamlet of Alabama will remain undeveloped to provide a visual separation between the hamlet and the Project.

In terms of maintaining the visual character of the community, the Project is planned to visually integrate itself into the existing rural, agrarian setting in a comfortable and compatible manner, as outlined in Appendix R of the DGEIS entitled *Visual Impact Assessment*. Larger technology manufacturing structures are located on the lower western portion of the Project Site, while the small-scale supporting structures are located on the eastern portion of the Project Site to provide a scaled transition to neighboring farmland. The eastern portion of the Project Site will also be scaled to mirror the aesthetics of the Hamlet of Alabama. Both the undeveloped buffer zones to be located around the Project Site's perimeter and the campus-like setting of the Preferred Alternative shall ensure that open spaces and environmentally sensitive locations are maintained. A 400-foot perimeter will be maintained around the perimeter of the Project Site, expanded to an average of 1,600 feet along the western boundary adjoining the Tonawanda Seneca Nation property. Lastly, a minimum 500-foot buffer will be maintained along the Project Site's boundary adjoining the John White WMA.

The Preferred Alternative has been designed to integrate the manufacturing facilities into the existing community fabric. In addition, the following specific design measures have been integrated to minimize Project visibility:

- Cutting of trees and hedgerows shall be avoided to the maximum extent practicable.
- All trees on the Project Site shall be protected from disturbance to the maximum extent practicable to ensure the Project Site retains its rural character.
- All buildings shall be landscaped with indigenous plants adapted to the conditions found in the surrounding area.
- All exterior lighting shall be minimized and focused downward to the maximum extent practicable to avoid excessive night time light and glow above the Project Site.
- The design of specific buildings, structures, signs, and general streetscape, in addition to building materials, shall be high quality and chosen to reflect a rural-agricultural vernacular of the surrounding area.

Potential noise impacts during construction and operation of the Project have been assessed according to NYSDEC guidelines. The Town of Alabama does not have a noise control ordinance that applies to STAMP. NYSDEC's published guidance "Assessing and Mitigating Noise Impacts" (NYSDEC, 2001) establishes a basis to assess the Project's potential for those impacts.

Taking the NYSDEC guidelines into consideration, the Project will limit noise at the STAMP boundary to an L_{EQ} of 65 dBa during the day and 45 dBa at night. NYSDEC guidelines state that noise sources should not increase levels above 65 dBa in non-industrial areas. The proposed Project property line requirement of 65 dBa during the day and 45 dBa at night will

ensure that the 65 dBa level referenced by NYSDEC for non-industrial areas is not exceeded. The resulting maximum Project level of 65 dBa generally does not exceed maximum existing average baseline noise levels documented within the vicinity of the Project, which range from 63 dBa to 73 dBa.

Implementation of the Project has the potential to improve local and regional economics significantly. The creation of over 9,000 direct new high salary manufacturing related jobs at STAMP are expected to have a substantial positive effect on local and regional socioeconomic indicators, such as educational levels and per capita personnel and household incomes, compared to the existing baseline demographic statistics and trends presented in Section 6.10.1 of the DGEIS. Other related socioeconomic indicators such as industrial employment, percentage of working age population employed, and a population age distribution, which reflects better retention of working age young adults, shall also be expected to exhibit substantial improvement over present socioeconomic measures.

By creating quality jobs focused on high technology advanced manufacturing and ancillary development, the Project will improve the demographic conditions of the local and regional communities. STAMP is designed to reverse the exodus of young college graduates in the 20-34 year old age range from the Genesee County community and western New York region serving to stabilize the demographic distribution and to retain intellectual capital produced locally, while maintaining the rural agricultural aesthetic of the Town of Alabama.

7.10.2 Minimization and Mitigation Measures

Project Double Reed will have minimal impacts to community character and provide employment opportunities, consistent with the overall goals of STAMP.

The existing Project, as designed, mitigates to the maximum extent practicable potential impacts to community character and demographics. At full build-out, GCEDC has stated that STAMP will provide a substantial positive impact on local and regional socioeconomic indicators, as well as help reverse the exodus of young college graduates from the Genesee County community and western New York region serving to stabilize the demographic distribution.

7.10.3 Additional Mitigation Measures

Project Double Reed provides pole mounted fixtures with a B-U-G rating of 2-0-3 (no uplight) with no light spillage beyond the property.

The Town of Alabama Planning Board, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project:

- In order to further ensure that the STAMP Project will respect the rural community character of the area, all development on the STAMP site shall incorporate Dark Sky Compliant lighting.

- Design standards, as described in the GEIS and as promulgated by the Town, will be incorporated into all projects proposed to be located within the STAMP Project site. These design standards were incorporated into local law by the Town.
- All proposed projects within STAMP will propose concepts to incorporate biking and walking opportunities in their designs.
- Plantings along the northern area of the site should begin in the near future to provide screening to the residential uses near Lewiston Road.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.10.4 Findings

The Town of Alabama determines that the STAMP Project has the potential to alter the character of the community, but as proposed under the GEIS with mitigation measures set forth in this Findings Statement by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project adequately avoids or minimizes potential impacts to the community character and demographics to the maximum extent practicable. Moreover, the Town finds that the Project has the potential to provide significant socioeconomic benefits including reversing the exodus of young college graduates from the Genesee County community and Western New York region.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.11 Historic and Archeological Resources

It is not anticipated that Project Double Reed will have any impact on historic or archaeological resources. The South Campus has been fully disturbed. The North Campus development shall be subject to the applicable criteria set forth by the Phase 1B investigation as it may be applicable.

7.11.1 Discussion of Potential Impacts

A Phase 1A Cultural Resource Assessment, attached as Appendix T to the DGEIS, was completed for the Project Site. The purpose of the Phase 1A investigation was to gather information pertaining to the environmental and cultural setting of the Project Site in an effort

to determine if any prehistoric or historic cultural resources could be potentially and significantly impacted at the Project Site.

As a result of the Phase 1A literature, research, and sensitivity assessment, it was determined that about 40 acres, or 3% of the Project Site area, is comprised of alluvial soils. The site file search produced 17 sites within one mile of the Project Site and one site within the Project Site that indicated historical and archeological importance. Of the 18 known sites, there are 13 prehistoric sites, two 2 historic sites, and 3 sites with no site file form. In addition, the historic maps reviewed indicated several portions with potential historic significance are located within the Project Site. Thirteen (13) artifact clusters and several isolated find spots were identified at portions of the Project Site. The Project Site is therefore regarded as having a high degree of sensitivity for prehistoric sites, and a moderate-to-high degree of sensitivity for historic sites in undisturbed contexts.

Given the high sensitivity for prehistoric sites and the moderate-to-high sensitivity for historic sites, it has been determined that the Phase 1B field investigation that is currently being completed is warranted for all sections of the Project Site to be potentially impacted by future development.

7.11.2 Minimization and Mitigation Measures

Completion of the Phase 1B field investigation and implementation of its recommendations will mitigate any potential significant adverse impacts to historic and/or archeological resources found on the Project Site. Mitigation measures, if any, shall comply with the applicable criteria set forth by the New York State Office of Parks, Recreation & Historic Preservation (NYOPRHP), and may include realignment of structures, impervious services, and other development features to avoid or minimize potential adverse impacts to on-site historic and archeological resources. Coordination with the Tonawanda Seneca Nation will also be required before the implementation of any measures taken prior to the development of a future use at the Project Site.

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.11.3 Findings

In order to address any potential impacts associated with the future development of a specific use at the Project Site, a Phase 1B field investigation of the Project Site will be conducted in coordination with NYOPRHP and the Tonawanda Seneca Nation. All future uses at the Project Site shall be subject to the applicable criteria set forth by the Phase 1B investigation, as well as the NYOPRHP, and shall include, but not be limited to, realignment of structures, impervious services, and other development features to avoid or minimize such potential impacts to the maximum extent practicable.

With the mitigation measures set forth in Section 7.11, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to historic and archeological resources to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.12 Agricultural Resources

Project Double Reed will have a minimal impact on agricultural uses in the North Campus area, though consistent with the findings of the GEIS and the Town of Alabama. The development is consistent with the TD-1 Zoning.

7.12.1 Discussion of Potential Impacts

Full development of the Project will result in a loss of agricultural uses at the Project Site. The potential loss of future agriculture use of the Project Site represents less than 1% of the total crop land acres located in Genesee County (*i.e.*, 0.65%), and approximately 1.7% of total cropland acres located in Agricultural District No. 2. There are approximately 148,584.30 acres of crop land located in Genesee County, with approximately 120,365 acres of this total classified as prime farmland. Agricultural District No. 2 encompasses 55,143.18 acres of land located in the Towns of Alabama, Batavia, Elba, Oakfield, and Pembroke.

Based on the available information, approximately 950 acres of the Project Site are currently being used for farming. The total area of prime farmland located within the Project Site is approximately 275 acres, representing 0.23% of the total prime farmland located in Genesee County and 0.49% of the total prime farmland acreage located in Agricultural District No. 2.

7.12.2 Minimization and Mitigation Measures

A number of factors will mitigate the loss of agricultural use at the Project Site. For example, development of the Project will not result in an immediate total loss of agriculture use at the Project Site. The phase development of the Project, coupled with implementation of the long-term Land Management Plan, will ensure that future development areas will be maintained in the current land use until construction is commenced. As a result, that acreage which is currently being farmed on development areas proposed for the Project Site will continue to be farmed until such time that construction for each respective area is commenced.

In addition, through the GEIS process, the Town of Alabama has been given an important tool in protecting agriculture use in the Town of Alabama in the form of the Farmland Protection Strategies Report (FPSR) provided as Appendix K to the DGEIS. The FPSR describes and consolidates methodologies to protect farmland located in other areas of the Town of Alabama as a mitigation measure for the farmland loss associated with the Project. Strategies listed in the FPSR include:

- Enhancing zoning protection for agricultural lands including the creation of agriculture districts.

- The creation of a subdivision law to manage residential developments.
- Increased minimum lot sizes.
- Adjust supplementary yard regulations.
- Appoint an agricultural member of the Planning Board.
- Create a town-based purchase development rights program.
- Create an advisory town farmland protection committee.
- Identify/refine priority farmland list.
- Promote agriculture and focus on improving agri-business.
- Assist farmers in identifying or developing direct marketing options.
- Provide public education on the value of farms.
- Provide public education on existing programs/assistance.
- Organize/provide farm generation planning/estate planning.
- Organize/assist in identifying farm worker pool.
- Implement additional or strengthen existing right-to-farm laws.

Lastly, GCEDC's development of the Genesee Valley Agri-Business Park is projected to contribute more than $100,000,000 to the local/regional agricultural economy, greatly offsetting the potential loss of agricultural use at the Project Site. Moreover, the substantial tax revenue generated by the Project will reduce the tax burden overall on other agricultural land in the Town of Alabama and Genesee County.

7.12.3 Additional Mitigation Measures

The Town of Alabama Planning Board, as an involved agency, finds that the following additional mitigation measures shall be incorporated into the Project:

- The Incentive Zoning Agreement between the Project Sponsor and the Town of Alabama shall provide that the Project Sponsor will assist the Town with implementation of one or more strategies identified in the Farmland Protection Strategies Report, as determined by the Town (one such strategy is the Alabama and Oakfield Agricultural Protection Plan that was completed).
- Strategies from the Farmland Protection Plan will help reduce agricultural impacts from development pressures and the increases in traffic that will affect the farm equipment utilizing the existing highway system.
- Right to Farm signage, at appropriate areas of the Town, needs to be incorporated into future projects

CURRENT PROJECT CONFORMANCE WITH MITIGATIONS: *CONFORMS*

7.12.4 Findings

Although development of the Project will result in a loss of agricultural use on the Project Site, with the mitigation measures set forth above by both the Lead Agency and Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will adequately avoid or minimize potential impacts to agricultural resources to the maximum extent practicable by the general phased development strategy for the Project and implementation of the Land Management Plan. Moreover, the potential loss of agricultural lands at the Project Site will be outweighed by the significant socioeconomic and environmental benefits provided by the Project.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

7.13 Potential Cumulative and Growth Inducing Impacts (as written by the Lead Agency)

Certain proposed actions covered under the SEQR process have the potential to trigger further development by either attracting a significant local population, inviting commercial industrial growth, or by inducing the development of similar projects adjacent to the Project constituting an action. In addition, Section 617.9(b)(5)(iii)(a) of the SEQR regulations requires the discussion of cumulative impacts where such impacts are "applicable and significant."
Cumulative impacts occur when two (2) or more individual environmental effects which, when taken together, are significant or that compound or increase other environmental effects. The individual effects may be effects resulting from a single project or from separate projects. In addition, potential cumulative impacts that may arise from interactions between the impacts of the Project and the impacts of other projects are addressed in this section. In this regard, cumulative impacts are impacts on the environment that may result from the incremental increased impact of an action when the impacts of that action are added to other present, past, and reasonably foreseeable future actions. Assessment of any such potential cumulative impacts is limited to the consideration of probable impacts, not speculative impacts.

In general, cumulative impact analysis of external projects is required where the external projects have been specifically identified and either are part of a single plan or program, or there is a sufficient nexus of common or interactive impacts to warrant assessing such impacts together.

7.13.1 Existing or Approved Projects

There are no existing or approved projects in the Town of Alabama or surrounding areas that generate potential significant adverse impacts in accumulation with the Project.
To the contrary, the Town of Alabama is examining the cost and feasibility of providing public water supply and fire protection to approximately 411 additional homes in the Town of Alabama (Appendix M). The Town of Alabama, the Village of Oakfield, and the Town of Pembroke are planning water main projects in the vicinity of the Project Site. The Town of Alabama is proposing an 8-inch water main along New York State Route 77 from the intersection of Lewiston Road south to the intersection of Route 63, a 12-inch water main

along Route 63; from Route 77 to Maple Street; and a 12-inch water main along Route 63, from Maple Street east to the Village of Oakfield water system. This water project, would increase the number of residential homes in the Town of Alabama served by public water to 455 or approximately 70% of the Town's households. This project will provide a significant benefit to the community, and will not, in conjunction with the Project, present any potential significant adverse environmental impacts.

Alabama Ledge Wind Farm, LLC has proposed to develop a wind-powered generating facility of up to 38 turbines with a maximum capacity of approximately 80 MW. At this juncture, it is uncertain whether the project is moving forward for approval. Nevertheless, the wind farm project does not provide a potential cumulative adverse environmental impact in conjunction with the Project.

GCEDC is also developing a 232-acre technology park in Pembroke, New York at the crossroads of New York State Routes 77 and 5, named Buffalo East. However, there are no potential cumulative impacts associated with this project and development of the Project Site.

7.13.2 Inducement of Growth

The Project may have the potential to induce growth in the Town of Alabama and the surrounding communities in a number of ways, including employment opportunities, housing, and ancillary businesses.

Construction Workers Growth

The development of the Project will result in a significant number of construction workers with seasonal employment being located at the Project Site. These workers will be involved in a number of general and specialized construction activities with various trades associated with the different specialized phases of the work. The construction phase for the Project is planned to continue over a period of approximately 15 years. It is anticipated that there is a current excess of available construction workers in the Buffalo-Batavia-Rochester region, and that many of these workers will be drawn from the existing labor pool along with residents of Genesee County and Western New York. The construction trades workers will most likely patronize restaurants, hotels/motels, entertainment facilities, and other service providers in the vicinity of the Project Site and surrounding communities. This will result in a temporary boost to the local economy. By itself, however, the entry of new construction workers into the area of the Project Site is not expected to result in the opening of any specific new businesses that cater to the needs of these workers.

Population Growth

The Project will provide significant new and expanded employment opportunities in the Town of Alabama and region. The Project is anticipated at full build-out to provide over

9,000 new, quality jobs. Many of these new jobs are expected to be filled by the existing population residing within an approximate 60-to-70 mile radius of the Project Site. Some jobs will be filled by professionals moving into the region. As a result, implementation of the Project will likely contribute to population growth in the Genesee County area, and as far east as Rochester and west as Buffalo.

New Housing

The new jobs created by the Project will spur an increased demand for existing and new housing. In turn, the sale of such housing could create a gradual, increased school enrollment in those respective communities that create new housing over the planned development period. Throughout the community input process conducted for the Project over the past several years, Town of Alabama elected officials and citizens have voiced considerable opposition to additional residential development in the Town of Alabama proper.

Discussions with the Village of Oakfield and the Town of Batavia indicate they would welcome an opportunity to expand their residential base. This would allow Oakfield and Batavia to accommodate residential demand generated by the Project, while allowing Project employees the opportunity to live in areas located near the Project Site. The Project's potential to induce growth within the Town of Batavia and the Village of Oakfield will be managed by the land use planning processes of those jurisdictions. New housing developments in those jurisdictions would need to be in compliance with local comprehensive plan and zoning ordinance requirements. It should be noted that the Town of Alabama completed a Comprehensive Plan Update to plan for and control the growth they may be induced in the community.

Ancillary/Secondary Growth

The Project will likely induce some level of complementary secondary growth, especially in the area of supply and support enterprises and other high-technology entities. This potential secondary growth is dependent on the Project securing an "anchor" advanced technology manufacturing company locating at the Project Site. This impact, however, is considered beneficial to the region and the State. The resultant secondary businesses would be complementary to the "anchor" advanced technology manufacturing company, and would not be concentrated in any one portion of the development schedule, or cause any significant growth inducing impacts by themselves. Each secondary business located outside of the Project Site would need to be consistent with the local zoning or otherwise be approved on a local level, and each would be subject to its own SEQR review process.

Additional potential locations for secondary ancillary development include the City and Town of Batavia, and Erie, Niagara and Monroe Counties. Existing urban areas throughout the Genesee, Erie, Niagara, and Monroe Counties could significantly benefit from the secondary growth resultant from the Project.

Water Induced Growth

Providing water supply to the Project Site may have the potential to cause an amount of induced growth in the surrounding region. However, as stated above, the Town of Alabama is already examining the cost and feasibility of providing public water supply and protection to approximately 433 additional homes in the Town of Alabama. The Village of Oakfield and the Town of Pembroke are also planning water main projects in the vicinity of the Project Site. These projects will provide a significant benefit to the community.

Traffic Improvements

Anticipated traffic improvements required for the Project will not have the potential to induce growth. The traffic improvements recommended in Section 6 of the DGEIS and in the *Traffic Impact Study* are designed to act as mitigation measures only for the potential impacts of traffic resulting from the Project, as opposed to mechanisms by which induced growth can occur.

7.13.3 Smart Growth Impacts (as completed by the Lead Agency)

A Smart Growth Impact Statement ("SGIS") was prepared for the Project in February, 2012, pursuant to the requirements of Article 6 of the Environmental Conservation Law, also known as the State Smart Growth Public Infrastructure Policy Act ("Smart Growth Act"). As analyzed in the SGIS, the Project complies with the following Smart Growth Act Criteria or will comply before development of the Project proceeds:

- To advance projects in developed areas or areas designated for infill development per a comprehensive land use plan, local waterfront revitalization plan or brownfield opportunity area plan.
- To protect, preserve and enhance the state's resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources.
- To coordinate between state and local government and inter-municipal and regional planning.
- To participate in community-based planning collaboration.
- To ensure predictability in building and land use codes.
- To promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad-based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation.

The Project does not comply or only complies in part with the following Smart Growth Act Criteria:

- To advance projects for the use, maintenance, or improvement of existing infrastructure.
- To advance projects located in municipal centers.

- To foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty and public spaces, the diversity and affordability of housing in proximity to places of employment, recreational and commercial development and the integration of all income and age groups.
- To provide mobility through transportation choices including improved public transportation and reduced automobile dependency.

In terms of compliance with the criterion to advance projects for the use, maintenance, or improvement of existing infrastructure, full compliance with this criterion is impracticable because of the Project's need for a sufficiently large and flat site with a minimum of 1,000 acres and such a location with adequate existing infrastructure is simply not available to meet STAMP's needs. Nonetheless, existing infrastructure will be able to service the Project in part and the need for new infrastructure has been minimized to the maximum extent practicable.

In terms of compliance with the criterion to advance projects located in municipal centers, while the Project Site is located adjacent to the municipal center of the hamlet of Alabama, full compliance with this criterion is impracticable because of the Project's need for a sufficiently large and flat site with a minimum of 1,000 acres to implement a low-density master plan in a campus like setting. Nonetheless, in order to minimize adverse impacts, the Project has been designed to visually integrate with the Hamlet and some project components such as a proposed new Town of Alabama Town Hall and a new bypass road to channel Route 77/63 traffic away from the Hamlet will strengthen the Hamlet and help it thrive as a municipal center.

In terms of compliance with the criterion to foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty and public spaces, the diversity and affordability of housing in proximity to places of employment, recreational and commercial development and the integration of all income and age groups, the Project complies with this criterion to the extent that it involves a mixed use development that will protect natural features and create naturally beautiful public open space including a trail network within the Project Site. In addition, the Project will help revitalize the hamlet of Alabama. The Project does not comply with this criterion to the extent that it involves a low-density campus like development and does not foster brownfield redevelopment. Compliance with these elements are simply not practicable given the goals of the Project. Other portions of this criterion such as fostering diversity and affordability of housing in proximity to places of employment, recreational and commercial development and the integration of all income and age groups are not applicable to the Project.

In terms of compliance with the criterion to provide mobility through transportation choices including improved public transportation and reduced automobile dependency, for the workers on-campus at Stamp, a network of trails for walking or biking between sections of the campus has been designed to reduce automobile dependency while workers are present. In addition, a portion of the campus has been designated for worker-support services (commercial and retail) so workers will be able to access such services without

having to drive off-campus, and, instead, can access via a short bike ride or walk. Nonetheless, full compliance with this criterion is impracticable. The rural setting of the Project location, selected after careful evaluation, means that public transportation options will be fairly limited and it is likely that most workers will commute to the campus via automobile.

Overall, STAMP is a unique project, the size and scope of which make compliance with all of the Smart Growth Act criteria impracticable. Nonetheless, compliance has been achieved to the maximum extent practicable and the economic benefits of the Project, from its first phase through full build-out, will more than outweigh any negative impacts from inconsistencies with Smart Growth criteria. In addition, through the SEQR process for the Project has identified and mitigated potential significant adverse impacts. The Project's potential to stimulate good-paying jobs and long-term economic growth, and in turn reverse demographic outflow in Western New York, will have a significant long-term benefit in those areas where high-density development, but an inadequate supply of population, exist. The Project's associated benefits will also include increased utility infrastructure, decreased real property tax rates, and increased local revenues to support community services. The Project, despite its rural location, is still within an hour's drive of the major population centers of Western New York, including metropolitan Buffalo and Rochester.

The Town of Alabama intends to take certain actions to help address potential development pressure, particularly residential development likely to take the form of large lot frontage development occurring along existing roads that, in time, becomes more detrimental to the rural/ agricultural character of the Town than clustering residential development would. Thus, the Town plans to consider updates to its Comprehensive Plan and/or revisions to zoning and subdivision standards to help direct how future residential development will be handled.

7.13.4 Findings

The Project is not interdependent upon or undertaken as a result of or otherwise dependent upon any other proposed action in the area. The Project has the potential to provide positive economic growth within a large geographic area, thus some level of induced growth has been anticipated in the overall design of the Project and will be accommodated within the Project Site. Other growth resulting from the Project could occur in the Town of Alabama, Village of Oakfield, and Town of Batavia, as well as the urban areas of Genesee, Erie, Niagara, and Monroe Counties. Such growth will occur on a voluntary basis, subject to local environmental review and approval. Localities that do not desire such growth related to the Project will have the ability to limit future growth consistent with their comprehensive master planning efforts, whereas those localities that desire such growth can take appropriate steps to encourage site plan applications allowing construction to proceed. Compliance with Smart Growth Act criteria has been achieved to the maximum extent practicable and where necessary non-compliance has been justified.

With the mitigation measures set forth by both the Lead Agency and the Town of Alabama, the Town of Alabama Planning Board, as an involved agency, finds that the Project will

adequately avoid or minimize potential growth inducing impacts to the maximum extent practicable.

CURRENT PROJECT CONFORMANCE WITH FINDINGS: *CONFORMS*

8.0 POTENTIAL UNAVOIDABLE IMPACTS

Development often permanently alters the conditions of an area, and in the process, creates certain unavoidable impacts. With respect to the Project, certain unavoidable impacts may be presented in the form of material, energy, agricultural resources, altered habitats for non-endangered plants and animal species, and aquatic resources. However, these impacts will be minimized and/or avoided to the maximum extent practicable as a result of the implementation of the mitigation measures identified in this Findings Statement. Furthermore, the substantial financial and community benefits that will result from the Project shall greatly offset the incurrence of such impacts.

The following is an examination of the potential short-term and long-term unavoidable impacts that may result from the Project.

8.1 Potential Short-term Unavoidable Impacts

Short-term unavoidable impacts will likely be created during the construction phases for the Project. These impacts may include increased noise and odor, as well as a short-term impact to air associated with soil disturbances and truck movement. Effective site planning and development will mitigate the anticipated impacts associated with construction of the Project to the maximum extent practicable.

8.2 Potential Long-term Unavoidable Impacts

Certain long-term unavoidable impacts may result from the full build-out of the Project. Some of these impacts will be mitigated through the measures identified in this DGEIS. Such impacts include:

8.2.1 Loss of Property

The Project will represent a permanent impact on less than 49% of the 1,243.40 acres of land comprising the Project Site. However, over half of the total acreage will be set aside for the protection of the wetlands, surface waters, ecologically sensitive areas, and recreation and open space areas that exist on the Project Site. The incorporation of the planning designs set forth in this Findings Statement shall mitigate the unavoidable loss of the Project Site's acreage to the maximum extent practicable.

8.2.2 Loss of Agricultural Use on Project Site

Despite the goal of maintaining as much open space as possible on the Project Site, once the Project is developed, the opportunities for future active farming on the Project Site will

be lost on an incremental basis. The potential loss of future agricultural use at the Project Site represents less than 1% of the total cropland acres located in Genesee County, and approximately 1.7% of total cropland acres located in Ag District No. 2. In return for this loss of cropland, the Project will create over 9,000 high-paying technology-related direct jobs at the Project Site and will become a significant net contributor to the local economy.

A number of factors will further mitigate the loss of agricultural use at the Project Site. For example, development of the Project will not result in an immediate total loss of agricultural use at the Project Site. The phased development of the Project, coupled with implementation of the long-term Land Management Plan, will ensure that future development areas will be maintained in their current land use until construction is commenced. In addition, an important tool in mitigating the loss of agricultural use at the Project Site will be the Town of Alabama implementing the FPSR. The FPSR is intended to identify and consolidate potential strategies for the Town of Alabama to evaluate and consider for preserving farmland elsewhere in the Town. The FPSR goes well beyond mitigating farmland loss associated with the Project, providing the Town with a comprehensive framework for developing and implementing a farmland protection strategy for the entire Town. In addition, the substantial tax revenue generated by STAMP will reduce the tax burden on other agricultural land in the Town of Alabama and in Genesee County.

Lastly, GCEDC's development of the Genesee Valley Agri-Business Park is projected to contribute over $100,000,000 to the local and regional agricultural economy, greatly offsetting the loss of agricultural use at the Project Site.

8.2.3 Permanent Use of Energy

The full build-out of the Project Site will result in the Project utilizing on a permanent basis certain energy resources including electricity and natural gas. However, the estimated consumption is well within the capacity of the energy sources. In addition, the Project lies within the Niagara Hydro Power Zone which will provide a low-cost renewable source of energy for the Project.

8.2.4 Altered Habitats for Non-Endangered Plant and Animal Species

The full build-out of the Project may result in an unavoidable alteration of habitats for some non-endangered plant and animal species. The ecological communities (habitats) found at the Project Site are common throughout New York State and within the surrounding landscape. Habitat alteration resulting from the Project will be offset by protection and restoration of key natural area corridors on the Project Site, abundant habitat for these species immediately adjacent to the site and in the immediate vicinity of the Project Site, including over 19,000 acres of currently protected conservation lands.

8.2.5 Impacts to Aquatic Resources

The full build-out of the Project may result in the unavoidable loss of wetland and associated headwater stream habitat, most of which is of low quality due to degradation by past and current land use at the Project Site. Compensation for these impacts will be provided by implementation of a mitigation strategy that will enhance, restore, and protect wetlands and streams of equal or greater value on and off the Project Site. Any temporal loss of aquatic resource functions and services will be buffered by the ecological resilience of the surrounding watershed.

8.2.6 Impact to Existing Traffic Patterns

There are a number of potential LOS degradations (increases in delay at area intersections) that may result from the full build-out of the Project and, in order to view those potential impacts in a conservative manner, are being considered potential unavoidable impacts associated with the Project Site's traffic generation.

Nevertheless, the full build-out analysis of the Preferred Alternative indicates that a majority of the study area intersections will continue to operate adequately. A two-lane capacity analysis of NY Route 77 shows that only the Judge Road to Bloomingdale Road segment could become congested during full build-out conditions.

In sum, the Traffic Impact Study attached as Appendix I of the DGEIS indicates that the proposed improvements for the Project will provide adequate operations at the Project's study area intersections and on the existing road network for the levels of traffic anticipated.

CURRENT PROJECT: *CONFORMS*

9.0 EFFECTS ON USE AND CONSERVATION OF ENERGY RESOURCES (Lead Agency)

The construction and operation of STAMP will have both short-term and long-term impacts on the use and conservation of energy resources. In the short term, construction of the Preferred Alternative will involve the use of non-renewable energy resources including gasoline, diesel, fuel oil, and electricity. In addition to construction-related energy use by equipment such as excavators, backhoes, loaders, bulldozers, dump trucks, generators, and paving equipment, an indirect use of energy would also occur as a result of construction workers commuting to and from the Project Site.

The general long-term impacts of the Preferred Alternative on the use and conservation of energy would result in traffic generated by the Project and the consumption of energy from day-to-day operations of users located at the Project Site. Estimated electric and natural gas loads for the Project are described in more detail in Section 6.8 of the DGEIS. In addition, the Industry Requirements and Environmental, Health, and Safety Impacts Report, attached as Appendix H to the DGEIS, also analyzes how potential manufacturing technologies targeted for the Project Site would consume energy.

STAMP's anticipated annual consumption of natural gas and electricity can be met by the current energy sources as described more fully in Section 6.8 of the DGEIS. Nevertheless, the design and development of the buildings to be located at the Project Site will incorporate state of the art energy efficient technologies and will meet current applicable federal and state requirements. In addition, the advanced technology and manufacturing operations to be located at the Project Site include technology sectors that will help advance the Nation's progress toward the utilization of renewable energy resources, thus creating a conservational benefit. Lastly, the Project Site lies within the Niagara Hydro Power Zone which will provide a low-cost renewable source of energy for the Project.

It is anticipated that buildings constructed at the Project Site will conform to the energy standards recommended by the New York State Building Construction Code. Buildings will be designed and constructed incorporating design and selection, equipment assistance to achieve maximum energy conservation, in compliance with applicable provisions set forth in the New York State Energy Conservation and Construction Code. Given the projected build-out timeframe, each proposed new structure shall be required to meet the applicable energy standards of the most recent provisions of the New York State Energy Conservation and Construction Code.

10.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES- Lead Agency

STAMP will require the irreversible and irretrievable commitment of certain human, material, environmental, financial, and energy resources. The commitment of these resources, however, will be greatly offset by the socioeconomic benefits that will result from the construction and implementation of STAMP.

Human and financial resources have already been expended by GCEDC, the State of New York, the County of Genesee, and the Town of Alabama for the planning and review of the Project. The expenditure of funds and human resources will continue to be required throughout the permitting and construction phases of STAMP (*e.g.*, for environmental reviews and permitting, site plan approval, rezoning, and building and construction inspections).

STAMP also represents the commitment of the land for the life of the Project. Less than 49% of 1,243.40 acres of property will be developed and not available for alternative uses for the life of STAMP. However, through a comprehensive planning approach that takes into consideration environmentally sensitive resources, the majority of the Project Site's acreage will be preserved as open space in order to protect existing wetlands and other ecological resources, as well as to

provide a more rural, agrarian aesthetic consistent with the community's character. The substantial landscape buffers will surround the Project Site along property lines shared with other property owners in order to maintain existing view sheds and the rural character of the area surrounding the Project Site. In addition, coupled with the implementation of the Land Management Plan, the Preferred Alternative mitigates the impact of the permanent commitment of the remaining acreage of the Project Site to the maximum extent practicable.

Various types of construction materials and building supplies will also be committed to the Project. The use of these materials, such as gravel, concrete, steel, etc., represents a long-term commitment of these resources which will not be available for other projects. Energy resources also will be irretrievably committed to the Project during the construction and operation of the Project. Fuel and electricity will be required during site construction and project operations. In addition, the Project Site lies within the Niagara Hydro Power Zone and will draw some of its electrical consumption needs from this renewable energy source. Lastly, the design of the buildings on the Project Site will utilize LEED standards to the maximum extent practicable, thus maximizing energy efficiencies in the construction process and sustainable practices in the on-going operations of the Project's facilities.

A commitment of private and public funds will be made to the Project based on the premise that residents in the immediate communities, region, and State will greatly benefit by increased property and sales tax revenues, growth, and land values surrounding the Project Site, increased employment opportunities in the local, regional, and State communities, and other revenues directly or indirectly generated by the Project. Therefore, the initial financial investments illustrated in the Preferred Alternative represent a long-term benefit rather than irreversible or irretrievable commitments of resources.

11.0 CONDITIONS AND THRESHOLD CRITERIA

A GEIS is prepared by a lead agency whenever there is a need to assess a wide variety of impacts at a conceptual level, rather than on a project-specific or site-specific environmental impact statement. By addressing potential impacts and adopting conditions and thresholds for future development and actions upfront, the use of a GEIS can establish a framework by which potential significant adverse environmental impacts are addressed at the planning stage, thus reducing future SEQR review requirements as new construction proceeds at later stages. As the Project progresses, changes may occur as the conceptual plans are developed into final design proposals. Such changes may specifically include proposed changes to the Preferred Alternative including increases or decreases in total project square footages devoted to a specific use.

This section identifies both the conditions to be complied with related to the over-all development of the Project, as well as the threshold criteria to consider when determining whether or not a future use at the Project Site requires supplemental SEQR review.

11.1 SEQR Procedures

Final designs for less-defined Project components, as well as any proposed changes to the more well-defined elements (hereinafter referred to "Future Project Use(s)"), may require further

evaluation pursuant to SEQR. The Town of Alabama, as an involved agency, will be responsible for performing an environmental determination on Future Project Uses pursuant to SEQR, and will consider Future Project Uses proposals in relation to: (i) the DGEIS; (ii) the FGEIS; (iii) this Findings Statement; and (iv) any relevant determination of the Lead Agency, the GCEDC..

Upon submission of specific site plans to the Town of Alabama Planning Board for site plan approval, the Planning Board shall determine if the environmental impacts associated with such Future Project Uses have been adequately addressed in the DGEIS, the FGEIS and this Findings Statement, taking into account whether the Future Project Uses exceed any of the thresholds set forth herein. Such a determination must be made before any site plans for Future Project Uses are approved by the Planning Board. The Planning Board will utilize technical experts to help review these projects, which will be paid for through the application fees set by the Town Board

In the event that the Planning Board determines that:

1. The Future Project Uses would be carried out in conformance with the conditions and thresholds set forth in this Section 10, then no further SEQR compliance will be required;
2. The Future Project Uses would be carried out in conformance with the conditions and thresholds set forth in this Section 10, but are not addressed or are not adequately addressed in the DGEIS, the FGEIS or this Findings Statement, then an amended Findings Statement will be prepared;
3. The Future Project Uses are not addressed or are not adequately addressed in the DGEIS, the FGEIS or this Findings Statement, but the proposal does not exceed any of the conditions or thresholds set forth in this Section 10, or the proposal does exceed a threshold set forth in this Section 10, but would not result in any potential significant adverse environmental impacts, then a Negative Declaration will be prepared pursuant to 6 N.Y.C.R.R. § 617.10(d)(3); or
4. The Future Project Uses are not addressed or are not adequately addressed in the DGEIS, the FGEIS or this Findings Statement for the Project and/or the proposed use would exceed the conditions or thresholds set forth in this Section 10 and may have one or more potential significant adverse environmental impacts, then a supplement to the FGEIS will be prepared.

11.2 Conditions

GCEDC, as Lead Agency, along with the Town of Alabama Planning Board as an involved agency, has determined that the following mitigative conditions shall be met as part of the overall development of the Project and in conjunction (as applicable) to any Future Project Use:

1. Implementation of the Best Management Practices set forth in Section 7.1.2 of this Findings Statement with respect to soils located at the Project Site.
2. No clearing or grading, other than for site infrastructure, shall occur on the STAMP Site until site plan approval has been granted.
3. A minimum buffer of 100 feet shall be maintained on either side of Whitney Creek. The third drainage way (Unnamed Stream No. 1) shall be re-routed into the second corridor (Unnamed Stream No. 2) to accommodate flow and provide hydrology to enhance and restore wetlands and streams in the protected corridor.
4. Compliance with the Stormwater Best Management Practices set forth in Section 7.2.2 of this Findings Statement. All potential future impacts to wetlands shall be contingent upon the completion of a Joint Permit Application process, as needed, involving the U.S. Army Corps of Engineers, NYSDEC, and other applicable regulatory agencies. The approximately 97 acres of wetlands and 24,300 linear feet of stream and upland buffer areas surrounding wetlands and streams shall be enhanced, restored, and protected in perpetuity on the Project Site. Off-site mitigation targeting the southeastern portion of the Whitney Creek watershed will be completed including the restoration of wetlands that have been drained, enhancement of existing wetlands through invasive species, eradication and control; planting of native vegetation; establishment of forested stream buffers; and permanent protection of all mitigation measures. Lastly, stormwater management practices shall be implemented at the Project Site pursuant to the requirements of NYSDEC's New York State Stormwater Management Design Manual.
5. The ownership and maintenance of any stormwater facilities, both on-site and off-site, which are constructed as a result of this Project, shall be owned and maintained by the Project Sponsor, or by a landowner association formed to represent STAMP, and not be the responsibility of the Town of Alabama. Proof of such ownership and maintenance agreement shall be provided to the Town of Alabama prior to construction of any such stormwater facilities.
6. All wetland mitigation shall be undertaken either by the Project Sponsor, individual project applicants, or other entities. The Town of Alabama will not be responsible for providing wetland mitigation for the Project. All wetland mitigation shall be reviewed and approved by NYSDEC prior to site development.
7. All potential air emissions associated with Future Project Uses shall comply (as applicable) with the regulatory requirements set forth by NYSDEC and USEPA pursuant to the Title V Facility Permit, State Facility Permit, and Air Facility Registration Programs. Facilities seeking to locate at the Project Site will further need to satisfy the requirements of NYSDEC's Air Guide-1 (as needed).

8. The Land Management Plan identified in Section 7.4.2 of this Findings Statement shall be implemented at the Project Site throughout construction and following Project Site development.
9. The ownership and maintenance of any open space and/or conservation lands shall be owned and maintained by the Project Sponsor, or by a landowner association formed to represent STAMP, and not be the responsibility of the Town of Alabama.
10. A Long Term Land Management Plan (LTMP) shall be prepared by the Project Sponsor prior to phase one being completed (drafts of the plan will help evaluate current projects). Copies of this Plan will be provided to the Town of Alabama Town Board and Planning Board for use in the review of future site development.
11. Landscape plans for the development of each site, prepared in accordance with the LTMP, shall be provided to the Town of Alabama Planning Board as a part of the site plan review process for future development on the STAMP property.
12. All future manufacturing activities to be conducted at the Project Site shall be subject to appropriate NYSDEC hazardous substances and waste regulations, including but not limited to, those requirements set forth in the Hazardous Substance Bulk Storage Program (6 N.Y.C.R.R. Parts 595-599) and the Petroleum Bulk Storage Program (6 N.Y.C.R.R. Parts 612-614). The storage and use of any petroleum and hazardous substances at the Project Site shall be subject to the federal Spill Prevention Control and Countermeasure rules. The facility system design and daily operations at the Project Site shall comply with all applicable Uniform Fire and Building Code provisions, and a Hazardous Material Management Plan for each Future Project Use shall be prepared and submitted to the Town of Alabama Fire Department for approval during any site plan application process. All employees handling hazardous materials or chemicals will be trained in accordance with applicable OSHA and RCRA regulations. Environmental health and safety programs shall also be implemented at the Project Site in order to comply with the applicable provisions of the Town of Alabama Zoning Laws, New York State Department of Labor regulations, and the Emergency Planning and Community Right-to-Know Act. Hazardous materials shall not be stored at any locations at the Project Site without the user of such materials first providing a Hazardous Materials Inventory Statement to the Town of Alabama Fire Department and all other local emergency service agencies. Lastly, all nanotechnology manufacturing facilities to be located at the Project Site shall comply with applicable USEPA, OSHA, and NIOSH requirements.
13. The main Project Site access road (proposed to be constructed to State Route 63/77 at 70% build-out) shall be constructed by the Project Sponsor to State Route 63/77 prior to completion of the first development project at STAMP (This road project was previously before the Planning Board and was approved and constructed).
14. A right turn lane shall be constructed on the eastbound Judge Road approach of the New York Route 77/New York Route 63 intersection. This intersection, and the New York Route 77/Ledge Road intersection, shall be monitored for the potential installation of traffic signals during Phase 1 of the Project.

15. Before the 70% threshold for the Project is reached, a bypass road shall be constructed to the Project Site from New York Route 77/63 Overlap just north of Ham Road to New York Route 77 at the existing location of the intersection of Crosby Road. Designating the bypass road as Route 77 and re-designating existing New York Route 77 through the Hamlet of Alabama shall be completed.
16. Two (2) driveways on New York Route 77; two (2) driveways on Judge Road; and two (2) driveways on New York Route 77/63 Overlap (in addition to the bypass road curb cuts) shall be completed.
17. Traffic capacity improvements shall also be completed at the following off-site intersections in accordance with the recommendations of the Traffic Impact Study and NYSDOT requirements:
    - New York Route 77/New York Route 63/Judge Road
    - New York Route 77/Bloomingdale Road
    - New York Route 77/Ledge Road
    - New York Route 77/Akron Road
    - New York Route 77/I-90 Exit 48A
18. For each individual project that is proposed on the STAMP site, the applicant shall provide the Town with the estimated daily and peak hour traffic generation of the project accumulated with traffic counts from previously approved STAMP projects.
19. To ensure that no additional potential traffic impacts result from the Project that are not anticipated at the time of this Findings Statement, a supplemental traffic analysis shall be conducted by the Project Sponsor throughout build-out of the Project when the following thresholds are met:
    a. When Phase I (or 1 million square feet of building) is developed or when cumulative peak hour trips generated by the Project equals at least 750 trips during either the AM or PM peak hour, whichever happens first;
    b. When the Project reaches 70% build-out (4.27 million square feet) or when cumulative peak hour trips generated by the Project equals at least 1,925 trips during either the AM or PM peak hour, whichever happens first.

    The supplemental analysis shall focus on the following intersections:
    - New York Route 77/New York Route 63/Judge Road
    - New York Route 77/Bloomindale Road
    - New York Route 77/Ledge Road
    - New York Route 77/Route 63/Lewiston Road
20. The Project Sponsor shall assure that degradation of Town owned and maintained roadways resulting from traffic volumes and/or vehicle classifications brought on by the STAMP Project shall be repaired at no cost to the Town and shall enter into an appropriate road use/ repair agreement with the Town of Alabama and/or explore the conversion of Crosby Road and the portion of Judge Road between the Tonawanda

Seneca Nation and State Route 77/63 to Genesee County owned and maintained roadways (the Town exchanged roads with the County).

21. Since several Project Site driveways are proposed to access Crosby Road and because the Town of Alabama (current owner of this road) feels this road is under-built for handling the additional traffic volumes and vehicles classifications brought on by this Project, the Project Sponsor shall improve Crosby Road to the expectations of the owner, unless otherwise agreed upon, at no cost to the Town (The County has taken over this section of roadway). *County owned now and improvements proposed.*
22. All interior roads built within the Project Site shall be owned and maintained by the Project Sponsor or other government agency (Genesee County), or by a landowner association formed to represent STAMP, and not be the responsibility of the Town of Alabama. Proof of such ownership and maintenance agreement shall be provided to the Town of Alabama prior to construction of interior roadways.
23. The Project Sponsor shall include the Town of Alabama in any discussions with the New York State Department of Transportation and/or Genesee County Highway Department regarding improvements to roadways within the Town of Alabama as a result of the STAMP Project.
24. The Project Sponsor shall undertake efforts to complete to the maximum extent practicable the following land use and zoning plan goals:
    a. Negotiation of an incentive zoning agreement pursuant to which GCEDC in exchange for providing certain public amenities to the Town will receive a re-zoning of the Project Site to the Technology Zoning District identified in Section 6.7 of the DGEIS (completed as of the date of this document).
    b. Amendment to the Comprehensive Plan for the Town of Alabama to provide for the development of the Project consistent with the other planning goals of the Town and Village, but accepting the vision of the Project's goal of developing a world-class high technology manufacturing center with a focus on renewable energy (In progress).
    c. Adoption of one or more of the strategies found in the FPSR by the Town of Alabama (Agricultural Protection Plan is complete).
25. An Incentive Zoning Agreement between the Project Sponsor and the Town of Alabama shall provide that the Project Sponsor will assist the Town of Alabama, as necessary, to ensure that the following measures are completed in a timely fashion: (1) revising and updating the Comprehensive Plan and Smart Growth Plan to provide for the development of the Project consistent with the planning goals of Genesee County, the Town of Alabama, Town of Oakfield, and the Village of Oakfield, and reflecting the Project goal of developing a world class high technology manufacturing center on the subject property; (2) creating new zoning districts; (3) undertaking any required zoning and/or subdivision revisions; and (4) implementing one or more strategies in the Farmland Protection Strategies Report (FPSR). This agreement shall be in place prior to the commencement of any site development on the STAMP site (the agreement and an amended agreement is in place and these actions have been completed or are in progress).

26. The following measures shall be developed in furtherance of securing certain utility resources for the Project:

    a. Implementation (as applicable and necessary) of the recommendations identified in the Water Service Preliminary Report attached as Appendix N to the DGEIS.

    b. Implementation (as applicable and necessary) of the recommendations identified in the Sewer Service and Wastewater Treatment Facility Preliminary Report set forth in Appendix O of the DGEIS <u>(as amended).</u>

    c. Completion of the proposed gas distribution plan set forth in the Gas Service Analysis attached as Appendix P to the DGEIS.

    d. Procurement of Telecommunications Services as needed for the Project Site.

27. The Project Sponsor, pursuant to the terms of the Incentive Zoning Agreement, shall cover the full cost of installation of the water infrastructure described in the Town's Public Water Feasibility Study at the earliest time practicable once all necessary approvals for the water project have been issued, including formation of necessary water districts, and once installation of the water infrastructure is complete, ownership of the water infrastructure shall be transferred to the Town of Alabama at no cost to the Town.

28. The wastewater treatment facility and all associated wastewater infrastructure shall be owned and maintained by the Project Sponsor or other government agency, or by a landowner association formed to represent STAMP. Ownership and maintenance of the wastewater treatment facility and associated infrastructure shall not be the responsibility of the Town of Alabama unless otherwise negotiated with the Town. Proof of such ownership and maintenance agreement shall be provided to the Town of Alabama prior to construction of wastewater facilities and commencement of site development.

29. The Project Sponsor shall request that any communications service providers for the initial phase of the STAMP Project install broadband communications infrastructure in a manner that would facilitate expansion of such service to other portions of the Town of Alabama.

30. The Project Sponsor shall cover the cost of any emergency service impact studies, which includes emergency response to technology industry proposed to be located on the Project Site.

31. The Project Sponsor shall ensure that each actual technology manufacturing facility completes a facility-specific emergency services impact study that is consistent with the findings of the emergency service impact study. Copies of each individual facility-specific study shall be provided to the Town of Alabama and all local emergency service providers.

32. In order to ensure that emergency service responders are adequately prepared for the potential unique needs of a future use, a facility-specific emergency services impact study (as described above in Section 7.9.2) shall be prepared for each actual technology manufacturing facility to be located at the Project Site and submitted to an informal committee composed of local and county emergency response representatives to review and provide input on such studies. Moreover, to ensure the adequacy of these future

studies, a baseline study shall be completed to determine the current baseline levels of services provided by local and county emergency service providers.

33. The recreational trail system shall be owned and maintained by the Project Sponsor, or by a landowner association formed to represent STAMP. Ownership and maintenance of the recreational trail system shall not be the responsibility of the Town of Alabama unless otherwise negotiated with the Town. Proof of such ownership and maintenance agreement shall be provided to the Town of Alabama prior to commencement of trail development.
34. The recreational trail system shall be open and available for public use.
35. A Phase 1B field investigation of potential historic and/or archeological resources located at the Project Site shall be completed prior to any Future Project Use being located at the Project Site. Mitigation measures proposed by the Phase 1B field investigation shall be complied with, subject to the applicable criteria set forth by the NYOPRHP, and may include realignment of structures, impervious services, and other development features as needed.
36. The Incentive Zoning Agreement between the Project Sponsor and the Town of Alabama shall provide that the Project Sponsor will assist the Town with the implementation of one or more strategies identified in the Farmland Protection Strategies Report, as determined by the Town.
37. The Project is likely to result in additional residential development throughout the Town. Under current zoning provisions, this residential development will likely take the form of large lot frontage development occurring along existing roads that, in time, becomes more detrimental to the rural/ agricultural character of the Town than clustering residential development would. The Town will revise zoning and subdivision standards to reform how future residential development will be handled
38. The Project Sponsor shall cover the cost of an economic impact study for the Town of Alabama as it relates to the project

The Town of Alabama Planning Board, as an involved agency, has determined that compliance with the mitigations and conditions of this Findings Statement shall avoid, mitigate and/or minimize to the maximum extent practicable, any potential adverse environmental impacts associated with the Project and/or Future Project Uses.

CONDITIONS MET: _1, 2, 4, 5, 7, 8, 11, 18 (all other conditions are not relevant to Project Double Reed)___

11.3 Threshold Criteria

Future Project Uses which do not exceed or that conform to any of the following thresholds shall be considered to have been addressed by this Findings Statements, and would not require any further review pursuant to SEQR:

- Maximum buildable site area established by the Preferred Alternative: 599.0 acres.

- Maximum building square footage established by the Preferred Alternative: 6,130,000 square feet.
- Wetland impacts and mitigation requirements established in the Preferred Alternative and described in Section 6.2.2 of the DGEIS.
    - Maximum wetland impacts: 9.54 acres
    - Minimum existing wetlands to be enhanced, restored and protected: 112 acres
- Technology Zoning District regulations established by the Town of Alabama.
- Traffic trip generation exceeding 70% of projected trips at Full Build-Out as defined in the Traffic Impact Study (Appendix I of the DGEIS): Maximum of 1,925 trips during the PM peak hour.
- Utility loads at Project build-out established by the Preferred Alternative:
    - Water: 3,000,000 gallons per day
    - Sewer: 3,000,000 gallons per day
    - Electric Power: 185 megawatts (this was updated)
    - Natural Gas: 318,600 cubic feet per hour

Future Project Uses which exceed or which do not conform to any of the conditions or thresholds listed above shall not be considered to have been addressed by this Findings Statement and must be evaluated by the Town of Alabama Planning Board and Town of Alabama Town Board as to whether an additional SEQR determination and/or review is necessary.

CURRENT PROJECT CONFORMANCE WITH THRESHOLDS: *CONFORMS*

ENGINEER'S REPORT

BUFA – PROJECT DOUBLE REED
NORTH CAMPUS
TOWN OF ALABAMA

SBL 10.-1-3 (Portion)/10.-1-4.112 (Portion)/10.-1-4.2/ 10.-1-7/10.-1-8/10.-1-9/10.-1-10

6596 CROSBY ROAD
TOWN OF ALABAMA
GENESSEE COUNTY, NEW YORK

Prepared for:
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January 23, 2026

PROJECT DESCRIPTION

This Engineer's Report is for the Project Double Reed – North Campus development only. A separate report was issued for the South Campus, which was dated January 9, 2026.

The site is located within the Science, Technology and Manufacturing Park (STAMP) within the Town of Alabama, Genesee County, New York and is identified on their master plan as the Project Double Reed site. The North Campus project site is being developed on existing vacant land west of Crosby Road and adjacent to the STAMP sub-station. The proposed development consists of the construction of two (2) 664,000 square foot buildings each housing a data center operation. The parcel, upon subdivision, will contain approximately 60 acres and approximately one-half mile north of the South Campus parcel.

The project involves a two (2) two-story buildings each with a footprint of approximately 332,000 square feet (664,000 square feet of gross floor area for each building), internal driveways, parking areas, stormwater management facilities, an electric sub-station and related infrastructure. The proposed substation is located in the western portion of the site, proximate to the existing STAMP sub-station and will serve the two (2) proposed data center buildings. Stormwater management facilities are proposed to manage water quality and runoff reductions from the development site in accordance with applicable regulations and maintaining the existing natural hydrology of the site.

WETLANDS

Based upon data contained in mapping prepared by Clark, Patterson, Lee and CC Environment & Planning, there are no delineated wetlands on the subject property.

WATER SUPPLY SYSTEM

The potable and fire-fighting water demands shall be met by a service tapped off of Crosby Road along the property's eastern boundary. As part of the STAMP infrastructure system, water system improvements have been constructed along Crosby Road. It is proposed to extend the existing 12-inch water main approximately 950 feet north of its current terminus.

The project proposes the installation of sixteen (16) private hydrants, four (4) along the eastern and western sides of the site, four (4) hydrants along the center driveway between the buildings and two (2) hydrants along the driveway south of the buildings and one each in the parking areas north of each building. The domestic and fire services will be metered with backflow prevention (via double check valves and RPZ assemblies) located in two (2) hot boxes adjacent to Crosby Road at the northeast corner of the site. One hot box is for the domestic water service for the eastern building and the other hot box is for the domestic water service for the western building and for fire protection service for the entire Campus.

The water demand for this project will consist of the following:

- Average 30 employees per shift; 3 shifts per day @ 35gpd/employee = 3,150 GPD
- Humidifier peak consumption = 3,420 GPD
- Sub-Total per Building = 6,570 GPD
- TOTAL (For North Campus) = 13,140 GPD

Construction, inspection and testing of the new water services and associated appurtenances will be in conformance with all applicable Town, Genesee County Department of Health, AWWA, New York State Health Department and Ten States Standards. Details of the proposed water system construction are contained in the site plans prepared by Bowman.

SANITARY SEWER SYSTEM

The sanitary demands generated by the two (2) proposed data center buildings will be accommodated by an on-site sewage pump station. A pump station is required as the proposed sanitary sewer main to be constructed along Crosby Road will not have sufficient depth to permit a gravity connection. The on-site sanitary sewer system is anticipated to have lateral connections at the north and south ends of each building. The on-site gravity sewer system will be conveyed to the southeast corner of the site where it will flow into a sewage pump station which will then pump the sewage into Sanitary MH CN-08A located on the west side of Crosby Road. This sanitary sewer system extends in a southerly direction along the east side of Crosby Road to a pump station located at the Edwards Vacuum site. This pump station then extends via a 2-inch force main to the 16,000 hold and haul tank located opposite the South Campus. Ultimately, the project will be served by a new pump station along Crosby Road that will serve STAMP.

The sanitary sewer demand for this project will consist of the following per building:

- Average 30 employees per shift; 3 shifts per day @ 35gpd/employee = 3,150 GPD
- TOTAL = 6,300 GPD

Construction, inspection and testing of the new sanitary sewer services and associated appurtenances will be in conformance with all applicable Town, Genesee County and Ten States Standards. Details of the proposed sanitary sewer system construction are contained in the site plans prepared by Bowman.

STORMWATER MANAGEMENT SYSTEM

A detailed discussion of the stormwater management design is provided in the project's Stormwater Pollution Prevention Plan and Stormwater Design Report prepared by Bowman. This project will maintain the natural hydrologic patterns of the existing topographic conditions of the parcel. The site currently drains to four (4) separate sub-watersheds and these are maintained under proposed conditions. These four (4) different points are as follows:

a) POA #1 Northwest portion of the site to a swale that extends in a northwesterly direction toward the STAMP sub-station

b) POA #2 Northwest portion of site, west of proposed BUFA Stream sub-station to a swale that extends to the west
c) POA #3 Western portion of the site which drains to W10 and then continues in a westerly direction via Tributary 2 (see STAMP Delineated Wetlands & Streams mapping)
d) POA #4 Southwest corner of the site which drains to a swale that connects with Tributary 10 downstream of W10

In accordance with requirements of the SPDES General Permit for Stormwater Discharges from Construction Activity, the post-development stormwater design provides water quality treatment, runoff reduction, attenuation of larger storm events and erosion and sediment controls at the four locations stormwater discharges from the project site."

Roof runoff from each building will be collected and conveyed to the on-site storm sewer conveyance system which will also collect runoff from the impervious surfaces on-site and open space areas.

This project site will be provided with twelve (12) post-construction stormwater management practice (SMP) facilities, which will meet the applicable design requirements. These proposed stormwater facilities include filtration bioretention facilities and a micropool extended detention pond. All of these SMP's are contained within the limits of the project site.

The proposed post-construction SMP's have been designed in accordance with maximum contributory drainage areas permitted as defined in the 2024 New York State Stormwater Management Design Manual.

ENGINEER'S REPORT

BUFA – PROJECT DOUBLE REED
SOUTH CAMPUS
TOWN OF ALABAMA

SBL 10.-1-42 (Portion)/SBL 10.-1-41
6840 CROSBY ROAD
TOWN OF ALABAMA
GENESSEE COUNTY, NEW YORK

Prepared for:
SDC
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Prepared by:

Bowman Consulting Engineering, Land Surveying & Landscape Architecture, PC

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Parsippany, NJ 07054
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BCG Project No. 081591-01-001
www.bowman.com



Eric L. Keller, P.E.
New York Professional Engineer
License 065324

January 9, 2026

PROJECT DESCRIPTION

This Engineer's Report is for the Project Double Reed – South Campus development only. A separate report will be forthcoming for its North Campus.

The South Campus project site was previously approved for and construction commenced for a hydrogen production facility operated by Plug Power. The current project consists of developing this site for a 664,000 square foot data center. The site is located within the Science, Technology and Manufacturing Park (STAMP) within the Town of Alabama, Genesee County, New York and is identified on their master plan as the Plug Power site. The parcel contains approximately 29.1 acres and is located on the west side of Crosby Road between STAMP Drive and Judge Road.

The project involves a single two-story building with a footprint of approximately 332,000 square feet (664,000 square feet of gross floor area), internals driveways, parking areas, stormwater management facilities and related infrastructure. The on-site substation that was previously constructed as part of the Plug Power project will remain and be completed to serve the proposed data center. In addition to the three (3) stormwater facilities, a fourth stormwater facility will be constructed on the east side of the site.

WETLANDS

Based upon data contained in mapping prepared by Clark, Patterson, Lee and CC Environment & Planning, there are no delineated wetlands on the subject property.

WATER SUPPLY SYSTEM

The potable and fire-fighting water demands shall be met by a service tapped off of Crosby Road along the property's eastern boundary. As part of the STAMP infrastructure system, water system improvements are to be constructed along Crosby Road. The project proposes the installation of eight (8) private hydrants, four (4) along the northern side of the building and four (4) along the southern side of the building. The domestic and fire services will be metered with backflow prevention (via double check valves and RPZ assemblies) located in a hot box adjacent to the northern access driveway from Crosby Road.

The water demand for this project will consist of the following:

- Average 30 employees per shift; 3 shifts per day @ 35gpd/employee = 3,150 GPD
- Humidifier peak consumption = 3,420 GPD
- TOTAL = 6,570 GPD

Construction, inspection and testing of the new water services and associated appurtenances will be in conformance with all applicable Town, Genesee County Department of Health, AWWA, New York State Health Department and Ten States Standards. Details of the proposed water system construction are contained in the site plans prepared by Bowman.

SANITARY SEWER SYSTEM

The sanitary demands generated by the proposed data center will be handled by a connection to a gravity sanitary sewer system along Crosby Road. The project site will connect to an existing sanitary manhole on the east side of Crosby Road opposite the site's southern driveway. A gravity sanitary sewer main will extend into the subject site and connect to the building's plumbing system in the northeastern portion of the building. This existing manhole currently flows to an existing 14,000 gallon holding tank opposite the subject site. Ultimately, the project will be served by a new pump station along Crosby Road that will serve STAMP.

The sanitary sewer demand for this project will consist of the following:

- Average 30 employees per shift; 3 shifts per day @ 35gpd/employee = 3,150 GPD

Construction, inspection and testing of the new sanitary sewer services and associated appurtenances will be in conformance with all applicable Town, Genesee County and Ten States Standards. Details of the proposed sanitary sewer system construction are contained in the site plans prepared by Bowman.

STORMWATER MANAGEMENT SYSTEM

A detailed discussion of the stormwater management design is provided in the project's Stormwater Pollution Prevention Plan and Stormwater Design Report prepared by Bowman. This project will maintain the stormwater management facilities that were approved and constructed as part of the Plug Power project.

The approved stormwater management design for this tract includes a bio-retention basin, a vegetated sediment basin and a vegetated dry detention basin. In addition, a vegetated swale was constructed along the southern and western boundaries of the tract which cuts off and directs runoff from off-site areas around the tract and discharges to the adjacent wetland area to the west. All of these facilities have been constructed other than the installation of the landscaping within the bio-retention basin. These plantings will be constructed in accordance with the previously approved plans and which are detailed on the site plans prepared by Bowman.

Roof runoff will be collected and conveyed to the on-site storm sewer conveyance system which will also collect runoff from the impervious surfaces on-site and open space areas. The discharge points into the previously constructed stormwater facilities will be maintained. As the cover conditions of the site have changed somewhat from that approved under the Plug Power project, this project is also proposing a dry swale in the lawn area east of the building. This swale will collect runoff that sheet flows from the parking area and a portion of the loop road, which then connects to the storm sewer collection system. The runoff from the parking area and loop road will sheet across a 2-foot wide gravel diaphragm. This swale will be provided with two stone check dams with details provided on the site plan drawings.



Initial Site Plan Application Drawings

Last update: 01/09/2026

Sheet #	Sheet Name	01.09.2026 - INITIAL APPLICATION
CIVIL		
CS-1	COVER SHEET	•
TS-1	GROUND SURFACE TOPOGRAPHIC SURVEY	•
TS-2	GROUND SURFACE TOPOGRAPHIC SURVEY	•
DP-1	DEMOLITION PLAN	•
MP-1	MASTER PLAN	•
SP-1	SITE PLAN	•
AT-1	AUTOTURN PLAN - WB-67	•
GD-1	GRADING AND DRAINAGE PLAN	•
ST-1	STORM PROFILES	•
ST-2	STORM PROFILES	•
ST-3	STORM PROFILES	•
ST-4	STORM PROFILES	•
SW-1	SANITARY AND WATER PLAN	•
SA-1	SANITARY PROFILE	•
EC-1	EROSION AND SEDIMENT CONTROL PLAN	•
LD-1	EROSION AND SEDIMENT CONTROL PLAN -...	•
DT-1	DETAILS	•
DT-2	DETAILS	•
DT-3	DETAILS	•
DT-4	STORM DETAILS	•
DT-5	STORM DETAILS	•
DT-6	WATER DETAILS	•
DT-7	SANITARY DETAILS	•
LS-1	LANDSCAPE PLAN, SCHEDULE AND DETAILS	•
LT-1	PHOTOMETRIC PLAN	•
ARCHITECTURE		
PR-000	SHEET INDEX	•
PR-004	BUILDING ELEVATIONS	•
PR-005	BUILDING AXON	•
PR-006	CONCEPTUAL RENDERS	•
PR-007	CONCEPTUAL RENDERS	•
PR-008	EXTERIOR MATERIALS	•

Initial Site Plan Application Documents

Last update: 01/09/2026

Document Name	01.09.2026 - INITIAL APPLICATION
Site Plans (25 Sheets)	•
Engineer's Report	•
Stormwater Pollution Prevention Plan & Stormwater Design Report	•
Town of Alabama – Application for Site Plan Review	•
Site Plan Application Checklist – Town of Alabama	•
Design Standards Checklist, TD-1 & TD-2 Districts, Town of...	•

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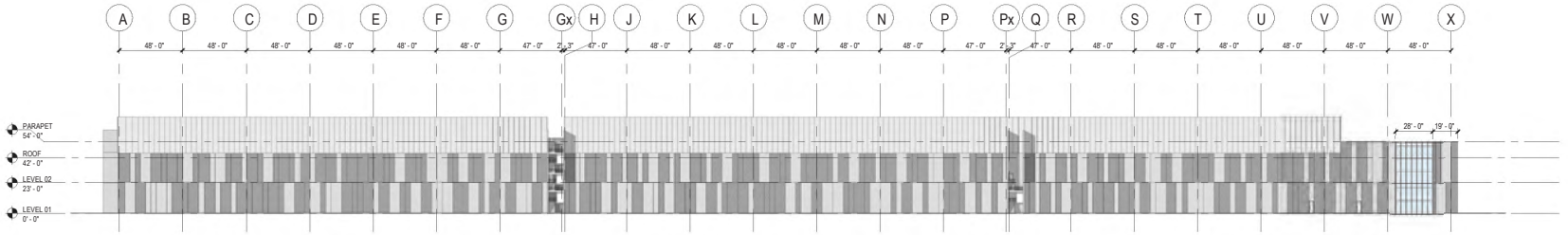
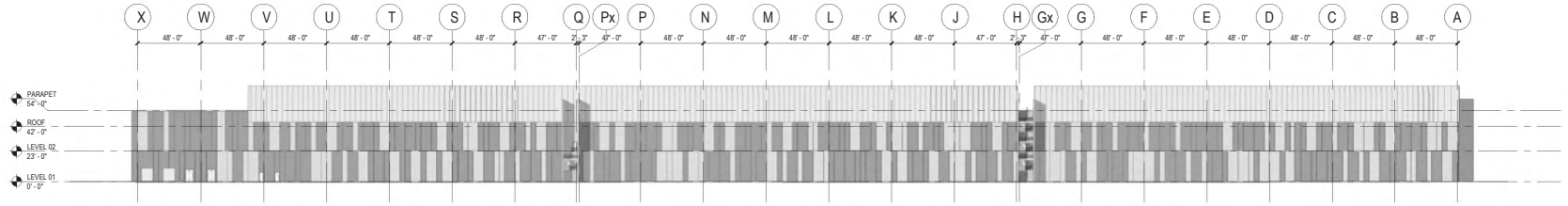
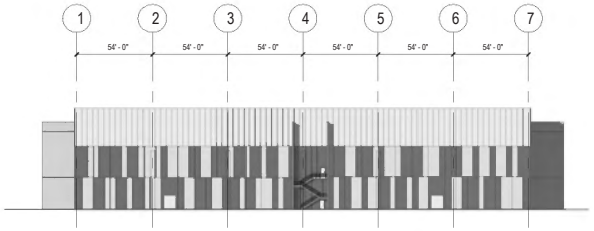


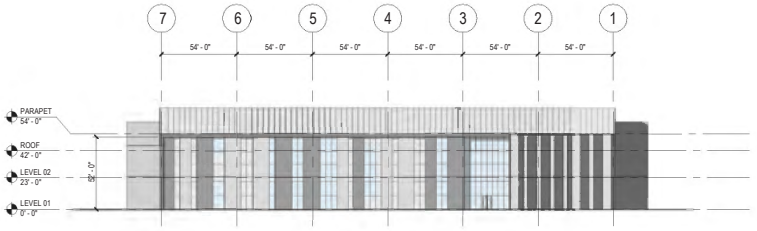
4 SOUTH ELEVATION
SCALE: 1" = 40'-0"



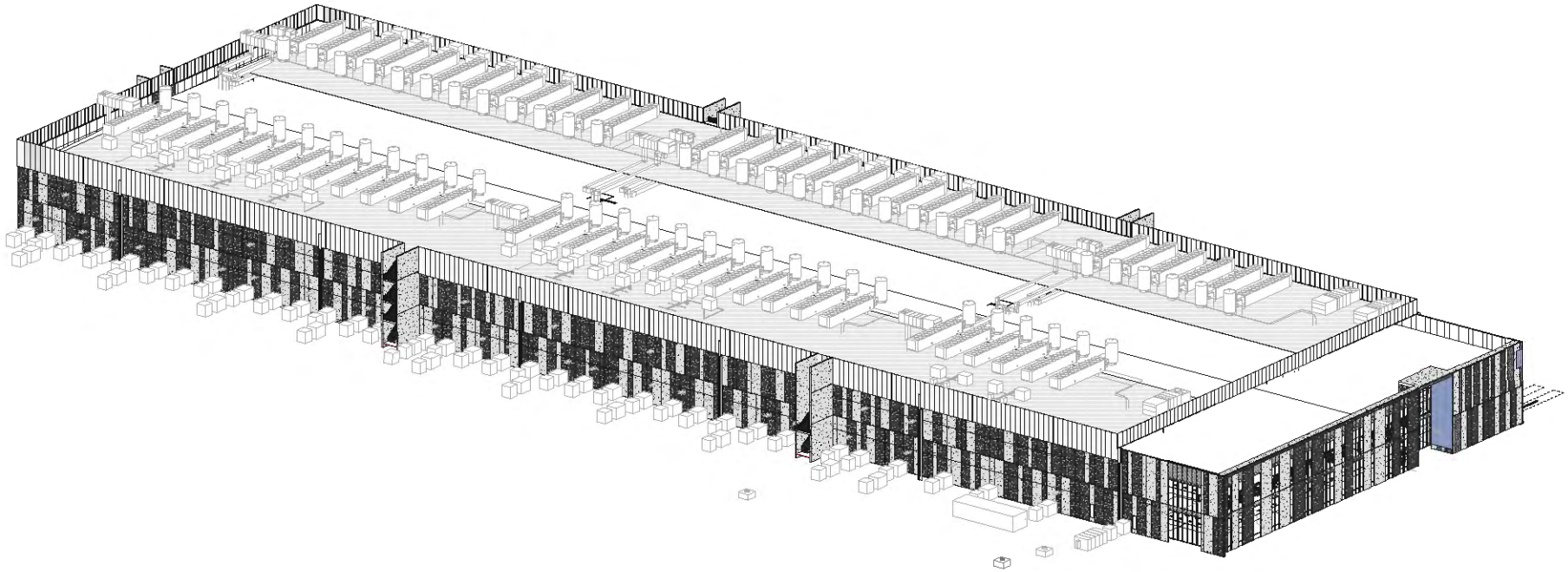
3 NORTH ELEVATION
SCALE: 1" = 40'-0"



2 WEST ELEVATION
SCALE: 1" = 40'-0"



1 EAST ELEVATION
SCALE: 1" = 40'-0"



01 BUFA - OVERALL SITE AXON
SCALE:



1
PRECAST PANEL
NAWKAW
COLOR: BONE

2
PRECAST PANEL
NAWKAW
COLOR: IVORY

3
METAL PANEL
KINGSPAN
COLOR: PANTONE 294C

4
CURTAIN WALL
KAWNEER
COLOR: CLEAR ANODIZED

5
SCREENWALL
GREENHECK
COLOR: CLEAR ANODIZE

PROGRESSIVE AGING NORTH CAMPUS: ACCESS ROAD LOOKING SOUTH



DAY 1 LANDSCAPING



MATURE LANDSCAPING

PROGRESSIVE AGING NORTH CAMPUS: CROSBY ROAD LOOKING SOUTHWEST



DAY 1 LANDSCAPING



MATURE LANDSCAPING

PROGRESSIVE AGING SOUTH CAMPUS: CROSBY ROAD LOOKING SOUTH



DAY 1 LANDSCAPING



MATURE LANDSCAPING

PROGRESSIVE AGING SOUTH CAMPUS: CROSBY ROAD LOOKING WEST



DAY 1 LANDSCAPING



MATURE LANDSCAPING

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK



LOCATION MAP
1" = 2000'

SCHEDULE OF DRAWINGS

1	C-000-N	COVER SHEET - NORTH CAMPUS
2	C-101-N	DEMOLITION PLAN - NORTH CAMPUS
3	C-102-N	DEMOLITION PLAN - NORTH CAMPUS
4	C-120-N	MASTER PLAN - NORTH CAMPUS
5	C-121-N	SITE PLAN - NORTH CAMPUS
6	C-122-N	SITE PLAN - NORTH CAMPUS
7	C-123-N	AUTOTURN PLAN - WB-67 - NORTH CAMPUS
8	C-124-N	AUTOTURN PLAN - WB-67 - NORTH CAMPUS
9	C-151-N	GRADING AND DRAINAGE PLAN - NORTH CAMPUS
10	C-152-N	GRADING AND DRAINAGE PLAN - NORTH CAMPUS
11	C-161-N	SANITARY AND WATER PLAN - NORTH CAMPUS
12	C-162-N	SANITARY AND WATER PLAN - NORTH CAMPUS
13	C-183-N	EROSION AND SEDIMENT CONTROL PLAN - NORTH CAMPUS
14	C-184-N	EROSION AND SEDIMENT CONTROL PLAN - NORTH CAMPUS
15	C-185-N	EROSION AND SEDIMENT CONTROL LAYDOWN AREA - NORTH CAMPUS
16	C-301-N	STORM PROFILES - NORTH CAMPUS
17	C-302-N	STORM PROFILES - NORTH CAMPUS
18	C-303-N	STORM PROFILES - NORTH CAMPUS
19	C-304-N	STORM PROFILES - NORTH CAMPUS
20	C-305-N	STORM PROFILES - NORTH CAMPUS
21	C-306-N	STORM PROFILES - NORTH CAMPUS
22	C-311-N	SANITARTY PROFILES - NORTH CAMPUS
23	C-312-N	SANITARTY PROFILES - NORTH CAMPUS
24	C-501-N	DETAILS - NORTH CAMPUS
25	C-502-N	DETAILS - NORTH CAMPUS
26	C-503-N	DETAILS - NORTH CAMPUS
27	C-504-N	STORM DETAILS - NORTH CAMPUS
28	C-505-N	STORM DETAILS - NORTH CAMPUS
29	C-506-N	WATER DETAILS - NORTH CAMPUS
30	C-507-N	SANITARY DETAILS - NORTH CAMPUS
31	C-601-N	LANDSCAPE PLAN, SCHEDULE AND DETAILS - NORTH CAMPUS
32	C-602-N	LANDSCAPE PLAN, SCHEDULE AND DETAILS - NORTH CAMPUS
33	C-701-N	PHOTOMETRIC PLAN - NORTH CAMPUS
34	C-702-N	PHOTOMETRIC PLAN - NORTH CAMPUS

APPLICANT
STREAM U.S. DATA CENTERS, L.L.C.
2001 ROSS AVENUE, SUITE 400
DALLAS, TEXAS 75201

ENGINEER

BOWMAN CONSULTING ENGINEERING,
LAND SURVEYING & LANDSCAPE ARCHITECTURE
6 CAMPUS DRIVE, SUITE 302
PARSIPPANY, NEW JERSEY 07054
PH: (973) 359-8400

ZONING INFORMATION

PARCEL AREA: 60.00± AC.

ZONING SCHEDULE:

ZONED: TECHNOLOGY DISTRICT 1 (TD1)

PERMITTED USES:
- TECHNOLOGY MANUFACTURING
- LIGHT INDUSTRY (THE PROCESSING, FABRICATION, ASSEMBLY OR PACKAGING OF PREVIOUSLY PREPARED OR REFINED MATERIALS)
- ACCESSORY BUILDINGS

TD1 ZONING REQUIREMENTS:	REQUIRED	PROPOSED
MIN. LOT AREA	N/A	60.00± AC.
MIN. LOT FRONTAGE	N/A	1,535± FT.
MIN. FRONT YARD SETBACK	0 FT.	184' FT.
MIN. SIDE YARD SETBACK	*30 FT.	263' FT.
MIN. REAR YARD SETBACK	0 FT.	196 FT.
MAX. BUILDING HEIGHT	110 FT.	54'

* DICTATED BY FIRE SAFETY CODES, UTILITY NEEDS AND BUFFER REQUIREMENTS

- BUFFER REQUIREMENTS DO NOT APPLY AS THE PARCEL DOES NOT ABUT A RESIDENTIAL OR AGRICULTURE-RESIDENTIAL DISTRICT

PARKING REQUIREMENTS:	REQUIRED	PROPOSED*
	1328 SPACES	*127 SPACES

TECHNOLOGY MANUFACTURING: (1) SPACE FOR EVERY 1,000 SQ. FT. OF FLOOR AREA
ALL OTHER DEVELOPMENT: (2) SPACES FOR EVERY 1,000 SQ. FT. OF SPACE

* MINIMUM PARKING REQUIREMENTS MAY BE REDUCED BY THE PLANNING BOARD FOR GOOD CAUSE CONSIDERING THE PROJECTED USE INTENSITY, TURNOVER, CUSTOMERS, EMPLOYEES AND VEHICLES USED.

AMERICANS WITH DISABILITIES (ADA) REQUIREMENTS:
126-150 PARKING SPACES = (6) SIX ACCESSIBLE SPACE REQUIRED
(7) SEVEN ACCESSIBLE SPACES AND AISLE PROVIDED

PROJECT DESCRIPTION

The project site is located within the Science, Technology and Manufacturing Park (STAMP) within the Town of Alabama, Genesee County, New York and is identified on their master plan as the Project Double Reed site. The North Campus project site is being developed on existing vacant land west of Crosby Road and adjacent to the STAMP sub-station. The proposed development consists of the construction of two (2) 664,000 square foot buildings each housing a data center operation. The parcel, upon subdivision, will contain approximately 60 acres and is located approximately one-half mile north of the South Campus parcel.

The project involves two (2) two-story buildings each with a footprint of approximately 332,000 square feet (664,000 square feet of gross floor area for each building), internal driveways, parking areas, stormwater management facilities, an electric sub-station and related infrastructure. The proposed substation is located in the western portion of the site, proximate to the existing STAMP sub-station and will serve the two (2) proposed data center buildings.

Stormwater management facilities are proposed to manage water quality and runoff reductions from the development site in accordance with applicable regulations and maintaining the existing natural hydrology of the site. This project site will be provided with twelve (12) post-construction stormwater management practice (SMP) facilities, which will meet the applicable design requirements. These proposed stormwater facilities include filtration bioretention facilities and a micropool extended detention pond. All of these SMP's are contained within the limits of the project site.

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PROJ. 0836A.0202
DATE: JANUARY 28, 2026
SCALE: AS NOTED

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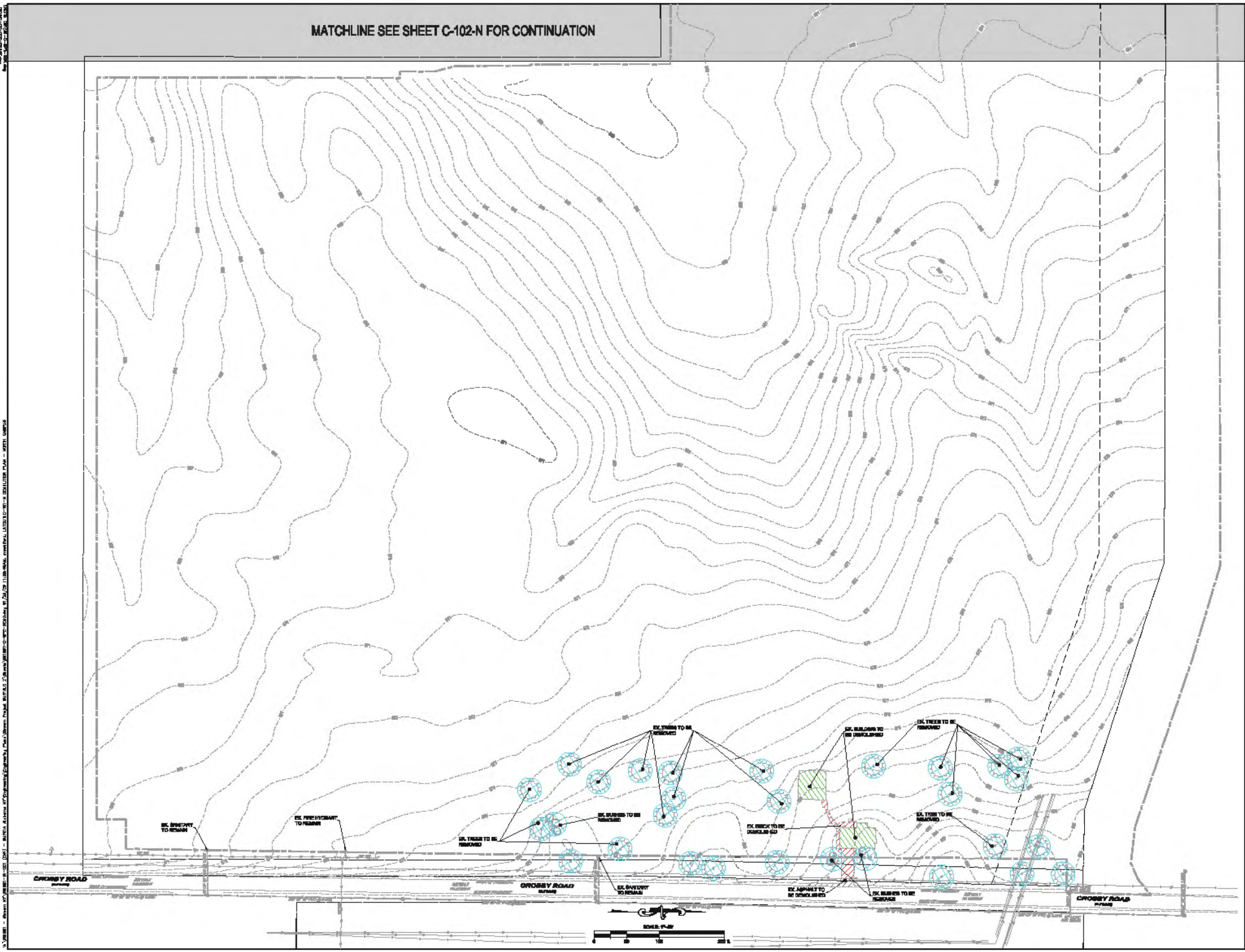
ERIC L. KELLER, N.Y. Professional Engineer, Lic. 085234-1

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
COVER SHEET - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-000-N

MATCHLINE SEE SHEET C-102-N FOR CONTINUATION



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ERIC L. BELLER, N.Y. Professional Engineer, Lic. 0[illegible]

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
DEMOLITION PLAN - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-101-N

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS

DEMOLITION PLAN - NORTH CAMPUS

TOWN OF ALABAMA (GENESEE COUNTY, NEW YORK

C-102-N



C-120-N

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
MASTER PLAN - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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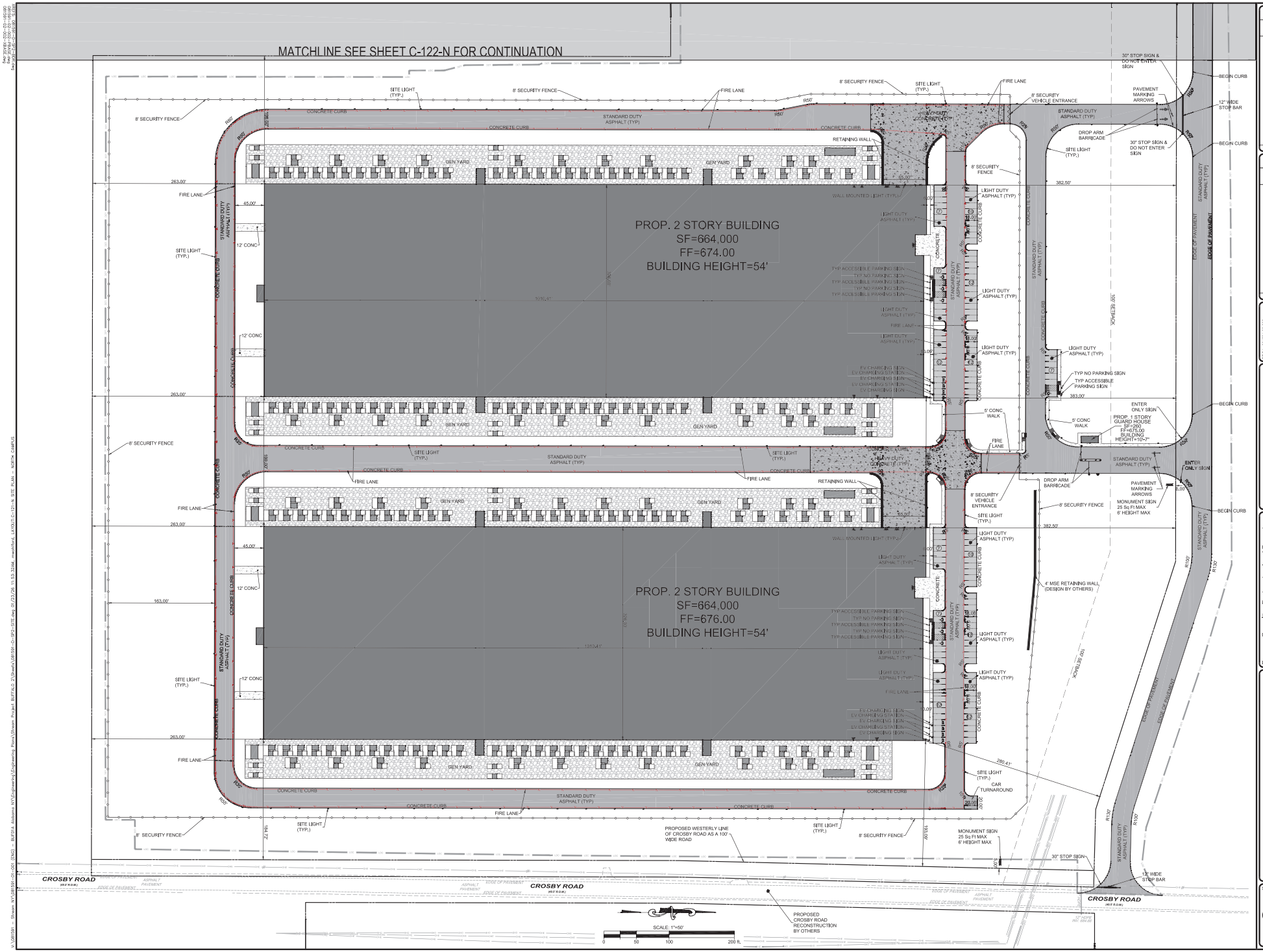

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PROJ.: 081591-02-002
DATE: JANUARY 28, 2026
CHKD: PDO

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BUFA - PROJECT DOUBLE REED NORTH CAMPUS
SITE PLAN - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-121-N

GENERAL CONSTRUCTION NOTES:

1. UTILITIES AS SHOWN ON THESE DRAWINGS ARE PLOTTED FROM FIELD EVIDENCE AND INFORMATION SUPPLIED BY VARIOUS UTILITY AGENCIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. INVICTUS CIVIL ENGINEERING, P.C. AND ATSI ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND UTILITIES CONTRACTORS MUST CALL U.F.P.O. AT LEAST TWO WORKING DAYS PRIOR TO ANY EXAVATION 1-800-962-7962. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT CONSTRUCTION PROCEEDS IN ACCORDANCE WITH THE LATEST REVISION OF THE DESIGN DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS FOUND ON SITE PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL DIG TEST PITS AS NECESSARY TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES. DESIGN ENGINEER, OWNER AND UTILITY OWNER TO BE NOTIFIED 48 HOURS PRIOR TO DIGGING TEST PITS. ACTUAL ROCK OR UTILITY LOCATIONS AND ELEVATIONS MAY RESULT IN REVISIONS TO DESIGN PLAN.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ALABAMA CONSTRUCTION SPECIFICATIONS, RULES, AND DETAILS.
4. ALL SANITARY SEWERS AND WATERLINE INSTALLATION AND TESTING MUST CONFORM TO THE LATEST TOWN OF ALABAMA AND GENESEE COUNTY STANDARD SPECIFICATIONS.
5. ALL WATERLINE, STORM SEWER AND SANITARY SEWER SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE NOTES AND DETAILS SHOWN ON THE DETAIL SHEETS.
6. ALL UTILITY LINES UNDER PAVEMENT, DRIVEWAYS, SIDEWALKS, AND WITHIN 5 FEET OF THE BACK OF CURB MUST BE BACKFILLED WITH MECHANICALLY TAMPED AND RUN OF CRUSHER STONE IN MAX. 6" LIFTS. SELECT FILL IS REQUIRED UNDER ALL PAVED AREAS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL PERMITS AND PROVIDE ALL BONDS REQUIRED FOR THIS WORK INCLUDING, BUT NOT LIMITED TO, UTILITY CONNECTIONS AND SITE CONSTRUCTION.
8. ALL AREAS THAT ARE NOT PAVED, GRAVEL, OR LANDSCAPED MUST BE PERMANENTLY VEGETATED WITH A MINIMUM OF 5" OF TOPSOIL AND GRASS SEED AND MAINTAINED AS LAWN.
9. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
10. AREAS TO BE FILLED SHALL BE CLEANED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL.
11. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC, SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. ALL FILL TO BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 6 INCHES IN THICKNESS.
12. FILL MATERIAL SHALL BE FREE OR FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED.
13. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISH GRADING.
14. ALL SIGNAGE SHALL BE IN CONFORMANCE WITH THE TOWN OF ALABAMA'S REGULATIONS. ALL SIGNAGE TO BE APPROVED BY THE TOWN OF ALABAMA PRIOR TO INSTALLATION.
15. EXTERIOR LIGHTING FOR PROPOSED BUILDING(S) AND SITE LIGHTING TO BE DARK SKY FRIENDLY LIGHTING WITH A MINIMUM OF 1 FOOT-CANDLE. SEE ARCHITECTURAL PLANS FOR FINAL LOCATIONS AND SPECIFICATIONS. LIGHTS TO BE LOCATED AT BUILDING ENTRANCES AND OVERHEAD DOORS FOR SAFETY.
16. CONTRACTOR TO REFER TO GEOTECHNICAL ENGINEERING REPORT BY WHITESTONE ASSOCIATES, DATED XXXX. REPORT IS INCLUDED IN THE BID PACKAGE. SUBMISSION OF A BID INDICATES THAT THE SITE CONTRACTOR AND THE GENERAL CONTRACTOR HAVE REVIEWED THE FINDINGS OF THE REPORT/TEST PITS AND WILL PROVIDE ALL WORK IN CONFORMANCE WITH ITS RECOMMENDATIONS.
17. THE TOWN OF ALABAMA IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION FOR THE NEW WATER SERVICE.
18. CHLORINATION OF THE WATERLINE SHALL BE DONE IN ACCORDANCE WITH SPECIFICATIONS AWWA C-651
19. WATERLINE, OTHER THAN PROCESS WATER LINES CONTAINING GLYCOL, SHALL BE INSTALLED WITH A MINIMUM COVER OF 5.0' FROM PROPOSED GRADE.
20. JOINT RESTRAINTS ARE REQUIRED ON ALL WATERLINE FITTINGS - SEE RESTRAINT LENGTH TABLES ON WATERLINE DETAIL SHEET.
21. ANCHOR COUPLINGS WILL BE INSTALLED FOR ALL TEES, BENDS, VALVES, AND HYDRANTS.
22. A MINIMUM F 10' OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES. WATERLINE TO BE DEFLECTED AS NECESSARY TO PROVIDE MINIMUM OF 18" VERTICAL CLEARANCE.
23. CONTRACTOR SHALL PLACE AND COMPACT MATERIAL AS SPECIFIED TO MAINTAIN A MINIMUM 2 FT. (OR MINIMUM ALLOWABLE BY PIPE MANUFACTURER) MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
24. APPROVAL SHALL BE OBTAINED FROM THE GENESEE COUNTY HEALTH DEPARTMENT AND ALL RESPONSIBLE AGENCIES FOR THE BACKFLOW PREVENTION FOR THE WATER CONNECTIONS.
25. SANITARY SEWER SHALL BE INSTALLED WITH A MINIMUM COVER OF 4.0' FROM PROPOSED GRADE.
26. THE TOWN OF ALABAMA SHALL BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION FOR THE SANITARY SEWER SERVICE.
27. POLYVINYL CHLORIDE (P.V.C.) PIPE AND FITTINGS FOR GRAVITY SEWERS SHALL MEET AND/OR EXCEED A.S.T.M. SPECIFICATION D-3034 WITH A MINIMUM SDR-35 OR APPROVED EQUAL.
28. ALL PROPOSED ELEVATIONS SHOWN HERE ON ARE FINISHED GRADE ELEVATIONS.
29. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING PROPOSED RIM ELEVATIONS IN RELATION TO PROPOSED GRADE PRIOR TO INSTALLATION AND NOTIFYING DESIGN ENGINEER OF ANY DISCREPANCIES.
30. CONTRACTOR IS TO OBTAIN PERMISSION TO ACCESS UTILITIES WITHIN THE RIGHT-OF-WAY AND/OR UNDER THE AUTHORITY OF OTHERS.
31. STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN ON PLANS OR AS DIRECTED BY OWNER'S REPRESENTATIVE. THE PILE(S) SHALL BE SEEDED IN CONFORMANCE WITH PROJECT EROSION AND SEDIMENT CONTROL PLAN AND DETAILS.
32. BIO-RETENTION AREA PLANTINGS TYPE TO BE OBTAINED FROM TABLE H.5 NATIVE PLANT GUIDE FOR STORMWATER MANAGEMENT AREAS (NY) LOCATED IN APPENDIX H OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL. PLANTINGS MUST BE ZONE 2 COMPLIANT. PLANT SELECTION SHALL BE DIVERSE, LAYOUT SHALL BE RANDOM AND NATURAL. PLANTINGS SHALL BE PLACED APPROX. 18" ON CENTER. - SEE SAMPLE BIO-RETENTION AREA PLANTING PLAN.
33. CONTRACTOR TO KEEP CROSBY ROAD FREE OF DIRT AND DEBRIS AT ALL TIMES DURING CONSTRUCTION.
34. JOB BENCHMARK AS NOTED ON PLANS.
35. GEOTEXTILE IS REQUIRED OVER STORM SEWER ROADWAY CROSSINGS FOR TEN (10) FEET ON EITHER SIDE OF PIPE TO PROTECT AGAINST SETTLEMENT.
36. ELEVATIONS AS SHOWN ARE BASED ON NAVD 88, AS ESTABLISHED FROM THE NEW YORK STATE RTN.
37. CONTRACTOR SHALL DISPOSE OF ANY DEMOLITION OR CONSTRUCTION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
38. EQUIPMENT PADS TO BE DESIGNED BY OTHERS.
39. SEE ARCHITECTURAL PLANS FOR BUILDING HEIGHTS AND ELEVATIONS.
40. PROTECTIVE BOLLARDS TO BE INSTALLED ONE (1) FOOT MIN. OFF PAVEMENT EDGE TO FACE OF BOLLARD AND FIVE (5) FOOT MAX. ON CENTER BOLLARDS TO SPAN CONCRETE DUCT BANK CROSSINGS, WHERE POSSIBLE.
41. GUIDE RAIL TO BE NYSDOT BOX BEAM (606-04; 606-06) OR APPROVED EQUAL.

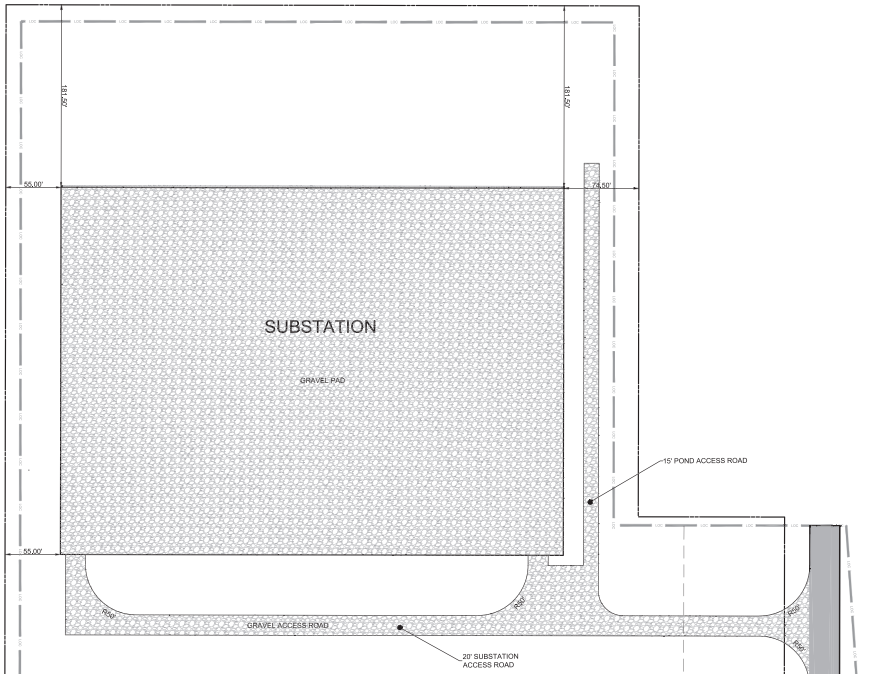
SCALE: 1"=50'
0 50 100 200 ft.

NOTE:

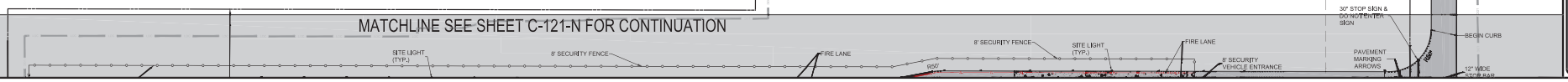
- SEE SHEET C-601-N & C-602-N FOR LANDSCAPE PLANTINGS
- SEE SHEET C-701-N & C-702-N FOR PHOTOMETRIC PLAN

PARKING SCHEDULE:

- 112 REGULAR SPACES
- 7 AMERICANS WITH DISABILITIES ACT (ADA) SPACES
- 8 ELECTRIC VEHICLE CHARGING SPACES



MATCHLINE SEE SHEET C-121-N FOR CONTINUATION



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PROJ. DESIGNER
DATE: JANUARY 29, 2026
PROJ. NO. 06324-1

Bowman

Bowman Consulting Engineering, Land Surveying & Landscape Architecture
Phone: 716-204-4300
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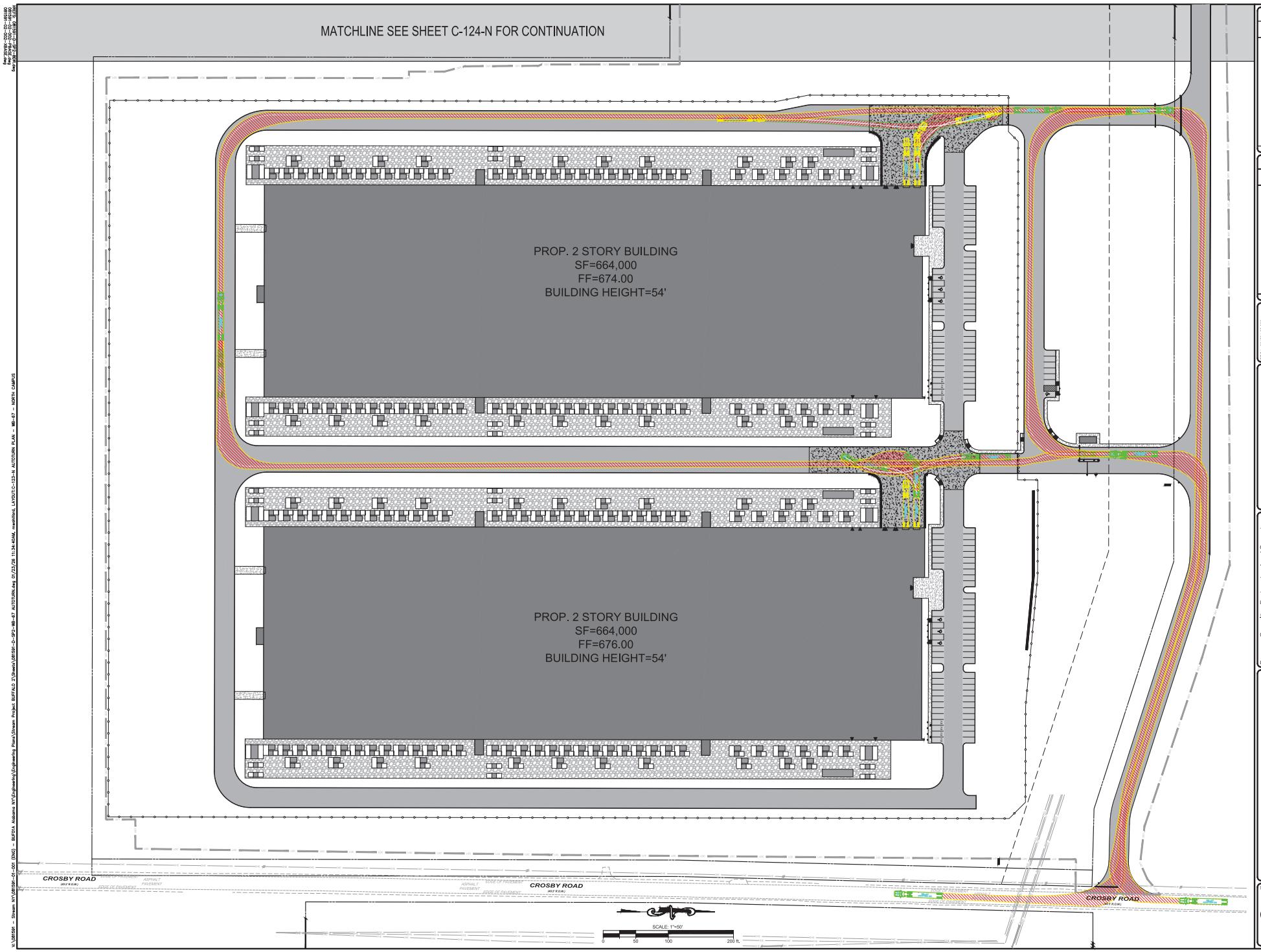
ERIC L. KELLER, N.Y. Professional Engineer No. 082234-1

BUFA - PROJECT DOUBLE REED NORTH CAMPUS
SITE PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-122-N



BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
AUTOTURN PLAN - WB-67 - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

Bowman Consulting Engineering, Land Surveying & Landscape Architecture

ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

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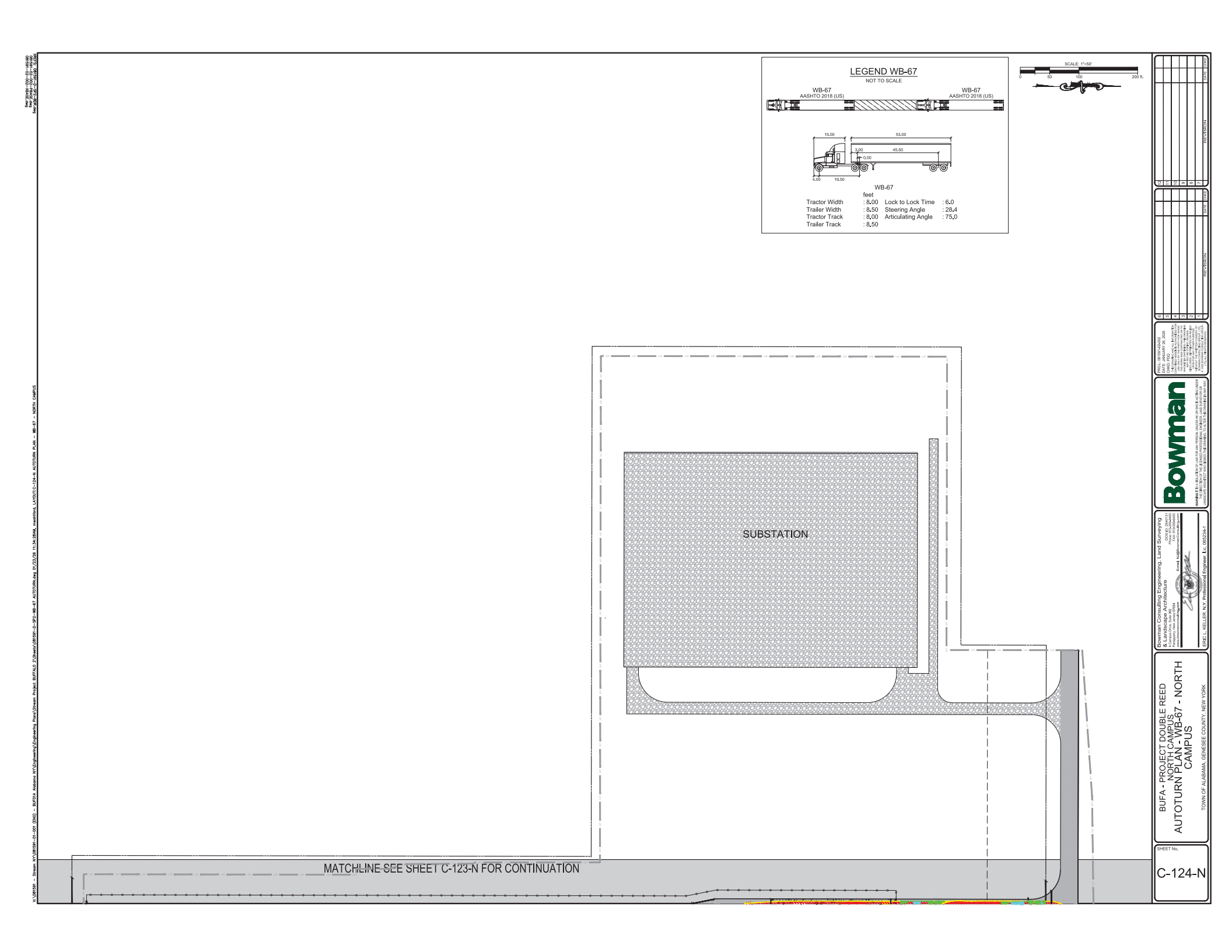
SHEET No.

C-123-N



BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
AUTOTURN PLAN - WB-67 - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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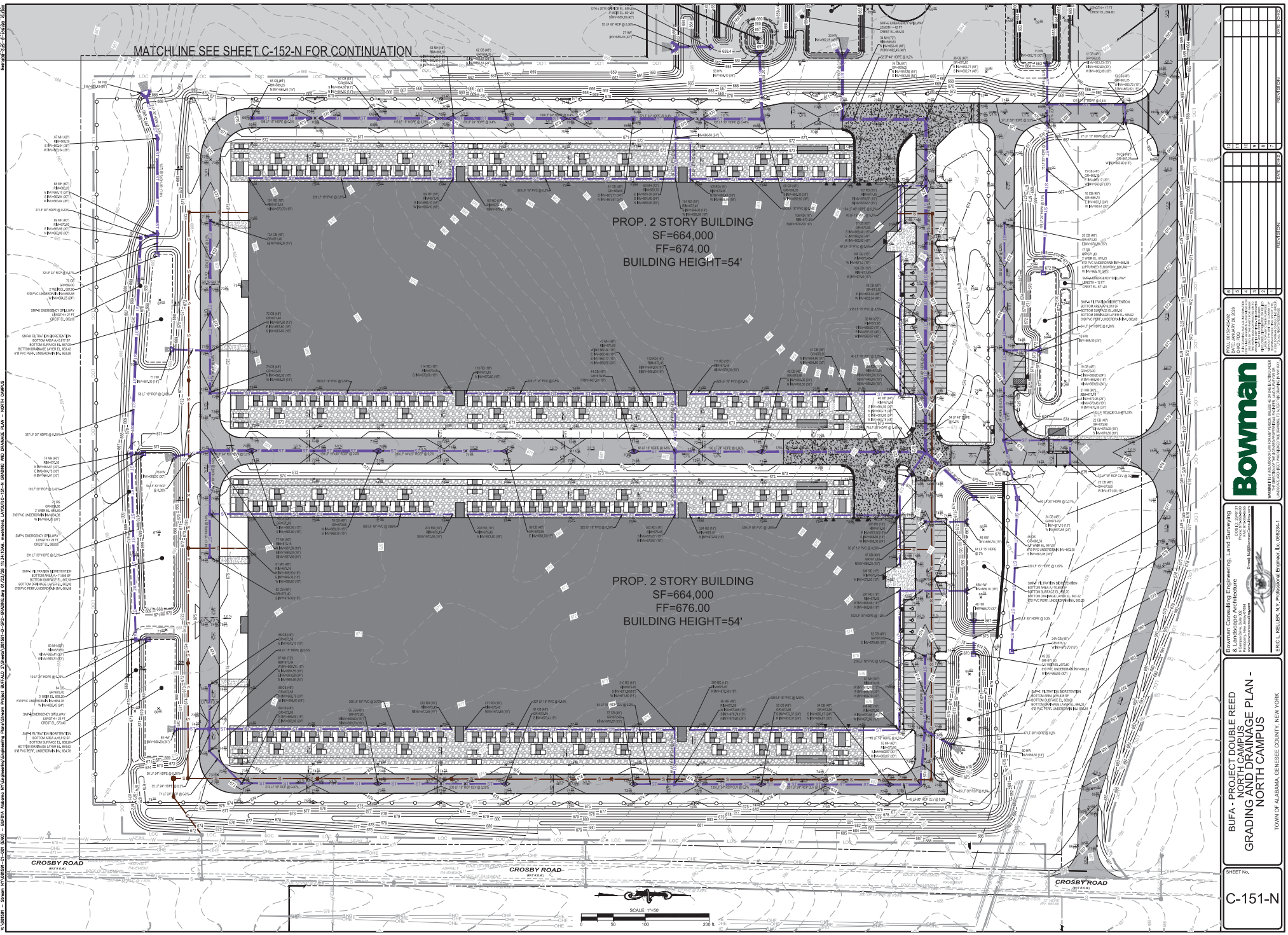

NO.	DATE	REVISION
1	2/6/26	ADDENDUM #1

NO.	DATE	DESCRIPTION
1	2/6/26	ADDENDUM #1

NO.	DATE	REVISION
1	2/6/26	ADDENDUM #1

PROJECT NO. 061543-A0002
DATE: JANUARY 29, 2026

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ERIC L. KELLER, N.Y. Professional Engineer Lic.: 082324-1

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
GRADING AND DRAINAGE PLAN -
NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-151-N

Cut/Fill Report

Generated: 2026-01-21 13:03:20

By user: mwohlford

Drawing: V:\081591 - Stream NY\081591-01-001 (ENG)- BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO 2\V\081591 - Stream NY\081591-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO 2\081591-02-002-PRO SURFACE.dwg

Volume Summary

Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
EARTHWORK	full	1.000	1.000	2475723.49	34230.83	360542.97	326312.14<Fill>

Totals

	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total	2475723.49	34230.83	360542.97	326312.14<Fill>

* Value adjusted by cut or fill factor other than 1.0

SOIL RESTORATION NOTES:

1. Soil Restoration must be applied to all proposed pervious areas (i.e. lawn areas) in accordance with 2024 New York State Stormwater Management Design Manual (2024 Design Manual) Section 5.1.6. Soil restoration includes mechanical decompaction and compost amendment.
2. During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps are applied:
   a. Apply 3 inches of compost over subsoil
   b. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   c. Rock-pick until uplifted stone/rock materials of 4 inch and larger size are cleaned off the site.
   d. Apply topsoil to a depth of 6 inches
   e. Vegetate as required.
3. Tilling (step 2) should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.
4. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half-inch screen and have a pH suitable to grow desired plants. Compost shall be in accordance with 2024 Design Manual Section 5.3.4.3.2.
5. Maintenance of soil restoration areas shall be provided in accordance with 2024 Design Manual Section 5.1.6.

SCALE: 1"=50'

0 50 100 200 ft.

SUBSTATION

MATCHLINE SEE SHEET C-151-N FOR CONTINUATION

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PROJ. NO.081591-02-002
DATE: JANUARY 29, 2026

"I HEREBY CERTIFY THAT THE PLANS, SPECIFICATIONS AND ESTIMATES OF COSTS FOR THE PROJECT DESCRIBED HEREIN HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION AND CONTROL AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK."

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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
GRADING AND DRAINAGE PLAN - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET NO.

C-152-N

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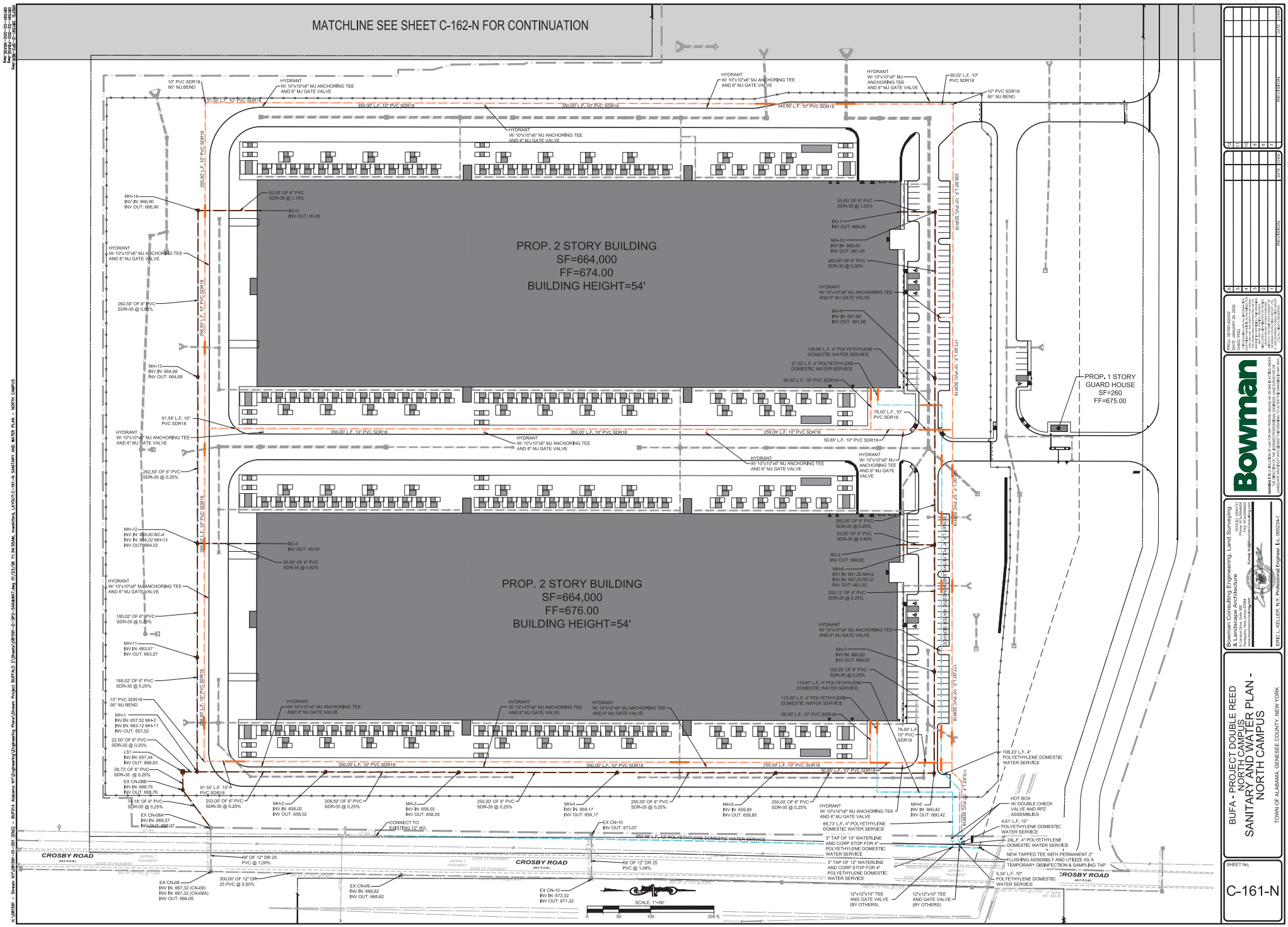

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
SANITARY AND WATER PLAN -
NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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SHEET No.

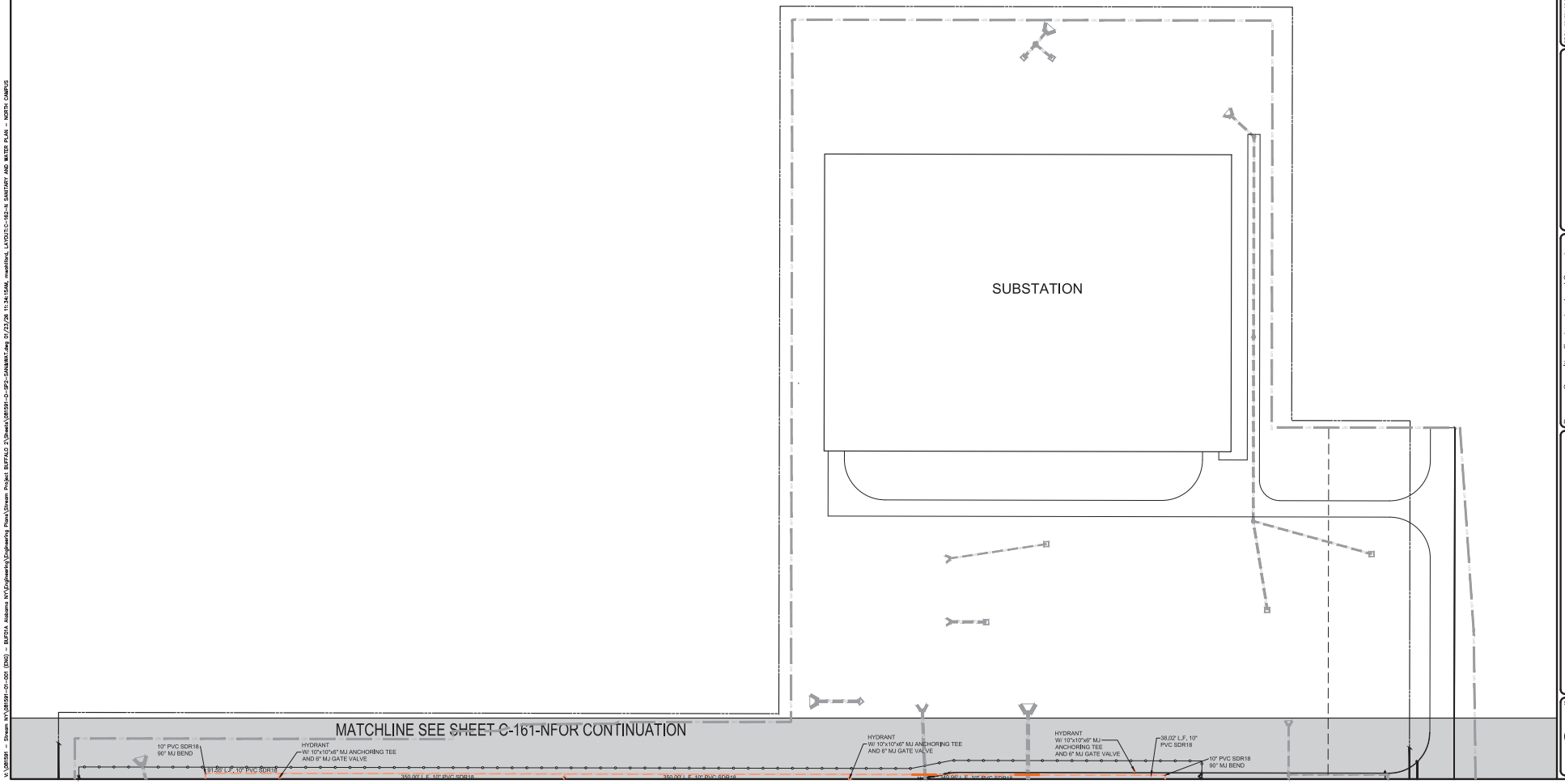
C-161-N

WATERLINE DEFLECTION LOCATION
-REFER TO SHEET XX.XX FOR MINIMUM INVERT ELEVATIONS

SANITARY & WATER NOTES

1. A minimum of 10.0 feet of horizontal and 18 inches of vertical separation must be maintained between all sanitary sewer and water services.
2. Select backfill is required for all utilities (gas, water, storm, sanitary) that cross through any pavement area.
3. The Town of Alabama is to be notified a minimum of 48-hours prior to starting the connection for the new water service.
4. Retaining glands are required on all waterline fittings.
5. Water mains are required to have a minimum of five feet (5') of cover.
6. The Town of Alabama is to be notified a minimum of 48-hours prior to starting the connection for the new sanitary sewer service.

SCALE: 1"=50'
0 50 100 200 ft.



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REGIS. DESIGN GROUP
DATE: JANUARY 29, 2026
PROJECT NO. 0132-0003

Bowman

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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
SANITARY AND WATER PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-162-N

Date/Time: Jan 29, 2026 - 11:34:15AM
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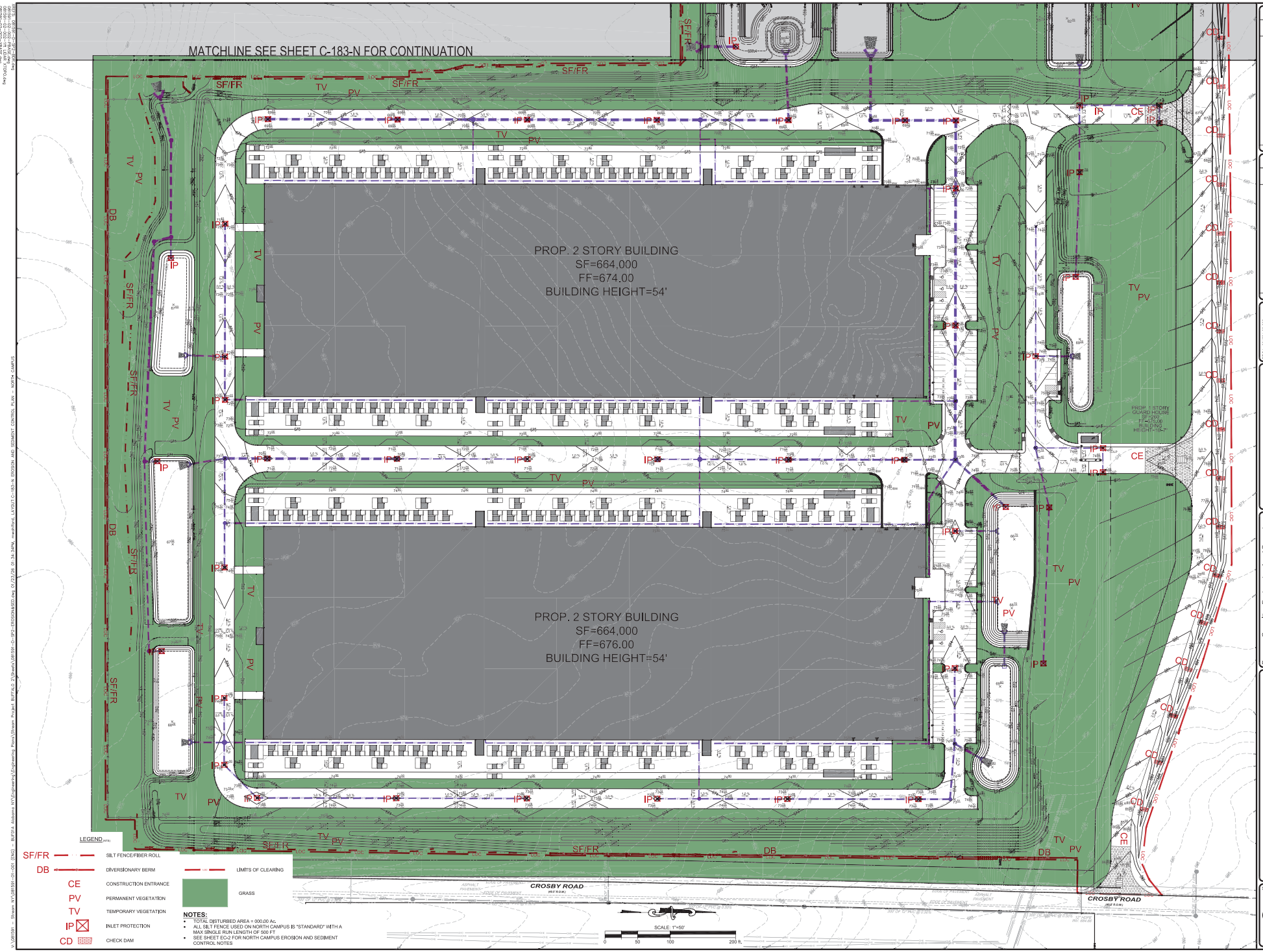
\\V081591 - Stream NY\V081591-01-001 (ENG) - BUFFA Alabama NY\Engineering\Plans\Stream Project BUFFALO 2\Sheets\V081591-C-SP2-SANWAT.dwg 01/23/26 11:34:15AM mwellman, LAYOUT:C-162-N SANITARY AND WATER PLAN - NORTH CAMPUS



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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
EROSION AND SEDIMENT CONTROL
PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-183-N

EROSION CONTROL NOTES

1. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP AND THAT CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER OR AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
2. PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL TIMES.
3. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
4. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
5. ALL WASH WATER SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
6. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
7. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
8. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
9. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY STOPPED SHALL BE TEMPORARILY SEEDED. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED.
11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE SODDED/LANDSCAPED PER PLANS. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
13. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
15. ON-SITE AND OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION.
18. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
19. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THESE PLANS SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR COMPLETED PHASE OF WORK OF FINAL STABILIZATION OF THE SITE SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF DETERIORATION.
2. ALL SEEDED/SODDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED, WATERED AND REPAIRED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE.
4. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT FROM THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE EXIT AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN A GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE AREA AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS, ANY DEBRIS AND/OR SEDIMENT LEAVING THE SITE SHALL BE CLEANED IMMEDIATELY.
7. ALL INLETS AND STORM DRAINS SHALL BE KEPT CLEAN OF DEBRIS AND SEDIMENT. ANY DEBRIS AND/OR SEDIMENT THAT ENTERS ANY INLET OR STORM DRAIN SHALL BE CLEANED IMMEDIATELY. FLUSHING SHALL NOT BE USED TO CLEAN DEBRIS AND/OR SEDIMENT FROM STORM DRAINS.

CONSTRUCTION SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE TOWN TO DISCUSS EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION PHASING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
3. INSTALL CONSTRUCTION FENCES.
4. PREPARE TEMPORARY PARKING AND STORAGE AREAS.
5. INSTALL INLET PROTECTION, SILT DIKES, AND SILT FENCE ON THE SITE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
6. DEMO EXISTING STRUCTURES, PAVEMENT, AND SPECIFIED UTILITIES.
7. BEGIN GRADING THE SITE.
8. BEGIN CONSTRUCTION OF UTILITIES.
9. BEGIN SUBGRADE PREPARATION AND CONSTRUCTION OF STRUCTURES.
10. BEGIN INSTALLATION OF CURB, GUTTER, AND PAVING.
11. COMPLETE PERMANENT STABILIZATION ON AREAS WHERE CONSTRUCTION HAS COMPLETED.
12. COMPLETE FINAL GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
13. OBTAIN CONCURRENCE FROM THE OWNER AND THE TOWN THAT THE SITE HAS BEEN FULLY STABILIZED.
14. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
15. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE GENERAL CONTRACTOR ON THESE PLANS.

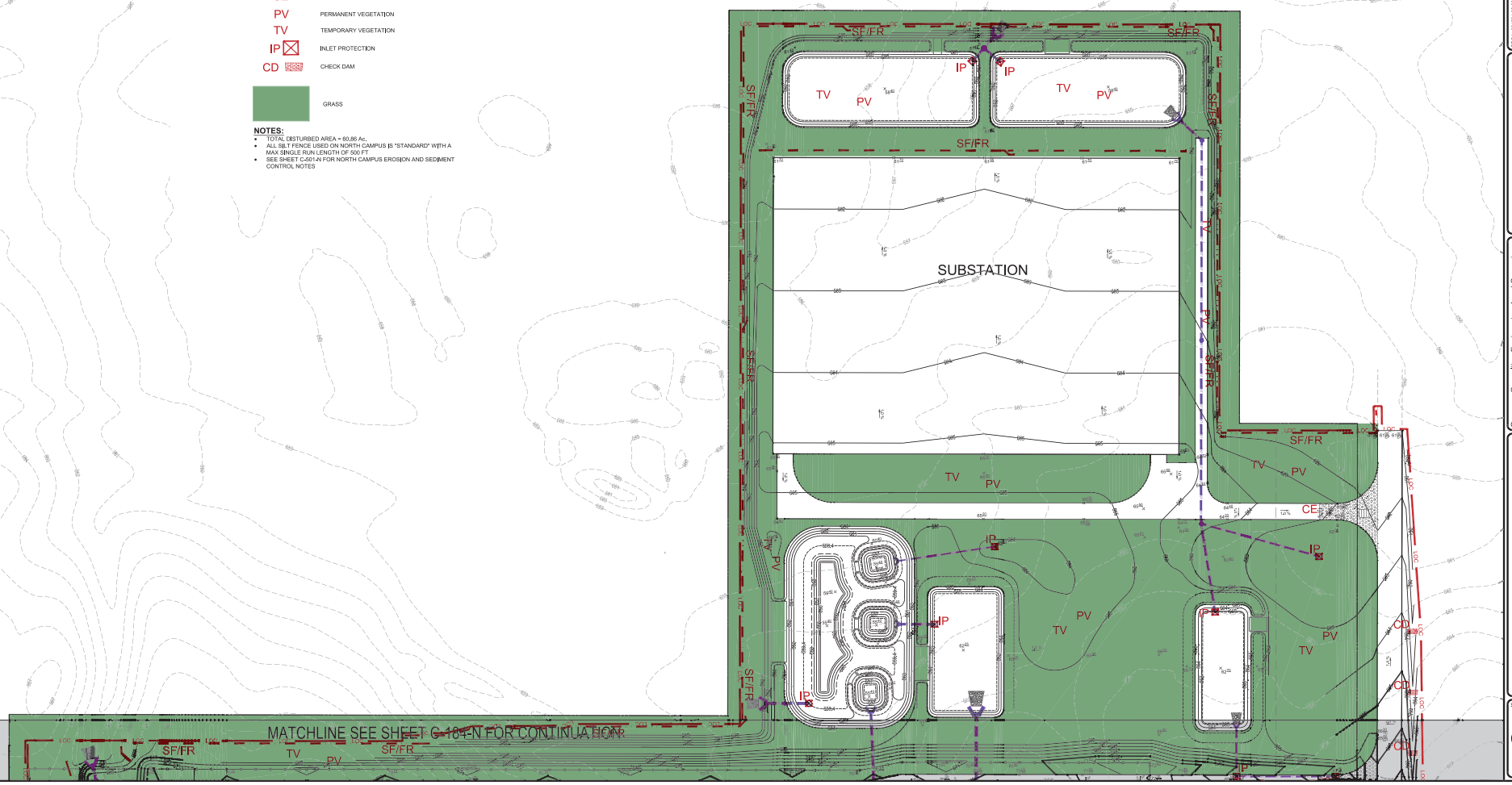
CONSTRUCTION ENTRANCES SHOWN ON PLANS ARE ALL LOCATIONS NEEDED THROUGHOUT ENTIRETY OF PROJECT. DUE TO PHASED NATURE OF CONSTRUCTION NOT ALL CONSTRUCTION ENTRANCES WILL BE PRESENT AT ALL TIMES.

SCALE: 1"=50'
0 50 100 200 ft.

LEGEND NTS

LOC	LIMITS OF CLEARING
SF/FR	SILT FENCE/FIBER ROLL
DB	DIVERSIONARY BERM
CE	CONSTRUCTION ENTRANCE
PV	PERMANENT VEGETATION
TV	TEMPORARY VEGETATION
IP	INLET PROTECTION
CD	CHECK DAM
	GRASS

NOTES:
- TOTAL DISTURBED AREA = 60.86 Ac.
- ALL SILT FENCE USED ON NORTH CAMPUS IS "STANDARD" WITH A MAX SINGLE RUN LENGTH OF 500 FT
- SEE SHEET C-501-N FOR NORTH CAMPUS EROSION AND SEDIMENT CONTROL NOTES



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PROJ. 081543.0002
DATE: JANUARY 29, 2026
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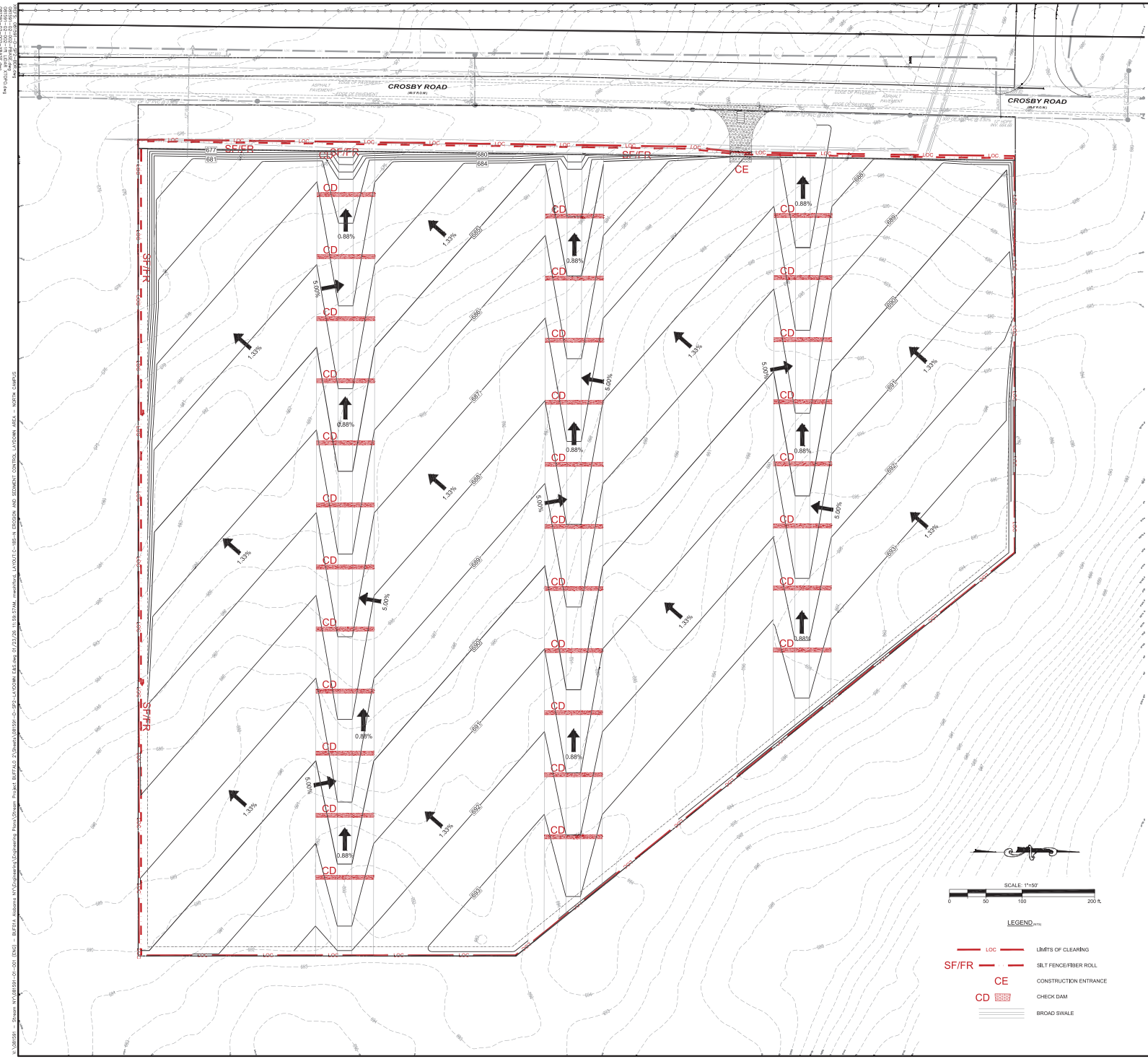
ERIC L. KELLER, N.Y. Professional Engineer No. 085234-1

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
EROSION AND SEDIMENT CONTROL
PLAN - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-184-N



EROSION CONTROL NOTES

1. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP AND THAT CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER OR AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
2. PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL TIMES.
3. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
4. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
5. ALL WASH WATER SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
6. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
7. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
8. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
9. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY STOPPED SHALL BE TEMPORARILY SEEDED. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED.
11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE SODDED/LANDSCAPED PER PLANS. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
13. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
15. ON-SITE AND OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION.
18. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
19. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THESE PLANS SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR COMPLETED PHASE OF WORK OF FINAL STABILIZATION OF THE SITE SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. CHECK DAMS WILL BE REGULARLY INSPECTED FOR SIGNS OF DAMAGE AND EXCESS SEDIMENT ACCUMULATION. DAMS WILL BE REPAIRED/REPLACED IF DAMAGE IS NOTED. SEDIMENT WILL BE REMOVED WHEN IT REACHED HALF THE HEIGHT OF THE CHECK.
2. ALL SEEDED/SODDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED, WATERED AND REPAIRED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE.
4. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT FROM THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE EXIT AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN A GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE AREA AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT LEAVING THE SITE SHALL BE CLEANED IMMEDIATELY.
7. ALL INLETS AND STORM DRAINS SHALL BE KEPT CLEAN OF DEBRIS AND SEDIMENT. ANY DEBRIS AND/OR SEDIMENT THAT ENTERS ANY INLET OR STORM DRAIN SHALL BE CLEANED IMMEDIATELY. FLUSHING SHALL NOT BE USED TO CLEAN DEBRIS AND/OR SEDIMENT FROM STORM DRAINS.

CONSTRUCTION SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE TOWN TO DISCUSS EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION PHASING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
3. INSTALL CONSTRUCTION FENCES.
4. PREPARE TEMPORARY PARKING AND STORAGE AREAS.
5. INSTALL SILT FENCE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
6. BEGIN GRADING THE SITE.
7. BEGIN STABILIZE SITE WITH COMPACTED GRAVEL.
8. INSTALL CHECK DAMS INTO DRY SWALES AT SPACING SHOWN ON PLANS
9. INSTALL SILT FENCE AROUND ANY ERODIBLE MATERIAL STOCKPILES THAT ARE LOCATED IN LAYDOWN AREA DURING THE DURATION OF CONSTRUCTION.
10. FOLLOWING CONSTRUCTION ACTIVITES STONE SHALL BE REMOVED AND SOIL RESTORATION PERFORMED IN ACCORDANCE WITH nysdec STANDARDS.
11. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
12. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE GENERAL CONTRACTOR ON THESE PLANS.

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NO.	DATE	REVISION

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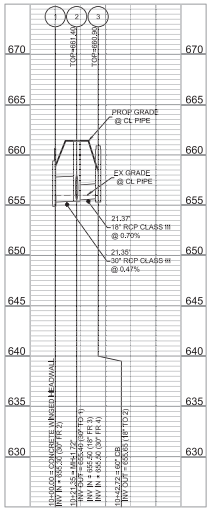
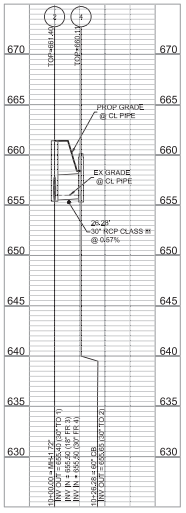
FIELD REVIEW: 4/2022
DATE: JANUARY 29, 2026
CAD: JMH
DES: JMH
CHK: ELK
APP: ELK

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
EROSION AND SEDIMENT CONTROL
LAYDOWN AREA - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-185-N



1 TO 3 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



2 TO 4 PROFILE VIEW
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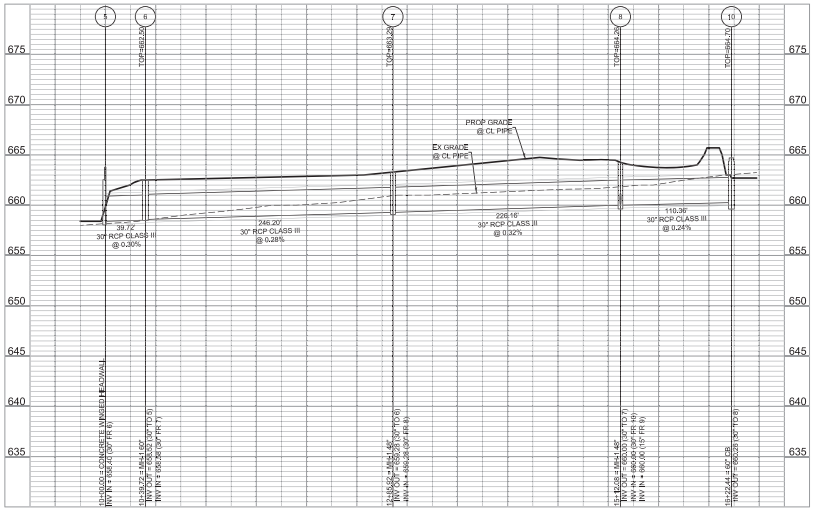
VERTICAL SCALE: 1"=5'



5 TO 10 PROFILE VIEW
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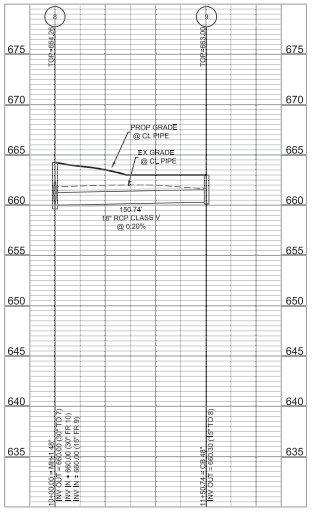

8 TO 9 PROFILE VIEW
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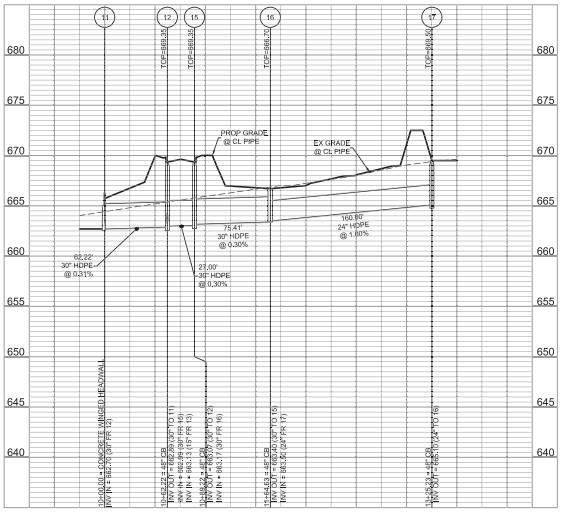
VERTICAL SCALE: 1"=5'



11 TO 17 PROFILE VIEW
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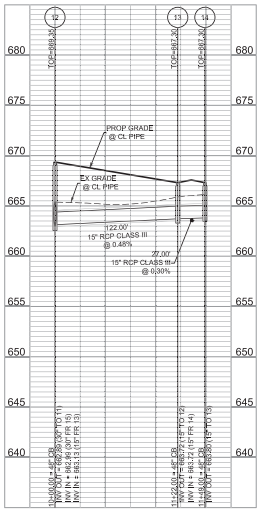

12 TO 14 PROFILE VIEW
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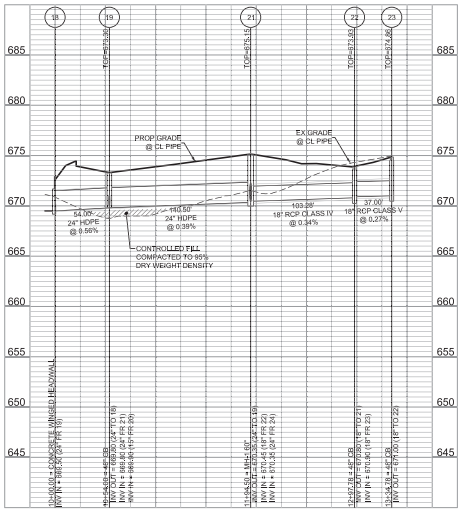

18 TO 23 PROFILE VIEW
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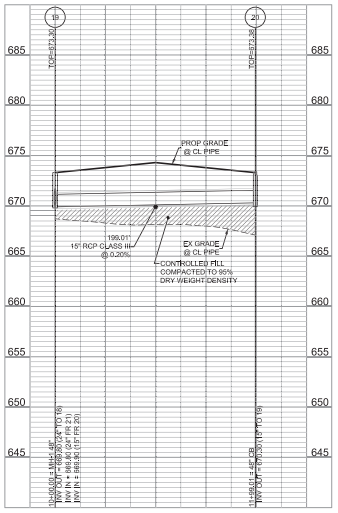

19 TO 20 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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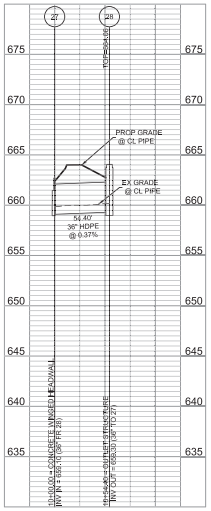
BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
STORM PROFILES - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-301-N



27 TO 28 PROFILE VIEW
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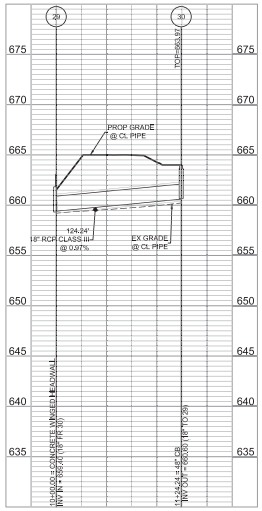

29 TO 30 PROFILE VIEW
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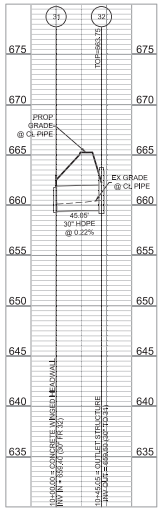

31 TO 32 PROFILE VIEW
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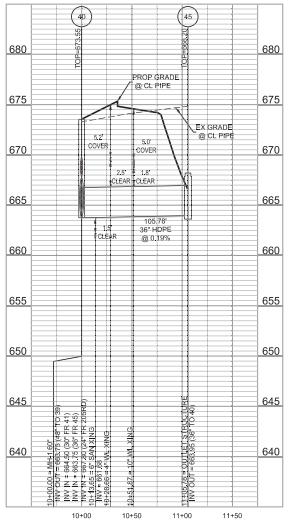
VERTICAL SCALE: 1"=5'



40 TO 45 PROFILE VIEW
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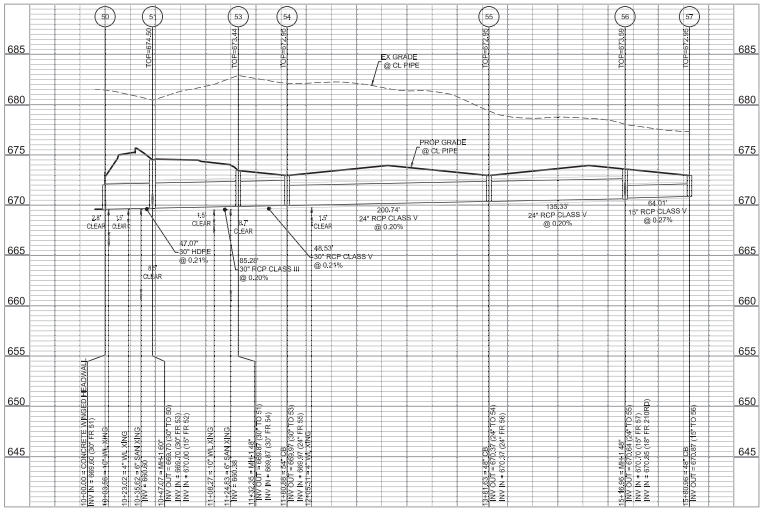

50 TO 57 PROFILE VIEW
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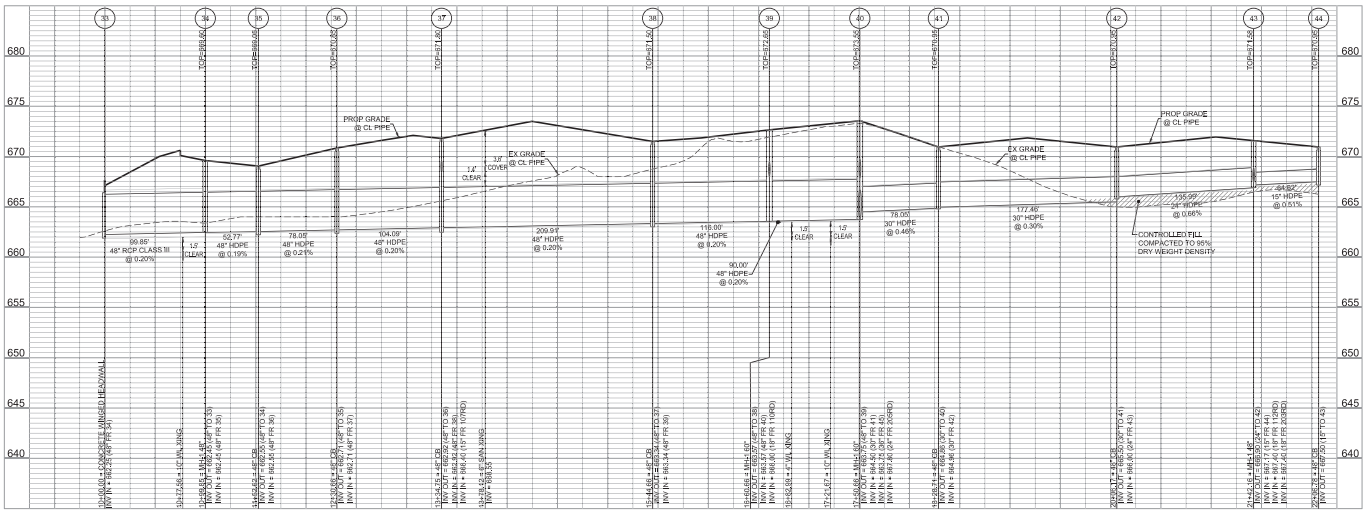

33 TO 44 PROFILE VIEW
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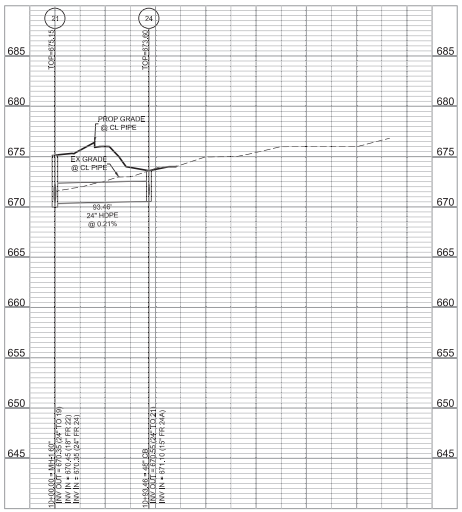

21 TO 24 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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FEES, DESIGN ADVISOR
DATE: JANUARY 29, 2026
SCALE: AS SHOWN

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STORM PROFILES - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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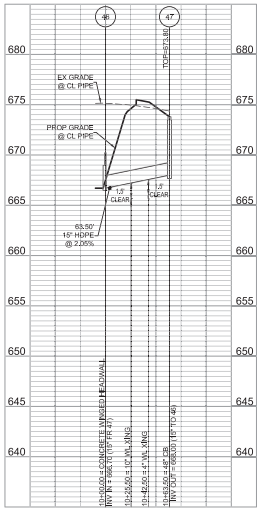

46 TO 47 PROFILE VIEW
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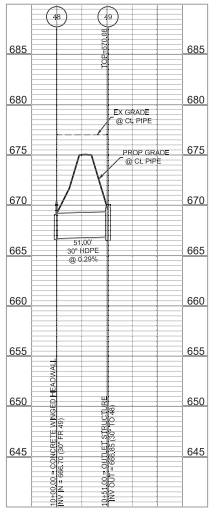

48 TO 49 PROFILE VIEW
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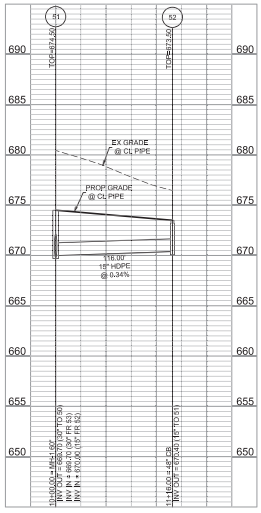

51 TO 52 PROFILE VIEW
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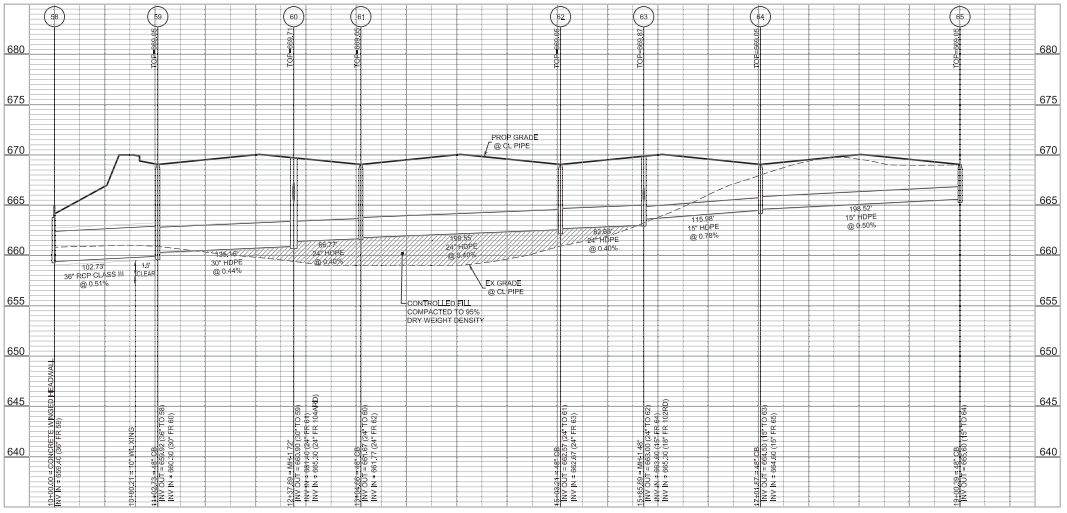

58 TO 65 PROFILE VIEW
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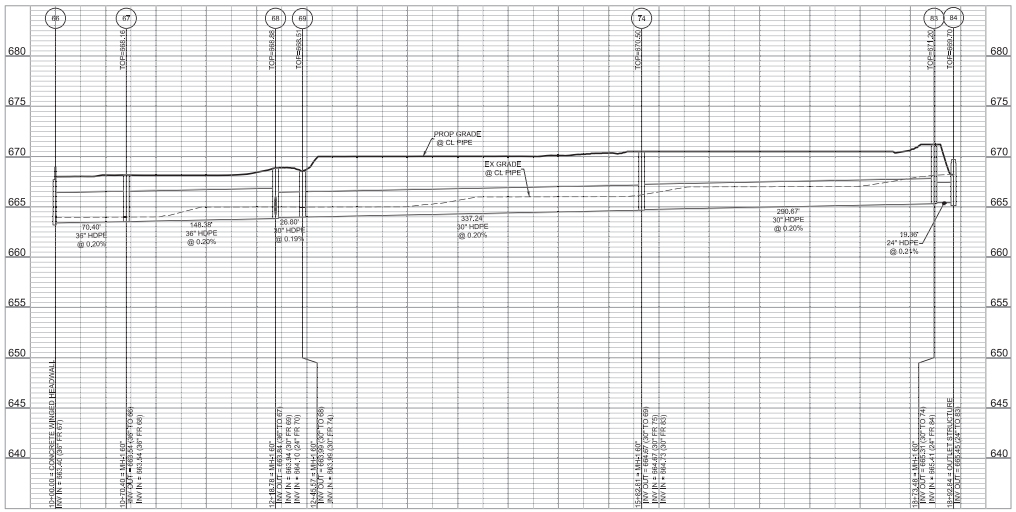
VERTICAL SCALE: 1"=5'



66 TO 84 PROFILE VIEW
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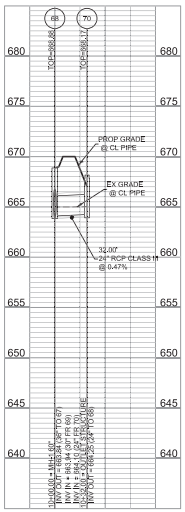

68 TO 70 PROFILE VIEW
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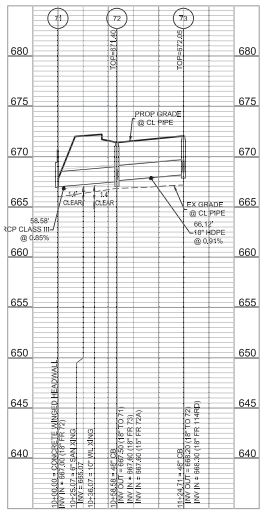
VERTICAL SCALE: 1"=5'



71 TO 73 PROFILE VIEW
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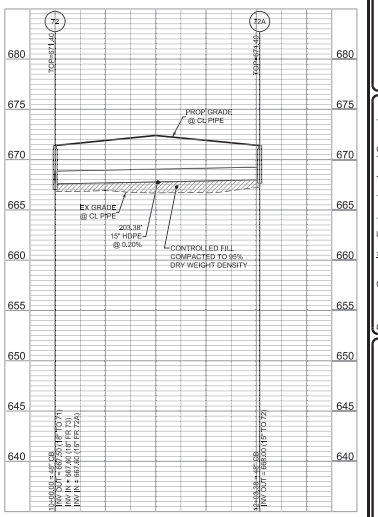
VERTICAL SCALE: 1"=5'



72 TO 72A PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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PROJ. NO. 065-A0002
DATE: JANUARY 29, 2026
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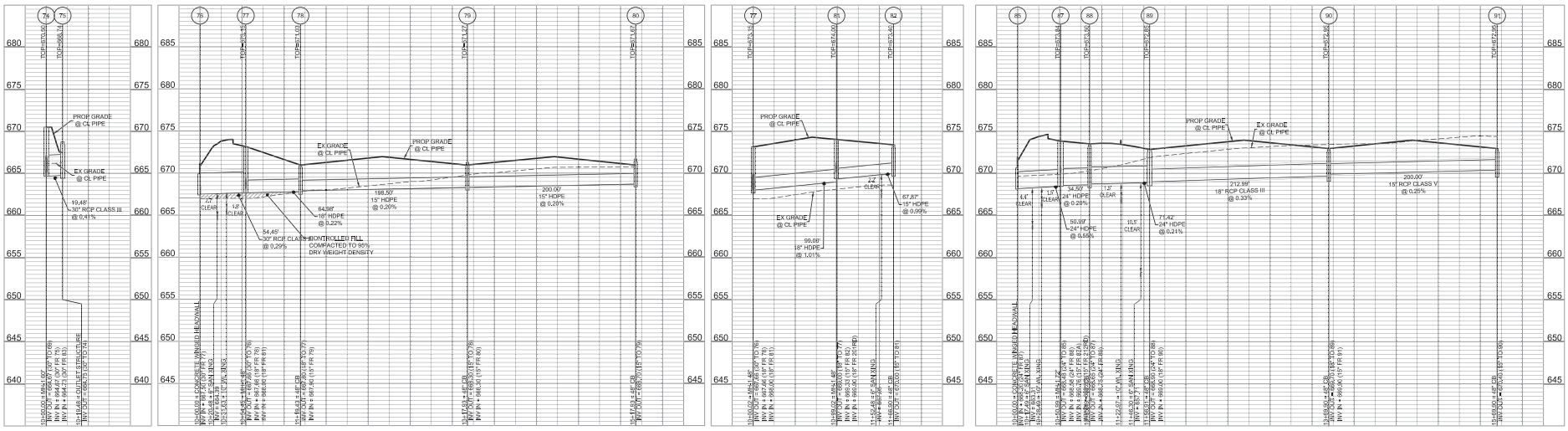
BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
STORM PROFILES - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-303-N

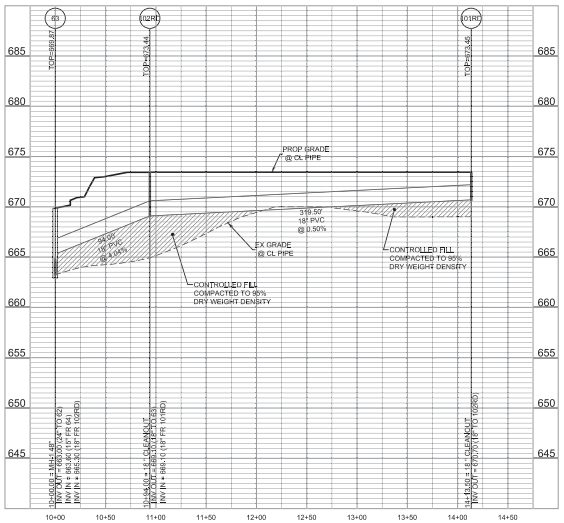


74 to 75 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

76 TO 80 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

77 TO 82 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

85 TO 91 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



63 TO RD101 PROFILE VIEW
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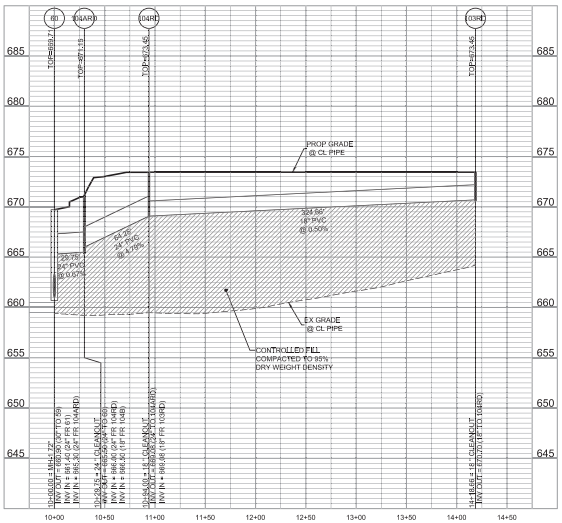

60 TO RD103 PROFILE VIEW
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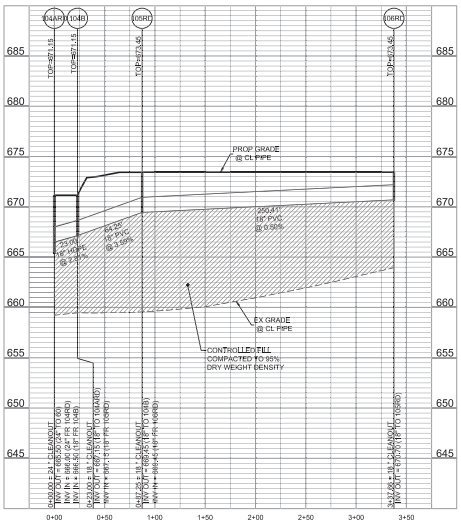

RD104A TO RD106 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
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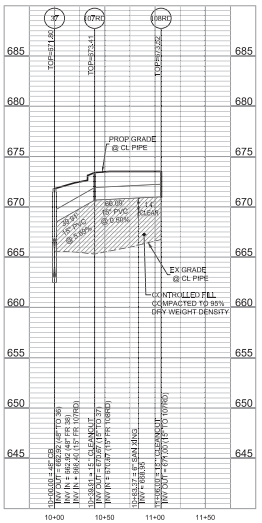

37 TO RD108 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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NO.	REVISION	DATE	CHKD

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SCALE: AS NOTED

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ERIC L. KELLER, N.Y. Professional Engineer No. 092234-1

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
STORM PROFILES - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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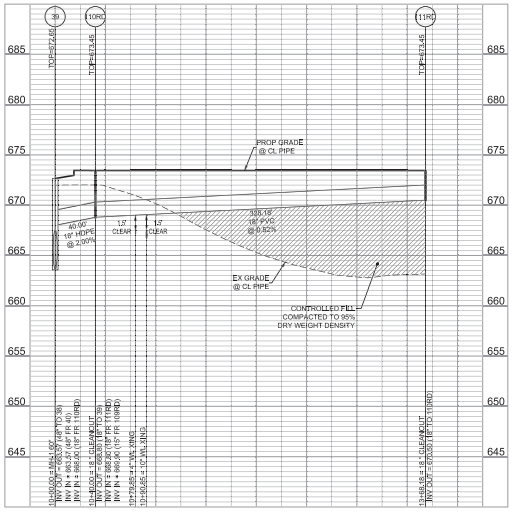

39 TO RD111 PROFILE VIEW
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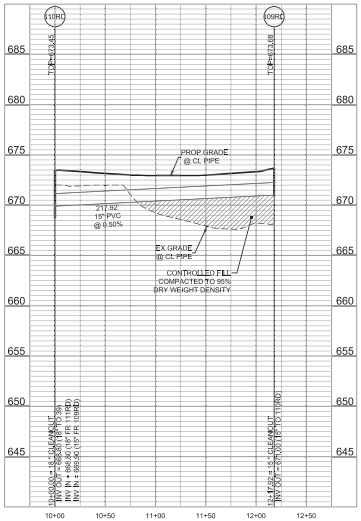
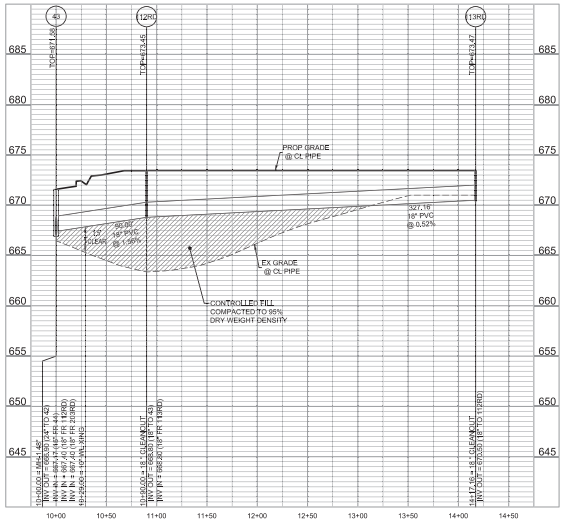
VERTICAL SCALE: 1"=5'



RD110 TO RD109 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



43 TO RD113 PROFILE VIEW
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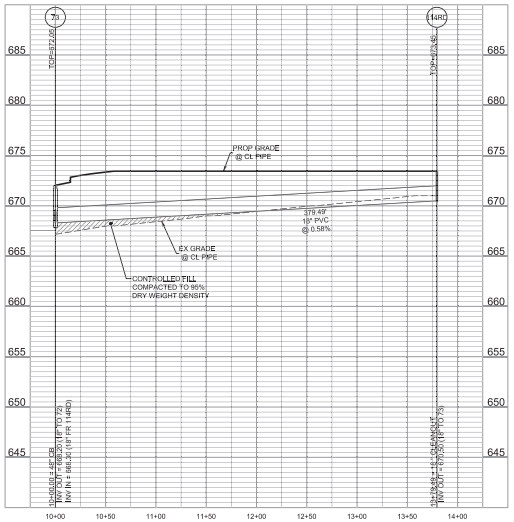

73 TO RD114 PROFILE VIEW
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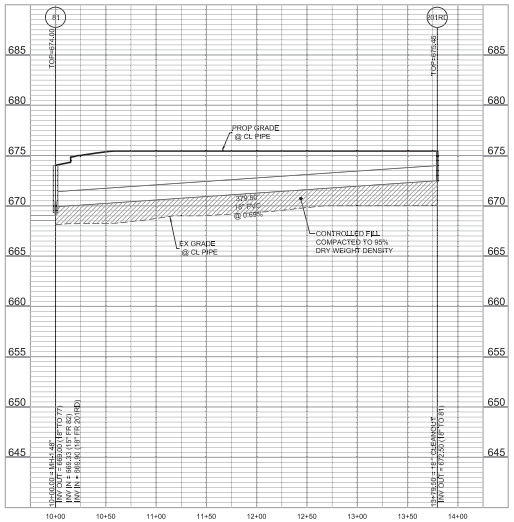

81 TO RD201 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
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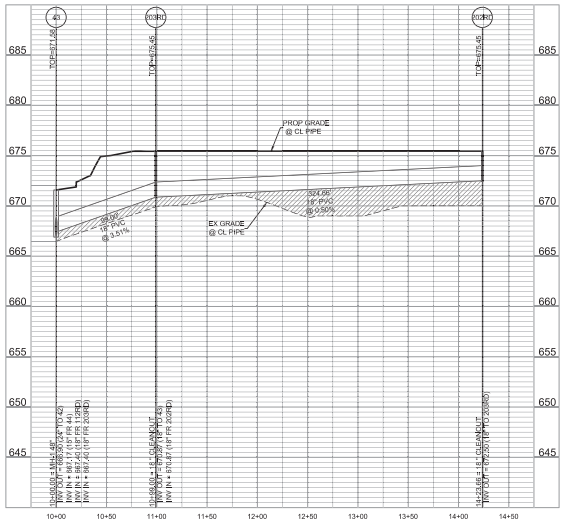

43 TO RD202 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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PROJ. 081591-02-002
DATE: JANUARY 28, 2026
CHKD: PRO
FILE NAME: BUFA-PROFILES-NORTH CAMPUS
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STORM PROFILES - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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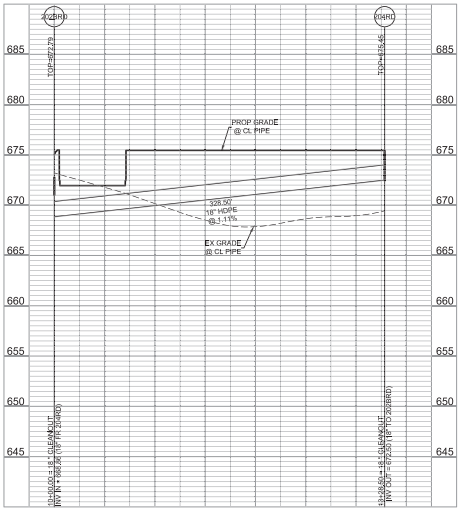
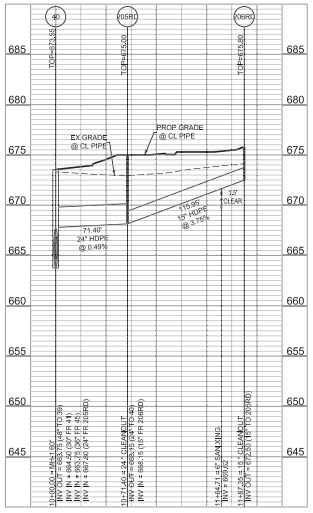


RD203A TO RD204A PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



40 TO RD206 PROFILE VIEW
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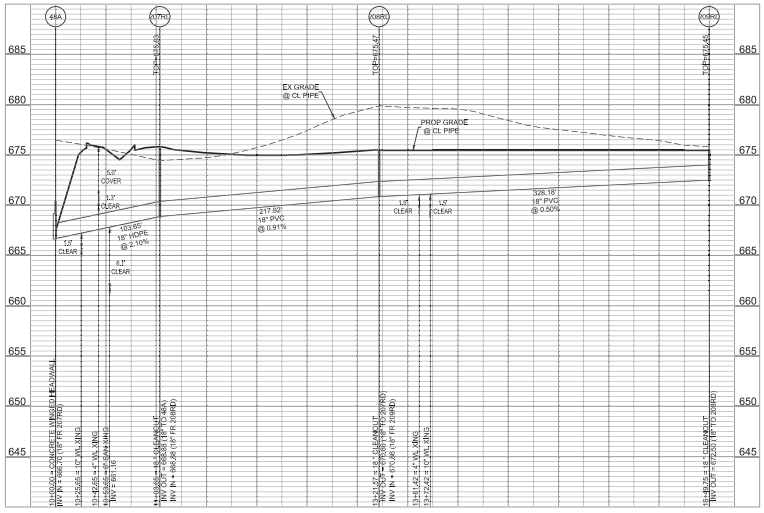
VERTICAL SCALE: 1"=5'



48A TO RD209 PROFILE VIEW
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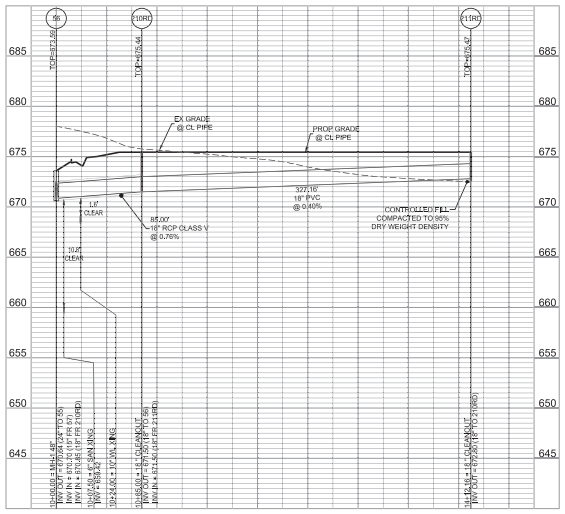

56 TO RD211 PROFILE VIEW
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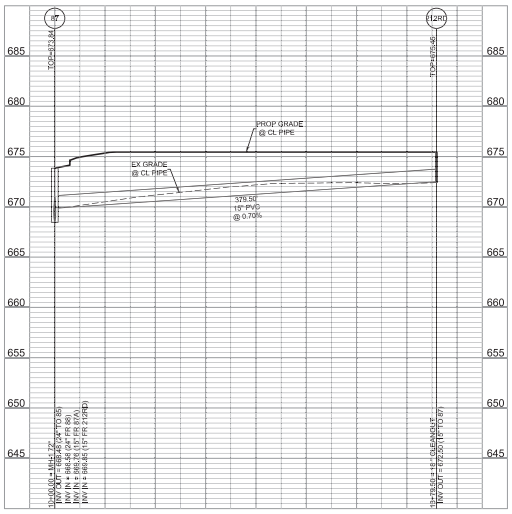
VERTICAL SCALE: 1"=5'



87 TO RD212 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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ERIC L. KELLER, N.Y. Professional Engineer No. 085234

BUFA - PROJECT DOUBLE REED
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STORM PROFILES - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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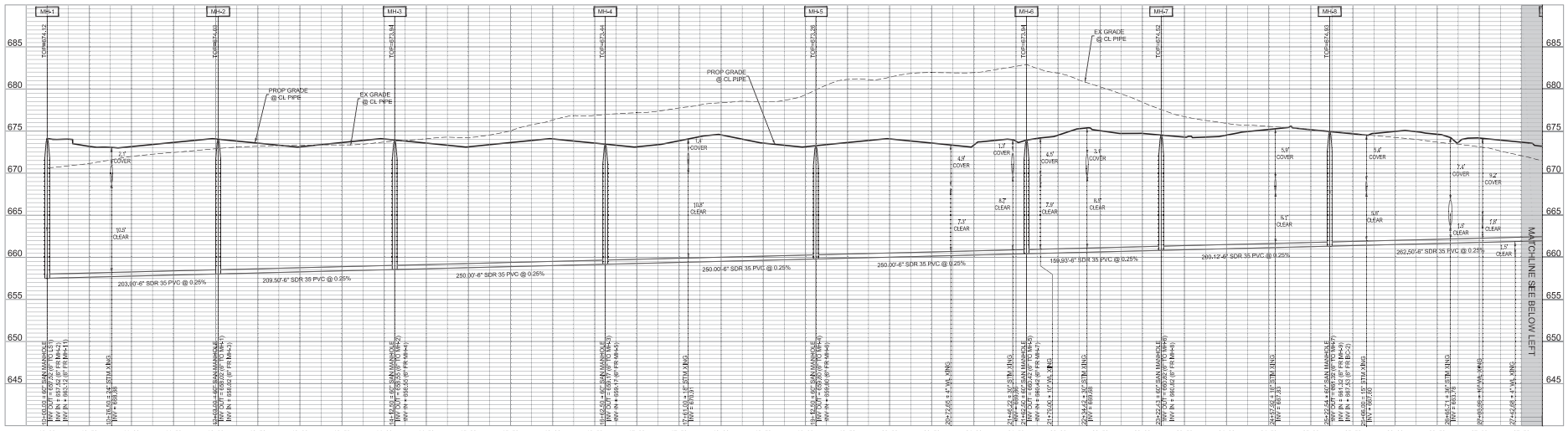
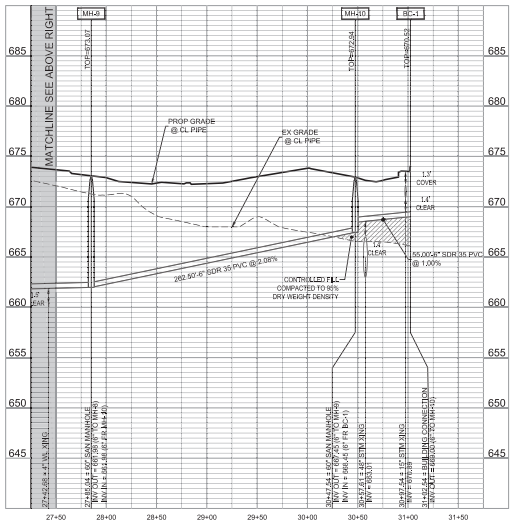


MH 1 TO BLDG CONNECTION 1 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



MH 1 TO BLDG CONNECTION 1 PROFILE VIEW
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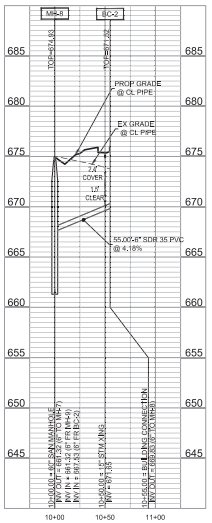
VERTICAL SCALE: 1"=5'



MH 08 TO BLDG CONNECTION 2 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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PROJ. NO. 061324.0002
DATE: JANUARY 29, 2026
DESIGNED - MJH
DRAWN - MJH
CHECKED - ELK
APPROVED - ELK

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ERIC L. KELLER, N.Y. Professional Engineer No. 082234-1

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SANITARY PROFILES - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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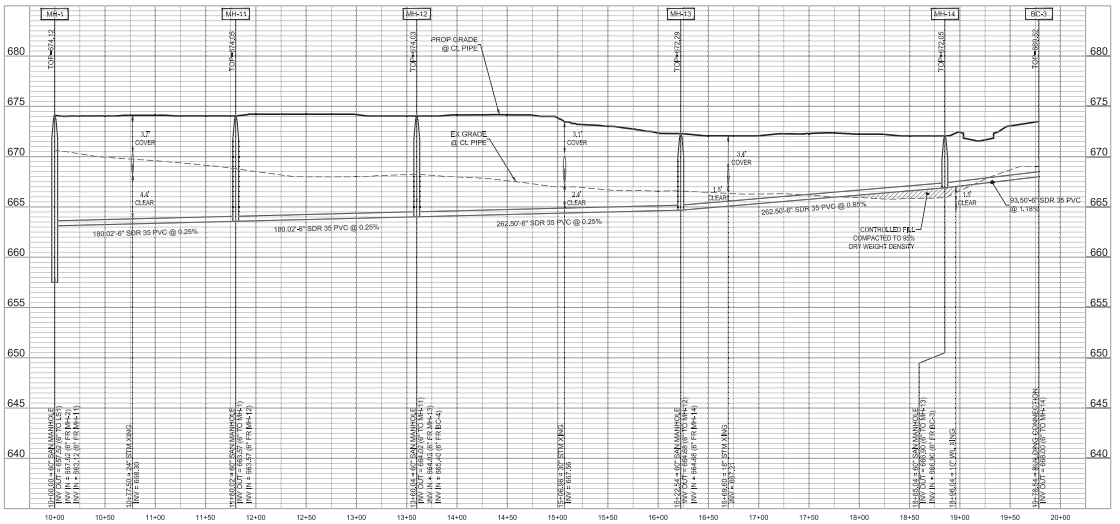
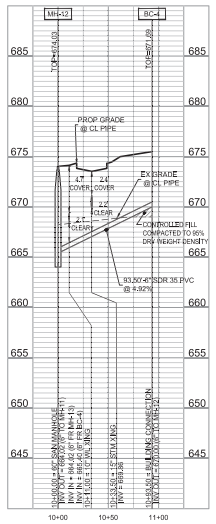


MH 1 TO BLDG CONNECTION 3 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



MH 12 TO BLDG CONNECTION 4 PROFILE VIEW
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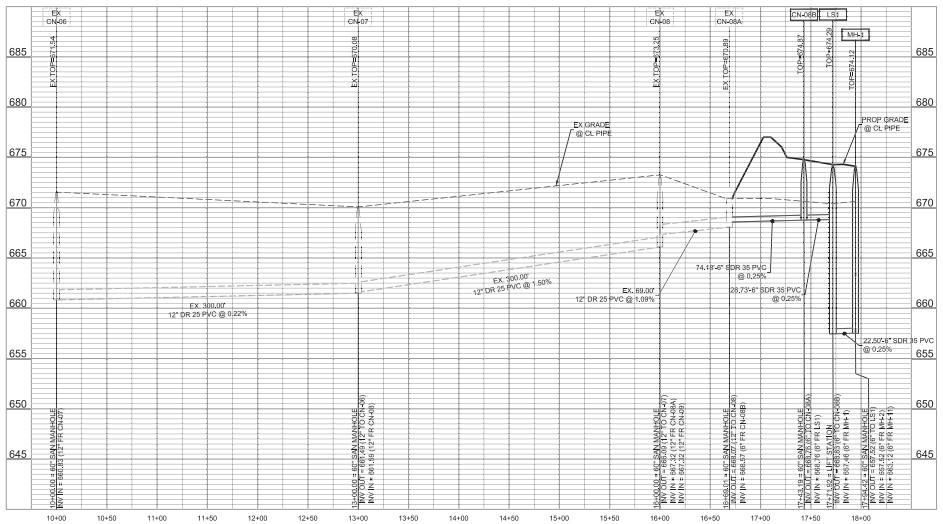
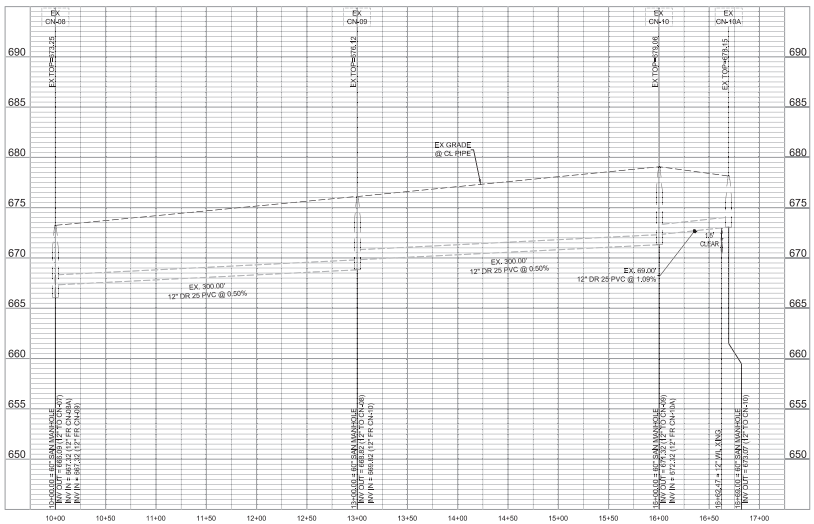
VERTICAL SCALE: 1"=5'



EX. CN-06 TO MH-1 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



EX. CN-08 TO EX. CN-10A PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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ERIC L. KELLER, N.Y. Professional Engineer No. 085234-1

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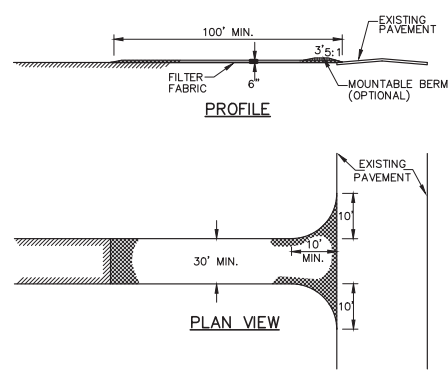
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

C-312-N

XREFS: 081591-D-SP2-BDR.dwg

V:\081591 - Stream NY\081591-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO 2\Sheets\081591-D-SP2-DETAILS-SITE.dwg 01/23/26 11:34:55AM, mwohlford, LAYOUT:C-501-N DETAILS - NORTH CAMPUS

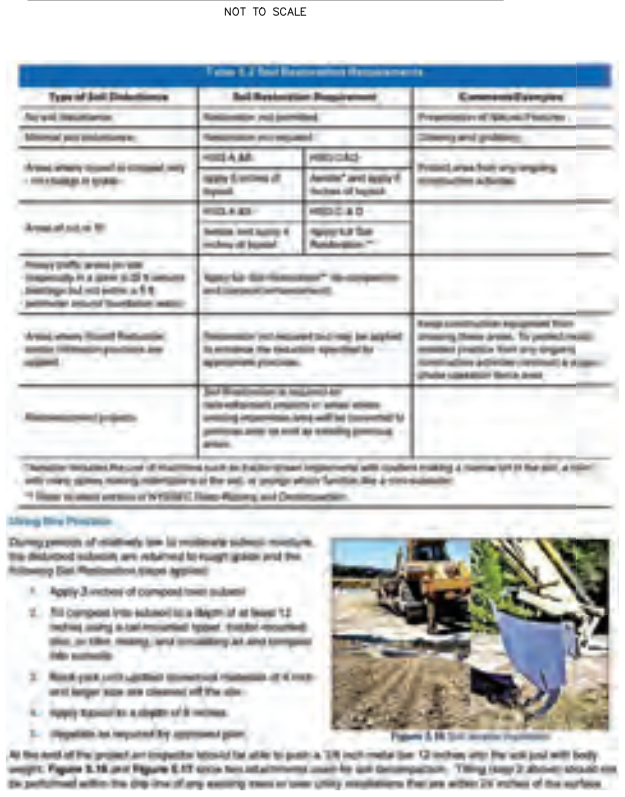


CONSTRUCTION ENTRANCE NOTES

1. SURFACE SHALL BE 2" CRUSHED STONE OR RECLAIMED/RECYCLED CONCRETE.
2. THE MINIMUM LENGTH SHALL BE 100 FEET (30' FOR A SINGLE RESIDENCE LOT).
3. THE TRACKING PAD SHALL BE A MINIMUM OF 6" DEEP STONE.
4. THE MINIMUM WIDTH SHALL BE 30 FEET (12' FOR A SINGLE RESIDENCE LOT).
5. A FILTER FABRIC SHALL BE PLACED UNDER THE ENTRANCE PRIOR TO PLACEMENT OF THE STONE (CONTECH C-40NW OR EQUAL).
6. SURFACE WATER SHALL BE DIVERTED AWAY FROM THE CONSTRUCTION ENTRANCE THROUGH THE USE OF DIVERSION SWALES AND PIPING. IF PIPING IS IS NOT FEASIBLE, THEN A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE USED.
7. THE STABILIZED CONSTRUCTION ENTRANCE SURFACE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD OR SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. PERIODIC TOP DRESSING WITH ADDITIONAL STONE WILL BE NEEDED AS CONDITIONS DEMAND. REPAIR AND CLEAN ALL MEASURES USED TO TRAP SEDIMENT. ANY SEDIMENT THAT IS TRANSPORTED ON TO THE PUBLIC RIGHT OF WAY (IN ANY MANNER) MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

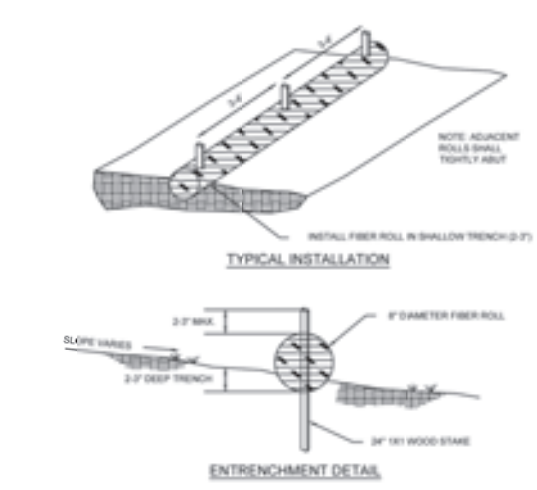


Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]		[illegible]
[illegible]	HSG A &B	HSG C&D	[illegible]
	[illegible]	[illegible]	
[illegible]	HSG A &B	HSG C & D	
	[illegible]	[illegible]	
[illegible]	[illegible]		
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]		

SOIL RESTORATION NOTES:
1. SOIL RESTORATION IS REQUIRED AND SHALL BE APPLIED ACROSS ALL DISTURBED AREAS WHERE SOILS HAVE BEEN COMPACTED AND WILL BE VEGETATED, IN ACCORDANCE WITH TABLE 5.2.
2. COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NOT VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A pH SUITABLE TO GROW DESIRED PLANTS.
3. FIRST YEAR MAINTENANCE OPERATIONS INCLUDES:
   - INITIAL INSPECTIONS FOR THE FIRST SIX MONTHS (ONCE AFTER EACH STORM GREATER THAN A HALF INCH)
   - RESEEDING TO REPAIR BARE OR ERODING AREAS TO ASSURE GRASS STABILIZATION
   - WATER ONCE EVERY THREE DAYS FOR THE FIRST MONTH, AND THEN PROVIDE A HALF INCH OF WATER PER WEEK DURING THE FIRST YEAR. IRRIGATION PLAN MAY BE ADJUSTED ACCORDING TO THE RAIN EVENT.
   - FERTILIZATION MAY BE NEEDED IN THE FALL AFTER THE FIRST GROWING SEASON TO INCREASE PLANT VIGOR
   - ONGOING MAINTENANCE:
     -TWO POINTS HELP ENSURE LASTING RESULTS OF DECOMPACTION:
     1) PLANTING THE APPROPRIATE GROUND COVER WITH DEEP ROOTS TO MAINTAIN THE SOIL STRUCTURE
     2) KEEPING THE SITE FREE OF VEHICULAR AND FOOT TRAFFIC OR OTHER WEIGHT LOADS. CONSIDER PEDESTRIAN FOOTPATHS. (SOMETIMES IT MAY BE NECESSARY TO DE-THATCH THE TURF EVERY FEW YEARS)

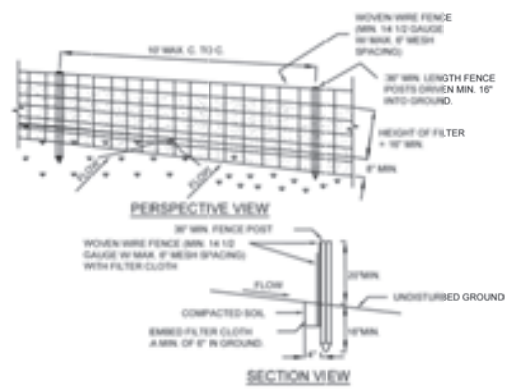
SOIL RESTORATION REQUIREMENTS

NOT TO SCALE



TYPICAL FIBER ROLL INSTALLATION

N.T.S.



SILT FENCE DETAIL

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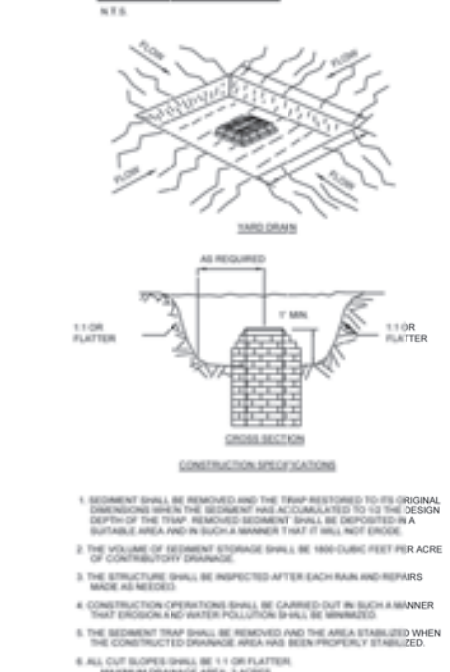

EXCAVATED INLET PROTECTION

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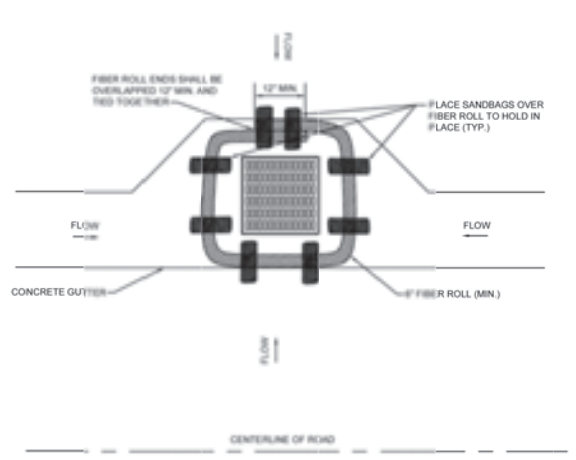

FIBER ROLL CURB INLET PROTECTION

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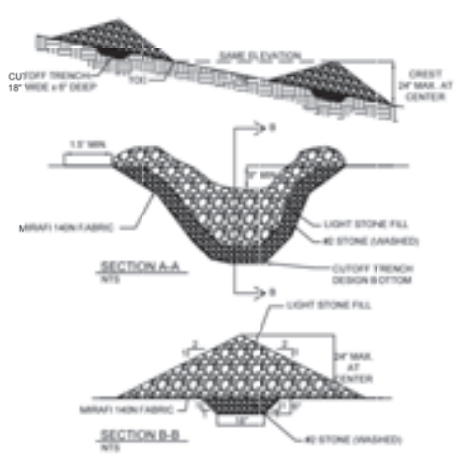

CHECK DAM DETAIL

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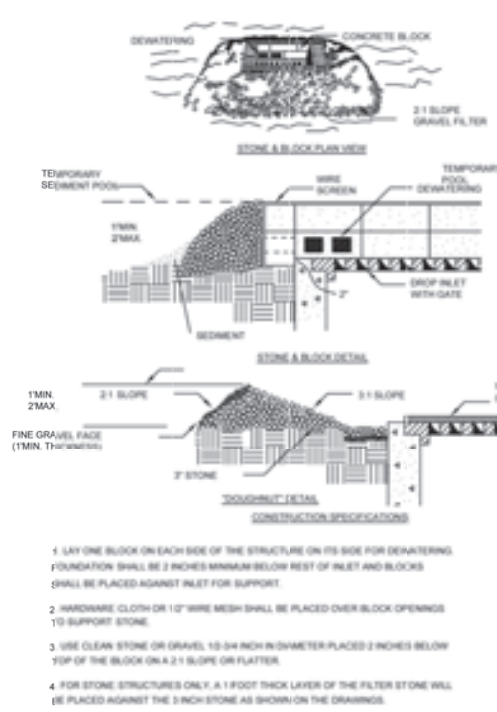

STONE AND BLOCK INLET PROTECTION

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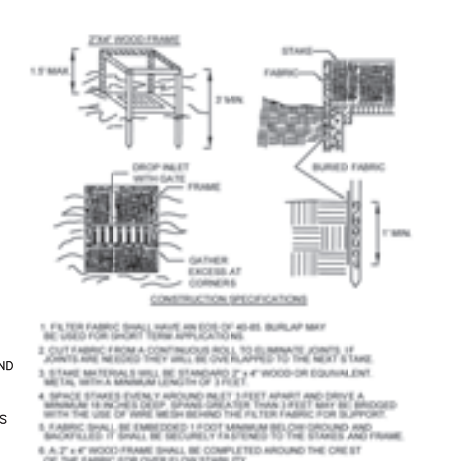

FILTER FABRIC DROP INLET PROTECTION

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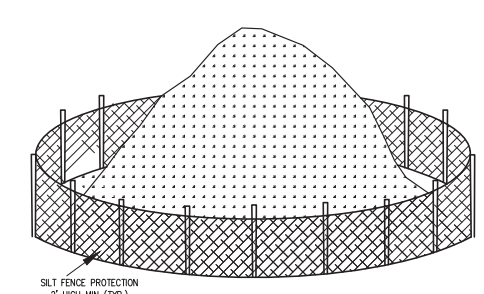
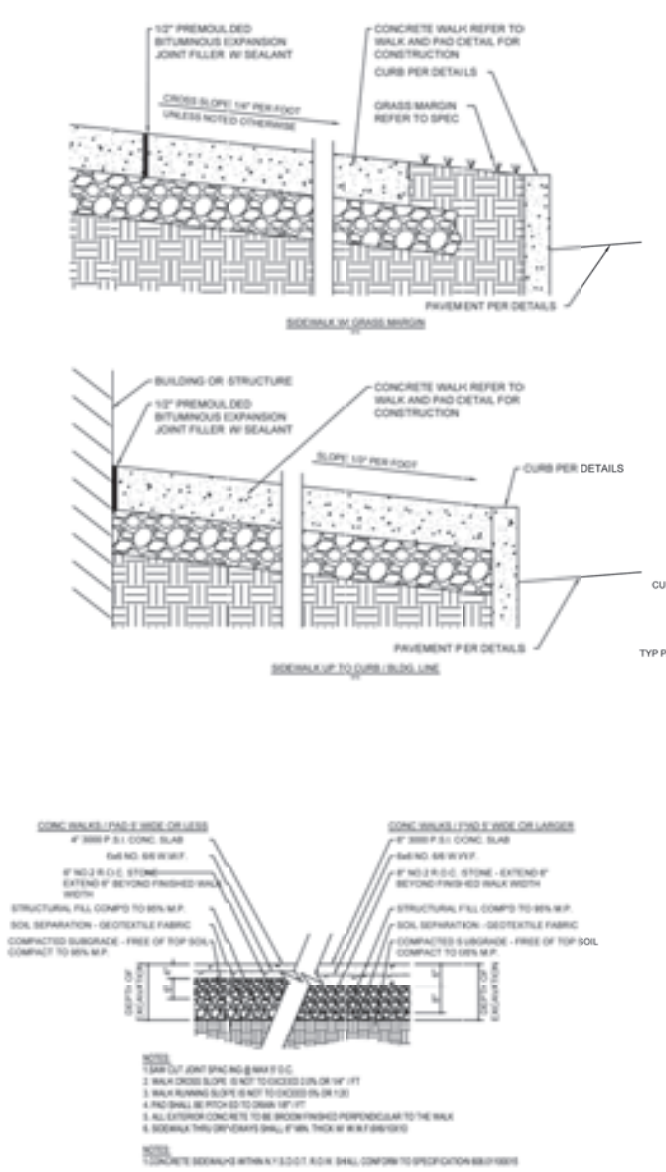


TOPSOIL STOCK PILE DETAIL

REFER TO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW YORK



CONCRETE WALKS & PADS TYP. SECTION

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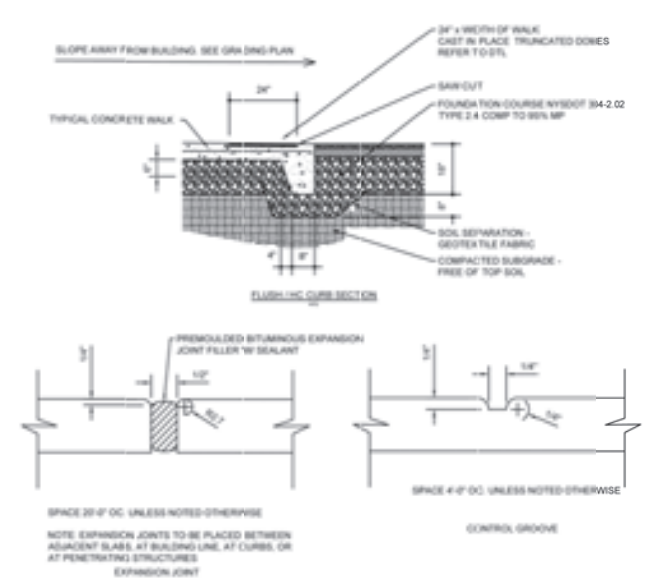

PAD/WALK - JOINT DETAILS

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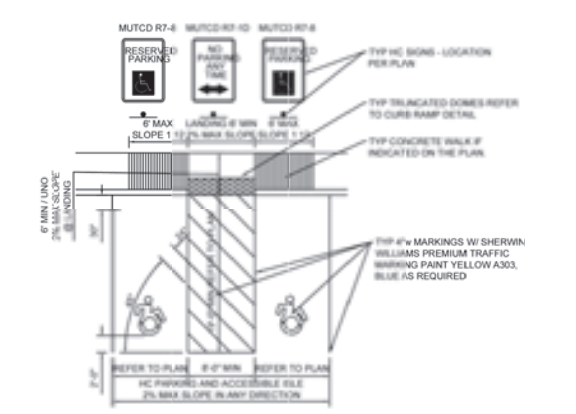

TYPICAL HC PARKING STALL AND SIGNAGE

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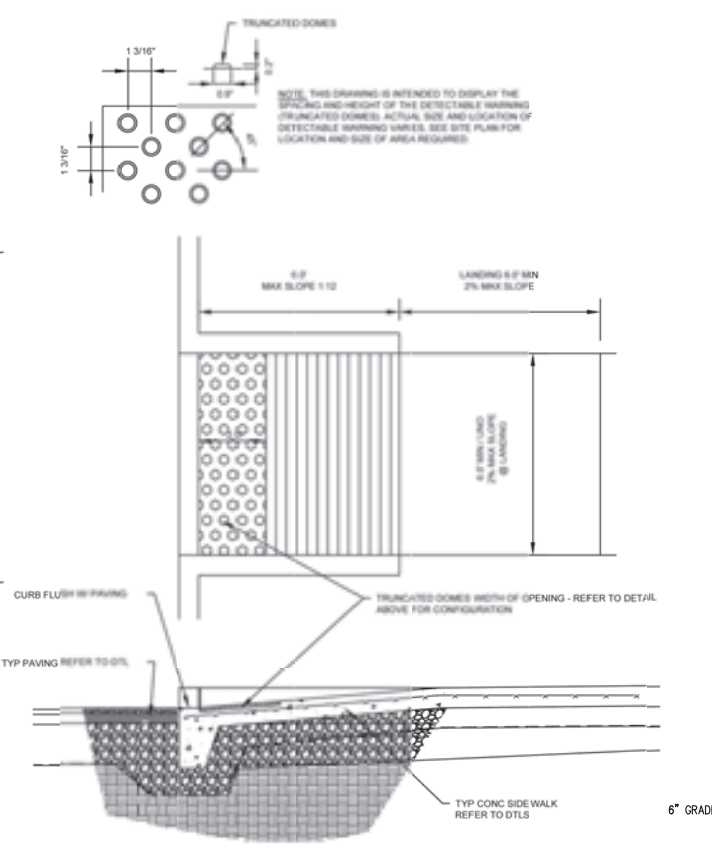
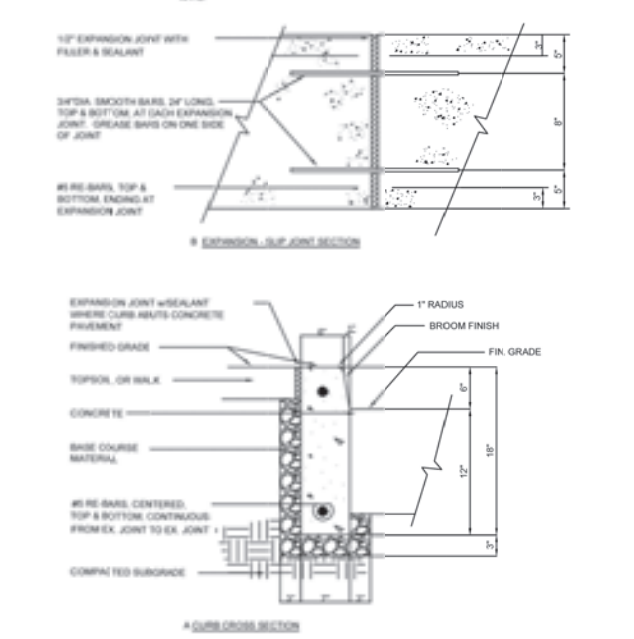


INLINE CURB RAMP DETAIL

N.T.S.



CONCRETE CURB DETAIL

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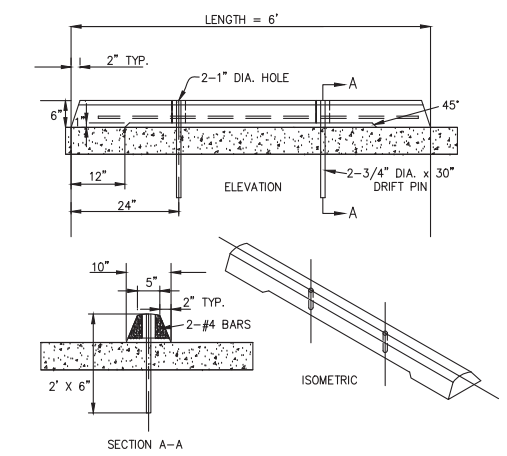
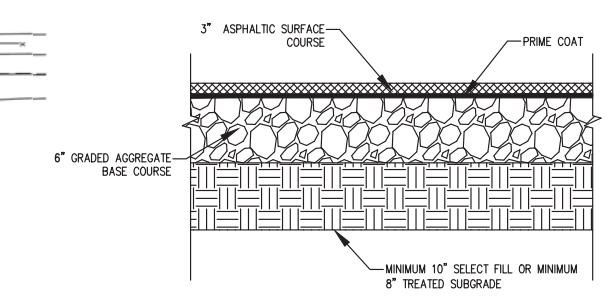


PRECAST CONCRETE WHEEL STOP

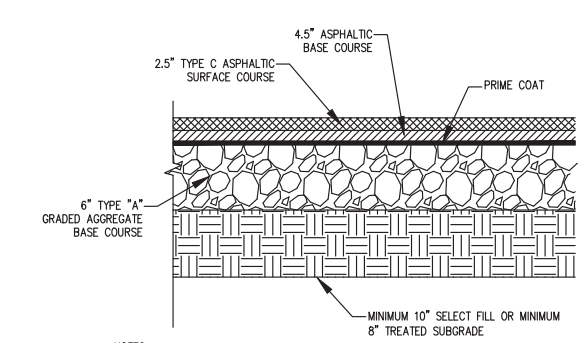
(NOT TO SCALE)



NOTES:
1. ALL PAVEMENT COURSES TO MEET MINIMUM REQUIREMENTS OF LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS.
2. INSTALL 3" SURFACE COURSE TO FINAL SURFACE GRADE. MILL AND REPLACE 3" SURFACE AT COMPLETION OF ALL CONSTRUCTION.
3. PAVEMENT SECTION PER THE GEOTECHNICAL ENGINEERING REPORT
4. THE FINAL PAVING SHALL BE EVEN WITH TOP OF GUTTER.

LIGHT DUTY ASPHALT PAVEMENT SECTION

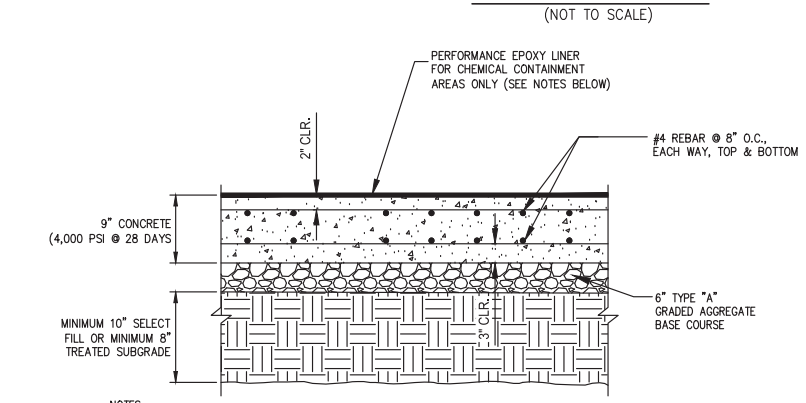
(NOT TO SCALE)



NOTES:
1. ALL PAVEMENT COURSES TO MEET MINIMUM REQUIREMENTS OF LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS.
2. INSTALL 7" INTERMEDIATE COURSE TO FINAL SURFACE GRADE. MILL AND REPLACE W/ 2.5" SURFACE AT COMPLETION OF ALL CONSTRUCTION.
3. PAVEMENT SECTION PER THE GEOTECHNICAL ENGINEERING REPORT
4. THE FINAL PAVING SHALL BE EVEN WITH TOP OF GUTTER.

STANDARD DUTY ASPHALT PAVEMENT SECTION

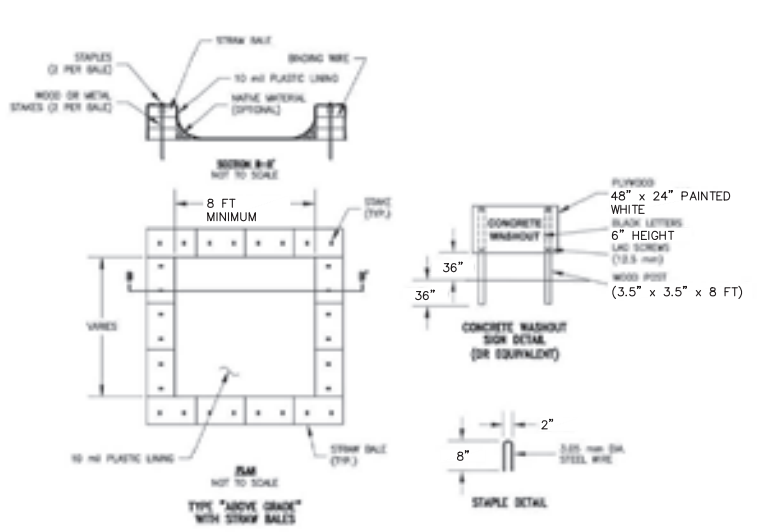
(NOT TO SCALE)



NOTES:
1. PLACE CONTROL JOINTS (SAWCUT) EVERY 15' O/C UNLESS OTHERWISE NOTED ON PLANS.
2. CHEMICAL/FUEL-RESISTANT PVC WATERSTOPS SHALL BE INSTALLED AT ALL EDGES OF CONTAINMENT AREAS, CONSTRUCTION/EXPANSION JOINTS AND STRUCTURES CAST INTO CONCRETE (I.E. TRENCH DRAINS).
3. FOR CHEMICAL CONTAINMENT AREAS PROVIDE PERFORMANCE SURFACE COATINGS.
4. CONCRETE SHALL BE MEDIUM BROOM FINISH, EPOXY COATING SHALL BE NON-SLIP FINISH.
5. REFERENCE SPEC SECTION 03 15 00.10 FOR WATERSTOPS, SEALANTS, PERFORMANCE COATINGS AND CONCRETE ADDITIVES.
6. FOR FUEL DELIVERY AREAS PERFORMANCE SURFACE COATINGS ARE NOT REQUIRED.
7. ALL JOINTS AND CRACKS SHALL BE FILLED WITH APPROVED SEALANT.
8. WATERPROOFING ADMIXTURE TO BE USED IN ALL CONTAINMENT AREA CONCRETE (INCLUDING SECONDARY CONTAINMENT AREAS).
9. REFERENCE SITE GEOTECHNICAL REPORT FOR DETAILED INFORMATION FOR SUBGRADE REQUIREMENTS.

HEAVY DUTY CONCRETE SECTION

(NOT TO SCALE)



CONCRETE WASHOUT DETAIL

NOT TO SCALE

CONCRETE WASHOUT NOTES:
1. THE WASHOUT FACILITY SHALL BE SIZED TO CONTAIN SOLIDS, WASH WATER, AND RAINFALL AND SIZED TO ALLOW FOR EVAOPRATION OF THE WASH WATER AND RAINFALL.
2. WASHWATER SHALL BE ESTIMATED AT 7 GALLONS PER CHUTE AND 50 GALLONS PER HOPPER OF THE CONCRETE PUMP TRUCK AND/OR DISCHARGING DRUM.
3. MINIMUM SIZE SHALL BE 8 FT x 8 FT AT THE BOTTOM AND 2 FT DEEP.
4. LOCATE THE CONCRETE WASHOUT A MINIMUM OF 100 FT FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS. PREVENT SURFACE WATER FROM ENTERING FACILITY.
5. PROVIDE APPROPRIATE ACCESS WITH GRAVEL ACCESS ROAD SLOPED DOWN TO THE STRUCTURE. SIGNS SHALL BE PLACED TO DIRECT DRIVERS TO THE FACILITY AFTER THEIR LOAD IS DISCHARGED.
6. ALL CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY. DAMAGED OR LEAKING FACILITIES SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. EXCESS RAINWATER THAT HAS ACCUMULATED OVER HARDENED CONCRETE SHOULD BE PUMPED TO A STABILIZED AREA, SUCH AS A GRASS FILTER STRIP.
7. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF OFF SITE.
8. DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL. ON-SITE DISPOSAL MAY BE ALLOWED IF THIS HAS BEEN APPROVED AND ACCEPTED AS PART OF THE PROJECTS SWPPP. IN THAT CASE, THE MATERIAL SHOULD BE RECYCLED AS SPECIFIED, OR BURIED AND COVERED WITH A MINIMUM OF 2 FEET OF CLEAN COMPACTED EARTHFILL THAT IS PERMANENTLY STABILIZED TO PREVENT EROSION.
9. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
10. INSPECT THE PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.

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PROJ.: 081591-02-002
DATE: JANUARY 26, 2026
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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS

DETAILS - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

C-501-N

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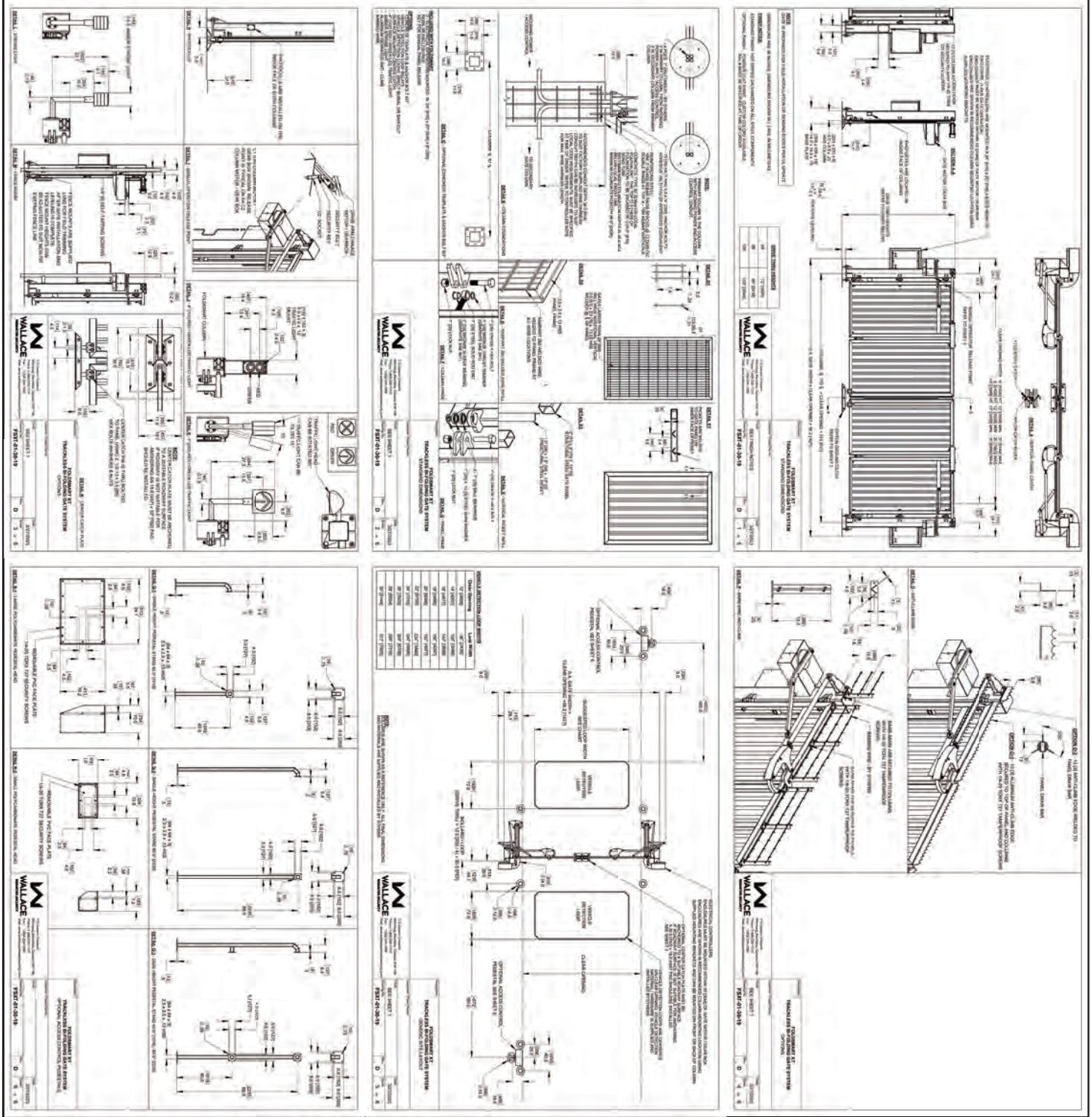

SHEET No.
C-502-N

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
DETAILS - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

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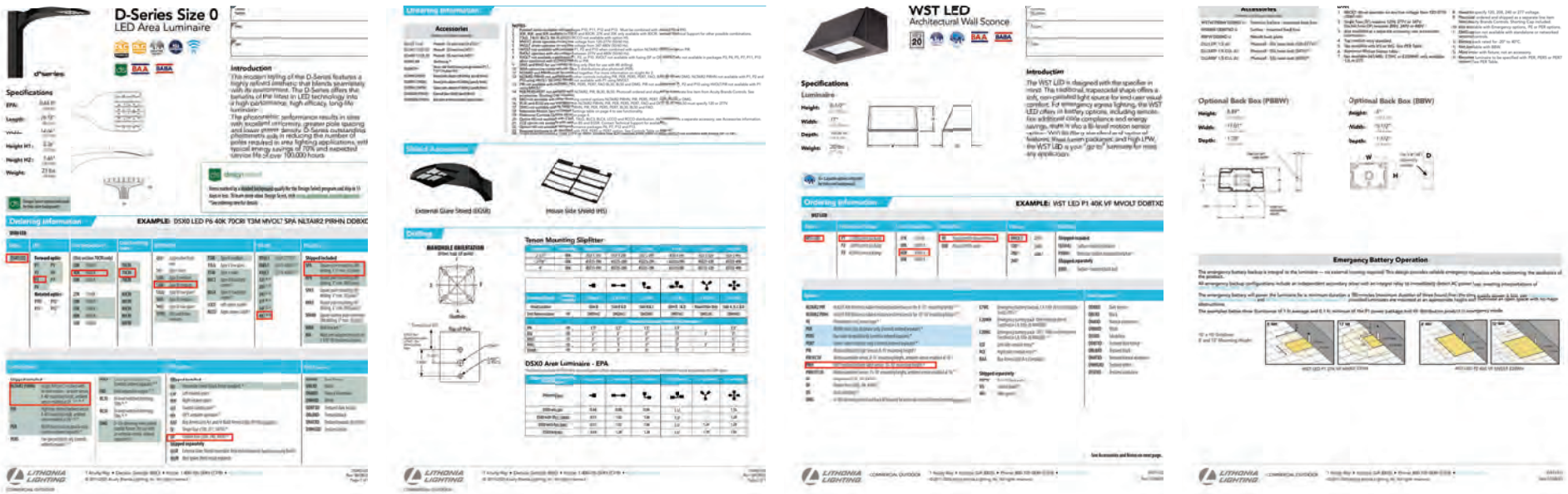
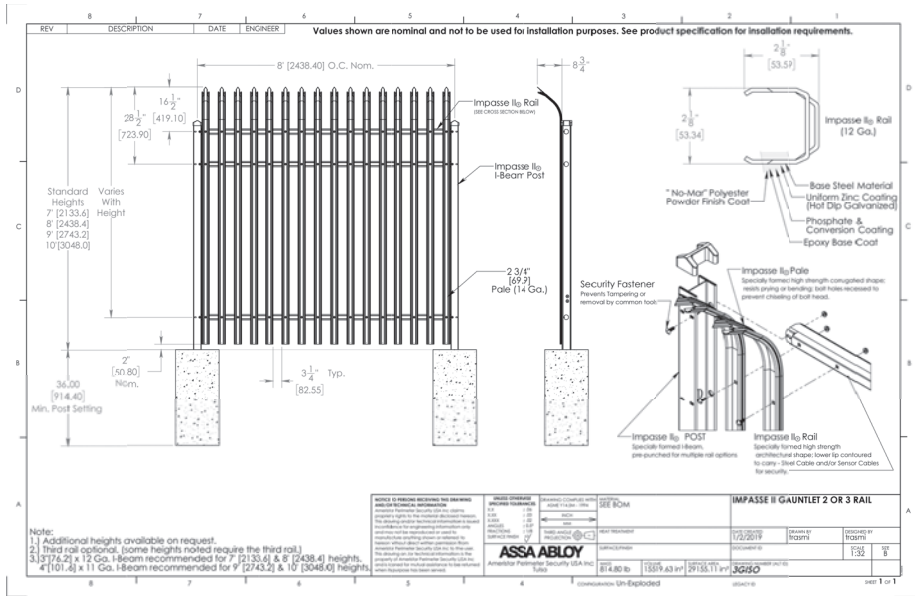


LIGHT FIXTURE DETAIL
NOT TO SCALE



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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
DETAILS - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-503-N

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\\JOBS\BH -- Stream: NYC\085234-01-001 (ENG) -- BUFA\x Alabama NY\Engineering\Engineering Plans\Stream Project: BUFFALO_2\Sheets\085234-C-SPS-DETAILS-SITE.dwg 01/23/20 11:34:23AM, mwellman, LAYOUT:C-503-N DETAILS - NORTH CAMPUS

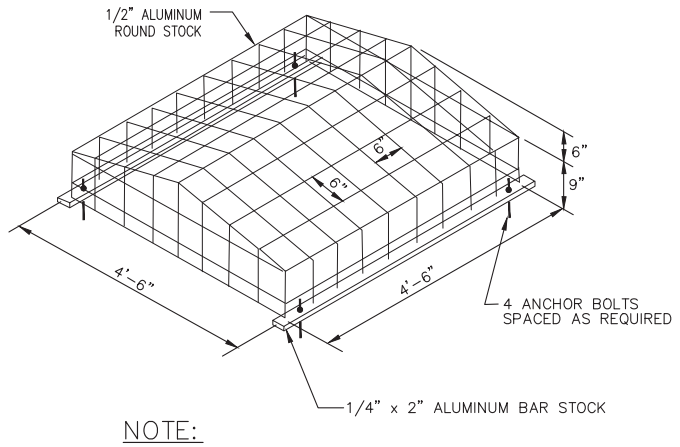
INLET & MANHOLE NOTES

1. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2" PER 8" OF HEIGHT OF WALL: MAXIMUM CORBEL 6" PER WALL.
2. WHEN THE ITEM MANHOLES, INLETS AND CATCH BASINS, ADDITIONAL DEPTH, IS SCHEDULED IN THE PROPOSAL AND THE DEPTH OF A STRUCTURE EXCEEDS 10' AS MEASURED FROM TOP OF COVER OR GRATE TO INVERT OF DRAINAGE STRUCTURE, THE WALLS OF THE STRUCTURE BELOW A DEPTH OF 8' SHALL BE 12" THICK, AND THE OVERALL HORIZONTAL DIMENSIONS OF FOUNDATIONS SHALL BE INCREASED 12", AND EXCEPT IN ROCK THE DEPTH INCREASED TO 12".
3. EXCEPT FOR CATCH BASINS AND TYPE A INLETS, FOOTINGS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS SHALL BE 8" BELOW THE OUTER WALL OF THE LOWEST PIPE IN INLETS AND 10" IN MANHOLES.
4. LADDER RUNGS OF PRECAST INLETS SHALL BE SPACED A MAXIMUM OF 18".
5. INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6" THICK BED OF COMPACTED COARSE AGGREGATE SIZE No. 57. THE COARSE AGGREGATE SHALL EXTEND 6" BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
6. CASTINGS FOR PRECAST INLETS AND MANHOLES SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12" MAXIMUM. 6" MIN. SHALL BE ALLOWED FOR IN PRECAST DESIGN.
7. WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10' AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12", WHEN ROCK IS ENCOUNTERED THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
8. MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPE A, B, C, E, D-1 AND B MODIFIED.

DEPTH BELOW TOP OF GRATE	HORIZONTAL REINFORCEMENT	VERTICAL REINFORCEMENT	WALL THICKNESS THICKNESS
0' TO 10'-0" #	#4 @ 10" C.C.	#4 @ 18" C.C.	6"
10'-1" TO 15'-0"	#4 @ 8" C.C.	#4 @ 18" C.C.	6"
15'-1" TO 20'-0"	#4 @ 6" C.C.	#4 @ 18" C.C.	6"

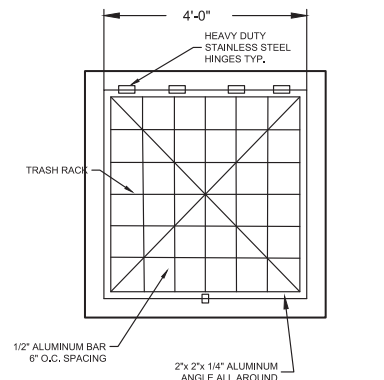
REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

9. THE ITEM OF RESET HEADS SHALL INCLUDE RAISING OR LOWERING THE HEAD CAST- INGS OF INLETS AND CATCH BASINS, OR THE RAISING OF MANHOLE HEAD CASTINGS, FOR A MAXIMUM OF 12". ALL OTHER CHANGES IN POSITION OF HEAD CASTING SHALL BE CONSIDERED AS RECONSTRUCTED MANHOLES OR RECONSTRUCTED INLETS OR CATCH BASINS.
10. WHEN CURB PIECE HEIGHT SPECIFIED IS GREATER THAN CURB FACE HEIGHT, DEPRESS THE GUTTER OF GRATE SO THAT THE TOP OF CURB PIECE IS AT THE SAME ELEVATION AS THE TOP OF CURB.



NOTE:
ALL JOINTS SHALL BE WELDED

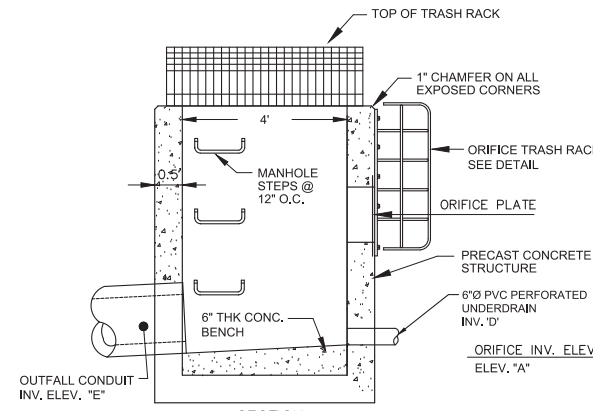
TOP OF STRUCTURE TRASH RACK
NOT TO SCALE



TOP VIEW

GENERAL NOTES:

1. STEEL TO CONFORM TO ASTM A-26
2. TRASH RACK & HOOD TO BE CENTERED OVER OPENING.
3. TRASH RACK & HOOD TO BE FASTENED TO THE STRUCTURE WITH 1/2" MASONRY ANCHORS. TRASH RACK & HOOD TO BE REMOVABLE.



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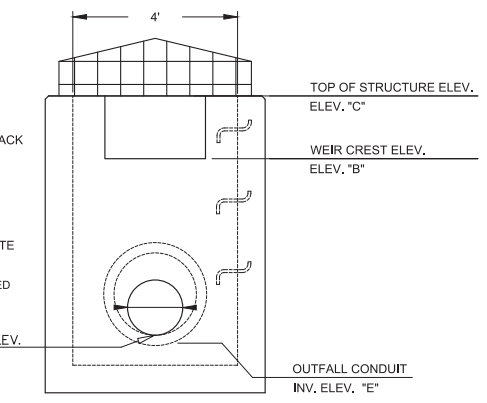


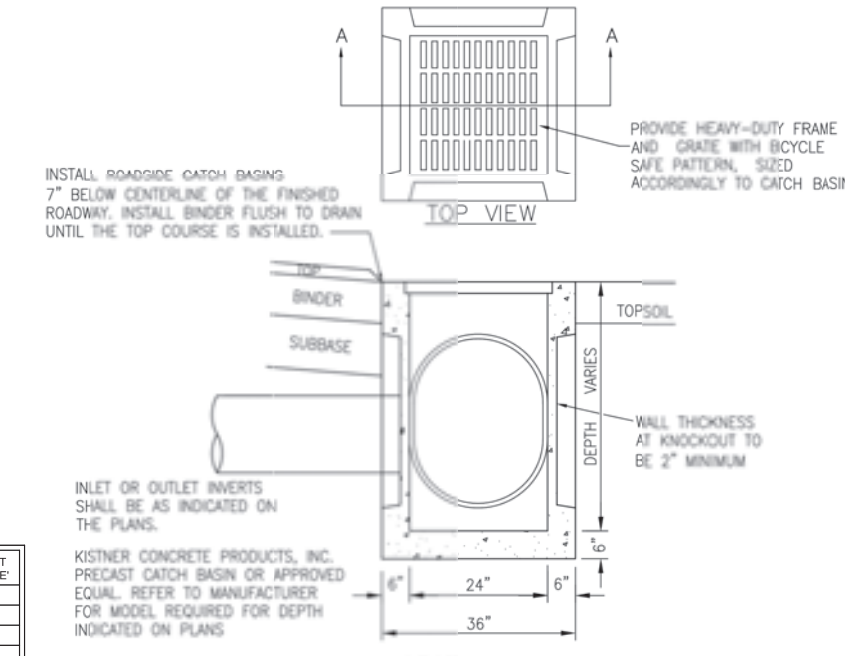
FRONT ELEVATION

TRASH RACKS NOT SHOWN FOR CLARITY
SEE PLAN FOR GRADING

STRUCTURE NOTES:
1. OUTLET STRUCTURE SHOP DRAWING SHALL BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.
2. OUTFALL CONDUIT INV. TYPICALLY SET 10" ABOVE SMP BOTTOM FOR INTERNAL WATER STORAGE. WHERE OUTALL CONDUIT IS NOT LOCATED 10" ABOVE THE BOTTOM OF THE SMP, THE UNDERDRAIN SHALL INCLUDE AN UPTURNED ELBOW WITH DISCHARGE INVERT SET 10" ABOVE THE BOTTOM OF THE SMP.

SMP ID	OUTLET STRUCTURE	ORIFICE OUTLET SIZE	ELEV. 'A' INVERT	WEIR CREST SIZE & ELEV. 'B'	ELEV. 'C' TOP OF STRUCTURE	UNDERDRAIN INV. ELEV. 'D'	OUTFALL CONDUIT SIZE & INV. ELEV. 'E'
SMP-A	17 OS	-	-	3 FT @ EL. 670.25	671.40	666.08	24", 665.10
SMP-B	10 OS	-	-	3 FT @ EL. 663.10	664.70	659.28	30", 660.26
SMP-C	4 OS	-	-	3.5 FT @ EL. 658.92	660.40	654.98	30", 655.65
SMP-D	3 OS	6"Ø	658.85	4 FT @ EL. 659.83	660.40	654.98	30", 655.65
SMP-E	49 OS	-	-	3.5 FT @ EL. 670.60	671.60	666.18	30", 666.85
SMP-F	45 OS	-	-	3.5 FT @ EL. 667.60	668.50	663.28	36", 663.95
SMP-G	32 OS	-	-	-	663.20	658.83	36", 659.50
SMP-H	28 OS	12"H x 20"W	659.40	4 FT @ EL. 661.20	662.50	-	42", 659.30
SMP-I	84 OS	-	-	3 FT @ EL. 669.20	670.40	664.78	24", 665.45
SMP-J	75 OS	-	-	2 FT @ EL. 668.50	669.80	664.08	30", 664.75
SMP-K	70 OS	-	-	2 FT @ EL. 667.90	669.30	663.58	24", 664.25

OUTLET STRUCTURE DETAIL
NOT TO SCALE



SECTION A–A

PRECAST CONCRETE CATCH BASIN
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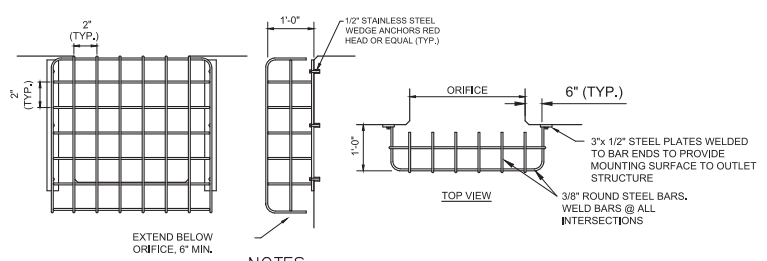
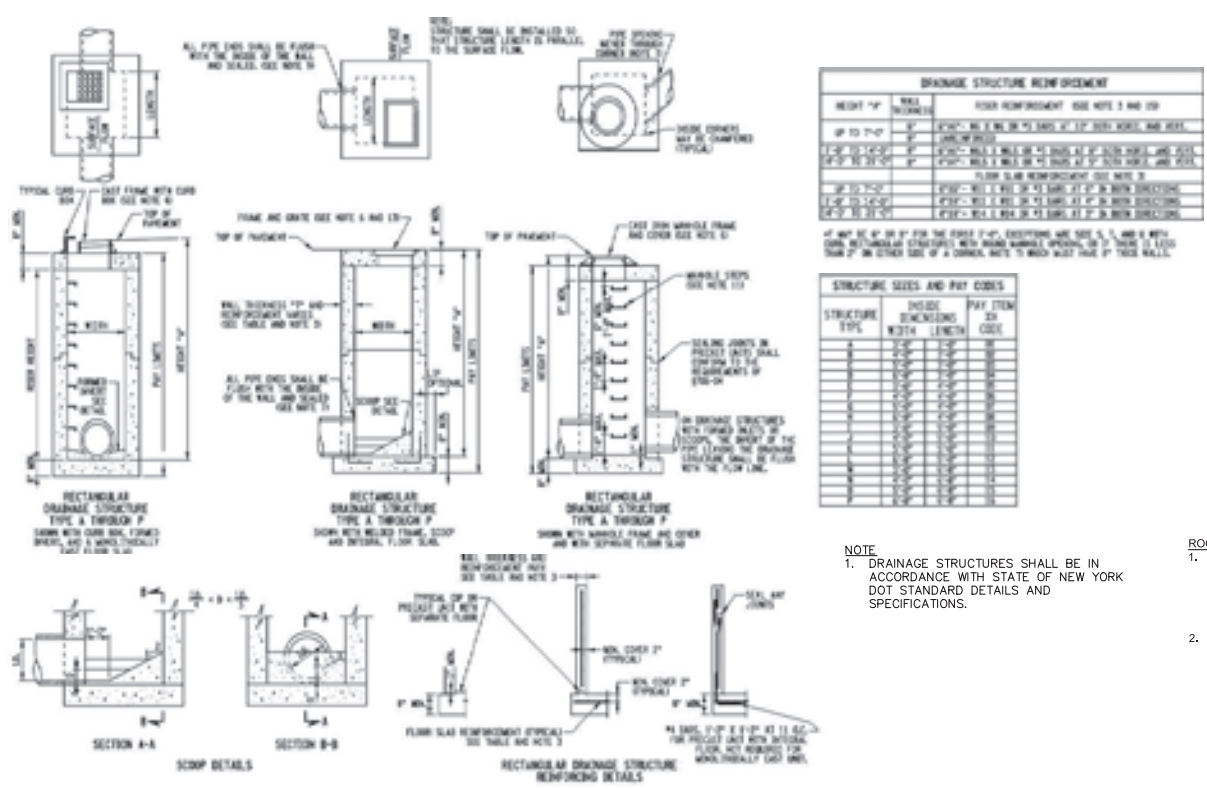


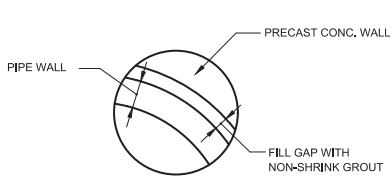
NOTES:
1. ALL JOINTS SHALL BE WELDED.
2. ALL METAL SHALL CONSIST OF STAINLESS STEEL OR GALVANIZED STEEL.

ORIFICE TRASH RACK DETAIL
NOT TO SCALE

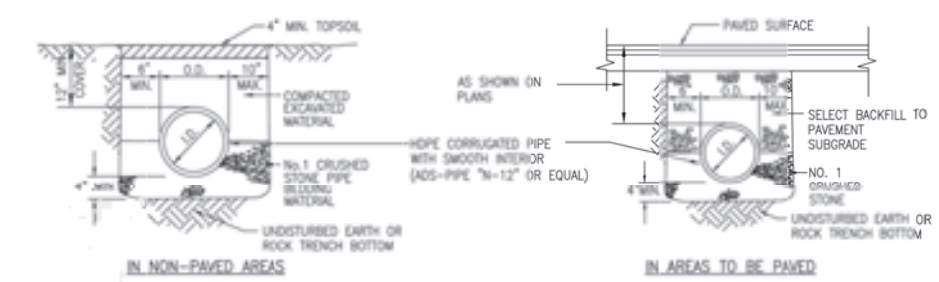


NOTE
1. DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH STATE OF NEW YORK DOT STANDARD DETAILS AND SPECIFICATIONS.

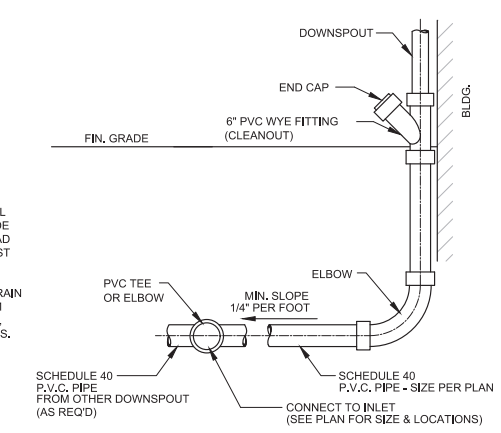
DRAINAGE STRUCTURE DETAILS
NOT TO SCALE



PIPE/WALL JOINT DETAIL
NTS

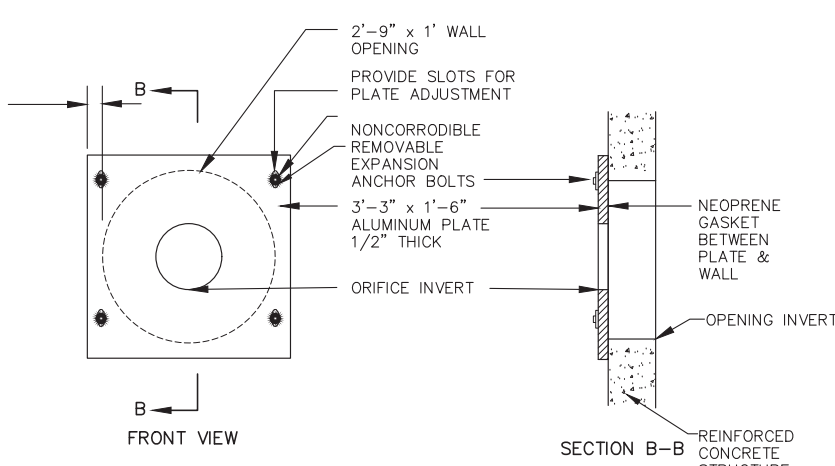


STORM SEWER TRENCH DETAILS
N.T.S.

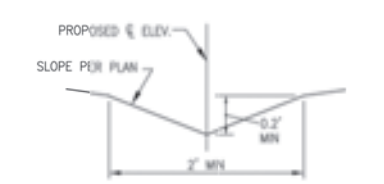


ROOF DRAIN NOTES:
1. ROOF DRAIN DOWNSPOUTS SHALL INCLUDE LEAF SCREENS. PROVIDE LEAF EATER ADVANCED RAIN HEAD MANUFACTURED BY RAIN HARVEST SYSTEMS OR APPROVED EQUAL.
2. PROVIDE CLEANOUTS IN ROOF DRAIN MANIFOLD SYSTEM AT UPSTREAM ENDS, BENDS GREATER THAN 45°, JUNCTIONS AND 100 FT INTERVALS.

ROOF DRAIN DETAIL
NOT TO SCALE

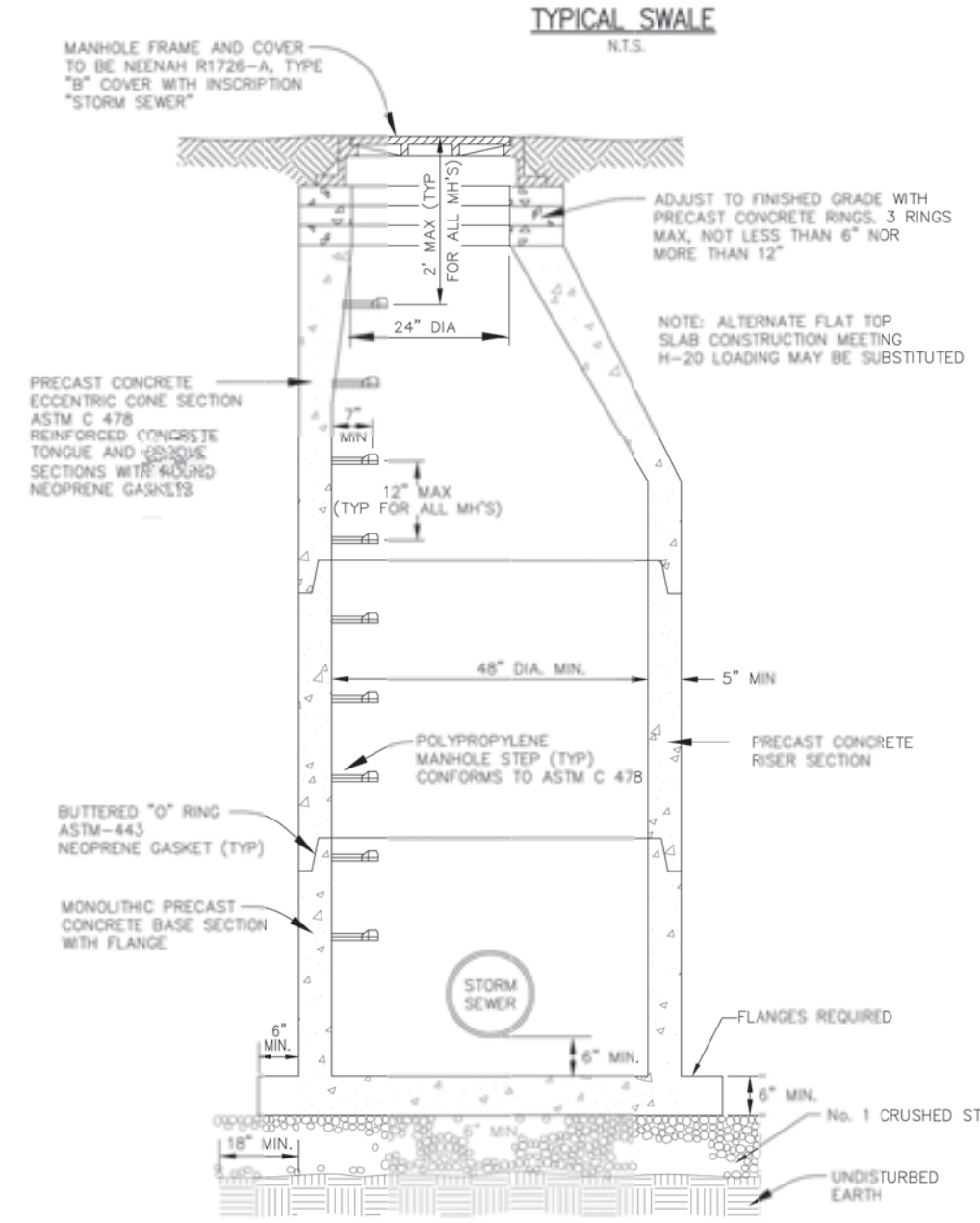


ORIFICE PLATE DETAIL
NOT TO SCALE



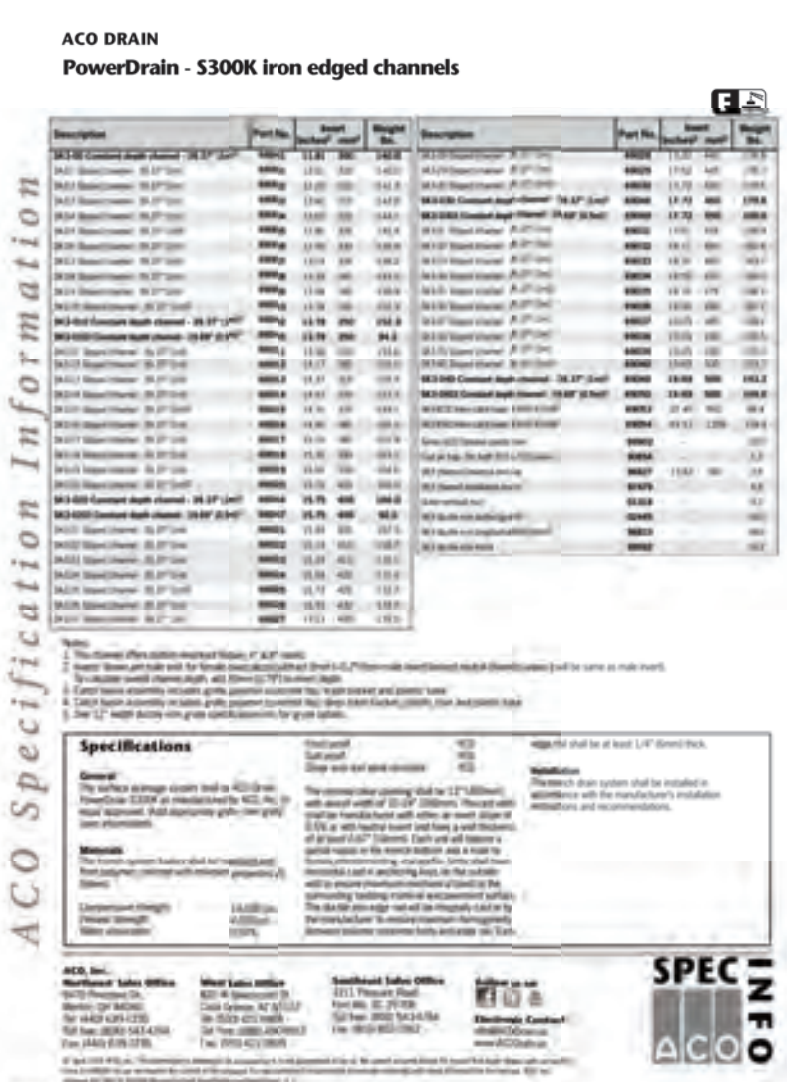
NOTES:
1) USE DIMENSIONS SHOWN IN THIS DETAIL UNLESS INDICATED OTHERWISE ON PLANS.
2) CONTRACTOR SHALL NOT OVER-EXCAVATE CHANNEL, SO AS TO, PREVENT EROSION.

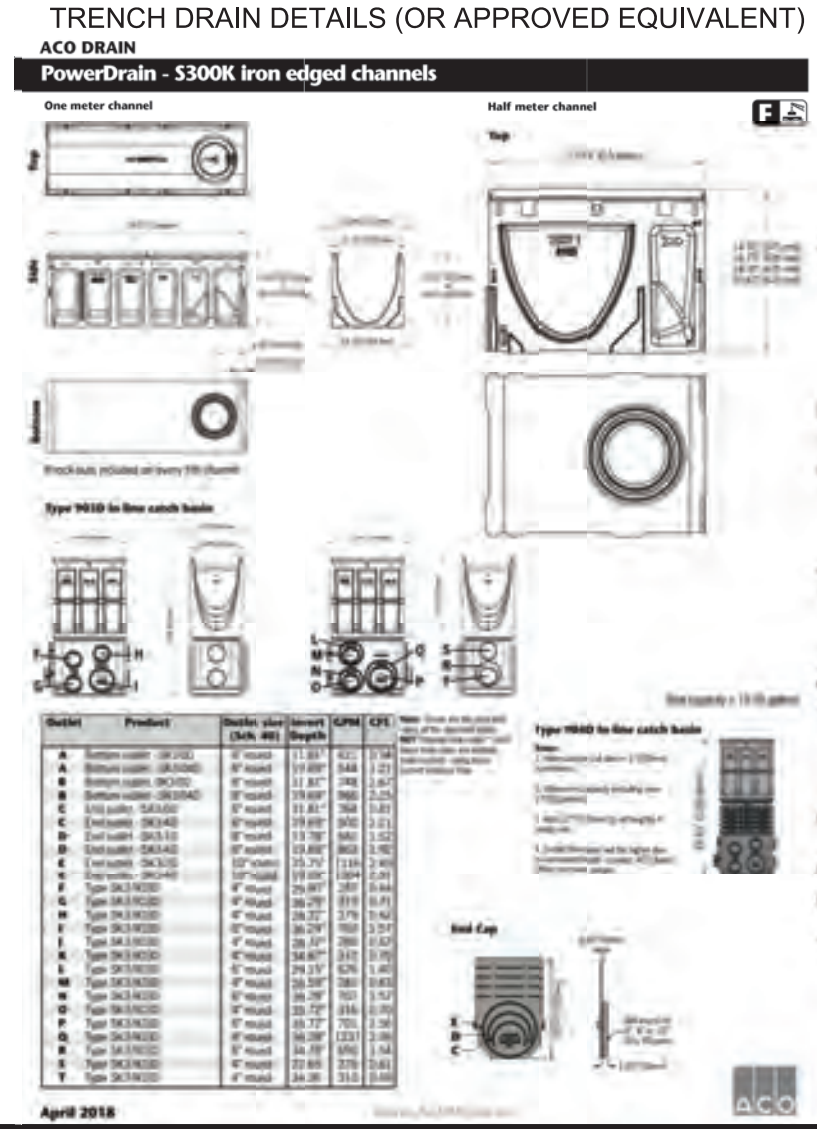
TYPICAL SWALE
N.T.S.

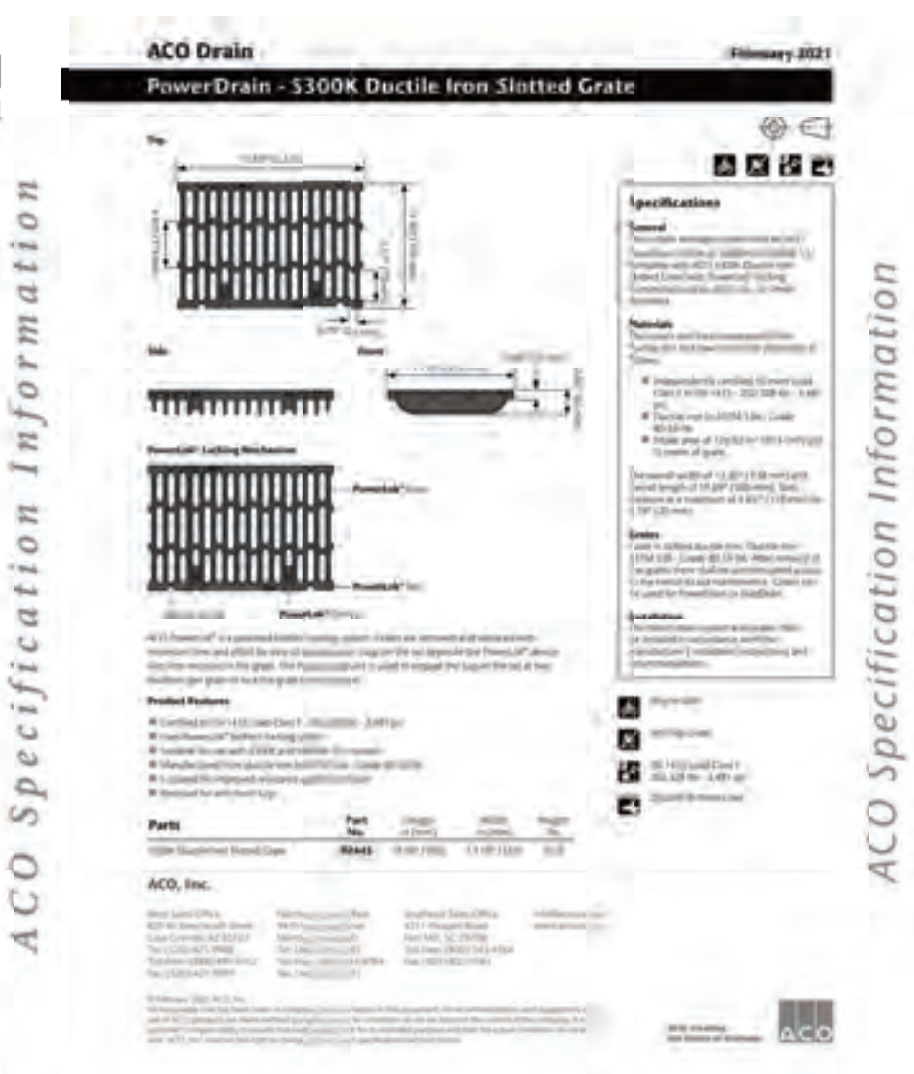


PRECAST CONCRETE STORM MANHOLE
N.T.S.

TRENCH DRAIN DETAILS (OR APPROVED EQUIVALENT)







REVISION | DATE | CHKD (1–6)
REVISION | DATE | CHKD (7–12)

PROJ.: 081591-02-002
DATE: JANUARY 26, 2026
CHKD: PDQ

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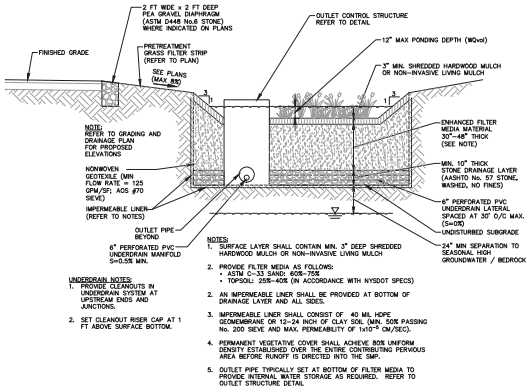
BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
STORM DETAILS - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

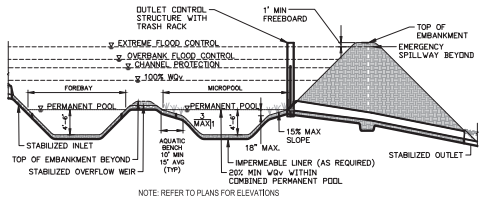
SHEET No.
C-504-N



UNDERDRAIN NOTES:
1. PROVIDE CLEANOUTS IN UNDERDRAIN SYSTEM AT UPSTREAM ENDS AND JUNCTIONS.
2. SET CLEANOUT RISER CAP AT 1 FT ABOVE SURFACE BOTTOM.

NOTES:
1. SURFACE LAYER SHALL CONTAIN MIN. 3" DEEP SHREDDED HARDWOOD MULCH OR NON-INVASIVE LIVING MULCH
2. PROVIDE FILTER MEDIA AS FOLLOWS:
   - ASTM C-33 SAND: 60%-75%
   - TOPSOIL: 25%-40% (IN ACCORDANCE WITH NYSDOT SPECS)
2. AN IMPERMEABLE LINER SHALL BE PROVIDED AT BOTTOM OF DRAINAGE LAYER AND ALL SIDES.
3. IMPERMEABLE LINER SHALL CONSIST OF 40 MIL HDPE GEOMEMBRANE OR 12-24 INCH OF CLAY SOIL (MIN. 50% PASSING No. 200 SIEVE AND MAX. PERMEABILITY OF $1x10^{-5}$ CM/SEC).
4. PERMANENT VEGETATIVE COVER SHALL ACHIEVE 80% UNIFORM DENSITY ESTABLISHED OVER THE ENTIRE CONTRIBUTING PERVIOUS AREA BEFORE RUNOFF IS DIRECTED INTO THE SMP.
5. OUTLET PIPE TYPICALLY SET AT BOTTOM OF FILTER MEDIA TO PROVIDE INTERNAL WATER STORAGE AS REQUIRED. REFER TO OUTLET STRUCTURE DETAIL.

FILTRATION BIORETENTION SMP DETAIL
NOT TO SCALE

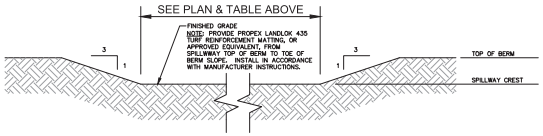


NOTE: REFER TO PLANS FOR ELEVATIONS

SECTION VIEW

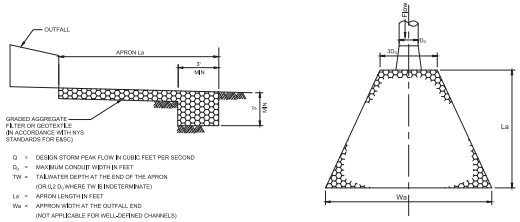
MICROPOOL EXTENDED DETENTION POND SMP DETAIL
SCALE: N.T.S.

EMERGENCY SPILLWAY & FOREBAY OVERFLOW WEIR SUMMARY				
SMP No.	100-YR STORM INFLOW (CFS)	SPILLWAY CREST ELEV.	SPILLWAY LENGTH	BERM ELEV.
SMP-A	13.89	671.40	12 FT	672.00
SMP-B	19.58	664.60	17 FT	665.70
SMP-C	25.11	660.40	30 FT	661.40
SMP-D	19.69	660.00	19 FT	661.40
SMP-E	OS RISER SPILLWAY	-	-	-
SMP-F	OS RISER SPILLWAY	-	-	-
SMP-G	61.27	664.30	42 FT	665.25
SMP-H	121.83	663.00	75 FT	664.20
H1, H2, H3	(1-YR STORM)	659.90	12 FT	660.40
SMP-I	16.83	670.40	20 FT	671.20
SMP-J	23.37	669.90	26 FT	670.20
SMP-K	20.83	668.30	27 FT	670.20



TYPICAL SECTION THRU SPILLWAY

EMERGENCY SPILLWAY & FOREBAY OVERFLOW WEIR DETAIL
NOT TO SCALE



CONDUIT OUTLET PROTECTION SUMMARY						
HW No.	Q (CFS)	D_o (FT)	TW (MIN OR MAX)	La (FT)	Wa (FT)	D(50) (IN)
5-HW	19.29 (100-YR)	2.0	MAX.	12.0	12.0	6
5-HW	25.04 (100-YR)	2.0	MAX.	12.0	12.0	6
11-HW	25.28 (100-YR)	2.0	MAX.	12.0	12.0	6
15-HW	15.59 (10-YR)	2.0	MAX.	10.0	10.0	6
27-HW	42.90 (100-YR)	3.0	MAX.	14.0	14.0	6
33-HW	64.24 (FULL FLOW)	4.0	MAX.	16.0	19.2	6
46-HW	1.94 (10-YR)	1.25	MIN.	8.0	9.25	6
47-HW	25.84 (100-YR)	2.0	MAX.	10.0	10.0	6
48A-HW	10.83 (10-YR)	1.0	MAX.	8.0	7.7	6
50-HW	15.60 (10-YR)	2.0	MAX.	12.0	12.0	6
66-HW	25.98 (100-YR)	3.0	MAX.	14.0	14.0	6
71-HW	9.17 (10-YR)	1.0	MAX.	8.0	7.7	6
76-HW	17.49 (10-YR)	2.0	MAX.	12.0	12.0	6
85-HW	4.83 (10-YR)	2.0	MAX.	10.0	10.0	6

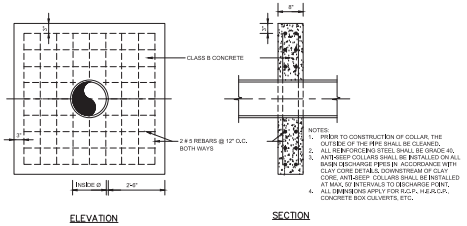
THE WIDTH OF THE APRON AT THE CULVERT SHALL BE AT LEAST TRIPLE D_o, WHERE THERE IS A WELL-DEFINED CHANNEL DOWNSTREAM OF THE APRON. THE APRON BOTTOM WIDTH SHALL BE AT LEAST EQUAL TO THE CHANNEL BOTTOM WIDTH THE LINING SHALL EXTEND AT LEAST ONE FOOT ABOVE THE TAILWATER ELEVATION BUT NO LOWER THAN 2/3 OF THE VERTICAL CONDUIT DIMENSION ABOVE THE CONDUIT INVERT. THE BOTTOM GRADE SHALL BE 0.0% AND LEVEL. THERE SHALL BE NO OVERFALL AT THE END OF THE APRON OR THE CULVERT.

50% BY WEIGHT OF THE RIPRAP MIX SHALL BE SMALLER THAN d_{50}.

Min. Diameter	Max. Diameter	Percentage Smaller than Max. Diameter

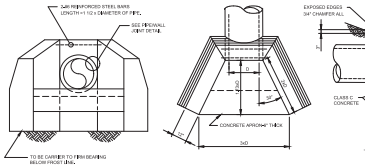
NOTES:
1. MINIMUM RIPRAP THICKNESS SHALL BE 1.5 TIMES THE MAXIMUM ROCK DIAMETER FOR D50 OF 15" OR LESS, AND 1.2 TIMES THE MAXIMUM ROCK SIZE FOR D50 GREATER THAN 15".
2. ROCK AND GEOTEXTILE FILTER SHALL BE IN ACCORDANCE WITH NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

RIP RAP APRON
CONDUIT OUTLET PROTECTION DETAIL
N.T.S



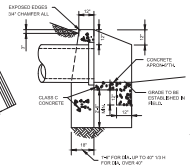
ELEVATION SECTION

TYPICAL ANTI-SEEP COLLAR (OR APPROVED EQUAL)



END VIEW OF INLET END ONLY

PLAN



SIDE VIEW

GENERAL NOTES
1. ALL EDGES TO BE CHAMFERED 1".
2. THE RUBBING OF HEADWALLS TO REMOVE FORM MARKS AS REQUIRED IN SUBSECTIONS 501.14 FOR CONCRETE STRUCTURES, WILL NOT BE REQUIRED FOR HEADWALLS AT THE BOTTOM OF EMBANKMENTS IN RURAL AREAS.
3. FOR SLOPE DRAIN HEADWALLS, DIMENSIONS AND APRON GRADES SHALL BE SET BY ENGINEER.
4. FOR MORE THAN ONE PIPE, SET THE PIPES A MINIMUM OF ONE FOOT APART (OUTSIDE BARREL TO OUTSIDE BARREL) THERE SHALL BE 12" ABOVE THE TOP OF A PIPE IN A WINGWALL. THE TERMINUS OF THE WINGWALL SHALL BE 2D FROM THE CENTERLINE OF THE PIPE IN A WINGWALL.
5. THE TERMINUS FOR OUTLET AND INLET APRONS SHALL BE SET BY EXTENDING THE PIPE GRADE AHEAD AND BACK, RESPECTIVELY.
6. FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.
7. IF PRECAST HEADWALLS ARE TO BE USED, SHOP DRAWINGS OF THE UNITS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL.

HEADWALLS IN CUBIC YARDS

PIPE SIZE	CORR. STEEL PIPE IN C.Y.	REIN. CONC. PIPE IN C.Y.	APRONS IN C.Y.
12"	1.4	1.4	0.2
15"	1.7	1.7	0.2
18"	2.1	2.1	0.3
21"	2.5	2.5	0.4
24"	2.9	2.9	0.5
27"	3.3	3.4	0.6
30"	3.7	3.8	0.7
36"	4.7	4.8	0.9
42"	5.8	6.3	1.2
48"	7.0	8.4	1.5
54"	8.7	10.7	1.8
60"	10.2	13.4	2.1
66"	11.9	16.4	2.5
72"	16.1	19.9	3.0

PRECAST CONCRETE HEADWALL WITH WINGWALLS
NOT TO SCALE

NO.	DATE	REVISION
1	7/2/26	ADDED SMP-K

NO.	DATE	CHKD

PEER REVIEWED
DATE: JANUARY 29, 2026
CHECKED BY: [illegible]

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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
STORM DETAILS - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-505-N

N:\081599 — Stream NY\081599-01-001 (ENG) - BUFA\Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO 2\Sheets\081599-C-SP2-DETAILS-STORM.dwg 07/23/26 11:34:33AM, mreinfrank, LAYOUT(C-505-N STORM DETAILS - NORTH CAMPUS

WATERLINE NOTES:

1) ALL WATERLINE MATERIALS, CONSTRUCTION, INSTALLATION AND TESTING TO COMPLY WITH CURRENT TOWN OF ALABAMA AND GENESEE COUNTY SPECIFICATIONS AND ORDINANCES.

2) CONTRACTOR SHALL SECURE ALL PERMITS AT HIS OWN EXPENSE.

3) MATERIAL FOR WATERMAINS:

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

B) CEMENT LINED DUCTILE IRON PIPE MINIMUM THICKNESS CLASS 52 WITH 150 PSI WORKING PRESSURE AND SHALL CONFORM TO AWWA SPECIFICATION C 151 LATEST REVISION. THE PIPE SHALL BE ENCASED WITH A MINIMUM 8 MIL POLYETHYLENE WRAP, AS PER AWWA C 105 SPECIFICATION. TYPE MECHANICAL JOINT TEES AND NIPPLES.

4) HYDRANTS SHALL BE SHALL BE "BAGGED" UNTIL READY FOR USE.

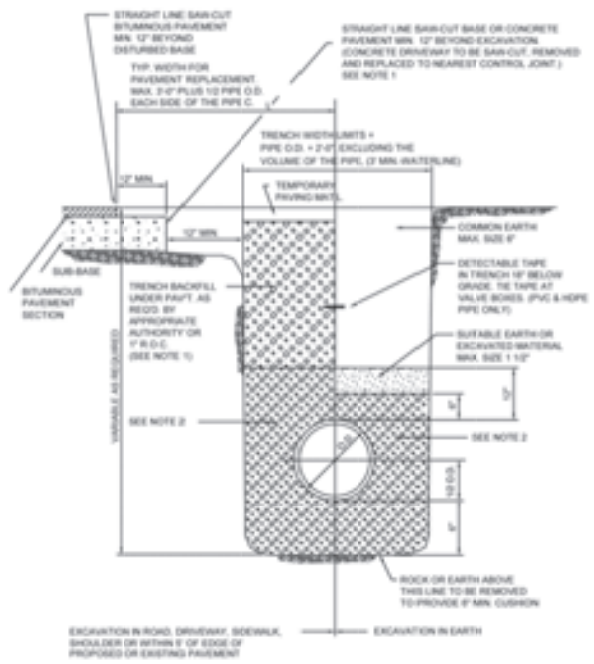
5) CONTRACTOR WILL BE RESPONSIBLE FOR SUPPLYING PROPER TEST EQUIPMENT AND PERFORM A TWO (2) HOUR, 150 PSI HYDROSTATIC TEST OF THE WATERLINE, IN THE PRESENCE OF AN OWNER'S REPRESENTATIVE. CONTRACTOR TO NOTIFY OWNER A MINIMUM OF 48 HOURS PRIOR TO TESTING.

6) AFTER THE WATERLINE HAS BEEN HYDROSTATICALLY TESTED AND APPROVED, THE CONTRACTOR WILL BE RESPONSIBLE TO CHLORINATE THE LINE IN STRICT ACCORDANCE WITH AWWA C651 LATEST REVISION. THE CONTRACTOR WILL BE RESPONSIBLE TO HIRE AN APPROVED INDEPENDENT TEST LABORATORY TO TAKE THE APPROPRIATE NUMBER OF SAMPLES, AND CERTIFY TO THE TOWN OF ALABAMA, AND GENESEE COUNTY HEALTH DEPARTMENT THAT THE LINE MEETS MINIMUM AWWA AND GENESEE COUNTY HEALTH DEPARTMENT STANDARDS FOR DRINKING WATER. SAMPLES MUST BE TAKEN ONLY FROM THE DESIGNATED TEST POINTS AND IN THE PRESENCE OF THE TOWN OF ALABAMA'S REPRESENTATIVE. CONTRACTOR TO NOTIFY THE TOWN OF ALABAMA A MINIMUM OF 48 HOURS PRIOR TO SAMPLING.

7) CONTRACTOR TO SUPPLY CEMENT LINED, CLASS 150, STANDARD WEIGHT DUCT IRON PIPE FITTINGS AND BENDS WHERE NECESSARY TO INSTALL WATERLINE. ALL FITTINGS SHALL BE PROPERLY THRUST BLOCKED, & RESTRAINED IN ACCORDANCE TO DETAILS.

8) HORIZONTAL SEPARATION-WATERMAIN SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER MAIN. THE DISTANCE SHALL BE FROM EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A TEN FOOT SEPARATION, THE APPROPRIATE REVIEWING AGENCY MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE WATERMAIN CLOSER TO A SEWER MAIN, PROVIDED THAT THE WATER MAIN IS IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER.

9) CROSSINGS-WATERMAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE, OR BELOW THE SEWER. THE CROSSINGS SHALL BE ARRANGED SO THAT THE WATERMAIN JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM SEWER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.



TYPICAL WATERLINE TRENCH DETAIL

N.T.S.

NOTE 1

REPLACE PAVEMENT IN THICKNESS AND KIND, OR AS REQUIRED BY APPROPRIATE AUTHORITY.

A. MINIMUM STANDARD FOR DRIVEWAY
CONCRETE - 4" -2" R.O.C. SUB BASE COURSE
ASPHALT - 1" -N.Y.S.D.O.T. ITEM 403.18 TYPE 7 TOP
6" -2" R.O.C. SUB BASE COURSE
STONE - 1/2" -No. 1A STONE COMPACTED ON SURFACE
8" -2" R.O.C. SUB BASE COURSE

B. MINIMUM STANDARD FOR ROAD
CONCRETE - TOP AND BOTTOM
12" -2" R.O.C. SUB BASE COURSE
ASPHALT - 1" -N.Y.S.D.O.T. ITEM 403.18 TYPE 7 TOP
3 -N.Y.S.D.O.T. ITEM 403.12 TYPE 2 BASE
12" -2" R.O.C. SUB BASE COURSE.

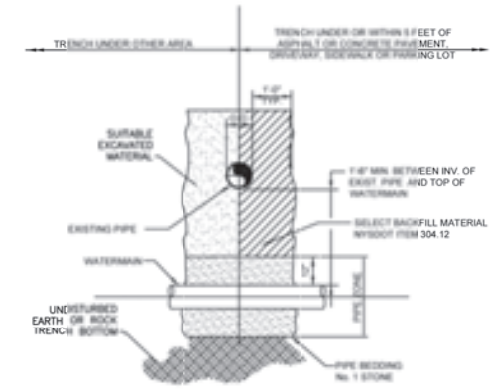
NOTE 2

BEDDING:
No. 1 STONE FROM 6" BELOW TO 6" OVER PIPE. CONTINUE BEDDING TO ONE (1) FOOT OVER PIPE WHERE EXCAVATION IS WITHIN PROPOSED OR EXISTING PAVEMENT OR SHOULDER, EXISTING DRIVEWAY, WITHIN 5' OF EDGE OF PROPOSED OR EXISTING PAVEMENT. IN AREAS OF ROCK EXCAVATION OR WHERE EXCAVATED MATERIAL IS NOT ACCEPTABLE TO THE

GENERAL NOTES

1. FULL DEPTH 1" R.O.C. STONE MAY BE REQUIRED WHEN ANY PART OF THE TRENCH EXCAVATION IS IN ROAD, DRIVEWAY, SIDEWALK, SHOULDER OR WITHIN FIVE FEET OF THE PAVEMENT EDGE, OR AS DETERMINED IN THE FIELD BY THE ENGINEER.
2. ALL SELECT MATERIAL TO BE COMPACTED IN 6" LIFTS, AS PER ASTM-2774.

TRENCH NOTES

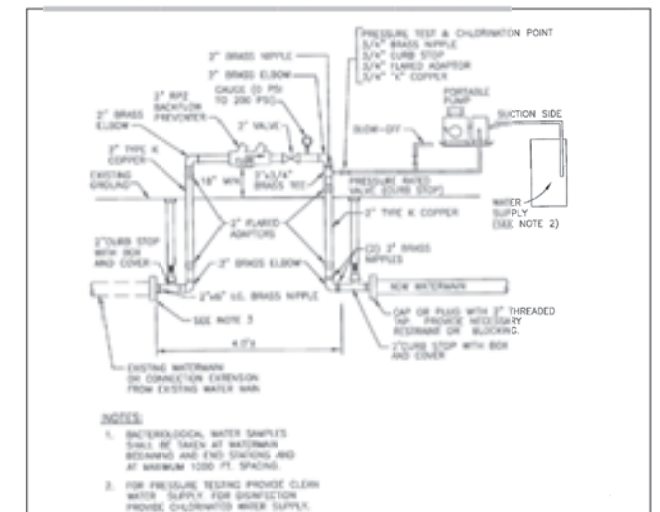


NOTES:

1. ALL EXISTING UTILITIES MUST BE SUPPORTED DURING CONSTRUCTION OF THE NEW WATERMAIN.
2. WHEN CROSSING A SEWERLINE WITH A NEW WATERMAIN, ONE FULL PIPE LENGTH (18 FT. MIN.) SHALL BE USED AT THE POINT OF CROSSING. THE WATERMAIN SHALL BE PLACED SO THAT BOTH JOINT ENDS ARE AS FAR AS POSSIBLE FROM THE EXISTING SEWERLINE.

TYPICAL PIPE CROSSING DETAIL

N.T.S.



NOTES:

1. BACTERIOLOGICAL WATER SAMPLES SHALL BE TAKEN AT WATERMAIN BEGINNING AND END STATIONS AND AT MAXIMUM 1000 FT. SPACING.
2. FOR PRESSURE TESTING PROVIDE CLEAN WATER SUPPLY. FOR DISINFECTION PROVIDE CHLORINATED WATER SUPPLY.
3. CAP OR PLUG WITH 2-INCH THREADED TAP OR 2-INCH TAP INTO MAIN. PROVIDE NECESSARY RESTRAINT AND BLOCKING.

DETAIL

N.T.S.

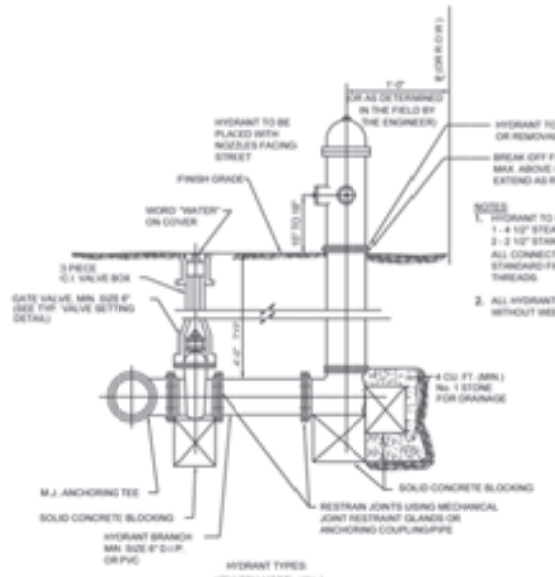
PRESSURE TESTING AND DISINFECTION APPARATUS SCHEMATIC

N.T.S.

ALLOWABLE LEAKAGE PER 1000' FOR 150 PSI TEST PRESSURE LOSS IN GALLONS PER 2 HOUR TEST							
PIPE MATERIAL AND LENGTH	PIPE SIZE (IN)						
	6"	8"	10"	12"	14"	16"	20"
P.V.C. (20')	0.75	0.99	1.25	1.49	1.74	1.98	2.49
D.I.P. (18')	0.83	1.11	1.38	1.65	1.94	2.21	2.76

AWWA C-605-94 for PVC Pipe and AWWA C-600-99 for Ductile Iron Pipe

ALLOWABLE LEAKAGE IS CALCULATED BY DIVIDING TOTAL LENGTH OF PIPE TESTED BY 1000, AND MULTIPLYING THIS VALUE TIMES THE ALLOWABLE LEAKAGE AS OBTAINED FROM THE ABOVE TABLE.



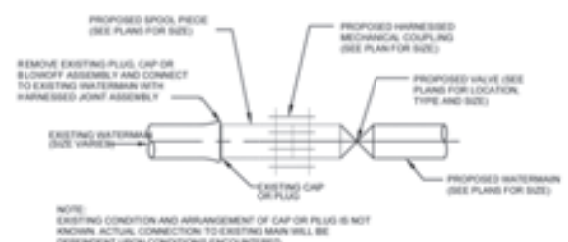
NOTES:

1. HYDRANT TO BE FURNISHED WITH 1 - 4 1/2" STEAMER CONNECTION, 2 - 2 1/2" STANDARD OPENINGS. ALL CONNECTIONS TO BE NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS.
2. ALL HYDRANTS TO BE FURNISHED WITHOUT WEEPS.

HYDRANT TYPES:
KENNEDY-MODEL K81-A
MUELLER-MODEL A-423

TYPICAL HYDRANT SETTING DETAIL

N.T.S.

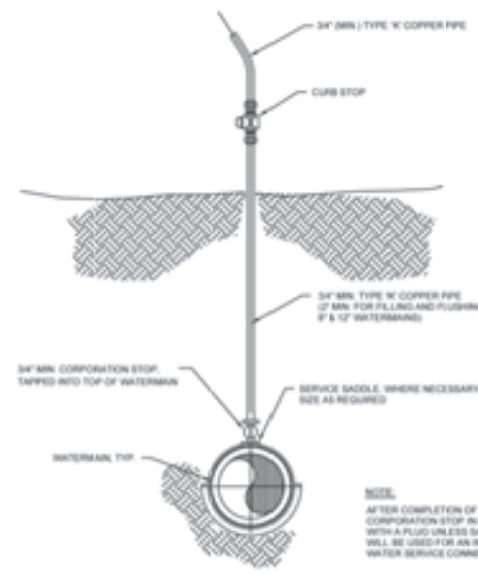


NOTE:
EXISTING CONDITION AND ARRANGEMENT OF CAP OR PLUG IS NOT KNOWN. ACTUAL CONNECTION TO EXISTING MAIN WILL BE DEPENDENT UPON CONDITIONS ENCOUNTERED.

PLAN

TYPICAL INTERCONNECTION TYPE "B"

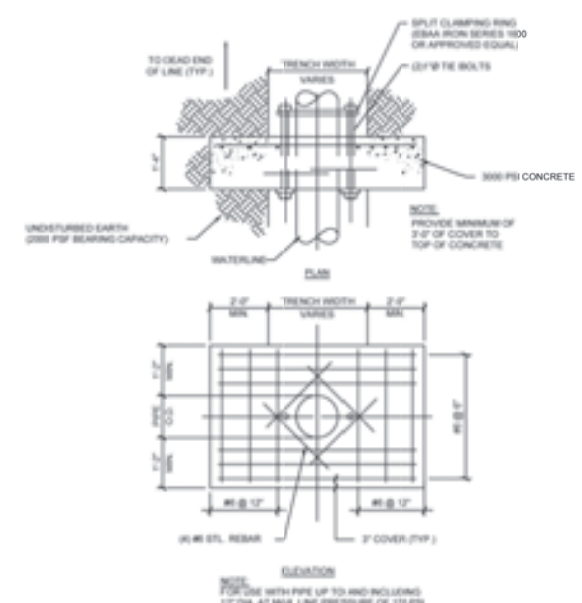
N.T.S.



NOTE:
AFTER COMPLETION OF TESTING, REPLACE CORPORATION STOP IN SERVICE SADDLE WITH A PLUG UNLESS SAMPLING POINT WILL BE USED FOR AN INDIVIDUAL WATER SERVICE CONNECTION.

TEMPORARY SAMPLING POINT DETAIL

N.T.S.

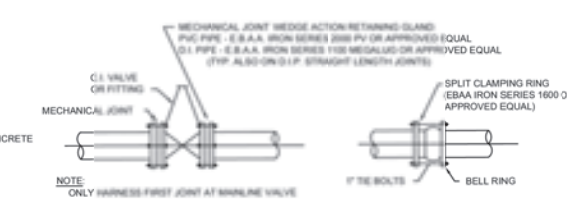


NOTE:
PROVIDE MINIMUM OF 3'-0" OF COVER TO TOP OF CONCRETE

NOTE:
FOR USE WITH PIPE UP TO AND INCLUDING 12" DIA. AT MAX. LINE PRESSURE OF 170 PSI

CONCRETE ANCHOR COLLAR DETAIL

N.T.S.



NOTE:
ONLY HARNESS FIRST JOINT AT MAINLINE VALVE

JOINT RESTRAINING DETAIL
VALVES & FITTINGS
N.T.S.

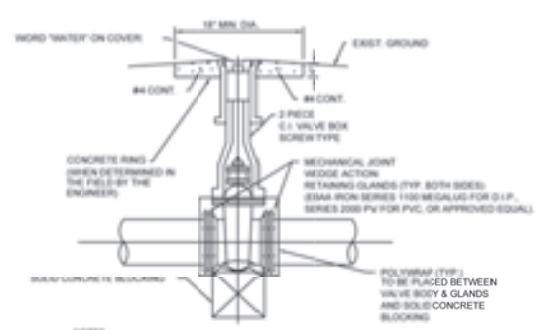
JOINT RESTRAINING DETAIL
PVC STRAIGHT PIPE
N.T.S.

NOTE:
1. MECHANICALLY RESTRAINED JOINTS REQUIRED WHERE SHOWN ON PLANS OR AS DETERMINED IN THE FIELD BY THE ENGINEER.

LENGTH OF RESTRAINED PIPE REQUIRED IN FEET (EACH SIDE OF FITTING)				
PIPE SIZE	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND, TEE, DEAD END (EXCEPT AT HYDRANT TEE)
6" PVC	10	20	40	85
8" PVC	15	30	60	110
12" PVC	20	40	75	155
ALL D.I.	40	40	40	40

TYPICAL PRESSURE PIPE HARNESSING DETAIL

N.T.S.

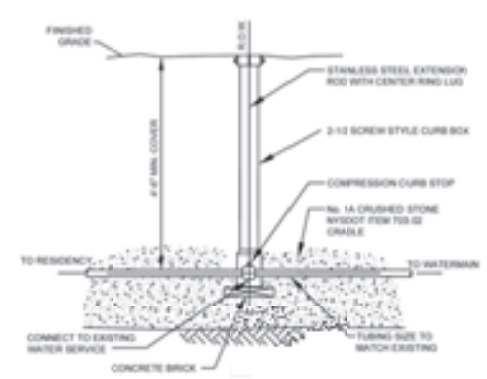


NOTES:

1. DETAIL TO BE USED FOR BOTH GATE AND BUTTERFLY VALVES.
2. EXTEND CONCRETE BLOCKING TO SUPPORT VALVE ACTUATOR BOX ON BUTTERFLY VALVES.
3. BUTTERFLY VALVES TO BE INSTALLED WITH VALVE ACTUATOR BOX ON SIDE OF MAIN AWAY FROM ROAD UNLESS OTHERWISE DETERMINED IN THE FIELD BY THE ENGINEER.

TYPICAL VALVE SETTING DETAIL

N.T.S.



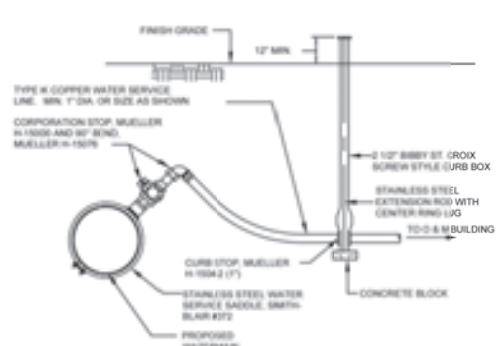
NOTE:

1. THE CONTRACTOR SHALL COMPACT BACKFILL MATERIAL TO A POINT 2' BEYOND THE CENTERLINE OF THE VALVE IN BOTH DIRECTIONS. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 30" ABOVE THE SERVICE IN ORDER TO AVOID SETTLEMENT AND INSURE THAT THE CURB BOX REMAINS PLUMB AFTER COMPLETION OF BACKFILLING. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE SERVICE FROM COMPACTION ACTIVITIES.
2. EXISTING SERVICES SHALL BE CRIMPED AND ABANDONED IN PLACE.
3. CURB BOXES SHALL NOT BE PLACED IN ASPHALT OR CONCRETE PAVEMENTS.
4. CONTRACTOR TO RESIDENCY SHALL REMOVE COPPER FROM COMPRESSION FITTING.



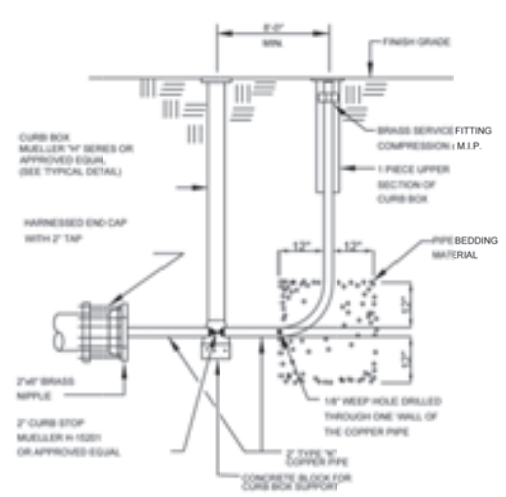
CURB STOP AND BOX

N.T.S.



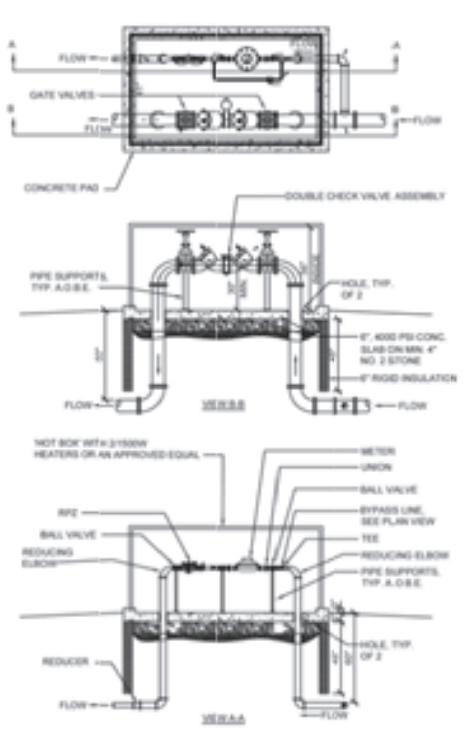
STANDARD CONNECTION TO WATERMAIN DOMESTIC WATER SERVICE TO O&M BUILDING

N.T.S.



TYPICAL PERMANENT BLOW-OFF DETAIL

N.T.S.

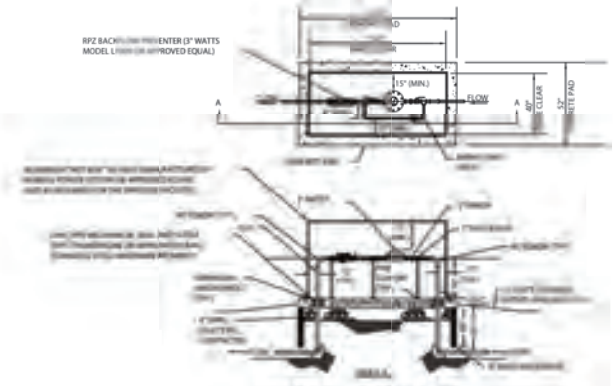


NOTES:

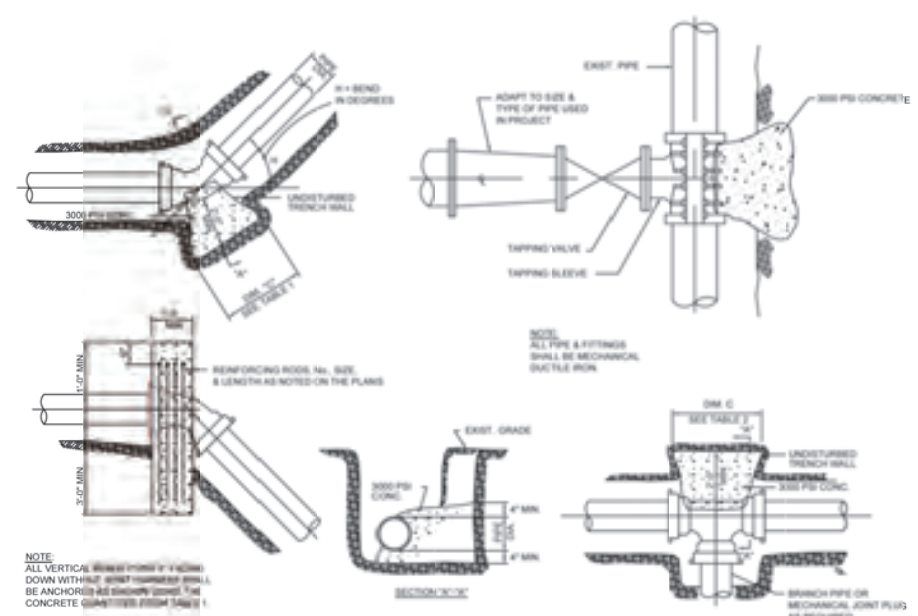
1. ALL BACKFLOW PREVENTION (BFP) DEVICES MUST BE APPROVED BY THE NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH).
2. THE BFP DEVICE SHALL BE INSTALLED AS SHOWN ON THE APPROVED PLANS IN A HEATED, LIGHTED AREA ABOVE THE HIGHEST POSSIBLE FLOOD LEVEL. THE INSTALLATION MUST BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NYSDOH, TOWN OF ALABAMA FACILITIES, AND LOCAL PLUMBING CODES. DEVIATIONS TO THE APPROVED PLANS ARE NOT ALLOWED WITHOUT PERMISSION OF THE TOWN OF ALABAMA AND NYSDOH.
3. THE BFP DEVICE WILL CAUSE A DECREASE IN WATER PRESSURE. SEE MANUFACTURER'S FLOW CURVES FOR PRESSURE LOSSES.
4. AN AIR GAP OR AIR GAP FITTING MUST BE MAINTAINED AT THE RELIEF PORT OF THE REDUCED PRESSURE ZONE (RPZ) DEVICES.
5. DRAINAGE CAPACITY MUST BE ABLE TO HANDLE THE MAXIMUM RELIEF VALVE DISCHARGE OF THE RPZ DEVICE BASED UPON MANUFACTURER'S RELIEF VALVE DISCHARGE RATE CURVES. DIRECT DRAIN CONNECTIONS TO SEWERS ARE PROHIBITED.
6. ADEQUATE SUPPORT FOR THE BFP DEVICE TO BE PROVIDED.
7. A THERMAL EXPANSION TANK SHOULD BE INSTALLED ON THE COLD WATER MAKE-UP LINES TO DIRECT FIRED STORAGE TANKS. A WORKING PRESSURE RELIEF VALVE MUST BE MAINTAINED AT ALL TIMES.
8. THE BFP DEVICE IS TO BE TESTED BY A NYSDOH CERTIFIED TESTER AT THE TIME OF INSTALLATION AND AT LEAST ANNUALLY THEREAFTER. TEST RESULTS ARE TO BE SUBMITTED TO THE TOWN OF ALABAMA AND NYSDOH.
9. MAINTENANCE OF THE BFP DEVICE SHALL BE THE RESPONSIBILITY OF THE WATER CUSTOMER.
10. IT IS UNLAWFUL TO TAMPER WITH THE METER OR THE BFP DEVICE, TO INSTALL ANY OUTLET OR CONNECTION AHEAD OF THESE DEVICES, TO INSTALL AN UNPROTECTED BYPASS AROUND THESE DEVICES, OR TO REMOVE THESE DEVICES FROM SERVICE WITHOUT THE APPROVAL OF THE TOWN OF ALABAMA AND NYSDOH.

TYPICAL HOT BOX W/ DOUBLE CHECK VALVE AND RPZ ASSEMBLIES

N.T.S.



HOT BOX W/ RPZ ASSEMBLY (DOMESTIC WATER SERVICE)



NOTE:
ALL VERTICAL BENDS FORMING A "HUMP" DOWN WITHOUT JOINT HARNESSING SHALL BE ANCHORED AS SHOWN USING THE CONCRETE QUANTITIES FROM TABLE 1.

NOTE:
ALL PIPE & FITTINGS SHALL BE MECHANICAL DUCTILE IRON.

TABLES FOR 2800 P.S.F. SOIL BEARING LOAD AT 150 PSI TEST PRESSURE

TABLE 1						
	HORIZONTAL				VERTICAL	
BEND	5° TO 45°		46° TO 90°		5° TO 45°	46° TO 90°
PIPE DIA. IN.	"C" FT. - IN.	CONC. C.Y.	"C" FT. - IN.	CONC. C.Y.	CONC. C.Y.	CONC. C.Y.
[illegible]	4-3	0.68	8-2	1.28	9.00	17.20
[illegible]	3-7	0.49	6-9	0.91	6.60	12.30
[illegible]	2-11	0.36	5-5	0.67	4.80	9.70
[illegible]	2-4	0.25	4-3	0.46	3.40	6.30
[illegible]	1-7	0.16	3-0	0.30	2.20	4.00
[illegible]	1-0	0.10	1-11	0.17	1.20	2.30

TABLE 2			
BRANCH PIPE DIA. IN.	"C" FT. - IN.	QUAN. OF CONC. C.Y. TEE'S & PLUGS	WYE'S
16	7-6	0.62	0.85
14	5-9	0.48	0.66
12	4-0	0.33	0.60
10	3-2	0.25	0.40
8	2-3	0.16	0.29
6	1-6	0.10	0.18

TYPICAL DETAILS FOR CONCRETE BACKING OF PRESSURE PIPE

N.T.S.

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PROJ.: 081591-02-002
DATE: JANUARY 26, 2026
CHKD: PDQ

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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS

WATER DETAILS - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

C-506-N

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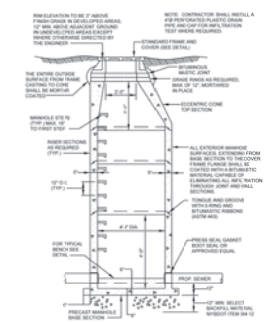

TYPICAL PRECAST SANITARY MANHOLE DETAIL
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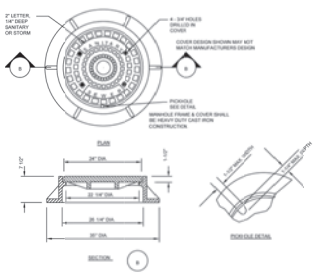
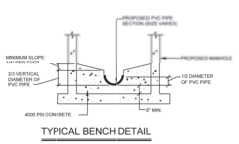


TYPE "A" IFRAME AND COVER



TYPICAL BENCH DETAIL
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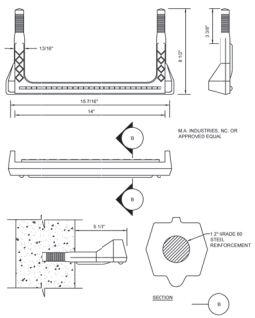

COPOLYMER POLYPROPYLENE PLASTIC MANHOLE STEP
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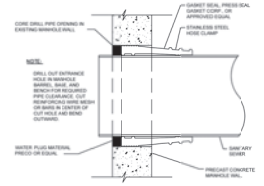

MANHOLE CONNECTION DETAIL
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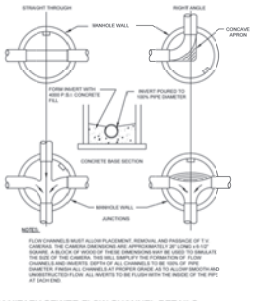

SANITARY SEWER FLOW CHANNEL DETAILS
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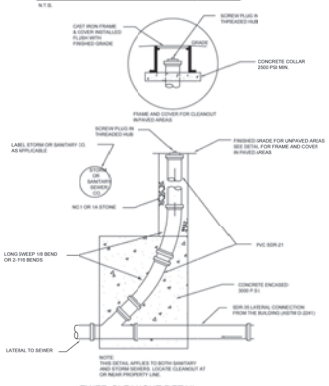

SEWER CLEANOUT DETAIL
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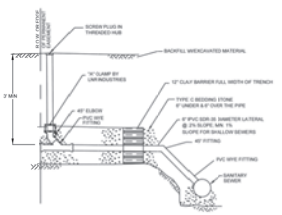

TYPICAL SEWER SERVICE CONNECTION DETAIL
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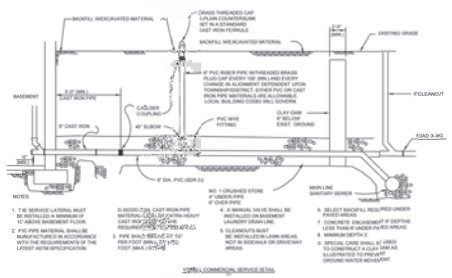

TYPICAL COMMERCIAL SERVICE DETAIL
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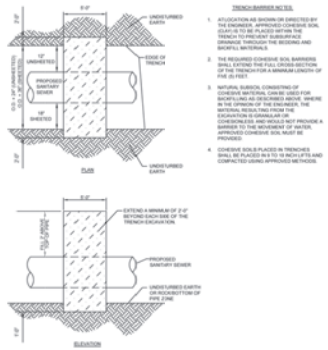

COHESIVE FILL TRENCH BARRIER DETAIL
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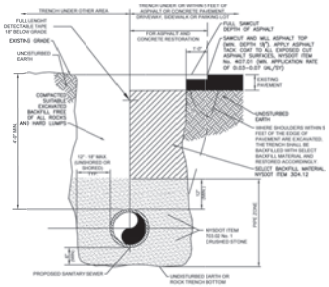

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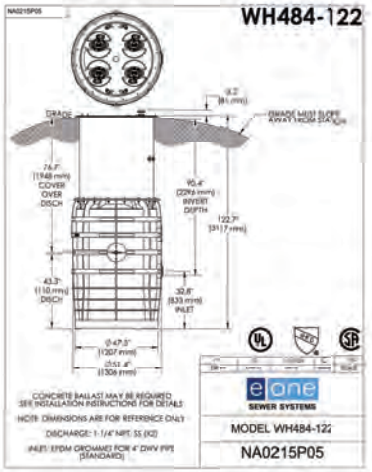

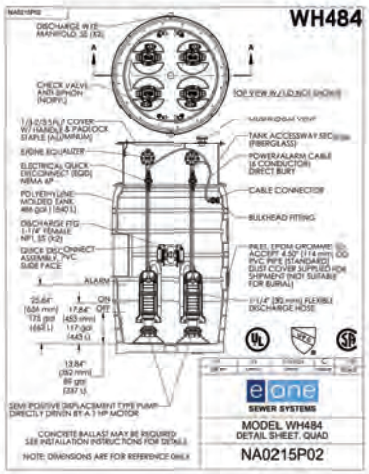

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PROJ. NO.0215-22-002
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DRAWN BY: MJS
CHECKED BY: ERIC L. KELLER, P.E.
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BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
SANITARY DETAILS - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-507-N

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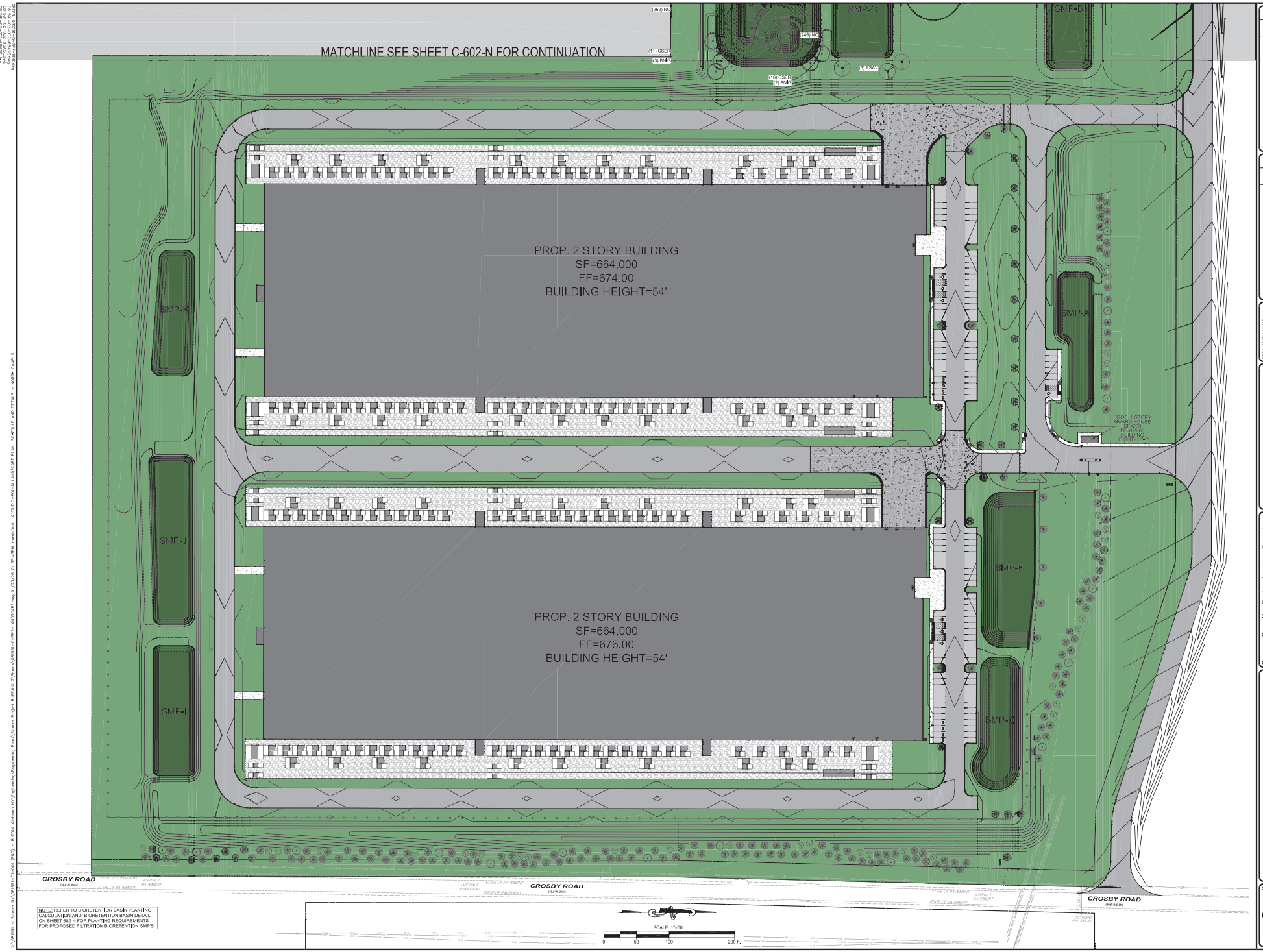

NOTE: REFER TO BIORETENTION BASIN PLANTING CALCULATION AND BIORETENTION BASIN DETAIL ON SHEET 602-N FOR PLANTING REQUIREMENTS FOR PROPOSED FILTRATION BIORETENTION SMPS.

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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

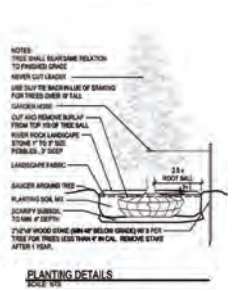
BUFA - PROJECT DOUBLE REED NORTH CAMPUS
LANDSCAPE PLAN, SCHEDULE AND DETAILS - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

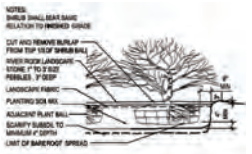
SHEET No.
C-601-N

BIORETENTION PLANTING CALCULATION				
Bioretention Basin #	SF of Basin	Shrubs SFT/(0.016 stems per sf)	Shade Trees 12FT (0.0039 stems per sf)	Ornamental Trees 8FT (0.0029 stems per sf)
SMP-A	6,010	97	23	18
SMP-B	6,885	111	27	21
SMP-C	17,105	275	67	51
SMP-D	17,105	275	67	51
SMP-E	5,535	94	23	17
SMP-F	10,587	170	41	32
SMP-G	10,091	162	39	30
SMP-H	8,512	137	33	25
SMP-J	11,556	187	45	35
SMP-K	5,877	94	23	18
Total	99,663	97	389	297

NOTE: PROPOSED SMP-H IS A MICROPOOL EXTENDED DETENTION POND.



PLANTING DETAILS
SCALE: 0"=1'



BIO-RETENTION TREE PLANTING LIST (ST)		
BOTANICAL NAME / COMMON NAME	ROOT	SIZE
ACER RUBRUM RED MAPLE	WHIPS	#7
BETULA NIGRA RIVER BIRCH	WHIPS	#7
JUNIPERUS VIRGINIATA EASTERN RED CEDAR	WHIPS	#7
CHIONANTHUS VIRGINICUS FRINGE-TREE	WHIPS	#7
NYSSA SYLVATICA BLACK GUM	WHIPS	#7
PLATANUS OCCIDENTALIS SYCAMORE	WHIPS	#7
QUERCUS PALUSTRIS PIN OAK	WHIPS	#7
SALIX NIGRA BLACK WILLOW	WHIPS	#7

REPRESENTED BY ST (SHADE TREE)

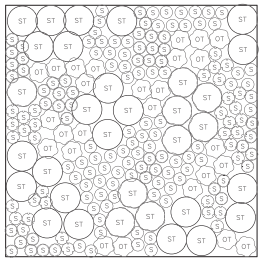
BIO-RETENTION TREE PLANTING LIST (OT)		
BOTANICAL NAME / COMMON NAME	ROOT	SIZE
CERCIS CANADENSIS EASTERN REDBUD	WHIPS	#5
AMELANCHIER LAEVIS SERVICEBERRY	WHIPS	#5
CORNUS FLORIDA FLOWERING DOGWOOD	WHIPS	#5
MAGNOLIA VIRGINIANA SWEETBAY MAGNOLIA	WHIPS	#5

REPRESENTED BY OT (ORNAMENTAL TREE)

BIO-RETENTION SHRUB PLANTING LIST		
BOTANICAL NAME / COMMON NAME	ROOT	SIZE
CLETHRA ALNIFOLIA SWEET PEPPERBUSH	CONTAINER	15-24"
ILEX VERTICILLATA WINTERBERRY	CONTAINER	15-24"
CEPHALANTHUS OCCIDENTALIS BUTTONBUSH	CONTAINER	24-30"
HAMAMELIS VIRGINIANA WITCH HAZEL	CONTAINER	30-36"
VIBURNUM DENTATUM ARROWWOOD	CONTAINER	24-30"
LINDERA BENZOIN SPICEBUSH	CONTAINER	15-24"

REPRESENTED BY S (SHRUB)

BIO-RETENTION SEED MIX	
CUSTOM SEED MIX	
BOTANICAL NAME / COMMON NAME	% OF MIX
PANICUM CLANDESTINUM, 'TIOGA' DEERTONGUE, 'TIOGA'	20.0%
PLOTS(NELLY)STAND, FULTS ELYMUS VIRGINICUS, MADISON-NY ECOTYPE	20.0%
'VIRGINIA WILDRYE, MADISON-NY ECOTYPE'	15.0%
AGROSTIS STOLONIFERA, 'PENNCROSS' CREEPING BENTGRASS, 'PENNCROSS'	15.0%
FOX FALLSTRE FOWL BLUEGRASS	15.0%
CAREX VULPINOIDES, PA ECOTYPE FOX SEDGE, PA ECOTYPE	10.0%
CAREX SCOPARIA, PA ECOTYPE BLUE BROOM SEDGE, PA ECOTYPE	1.2%
JUNCUS EFFUSUS SOFT RUSH	1.2%



BIO-RETENTION BASIN PLANTING PLAN
100' X 100' TYPICAL

BIO-RETENTION DESIGN / INSTALLATION BASIN NOTES:

PLANT MATERIAL INSTALLED IN BIO-RETENTION BASINS SHALL MEET THE FOLLOWING REQUIREMENTS:

1. ENTIRE HATCHED AREA (AS SHOWN ON THE LANDSCAPE / PLANTING PLAN) OF BIO-RETENTION BASIN SHALL BE PLANTED WITH A MIXTURE OF TREES, SHRUBS, AND HERBACEOUS PLANTS WITHIN SPECIFIED SEED MIX.
2. BASIN SHALL BE PLANTED WITH A MIXTURE OF DECIDUOUS AND EVERGREEN PLANT STEMS MADE UP OF TREES AND SHRUBS AS SPECIFIED ON THE BIO-RETENTION TREE & SHRUB PLANT LIST, PER NY SMP MANUAL. BIO-RETENTION BASINS SHALL BE PLANTED WITH 1,000 STEMS PER ACRE WITH APPROXIMATELY 70% SHRUBS AND 30% TREES.
3. ENTIRE HATCHED AREA (AS SHOWN ON THE LANDSCAPE / PLANTING PLAN) OF BIO-RETENTION BASIN SHALL CONTAIN SPECIFIED SEED MIX INSTALLED AS RECOMMENDED THROUGHOUT THE ENTIRE BASIN. (SEE BIO-RETENTION SEED MIX BELOW FOR MORE DETAILS)
4. CONTRACTOR TO INSTALL DEER PROTECTION FOR ALL WHIPS WITHIN BIORETENTION BASINS USING VEXAR OR TUBEX 6FT TALL BARRIERS (OR APPROVED EQUAL).

BIORETENTION BASIN DETAIL - TYPICAL
N.T.S.

2026-01-22 15:48

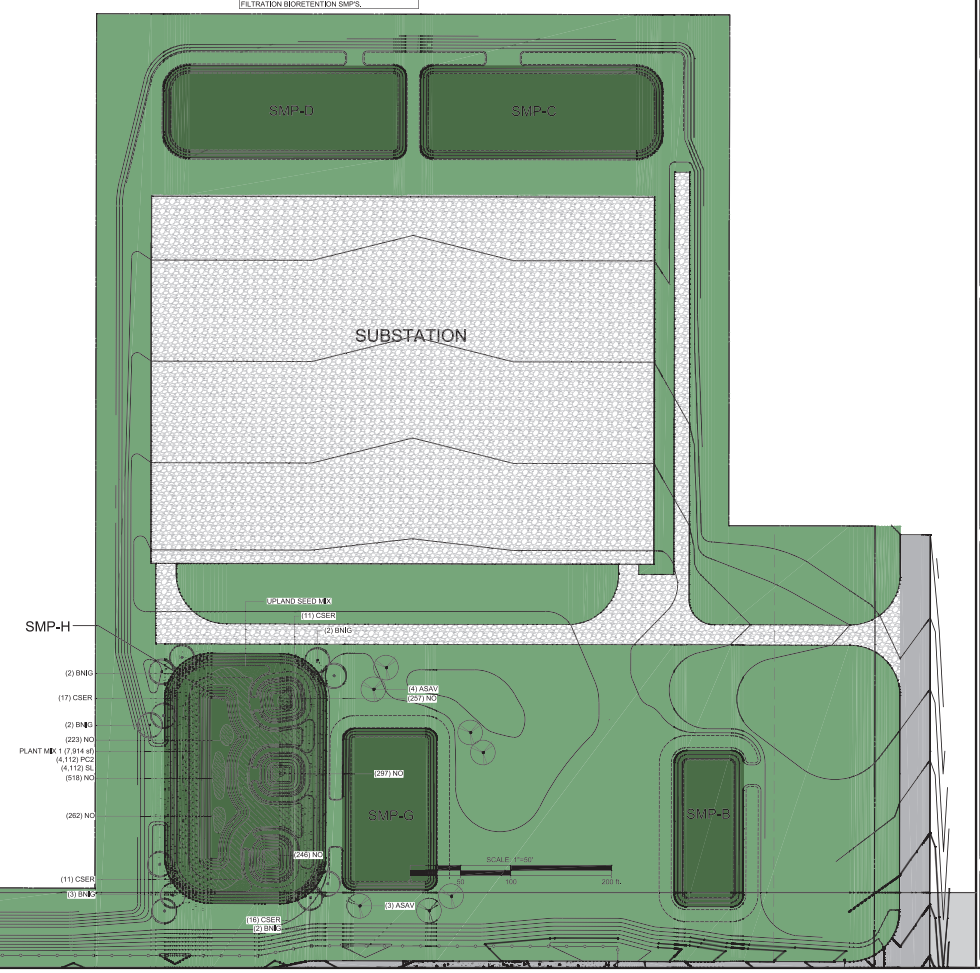
PLANTING PLAN LEGEND

SHADE TREE
ORNAMENTAL TREE
EVERGREEN TREE
DECIDUOUS SHRUB
EVERGREEN SHRUB
ORNAMENTAL GRASS
GROUNDCOVER / PERENNIAL
UPLAND SEED MIX

SMP-H MICROPOOL EXTENDED DETENTION POND PLANTING SCHEDULE							
CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	CALIPER / HEIGHT	NATIVE		REMARKS
DECIDUOUS TREES							
ASAV	7	ACER SACCHARINUM SILVER MAPLE	B & B	>1/2" TO 3" CAL	YES		BRANCHED 6-7' FROM GROUND, SINGLE, STRAIGHT TRUNK WITH LEADER INTACT AND SYMMETRICAL WELL-BRANCHED TOP. FALL TRANSPLANT HAZARD.
BNIG	11	BETULA NIGRA RIVER BIRCH MULTI-TRUNK	B & B	12' TO 14' HT	YES		CLUMP FORM HAVING 2 OR MORE MAIN STEMS ARISING FROM THE MAIN TRUNK, NOT MORE THAN 6" FROM GROUND LEVEL. FALL TRANSPLANT HAZARD.
CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	HEIGHT / WIDTH	NATIVE	SPACING	REMARKS
DECIDUOUS SHRUBS							
CSER	55	CORNUS SERICEA RED TWIG DOGWOOD	CONTAINER	24" TO 30"	YES	60" o.c.	HEAVY, WELL-BRANCHED TOP.
CODE	QTY	BOTANICAL / COMMON NAME	ROOT TYPE	SIZE	NATIVE	SPACING	REMARKS
PERENNIALS							
NO	1,303	NYMPHAEA ODORATA FRAGRANT WATER LILY	PLUG	LP90		12" o.c.	
PLANT MIX 1	4,112	PONTEDERIA CORDATA PICKEREL WEED	PLUG	LP90	YES	12" o.c.	
	4,112	SAGITTARIA LATIFOLIA BROADLEAF ARROWHEAD	PLUG	LP90	YES	12" o.c.	

UPLAND SEED MIX	
EASTERN ECOTYPE NATIVE GRASS MIX	
BOTANICAL NAME / COMMON NAME	% OF MIX
ANDROPOGON GERARDII, 'PRAIRIE VIEW'-IN ECOTYPE BIG BLUESTEM, 'PRAIRIE VIEW' - IN ECOTYPE	35.0 %
SORGHASTRUM NUTANS, NY4 ECOTYPE INDIANGRASS, NY4 ECOTYPE	30.0 %
PANICUM VIRGATUM, 'SHAWNEE' SWITCH GRASS, 'SHAWNEE'	20.00 %
ELYMUS VIRGINICUS, MADISON-NY ECOTYPE VIRGINIA WILDRYE, MADISON-NY ECOTYPE	15.0 %

NOTE: REFER TO BIORETENTION BASIN PLANTING CALCULATION AND BIORETENTION BASIN DETAIL FOR PLANTING REQUIREMENTS FOR PROPOSED FILTRATION BIORETENTION SMP'S.



MATCHLINE SEE SHEET C-601-N FOR CONTINUATION

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REVISION / DATE / CHKD

REVISED PER NYSDOT COMMENTS DATED JANUARY 29, 2026

REVISED PER NYSDOT COMMENTS DATED JANUARY 22, 2026

REVISED PER NYSDOT COMMENTS DATED JANUARY 15, 2026

REVISED PER NYSDOT COMMENTS DATED JANUARY 8, 2026

REVISED PER NYSDOT COMMENTS DATED DECEMBER 18, 2025

REVISED PER NYSDOT COMMENTS DATED DECEMBER 11, 2025

REVISED PER NYSDOT COMMENTS DATED DECEMBER 4, 2025

REVISED PER NYSDOT COMMENTS DATED NOVEMBER 20, 2025

REVISED PER NYSDOT COMMENTS DATED NOVEMBER 13, 2025

REVISED PER NYSDOT COMMENTS DATED NOVEMBER 6, 2025

REVISED PER NYSDOT COMMENTS DATED OCTOBER 30, 2025

REVISED PER NYSDOT COMMENTS DATED OCTOBER 23, 2025

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ERIC L. KELLER, N.Y. Professional Engineer No. 082234-1

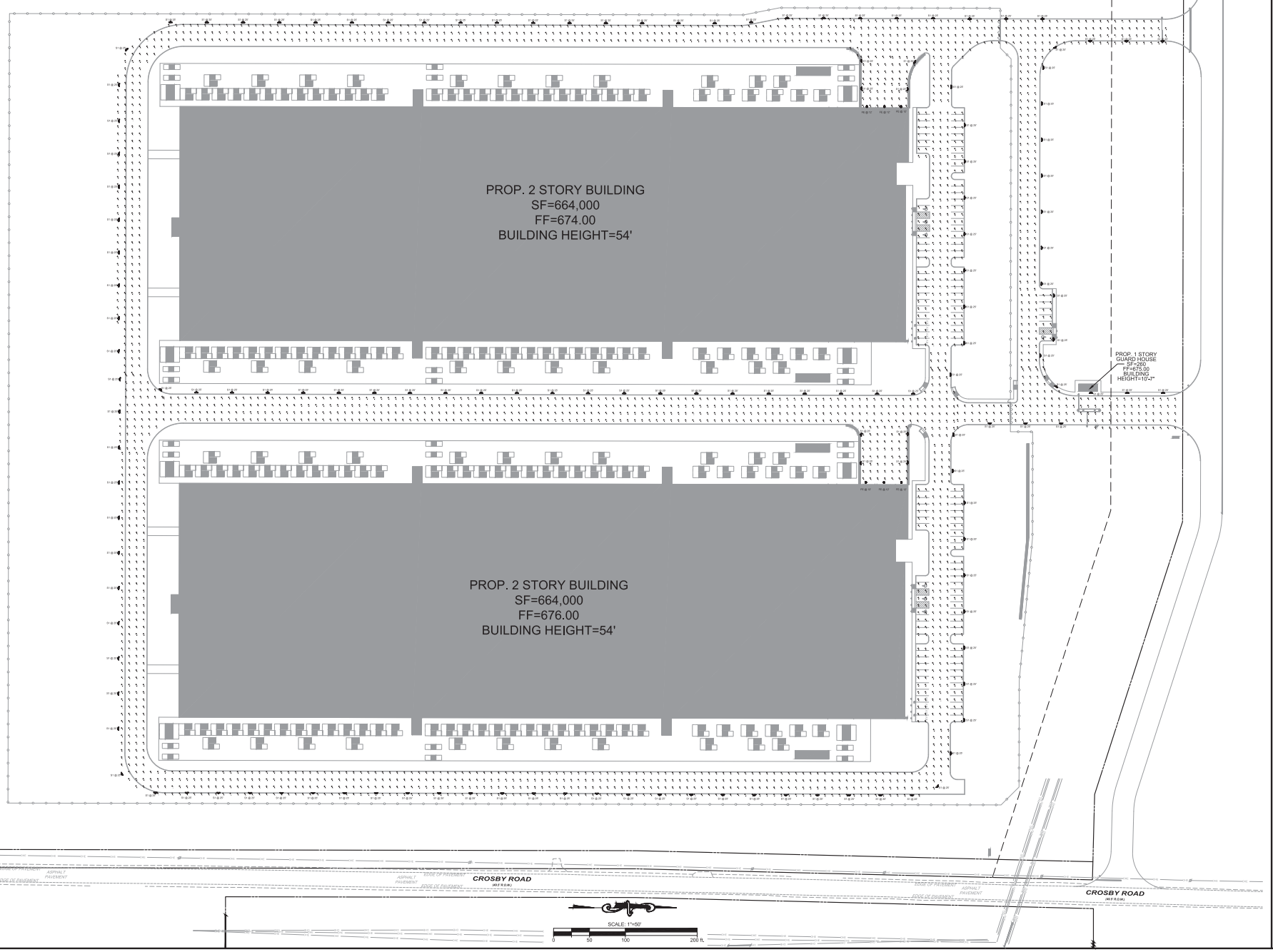
BUFA - PROJECT DOUBLE REED NORTH CAMPUS
LANDSCAPE PLAN, SCHEDULE AND DETAILS - NORTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
C-602-N

DWG: 2419-1-2202-20-1-161.90
File: 2419-1-2202-20-1-161.90
Date: 2026-01-22 15:48:00
Rev: 2026-01-22 15:48:00 - 2419A

X:\2419\1 - Shawn NY\2419-1-01-001 (ENG) - BUFA Alabama NY\Engineering\Engineering Plans\Shawn Project BUFFALO\Drawings\2419-1-01-SP2-LANDSCAPE.dwg, 01/23/26 01:33:57PM, mwellhouse, LAYOUT: C-602-N LANDSCAPE PLAN - SCHEDULE AND DETAILS - NORTH CAMPUS

MATCHLINE SEE SHEET C-122-N FOR CONTINUATION



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PROJ. NO. 065224.002
DATE: JANUARY 29, 2026
DESIGNED BY: JLL
DRAWN BY: JLL
CHECKED BY: ELK
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ERIC L. KELLER, N.Y. Professional Engineer No.: 065224-1

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
PHOTOMETRIC PLAN - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET NO.

C-701-N

SCALE: 1"=50'

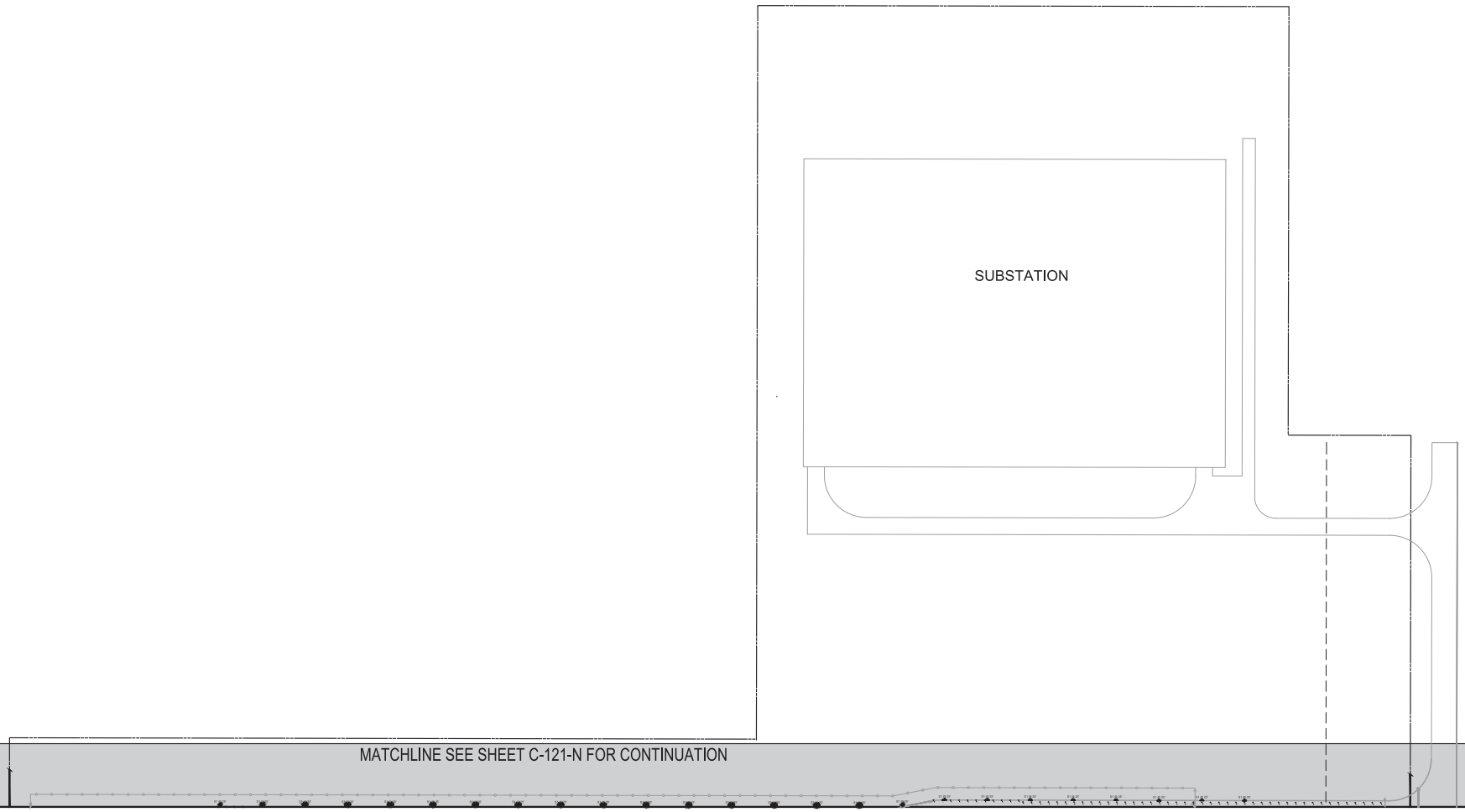
0 50 100 200 ft.

Schedule

Symbol	Label	Image	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Polar Plot
☐	FE		6	WST LED P1 40K VF MVOLT	WST LED, Performance package 1, visual confort forward throw, MVOLT	4000 K,	1	1639	0.77	12	
☐	S1		143	DSX0 LED P3 40K 70CRI T3M	BI-Series Size 0 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 3 Medium		1	8795	0.77	68.95	

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Loading Dock 1	+	3.1 fc	4.9 fc	2.1 fc	2.3:1	1.5:1
Loading Dock 2	+	3.2 fc	5.8 fc	2.0 fc	2.9:1	1.6:1
Loading Docks		3.2 fc	5.8 fc	2.0 fc	2.9:1	1.6:1
Parking 1	+	1.5 fc	2.1 fc	0.5 fc	4.2:1	3.0:1
Parking 2	+	1.5 fc	2.1 fc	0.5 fc	4.2:1	3.0:1
Parking 3	+	2.0 fc	2.6 fc	1.4 fc	1.9:1	1.4:1
Roadway	+	2.2 fc	3.4 fc	1.1 fc	3.1:1	2.0:1
Roadway 2	+	2.0 fc	3.1 fc	1.3 fc	2.4:1	1.5:1
Roadway 3	+	2.0 fc	3.7 fc	1.4 fc	2.6:1	1.4:1
Roadway 4	+	2.1 fc	2.9 fc	1.5 fc	1.9:1	1.4:1
Roadway 5	+	1.9 fc	3.1 fc	0.7 fc	4.4:1	2.7:1
Roadway 6	+	2.1 fc	2.2 fc	1.9 fc	1.2:1	1.1:1
Roadway 8	+	2.9 fc	3.6 fc	2.0 fc	1.8:1	1.5:1
Roadways		1.9 fc	3.1 fc	0.5 fc	6.2:1	3.7:1
Roadyway 7	+	2.6 fc	3.2 fc	1.9 fc	1.7:1	1.4:1



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ERIC L. KELLER, N.Y. Professional Engineer No. 085234-1

BUFA - PROJECT DOUBLE REED
NORTH CAMPUS
PHOTOMETRIC PLAN - NORTH CAMPUS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET NO.

C-702-N

PROJECT NO. 061-0045-0002
DATE: JANUARY 29, 2026
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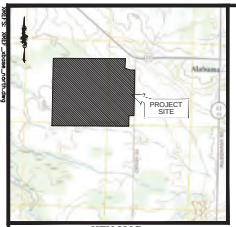
N:\061045 - Stream NY\061045-01-001 (ENG) - BUFFA Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO 2\Sheets\061045-C-SP2-LIGHTING.dwg 01/23/26 11:34:08AM, mwehlen, LAYOUT: C-702-N PHOTOMETRIC PLAN - NORTH CAMPUS



KEY MAP
SCALE: 1" = 2000'

NOTES:

1. PROPERTY KNOWN AS TAX MAP PARCELS: S.B.L 10-1-7, 10-1-8, 10-1-9, 10-1-10, 10-1-4.2, 10-1-4.112 AND 10-1-3.
2. THE SURVEY PERFORMED ON JANUARY 12 - 15, 2026 WAS SUBJECT TO SIGNIFICANT SNOW COVER AND MAY NOT SHOW ALL SURFACE CONDITIONS. STRINGENT AND INACCESSIBLE SITE FEATURES NOT LOCATED WILL BE UPDATED FROM AN AERIAL SURVEY IN PROGRESS.
3. APPROXIMATE LOCATION OF ABOVE GROUND STRUCTURES WHERE NOTED ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND WERE NOT FIELD LOCATED BY BOWMAN.
4. THE LOCATION OF UTILITIES AS SHOWN HEREON ARE APPROXIMATE BASED ON ABOVE GROUND OBSERVATIONS ONLY W/ ACCORDANCE WITH FIELD MARK-OUTS AND/OR PHYSICAL LOCATIONS. CONNECTIONS BETWEEN STRUCTURES IF SHOWN ARE BASED ON SAID MARK-OUTS, OCCUPATIONS AND REFERENCES NOTED HEREON AND MAY NOT REPRESENT ACTUAL BELOW GROUND CONDITIONS. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. UTILITIES MUST BE VERIFIED WITH THE PROPER UTILITY COMPANIES PRIOR TO ANY DESIGN OR EXCAVATION. THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES FIELD VERIFIED BY THE PROPER UTILITY COMPANIES BEFORE ANY CONSTRUCTION BEGINS.
5. THE MAKER OF THIS MAP IS NOT QUALIFIED TO MAKE A DETERMINATION AS TO THE ABSENCE OR PRESENCE OF ANY WETLANDS, CONTAMINATION OR OTHER ENVIRONMENTAL CONDITION WHICH MAY AFFECT THIS PROPERTY. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED BY THE FACT THAT NO EVIDENCE OF WETLANDS, CONTAMINATION OR OTHER ENVIRONMENTAL CONDITION IS BEING SHOWN ON THIS MAP EXCEPT AS NOTED BELOW.
6. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONDITIONS THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
7. THE LOCATION OF UNDERGROUND TANKS AND VAULTS IF ANY EXIST WERE NOT EXAMINED AS PART OF THIS SURVEY.
8. UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY NOT BEARING A LICENSED LAND SURVEYORS SEAL IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.
9. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S IMPRESSION SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.
10. CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.
11. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS/HER BEHALF TO GOVERNMENTAL AGENCY LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
12. THE PROPERTY OFFSETS SHOWN ON THIS PLAN SHALL NOT BE USED AS THE BASIS FOR THE CONSTRUCTION OF FENCES OR ANY OTHER PERMANENT STRUCTURES.
13. THIS SURVEY IS SUBJECT TO CURRENT TITLE REPORTS TO BE PROVIDED.
14. THIS SURVEY IS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT FOR S.B.L. 10-1-7 AND 10-1-9. CURRENT TITLE REPORTS TO BE PROVIDED.
15. BY GRAPHIC PLOTTING ONLY SUBJECT PROPERTY IS LOCATED IN FLOOD HAZARD ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) PER REFERENCE #7 AND FLOOD HAZARD ZONE "C" (AREAS OUTSIDE OF 500-YEAR FLOOD) PER REFERENCE #8.
16. THERE ARE NO DEFINED PARKING SPACED ON SUBJECT PROPERTY.
17. THERE WAS NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OBSERVED AT THE TIME OF FIELD SURVEY.
18. THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED ON THE SUBJECT PROPERTY AT THE TIME OF FIELD SURVEY.

REFERENCES:

1. THE OFFICIAL TAX MAP FOR THE TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK, SECTION 10, DATED MARCH, 2024 .
2. MAP ENTITLED, "WYDER ESTATE PARCEL "B" BOUNDARY SURVEY PART OF LOT 19, TWP 13, RGE 4 PER MAP OF THE TONAWANDA RESERVATION DATED 1827, TOWN OF ALABAMA, COUNTY OF GENESEE, STATE OF NEW YORK", PREPARED BY FRANDINA ENGINEERING AND LAND SURVEYING, PC, DATED MARCH 11, 2013, REVISED TO MARCH 15, 2013.
3. MAP ENTITLED, "BOUNDARY SURVEY PART OF LOT 18, TWP 13, RGE 4 OF THE TONAWANDA RESERVATION, TOWN OF ALABAMA, COUNTY OF GENESEE, STATE OF NEW YORK", PREPARED BY FRANDINA ENGINEERING AND LAND SURVEYING, PC, DATED DECEMBER 3, 2012, REVISED TO DECEMBER 20, 2012.
4. MAP ENTITLED, " No. 6608 CROSBY ROAD, BOUNDARY SURVEY PART OF LOT 18, TWP 13, RGE 4 OF THE TONAWANDA RESERVATION, TOWN OF ALABAMA, COUNTY OF GENESEE, STATE OF NEW YORK", PREPARED BY FRANDINA ENGINEERING AND LAND SURVEYING, PC, DATED JUNE 12, 2013, REVISED TO JUNE 21, 2013.
5. MAP ENTITLED, " No. 6620 CROSBY ROAD, BOUNDARY SURVEY PART OF LOT 18, TWP 13, RGE 4 OF THE TONAWANDA RESERVATION, TOWN OF ALABAMA, COUNTY OF GENESEE, STATE OF NEW YORK", PREPARED BY FRANDINA ENGINEERING AND LAND SURVEYING, PC, DATED AUGUST 13, 2014.
6. TITLE REPORTS PREPARED BY CHICAGO TITLE INSURANCE COMPANY:
   S.B.L.10-1-3: FILE NUMBER 1315-40100 DATED MARCH 20, 2014
   S.B.L.10-1-4.2: FILE NUMBER 1415-40379 DATED OCTOBER 15, 2014
   S.B.L.10-1-4.112: FILE NUMBER 1315-40004 DATED DECEMBER 28, 2012
   S.B.L.10-1-8: FILE NUMBER 1415-40187 DATED JULY 8, 2014
   S.B.L.10-1-10: FILE NUMBER 1315-40284 DATED AUGUST 16, 2013
7. MAP ENTITLED, "NATIONAL FLOOD INSURANCE PROGRAM, FIRM FLOOD INSURANCE RATE MAP FOR GENESEE COUNTY, NEW YORK (ALL JURISDICTIONS), COMMUNITY NUMBER 361087, MAP NUMBER 36037E0135E, PRELIMINARY ISSUE DATE MARCH 3, 2025.
8. MAP ENTITLED, "FIRM FLOOD INSURANCE RATE MAP 01-12 MAP INDEX, TOWN OF ALABAMA, NY, GENESEE COUNTY, COMMUNITY NUMBER 360307C, EFFECTIVE DATE NOVEMBER 18, 1983.

SCHEDULE A PER TITLE COMMITMENT 1315-40004
(S.B.L. #10-1-4.112)

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee and State of New York, now known and distinguished as Lot 18, Township 13, Range 4 on the tract known as Tonawanda Reservation, which said lot intended to be conveyed contains 100.00 acres of land according to Joseph Jones' Survey.

EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Charles Needham by Warranty Deed dated December 1, 1876, and recorded April 9, 1877, in Genesee County Clerk's Office in Liber 147 of Deeds at page 91.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Harold L. Green and Evelyn B. Green by deed recorded in Liber 357 of Deeds, at page 272; thence westerly at right angles to the center line of the Crosby Road and along the southerly line of land conveyed to Green as aforesaid 198 feet to a point, which point is also the southwest corner of land conveyed to Green as aforesaid; thence southerly parallel to the center line of the Crosby Road 150 feet to a point; thence easterly parallel to the first described boundary 198 feet to the center line of the Crosby Road; thence northerly along the center line of the Crosby Road 150 feet to the place of beginning.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Harold L. Green and Evelyn B. Green, husband and wife, by Warranty Deed dated and recorded September 18, 1962, in Liber 357 of Deeds at page 272.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Ronald F. Thompson by Warranty Deed dated and recorded October 5, 1965, in Liber 386 of Deeds at page 455.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Gordon McConnell by Warranty Deed dated August 28, 1972, and recorded September 15, 1972, in Liber 421 of Deeds at page 218.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Grant E. Scofield and Genevieve H. Scofield, his wife, by Warranty Deed dated and recorded October 28, 1981, in Liber 459 of Deeds at page 851.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Douglas E. Mileham and Joyce D. Mileham, his wife, by deed dated June 26, 1998, and recorded in Genesee County Clerk's Office July 3, 1998, in Liber 512 of Deeds at page 277.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee and State of New York, distinguished as being part of Lot 18, Township 13, Range 4 of the Tonawanda Reservation, bounded and described as follows:

BEGINNING at the northeast corner of Lot 18, Township 13, Range 4; thence southerly along the east line of Lot 18, being the center line of Crosby Road, a distance of 452.00 feet recorded and measured to the southeast corner of a 6.0 foot wide strip of land conveyed to George W. Moore and Kathryn Moore by deed recorded in Genesee County Clerk's Office in Liber 310 of Deeds at page 301; thence westerly along a line parallel with the north line of Lot 18, a distance of 165.0 feet to a point; thence northwesterly at an interior angle of 162° 56' 00", a distance of 245.24 feet to a point; thence northerly at an interior angle of 102° 56' 00", a distance of 379.35 feet to a point on the north line of Lot 18; thence easterly along the north line of Lot 18, a distance of 375.0 feet to the point or place of beginning.

SCHEDULE A PER TITLE COMMITMENT 1315-40284
(S.B.L. #10-1-10)

PARCEL A

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee, State of New York, being part of the Tonawanda Reservation, Lot No. 18, Township 13, Range 4, bounded as follows:

COMMENCING in the center line of the Crosby Road at a distance of 1128.5 feet southerly from the intersection of the center line of the Crosby Road with the center line of the Lewiston Road, which point is also the southeast corner of land conveyed to Harold L. Green and Evelyn B. Green by deed recorded in Liber 357 of Deeds, at page 272; thence westerly at right angles to the center line of the Crosby Road and along the southerly line of land conveyed to Green as aforesaid 198 feet to a point, which point is also the southwest corner of land conveyed to Green as aforesaid; thence southerly parallel to the center line of the Crosby Road 150 feet to a point; thence easterly parallel to the first described boundary 198 feet to the center line of the Crosby Road; thence northerly along the center line of the Crosby Road 150 feet to the place of beginning.

PARCEL B

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee, State of New York, being part of Lot 18, Township 13, Range 4 of the Tonawanda Reservation, bounded and described as follows:

COMMENCING in the center line of the Crosby Road at a distance of 1285.5 feet southerly from the intersection of the center line of the Crosby Road with the center line of the Lewiston Road, which point is also the southeast corner of land conveyed to Grant E. Scofield and Genevieve H. Scofield by deed recorded in Liber 457 of Deeds, at page 192; thence westerly at right angles to the center line of the Crosby Road and along the southerly line of land conveyed to Scofield as aforesaid 198 feet to a point, which point is also the southwest corner of land conveyed to Scofield as aforesaid; thence southerly parallel to the center line of the Crosby Road 50 feet to a point; thence easterly parallel to the first described boundary 198 feet to the center line of the Crosby Road; thence northerly along the center line of the Crosby Road 50 feet to the place of beginning.

SCHEDULE A PER TITLE COMMITMENT 1415-40100
(S.B.L. #10-1-3)

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee and State of New York, in Township 13, of the 4th Range of townships, known and described as Lot 18, on a map or survey of a part of the Tonawanda Reservation made in 1827.

SCHEDULE A PER TITLE COMMITMENT 1415-40187
(S.B.L. #10-1-8)

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee and State of New York, and distinguished as part of Lot 18, Township 13, Range 4 of Townships on the Tract of land commonly called the Tonawanda Reservation as surveyed by Joseph Jones, Surveyor and bounded as follows:

COMMENCING at a point on the east line of Lot 18, 44 rods south from the northeast corner thereof; thence west parallel with the north line of said lot, 12 rods; thence south parallel with the east line of said lot, 13 1/3 rods; thence east 12 rods to the east line of said lot; thence north on said east line, 13 1/3 rods to the place of beginning.

SCHEDULE A PER TITLE COMMITMENT 1415-40379
(S.B.L. #10-1-4.2)

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee and State of New York, being part of Lot 18, Township 13, Range 4 of the Tonawanda Reservation, bounded and described as follows:

COMMENCING in the center line of Crosby Road, a distance of 1336.5 feet southerly from the intersection of the center line of Crosby Road with the center line of Lewiston Road; thence westerly at right angles to the center line of Crosby Road, 198 feet to a point; thence southerly parallel with the center line of Crosby Road, 150 feet to a point; thence easterly parallel with the first described boundary, 198 feet to the center line of Crosby Road; thence northerly along the center line of Crosby Road, 150 feet to the place of beginning.

RECORD DESCRIPTION S.B.L. #10-1-9

ALL THAT TRACT OR PARCE L OF LAND, situate in the Town of Alabama, County of Genesee, State of New York and being a part of Lot 18, Township 13, Range 4 of the Tonawanda Reservation (so called) bounded and described as follows:

BEGINNING at a point on the easterly line of 18 which line is also the center line of Crosby Road at its intersection with the southerly line of lands heretofore conveyed to Kenneth and Edith A. Silvernail by a deed recorded in the Genesee County Clerk's Office in Liber 336 of Deeds at Page 58, said point being further described as being 936.5 feet southerly measured along the center line of Crosby Road from the center line of the existing Lewiston Road.

RUNNING THENCE Westerly along the southerly line of said Silvernail lands a distance of 198 feet to the southwesterly corner thereof.

RUNNING THENCE Southerly and parallel to the center line of Crosby Road, a distance of 200 feet to a point.

RUNNING THENCE Easterly and parallel to the first described boundary. a distance of 198 feet to the center line of Crosby Road.

RUNNING THENCE Northerly along the center line of Crosby Road, a distance of 200 feet to the point or place of beginning; containing 0.91 acres be the same more or less.

RECORD DESCRIPTION S.B.L. #10-1-7

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee and State of New York, now known and distinguished as Lot 18, Township 13, Range 4 on the tract known as Tonawanda Reservation, which said lot intended to be conveyed contains 100.00 acres of land according to Joseph Jones' Survey.

EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Charles Needham by Warranty Deed dated December 1, 1876, and recorded April 9, 1877, in Genesee County Clerk's Office in Liber 147 of Deeds at page 91.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Elizabeth A. Starkweather by Warranty Deed dated March 19, 1881, and recorded in Genesee County Clerk's Office June 14, 1881, in Liber 154 of Deeds at page 70.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Myron Starkweather by Quit Claim Deed dated September 24, 1954, and recorded September 28, 1954, in Liber 310 of Deeds at page 301 (second deed on page).

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Harold L. Green and Evelyn B. Green, husband and wife, by Warranty Deed dated and recorded September 18, 1962, in Liber 357 of Deeds at page 272.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Ronald F. Thompson by Warranty Deed dated and recorded October 5, 1965, in Liber 386 of Deeds at page 455.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Gordon McConnell by Warranty Deed dated August 28, 1972, and recorded September 15, 1972, in Liber 421 of Deeds at page 218.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Grant E. Scofield and Genevieve H. Scofield, his wife, by Warranty Deed dated and recorded October 28, 1981, in Liber 459 of Deeds at page 851.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND conveyed to Douglas E. Mileham and Joyce D. Mileham, his wife, by deed dated June 26, 1998, and recorded in Genesee County Clerk's Office July 3, 1998, in Liber 512 of Deeds at page 277.

ALSO EXCEPTING THEREFROM ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Alabama, County of Genesee and State of New York, distinguished as being part of Lot 18, Township 13, Range 4 of the Tonawanda Reservation, bounded and described as follows:

BEGINNING at the northeast corner of Lot 18, Township 13, Range 4; thence southerly along the east line of Lot 18, being the center line of Crosby Road, a distance of 452.00 feet recorded and measured to the southeast corner of a 6.0 foot wide strip of land conveyed to George W. Moore and Kathryn Moore by deed recorded in Genesee County Clerk's Office in Liber 310 of Deeds at page 301; thence westerly along a line parallel with the north line of Lot 18, a distance of 165.0 feet to a point; thence northwesterly at an interior angle of 162° 56' 00", a distance of 245.24 feet to a point; thence northerly at an interior angle of 102° 56' 00", a distance of 379.35 feet to a point on the north line of Lot 18; thence easterly along the north line of Lot 18, a distance of 375.0 feet to the point or place of beginning.

SURVEY DESCRIPTION
S.B.L. 10-1-4.112, 10-1-7, 10-1-8, 10-1-9, 10-1-10, 10-1-4.2, 10-1-3

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Alabama, County of Genesee and State of New York, being part of Lot No. 14, and Lot 19, Township 13, Range 4 of the Tonawanda Reservation, bounded and described as follows:

COMMENCING at a point in the centerline of Crosby Road (49.5 feet wide) at the southeast corner of Lot 18; thence N 01°07'50" W along the east line of Lot 18 a distance of 424.00 feet to the Point of Beginning and northeast corner of lands conveyed to Genesee County Industrial Development Agency recorded in the Genesee County Clerk's Office in Liber 905 Page 796; thence N 89°28'55" W parallel with the southerly line of Lot 18, a distance of 200 feet to a point; thence S 01°07'50" W parallel with the east line of Lot 18 a distance of 424.00 feet to a point in the south line of Lot 18; thence N 89°28'55" W along the south line of Lot 18 a distance of 1423.60 feet to the southwest corner of Lot 18 and southeast corner of Lot 19; thence N 89°28'57" W along the south line of Lot 19 a distance of 1625.24 feet to the northwest corner of Lot 19; thence N 01°07'50" E along the west line of Lot 19 a distance of 2680.48 feet to the northwest corner of Lot 19; thence S 89°28'57" E along the north line of Lot 19 and the north line of Lot 18 a distance of 2873.90 feet to the southeast corner of lands conveyed to Jonathan and Kathleen Rivers recorded in the Genesee County Clerk's Office in Liber 893 Page 230; thence S 04°53'35" W along the south line conveyed in Liber 893 Page 230 a distance of 379.35 feet to a point; thence S 72°09'03" E a distance of 245.24 feet to the northwest corner of lands conveyed to Genesee County Industrial Development Agency recorded in the Genesee County Clerk's Office in Liber 913 Page 496; thence S 89°28'57" E parallel with the north line of Lot 18 a distance of 165.00 to a point in the east line of Lot 18 and center of Crosby Road; thence S 01°07'50" W along the east line of Lot 18 and center of Crosby Road a distance of 1809.69 feet to the point of beginning.

Containing 194.211 acres more or less.

LEGEND

SYMBOL	DESCRIPTION
	Drainage Manhole
	Grate or Inlet
	Inlet Round Grate
	DK Manhole
	San Sewer Manhole
	Utility Pole
	Water Valve
	Storm Sewer
	Sanitary Sewer
	Fence Line
	Index Contour
	Intermediate Contour
D.C.	Depressed Curb
B.O.S.	Bottom of Structure
	Electric Box
	Cable Box
	Traffic Light
	Light Pole
	Signs

811 PROJECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS TO UTILITY COMPANIES BEFORE PERFORMING ANY EXCAVATION. CONTACT UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION BEFORE YOU DIG.
Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

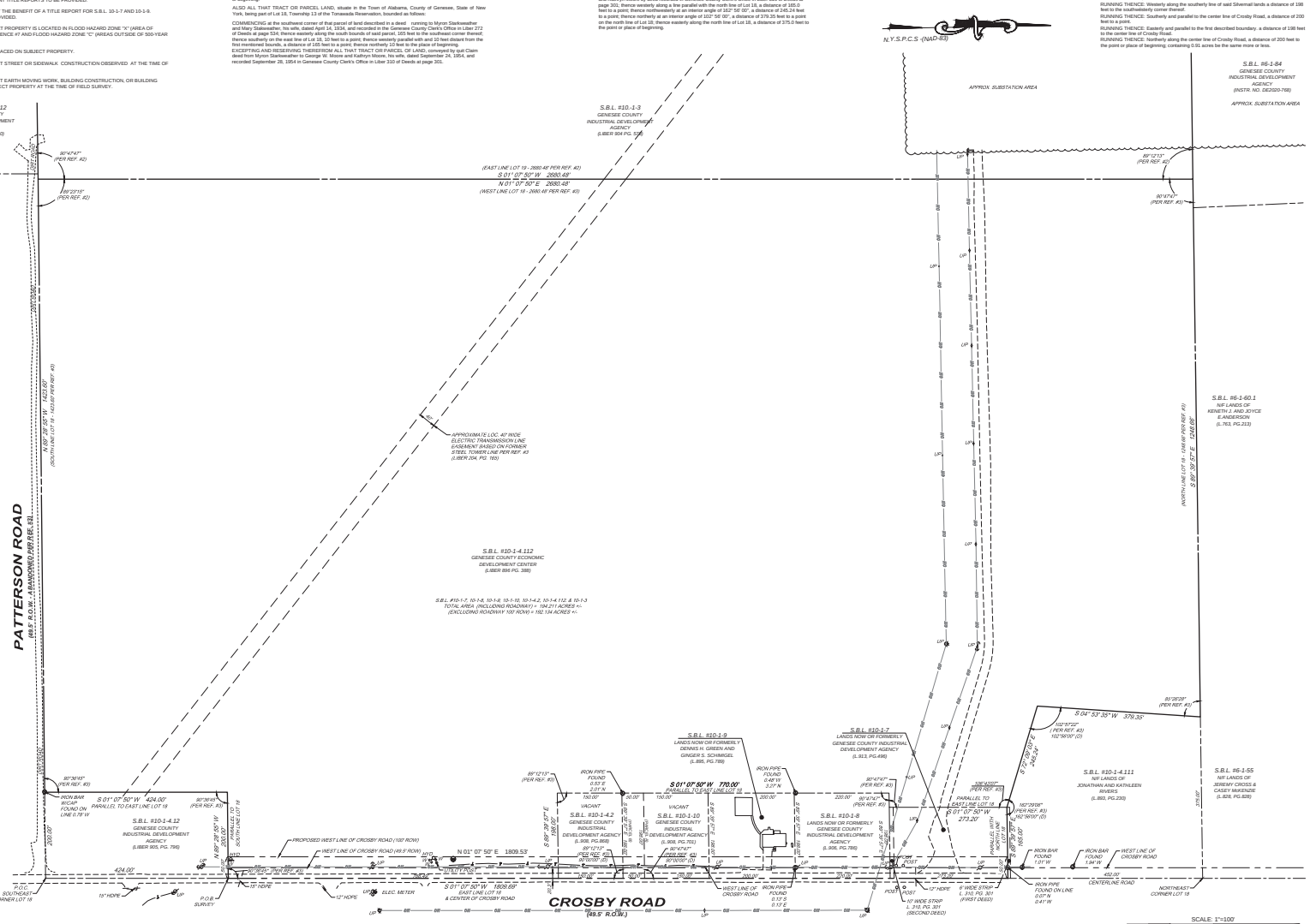
CERTIFIED TO:

-

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 6 (a), 7(a), 7(b)(1), 7(c), 8, 9,10, 11(a), 13, 14, 16, 17 AND 18 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON JANUARY 15, 2026.

ERROL MELNICK
NEW YORK P.L.S. LICENSE No. 050497-1

DATE OF MAP



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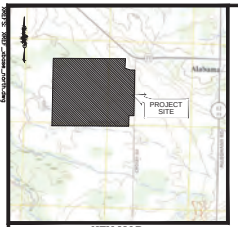
PROJ. LOCATION
DRAWN BY: JAMES J. MCGINNIS
CHECKED BY: ERROL MELNICK
DATE: 01/23/2026
CAD ID:
SURVEY CREW: (MAX) L. MCGINNIS, (MAX) M. MCGINNIS, (MAX) T. MCGINNIS, (MAX) J



KEY MAP
SCALE: 1" = 2000'

EXCEPTIONS: PER TITLE INSURANCE COMMITMENT FILE NO.1415-40187 (S.B.L. #10-1-8)

6. Exceptions as disclosed by Job No. 3646-10 made by Frandina Engineering and Land Surveying, PC and dated May 12, 2014 as follows:
   a. Frame shed in southwest corner of parcel encroaches over west boundary line up to 0.36 feet. Not found.
   b. No fences along lines of record title.
   c. Variation between record and measured distance from the northeast corner of Lot 18 to the point of commencement of the parcel described in Schedule A herein: 44 rods (726.0 feet) record vs. 725.20 feet measured.
   d. Utility pole in southeast corner adjacent to the west line of Crosby Road right of way with overhead wires traversing northwesterly over premises to 2 story frame dwelling thereon. No dwelling found.
8. Terms and covenants contained in deed recorded in Liber 147 of Deeds at page 91 on April 9, 1877. Deed not provided.

EXCEPTIONS: PER TITLE INSURANCE COMMITMENT FILE NO.1415-40379 (S.B.L. #10-1-4.2)

6. Exceptions as disclosed by Survey No. 3646-12 made by Frandina Engineering and Land Surveying, PC and dated August 13, 2014 as follows:
   a. Building improvements located within bounds of record title. No buildings observed.
   b. Variations between record and measured angle in northeast corner of insured premises - 90° record vs. 89° 12' 13" measured. Shown.
   c. Overhead wires traversing over insured premises from utility pole adjacent to west line of Crosby Road right of way to one story frame house. No wires observed.

EXCEPTIONS: PER TITLE INSURANCE COMMITMENT FILE NO.1415-40284 (S.B.L. #10-1-10)

7. Exceptions as disclosed by Job No. 3646-5 made by Frandina Engineering and Land Surveying, PC and dated June 12, 2013, revised June 21, 2013, as follows:
   a. Overhead wires traversing northeast-southeast over Parcel A from utility pole off premises to frame house on Parcel A. None Observed.
   b. Variation between record and measured distance of commencement point of Parcel A from the intersection of the center line of Crosby Road with the center line of Lewiston Road: 1136.50 feet record vs. 1139 feet +/- measured.
   c. Variation between record and measured distance of commencement point of Parcel B from the intersection of the center line of Crosby Road with the center line of Lewiston Road: 1286.50 feet vs. 1289 feet +/- measured.
8. The Easement granted to New York Telephone Company and recorded in Liber 410 of Deeds page 1174 on April 23, 1970. Blanket in nature. Not plottable.
9. The Easement granted to New York Telephone Company and recorded in Liber 410 of Deeds at page 1188 on April 23, 1970. Blanket in nature. Not plottable.
10. The Easement granted to New York Telephone Company and recorded in Liber 438 of Deeds at page 759 on April 27, 1977. Blanket in nature. Not plottable.

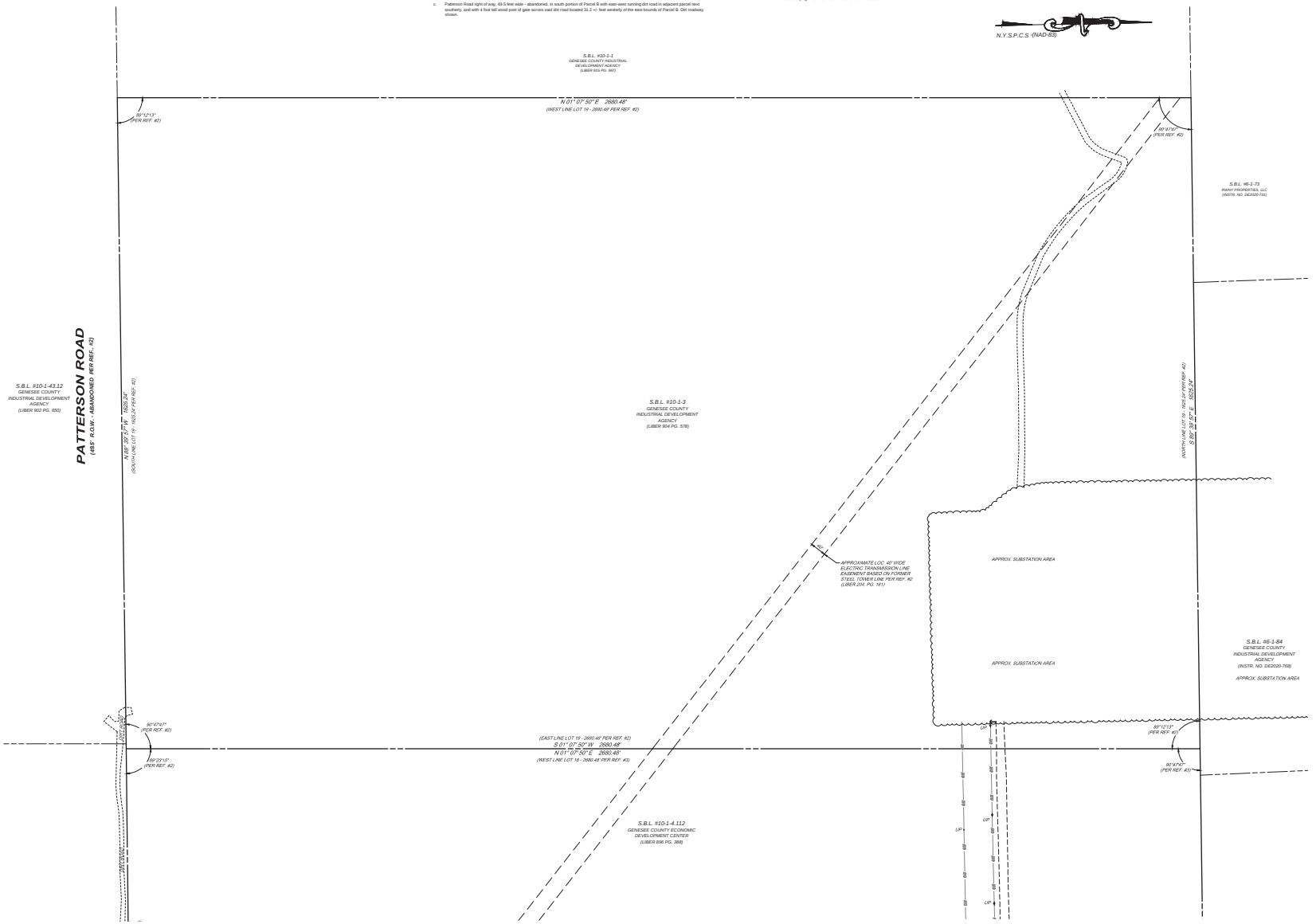
EXCEPTIONS: PER TITLE INSURANCE COMMITMENT FILE NO.1315-40100 (S.B.L. #10-1-3)

7. Exceptions as disclosed by Survey No. 3646-2 entitled Wyder Estate Parcel "B" made by Frandina Engineering and Land Surveying, PC and dated March11, 2013 and revised March 15, 2013 as follows:
   a. Parcel B as unimproved land.
   b. 40.0 foot wide electric transmission line easement to Niagara, Lockport & Ontario Power Company by Liber 204 of Deeds at page 161 with steel towers therein traverses northwest-southeast through the northerly and central portions of Parcel B. Steel tower not Found. Shown based on former Steel towers per Reference #2.
   c. Patterson Road right of way, 49.5 feet wide - abandoned, in south portion of Parcel B with east-west running dirt road in adjacent parcel next southerly, and with 4 foot tall wood post of gate across said dirt road located 31.2 +/- feet westerly of the east bounds of Parcel B. Dirt roadway shown.

EXCEPTIONS: PER TITLE INSURANCE COMMITMENT FILE NO.1315-40004 (S.B.L. #10-1-4.112)

6. Exceptions as disclosed by Survey No. 3646 made by Frandina Engineering and Land Surveying, PC and dated December 3, 2012, revised December 20, 2 012, as follows:
   a. Premises as vacant land.
   b. Wood poles and steel towers with overhead transmission lines traversing northwest-southeast through premises. Not shown. Poles and steel towers traversing northwest-southeast not found.
   c. Utility poles and guy along west right of way line of Crosby Road. Shown.
   d. Well in southeast corner of premises. Shown.
   e. Wire fence at variance with the north line of record title - 1.90 feet to 32 feet northerly.
   f. Variation between record and measured distances from points on the east line of Lot 18 (center line of Crosby Road) to the northeast corner of Lot 18. Shown.
   g. Variation between record and measured supplementary angles in northeast and southeast corners of exception parcels Liber 486 of Deeds at page 455, Liber 459 of Deeds at page 851 and Liber 421 of Deeds at page 218. Shown.
   h. Variation between record and measured angles in description of last exception parcel (3.482 +/- acres) described in Schedule A herein. Shown.
7. The Easement granted to Niagara, Lockport and Ontario Power Company by instrument dated November 13, 1905, and recorded November 17, 1905, in Liber 204 of Deeds at page 165. Steel Towers and Poles not Found. Shown based on former Steel Towers per Reference #3.
8. The Easement granted to New York Telephone Company by instrument dated January 28, 1970, and recorded April 23, 1970, in Liber 410 of Deeds at page 1188. Blanket in Nature. Not Plottable.
9. The Easement granted to New York Telephone Company by instrument dated March 11, 1977, and recorded April 27, 1977, in Liber 438 of Deeds at page 75. Blanket in Nature. Not Plottable.

N.Y.S.P.C.S -(NAD-83)



LEGEND

SYMBOL	DESCRIPTION
	Drainage Manhole
	Grate or Inlet
	Inlet Round Grate
	IDK Manhole
	San Sewer Manhole
	Utility Pole
	Water Valve
	Storm Sewer
	Sanitary Sewer
	Fence Line
	Index Contour
	Intermediate Contour
D.C.	Depressed Curb
BOT.	Bottom of Structure
	Electric Box
	Cable Box
	Traffic Light
	Light Pole
	Signs

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SCALE: 1"=100'
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Bowman
CONSULTING
Bowman Consulting Engineering, Land Surveying & Landscape Architecture
54 Stiles Road, Salem, New Hampshire 03079 Phone: 603.893.1911
Bowman Consulting Group, Ltd. 12 Commerce Drive, Cranford, New Jersey 07016 Phone: 973.999.8900
www.bowmanconsulting.com

PROJ. MGR.:DRP
DRAWN BY: DRP/JHA/LJ, MR/DMK/BN
DATE: 7/21/2020
CHKD: CSH
FILE: I:\Projects\Genesee County\Errol Melnick\Survey\Working\Drawings\Errol Melnick ALTA.dwg

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PRELIMINARY

ERROL MELNICK
NEW YORK PROFESSIONAL LAND SURVEYOR LIC. 050497-1

ALTA/NSPS LAND TITLE SURVEY
SITUATED ON SOUTH SIDE
PART OF LOT 18, TOWNSHIP 13, RANGE 4
S.B.L. # 10-1-4.112,10-1-7, 10-1-8, 10-1-9, 10-1-10, 10-1-4.2
LOT 19, TOWNSHIP 13, RANGE 4
S.B.L. # 10-1-3
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
2
OF
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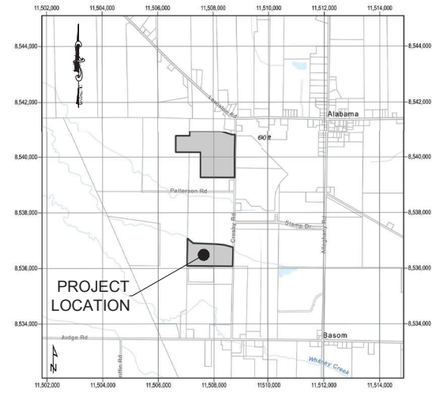
I:\Projects\Genesee County\Errol Melnick\Survey\Working\Drawings\Errol Melnick ALTA.dwg, 07/23/20 02:58:51PM, amcmahon, LAYOUT1 (2), -- Stream: NY\081591-01\Cad (Civil) -- 081591 South and North Campus\Survey\North Campus\Cad\081591_Crosby Rd Alabama-ALTA.dwg, 07/23/20 02:58:51PM, amcmahon, LAYOUT1 (2)

BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK



LOCATION MAP
1" = 2000'

SCHEDULE OF DRAWINGS

1	CS-1	COVER SHEET
2	TS-1	GROUND SURFACE TOPOGRAPHIC SURVEY
3	TS-2	GROUND SURFACE TOPOGRAPHIC SURVEY
4	DP-1	DEMOLITION PLAN
5	MP-1	MASTER PLAN
6	SP-1	SITE PLAN
7	AT-1	AUTOTURN PLAN - WB-67
8	GD-1	GRADING AND DRAINAGE PLAN
9	ST-1	STORM PROFILES
10	ST-2	STORM PROFILES
11	ST-3	STORM PROFILES
12	ST-4	STORM PROFILES
13	SW-1	SANITARY AND WATER PLAN
14	SA-1	SANITARY PROFILE
15	EC-1	EROSION AND SEDIMENT CONTROL PLAN
16	LD-1	EROSION AND SEDIMENT CONTROL PLAN - LAYDOWN AREA
17	DT-1	DETAILS
18	DT-2	DETAILS
19	DT-3	DETAILS
20	DT-4	STORM DETAILS
21	DT-5	STORM DETAILS
22	DT-6	WATER DETAILS
23	DT-7	SANITARY DETAILS
24	LS-1	LANDSCAPE PLAN, SCHEDULE AND DETAILS
25	LT-1	PHOTOMETRIC PLAN

APPLICANT
STREAM U.S. DATA CENTERS, L.L.C.
2001 ROSS AVENUE, SUITE 400
DALLAS, TEXAS 75201

ENGINEER
BOWMAN CONSULTING ENGINEERING,
LAND SURVEYING & LANDSCAPE ARCHITECTURE
6 CAMPUS DRIVE, SUITE 302
PARSIPPANY, NEW JERSEY 07054
PH: (973) 359-8400

ZONING INFORMATION

PARCEL AREA: 29.096± AC.

ZONING SCHEDULE:

ZONED: TECHNOLOGY DISTRICT 1 (TD1)

PERMITTED USES:
- TECHNOLOGY MANUFACTURING
- LIGHT INDUSTRY (THE PROCESSING, FABRICATION, ASSEMBLY OR PACKAGING OF PREVIOUSLY PREPARED OR REFINED MATERIALS)
- ACCESSORY BUILDINGS

TD1 ZONING REQUIREMENTS:	REQUIRED	PROPOSED
MIN. LOT AREA	N/A	29.096 AC.
MIN. LOT FRONTAGE	N/A	693.47 FT.
MIN. FRONT YARD SETBACK	0 FT.	105' FT.
MIN. SIDE YARD SETBACK	*30 FT.	150' FT.
MIN. REAR YARD SETBACK	0 FT.	197'± FT.
MAX. BUILDING HEIGHT	110 FT.	56'
MAX. LOT COVERAGE	N/A	

* DICTATED BY FIRE SAFETY CODES, UTILITY NEEDS AND BUFFER REQUIREMENTS

- BUFFER REQUIREMENTS DO NOT APPLY AS THE PARCEL DOES NOT ABUT A RESIDENTIAL OR AGRICULTURE-RESIDENTIAL DISTRICT

PARKING REQUIREMENTS:	REQUIRED	PROPOSED*
	664 SPACES	*67 SPACES

TECHNOLOGY MANUFACTURING: (1) SPACE FOR EVERY 1,000 SQ. FT. OF FLOOR AREA
ALL OTHER DEVELOPMENT: (2) SPACES FOR EVERY 1,000 SQ. FT. OF SPACE

* MINIMUM PARKING REQUIREMENTS MAY BE REDUCED BY THE PLANNING BOARD FOR GOOD CAUSE CONSIDERING THE PROJECTED USE INTENSITY, TURNOVER, CUSTOMERS, EMPLOYEES AND VEHICLES USED.

AMERICANS WITH DISABILITIES (ADA) REQUIREMENTS:
51-75 PARKING SPACES = (3) THREE ACCESSIBLE SPACE REQUIRED
(4) FOUR ACCESSIBLE SPACES AND AISLE PROVIDED

PROJECT DESCRIPTION

The project site was previously approved for and construction commenced for a hydrogen production facility operated by Plug Power. The current project consists of developing this site for a 664,000 square foot data center. The site is located within the Science, Technology and Manufacturing Park (STAMP) within the Town of Alabama, Genesee County, New York and is identified on their master plan as the Plug Power site. The parcel contains approximately 29.1 acres and is located on the west side of Crosby Road between STAMP Drive and Judge Road.

The project involves a single two-story building with a footprint of approximately 332,000 square feet (664,000 square feet of gross floor area), internals driveways, parking areas, stormwater management facilities and related infrastructure. The on-site substation that was previously constructed as part of the Plug Power project will remain and be completed to serve the proposed data center. In addition to the three (3) stormwater facilities, a fourth stormwater facility will be constructed on the east side of the site.

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PROJ.: 08159-01-001
DATE: JANUARY 9, 2026
DWG.: CS-1

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Bowman

Bowman Consulting Engineering, Land Surveying & Landscape Architecture
6 Campus Drive, Suite 302
Parsippany, New Jersey 07054
www.bowmanconsultinggroup.com

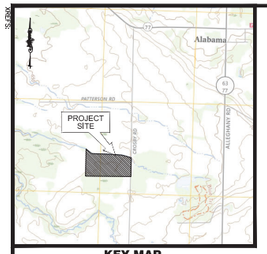
DOS ID: 2849151
PHONE: 973-359-8400
FAX: 973-359-8455
E-mail: NJ@bowmanconsulting.com

ERIC L. KELLER, N.Y. Professional Engineer, Lic. 085234-1

BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
COVER SHEET
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
CS-1

A:\08159 - Stream NY\08159-01-001 (ENG) - BUF01 Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\08159-D-SP-COVER.dwg 01/12/26 08:55:18AM mvanRiea LAYOUT:CS-1 COVER SHEET



KEY MAP
SCALE: 1" = 2000'

NOTES:

1. PROPERTY KNOWN AS S.B.L. 10-1-41 & 10-1-42.2.
2. THIS PLAN REPRESENTS A GROUND SURFACE TOPOGRAPHIC SURVEY OF THE REFERENCE PROPERTY, THE SURVEY PERFORMED ON DECEMBER 9 & 10, 2025 WAS SUBJECT TO SIGNIFICANT SNOW COVER AND MAY NOT SHOW ALL SURFACE CONDITIONS.
3. APPROXIMATE LOCATION OF ABOVE GROUND STRUCTURES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND WERE NOT FIELD LOCATED BY BOWMAN.
4. THIS PLAN IS NOT INTENDED TO REPRESENT A BOUNDARY SURVEY. BOUNDARY INFORMATION IS TAKEN FROM REFERENCE PLAN 2.
5. THE LOCATION OF UTILITIES AS SHOWN HEREON ARE APPROXIMATE BASED ON ABOVE GROUND OBSERVATIONS ONLY IN ACCORDANCE WITH FIELD MARK-OUTS AND/OR PHYSICAL LOCATIONS. CONNECTIONS BETWEEN STRUCTURES IF SHOWN ARE BASED ON SAID MARK-OUTS, OCCUPATIONS AND REFERENCES NOTED HEREON AND MAY NOT REPRESENT ACTUAL BELOW GROUND CONDITIONS. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES. UTILITIES MUST BE VERIFIED WITH THE PROPER UTILITY COMPANIES PRIOR TO ANY DESIGN OR EXCAVATION, THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES FIELD VERIFIED BY THE PROPER UTILITY COMPANIES BEFORE ANY CONSTRUCTION BEGINS.
6. ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD88 ESTABLISHED WITH RTK NYSNET NETWORK OBSERVATIONS. HORIZONTAL DATUM IS BASED ON NEW YORK STATE PLANE WEST COORDINATE SYSTEM (NAD 83) ESTABLISHED WITH RTK NYSNET NETWORK OBSERVATIONS.
7. THE MAKER OF THIS MAP IS NOT QUALIFIED TO MAKE A DETERMINATION AS TO THE ABSENCE OR PRESENCE OF ANY WETLANDS, CONTAMINATION OR OTHER ENVIRONMENTAL CONDITION WHICH MAY AFFECT THIS PROPERTY. THEREFORE, NO STATEMENT IS BEING MADE OR IMPLIED BY THE FACT THAT NO EVIDENCE OF WETLANDS, CONTAMINATION OR OTHER ENVIRONMENTAL CONDITION IS BEING SHOWN ON THIS MAP EXCEPT AS NOTED BELOW.
8. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONDITIONS THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
9. THE LOCATION OF UNDERGROUND TANKS AND VAULTS IF ANY EXIST WERE NOT EXAMINED AS PART OF THIS SURVEY.
10. UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY NOT BEARING A LICENSED LAND SURVEYORS SEAL IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.
11. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S IMPRESSION SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.
17. CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS,
18. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS/HER BEHALF TO GOVERNMENTAL AGENCY LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
19. THE PROPERTY OFFSETS SHOWN ON THIS PLAN SHALL NOT BE USED AS THE BASIS FOR THE CONSTRUCTION OF FENCES OR ANY OTHER PERMANENT STRUCTURES.

REFERENCE PLANS:

1. THE OFFICIAL TAX MAP FOR THE TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK, SECTION 10, DATED MARCH, 2024 -
2. MAP ENTITLED, "SBL 10-1-41, A PORTION OF SBL 10-1-42, A PORTION OF SBL10-1-43.12 ALTA/NSPS LAND TITLE SURVEY PART OF LOTS 14 & 15, TWP 13, RGE 4 OF THE TONAWANDA RESERVATION, TOWN OF ALABAMA, COUNTY OF GENESEE, STATE OF NEW YORK", PREPARED BY FRANDINA ENGINEERING AND LAND SURVEYING, PC, DATED OCTOBER 1, 2021.
3. MAP ENTITLED, "LAND SEPARATION SURVEY MAP PART OF LOT 10, TWP 13, RGE 4 OF THE TONAWANDA RESERVATION, TOWN OF ALABAMA, COUNTY OF GENESEE, STATE OF NEW YORK", PREPARED BY FRANDINA ENGINEERING AND LAND SURVEYING, PC, DATED JUNE 16, 2016, LAST REVISED JULY 7, 2020.

S.B.L. # 10-1-42.1
(PORTION OF S.B.L. #10-1-42 PER REF. #2)

S.B.L. # 10-1-42.2
(PORTION OF S.B.L. #10-1-42 PER REF. #2)

S.B.L. # 10-1-41

S.B.L. # 10-1-39.122

PROPERTY LINE PER REF. #2

6' CHAIN LINK FENCE W/BARBED WIRE

MONOPOLE

DETENTION BASIN

SUBSTATION AREA (NO ACCESS)

GRAVEL AREA (SNOW COVERED)

INLET GR. 670.50 (SILT FABRIC)

INLET GR. 671.72 (SILT FABRIC)

INLET GR. 673.27 (SILT FABRIC)

INLET GR. 674.08 (SILT FABRIC)

INLET GR. 673.96 (SILT FABRIC)

INLET GR. 673.42 (SILT FABRIC)

INLET GR. 673.26 (SILT FABRIC)

INLET GR. 673.33 (SILT FABRIC)

INLET GR. 674.11 (SILT FABRIC)

FES inv.=664.73

FES inv.=667.08

APPROX. LOC. HYDROGEN STORAGE TANK (SEE NOTE #3)

APPROX. LOC. TRAILERS (SEE NOTE #3)

APPROX. LOC. GUARD HOUSE (SEE NOTE #3)

PROPOSED WESTERLY LINE CROSBY ROAD PER REF. #2

GATE

EDGE OF PAVEMENT

EDGE OF ASPHALT PAVEMENT

15" HDPE INV.=672.27

IRON BAR FOUND

N.Y.S.P.C.S.-(NAD-83)

MATCHLINE (SEE SHEET 2 OF 2)

CROSBY ROAD
(49.5' R.O.W.)

LEGEND

SYMBOL	DESCRIPTION
	Drainage Manhole
	Grate or Inlet
	Inlet Round Grate
	IDK Manhole
	San Sewer Manhole
	Utility Pole
	Water Valve
	Storm Sewer
	Sanitary Sewer
	Fence Line
	Index Contour
	Intermediate Contour
D.C.	Depressed Curb
BOT.	Bottom of Structure
	Electric Box
	Cable Box
	Traffic Light
	Light Pole
	Signs

811 Know what's below. Call before you dig.
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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE: 1"=30'
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DATE: 12/19/2025
DRAWN: DFWC1
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ERROL MELNICK
NEW YORK PROFESSIONAL LAND SURVEYOR LIC. 050852

GROUND SURFACE TOPOGRAPHIC SURVEY

STREAM DFWC1
PS.B.L. # 10-1-41 & 10-1-42.2
203 CROSBY ROAD
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
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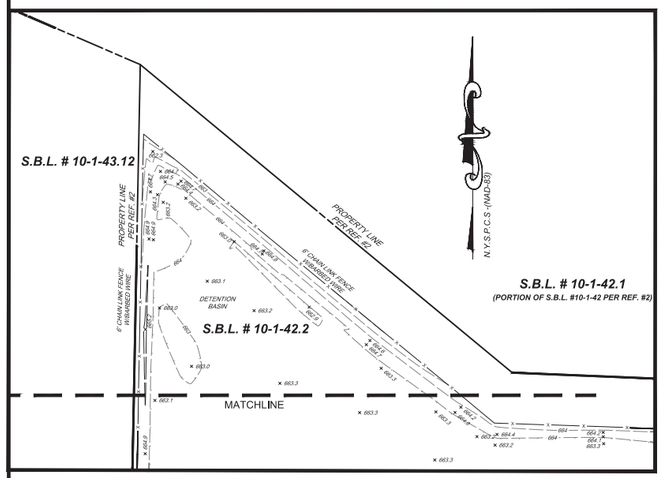

LEGEND	
SYMBOL	DESCRIPTION
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	Inlet Round Grate
	IDK Manhole
	San Sewer Manhole
	Utility Pole
	Water Valve
	Storm Sewer
	Sanitary Sewer
	Fence Line
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	Intermediate Contour
D.C.	Depressed Curb
BOT.	Bottom of Structure
	Electric Box
	Cable Box
	Traffic Light
	Light Pole
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GROUND SURFACE TOPOGRAPHIC SURVEY

STREAM DFWC1
PS.B.L. # 10-1-41 & 10-1-42.2
203 CROSBY ROAD
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
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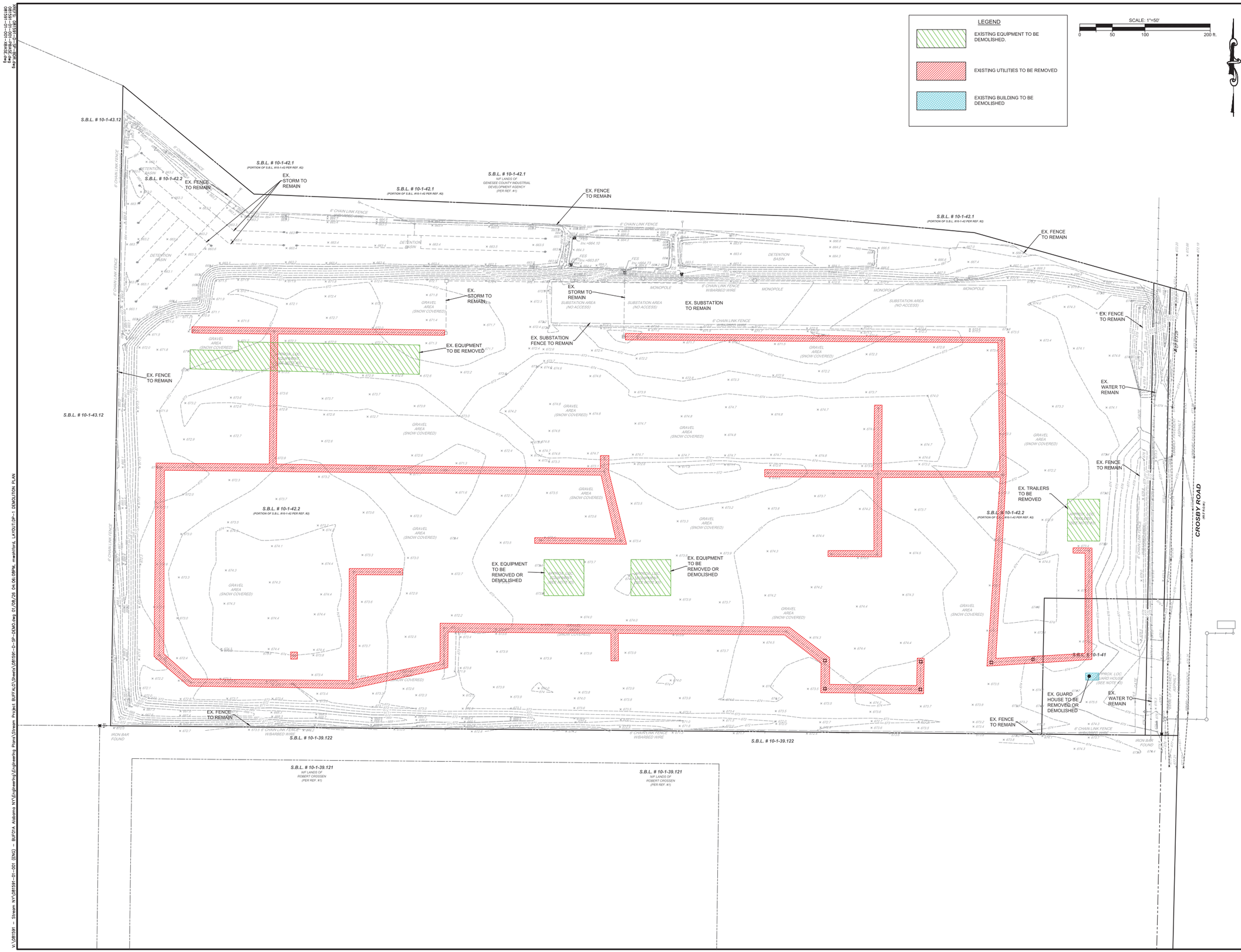

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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

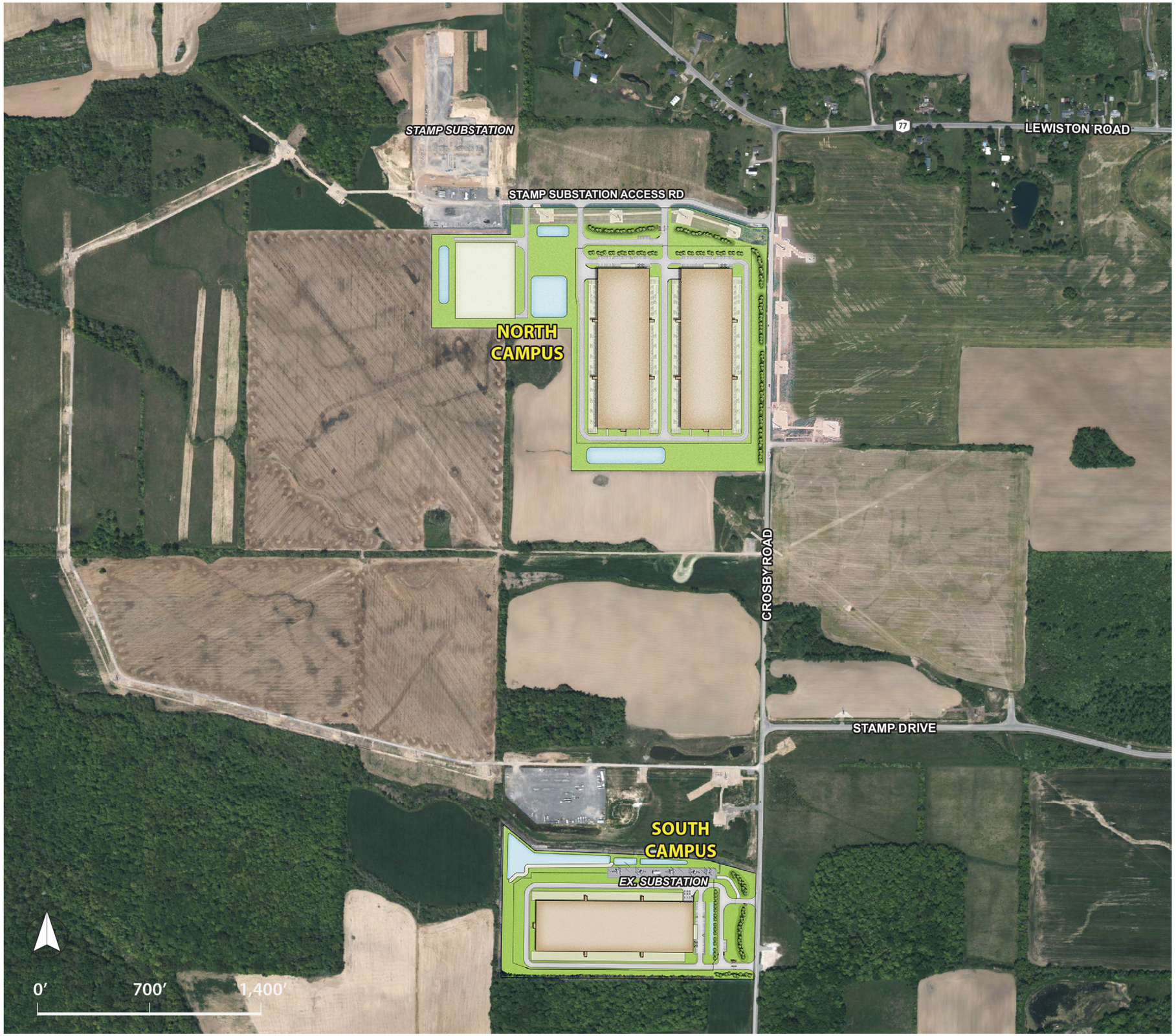
BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
DEMOLITION PLAN

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

DP-1

Saved: 2026-01-09 04:06:08PM
Last Plotted: 2026-01-09 04:06:38PM
Plotted By: Jacob Mayer
V:\08191 - Steam NY\08191-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\08191-D-SP-DEMO.dwg 01/08/26 04:06:08PM mwelford LAYOUT:DP-1 DEMOLITION PLAN



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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
MASTER PLAN

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

MP-1

XREFS: 081591-D-SP-BDR.dwg
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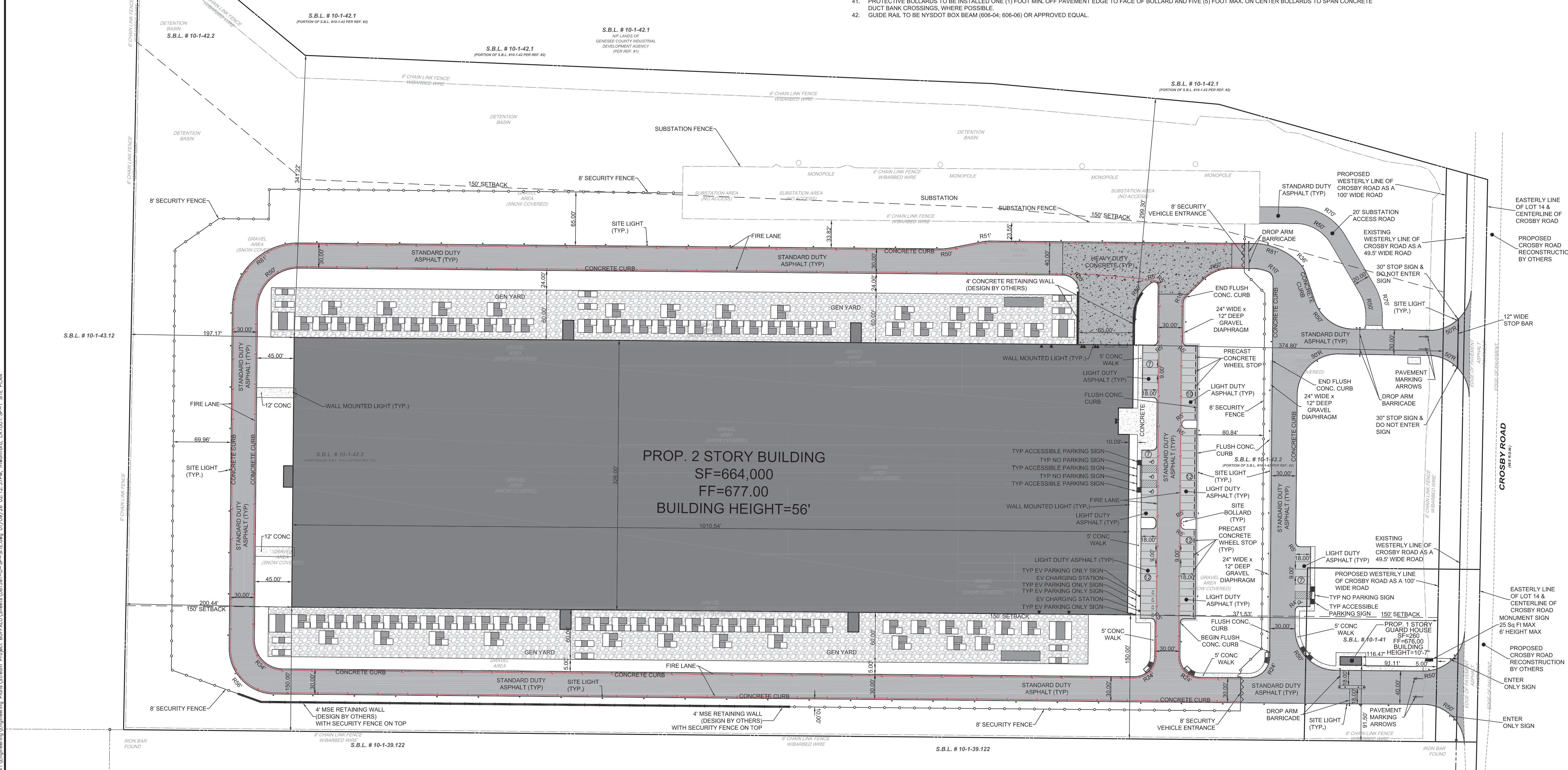
V:\081591 - Stream NY\081591-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\081591-D-SP-SITE.dwg 01/09/26 02:12:37PM, mwohlford, LAYOUT:SP-1 SITE PLAN

GENERAL CONSTRUCTION NOTES:

1. UTILITIES AS SHOWN ON THESE DRAWINGS ARE PLOTTED FROM FIELD EVIDENCE AND INFORMATION SUPPLIED BY VARIOUS UTILITY AGENCIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. INVICTUS CIVIL ENGINEERING, P.C. AND ATSI ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND UTILITIES CONTRACTORS MUST CALL U.F.P.O. AT LEAST TWO WORKING DAYS PRIOR TO ANY EXAVATION 1-800-962-7962. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT CONSTRUCTION PROCEEDS IN ACCORDANCE WITH THE LATEST REVISION OF THE DESIGN DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS FOUND ON SITE PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL DIG TEST PITS AS NECESSARY TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES. DESIGN ENGINEER, OWNER AND UTILITY OWNER TO BE NOTIFIED 48 HOURS PRIOR TO DIGGING TEST PITS. ACTUAL ROCK OR UTILITY LOCATIONS AND ELEVATIONS MAY RESULT IN REVISIONS TO DESIGN PLAN.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ALABAMA CONSTRUCTION SPECIFICATIONS, RULES, AND DETAILS.
4. ALL SANITARY SEWERS AND WATERLINE INSTALLATION AND TESTING MUST CONFORM TO THE LATEST TOWN OF ALABAMA AND GENESEE COUNTY STANDARD SPECIFICATIONS.
5. ALL WATERLINE, STORM SEWER AND SANITARY SEWER SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE NOTES AND DETAILS SHOWN ON THE DETAIL SHEETS.
6. ALL UTILITY LINES UNDER PAVEMENT, DRIVEWAYS, SIDEWALKS, AND WITHIN 5 FEET OF THE BACK OF CURB MUST BE BACKFILLED WITH MECHANICALLY TAMPED AND RUN OF CRUSHER STONE IN MAX. 6" LIFTS. SELECT FILL IS REQUIRED UNDER ALL PAVED AREAS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL PERMITS AND PROVIDE ALL BONDS REQUIRED FOR THIS WORK INCLUDING, BUT NOT LIMITED TO, UTILITY CONNECTIONS AND SITE CONSTRUCTION.
8. ALL AREAS THAT ARE NOT PAVED, GRAVEL, OR LANDSCAPED MUST BE PERMANENTLY VEGETATED WITH A MINIMUM OF 5" OF TOPSOIL AND GRASS SEED AND MAINTAINED AS LAWN.
9. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
10. AREAS TO BE FILLED SHALL BE CLEANED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL.
11. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. ALL FILL TO BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 6 INCHES IN THICKNESS.
12. FILL MATERIAL SHALL BE FREE OR FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED.
13. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISH GRADING.
14. ALL SIGNAGE SHALL BE IN CONFORMANCE WITH THE TOWN OF ALABAMA'S REGULATIONS. ALL SIGNAGE TO BE APPROVED BY THE TOWN OF ALABAMA PRIOR TO INSTALLATION.
15. EXTERIOR LIGHTING FOR PROPOSED BUILDING(S) AND SITE LIGHTING TO BE DARK SKY FRIENDLY LIGHTING WITH A MINIMUM OF 1 FOOT-CANDLE. SEE ARCHITECTURAL PLANS FOR FINAL LOCATIONS AND SPECIFICATIONS. LIGHTS TO BE LOCATED AT BUILDING ENTRANCES AND OVERHEAD DOORS FOR SAFETY.
16. CONTRACTOR TO REFER TO GEOTECHNICAL ENGINEERING REPORT BY GLYNN GROUP ENGINEERING & ARCHITECTURE, PLLC, DATED MARCH 18, 2021. REPORT IS INCLUDED IN THE BID PACKAGE. SUBMISSION OF A BID INDICATES THAT THE SITE CONTRACTOR AND THE GENERAL CONTRACTOR HAVE REVIEWED THE FINDINGS OF THE REPORT/TEST PITS AND WILL PROVIDE ALL WORK IN CONFORMANCE WITH ITS RECOMMENDATIONS.
17. THE TOWN OF ALABAMA IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION FOR THE NEW WATER SERVICE.
18. CHLORINATION OF THE WATERLINE SHALL BE DONE IN ACCORDANCE WITH SPECIFICATIONS AWWA C-651
19. WATERLINE, OTHER THAN PROCESS WATER LINES CONTAINING GLYCOL, SHALL BE INSTALLED WITH A MINIMUM COVER OF 5.0' FROM PROPOSED GRADE.
20. JOINT RESTRAINTS ARE REQUIRED ON ALL WATERLINE FITTINGS - SEE RESTRAINT LENGTH TABLES ON WATERLINE DETAIL SHEET.
21. ANCHOR COUPLINGS WILL BE INSTALLED FOR ALL TEES, BENDS, VALVES, AND HYDRANTS.
22. A MINIMUM F 10' OF HORIZONTAL AND 18" OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES. WATERLINE TO BE DEFLECTED AS NECESSARY TO PROVIDE MINIMUM OF 18" VERTICAL CLEARANCE.
23. CONTRACTOR SHALL PLACE AND COMPACT MATERIAL AS SPECIFIED TO MAINTAIN A MINIMUM 2 FT. (OR MINIMUM ALLOWABLE BY PIPE MANUFACTURER) MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
24. APPROVAL SHALL BE OBTAINED FROM THE GENESEE COUNTY HEALTH DEPARTMENT AND ALL RESPONSIBLE AGENCIES FOR THE BACKFLOW PREVENTION FOR THE WATER CONNECTIONS.
25. SANITARY SEWER SHALL BE INSTALLED WITH A MINIMUM COVER OF 4.0' FROM PROPOSED GRADE.
26. THE TOWN OF ALABAMA SHALL BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION FOR THE SANITARY SEWER SERVICE.
27. POLYVINYL CHLORIDE (P.V.C.) PIPE AND FITTINGS FOR GRAVITY SEWERS SHALL MEET AND/OR EXCEED A.S.T.M. SPECIFICATION D-3034 WITH A MINIMUM SDR-35 OR APPROVED EQUAL.
28. ALL PROPOSED ELEVATIONS SHOWN HERE ON ARE FINISHED GRADE ELEVATIONS.
29. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING PROPOSED RIM ELEVATIONS IN RELATION TO PROPOSED GRADE PRIOR TO INSTALLATION AND NOTIFYING DESIGN ENGINEER OF ANY DISCREPANCIES.
30. CONTRACTOR IS TO OBTAIN PERMISSION TO ACCESS UTILITIES WITHIN THE RIGHT-OF-WAY AND/OR UNDER THE AUTHORITY OF OTHERS.
31. STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN ON PLANS OR AS DIRECTED BY OWNER'S REPRESENTATIVE. THE PILE(S) SHALL BE SEEDED IN CONFORMANCE WITH PROJECT EROSION AND SEDIMENT CONTROL PLAN AND DETAILS.
32. BIO-RETENTION AREA PLANTINGS TYPE TO BE OBTAINED FROM TABLE H.5 NATIVE PLANT GUIDE FOR STORMWATER MANAGEMENT AREAS (NY) LOCATED IN APPENDIX H OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL. PLANTINGS MUST BE ZONE 2 COMPLIANT. PLANT SELECTION SHALL BE DIVERSE. LAYOUT SHALL BE RANDOM AND NATURAL. PLANTINGS SHALL BE PLACED APPROX. 18" ON CENTER. - SEE SAMPLE BIO-RETENTION AREA PLANTING PLAN.
33. SEDIMENT BASIN AND DRY DETENTION POND TO BE PLANTED WITH PERMANENT VEGETATION SEED MIXTURE AND MAINTAINED AT A 6"± HEIGHT.
34. CONTRACTOR TO KEEP CROSBY ROAD FREE OF DIRT AND DEBRIS AT ALL TIMES DURING CONSTRUCTION.
35. JOB BENCHMARK AS NOTED ON PLANS.
36. GEOTEXTILE IS REQUIRED OVER STORM SEWER ROADWAY CROSSINGS FOR TEN (10) FEET ON EITHER SIDE OF PIPE TO PROTECT AGAINST SETTLEMENT.
37. ELEVATIONS AS SHOWN ARE BASED ON NAVD 88, AS ESTABLISHED FROM THE NEW YORK STATE RTN.
38. CONTRACTOR SHALL DISPOSE OF ANY DEMOLITION OR CONSTRUCTION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
39. EQUIPMENT PADS TO BE DESIGNED BY OTHERS.
40. SEE ARCHITECTURAL PLANS FOR BUILDING HEIGHTS AND ELEVATIONS.
41. PROTECTIVE BOLLARDS TO BE INSTALLED ONE (1) FOOT MIN. OFF PAVEMENT EDGE TO FACE OF BOLLARD AND FIVE (5) FOOT MAX. ON CENTER BOLLARDS TO SPAN CONCRETE DUCT BANK CROSSINGS, WHERE POSSIBLE.
42. GUIDE RAIL TO BE NYSDOT BOX BEAM (606-04; 606-06) OR APPROVED EQUAL.

SCALE: 1"=50'

0 50 100 200 ft.



NOTE:

- SEE SHEET LS-1 FOR LANDSCAPE PLANTINGS
- SEE SHEET LT-1 FOR PHOTOMETRIC PLAN

PARKING SCHEDULE:

- 59 REGULAR SPACES
- 4 AMERICANS WITH DISABILITIES ACT (ADA) SPACES
- 4 ELECTRIC VEHICLE CHARGING SPACES

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DATE: JANUARY 9, 2026
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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
SITE PLAN

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

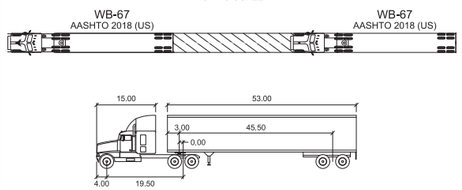
SHEET No.

SP-1

Ref: 2XREF-10D-10190
Ref: 2XREF-10T-10190
Ref: 3DB-4S-D-10190 S3:3DB

LEGEND WB-67

NOT TO SCALE



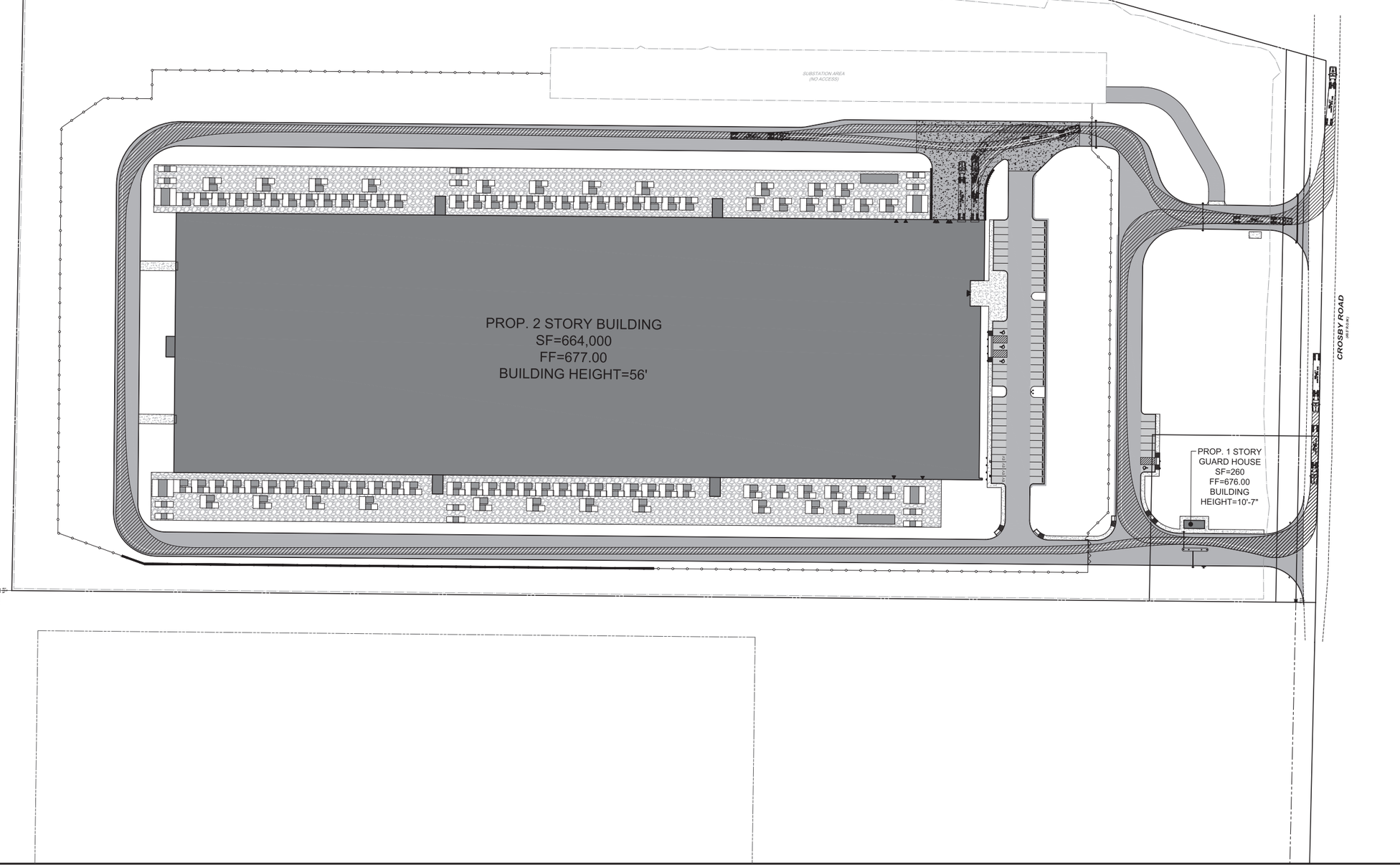
WB-67

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

SCALE: 1"=50'

0 50 100 200 ft.



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PROJ. 08191-01-001
DATE: JANUARY 9, 2026
DWD: PDO

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BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS

AUTOTURN PLAN - WB-67

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

AT-1

V:\08191 - Stream NY\08191-01-001 (ENG) - BUFFA Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\08191-01-SP-WB-67 AUTOTURN.dwg 01/08/26 04:06:19PM mashford LAYOUT:AT-1 AUTOTURN PLAN - WB-67

Cut/Fill Report

Generated: 2026-01-06 14:06:34
By user: mwohlford
Drawing: V:\081591 - Stream NY\081591-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\V:\081591 - Stream NY\081591-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\081591-01-001-PRO SURFACE.dwg

Volume Summary

Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
EARTHWORK	full	1.000	1.000	870776.39	944.51	70411.49	69466.98<Fill>

Totals

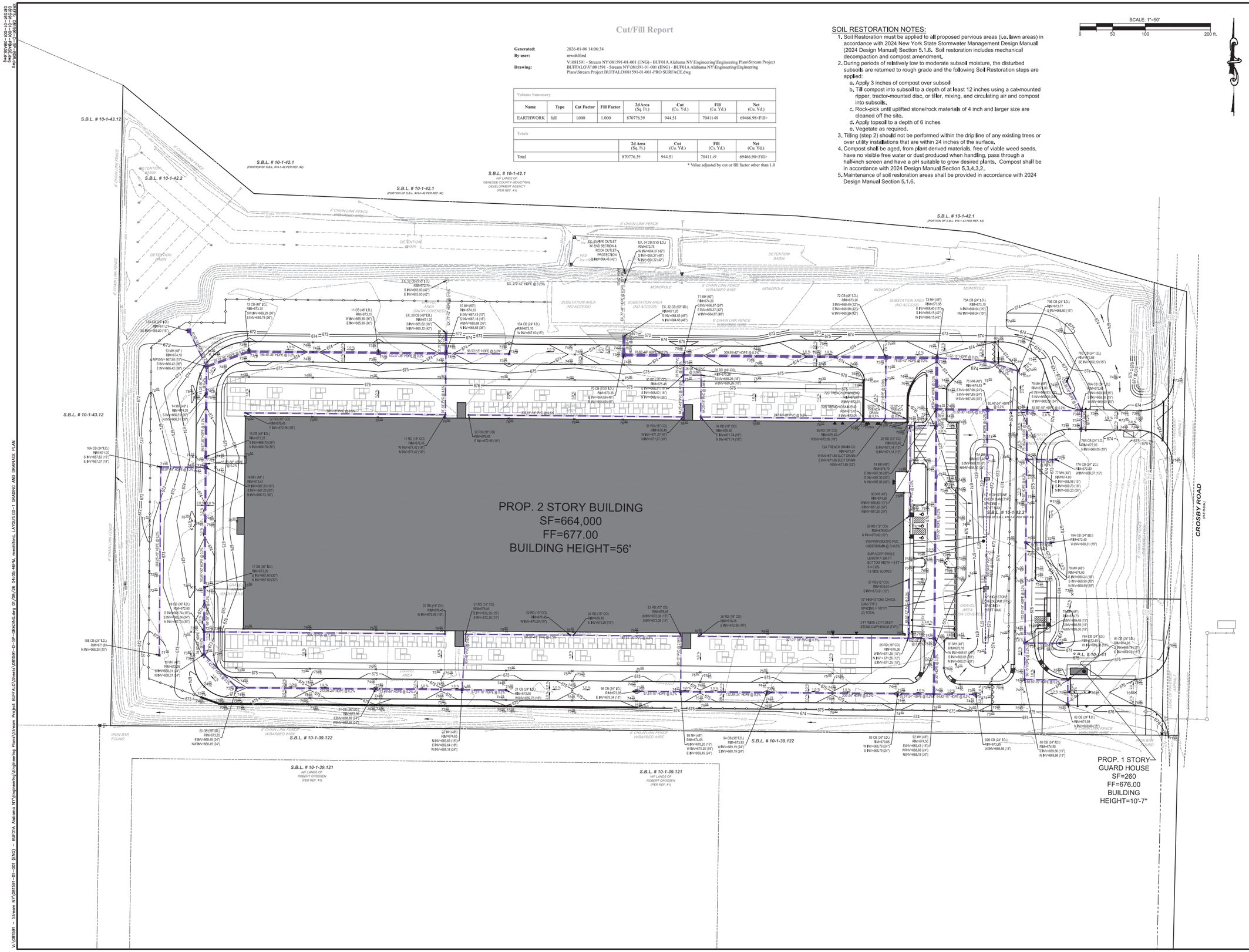
	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total	870776.39	944.51	70411.49	69466.98<Fill>

* Value adjusted by cut or fill factor other than 1.0

SOIL RESTORATION NOTES:

1. Soil Restoration must be applied to all proposed pervious areas (i.e. lawn areas) in accordance with 2024 New York State Stormwater Management Design Manual (2024 Design Manual) Section 5.1.6. Soil restoration includes mechanical decompaction and compost amendment.
2. During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps are applied:
   a. Apply 3 inches of compost over subsoil
   b. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   c. Rock-pick until uplifted stone/rock materials of 4 inch and larger size are cleaned off the site.
   d. Apply topsoil to a depth of 6 inches
   e. Vegetate as required.
3. Tilling (step 2) should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.
4. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half-inch screen and have a pH suitable to grow desired plants. Compost shall be in accordance with 2024 Design Manual Section 5.3.4.3.2.
5. Maintenance of soil restoration areas shall be provided in accordance with 2024 Design Manual Section 5.1.6.

SCALE: 1"=50'
0 50 100 200 ft.



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PROJ.: 081591-01-001
DATE: JANUARY 9, 2026
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BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
GRADING AND DRAINAGE PLAN
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
GD-1

EX 55 TO 76B PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

EX 59 TO 23 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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DWG. JANUARY 9, 2026
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BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
STORM PROFILES

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

ST-1

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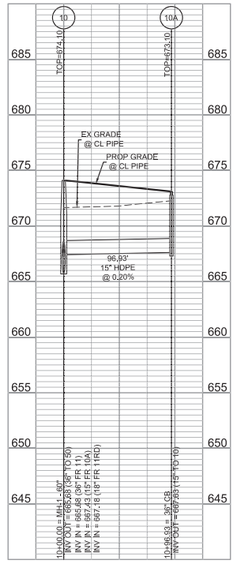
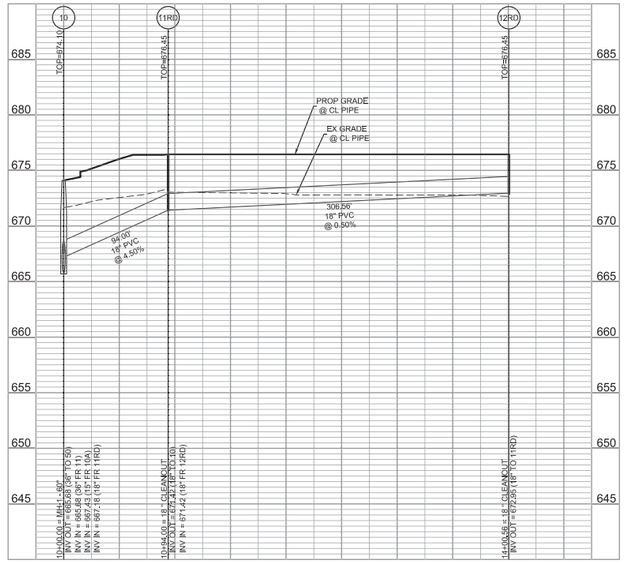
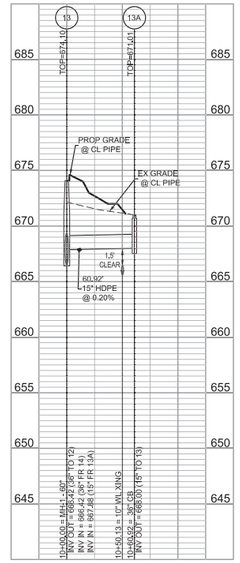


10 TO 10A PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



10 TO 12 RD PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



13 TO 13A PROFILE VIEW
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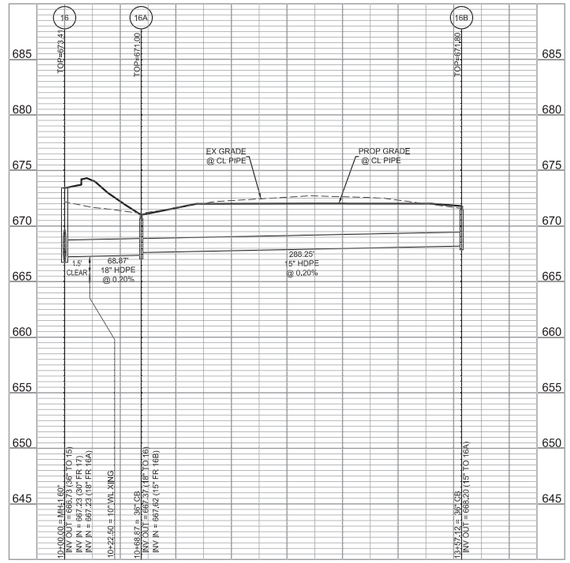
VERTICAL SCALE: 1"=5'



16 TO 16B PROFILE VIEW
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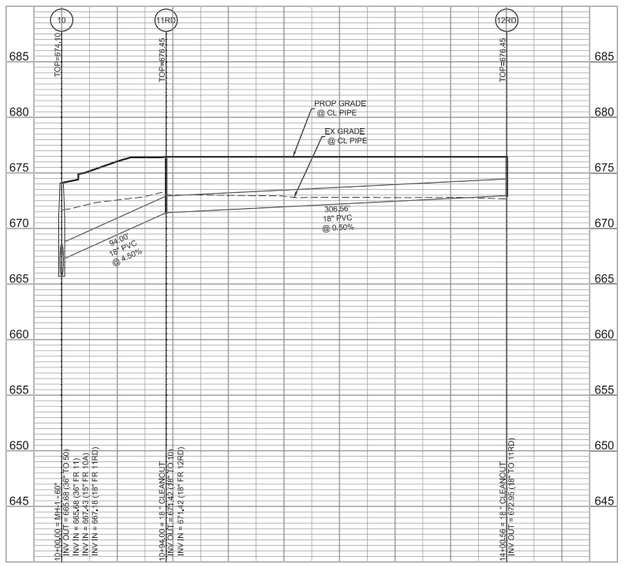
VERTICAL SCALE: 1"=5'



10 TO 12 RD PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
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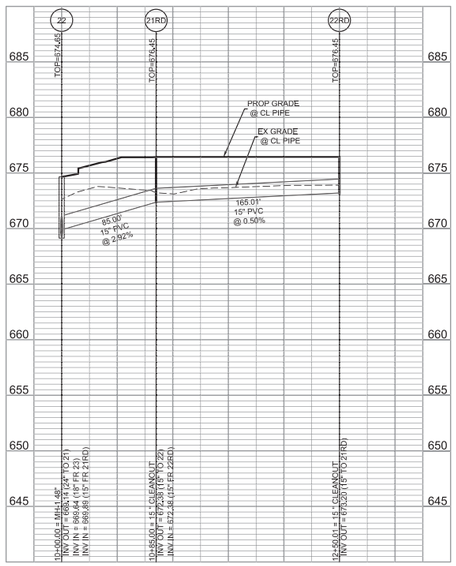
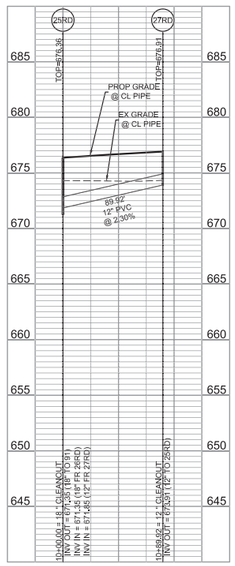
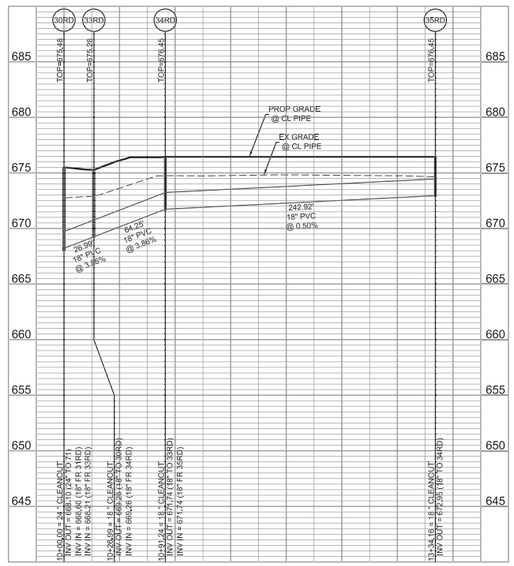


22 TO 22 RD PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



25 RD TO 27 RD PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



30 RD TO 35 RD PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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PROJ. 08199-H-001
DATE: JANUARY 9, 2026
DWG: PRO

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BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
STORM PROFILES

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

ST-2

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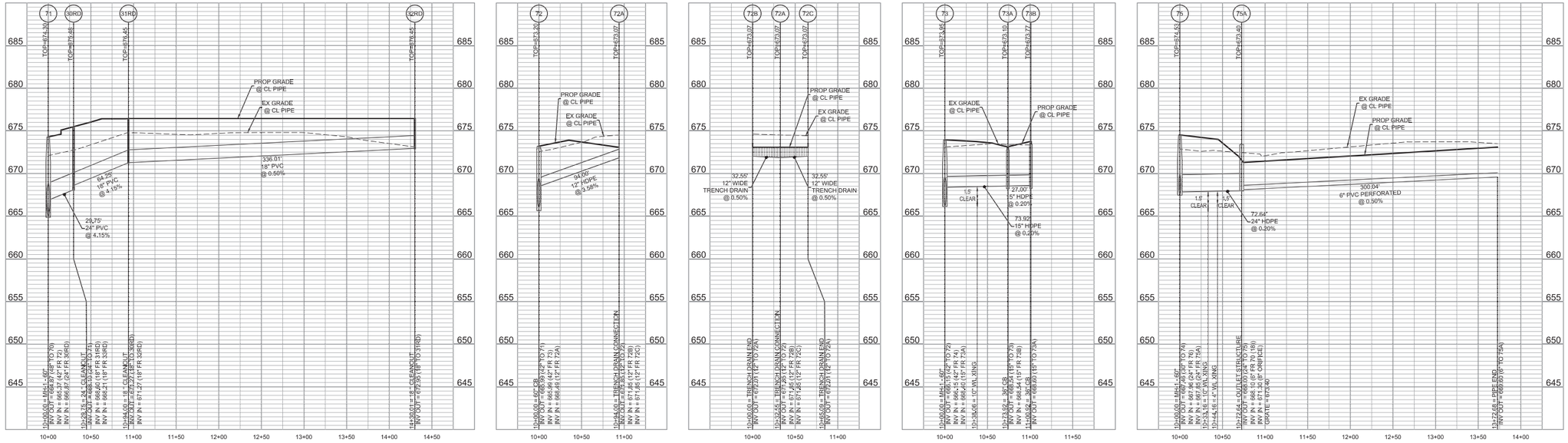

71 TO 32 RD PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

72 TO 72A PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

72B TO 72C PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

73 TO 73A PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

75 TO 75A OS PROFILE VIEW
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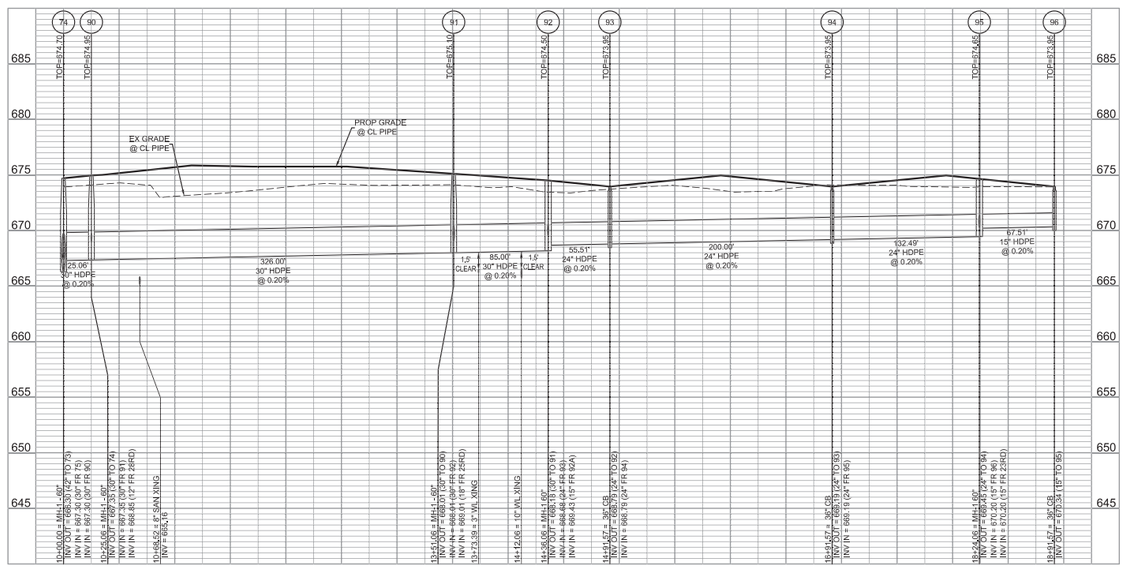
VERTICAL SCALE: 1"=5'



74 TO 96 PROFILE VIEW
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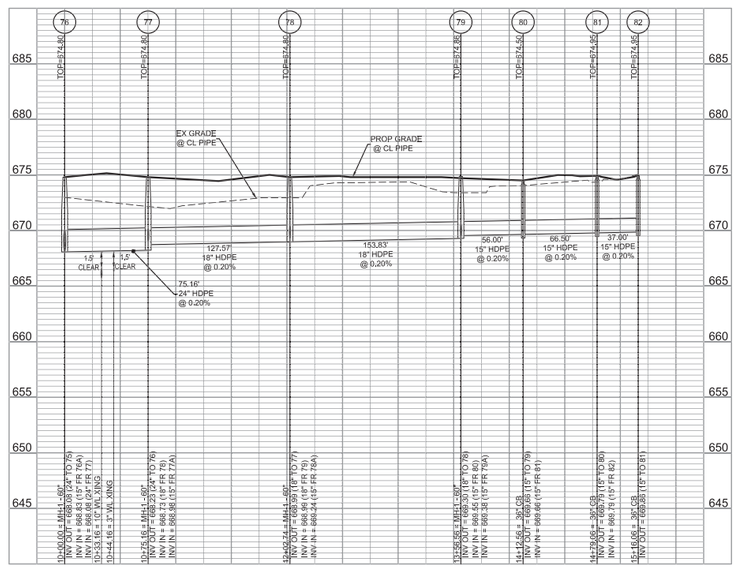
VERTICAL SCALE: 1"=5'



76 TO 82 PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
STORM PROFILES

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
ST-3

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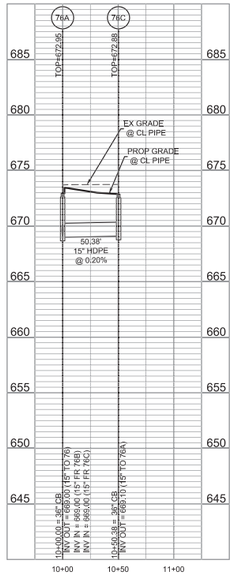
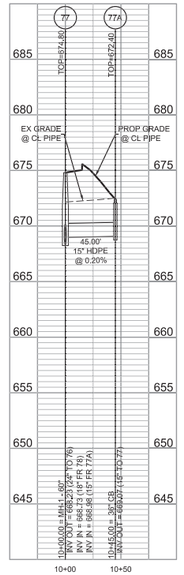


76A TO 76C PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



77 TO 77A PROFILE VIEW
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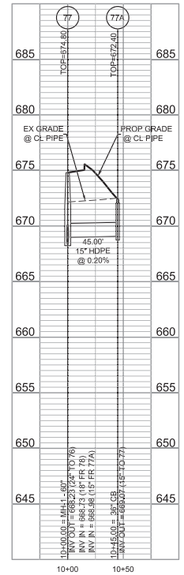

77 TO 77A PROFILE VIEW
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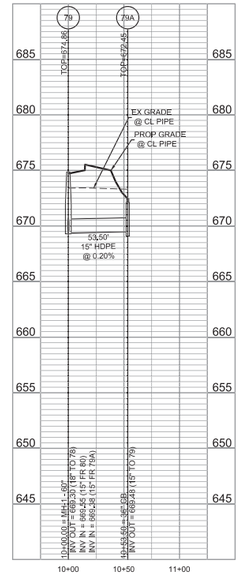

79 TO 79A PROFILE VIEW
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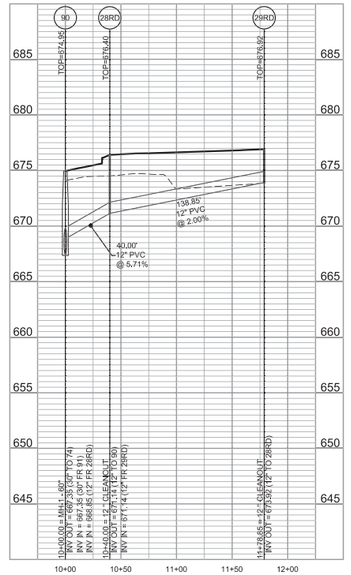

90 TO 29 RD PROFILE VIEW
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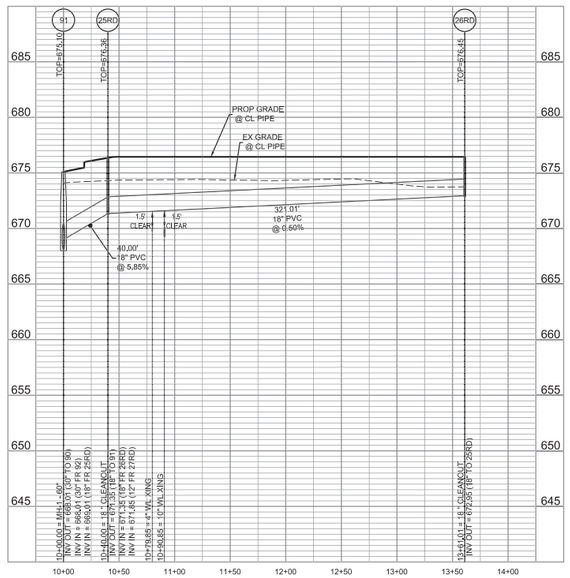

91 TO 26 RD PROFILE VIEW
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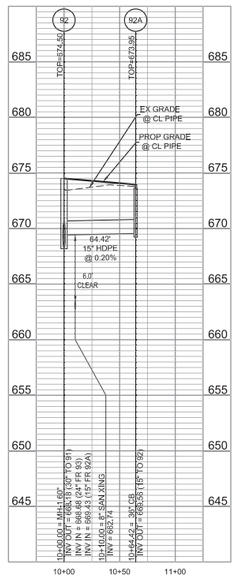

92 TO 92A PROFILE VIEW
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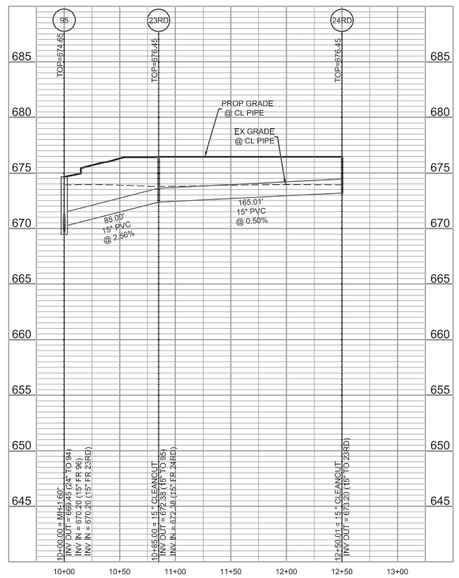

95 TO 24 RD PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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PROJ. 08195-H-001
DATE: JANUARY 9, 2026
DWG: PPD
CHKD: EKK

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BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
STORM PROFILES

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

ST-4

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SANITARY & WATER NOTES

1. A minimum of 10.0 feet of horizontal and 18 inches of vertical separation must be maintained between all sanitary sewer and water services.
2. Select backfill is required for all utilities (gas, water, storm, sanitary) that cross through any pavement area.
3. The Town of Alabama is to be notified a minimum of 48-hours prior to starting the connection for the new water service.
4. Retaining glands are required on all waterline fittings.
5. Water mains are required to have a minimum of five feet (5') of cover.
6. The Town of Alabama is to be notified a minimum of 48-hours prior to starting the connection for the new sanitary sewer service.

SCALE: 1"=50'
0 50 100 200 ft.

WATERLINE DEFLECTION LOCATION -REFER TO SHEET XX.XX FOR MINIMUM INVERT ELEVATIONS

S.B.L. # 10-1-43.12
S.B.L. # 10-1-42.1 (PORTION OF S.B.L. #10-1-42 PER REF. #2)
S.B.L. # 10-1-42.2
S.B.L. # 10-1-42.1 NIF LANDS OF GENESEE COUNTY INDUSTRIAL DEVELOPMENT AGENCY (PER REF. #1)
S.B.L. # 10-1-39.122
S.B.L. # 10-1-39.121 NIF LANDS OF ROBERT CROSSEN (PER REF. #1)

6' CHAIN LINK FENCE (W/BARBED WIRE)
DETENTION BASIN
FES Inv.=664.10
FES Inv.=663.87
FES Inv.=664.73
FES Inv.=667.08
MONOPOLE
SUBSTATION AREA (NO ACCESS)
GRAVEL AREA (SNOW COVERED)

10" PVC SDR18 90° MJ BEND
91.55' L.F. 10" PVC SDR18
HYDRANT W/ 10"x10"x6" MJ ANCHORING TEE AND 6" MJ GATE VALVE
350' L.F. 10" PVC SDR18
349.55' L.F. 10" PVC SDR18
259.05' L.F. 10" PVC SDR18
255' L.F. 10" PVC SDR18
91.55' L.F. 10" PVC SDR18
43.50' L.F. 10" PVC SDR18
134.87' L.F. 10" PVC SDR18
50.85' L.F. 10" PVC SDR18
87.48' L.F. 10" PVC SDR18
329.2' L.F. 3" POLYETHYLENE DOMESTIC WATER SERVICE
10"x10"x10" 3-10" MJ GATE VALVE
4.61' L.F. 10" POLYETHYLENE DOMESTIC WATER SERVICE
HOTBOX W/ DOUBLE CHECK VALVE AND RPZ ASSEMBLIES
243.89' L.F. 10" PVC SDR18
24L.F. 3" POLYETHYLENE DOMESTIC WATER SERVICE
217.04' L.F. 3" POLYETHYLENE DOMESTIC WATER SERVICE
OFFSITE WATER IMPROVEMENTS BY OTHERS
3" TAP OF 10" WATERLINE AND CORP STOP FOR 3" POLYETHYLENE DOMESTIC WATER SERVICE
27.35' L.F. 10" POLYETHYLENE DOMESTIC WATER SERVICE
12"x12"x10" TEE AND GATE VALVE (BY OTHERS)

PROP. 2 STORY BUILDING
SF=664,000
FF=677.00
BUILDING HEIGHT=56'

55' OF 8" PVC SDR-35 @ 5.80%
BC INV OUT: 667.77 (8")
MH-4 INV IN: 664.58 (8") INV OUT: 664.58 (8")
201.90' L.F. 10" PVC SDR18
200.12'-8" PVC SDR-35 @ 0.50%
MH-3 INV IN: 663.58 (8") INV OUT: 663.58 (8")
173.50' L.F. 10" PVC SDR18
200.12'-8" PVC SDR-35 @ 0.50%
134.35' L.F. 3" POLYETHYLENE DOMESTIC WATER SERVICE
27.32' L.F. 3" POLYETHYLENE DOMESTIC WATER SERVICE
62.50' L.F. 10" PVC SDR18
MH-2 INV IN: 662.58 (8") INV OUT: 662.58 (8")
204.46'-8" PVC SDR-35 @ 0.50%
MH-1 INV IN: 669.79 (6") INV IN: 661.56 (8") INV OUT: 661.56 (8")
141.15'-8" PVC SDR-35 @ 2.42%

PROP. 1 STORY GUARD HOUSE SF=260 FF=676.00 BUILDING HEIGHT=10'-7"
BC INV OUT: 671.15 (6")
65.35'-6" PVC SDR-35 @ 2.08%

CROSBY ROAD (40' R.O.W.)
OFFSITE WATER AND SANITARY IMPROVEMENTS BY OTHERS
14,000 GALLON SANITARY SEWER HOLDING TANK
10LF OF NEW 2" HDPE DR-9 FORCE MAIN
PS-01 DUPLEX PUMPSTATION 3' EX.MANHOLE RIM: 673.63 INV IN: 657.47 12" PVC SDR-21
40' OF 12" PVC SDR-21 @ 0.22%
MH-01 5' EX MANHOLE RIM: 673.19 INV IN: 657.66 12" PVC SDR-21 INV OUT: 657.56 12" PVC SDR-21
132' OF 12" PVC SDR-21 @ 0.22%
MH-02 5' EX MANHOLE RIM: 675.03 INV OUT: 657.40 12" PVC SDR-21 INV IN: 658.00 6" PVC SDR-21
63.31' OF 6" PVC SDR-21 @ 0.22%
MH-03 4' EX MANHOLE RIM: 676.06 INV OUT: 658.14 6" PVC SDR-21 INV IN: 658.00 8" PVC SDR-35

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REVISION

PROJ. 081591-01-001
DATE: JANUARY 9, 2026
DWG: PDO

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ERIC L. KELLER, N.Y. Professional Engineer Lic. 065234-1

BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
SANITARY AND WATER PLAN
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
SW-1

Ref. XREF - 2XREF - 1D3 - 16190
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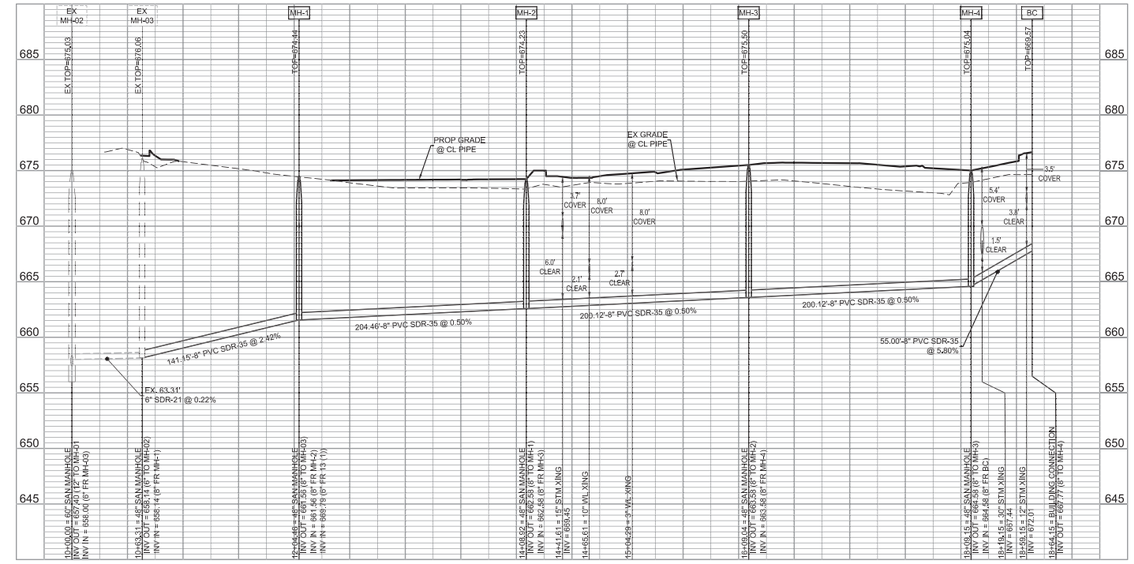
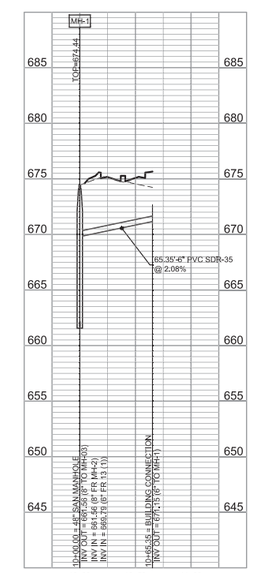


EX MH 02 TO BLDG CONNECTION PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



MH-1 TO GUARD HOUSE PROFILE VIEW
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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PROJ.: 081591-01-001
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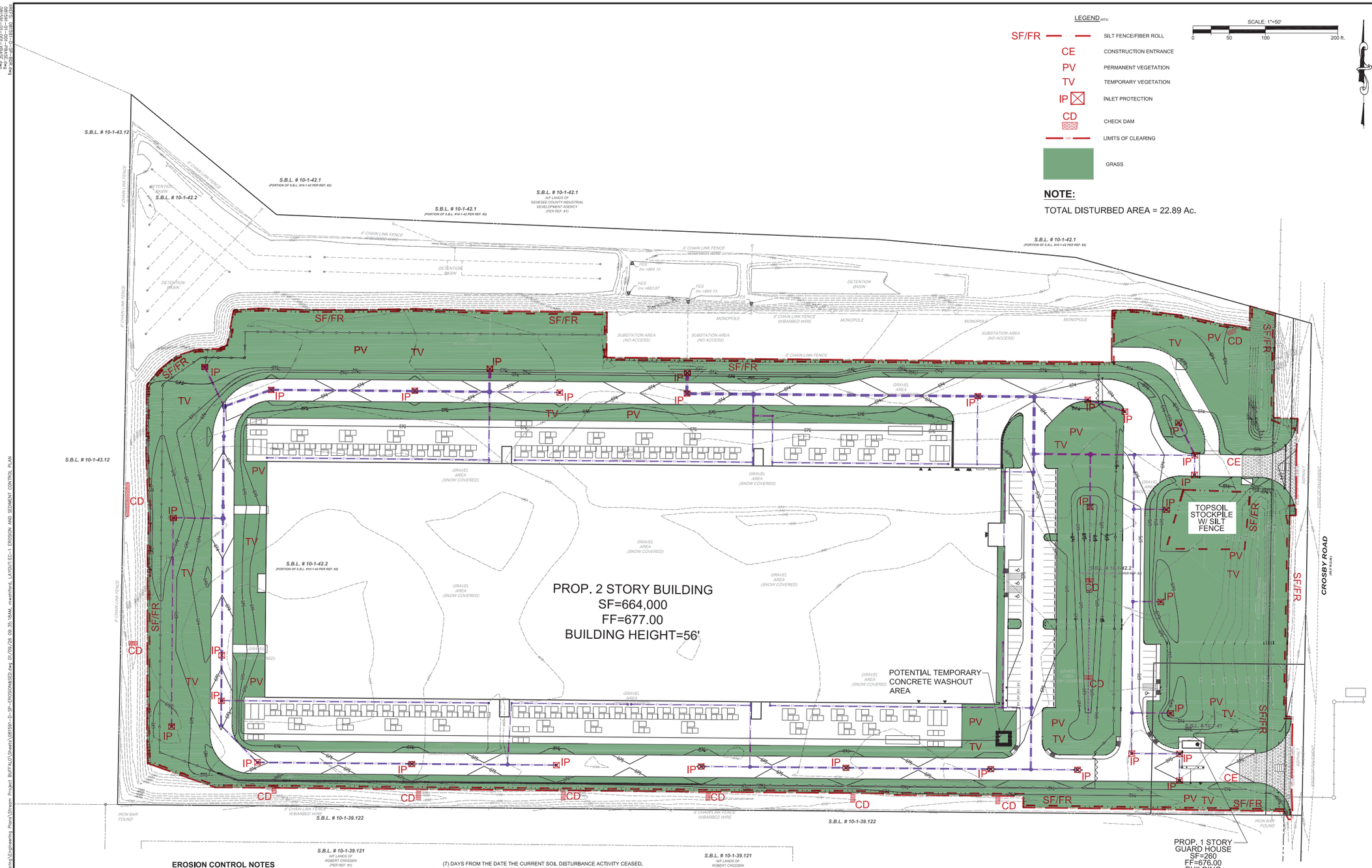
BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
SANITARY PROFILE

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

SA-1



EROSION CONTROL NOTES

1. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP AND THAT CONFORM TO FEDERAL, STATE OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
2. PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL TIMES.
3. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT,
4. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
5. ALL WASH WATER SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
6. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
7. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
8. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
9. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY STOPPED SHALL BE TEMPORARILY SEEDED. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED, DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS BEEN PERMANENTLY STOPPED SHALL BE SODDED/LANDSCAPED PER PLANS. APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN SEVEN (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED, REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
11. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
12. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
13. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH STABILIZATION OF THE SITE.
14. ON-SITE AND OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATION SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
15. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
16. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION.
17. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE, FOR WASTER DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
18. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN, NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.
19. (7) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED,

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THESE PLANS SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR COMPLETED PHASE OF WORK OF FINAL STABILIZATION OF THE SITE SEDIMENT CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING.

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF DETERIORATION.
2. ALL SEEDED/SODDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STATE IS MAINTAINED. AREAS SHALL BE FERTILIZED, WATERED AND REPAIRED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE.
4. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT FROM THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE EXIT AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN A GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE AREA AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT LEAVING THE SITE SHALL BE CLEANED IMMEDIATELY.
7. ALL INLETS AND STORM DRAINS SHALL BE KEPT CLEAN OF DEBRIS AND SEDIMENT. ANY DEBRIS AND/OR SEDIMENT THAT ENTERS ANY INLET OR STORM STORM DRAIN SHALL BE CLEANED IMMEDIATELY. FLUSHING SHALL NOT BE USED TO CLEAN DEBRIS AND/OR SEDIMENT FROM STORM DRAINS.

CONSTRUCTION SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE TOWN TO DISCUSS EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION PHASING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
3. INSTALL CONSTRUCTION FENCES.
4. INSTALL INLET PROTECTION, CHECK DAMS, AND SILT FENCE ON THE SITE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
5. DEMO EXISTING STRUCTURES, SPECIFIED UTILITIES AND OTHER EXISTING IMPROVEMENTS.
6. BEGIN GRADING THE SITE, INCLUDING DRY VEGETATED SWALE.
7. BEGIN CONSTRUCTION OF UTILITIES.
8. BEGIN SUBGRADE PREPARATION AND CONSTRUCTION OF STRUCTURES.
9. BEGIN INSTALLATION OF CURB, GUTTER, AND PAVING.
10. COMPLETE PERMANENT STABILIZATION ON AREAS WHERE CONSTRUCTION HAS BEEN COMPLETED.
11. COMPLETE FINAL GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
12. OBTAIN CONCURRENCE FROM THE OWNER AND THE TOWN THAT THE SITE HAS BEEN FULLY STABILIZED.
13. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
14. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE GENERAL CONTRACTOR ON THESE PLANS.

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PROJ. 08169-HD-001
DATE: JANUARY 9, 2026
DWG: PDO

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BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
EROSION AND SEDIMENT CONTROL PLAN

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
EC-1

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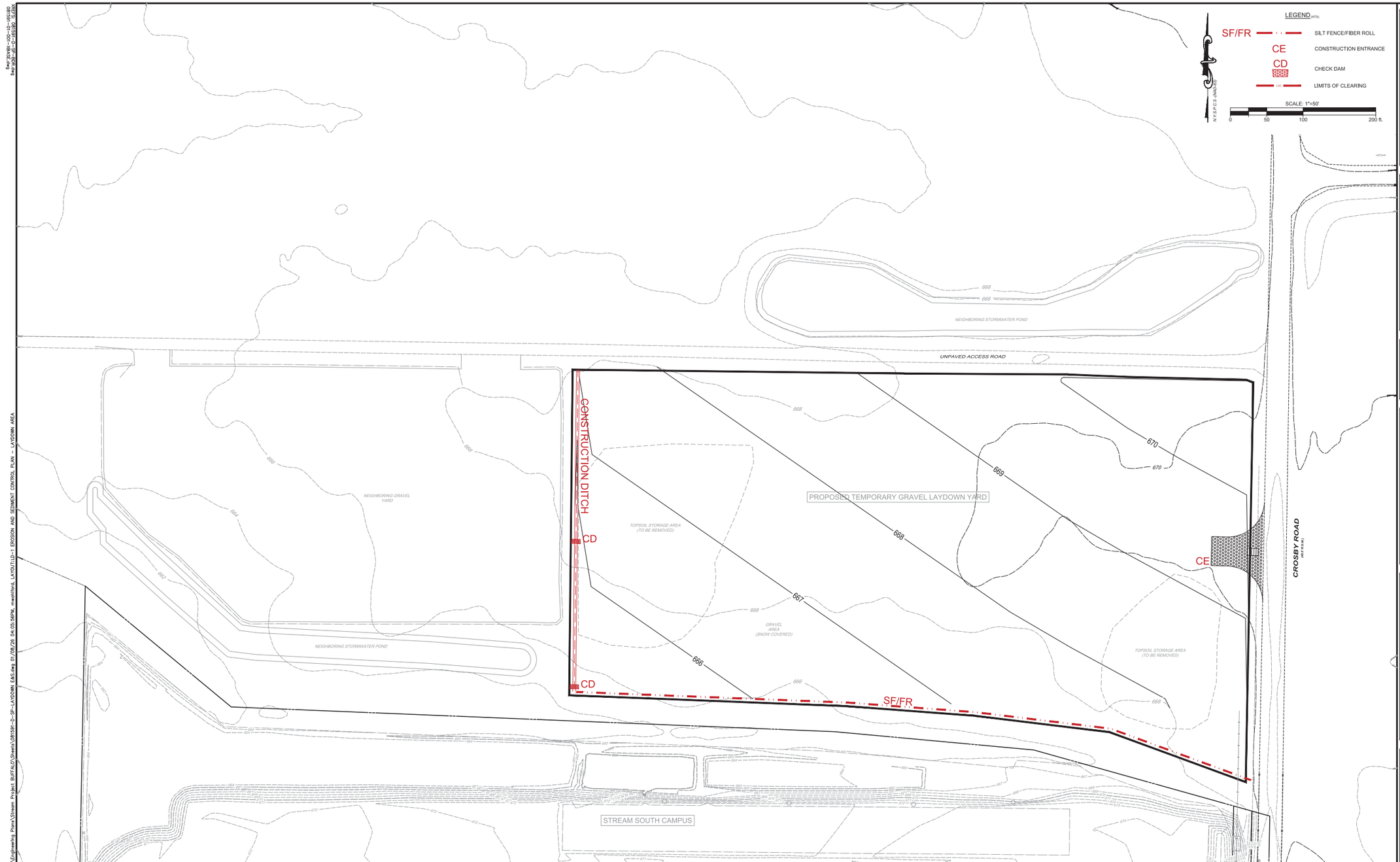

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12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
13. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY
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16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT EROSION AND SEDIMENTATION.
18. CONTRACTOR SHALL DESIGNATE/IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE, FOR WASTER DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
19. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH THE EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

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1. ALL SEEDED/SODDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STATE IS MAINTAINED. AREAS SHALL BE FERTILIZED, WATERED AND REPAIRED AS NEEDED.
2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE.
3. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT FROM THE SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE EXIT AS CONDITIONS DEMAND.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN A GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE AREA AS CONDITIONS DEMAND.
5. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT LEAVING THE SITE SHALL BE CLEANED IMMEDIATELY.

CONSTRUCTION SEQUENCE

1. CONDUCT PRE-CONSTRUCTION MEETING WITH THE TOWN TO DISCUSS EROSION AND SEDIMENT CONTROLS AND CONSTRUCTION PHASING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
3. INSTALL CONSTRUCTION FENCES.
4. INSTALL CONSTRUCTION DITCH, CHECK DAMS, AND SILT FENCE ON THE SITE AS SHOWN ON PLANS WITHIN THE CONSTRUCTION LIMITS.
5. REMOVE TOPSOIL PILES FROM LAYDOWN AREA FOR USE IN GRADING ELSEWHERE.
6. GRADE LAYDOWN AREA AS SHOWN
7. INSTALL COMPACTED GRAVEL SURFACE
8. MAINTAIN ALL EROSION AND SEDIMENT CONTROLS FOR DURATION ON LAYDOWN YARD USE
9. PERFORM SOIL RESTORATION ACTIVITIES IN ACCORDANCE WITH NYSDEC BLUEBOOK STANDARDS
10. STABILIZED ALL DISTURBED SOIL BY VEGETATION
11. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
12. STABILIZE ALL AREAS DISTURBED BY BMP REMOVAL.

CONTRACTOR MAY COMPLETE CONSTRUCTION RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN COMPLETELY INSTALLED.

THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY THE PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE GENERAL CONTRACTOR ON THESE PLANS.

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PROJ. 08191-01-001
DATE: JANUARY 9, 2026
DWG. PDO

"I am classified and I, ALL Architects, Engineers, Landscape Architects and Surveyors, hereby certify that the plans, specifications and/or reports were prepared by me (or under my direct supervision) in accordance with the requirements of 19 NYCRR 1.3(b)(2) (SECTIONS 7209 AND 7307 OF THE EDUCATION LAW) and 19 NYCRR 1.3(b)(3) (SECTIONS 7209-A AND 7307-A OF THE EDUCATION LAW)."

I also certify that the construction inspections will be performed by me (or under my direct supervision) in accordance with the requirements of 19 NYCRR 1.3(b)(4) (SECTIONS 7209 AND 7307 OF THE EDUCATION LAW).

I further certify that I am aware that it is a violation of 19 NYCRR 1.3(b)(5) (SECTIONS 7209-A AND 7307-A OF THE EDUCATION LAW) for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect or land surveyor, to alter these documents in any way.

Bowman

WARNING! IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR, TO ALTER THIS DRAWING IN ANY WAY.

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BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
EROSION AND SEDIMENT CONTROL PLAN - LAYDOWN AREA
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
LD-1

V:\08191 - Stream NY\08191-01-001 (ENG) - BUFO\A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\08191-D-SP-LAYDOWN E&S.dwg 01/08/26 04:05:56PM, mwelford, LAYOUT:LD-1 EROSION AND SEDIMENT CONTROL PLAN - LAYDOWN AREA
Ref: 3XVB-I001-10-16190
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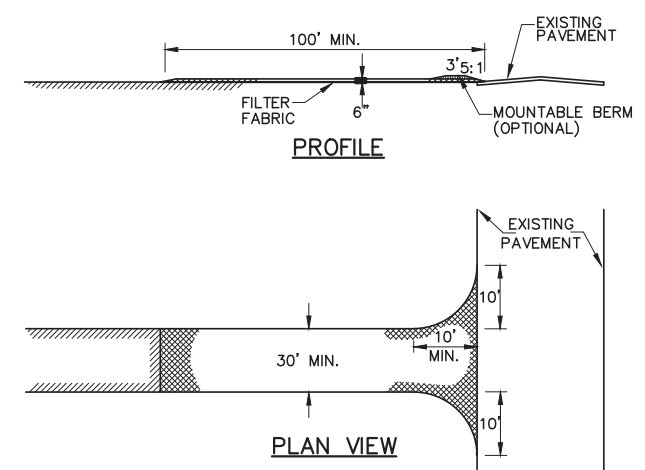


CONSTRUCTION ENTRANCE NOTES

1. SURFACE SHALL BE 2" CRUSHED STONE OR RECLAIMED/RECYCLED CONCRETE.
2. THE MINIMUM LENGTH SHALL BE 100 FEET (30' FOR A SINGLE RESIDENCE LOT).
3. THE TRACKING PAD SHALL BE A MINIMUM OF 6" DEEP STONE.
4. THE MINIMUM WIDTH SHALL BE 30 FEET (12' FOR A SINGLE RESIDENCE LOT).
5. A FILTER FABRIC SHALL BE PLACED UNDER THE ENTRANCE PRIOR TO PLACEMENT OF THE STONE (CONTECH C-40NW OR EQUAL).
6. SURFACE WATER SHALL BE DIVERTED AWAY FROM THE CONSTRUCTION ENTRANCE THROUGH THE USE OF DIVERSION SWALES AND PIPING. IF PIPING IS IS NOT FEASIBLE, THEN A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE USED.
7. THE STABILIZED CONSTRUCTION ENTRANCE SURFACE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD OR SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. PERIODIC TOP DRESSING WITH ADDITIONAL STONE WILL BE NEEDED AS CONDITIONS DEMAND. REPAIR AND CLEAN ALL MEASURES USED TO TRAP SEDIMENT. ANY SEDIMENT THAT IS TRANSPORTED ON TO THE PUBLIC RIGHT OF WAY (IN ANY MANNER) MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

Table 5.2 Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A &B	HSG C&D	Protect area from any ongoing construction activities.
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A &B	HSG C & D	
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration **	
Heavy traffic areas on site (especially in a zone 5-25 ft around buildings but not within a 5 ft perimeter around foundation walls)	Apply full Soil Restoration** de-compaction and compost enhancement)		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single-phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area as well as existing pervious areas.		

*Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Refer to latest version of NYSDEC Deep-Ripping and Decompaction.

Using this Practice

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps applied:

1. Apply 3 inches of compost over subsoil
2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils
3. Rock-pick until uplifted stone/rock materials of 4 inch and larger size are cleaned off the site
4. Apply topsoil to a depth of 6 inches.
5. Vegetate as required by approved plan.

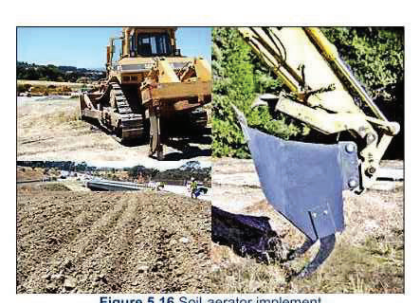


Figure 5.16 Soil aerator implement

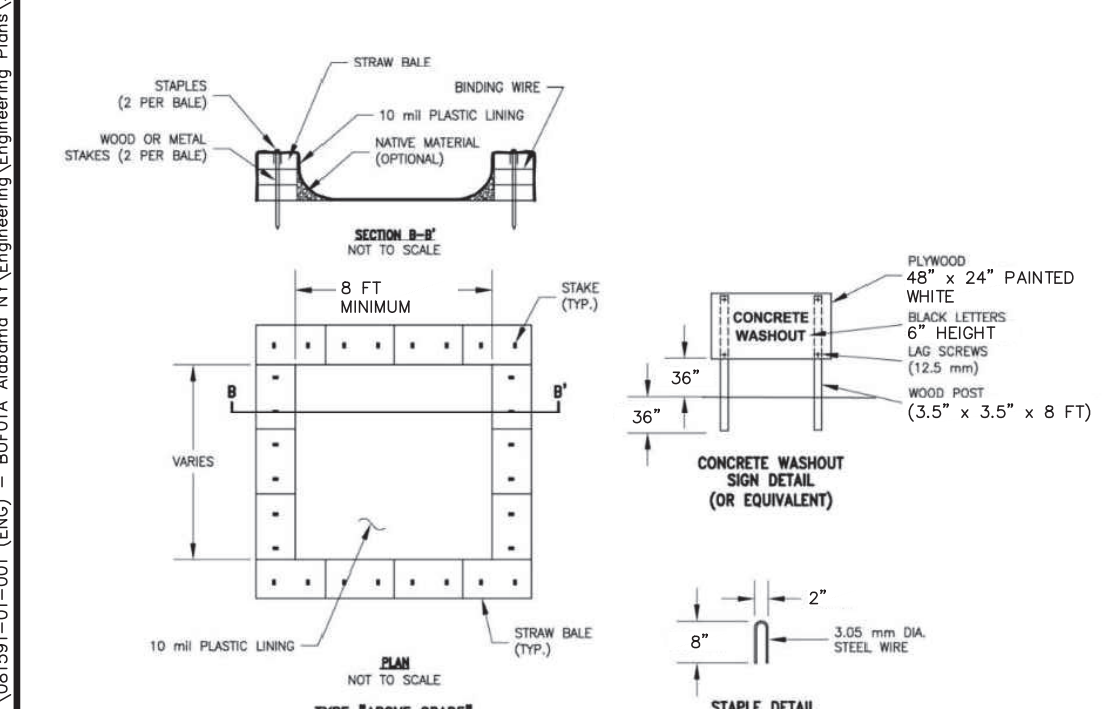
At the end of the project an inspector should be able to push a 3/8 inch metal bar 12 inches into the soil just with body weight. **Figure 5.16** and **Figure 5.17** show two attachments used for soil decompaction. Tilling (step 2 above) should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.

SOIL RESTORATION NOTES:

1. SOIL RESTORATION IS REQUIRED AND SHALL BE APPLIED ACROSS ALL DISTURBED AREAS WHERE SOILS HAVE BEEN COMPACTED AND WILL BE VEGETATED, IN ACCORDANCE WITH TABLE 5.2.
2. COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NOT VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A pH SUITABLE TO GROW DESIRED PLANTS.
3. FIRST YEAR MAINTENANCE OPERATIONS INCLUDES:
   - INITIAL INSPECTIONS FOR THE FIRST SIX MONTHS (ONCE AFTER EACH STORM GREATER THAN A HALF INCH)
   - RESEEDING TO REPAIR BARE OR ERODING AREAS TO ASSURE GRASS STABILIZATION
   - WATER ONCE EVERY THREE DAYS FOR THE FIRST MONTH, AND THEN PROVIDE A HALF INCH OF WATER PER WEEK DURING THE FIRST YEAR. IRRIGATION PLAN MAY BE ADJUSTED ACCORDING TO THE RAIN EVENT.
   - FERTILIZATION MAY BE NEEDED IN THE FALL AFTER THE FIRST GROWING SEASON TO INCREASE PLANT VIGOR
   - ONGOING MAINTENANCE:
     —TWO POINTS HELP ENSURE LASTING RESULTS OF DECOMPACTION:
     1) PLANTING THE APPROPRIATE GROUND COVER WITH DEEP ROOTS TO MAINTAIN THE SOIL STRUCTURE
     2) KEEPING THE SITE FREE OF VEHICULAR AND FOOT TRAFFIC OR OTHER WEIGHT LOADS. CONSIDER PEDESTRIAN FOOTPATHS. (SOMETIMES IT MAY BE NECESSARY TO DE-THATCH THE TURF EVERY FEW YEARS)

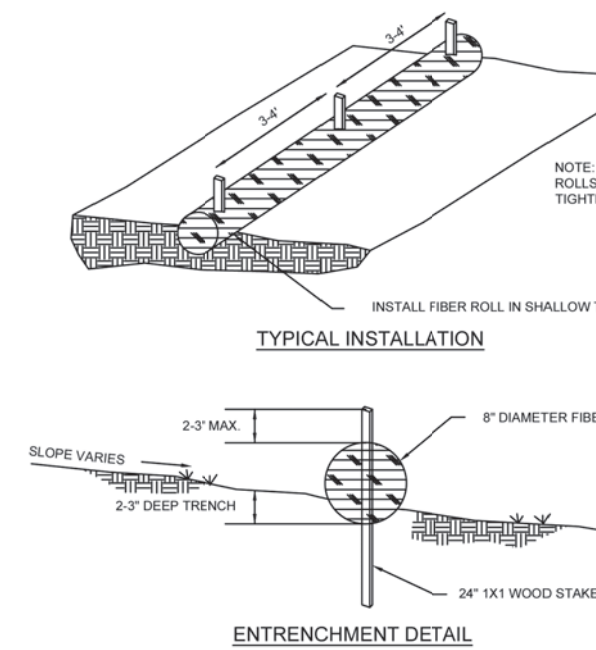
SOIL RESTORATION REQUIREMENTS

NOT TO SCALE



CONCRETE WASHOUT DETAIL

NOT TO SCALE



TYPICAL FIBER ROLL INSTALLATION

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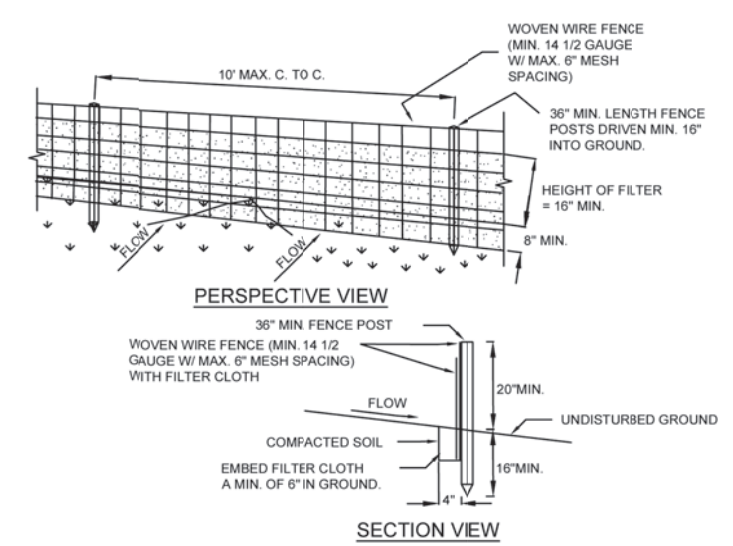
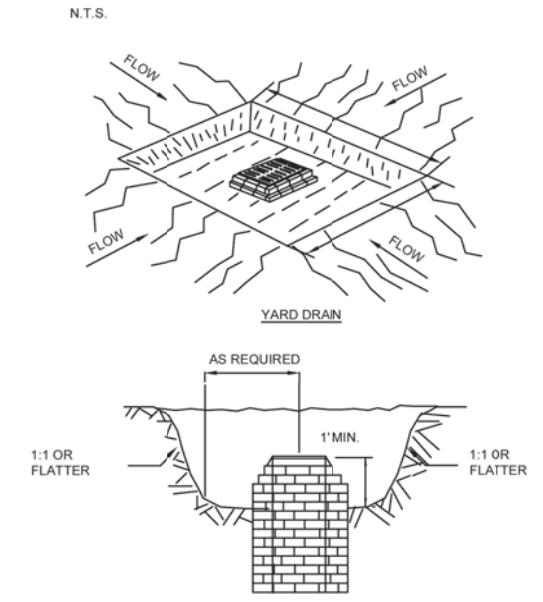


CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE 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.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL

N.T.S.



CONSTRUCTION SPECIFICATIONS

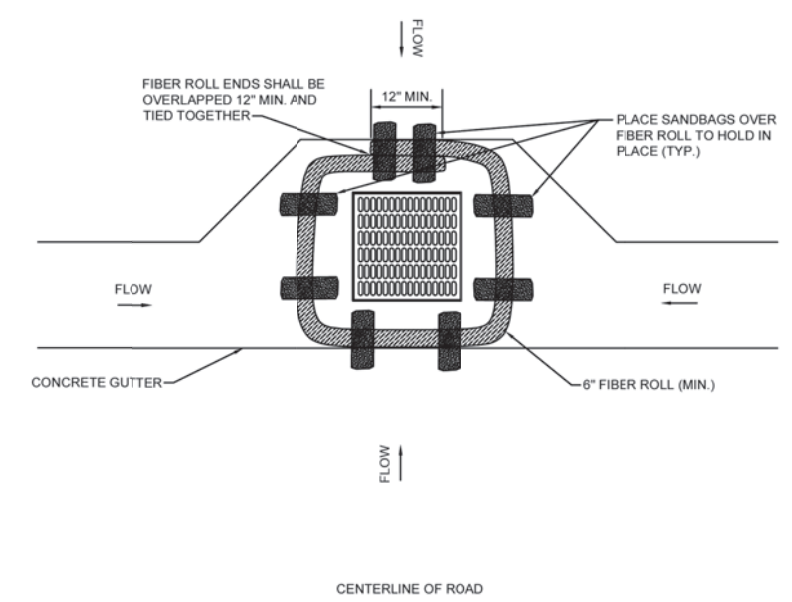
1. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
6. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.
   MAXIMUM DRAINAGE AREA: 3 ACRES

EXCAVATED INLET PROTECTION

N.T.S.

CONCRETE WASHOUT NOTES:

1. THE WASHOUT FACILITY SHALL BE SIZED TO CONTAIN SOLIDS, WASH WATER, AND RAINFALL AND SIZED TO ALLOW FOR EVAOPRATION OF THE WASH WATER AND RAINFALL.
2. WASHWATER SHALL BE ESTIMATED AT 7 GALLONS PER CHUTE AND 50 GALLONS PER HOPPER OF THE CONCRETE PUMP TRUCK AND/OR DISCHARGING DRUM.
3. MINIMUM SIZE SHALL BE 8 FT x 8 FT AT THE BOTTOM AND 2 FT DEEP.
4. LOCATE THE CONCRETE WASHOUT A MINIMUM OF 100 FT FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS. PREVENT SURFACE WATER FROM ENTERING FACILITY.
5. PROVIDE APPROPRIATE ACCESS WITH GRAVEL ACCESS ROAD SLOPED DOWN TO THE STRUCTURE. SIGNS SHALL BE PLACED TO DIRECT DRIVERS TO THE FACILITY AFTER THEIR LOAD IS DISCHARGED.
6. ALL CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY. DAMAGED OR LEAKING FACILITIES SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. EXCESS RAINWATER THAT HAS ACCUMULATED OVER HARDENED CONCRETE SHOULD BE PUMPED TO A STABILIZED AREA, SUCH AS A GRASS FILTER STRIP.
7. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF OFF SITE.
8. DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL. ON-SITE DISPOSAL MAY BE ALLOWED IF THIS HAS BEEN APPROVED AND ACCEPTED AS PART OF THE PROJECTS SWPPP. IN THAT CASE, THE MATERIAL SHOULD BE RECYCLED AS SPECIFIED, OR BURIED AND COVERED WITH A MINIMUM OF 2 FEET OF CLEAN COMPACTED EARTHFILL THAT IS PERMANENTLY STABILIZED TO PREVENT EROSION.
9. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
10. INSPECT THE PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.



FIBER ROLL CURB INLET PROTECTION

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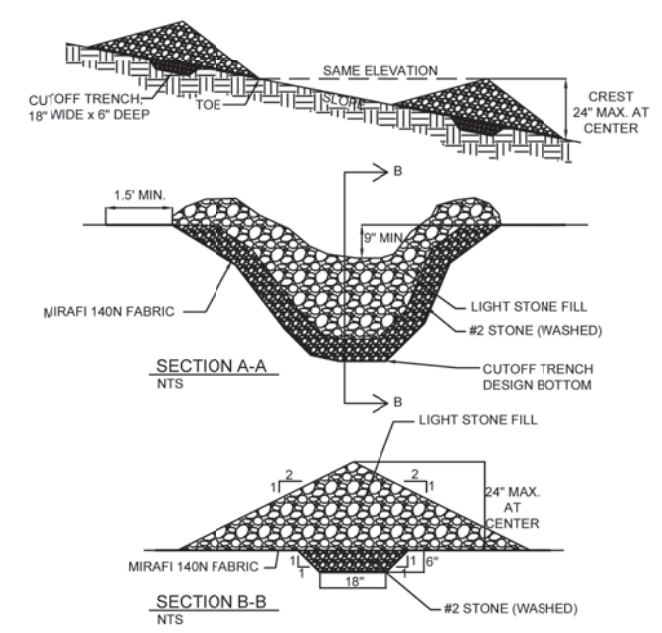

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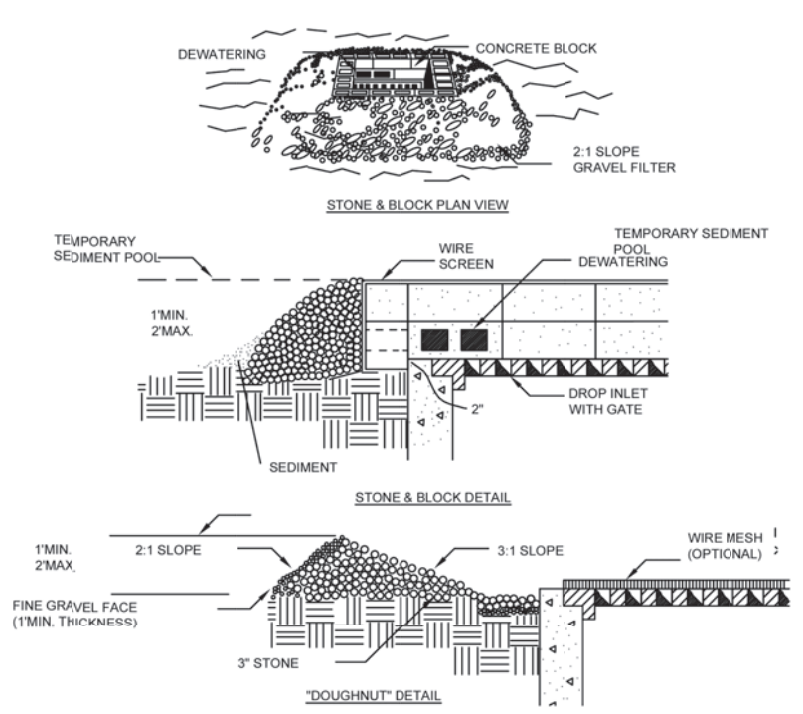


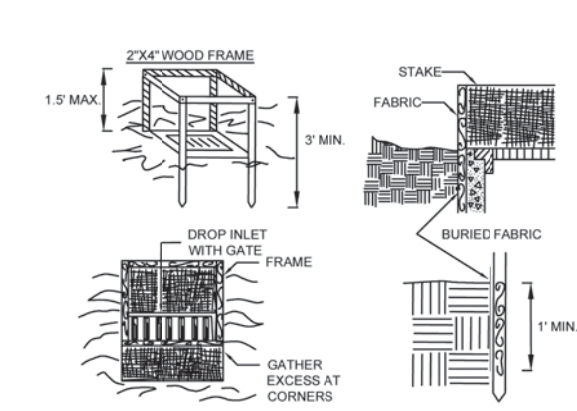
CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAXIMUM DRAINAGE AREA 1 ACRE

STONE AND BLOCK INLET PROTECTION

N.T.S.



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
   MAXIMUM DRAINAGE AREA 1 ACRE

FILTER FABRIC DROP INLET PROTECTION

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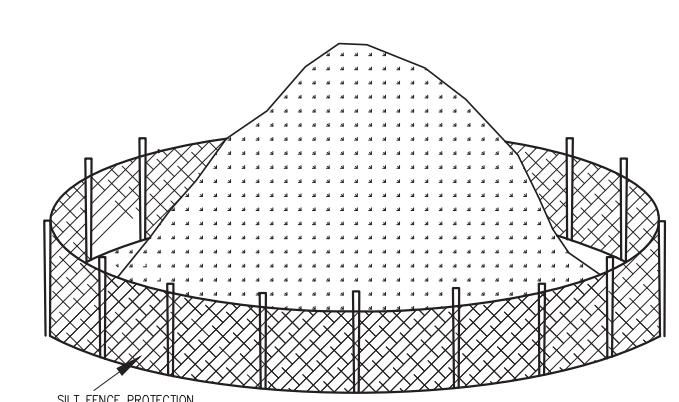
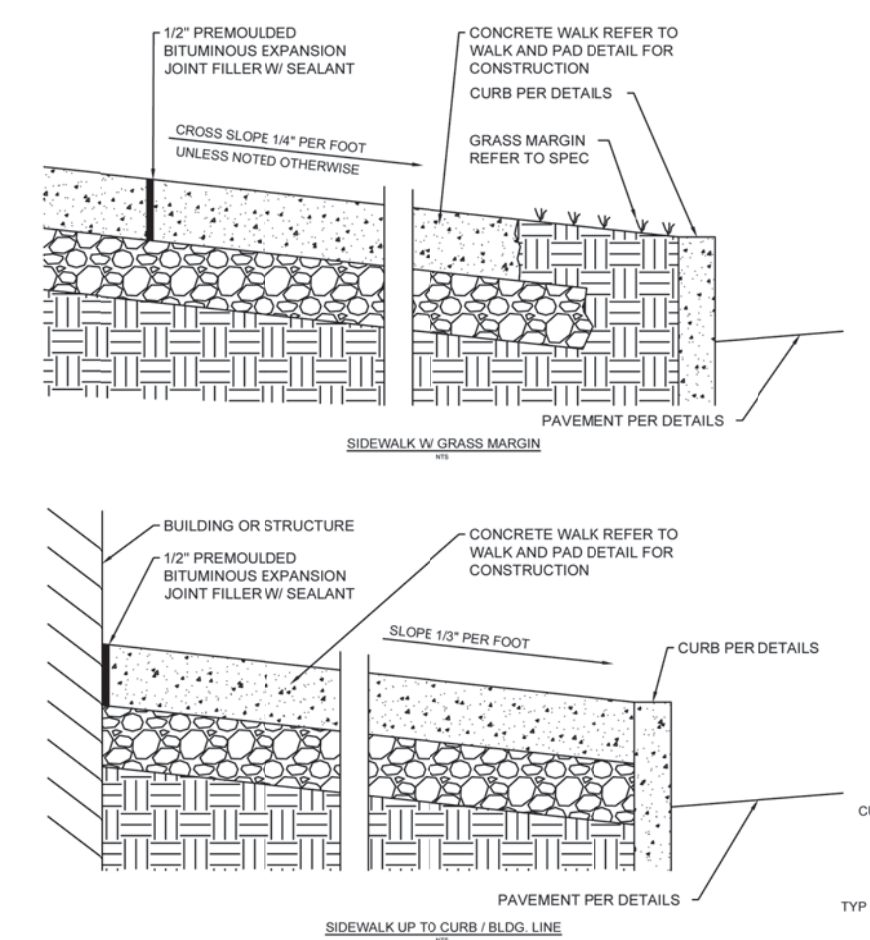
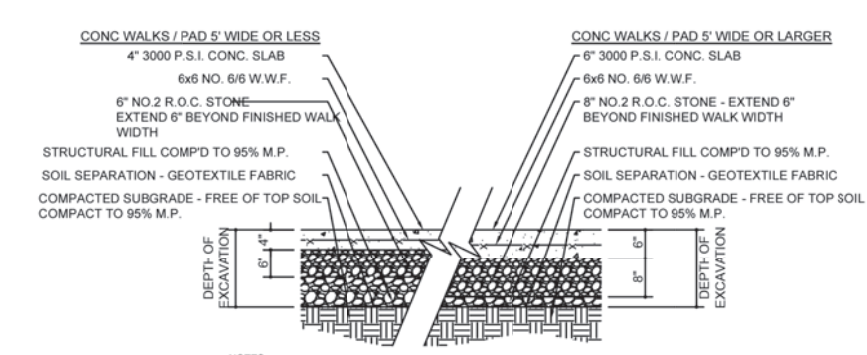


TOPSOIL STOCK PILE DETAIL

REFER TO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW YORK





NOTES:
1. SAW CUT JOINT SPACING @ MAX 5' O.C.
2. WALK CROSS SLOPE IS NOT TO EXCEED 2.0% OR 1/4"/ FT
3. WALK RUNNING SLOPE IS NOT TO EXCEED 5% OR 1:20
4. PAD SHALL BE PITCHED TO DRAIN 1/8" / FT
5. ALL EXTERIOR CONCRETE TO BE BROOM FINISHED PERPENDICULAR TO THE WALK
6. SIDEWALK THRU DRIVEWAYS SHALL 6" MIN. THICK W/W.W.F.6X6/10X10

NOTES:
1. CONCRETE SIDEWALKS WITHIN N.Y.S.D.O.T. R.O.W. SHALL CONFORM TO SPECIFICATION 608.01100015

CONCRETE WALKS & PADS TYP. SECTION

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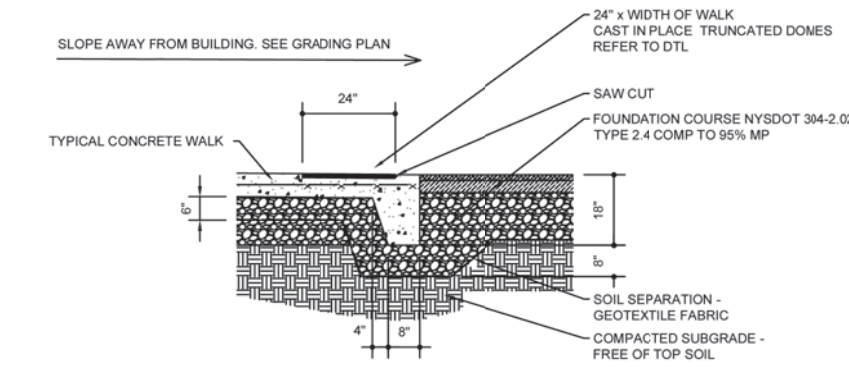

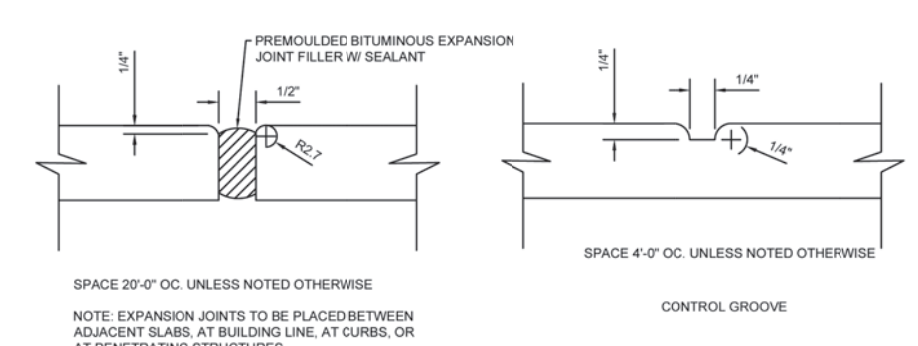

PAD/WALK - JOINT DETAILS

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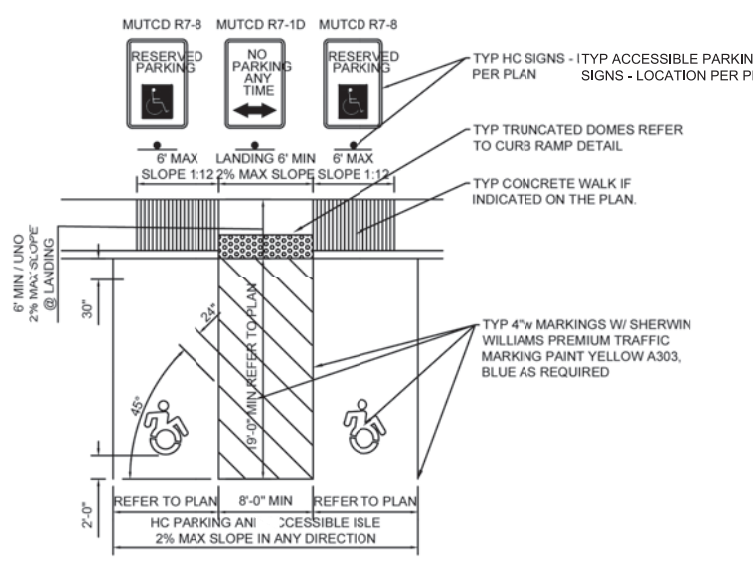

TYPICAL TYPICAL ADA PARKING STALL AND SIGNAGE

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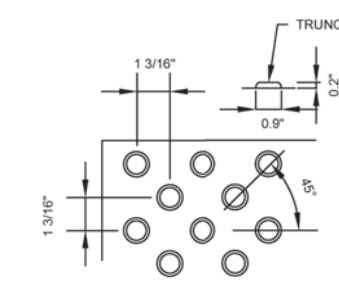
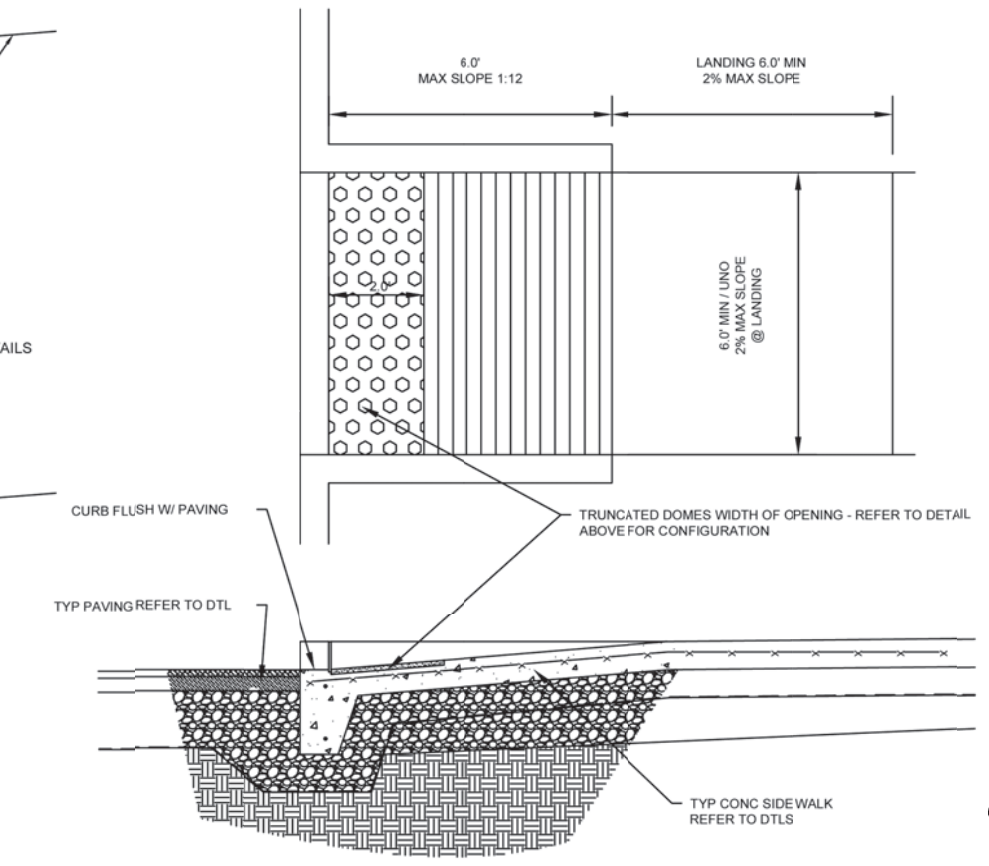


NOTE: THIS DRAWING IS INTENDED TO DISPLAY THE SPACING AND HEIGHT OF THE DETECTABLE WARNING (TRUNCATED DOMES). ACTUAL SIZE AND LOCATION OF DETECTABLE WARNING VARIES, SEE SITE PLAN FOR LOCATION AND SIZE OF AREA REQUIRED.



INLINE CURB RAMP DETAIL

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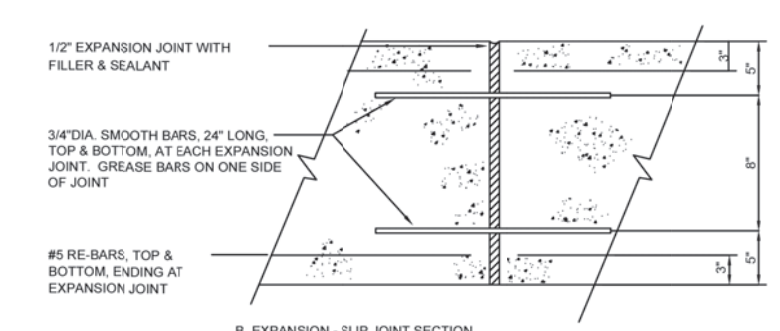

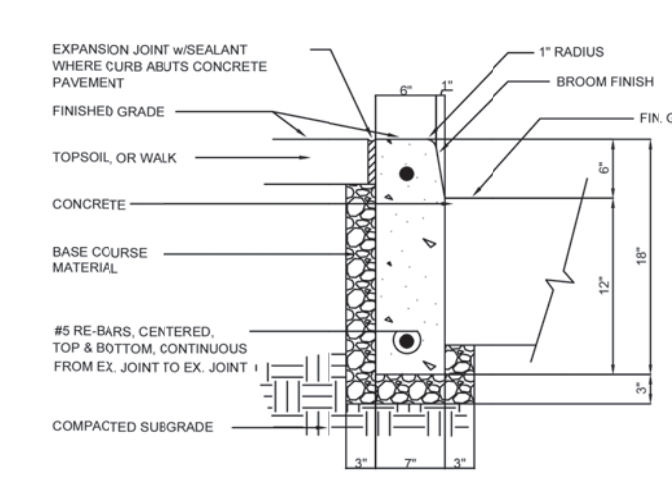

CONCRETE CURB DETAIL

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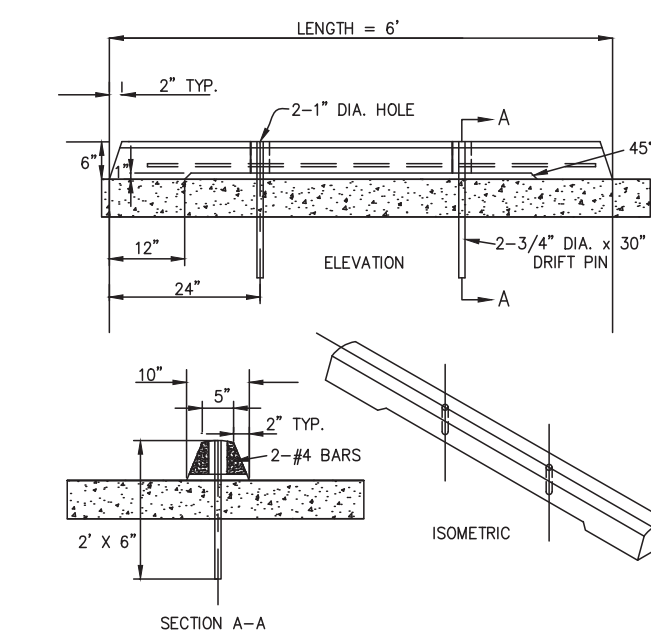
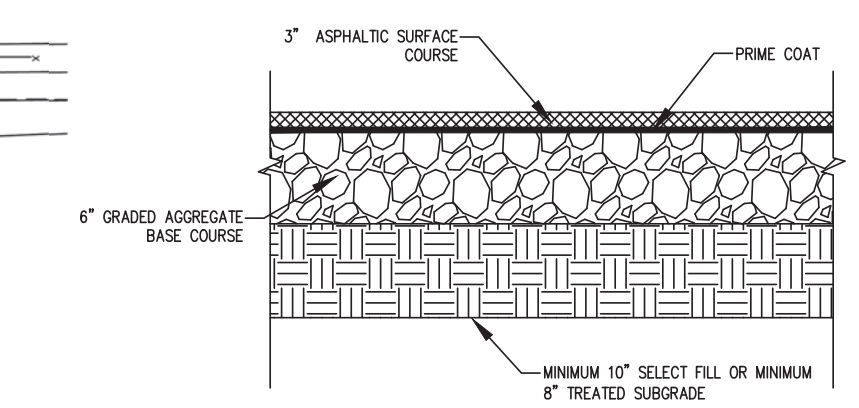


PRECAST CONCRETE WHEEL STOP

(NOT TO SCALE)

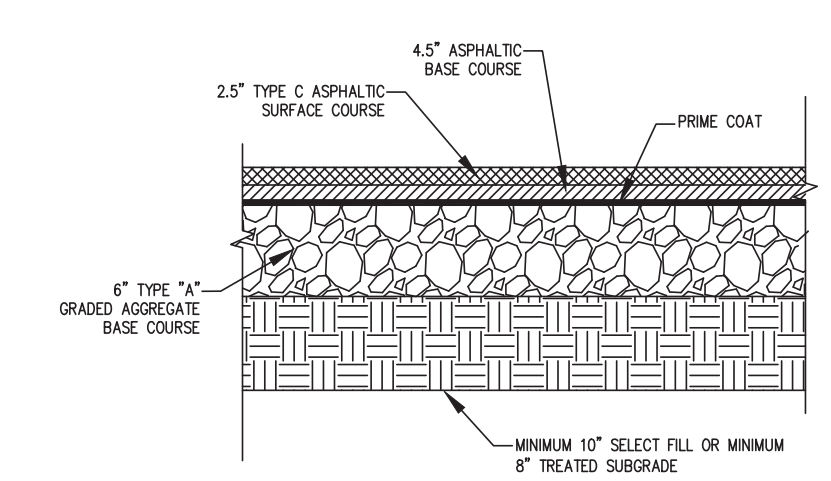


NOTES:

1. ALL PAVEMENT COURSES TO MEET MINIMUM REQUIREMENTS OF LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS.
2. INSTALL 3" SURFACE COURSE TO FINAL SURFACE GRADE. MILL AND REPLACE 3" SURFACE AT COMPLETION OF ALL CONSTRUCTION.
3. PAVEMENT SECTION PER THE GEOTECHNICAL ENGINEERING REPORT
4. THE FINAL PAVING SHALL BE EVEN WITH TOP OF GUTTER.

LIGHT DUTY ASPHALT PAVEMENT SECTION

(NOT TO SCALE)

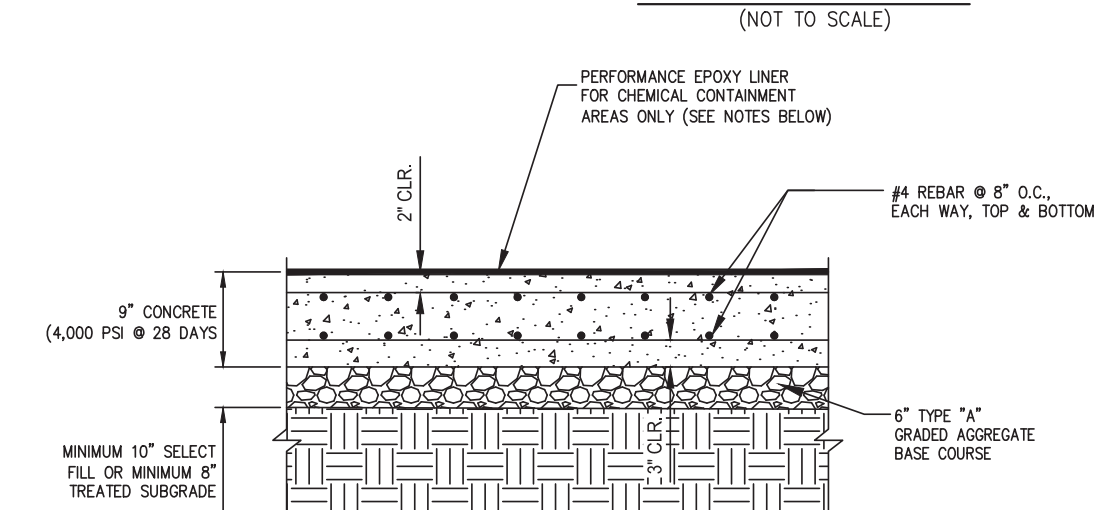


NOTES:

1. ALL PAVEMENT COURSES TO MEET MINIMUM REQUIREMENTS OF LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS.
2. INSTALL 7" INTERMEDIATE COURSE TO FINAL SURFACE GRADE. MILL AND REPLACE W/ 2.5" SURFACE AT COMPLETION OF ALL CONSTRUCTION.
3. PAVEMENT SECTION PER THE GEOTECHNICAL ENGINEERING REPORT
4. THE FINAL PAVING SHALL BE EVEN WITH TOP OF GUTTER.

STANDARD DUTY ASPHALT PAVEMENT SECTION

(NOT TO SCALE)



NOTES:

1. PLACE CONTROL JOINTS (SAWCUT) EVERY 15' O/C UNLESS OTHERWISE NOTED ON PLANS.
2. CHEMICAL/FUEL-RESISTANT PVC WATERSTOPS SHALL BE INSTALLED AT ALL EDGES OF CONTAINMENT AREAS, CONSTRUCTION/EXPANSION JOINTS AND STRUCTURES CAST INTO CONCRETE (I.E. TRENCH DRAINS).
3. FOR CHEMICAL CONTAINMENT AREAS PROVIDE PERFORMANCE SURFACE COATINGS.
4. CONCRETE SHALL BE MEDIUM BROOM FINISH, EPOXY COATING SHALL BE NON-SLIP FINISH.
5. REFERENCE SPEC SECTION 03 15 00.10 FOR WATERSTOPS, SEALANTS, PERFORMANCE COATINGS AND CONCRETE ADDITIVES.
6. FOR FUEL DELIVERY AREAS PERFORMANCE SURFACE COATINGS ARE NOT REQUIRED.
7. ALL JOINTS AND CRACKS SHALL BE FILLED WITH APPROVED SEALANT.
8. WATERPROOFING ADMIXTURE TO BE USED IN ALL CONTAINMENT AREA CONCRETE (INCLUDING SECONDARY CONTAINMENT AREAS).
9. REFERENCE SITE GEOTECHNICAL REPORT FOR DETAILED INFORMATION FOR SUBGRADE REQUIREMENTS.

HEAVY DUTY CONCRETE SECTION

(NOT TO SCALE)

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PROJ.: 081591-01-001
DATE: JANUARY 9, 2026
CHKD: PDQ

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BUFA - PROJECT DOUBLE REED SOUTH CAMPUS

DETAILS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

DT-1

V:\081591 - Stream NY\081591-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\081591-D-SP-DETAILS-SITE.dwg 01/08/26 04:05:56PM, mwohlford, LAYOUT:DT-1 DETAILS
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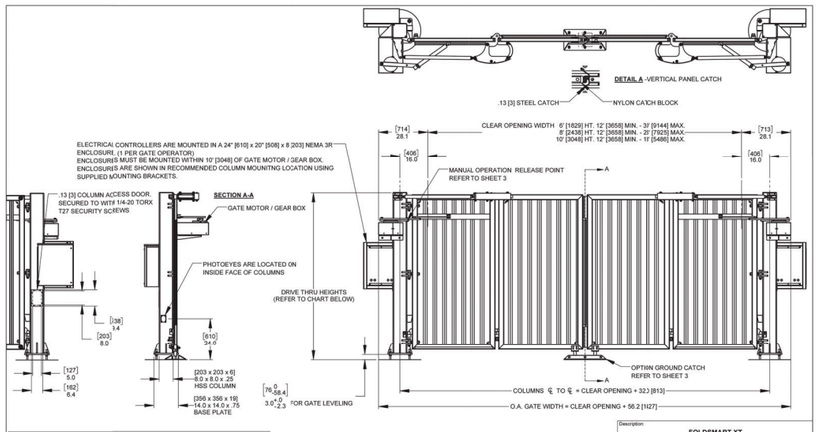


NOTE
GATE IS PREPARED FOR FIELD INSTALLATION OF SENSING EDGES PER UL UPDATE

DIMENSIONS ARE IN INCHES, DIMENSIONS SHOWN IN [ ] ARE IN MILLIMETERS.

FINISH NOTES:

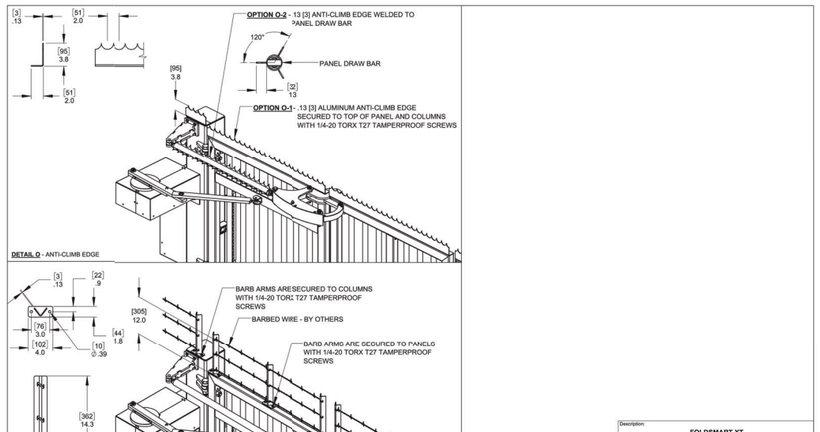
STANDARD FINISH: HOT DIPPED SALVANIZED ON ALL STEEL COMPONENTS

OPTIONAL FINISH: POWDER COAT PAINT, CUSTOM COLORS AVAILABLE RAL # MUST BE SPECIFIED AT TIME OF ORDER

DRIVE THRU HEIGHTS	
6ft	72" [1829]
8ft	96" [2438]
10ft	120" [3048]

WALLACE PERIMETER SECURITY
115 Lowson Crescent
Winnipeg, Manitoba, Canada, R3P 1A6
Phone: 1-866-300-1110
Fax: 1-204-284-1868
Web: www.wallaceperimetersecurity.com

Description: **FOLDSMART XT TRACKLESS BI-FOLDING GATE SYSTEM** STANDARD DIMENSIONS
Customer / Project Name:
Finish: SEE FINISH NOTES | Date: 3/27/2025
Drawing No.: FSXT-01-30-19 | Rev.: D | Sheet: 1 of 6



Description: **FOLDSMART XT TRACKLESS BI-FOLDING GATE SYSTEM** OPTIONS
Customer / Project Name:
Finish: SEE SHEET 1 | Date: 3/27/2025
Drawing No.: FSXT-01-30-19 | Rev.: D | Sheet: 4 of 6

INCLUDED WITH FOLDSMART
- 2 - ELECTRICAL OPERATORS MOUNTED IN 24" [610] x 20" [508] x 8" [203] NEMA 3R ENCLOSURES.
- KEY FOR MANUAL PANEL RELEASE

OPTIONS:
- CONCRETE TEMPLATE & ANCHOR BOLT KIT
- VEHICLE DETECTION LOOP RELAYS
- VEHICLE DETECTION LOOPS, DIRECT BURIAL OR SAW CUT
- SURFACE MOUNTED CENTER CATCH
- 4" [102] RED / GREEN LED TRAFFIC LIGHT
- AMBER STROBE LIGHT
- ALUMINUM SERRATED ANTI - CLIMB
- BARBED WIRE

Description: **FOLDSMART XT TRACKLESS BI-FOLDING GATE SYSTEM** STANDARD DIMENSIONS
Customer / Project Name:
Finish: SEE SHEET 1 | Date: 3/27/2025
Drawing No.: FSXT-01-30-19 | Rev.: D | Sheet: 2 of 6

VEHICLE DETECTION LOOP WIDTHS

Clear Opening	Loop Width
12' [3658]	96" [2438]
14' [4267]	120" [3048]
16' [4877]	144" [3658]
18' [5486]	168" [4267]
20' [6096]	192" [4877]
22' [6706]	216" [5486]
24' [7315]	240" [6096]
26' [7925]	264" [6706]
28' [8534]	288" [7315]
30' [9144]	312" [7925]

NOTE:
BOLLARDS ARE SHOWN AS A REFERENCE ONLY. ALL FINAL DIMENSIONS AND MATERIALS ARE SUPPLIED AND INSTALLED BY OTHERS

Description: **FOLDSMART XT TRACKLESS BI-FOLDING GATE SYSTEM** GENERIC SITE LAYOUT
Customer / Project Name:
Finish: SEE SHEET 1 | Date: 3/27/2025
Drawing No.: FSXT-01-30-19 | Rev.: D | Sheet: 5 of 6

Description: **FOLDSMART XT TRACKLESS BI-FOLDING GATE SYSTEM** OPTIONS
Customer / Project Name:
Finish: SEE SHEET 1 | Date: 3/27/2025
Drawing No.: FSXT-01-30-19 | Rev.: D | Sheet: 3 of 6

Description: **FOLDSMART XT TRACKLESS BI-FOLDING GATE SYSTEM** OPTIONAL ACCESS CONTROL PEDESTALS
Customer / Project Name:
Finish: | Date: 3/27/2025
Drawing No.: FSXT-01-30-19 | Rev.: D | Sheet: 6 of 6

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PROJ. 08159-LO-001
DWG. DATE: JANUARY 9, 2026
DWG. PDO

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ERIC L. KELLER, N.Y. Professional Engineer Lic. 065234-1

BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
DETAILS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
DT-2

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D-Series Size 0
LED Area Luminaire

DLC LISTED PREMIUM · DLC LISTED · NIGHTTIME FRIENDLY · ida · ds · BAA · BABA

Catalog Number

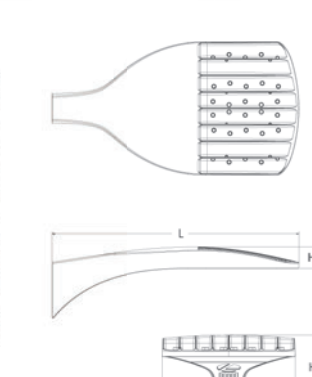
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	0.44 ft² (0.04 m²)
Length:	26.18" (66.5 cm)
Width:	14.06" (35.7 cm)
Height H1:	2.26" (5.7 cm)
Height H2:	7.46" (18.9 cm)
Weight:	23 lbs (10.4 kg)



Design Select options indicated by this color background.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

ds design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED

Series	LEDs	Color temperature[2]	Color Rendering Index[2]	Distribution	Voltage	Mounting
DSX0 LED	Forward optics: P1, P2, P3, P4, P5, P6, P7; Rotated optics: P10[1], P11[1], P12[1], P13[1]	(this section 70CRI only) 30K 3000K, 40K 4000K, 50K 5000K; 27K 2700K, 30K 3000K, 35K 3500K, 40K 4000K, 50K 5000K	70CRI, 70CRI, 70CRI; 80CRI, 80CRI, 80CRI, 80CRI, 80CRI	AFR Automotive front row; T1S Type I short; T2M Type II medium; T3M Type III medium; T3LG Type III low glare[3]; T4M Type IV medium; T4LG Type IV low glare[3]; TFTM Forward throw medium; T5M Type V medium; T5LG Type V low glare; T5W Type V wide; BLC3 Type III backlight control[3]; BLC4 Type IV backlight control[3]; LCCO Left corner cutoff[3]; RCCO Right corner cutoff[3]	MVOLT (120V-277V)[4]; HVOLT (347V-480V)[5,6]; XVOLT (277V-480V)[7,8]; 120[16,24]; 208[16,24]; 240[16,24]; 277[16,24]; 347[16,24]; 480[16,24]	Shipped included: SPA Square pole mounting (#8 drilling, 3.5" min. SQ pole); RPA Round pole mounting (#8 drilling, 3" min. RND pole); SPA5 Square pole mounting (#5 drilling, 3" min. SQ pole)[9]; RPA5 Round pole mounting (#5 drilling, 3" min. RND pole)[9]; SPA8N Square narrow pole mounting (#8 drilling, 3" min. SQ pole); WBA Wall bracket[10]; MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options	Other options	Finish (required)
Shipped installed: NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc.[11,12,18,19]; PIR High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc[13,18,19]; PER NEMA twist-lock receptacle only (controls ordered separate)[14]; PER5 Five-pin receptacle only (controls ordered separate)[14,19]; PER7 Seven-pin receptacle only (controls ordered separate)[14,19]; FAO Field adjustable output[15,19]; BL30 Bi-level switched dimming, 30%[16,19]; BL50 Bi-level switched dimming, 50%[16,19]; DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[17]	Shipped installed: HS Houseside shield (black finish standard)[20]; L90 Left rotated optics[1]; R90 Right rotated optics[1]; CCE Coastal Construction[21]; HA 50°C ambient operation[22]; BAA Buy America(n) Act and/or Build America Buy America Qualified; SF Single fuse (120, 277, 347V)[24]; DF Double fuse (208, 240, 480V)[24]; Shipped separately: EGSR External Gare Shield (reversible, field install required, matches housing finish); BSDB Bird Spikes (field install required)	DDBXD Dark Bronze; DBLXD Black; DNAXD Natural Aluminum; DWHXD White; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white

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Ordering Information

Accessories
Ordered and shipped separately.

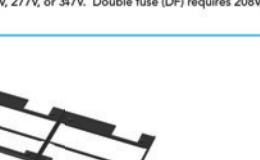
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[23]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[23]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[23]
DSHORT SBK	Shorting cap[23]
DSX0HS P#	House-side shield (enter package number P1-7, P10-13 in place of #)
DSXRPA (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXRPA5 (FINISH)	Round pole adapter #5 drilling (specify finish)
DSXSPA5 (FINISH)	Square pole adapter #5 drilling (specify finish)
DSX0EGSR (FINISH)	External glare shield (specify finish)
DSX0BSDB (FINISH)	Bird spike deterrent bracket (specify finish)

NOTES
1 Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
2 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
3 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
6 HVOLT not available with package P1, P2 and P10 when combined with option NLTAIR2 PIRHN or option PIR.
7 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
8 XVOLT not available in packages P1, P2, or P10. XVOLT not available with fusing (SF or DF). XVOLT also not available in packages P3, P4, P5, P7, P11, P13 when combined with NLTAIR2 PIRHN or PIR.
9 SPA5 and RPA5 for use with #5 drilling only (Not for use with #8 drilling).
10 WBA cannot be combined with Type 5 distributions plus photocell (PER).
11 NLTAIR2 and PIRHN must be ordered together. For more information on nLight Air 2.
12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50 and DMG. NLTAIR2 PIRHN not available with P1, P2 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 using MVOLT.
13 PIR not available with NLTAIR2, PER, PER5, PER7, FAO BL30, BL50 and DMG. PIR not available with P1, P2 and P10 using HVOLT. PIR not available with P1 using MVOLT.
14 PER/PER5/PER7 not available with NLTAIR2, PIR, BL30, BL50. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, or DMG.
16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO and DMG. BL30 or BL50 must specify 120 or 277V.
17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50 and FAO.
18 Reference Motion Sensor Default Settings table on page 4 to see functionality.
19 Reference Controls Options table on page 4.
20 Option HS not available with T3LG, T4LG BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
21 CCE option not available with option BS and EGSR. Contact Technical Support for availability.
22 Option HA not available with performance packages P6, P7, P12 and P13.
23 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
24 Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

Shield Accessories

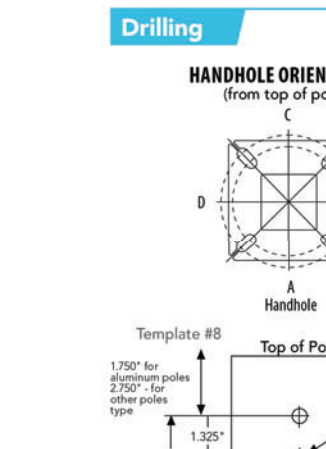


External Glare Shield (EGSR)



House Side Shield (HS)

Drilling



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
Minimum Acceptable Outside Pole Dimension							
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

DSX0 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX0 with SPA	0.44	0.88	0.96	1.18	---	1.16
DSX0 with SPA5, SPA8N	0.51	1.02	1.06	1.26	---	1.29
DSX0 with RPA, RPA5	0.51	1.02	1.06	1.26	1.24	1.29
DSX0 with MA	0.64	1.28	1.24	1.67	1.70	1.93

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WST LED
Architectural Wall Sconce

TITLE 20 · NIGHTTIME FRIENDLY · A+ CAPABLE · BAA · BABA

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications
Luminaire

Height:	8-1/2" (21.59 cm)
Width:	17" (43.18 cm)
Depth:	10-3/16" (25.9 cm)
Weight:	20 lbs (9.1 kg)



Introduction

The WST LED is designed with the specifier in mind. The traditional, trapezoidal shape offers a soft, non-pixilated light source for end-user visual comfort. For emergency egress lighting, the WST LED offers six battery options, including remote. For additional code compliance and energy savings, there is also a Bi-level motion sensor option. With so many standard and optional features, three lumen packages, and high LPW, the WST LED is your "go to" luminaire for most any application.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

WST LED

Series	Performance Package	Color temperature	Distribution	Voltage	Mounting
WST LED	P1 1,500 Lumen package; P2 3,000 Lumen package; P3 6,000 Lumen package	27K 2700 K; 30K 3000 K; 40K 4000 K; 50K 5000 K	VF Visual comfort forward throw; VW Visual comfort wide	MVOLT[1]; 120[2]; 208[2]; 240[2]; 277[2]; 347[2]; 480[2]	Shipped included: (blank) Surface mounting bracket; PBBW Premium surface-mounted back box[3,4]; Shipped separately: BBW Surface-mounted back box[3]

Options		Finish (required)
NLTAIR2 PIR nLIGHT AIR Wireless enabled motion/ambient sensor for 8'-15' mounting heights[5,6,7]; NLTAIR2 PIRH nLIGHT AIR Wireless enabled motion/ambient sensor for 15'-30' mounting heights[5,6,7]; PE Photoelectric cell, button type[8]; PER NEMA twist-lock receptacle only (controls ordered separate)[9]; PER5 Five-wire receptacle only (controls ordered separate)[9]; PER7 Seven-wire receptacle only (controls ordered separate)[9]; PIR Motion/Ambient Light Sensor, 8-15' mounting height[5,6]; PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[5,6]; PIRH 180° motion/ambient light sensor, 15-30' mounting height[5,6]; PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[5,6]; SF Single fuse (120, 277, 347V)[2]; DF Double fuse (208, 240, 480V)[2]; DS Dual switching[10]; DMG 0-10V dimming extend out back of housing for external control (control ordered separate)[11]	E7WC Emergency battery backup, CA Title 20 Noncompliant (cold, 7W)[12]; E20WH Emergency battery pack 18W constant power, Certified in CA Title 20 MAEDBS[7]; E20WC Emergency battery pack -20°C 18W constant power, Certified in CA Title 20 MAEDBS[7,12]; LCE Left side conduit entry[14]; RCE Right side conduit entry[14]; BAA Buy America(n) Act Compliant; Shipped separately: RBPW Retrofit back plate[3]; VG Vandal guard[15]; WG Wire guard[15]	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; DSSXD Sandstone; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white; DSSTXD Textured sandstone

See Accessories and Notes on next page.

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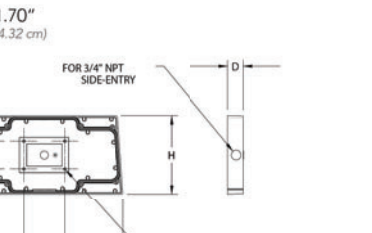
Accessories
Ordered and shipped separately.

WSTVCPBBW DDBXD U	Premium Surface - mounted back box
WSBBW DDBTXD U	Surface - mounted back box
RBPW DDBXD U	Retrofit back plate
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[15]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[15]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[15]

NOTES
1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
3 Also available as a separate accessory; see accessories information.
4 Top conduit entry standard.
5 Not available with VG or WG. See PER Table.
6 Reference Motion Sensor table.
7 Not available 347/480. E7WC or E23WHR, only available 120 or 277.
8 Need to specify 120, 208, 240 or 277 voltage.
9 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
10 Not available with Emergency options, PE or PER options.
11 DMG option not available with standalone or networked sensors/controls.
12 Battery pack rated for -20° to 40°C.
13 Not available with BBW.
14 Must order with fixture; not an accessory.
15 Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table.

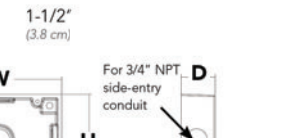
Optional Back Box (PBBW)

Height:	8.49" (21.56 cm)
Width:	17.01" (43.21 cm)
Depth:	1.70" (4.32 cm)



Optional Back Box (BBW)

Height:	4" (10.2 cm)
Width:	5-1/2" (14.0 cm)
Depth:	1-1/2" (3.8 cm)



Emergency Battery Operation

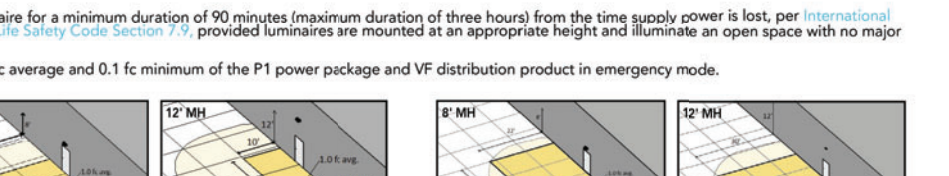
The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of NFPA 70/NEC 2008 - 700.16

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

10' x 10' Gridlines
8' and 12' Mounting Height



WST LED P1 27K VF MVOLT E7WH · WST LED P2 40K VF MVOLT E20WH

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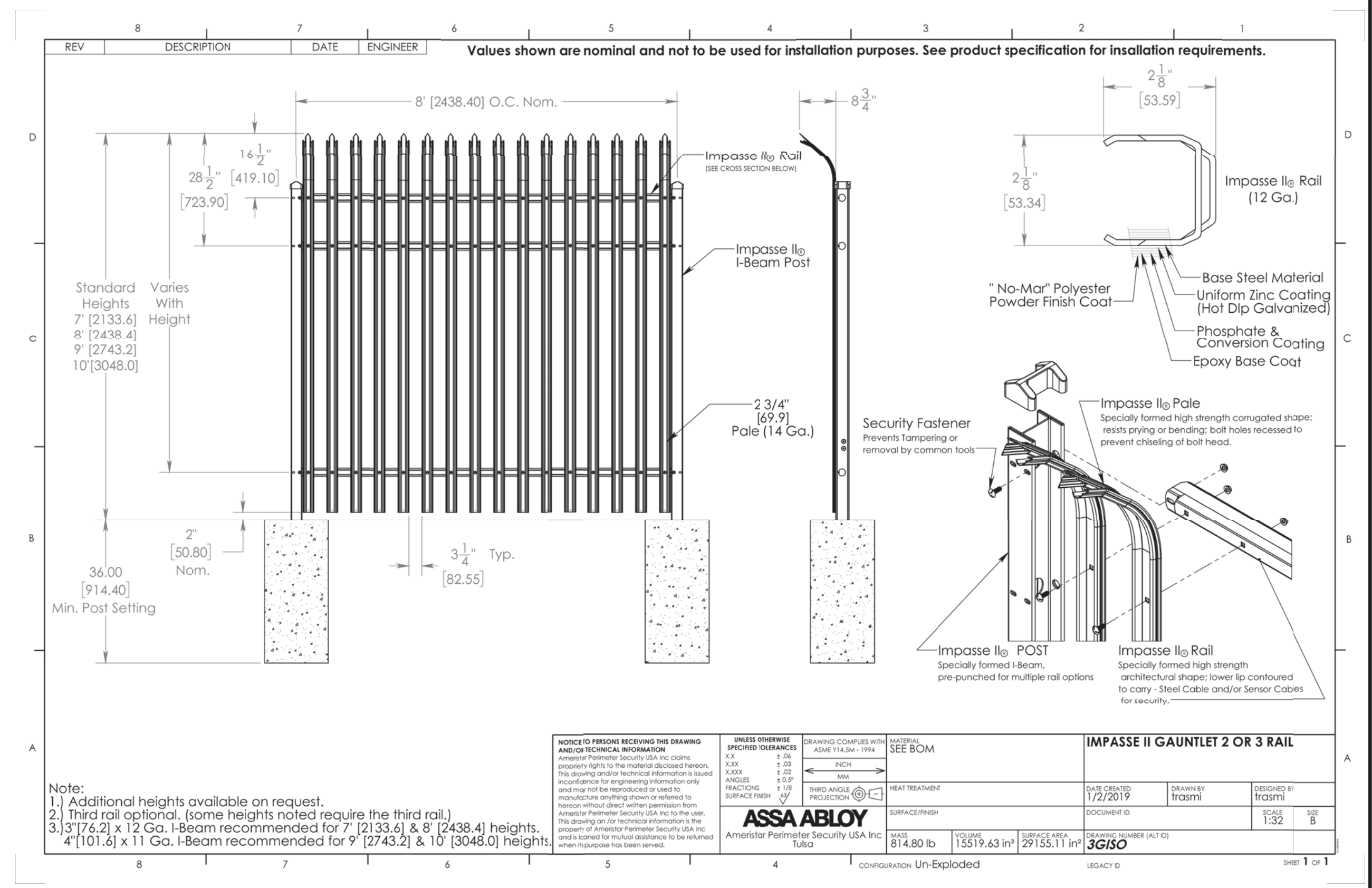
LIGHT FIXTURE DETAIL
NOT TO SCALE



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1		

PROJ.: 081591-01-001
DATE: JANUARY 9, 2026
CHKD: PDQ

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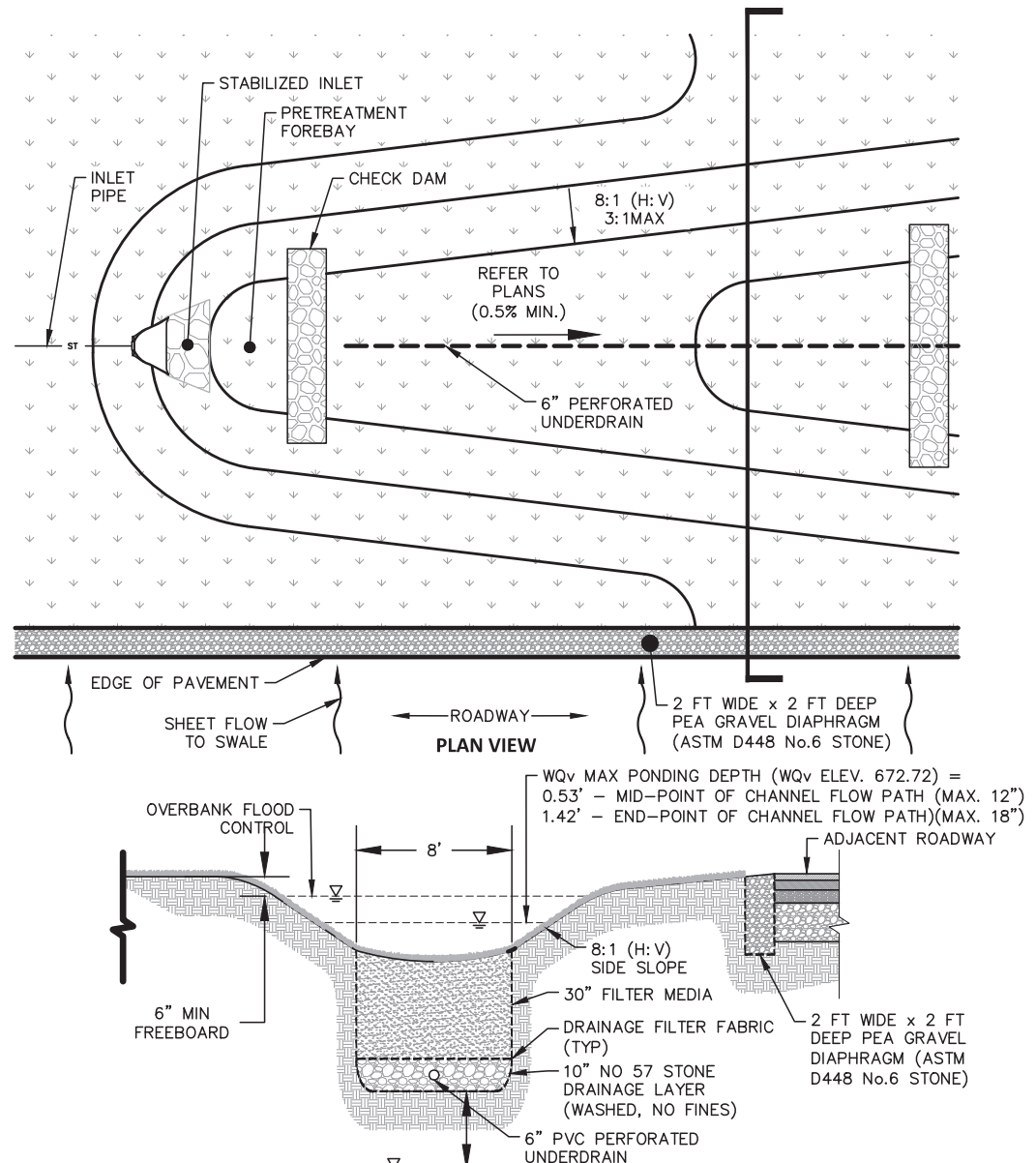
BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
DETAILS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

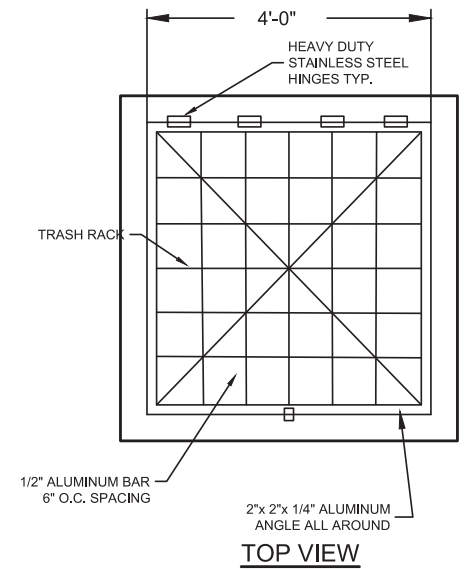
SHEET No.
DT-3



NOTES:
1. 1 FT HIGH STONE CHECK DAMS SHALL BE PROVIDED EVERY 167 FT. (2) TOTAL. REFER TO PLANS.
2. PROVIDE CLEANOUTS FOR UNDERDRAIN AT UPSTREAM END AND EVERY 100 FT.

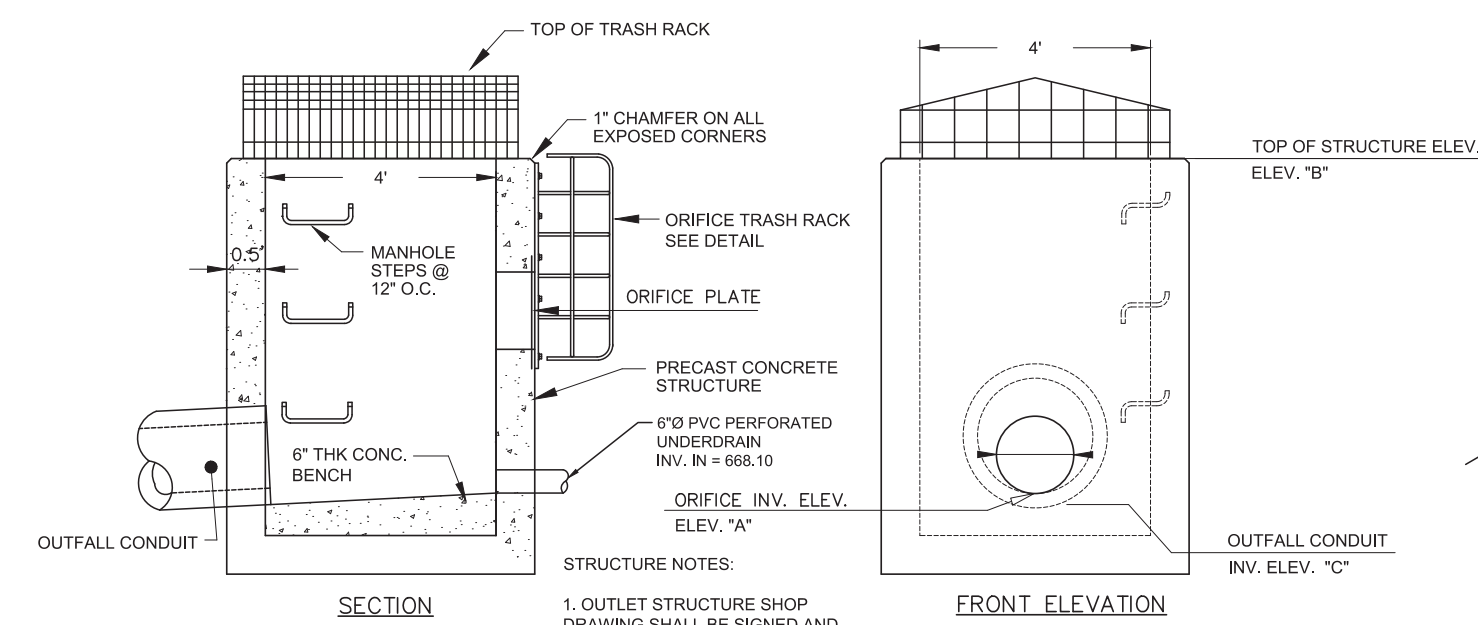
PROPOSED STORMWATER MANAGEMENT PRACTICE (SMP) DRY SWALE

NOT TO SCALE



GENERAL NOTES:

1. STEEL TO CONFORM TO ASTM A-26
2. TRASH RACK & HOOD TO BE CENTERED OVER OPENING.
3. TRASH RACK & HOOD TO BE FASTENED TO THE STRUCTURE WITH 1/2" MASONRY ANCHORS. TRASH RACK & HOOD TO BE REMOVABLE.



STRUCTURE NOTES:

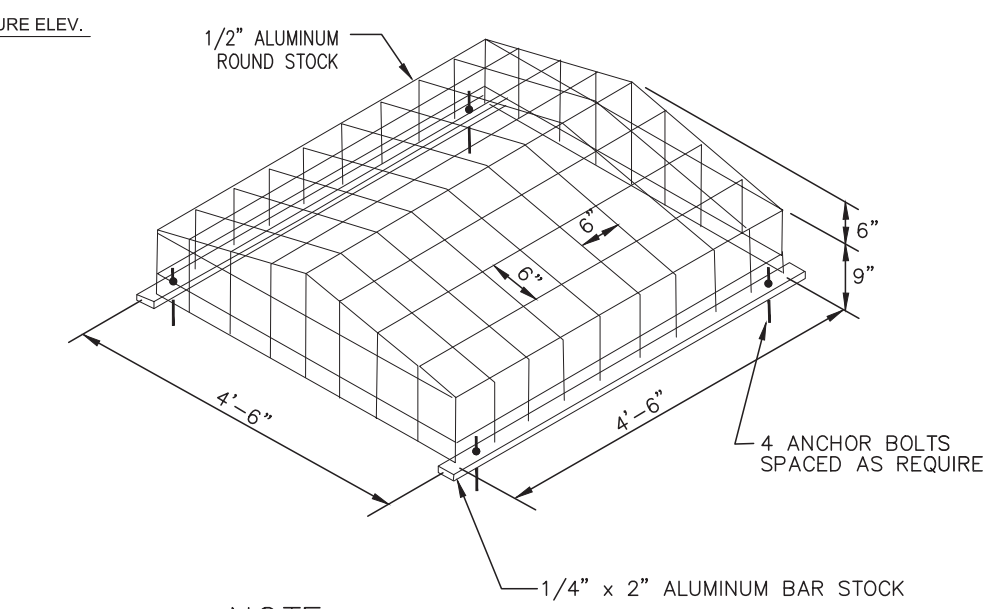
1. OUTLET STRUCTURE SHOP DRAWING SHALL BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.

TRASH RACKS NOT SHOWN FOR CLARITY
SEE PLAN FOR GRADING

OUTLET STRUCTURE	PRIMARY OUTLET	ELEV. 'A' INVERT	ELEV. 'B' TOP OF STRUCTURE	OUTFALL CONDUIT INV. ELEV. 'C'
75A-OS	8"Ø ORIFICE	671.30	673.40	668.00
-				

OUTLET STRUCTURE

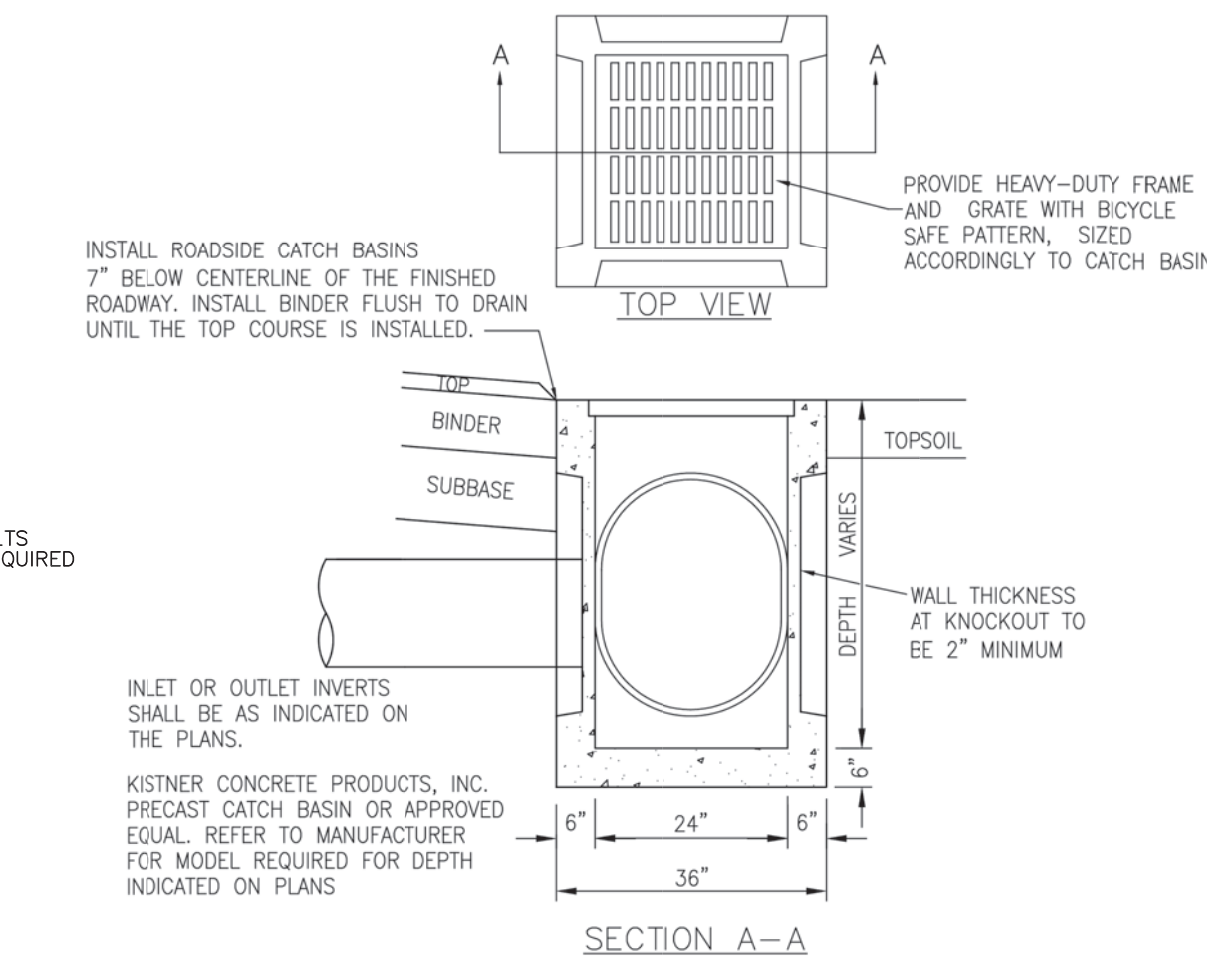
NOT TO SCALE



NOTE:
ALL JOINTS SHALL BE WELDED

TOP OF STRUCTURE TRASH RACK

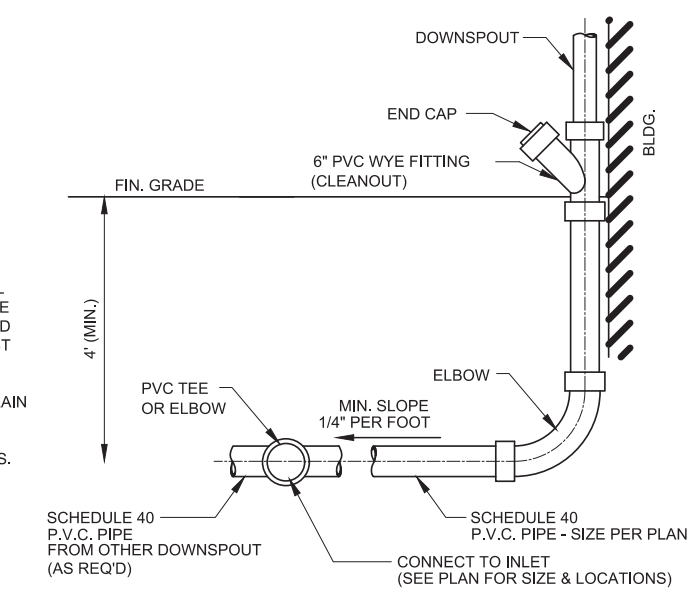
NOT TO SCALE



PRECAST CONCRETE CATCH BASIN

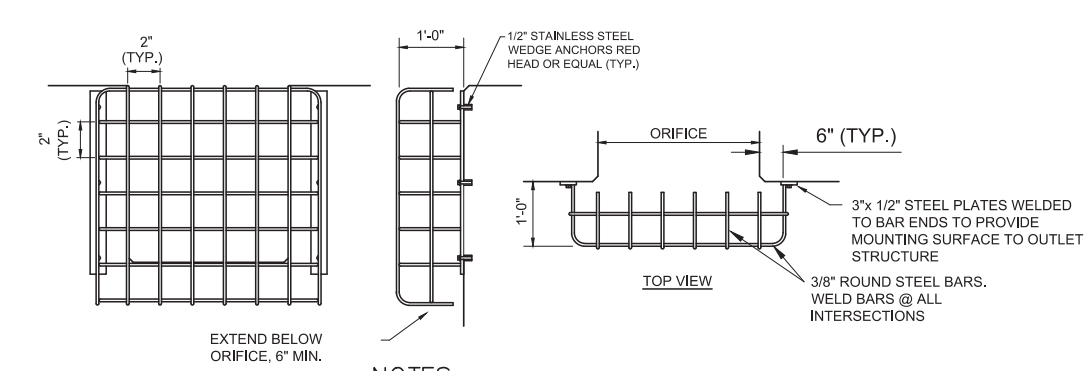
N.T.S.

ROOF DRAIN NOTES:
1. ROOF DRAIN DOWNSPOUTS SHALL INCLUDE LEAF SCREENS. PROVIDE LEAF EATER ADVANCED RAIN HEAD MANUFACTURED BY RAIN HARVEST SYSTEMS OR APPROVED EQUAL.
2. PROVIDE CLEANOUTS IN ROOF DRAIN MANIFOLD SYSTEM AT UPSTREAM ENDS, BENDS GREATER THAN 45°, JUNCTIONS AND 100 FT INTERVALS.



ROOF DRAIN DETAIL

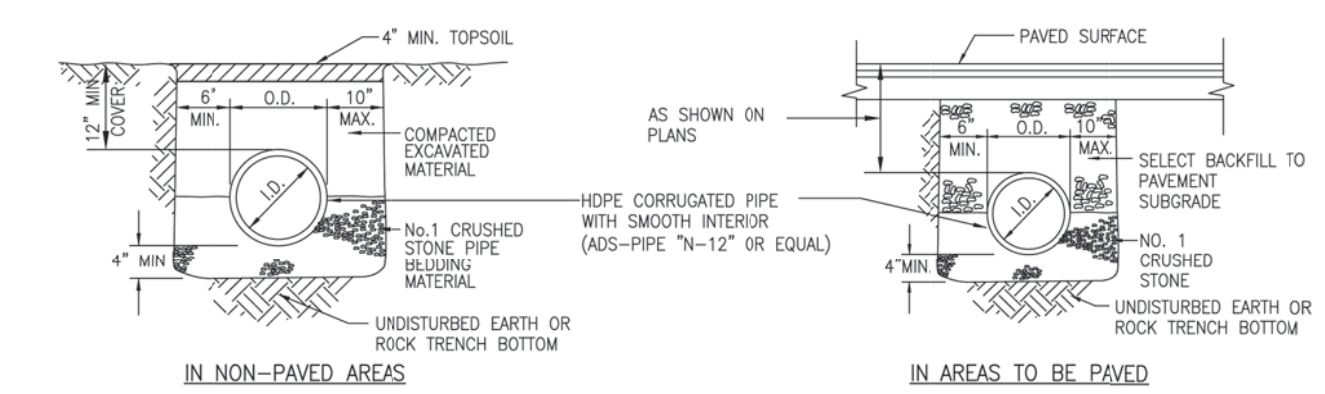
NOT TO SCALE



NOTES:
1. ALL JOINTS SHALL BE WELDED.
2. ALL METAL SHALL CONSIST OF STAINLESS STEEL OR GALVANIZED STEEL.

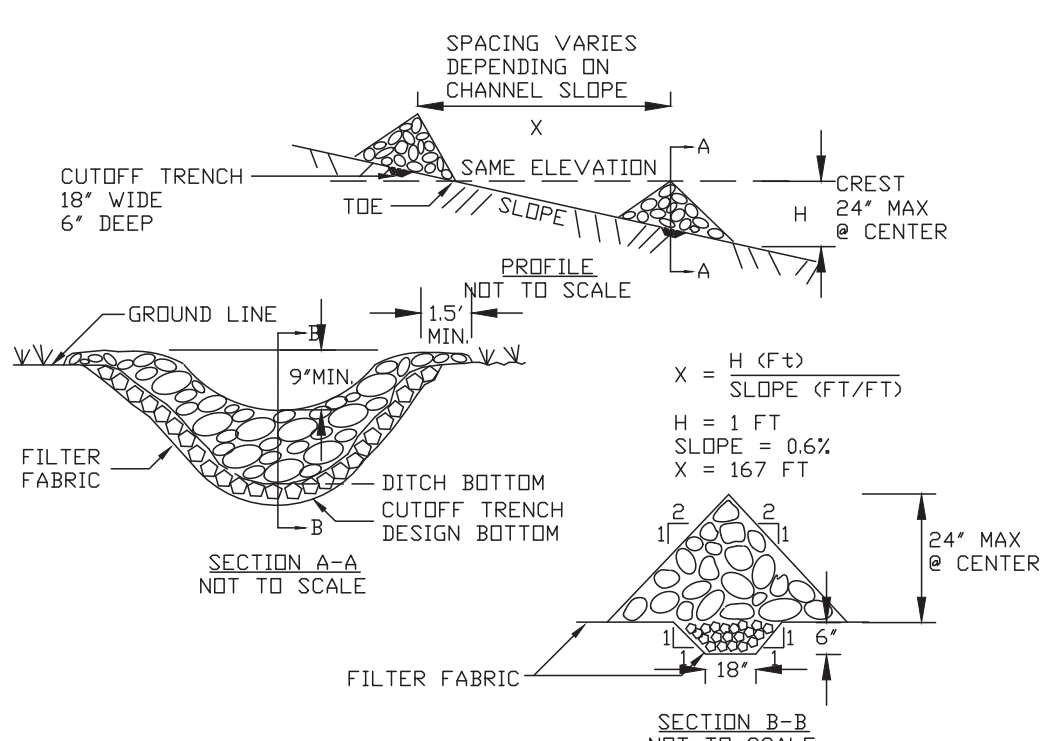
ORIFICE TRASH RACK DETAIL

NOT TO SCALE



STORM SEWER TRENCH DETAILS

N.T.S.



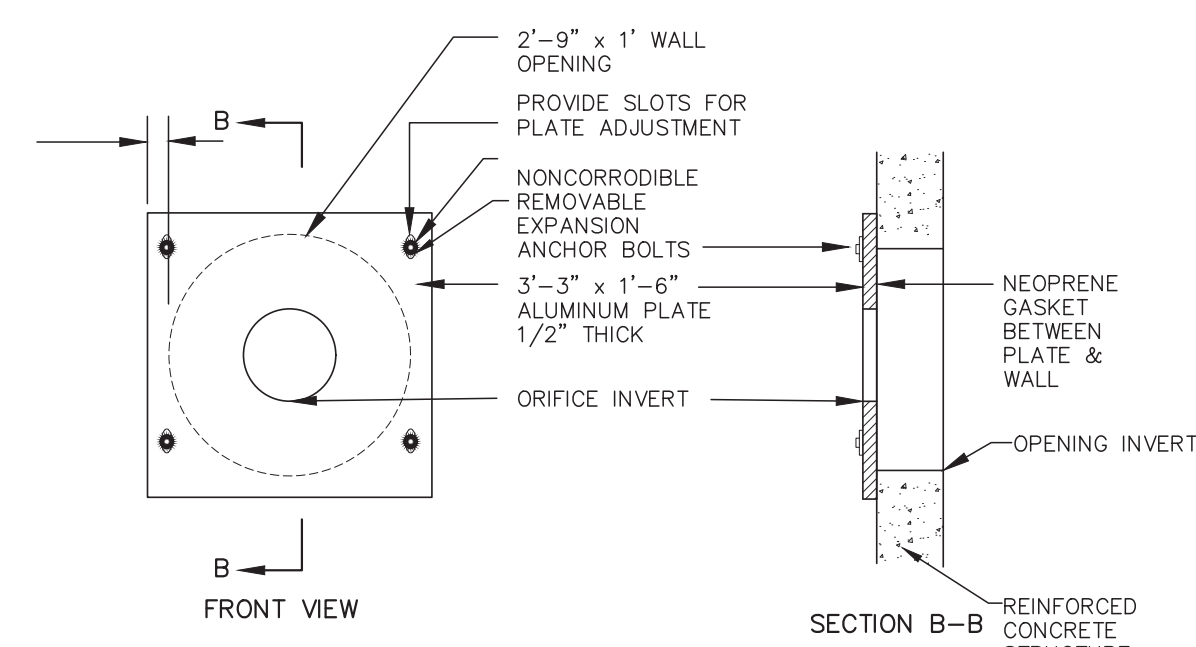
STONE CHECK DAM DETAIL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

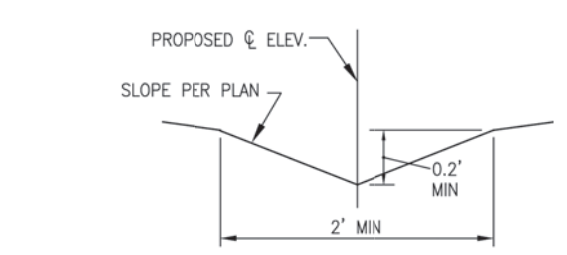
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

MAXIMUM DRAINAGE AREA 2 ACRES.



ORIFICE PLATE DETAIL

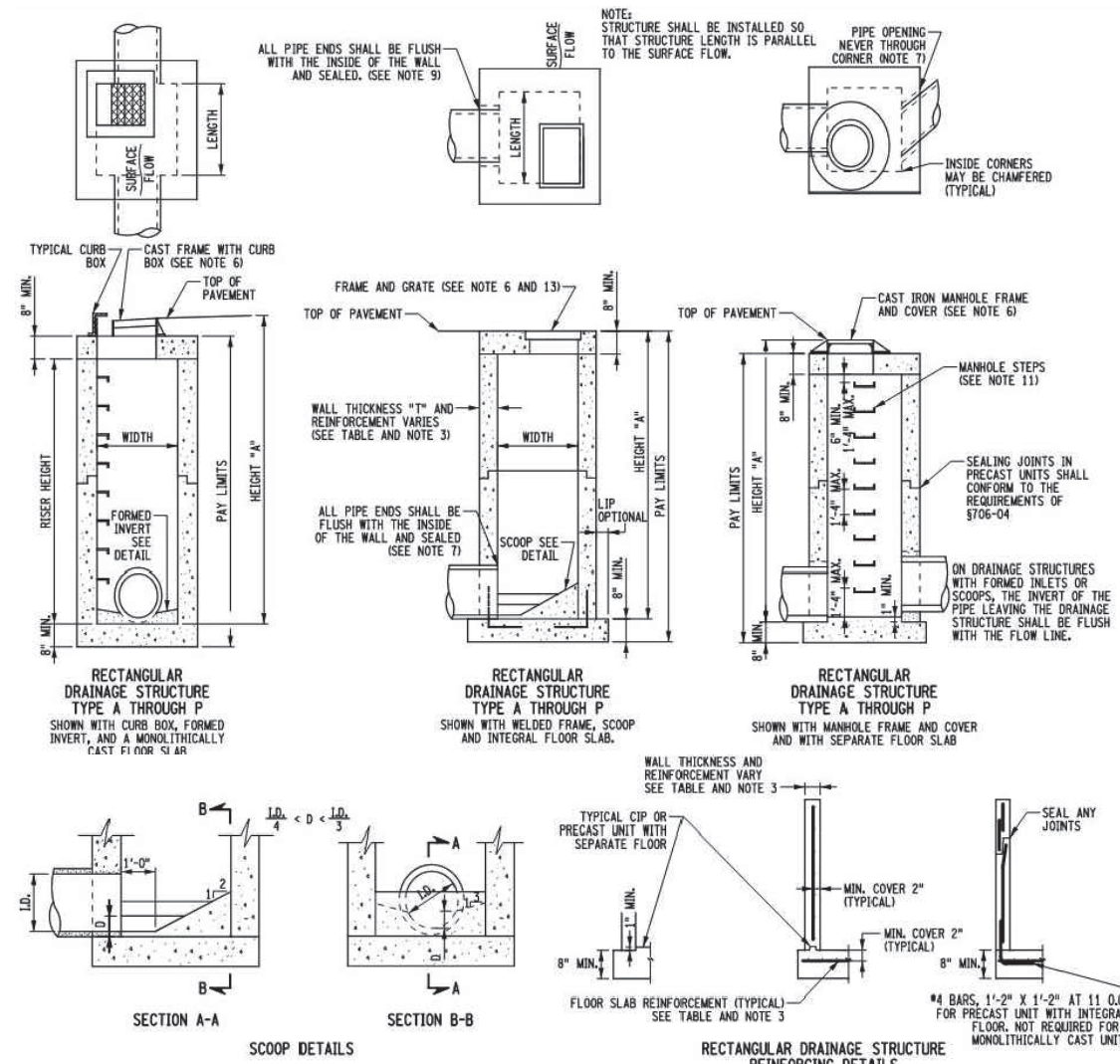
NOT TO SCALE



NOTES:
1) USE DIMENSIONS SHOWN IN THIS DETAIL UNLESS INDICATED OTHERWISE ON PLANS.
2) CONTRACTOR SHALL NOT OVER-EXCAVATE CHANNEL, SO AS TO, PREVENT EROSION.

TYPICAL SWALE

N.T.S.



DRAINAGE STRUCTURE REINFORCEMENT		
HEIGHT "A"	WALL THICKNESS	RISER REINFORCEMENT (SEE NOTE 3 AND 15)
UP TO 7'-0"	6"	6"X6"- W6 X W6 OR #3 BARS AT 10" BOTH HORIZ. AND VERT.
	8"	UNREINFORCED
7'-0" TO 14'-0"	8"	6"X6"- W8.5 X W8.5 OR #3 BARS AT 8" BOTH HORIZ. AND VERT.
14'-0" TO 21'-0"	8"	4"X4"- W8.5 X W8.5 OR #3 BARS AT 5" BOTH HORIZ. AND VERT.
		FLOOR SLAB REINFORCEMENT (SEE NOTE 3)
UP TO 7'-0"		6"X6"- W11 X W11 OR #3 BARS AT 6" IN BOTH DIRECTIONS
7'-0" TO 14'-0"		4"X4"- W11 X W11 OR #3 BARS AT 4" IN BOTH DIRECTIONS
14'-0" TO 21'-0"		4"X4"- W14 X W14 OR #3 BARS AT 3" IN BOTH DIRECTIONS

*T MAY BE 6" OR 8" FOR THE FIRST 7'-0". EXCEPTIONS ARE SIZE S, T, AND U WITH CURB, RECTANGULAR STRUCTURES WITH ROUND MANHOLE OPENING, OR IF THERE IS LESS THAN 2" ON EITHER SIDE OF A CORNER. (NOTE 7) WHICH MUST HAVE 8" THICK WALLS.

STRUCTURE SIZES AND PAY CODES			
STRUCTURE TYPE	INSIDE DIMENSIONS WIDTH	LENGTH	PAY ITEM XX CODE
A	3'-0"	3'-0"	01
B	4'-0"	3'-0"	02
C	5'-0"	3'-0"	03
D	6'-8"	3'-0"	04
E	3'-0"	4'-0"	05
F	4'-0"	4'-0"	06
G	5'-0"	4'-0"	07
H	6'-8"	4'-0"	08
I	3'-0"	5'-0"	09
J	4'-0"	5'-0"	10
K	5'-0"	5'-0"	11
L	6'-8"	5'-0"	12
M	3'-0"	6'-8"	13
N	4'-0"	6'-8"	14
O	5'-0"	6'-8"	15
P	6'-8"	6'-8"	16

NOTE
1. DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH STATE OF NEW YORK DOT STANDARD DETAILS AND SPECIFICATIONS.

DRAINAGE STRUCTURE DETAILS

NOT TO SCALE

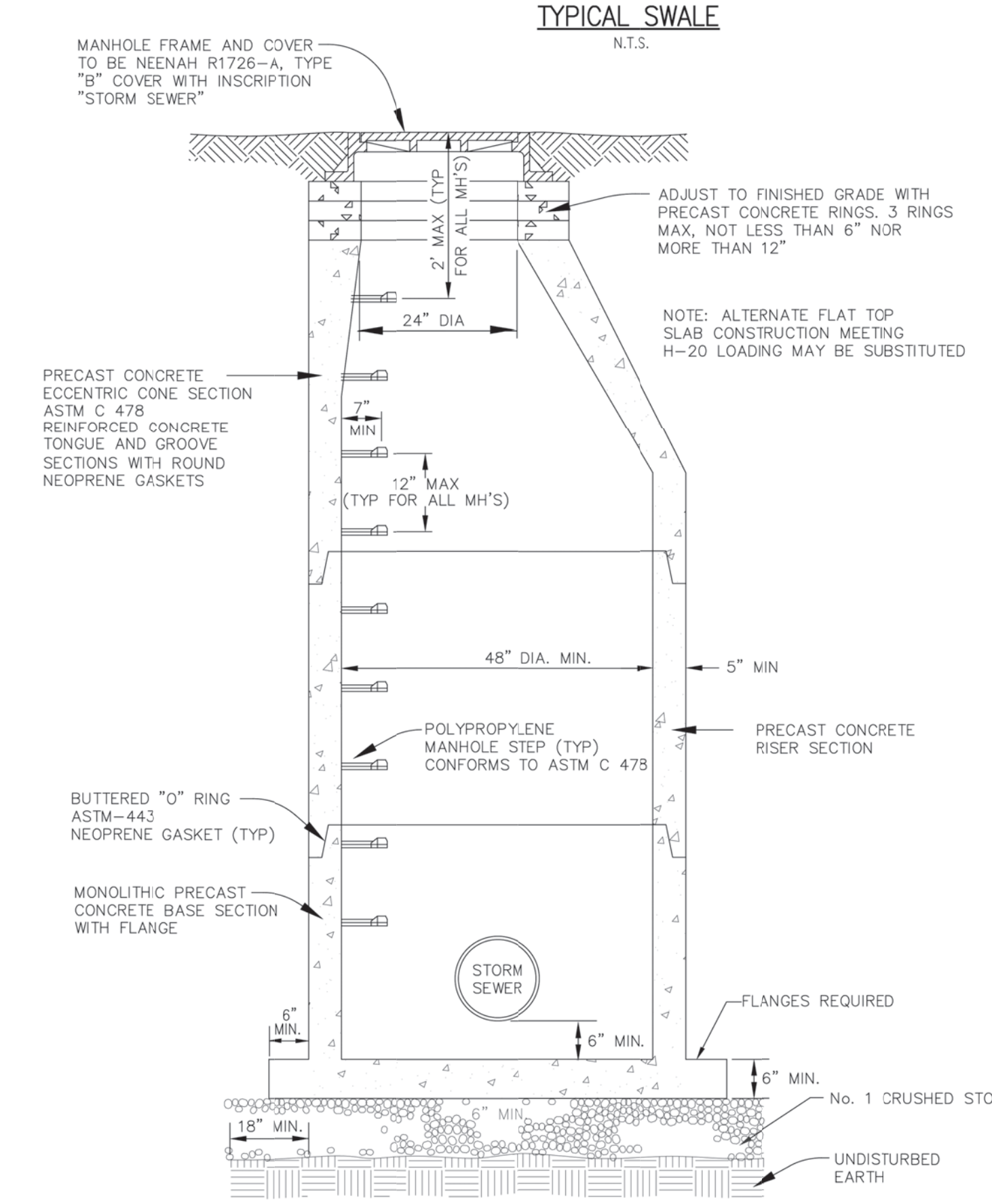
INLET & MANHOLE NOTES

1. CORBELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2" PER 8" OF HEIGHT OF WALL: MAXIMUM CORBEL 6" PER WALL.
2. WHEN THE ITEM MANHOLES, INLETS AND CATCH BASINS, ADDITIONAL DEPTH, IS SCHEDULED IN THE PROPOSAL AND THE DEPTH OF A STRUCTURE EXCEEDS 10' AS MEASURED FROM TOP OF COVER OR GRATE TO INVERT OF DRAINAGE STRUCTURE, THE WALLS OF THE STRUCTURE BELOW A DEPTH OF 8' SHALL BE 12" THICK, AND THE OVERALL HORIZONTAL DIMENSIONS OF FOUNDATIONS SHALL BE INCREASED 12", AND EXCEPT IN ROCK THE DEPTH INCREASED TO 12".
3. EXCEPT FOR CATCH BASINS AND TYPE A INLETS, FOOTINGS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS SHALL BE 8" BELOW THE OUTER WALL OF THE LOWEST PIPE IN INLETS AND 10" IN MANHOLES.
4. LADDER RUNGS OF PRECAST INLETS SHALL BE SPACED A MAXIMUM OF 18".
5. INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6" THICK BED OF COMPACTED COARSE AGGREGATE SIZE No. 57. THE COARSE AGGREGATE SHALL EXTEND 6" BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
6. CASTINGS FOR PRECAST INLETS AND MANHOLES SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12" MAXIMUM. 6" MIN. SHALL BE ALLOWED FOR IN PRECAST DESIGN.
7. WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10' AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12". WHEN ROCK IS ENCOUNTERED THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
8. MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPE A, B, C, E, D-1 AND B MODIFIED.

DEPTH BELOW TOP OF GRATE	HORIZONTAL REINFORCEMENT	VERTICAL REINFORCEMENT	WALL THICKNESS THICKNESS
0' TO 10'-0" #	#4 @ 10" C.C.	#4 @ 18" C.C.	6"
10'-1" TO 15'-0"	#4 @ 8" C.C.	#4 @ 18" C.C.	6"
15'-1" TO 20'-0"	#4 @ 6" C.C.	#4 @ 18" C.C.	6"

REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.

9. THE ITEM OF RESET HEADS SHALL INCLUDE RAISING OR LOWERING THE HEAD CAST- INGS OF INLETS AND CATCH BASINS, OR THE RAISING OF MANHOLE HEAD CASTINGS, FOR A MAXIMUM OF 12". ALL OTHER CHANGES IN POSITION OF HEAD CASTING SHALL BE CONSIDERED AS RECONSTRUCTED MANHOLES OR RECONSTRUCTED INLETS OR CATCH BASINS.
10. WHEN CURB PIECE HEIGHT SPECIFIED IS GREATER THAN CURB FACE HEIGHT, DEPRESS THE GUTTER OF GRATE SO THAT THE TOP OF CURB PIECE IS AT THE SAME ELEVATION AS THE TOP OF CURB.



PRECAST CONCRETE STORM MANHOLE

N.T.S.

	REVISION	DATE	CHKD
12			
11			
10			
9			
8			
7			

	REVISION	DATE	CHKD
6			
5			
4			
3			
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PROJ.: 081591-01-001
DATE: JANUARY 9, 2026
CHKD: PDQ

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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
STORM DETAILS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
DT-4

V:\081591 – Stream NY\081591-01-001 (ENG) – BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\081591-D-SP-DETAILS-STORM.dwg 01/08/26 04:06:38PM, mwohlford, LAYOUT:DT-4 STORM DETAILS
XREFS: 081591-D-SP-BDR.dwg

ACO DRAIN

PowerDrain - S300K iron edged channels

Description	Part No.	Invert Inches[2]	Invert mm[2]	Weight lbs.
SK3-00 Constant depth channel - 39.37" (1m)[1]	**69041**	**11.81**	**300**	**140.0**
SK3-1 Sloped channel - 39.37" (1m)	69001	12.01	305	140.0
SK3-2 Sloped channel - 39.37" (1m)	69002	12.20	310	141.3
SK3-3 Sloped channel - 39.37" (1m)	69003	12.40	315	142.8
SK3-4 Sloped channel - 39.37" (1m)	69004	12.60	320	144.1
SK3-5 Sloped channel - 39.37" (1m)[1]	69005	12.80	325	145.4
SK3-6 Sloped channel - 39.37" (1m)	69006	12.99	330	146.9
SK3-7 Sloped channel - 39.37" (1m)	69007	13.19	335	148.2
SK3-8 Sloped channel - 39.37" (1m)	69008	13.39	340	149.5
SK3-9 Sloped channel - 39.37" (1m)	69009	13.58	345	150.9
SK3-10 Sloped channel - 39.37" (1m)[1]	69010	13.78	350	152.3
SK3-010 Constant depth channel - 39.37" (1m)[1]	**69042**	**13.78**	**350**	**152.3**
SK3-0103 Constant depth channel - 19.69" (0.5m)[1]	**69045**	**13.78**	**350**	**84.2**
SK3-11 Sloped channel - 39.37" (1m)	69011	13.98	355	153.6
SK3-12 Sloped channel - 39.37" (1m)	69012	14.17	360	155.0
SK3-13 Sloped channel - 39.37" (1m)	69013	14.37	365	156.4
SK3-14 Sloped channel - 39.37" (1m)	69014	14.57	370	157.7
SK3-15 Sloped channel - 39.37" (1m)[1]	69015	14.76	375	149.1
SK3-16 Sloped channel - 39.37" (1m)	69016	14.96	380	160.5
SK3-17 Sloped channel - 39.37" (1m)	69017	15.16	385	161.9
SK3-18 Sloped channel - 39.37" (1m)	69018	15.35	390	163.2
SK3-19 Sloped channel - 39.37" (1m)	69019	15.55	395	164.6
SK3-20 Sloped channel - 39.37" (1m)[1]	69020	15.75	400	166.0
SK3-020 Constant depth channel - 39.37" (1m)[1]	**69044**	**15.75**	**400**	**166.0**
SK3-0203 Constant depth channel - 19.69" (0.5m)[1]	**69047**	**15.75**	**400**	**92.0**
SK3-21 Sloped channel - 39.37" (1m)	69021	15.94	405	167.3
SK3-22 Sloped channel - 39.37" (1m)	69022	16.14	410	168.7
SK3-23 Sloped channel - 39.37" (1m)	69023	16.34	415	170.1
SK3-24 Sloped channel - 39.37" (1m)	69024	16.54	420	171.4
SK3-25 Sloped channel - 39.37" (1m)[1]	69025	16.73	425	172.7
SK3-26 Sloped channel - 39.37" (1m)	69026	16.93	430	174.2
SK3-27 Sloped channel - 39.37" (1m)	69027	17.13	435	175.5

Description	Part No.	Invert Inches[2]	Invert mm[2]	Weight lbs.
SK3-28 Sloped channel - 39.37" (1m)	69028	17.32	440	176.8
SK3-29 Sloped channel - 39.37" (1m)	69029	17.52	445	178.3
SK3-30 Sloped channel - 39.37" (1m)[1]	69030	17.72	450	179.6
SK3-030 Constant depth channel - 39.37" (1m)[1]	**69046**	**17.72**	**450**	**179.6**
SK3-0303 Constant depth channel - 19.69" (0.5m)[1]	**69049**	**17.72**	**450**	**100.0**
SK3-31 Sloped channel - 39.37" (1m)	69031	17.91	455	180.9
SK3-32 Sloped channel - 39.37" (1m)	69032	18.11	460	182.4
SK3-33 Sloped channel - 39.37" (1m)	69033	18.31	465	183.7
SK3-34 Sloped channel - 39.37" (1m)	69034	18.50	470	185.0
SK3-35 Sloped channel - 39.37" (1m)[1]	69035	18.70	475	186.5
SK3-36 Sloped channel - 39.37" (1m)	69036	18.90	480	187.7
SK3-37 Sloped channel - 39.37" (1m)	69037	19.09	485	189.1
SK3-38 Sloped channel - 39.37" (1m)	69038	19.29	490	190.5
SK3-39 Sloped channel - 39.37" (1m)	69039	19.49	495	191.9
SK3-40 Sloped channel - 39.37" (1m)[1]	69040	19.69	500	193.2
SK3-040 Constant depth channel - 39.37" (1m)[1]	**69048**	**19.69**	**500**	**193.2**
SK3-0403 Constant depth channel - 19.69" (0.5m)[1]	**69050**	**19.69**	**500**	**109.0**
SK3-903D In-line catch basin - 19.69" (0.5m)[3]	69053	37.40	950	99.4
SK3-904D In-line catch basin - 19.69" (0.5m)[4]	69054	49.53	1258	104.4
Series 600 Optional plastic riser	99902	-	-	10.0
Foul air trap - fits both 910 & 610 basins	90854	-	-	1.2
SK3 channel Universal end cap	96827	19.69	500	2.5
SK3 channel Installation device	97479	-	-	4.9
Grate removal tool	01318	-	-	0.3
SK3 ductile iron slotted grate[5]	02445	-	-	50.0
SK3 ductile iron longitudinal ADA grate[5]	96833	-	-	64.0
SK3 ductile iron 4-bolt	99592	-	-	50.2

Notes:
1. This channel offers bottom knockout feature: 6" & 8" round.
2. Inverts shown are male end; for female invert depth subtract 5mm (≈0.2") from male invert (except neutral channels where it will be same as male invert).
   To calculate overall channel depth, add 20mm (0.79") to invert depth.
3. Catch basin assembly includes grate, polymer concrete top, trash bucket and plastic base.
4. Catch basin assembly includes grate, polymer concrete top, deep trash bucket, plastic riser and plastic base.
5. See 12" width ductile iron grate specification info for grate details.

Specifications

General
The surface drainage system shall be ACO Drain PowerDrain S300K as manufactured by ACO, Inc. or equal approved. (Add appropriate grate - see grate spec information).

Materials
The trench system bodies shall be manufactured from polymer concrete with minimum properties as follows:

Compressive strength:	14,000 psi
Flexural strength:	4,000 psi
Water absorption	0.07%
Frost proof	YES
Salt proof	YES
Dilute acid and alkali resistant	YES

The nominal clear opening shall be 12" (300mm) with overall width of 10.24" (260mm). Pre-cast units shall be manufactured with either an invert slope of 0.5% or with neutral invert and have a wall thickness of at least 0.67" (16mm). Each unit will feature a partial radius in the trench bottom and a male to female interconnecting end profile. Units shall have horizontal cast in anchoring keys on the outside wall to ensure maximum mechanical bond to the surrounding bedding material and pavement surface. The ductile iron edge rail will be integrally cast in by the manufacturer to ensure maximum homogeneity between polymer concrete body and edge rail. Each edge rail shall be at least 1/4" (6mm) thick.

Installation
The trench drain system shall be installed in accordance with the manufacturer's installation instructions and recommendations.

ACO, Inc.

Northeast Sales Office
9470 Pinecone Dr.
Mentor, OH 44060
Tel: (440) 639-7230
Toll free: (800) 543-4764
Fax: (440) 639-7235

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Casa Grande, AZ 85122
Tel: (520) 421-9988
Toll Free: (888) 490-9552
Fax: (520) 421-9899

Southeast Sales Office
4211 Pleasant Road
Fort Mill, SC 29708
Toll free: (800) 543-4764
Fax: (803) 802-1063

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Electronic Contact:
info@ACODrain.us
www.ACODrain.us

SPEC INFO

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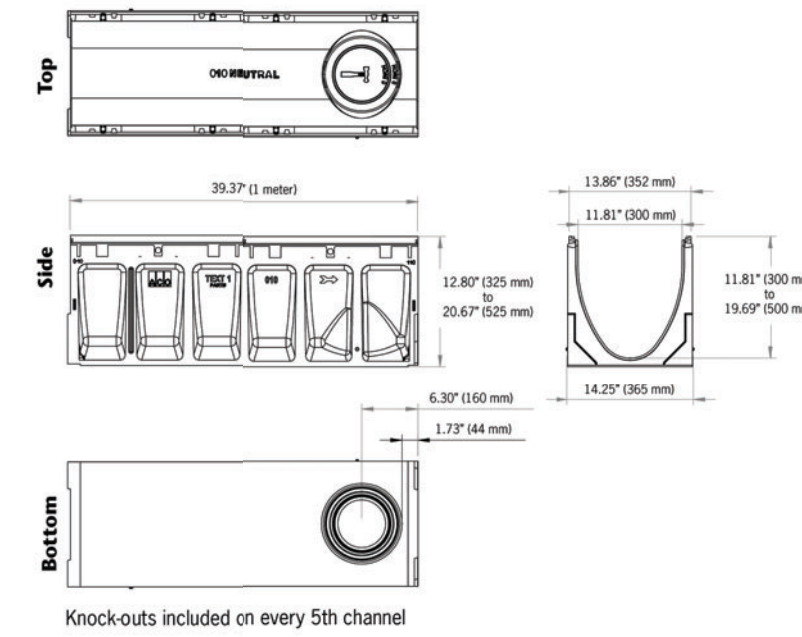
ACO Specification Information

ACO DRAIN

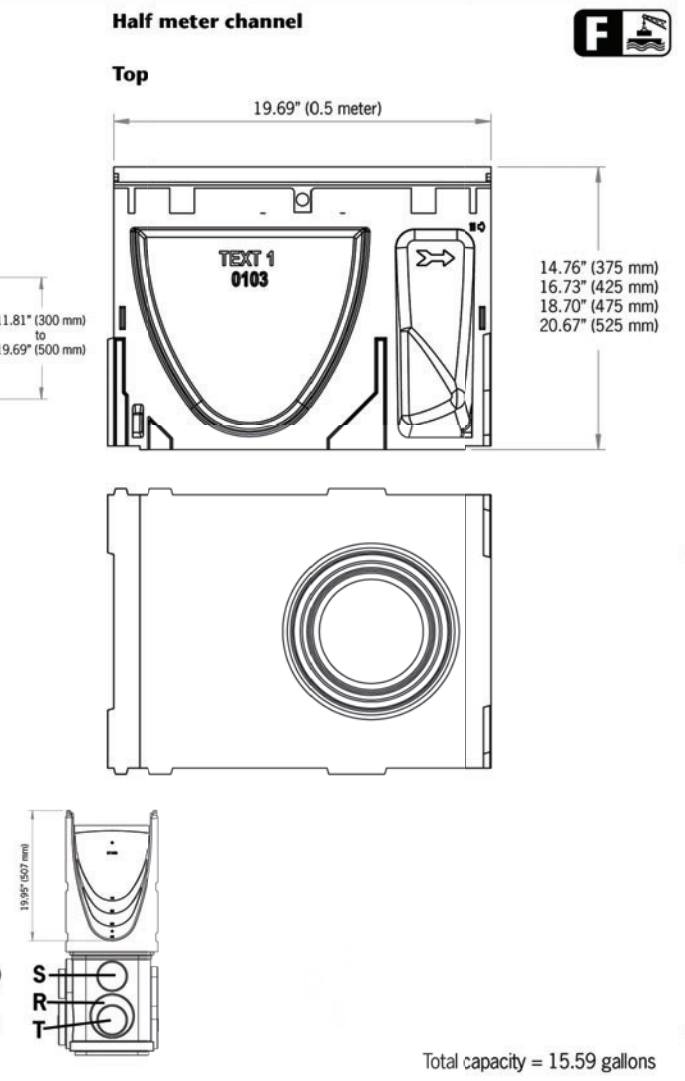
PowerDrain - S300K iron edged channels

One meter channel

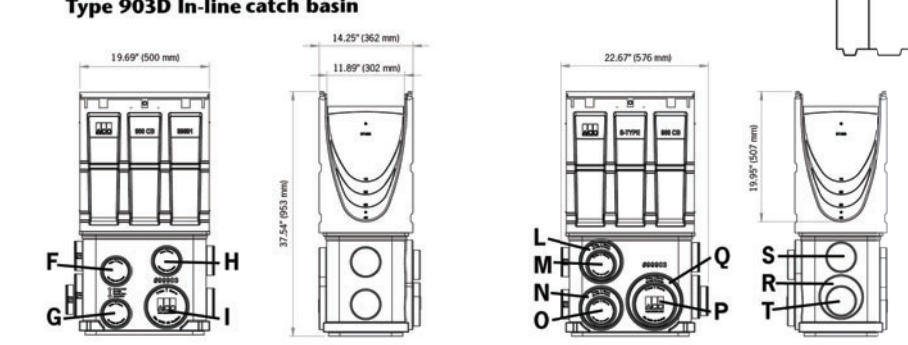


Knock-outs included on every 5th channel

Half meter channel



Type 903D In-line catch basin

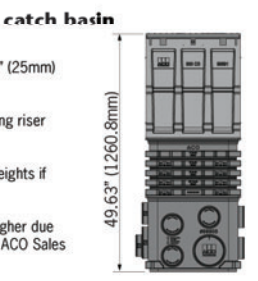


Total capacity = 15.59 gallons

Outlet	Product	Outlet size (Sch. 40)	Invert Depth	GPM	CFS
A	Bottom outlet - SK3-00	6" round	11.81"	421	0.94
A	Bottom outlet - SK3-040	6" round	19.69"	544	1.21
B	Bottom outlet -SK3-00	8" round	11.81"	748	1.67
B	Bottom outlet - SK3-040	8" round	19.69"	966	2.15
C	End outlet - SK3-00	6" round	11.81"	364	0.81
C	End outlet - SK3-40	6" round	19.69"	500	1.11
D	End outlet - SK3-10	8" round	13.78"	681	1.52
D	End outlet - SK3-40	8" round	19.69"	863	1.92
E	End outlet - SK3-20	10" round	15.75"	1116	2.49
E	End outlet - SK3-40	10" round	19.69"	1304	2.91
F	Type SK3-903D	4" round	29.80"	287	0.64
G	Type SK3-903D	4" round	36.29"	319	0.71
H	Type SK3-903D	4" round	28.22"	279	0.62
I	Type SK3-903D	6" round	36.29"	707	1.57
J	Type SK3-903D	4" round	28.37"	280	0.62
K	Type SK3-903D	4" round	34.87"	312	0.70
L	Type SK3-903D	6" round	29.15"	626	1.40
M	Type SK3-903D	4" round	28.59"	281	0.63
N	Type SK3-903D	6" round	36.28"	707	1.57
O	Type SK3-903D	4" round	35.72"	316	0.70
P	Type SK3-903D	6" round	35.72"	701	1.56
Q	Type SK3-903D	8" round	36.28"	1237	2.76
R	Type SK3-903D	6" round	34.78"	690	1.54
S	Type SK3-903D	4" round	27.65	276	0.61
T	Type SK3-903D	4" round	34.36	310	0.69

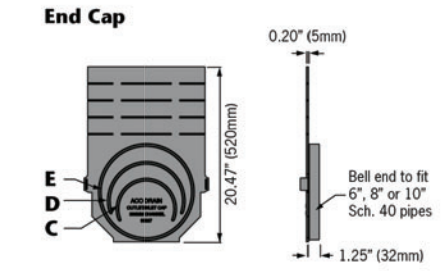
Note: These are the pipe flow rates at the specified outlet. **NOT** channel flow rates. *Catch basin flow rates are without trash bucket - using trash bucket reduces flow.

Type 904D In-line catch basin



Notes:
1. Riser can be cut dow in 1" (25mm) increments.
2. Maximum capacity including riser 27.82 gallons.
3. Add 12" (300mm) to all heights if using riser.
4. Outlet flow rates will be higher due to increased depth - contact ACO Sales Office for more details.

End Cap

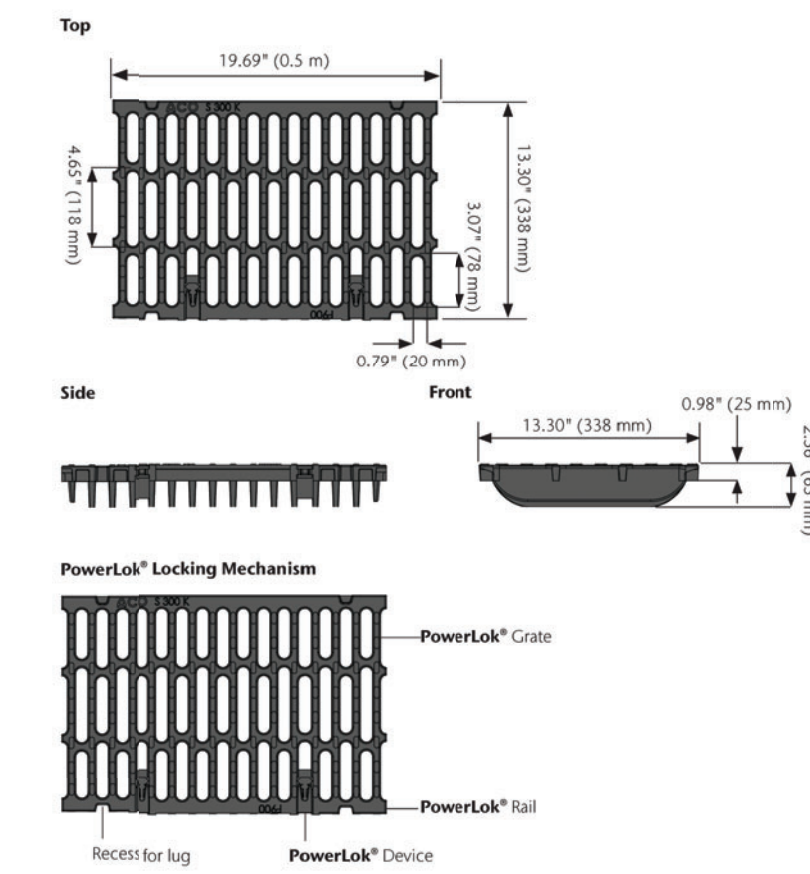


ACO Specification Information

TRENCH DRAIN DETAILS (OR APPROVED EQUIVALENT)

ACO Drain **February 2021**

PowerDrain - S300K Ductile Iron Slotted Grate



ACO PowerLok® is a patented boltless locking system. Grates are removed and replaced with minimum time and effort for ease of maintenance. Lugs on the rail opposite the PowerLok® device slots into recesses in the grate. The PowerLok device is used to engage the lug on the rail at two locations per grate to lock the grate to the channel.

Product Features
- Certified to EN 1433 Load Class F - 202,328 lbs - 3,481 psi
- Uses PowerLok® boltless locking system
- Suitable for use with S300K and H300SK-13 channels
- Manufactured from ductile iron to ASTM 536 - Grade 80-55-06
- E-coated for improved resistance against corrosion
- Recesses for anti-shunt lugs

Parts	Part No.	Length in (mm)	Width in (mm)	Weight lbs
S300K Ductile Iron Slotted Grate	02445	19.69" (500)	13.19" (335)	55.0

Specifications

General
The surface drainage system shall be ACO PowerDrain S300K or SlabDrain H300SK-13, complete with ACO S300K Ductile Iron Slotted Grate with PowerLok® locking as manufactured by ACO, Inc. or similar approved.

Materials
The covers shall be manufactured from ductile iron and have minimum properties as follows:
- Independently certified to meet Load Class F to EN 1433 - 202,328 lbs - 3,481 psi.
- Ductile iron to ASTM 536 - Grade 80-55-06.
- Intake area of 126.02 in² (813 cm²) per ½ meter of grate.

The overall width of 13.30" (338 mm) and overall length of 19.69" (500 mm). Slots measure at a maximum of 4.65" (118 mm) by 0.79" (20 mm).

Grates
Grate is slotted ductile iron. Ductile iron ASTM 536 - Grade 80-55-06. After removal of the grates there shall be uninterrupted access to the trench to aid maintenance. Grates can be used for PowerDrain or SlabDrain.

Installation
The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

Bicycle-Safe
Anti-Slip Grate
EN 1433 Load Class F 202,328 lbs - 3,481 psi
200,000 lb Proof Load

ACO, Inc.

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Fax: (440) 639-7235

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ACO. creating the future of drainage

ACO Specification Information

No.	REVISION	DATE	CHKD
12			
11			
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3			
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1			

PROJ.: 081591-01-001
DATE: JANUARY 9, 2026
CHKD: PDQ

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BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
STORM DETAILS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
DT-5

V:\081591 - Stream NY\081591-01-001 (ENG) - BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\081591-D-SP-DETAILS-STORM.dwg 01/08/26 04:06:42PM, mwohlford, LAYOUT:DT-5 STORM DETAILS
XREFS: 081591-D-SP-BDR.dwg

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V:\081591 – Stream NY\081591-01-001 (ENG) – BUF01A Alabama NY\Engineering\Engineering Plans\Stream Project BUFFALO\Sheets\081591-D-SP-DETAILS-WATER.dwg 01/08/26 04:06:08PM, mwohlford, LAYOUT:DT-6 WATER DETAILS

WATERLINE NOTES:

1) ALL WATERLINE MATERIALS, CONSTRUCTION, INSTALLATION AND TESTING TO COMPLY WITH CURRENT TOWN OF ALABAMA AND GENESEE COUNTY SPECIFICATIONS AND ORDINANCES.

2) CONTRACTOR SHALL SECURE ALL PERMITS AT HIS OWN EXPENSE.

3) MATERIAL FOR WATERMAINS:

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

   B) CEMENT LINED DUCTILE IRON PIPE MINIMUM THICKNESS CLASS 52 WITH 150 PSI. WORKING PRESSURE AND SHALL CONFORM TO AWWA SPECIFICATION C 151 LATEST REVISION. THE PIPE SHALL BE ENCASED WITH A MINIMUM 8 MIL. POLYETHYLENE WRAP, AS PER AWWA C 105 SPECIFICATION. TYPE MECHANICAL JOINT TEES AND NIPPLES.

4) HYDRANTS SHALL BE SHALL BE "BAGGED" UNTIL READY FOR USE.

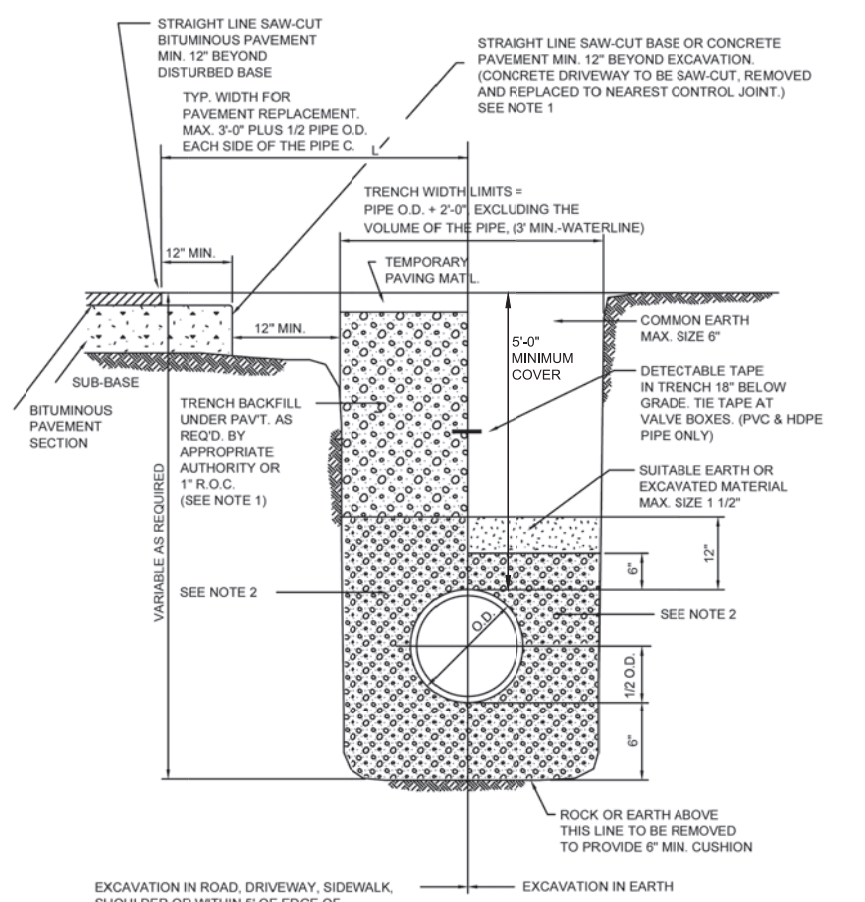
5) CONTRACTOR WILL BE RESPONSIBLE FOR SUPPLYING PROPER TEST EQUIPMENT AND PERFORM A TWO (2) HOUR, 150 PSI HYDROSTATIC TEST OF THE WATERLINE, IN THE PRESENCE OF AN OWNER'S REPRESENTATIVE. CONTRACTOR TO NOTIFY OWNER A MINIMUM OF 48 HOURS PRIOR TO TESTING.

6) AFTER THE WATERLINE HAS BEEN HYDROSTATICALLY TESTED AND APPROVED, THE CONTRACTOR WILL BE RESPONSIBLE TO CHLORINATE THE LINE IN STRICT ACCORDANCE WITH AWWA C651- LATEST REVISION. THE CONTRACTOR WILL BE RESPONSIBLE TO HIRE AN APPROVED INDEPENDENT TEST LABORATORY TO TAKE THE APPROPRIATE NUMBER OF SAMPLES, AND CERTIFY TO THE TOWN OF ALABAMA, AND GENESEE COUNTY HEALTH DEPARTMENT THAT THE LINE MEETS MINIMUM AWWA AND GENESEE COUNTY HEALTH DEPARTMENT STANDARDS FOR DRINKING WATER. SAMPLES MUST BE TAKEN ONLY FROM THE DESIGNATED TEST POINTS AND IN THE PRESENCE OF THE TOWN OF ALABAMA'S REPRESENTATIVE. CONTRACTOR TO NOTIFY THE TOWN OF ALABAMA A MINIMUM OF 48 HOURS PRIOR TO SAMPLING.

7) CONTRACTOR TO SUPPLY CEMENT LINED, CLASS 150, STANDARD WEIGHT DUCT IRON PIPE FITTINGS AND BENDS WHERE NECESSARY TO INSTALL WATERLINE. ALL FITTINGS SHALL BE PROPERLY THRUST BLOCKED, & RESTRAINED IN ACCORDANCE TO DETAILS.

8) HORIZONTAL SEPARATION-WATERMAIN SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER MAIN. THE DISTANCE SHALL BE FROM EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A TEN FOOT SEPARATION, THE APPROPRIATE REVIEWING AGENCY MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE WATERMAIN CLOSER TO A SEWER MAIN, PROVIDED THAT THE WATER MAIN IS IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER.

9) CROSSINGS-WATERMAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE, OR BELOW THE SEWER. THE CROSSINGS SHALL BE ARRANGED SO THAT THE WATERMAIN JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM SEWER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.



TYPICAL WATERLINE TRENCH DETAIL

N.T.S.

NOTE 1:

REPLACE PAVEMENT IN THICKNESS AND KIND, OR AS REQUIRED BY APPROPRIATE AUTHORITY.

A. MINIMUM STANDARD FOR DRIVEWAY

CONCRETE - 4" -2" R.O.C. SUB BASE COURSE

ASPHALT - 1" -N.Y.S.D.O.T. ITEM 403.18 TYPE 7 TOP
6" -2" R.O.C. SUB BASE COURSE

STONE - 1/2" -No. 1A STONE COMPACTED ON SURFACE
8" -2" R.O.C. SUB BASE COURSE

B. MINIMUM STANDARD FOR ROAD

CONCRETE - TOP AND BOTTOM
12" -2" R.O.C. SUB BASE COURSE

ASPHALT - 1" -N.Y.S.D.O.T. ITEM 403.18 TYPE 7 TOP
3 -N.Y.S.D.O.T. ITEM 403.12 TYPE 2 BASE
12" -2" R.O.C. SUB BASE COURSE,

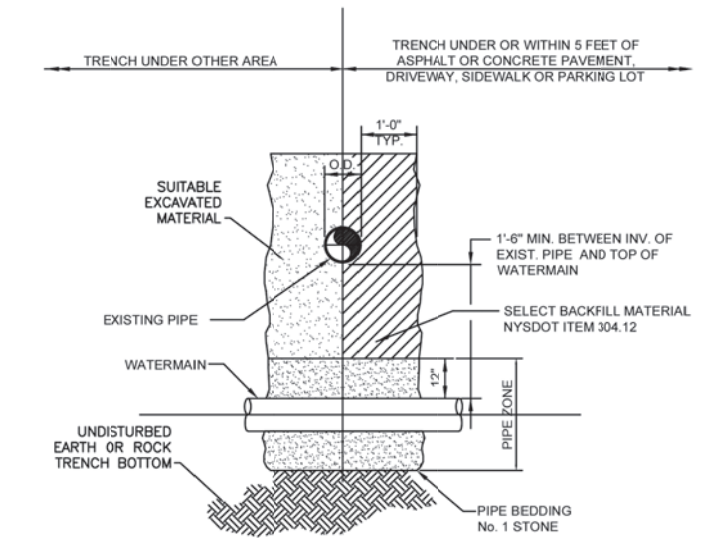
NOTE 2:

BEDDING:
No. 1 STONE FROM 6" BELOW TO 6" OVER PIPE. CONTINUE BEDDING TO ONE (1) FOOT OVER PIPE WHERE EXCAVATION IS WITHIN PROPOSED OR EXISTING PAVEMENT OR SHOULDER, EXISTING DRIVEWAY, WITHIN 5' OF EDGE OF PROPOSED OR EXISTING PAVEMENT, IN AREAS OF ROCK EXCAVATION OR WHERE EXCAVATED MATERIAL IS NOT ACCEPTABLE TO THE

GENERAL NOTES:

1. FULL DEPTH 1" R.O.C. STONE MAY BE REQUIRED WHEN ANY PART OF THE TRENCH EXCAVATION IS IN ROAD, DRIVEWAY, SIDEWALK, SHOULDER OR WITHIN FIVE FEET OF THE PAVEMENT EDGE, OR AS DETERMINED IN THE FIELD BY THE ENGINEER.
2. ALL SELECT MATERIAL TO BE COMPACTED IN 6" LIFTS, AS PER ASTM-2774.

TRENCH NOTES

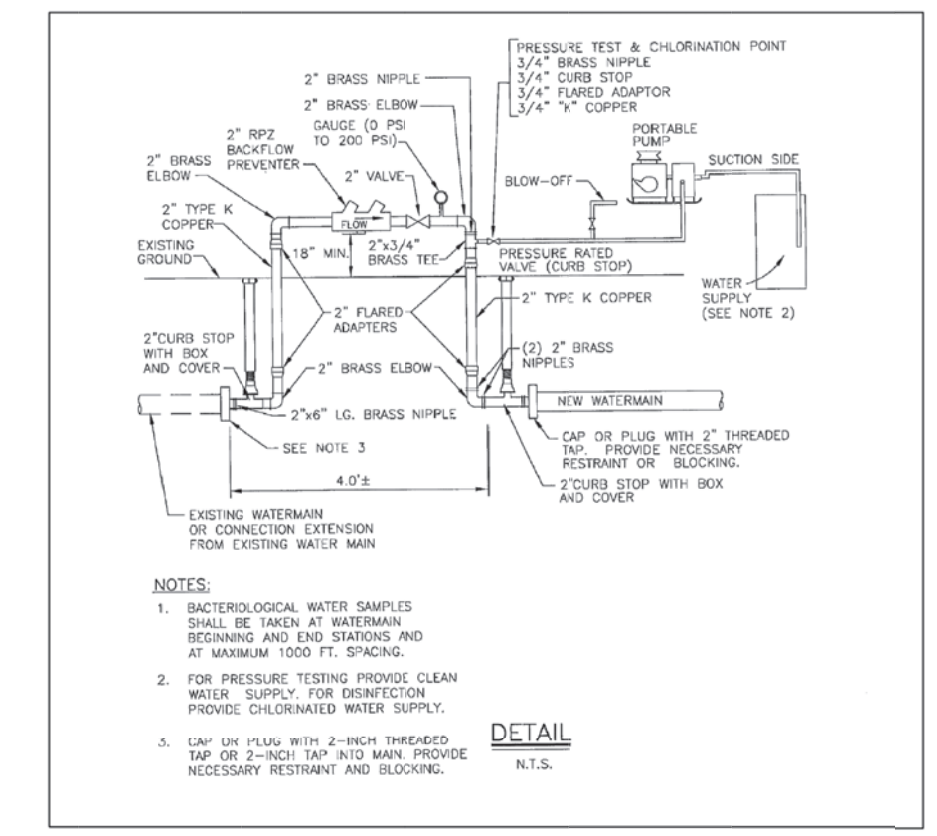


NOTES:

1. ALL EXISTING UTILITIES MUST BE SUPPORTED DURING CONSTRUCTION OF THE NEW WATERMAIN.
2. WHEN CROSSING A SEWERLINE WITH A NEW WATERMAIN, ONE FULL PIPE LENGTH (18 FT. MIN.) SHALL BE USED AT THE POINT OF CROSSING. THE WATERMAIN SHALL BE PLACED SO THAT BOTH JOINT ENDS ARE AS FAR AS POSSIBLE FROM THE EXISTING SEWERLINE.

TYPICAL PIPE CROSSING DETAIL

N.T.S.



PRESSURE TESTING AND DISINFECTION APPARATUS SCHEMATIC

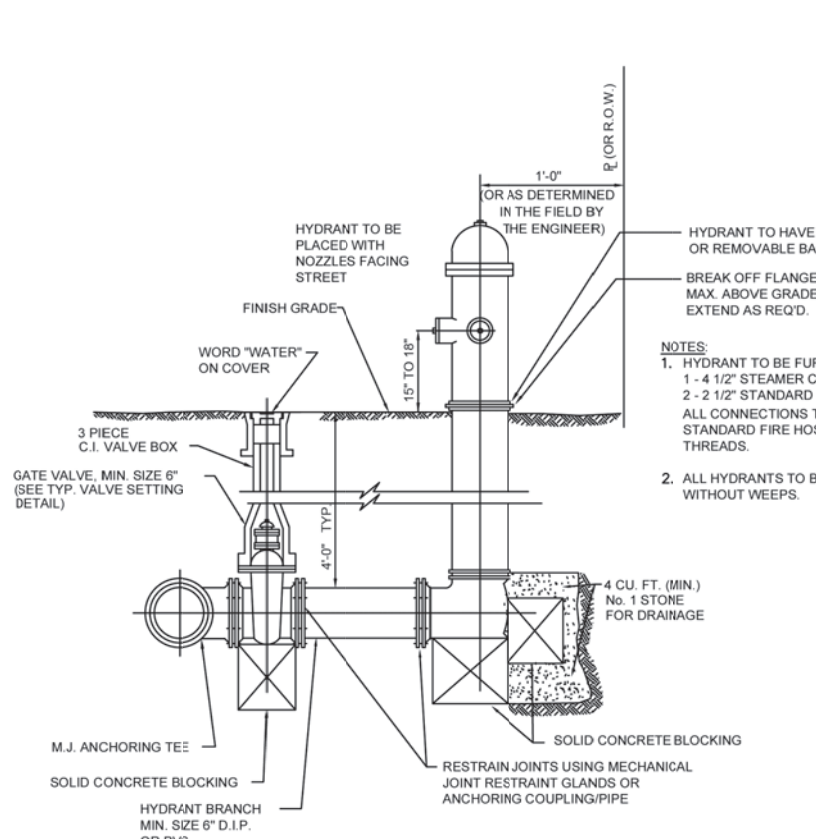
N.T.S.

ALLOWABLE LEAKAGE PER 1000' FOR 150 PSI TEST PRESSURE
LOSS IN GALLONS PER 2 HOUR TEST

PIPE MATERIAL AND LENGTH	PIPE SIZE (IN)						
	6"	8"	10"	12"	14"	16"	20"
P.V.C. (20')	0.75	0.99	1.25	1.49	1.74	1.98	2.49
D.I.P. (18')	0.83	1.11	1.38	1.65	1.94	2.21	2.76

AWWA C-605-94 for PVC Pipe and AWWA C-600-99 for Ductile Iron Pipe

ALLOWABLE LEAKAGE IS CALCULATED BY DIVIDING TOTAL LENGTH OF PIPE TESTED BY 1000, AND MULTIPLYING THIS VALUE TIMES THE ALLOWABLE LEAKAGE AS OBTAINED FROM THE ABOVE TABLE.



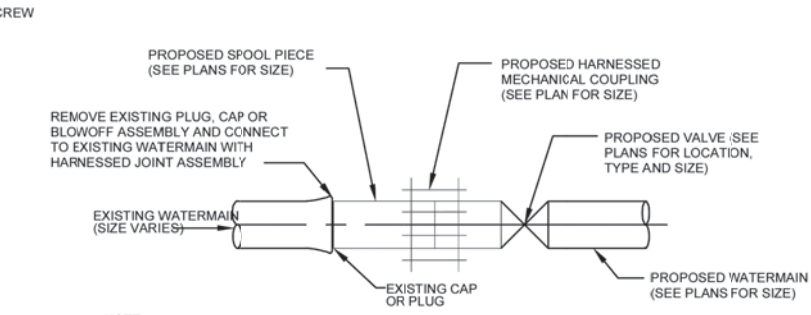
NOTES:

1. HYDRANT TO BE FURNISHED WITH 1 - 4 1/2" STEAMER CONNECTION, 2 - 2 1/2" STANDARD OPENINGS. ALL CONNECTIONS TO BE NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS.
2. ALL HYDRANTS TO BE FURNISHED WITHOUT WEEPS.

HYDRANT TYPES:
KENNEDY-MODEL K81-A
MUELLER-MODEL A-423

TYPICAL HYDRANT SETTING DETAIL

N.T.S.

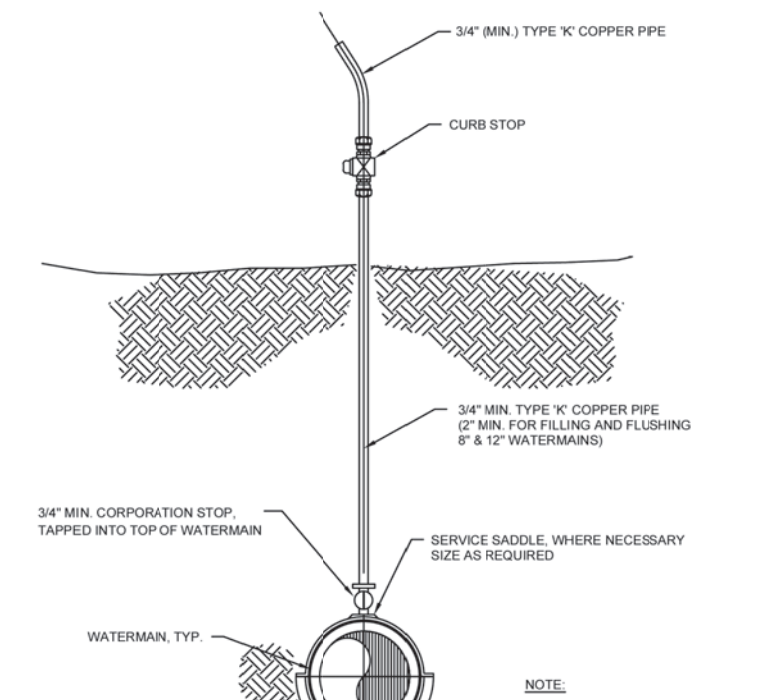


NOTE:
EXISTING CONDITION AND ARRANGEMENT OF CAP OR PLUG IS NOT KNOWN. ACTUAL CONNECTION TO EXISTING MAIN WILL BE DEPENDENT UPON CONDITIONS ENCOUNTERED.

PLAN

TYPICAL INTERCONNECTION TYPE "B"

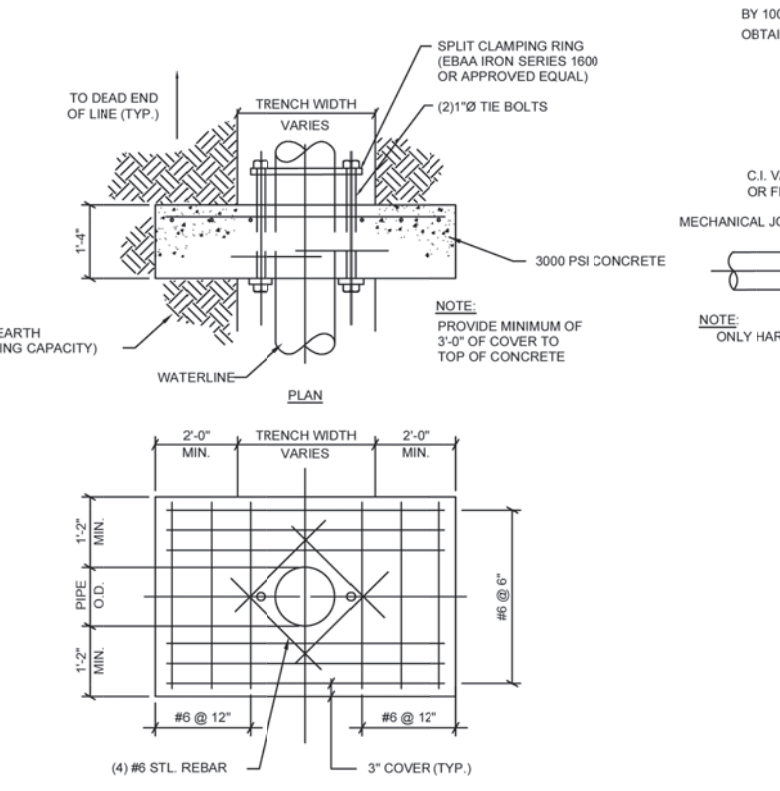
N.T.S.



NOTE:
AFTER COMPLETION OF TESTING, REPLACE CORPORATION STOP IN SERVICE SADDLE WITH A PLUG UNLESS SAMPLING POINT WILL BE USED FOR AN INDIVIDUAL WATER SERVICE CONNECTION.

TEMPORARY SAMPLING POINT DETAIL

N.T.S.

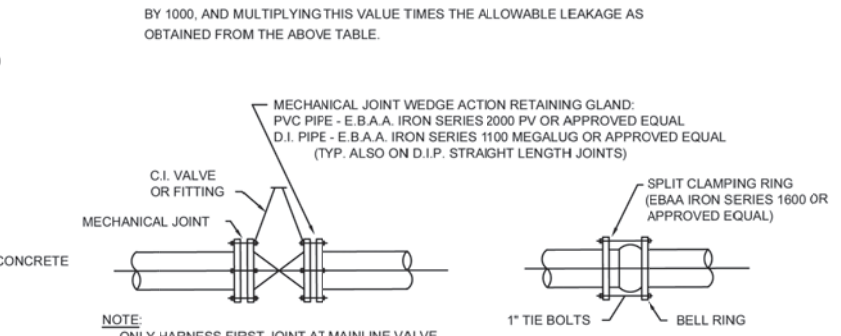


NOTE:
PROVIDE MINIMUM OF 3'-0" OF COVER TO TOP OF CONCRETE

NOTE:
FOR USE WITH PIPE UP TO AND INCLUDING 12" DIA. AT MAX. LINE PRESSURE OF 170 PSI

CONCRETE ANCHOR COLLAR DETAIL

N.T.S.



NOTE:
ONLY HARNESS FIRST JOINT AT MAINLINE VALVE

JOINT RESTRAINING DETAIL
VALVES & FITTINGS
N.T.S.

JOINT RESTRAINING DETAIL
PVC STRAIGHT PIPE
N.T.S.

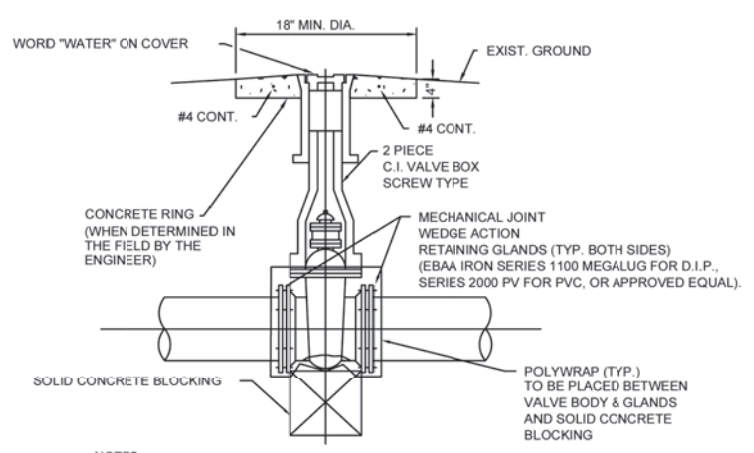
NOTE:
1. MECHANICALLY RESTRAINED JOINTS REQUIRED WHERE SHOWN ON PLANS OR AS DETERMINED IN THE FIELD BY THE ENGINEER.

LENGTH OF RESTRAINED PIPE REQUIRED IN FEET
(EACH SIDE OF FITTING)

PIPE SIZE	11 1/4° BEND	22 1/2° BEND	45° BEND	90° BEND, TEE, DEAD END (EXCEPT AT HYDRANT TEE)
6" PVC	10	20	40	85
8" PVC	15	30	60	110
12" PVC	20	40	75	155
ALL D.I.	40	40	40	40

TYPICAL PRESSURE PIPE HARNESSING DETAIL

N.T.S.

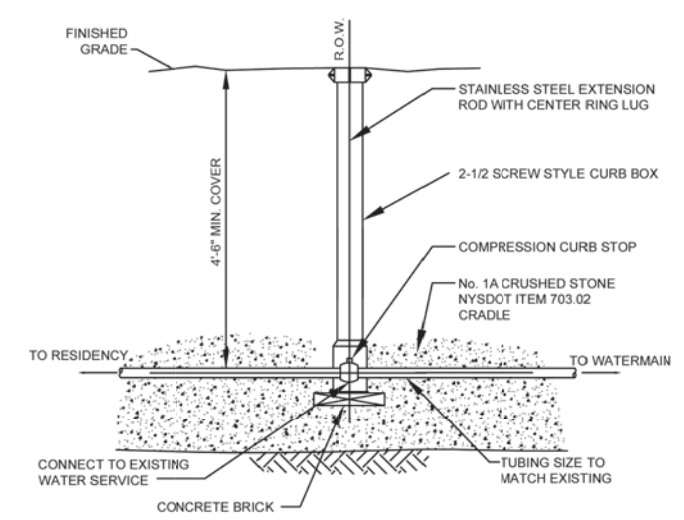


NOTES:

1. DETAIL TO BE USED FOR BOTH GATE AND BUTTERFLY VALVES.
2. EXTEND CONCRETE BLOCKING TO SUPPORT VALVE ACTUATOR BOX ON BUTTERFLY VALVES.
3. BUTTERFLY VALVES TO BE INSTALLED WITH VALVE ACTUATOR BOX ON SIDE OF MAIN AWAY FROM ROAD UNLESS OTHERWISE DETERMINED IN THE FIELD BY THE ENGINEER.

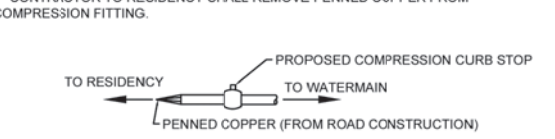
TYPICAL VALVE SETTING DETAIL

N.T.S.



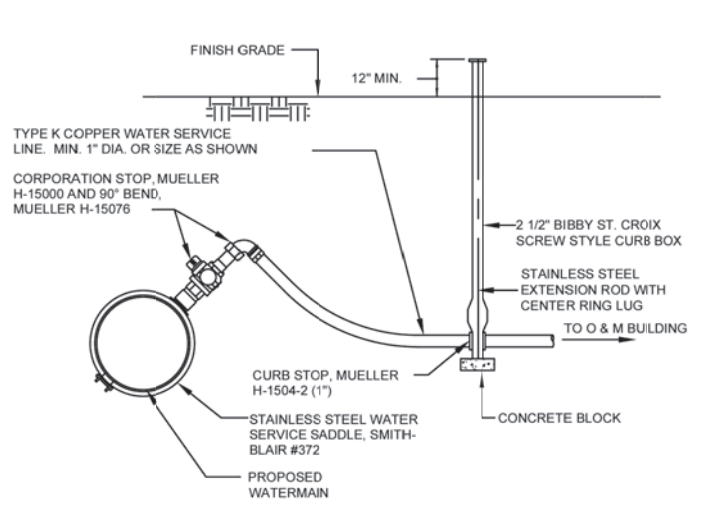
NOTE:

1. THE CONTRACTOR SHALL COMPACT BACKFILL MATERIAL TO A POINT 2' BEYOND THE CENTERLINE OF THE VALVE BOX IN BOTH DIRECTIONS. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 30" ABOVE THE SERVICE IN ORDER TO AVOID SETTLEMENT AND INSURE THAT THE VALVE BOX REMAINS PLUMB AFTER COMPLETION OF BACKFILLING. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE SERVICE FROM COMPACTION ACTIVITIES.
2. EXISTING SERVICES SHALL BE CRIMPED AND ABANDONED IN PLACE.
3. CURB BOXES SHALL NOT BE PLACED IN ASPHALT OR CONCRETE PAVEMENTS.
4. CONTRACTOR TO RESIDENCY SHALL REMOVE PENNED COPPER FROM COMPRESSION FITTING.



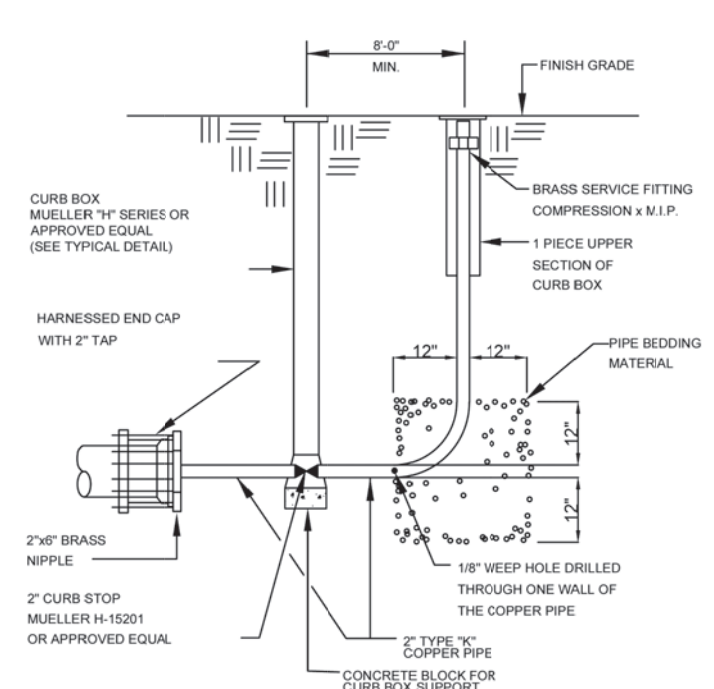
CURB STOP AND BOX

N.T.S.



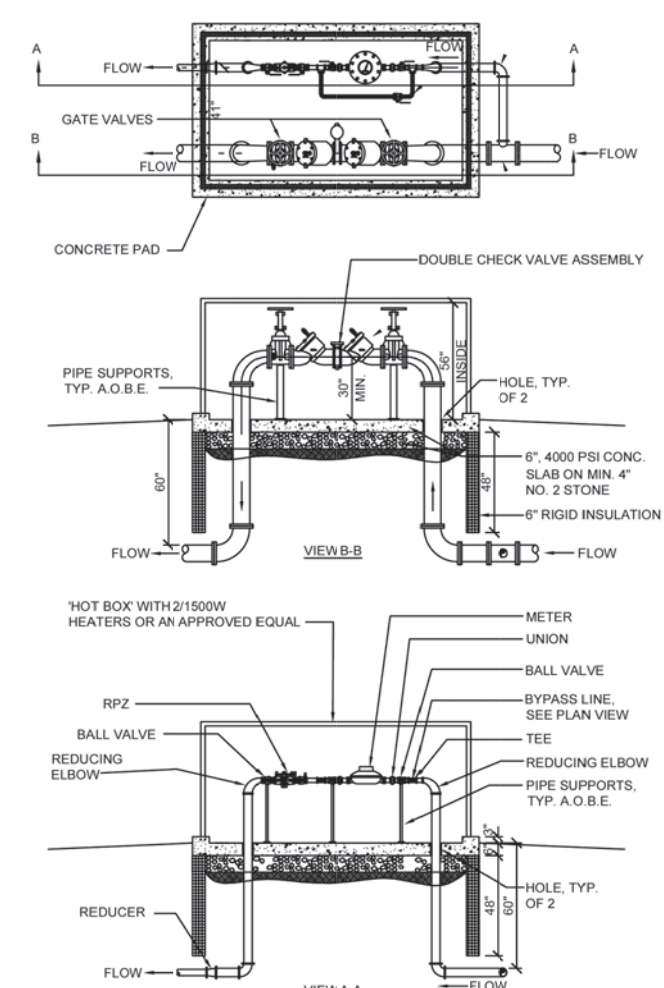
STANDARD CONNECTION TO WATERMAIN DOMESTIC WATER SERVICE TO O&M BUILDING

N.T.S.



TYPICAL PERMANENT BLOW-OFF DETAIL

N.T.S.

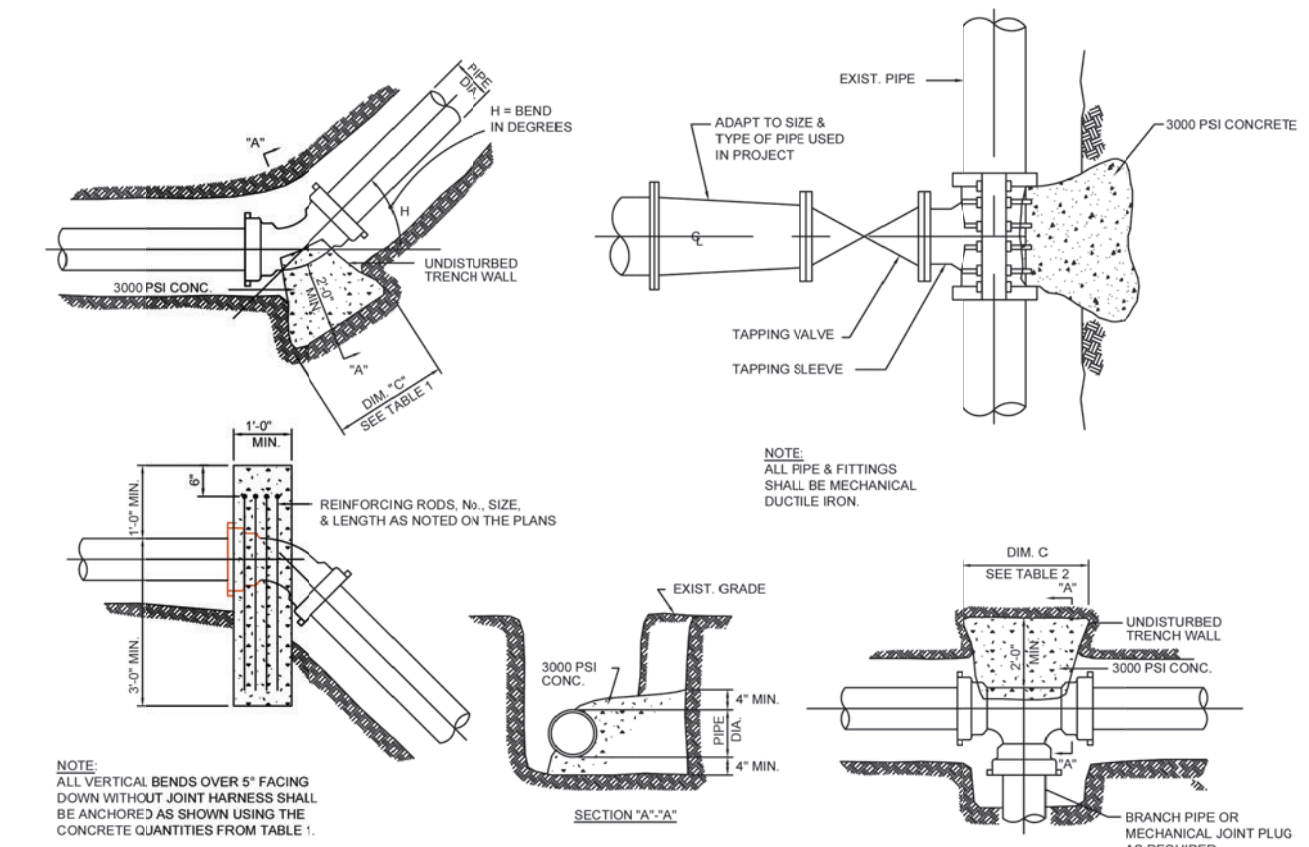


NOTES:

1. ALL BACKFLOW PREVENTION (BFP) DEVICES MUST BE APPROVED BY THE NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH).
2. THE BFP DEVICE SHALL BE INSTALLED AS SHOWN ON THE APPROVED PLANS IN A HEATED, LIGHTED AREA ABOVE THE HIGHEST POSSIBLE FLOOD LEVEL. THE INSTALLATION MUST BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NYSDOH, TOWN OF ALABAMA FACILITIES, AND LOCAL PLUMBING CODES. DEVIATIONS TO THE APPROVED PLANS ARE NOT ALLOWED WITHOUT PERMISSION OF THE TOWN OF ALABAMA AND NYSDOH.
3. THE BFP DEVICE WILL CAUSE A DECREASE IN WATER PRESSURE. SEE MANUFACTURER'S FLOW CURVES FOR PRESSURE LOSSES.
4. AN AIR GAP OR AIR GAP FITTING MUST BE MAINTAINED AT THE RELIEF PORT OF THE REDUCESD PRESSURE ZONE (RPZ) DEVICES.
5. DRAINAGE CAPACITY MUST BE ABLE TO HANDLE THE MAXIMUM RELIEF VALVE DISCHARGE OF THE RPZ DEVICE BASED UPON MANUFACTURER'S RELIEF VALVE DISCHARGE RATE CURVES. DIRECT DRAIN CONNECTIONS TO SEWERS ARE PROHIBITED.
6. ADEQUATE SUPPORT FOR THE BFP DEVICE TO BE PROVIDED.
7. A THERMAL EXPANSION TANK SHOULD BE INSTALLED ON THE COLD WATER MAKE-UP LINES TO DIRECT FIRED STORAGE TANKS. A WORKING PRESSURE RELIEF VALVE MUST BE MAINTAINED AT ALL TIMES.
8. THE BFP DEVICE IS TO BE TESTED BY A NYSDOH CERTIFIED TESTER AT THE TIME OF INSTALLATION AND AT LEAST ANNUALLY THEREAFTER. TEST RESULTS ARE TO BE SUBMITTED TO THE TOWN OF ALABAMA AND NYSDOH.
9. MAINTENANCE OF THE BFP DEVICE SHALL BE THE RESPONSIBILITY OF THE WATER CUSTOMER.
10. IT IS UNLAWFUL TO TAMPER WITH THE METER OR THE BFP DEVICE, TO INSTALL ANY OUTLET OR CONNECTION AHEAD OF THESE DEVICES, TO INSTALL AN UNPROTECTED BYPASS AROUND THESE DEVICES, OR TO REMOVE THESE DEVICES FROM SERVICE WITHOUT THE APPROVAL OF THE TOWN OF ALABAMA AND NYSDOH.

TYPICAL HOT BOX W/ DOUBLE CHECK VALVE AND RPZ ASSEMBLIES

N.T.S.



NOTE:
ALL PIPE & FITTINGS SHALL BE MECHANICAL DUCTILE IRON.

NOTE:
ALL VERTICAL BENDS OVER 5° FACING DOWN WITHOUT JOINT HARNESS SHALL BE ANCHORED AS SHOWN USING THE CONCRETE QUANTITIES FROM TABLE 1.

TABLES FOR 2800 P.S.F. SOIL BEARING
LOAD AT 150 PSI TEST PRESSURE

TABLE 1

BEND	HORIZONTAL				VERTICAL	
	5° TO 45°		46° TO 90°		5° TO 45°	46° TO 90°
PIPE DIA. IN.	"C" FT. - IN.	CONC C.Y.	"C" FT. - IN.	CONC C.Y.	CONC. C.Y.	CONC. C.Y.
16	4-3	0.68	8-2	1.26	9.00	17.20
14	3-7	0.49	6-9	0.91	6.60	12.30
12	2-11	0.36	5-5	0.67	4.80	9.70
10	2-4	0.25	4-3	0.46	3.40	6.30
8	1-7	0.16	3-0	0.30	2.20	4.00
6	1-0	0.10	1-11	0.17	1.20	2.30

TABLE 2

BRANCH PIPE DIA. IN.	"C" FT. - IN.	QUAN. OF CONC. C.Y. TEE'S & PLUGS	QUAN. OF CONC. C.Y. WYE'S
16	7-6	0.62	0.85
14	5-9	0.48	0.66
12	4-0	0.33	0.60
10	3-2	0.25	0.43
8	2-3	0.16	0.29
6	1-8	0.10	0.18

TYPICAL DETAILS FOR CONCRETE BACKING OF PRESSURE PIPE

N.T.S.

REVISION	DATE	CHKD
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PROJ.: 081591-01-001
DATE: JANUARY 9, 2026
CHKD: PDQ

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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

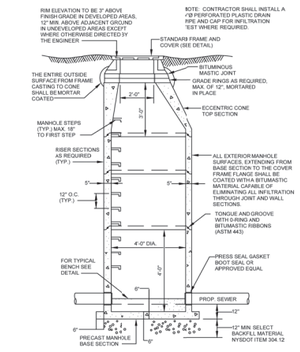
BUFA - PROJECT DOUBLE REED SOUTH CAMPUS

WATER DETAILS

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

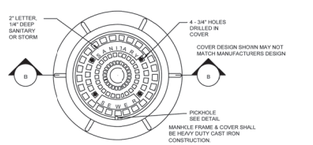
SHEET No.

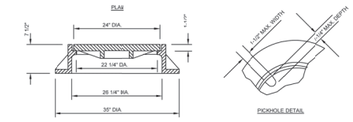
DT-6



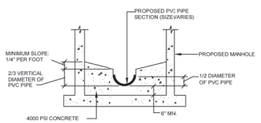
TYPICAL PRECAST SANITARY MANHOLE DETAIL

N.T.S.





TYPE "A" FRAME AND CCVER



TYPICAL BENCH DETAIL

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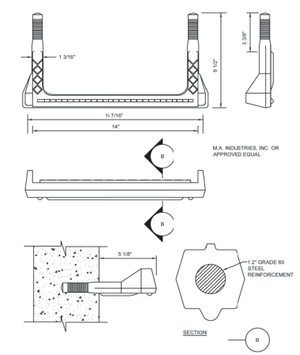

COPOLYMER POLYPROPYLENE PLASTIC MANHOLE STEP

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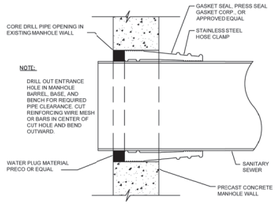
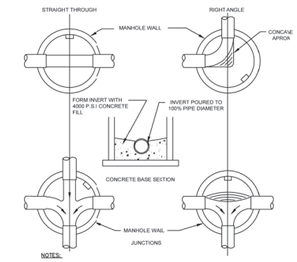


MANHO_E CONNECTION DETAIL

N.T.S.

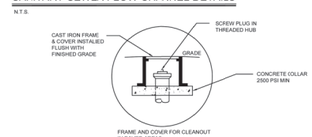


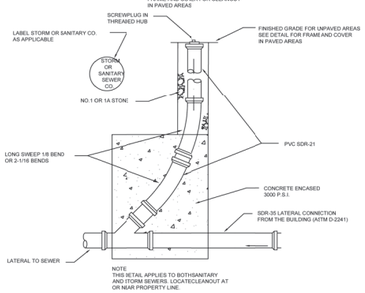
NOTES:

FLOW CHANNELS IJUST ALLOW 'PLACEMEN', REMOVAL AND PASSAGE OF T.V. CAMERAS. THE CAMERA DIMENSIONS ARE APPROXIMATELY 29" LONG x 6-1/2" SQUARE. A BLOCKOF WOOD OF THESE DIMENSIONS MAY BE USED TO SIMULATE THE SIZE OF THE kAMERA. THIS WILL SIMPIFY THE FORMATION OF 'LOW CHANNELS AND INVERTS. DEPTH OF ALL CHANNELS TO BE 100% OF PIPE DIAMETER. FINISHALL CHANNELS AT PROPR GRADE AS TO ALLOW SMOOTH AND UNOBSTRUCTED FLOW. ALL INVERTS TO BE FLUSH WITH THE INSIDE OF THE PIPE AT EACH END.

SANITARY SEWER FLOW CHANNEL DETAILS

N.T.S.





NOTE
THIS IETAIL APPLIES TO BOTHSANITARY AND ITORM SEWERS. LOCATECLEANOUT AT OR NEAR PROPERTY LINE.

SEWER CLEANOUT DETAIL

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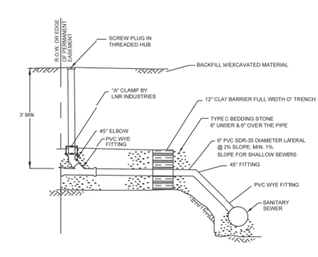
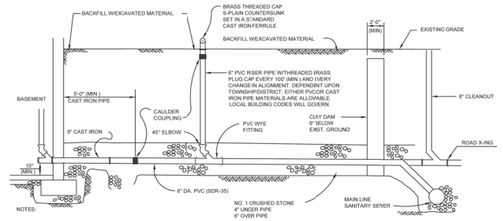


TYPICAL SEWER SERVICE CONNECTION DETAIL

N.T.S.



NOTES:

1. THE SERVICE LATERAL MUST BE INSTALLED A MINIMUM OF 10" ABOVE BASEMENT FLOOR.
2. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH ITS REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034. CAST IRON PIPE MATERIAL SHALL BE EXTRA HEAVY CAST IRON MEETINGTHE REQUIREMENTS OF JSTM A74-42.
3. PIPE SHALL BE LAID AT 1/8" PER FOOT (MIN.), 1/4 PER FOOT (MAX.) GRADE.
4. A MANUAL VALVE SHALL BE INSTALLED ON BASEMEN' LAUNDRY DRAIN LINE.
5. CLEANOUTS MUST BE INSTALLED IN LAWN AREAS, NOT IN SIDEWALK OR DRIVEWAY AREAS.
6. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
7. CONCRETE ENCASEMENT IF DEPTHS LESS THAN 6' UNDER PAVED AREAS.
8. MINIMUM DEPTH 3'.
9. SPECIA, CARE SHALL BE USED TO CONSTRUCT A CLAY DAM AS ILLUSTRATED TO PREVENT GROUNI WATER MOVEMENT.

TYPICAL COMMERCIAL SERVICE DETAL

"YPICAL COMMERCIAL SERVICE DETAL

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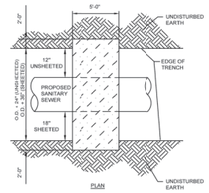
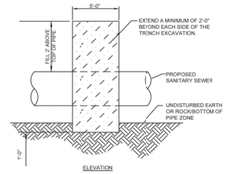


TRENCH BARRIER NOTES:

1. AT LOCATION AS SHOWN OR DIRECTED BY THE ENGINEER, APPROVED COHESIVE SOIL (CLAY) IS TO BE PLACED WITHIN THE TRENCH TO PREVENT SUBSURFACE DRAINAGE THROUGH THE BEDDING AID BACKFILL MATERIALS.
2. THE REQUIRED COHESIVE SOIL BARRERS SHALL EXTEND THE FULL CROSS-SECTION OF THE TRENCH FOR A MINIMUM LENGTH OF FIVE (5) FEET.
3. NATURAL SUBSOIL CONSISTING OF COHESIVE MATERIAL CAN BE USED FOR BACKFILLINCAS DESCRIBED ABOVE, WHERE IN THE OPINION OF THE ENGINEER, THE MATERIAL RESULTING FROM THE EXCAVATIONIS GRANULAR OR COHESIONLESS AND WOULD NOT PROVIDE A BARRIER TO THE MOVEMENT OF WATER, SUCH AS COHESIVE SOIL MUST BE PROVIDED.
4. COHESIVE SWLS PLACED IN TRENCHES SHALL BE PLICED IN 8 TO 10 INCH LIF'S AND COMPACTEDUSING APPROVED METHODS.



COHESIVE FILL TRENCH BARRIER DETAIL

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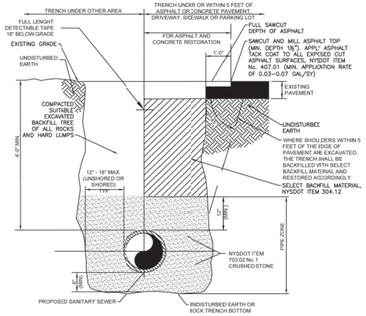

SANITARY TRENCH DETAIL

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PROJ. 08191-01-001
DATE: JANUARY 9, 2026
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ERIC L. KELLER, NY. Professional Engineer Lic. 065234-1

BUFA – PROJECT DOUBLE REED SOUTH CAMPUS
SANITARY DETAILS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
DT-7

Bentley Systems, Incorporated
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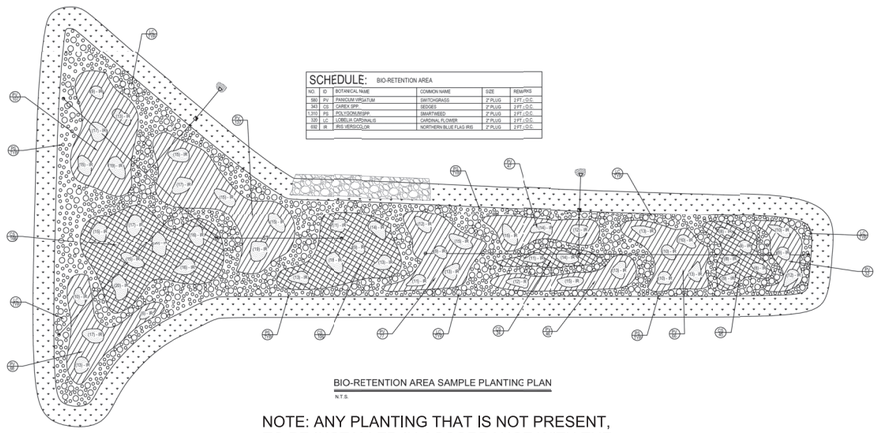


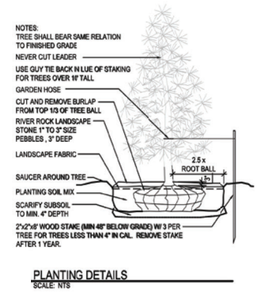
BIO-RETENTION AREA SAMPLE PLANTING PLAN
N.T.S.

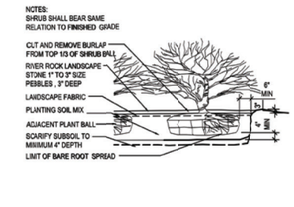
SCHEDULE: BIO-RETENTION AREA

NO.	ID	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
980	PV	PANICUM VIRGATUM	SWITCHGRASS	2" PLUG	2 FT. / O.C.
343	CS	CAREX SPP.	SEDGES	2" PLUG	2 FT. / O.C.
1,310	PS	POLYSTICHUM SPP.	SWARTHBED	2" PLUG	2 FT. / O.C.
330	LC	LOBELIA CARDINALIS	CARDINAL FLOWER	2" PLUG	2 FT. / O.C.
655	IR	IRIS VERSICOLOR	NORTHERN BLUE FLAG IRIS	2" PLUG	2 FT. / O.C.

NOTE: ANY PLANTING THAT IS NOT PRESENT, TO BE INSTALLED IN ACCORDANCE WITH THE BIO-RETENTION SAMPLE PLANTING PLAN AND SCHEDULE.

SCALE: 1"=50'
0 50 100 200 ft.

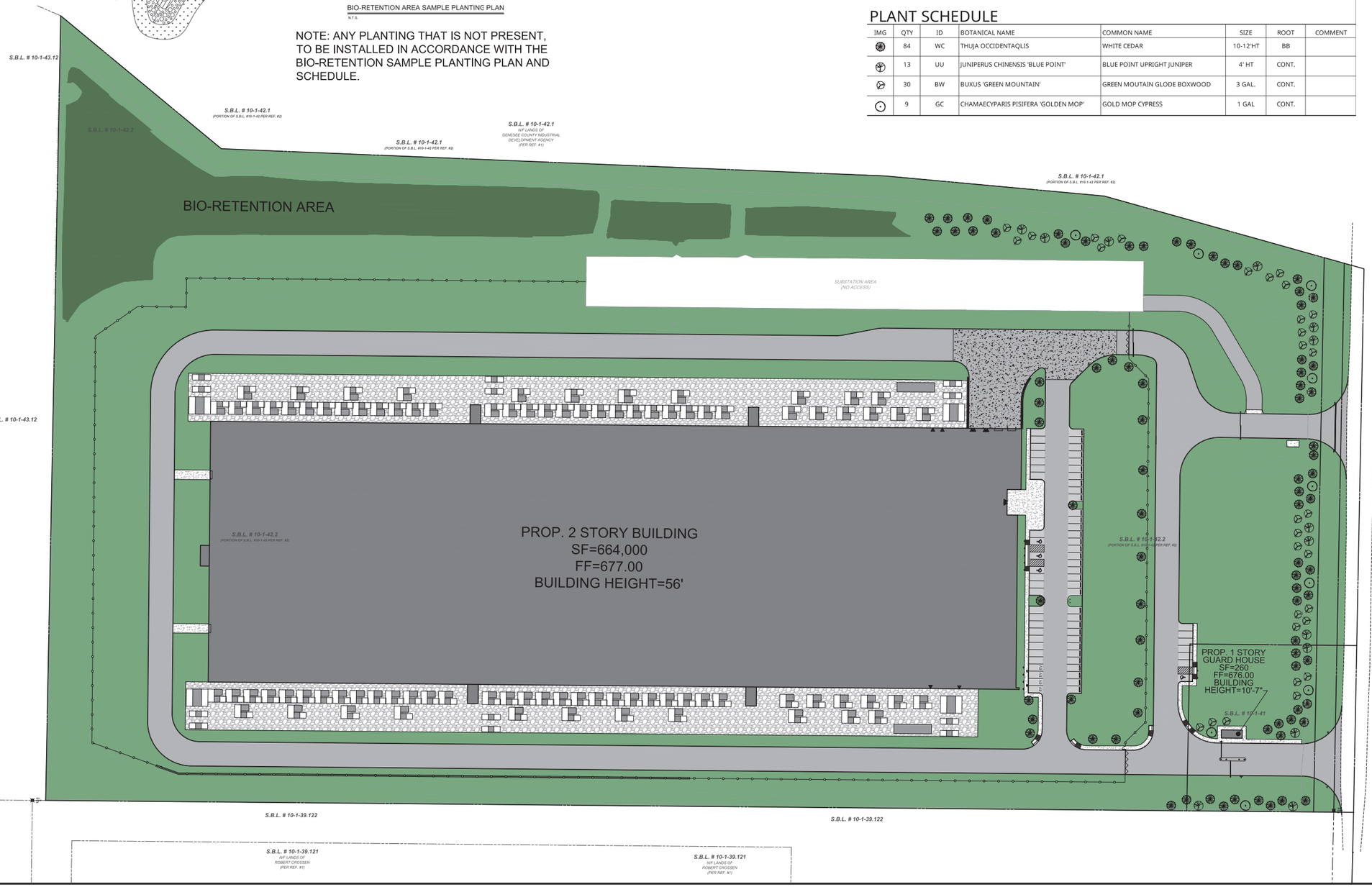




PLANTING DETAILS
SCALE: NTS

PLANT SCHEDULE

IMG	QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	COMMENT
	84	WC	THUJA OCCIDENTAQLIS	WHITE CEDAR	10-12'HT	BB	
	13	UU	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT UPRIGHT JUNIPER	4' HT	CONT.	
	30	BW	BUXUS 'GREEN MOUNTAIN'	GREEN MOUTAIN GLODE BOXWOOD	3 GAL.	CONT.	
	9	GC	CHAMAECYPARIS PISIFERA 'GOLDEN MOP'	GOLD MOP CYPRESS	1 GAL	CONT.	



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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 065234-1

BUFA - PROJECT DOUBLE REED SOUTH CAMPUS
LANDSCAPE PLAN, SCHEDULE AND DETAILS
TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.
LS-1

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CALCULATION SUMMARIES

Exit - Northwest	
Average	1.5 fc
Maximum	2.0 fc
Minimum	1.2 fc
Max/Min	1.7
Average/Min	1.3

Exit - Southwest	
Average	1.5 fc
Maximum	1.9 fc
Minimum	1.2 fc
Max/Min	1.6
Average/Min	1.3

Exit - West	
Average	1.9 fc
Maximum	2.2 fc
Minimum	1.7 fc
Max/Min	1.3
Average/Min	1.1

Loading Dock	
Average	2.0 fc
Maximum	5.7 fc
Minimum	0.7 fc
Max/Min	8.1
Average/Min	2.9

Roadway - East	
Average	2.1 fc
Maximum	3.2 fc
Minimum	0.4 fc
Max/Min	8.0
Average/Min	5.3

Roadway - East Parking	
Average	1.5 fc
Maximum	2.5 fc
Minimum	0.4 fc
Max/Min	6.3
Average/Min	3.8

Roadway - North	
Average	2.1 fc
Maximum	3.1 fc
Minimum	1.3 fc
Max/Min	2.4
Average/Min	1.6

Roadway - South	
Average	2.0 fc
Maximum	2.6 fc
Minimum	1.3 fc
Max/Min	2.0
Average/Min	1.5

Roadway - West	
Average	2.1 fc
Maximum	2.6 fc
Minimum	1.5 fc
Max/Min	1.7
Average/Min	1.4

Sidewalk - Building East	
Average	1.0 fc
Maximum	2.1 fc
Minimum	0.2 fc
Max/Min	10.5
Average/Min	5.0

Sidewalk - East	
Average	1.6 fc
Maximum	2.4 fc
Minimum	0.8 fc
Max/Min	3.0
Average/Min	2.0

Sidewalk - East Middle	
Average	2.0 fc
Maximum	2.2 fc
Minimum	1.9 fc
Max/Min	1.2
Average/Min	1.1

SCALE: 1"=50'

0 50 100 200 ft.

SUBSTATION AREA (NO ACCESS)

SUBSTATION AREA (NO ACCESS)

SUBSTATION AREA (NO ACCESS)

PROP. 2 STORY BUILDING
SF=664,000
FF=677.00
BUILDING HEIGHT=56'

PROP. 1 STORY GUARD HOUSE SF=260 FF=676,00 BUILDING HEIGHT= 10'-7"

CROSBY ROAD
(66' R/W)

EDGE OF PAVEMENT

ASPHALT PAVEMENT

EDGE OF GRAVEL

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ERIC L. KELLER, N.Y. Professional Engineer, Lic. 052234-1

BUFA - PROJECT DOUBLE REED
SOUTH CAMPUS
PHOTOMETRIC PLAN

TOWN OF ALABAMA, GENESEE COUNTY, NEW YORK

SHEET No.

LT-1

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DWG: 2026.01.08 bdt Lighting Photometric Export.DWG

Munters Geoclima Chillers TMA 4D2100B C28 13 1W Preliminary Submittal - Revision 3

Key Accounts Manager: Mike Waring 630-401-8731



Munters
Your Perfect Climate

Table of Contents:

Scope of work	4-6
Preliminary Ratings Sheet	7-11
Octave Band Sound Ratings	12-13
Chiller Technical Diagrams	14-32
Controls Sequence	33-39
Fast Restart Detail	40-43
Dynamic Noise Control Detail	44-45
Specifications	46-52
Main Component Cut Sheets	53-87

To: Stream

Ref: BUFA & MYRA Air Cooled Chillers

This Proposal, unless previously withdrawn, shall remain valid for ten days from the date hereof, and order is subject to acceptance at the executive offices of Munters, Daleville, VA. The acceptance of any purchase order by seller's order acknowledgement shall be conditioned upon buyer's assent to seller's terms and conditions. The manufacture and sale of the above-described goods will be subject to such terms and conditions and none other.

The bid documents detailed below have been used exclusively in our preparation of this quotation. Munters is not liable for any equipment or services that may be described in documentation other than as listed herein.

List of Bid Documents used to prepare quotation

Munters is pleased to provide a quote for cooling equipment for the subject project.

Project design details:

Mag Bearing Air-Cooled Chillers
Model: TMA 4D2100B C28 13 1W

Mike Waring | Key Accounts Management Representative
Munters Data Center Technologies
Cell: 630-401-8731 | Email: mike.waring@munters.com

Munters

Each air cooled chiller includes the following:

- AHRI certified performance
- Powder coated steel support frame and sheet metal panels.
- Cylindrical “circlemiser” condenser design with extended condenser surface area
    - Micro-channel design polyester coated for corrosion protection
    - Intake hail guards
    - Variable speed EC condenser fans
- Four compressor arrangement
    - Turbocor magnetic bearing with integrated variable frequency drive
    - Discharge and suction isolation valves
    - R-513A low GWP refrigerant
    - Refrigerant economizer liquid sub-cooling
    - Refrigerant pump for improved low lift
- Cascade flooded evaporator (single pass)
    - Refrigerant in shell, water through tube design rated for 225 PSIG
    - Drain and vent
    - Water flow proving switch
    - Water return and supply temperature sensors
    - Flanged type contractor water connections
- Integrated evaporator waterside pump with suction diffuser
    - IP55 motor protected from the elements
    - Variable speed drive
    - Sized for internal pressure loss plus scheduled external
    - Pump with stainless steel impeller and shaft
- Low ambient design (water flow required during all freezing ambient conditions)
    - Insulated compressor boxes with heaters
    - 25 mm evaporator / piping insulation with heat trace (including pump housing)
    - 25 mm refrigerant suction line insulation with heat trace and motorized isolation valve
- Electrical and controls
    - Three power connections:
        - 460/3 feed for Chiller
        - 460/3 feed for Pump
        - 460/3 feed for heat trace & convenience outlet
    - PLC controller BACnet or Modbus compatible.
        - Factory controls package to maintain target water temperature to the data center and automatically regulate compressors and fans to optimize overall system efficiency
        - Water flow, temperature (return and supply) and evaporator pressure drop sensors
        - Cellular connectivity for remote monitoring and support (through IST and final turnover; optional afterwards)
        - 7” touch screen HMI
    - Sample Controls Hardwire Points
        - Chiller start/stop
        - Status
        - General Critical Alarm (including loss of power)
        - Water supply temperature set point (water supply temperature measured only available via BACnet IP)

Mike Waring | Key Accounts Management Representative
Munters Data Center Technologies
Cell: 630-401-8731 | Email: mike.waring@munters.com

- Evaporator water flow (via electromagnetic flow meter) - ***shown as optional added cost***
- Controls are powered from the main power feed and include capacitor type UPS.
- Rapid restart if main power is interrupted
- All power wiring (>50VAC) shall be in wire trays or outdoor UV rated wiring. All low voltage control wiring (<50VAC) shall be in plenum-rated cable, not in conduit.
- ETL labeled at 65kAIC SCCR rating.

Testing / Startup / Commissioning assist

- Functional testing of all equipment is included per Munters standard QC processes.
  - "End of line" with water flowing through evaporator – validation that everything functions correctly
  - BMS contractor can participate for points validation
  - Contact Munters for performance validation testing
- Factory start-up (Level 3) * of equipment is included. Start-up shall be coordinated with contractor so that travel arrangements can be made a minimum of 6-weeks in advance. All power and control wiring, mounting and wiring of any shipped loose components, and water piping complete prior to Munters start-up personnel arrival at the site. Maximum of 16 site tech-hours per system, one tech- trip per two systems.
- Commissioning assistance* is included. Commissioning assistance includes Level 4 and Level 5 on the same trip. If Level 5 support requires a separate trip, contact Munters for pricing. Maximum of 8 site tech-hours per system, one tech-trip per four systems.

  *All service pricing is based on weekdays only for all travel and site time. Munters technician will travel Monday and attempt to be on site after arrival (Monday site time is not guaranteed). If applicable, Munters technician will attempt to be on site Friday prior to travel (Friday site time is not guaranteed). If weekend travel or site time is desired, contact Munters for availability and pricing.

Warranty:

- 2-year parts & labor warranty (24 months from factory start-up or 30 months from shipment, whichever occurs first.)

Spare Parts:

- None

Seismic / Wind Certification:

- Not included

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TECHNICAL SELECTION

TMA 4D2100B C28 13 1W

GEOCLIMA
Smart HVAC Solutions

TECHNICAL DATA

TMA 4D2100B C28 13 1W

BUFA

COOLING

PERFORMANCE DATA		
Cooling capacity (A2)	TR	675.0
Spare Capacity	-	13.9%
Minimum Cooling Capacity(A4)	TR	31.31
Total input power (A2)	kW	476.3
Compressor input power	kW	397.8
Input current (E0)	A	653
EER	Btu/Wh	17.01
IPLV	Btu/Wh	21.325
SOURCE		
Altitude	ft	600
Dry bulb outdoor air	°F	97.2
Maximum outdoor air db	°F	130.0
Minimum outdoor air db	°F	-30.0
Outdoor air Relative humidity	%	40.4
Air flow rate	cfm	459089.1
Fan input power	kW	78.45
Fan input current	A	102
Fans available static pressure	inH2O	0.00161

USER		
Fluid type		Water
Fouling fact.	ft²F/Btu/	0.000100
In/out fluid temperature	°F	82.50/67.93
Fluid flow rate	gpm	1117
Maximum flow rate	gpm	1320
Minimum flow rate	gpm	460
Circuit pressure drops	ftH2O	30.0

8" to 10" adapters will be provided as necessary

DESIGN AND SIZING DATA

GENERAL DATA		
Number of circuits		2
Minimum capacity step	%	-
Refrigerant type		R513A
GWP		629.5
Total refrigerant charge (R1)	lb	1340.4
CO2 equivalent charge	lb	843762.4

HYDRONIC CONNECTIONS (IN/OUT)		
Main		8"/8"

ELECTRICAL DATA		
Nominal voltage supply	Ph/V/Hz	3/460/60
Maximum voltage supply	V	480
Minimum voltage supply	V	440
Maximum input power (P1)	kW	613.9
MCA	A	887
MOP	A	1000

DIMENSIONS
Please refer to drawings for dimensional data

SOUND DATA		
Calculated sound power	dB(A)	103.9
Sound pressure(C0) [30.0 ft]	dB(A)	71.0

COMPRESSORS		
Type		TT450-G-1-ST-LL
Compressor type		Turbocor
Capacity steps		Inverter
Number of compressors	n°	4
Nominal power input (max)(A3)	kW	108.1
Running current (max)(A3)	A	143
Max current	A	180
Starting current (each)	A	5.00

FANS		
Fan type		Axial
Fan motor		EC
Number of fans		28
Maximum input power (P1)	kW	91.00
Maximum input current (E0)	A	122

SOUND DATA-OCTAVE BAND	Hz	63	125	250	500	1000	2000	4000	8000
Unit global sound power	dB(A)	70.3	87.4	89.5	96.3	100.4	97.4	93.3	86.6

(A0) Technical data shown are not binding. The Company shall have the right to introduce at any time whatever modifications necessary to the improvement of the product.

(A1) Dimensional data shown are not binding.

(A2) According to standard: ANSI-AHRI 550-590 (I-P)

(A3) Relative to the most loaded installed compressor at the selected operating conditions.

(A4) Minimum Cooling Capacity at design conditions.

(C0) Noise pressure is calculated according to the following sound propagation method: Hemispherical ISO EN 3744 source

BUFA Octave Band Sound Ratings

Automatic fan speed

SOUND POWER OCTAVE BAND	Hz	63	125	250	500	1000	2000	4000	8000	Pressure	Power
TMA 4D2100B C28 13 1W 97.2°F 100% 150ft	dB(A)	70.3	87.4	88.9	95.4	98.7	95.1	90.1	84.7	57.8	102.5
TMA 4D2100B C28 13 1W 97.2°F 75% 150ft	dB(A)	70.3	87.4	88.9	95.4	98.6	94.9	89.9	84.6	57.7	102.4
TMA 4D2100B C28 13 1W 97.2°F 50% 150ft	dB(A)	69.6	86.7	88.2	94.7	97.9	94.2	89.2	83.9	57.0	101.7
TMA 4D2100B C28 13 1W 97.2°F 25% 150ft	dB(A)	68.6	81.7	90.2	92.6	94.9	93.1	87.9	81.8	54.8	99.5
TMA 4D2100B C28 13 1W 97.2°F 100% 122ft	dB(A)	70.3	87.4	88.9	95.4	98.7	95.1	90.1	84.7	59.4	102.5
TMA 4D2100B C28 13 1W 97.2°F 75% 122ft	dB(A)	70.3	87.4	88.9	95.4	98.6	94.9	89.9	84.6	59.3	102.4
TMA 4D2100B C28 13 1W 97.2°F 50% 122ft	dB(A)	69.6	86.7	88.2	94.7	97.9	94.2	89.2	83.9	58.7	101.7
TMA 4D2100B C28 13 1W 97.2°F 25% 122ft	dB(A)	68.6	81.7	90.2	92.6	94.9	93.1	87.9	81.8	56.5	99.5

Reduced fans speed @97.2°F

SOUND POWER OCTAVE BAND	Hz	63	125	250	500	1000	2000	4000	8000	Pressure	Power
SOUND POWER OCTAVE BAND	Hz	63	125	250	500	1000	2000	4000	8000	Pressure	Power
TMA 4D2100B ...full load 150ft fans 70%	dB(A)	63.3	76.4	85.0	88.1	91.3	89.5	85.1	78.2	50.8	95.5

MINIMUM POSSIBLE FANS SPEED

SOUND POWER OCTAVE BAND	Hz	63	125	250	500	1000	2000	4000	8000	Pressure	Power
4D C28 13 1W 97.2°F 100%load fans70% 150ft	dB(A)	63.3	76.4	85.0	88.1	91.3	89.5	85.1	78.2	50.8	95.5
4D C28 13 1W 97.2°F 75%load fans40% 150ft	dB(A)	49.6	63.3	74.2	79.9	85.5	83.7	80.3	72.5	44.8	89.5
4D C28 13 1W 97.2°F 50%load fans30% 150ft	dB(A)	48.6	61.8	72.2	78.9	84.5	82.7	79.3	71.5	43.8	88.5
4D C28 13 1W 97.2°F 25%load fans25% 150ft	dB(A)	46.6	59.8	69.2	73.6	79.1	78.1	73.7	67.0	38.5	83.2
4D C28 13 1W 85.5°F 100%load fans55% 150ft	dB(A)	56.4	69.5	78.7	83.3	88.0	86.2	82.5	74.9	47.5	92.1
4D C28 13 1W 85.5°F 75%load fans35% 150ft	dB(A)	48.7	62.3	73.4	79.3	85.0	83.2	79.8	72.0	44.3	89.0
4D C28 13 1W 85.5°F 50%load fans25% 150ft	dB(A)	46.8	60.1	71.2	78.5	84.3	82.5	79.2	71.3	43.6	88.3
4D C28 13 1W 85.5°F 25%load fans20% 150ft	dB(A)	46.0	59.2	68.7	73.3	78.9	78.0	73.6	66.8	38.4	83.0
4D C28 13 1W 97.2°F 100%load fans70% 122ft	dB(A)	63.3	76.4	85.0	88.1	91.3	89.5	85.1	78.2	52.5	95.5
4D C28 13 1W 97.2°F 75%load fans40% 122ft	dB(A)	49.6	63.3	74.2	79.9	85.5	83.7	80.3	72.5	46.5	89.5
4D C28 13 1W 97.2°F 50%load fans30% 122ft	dB(A)	48.6	61.8	72.2	78.9	84.5	82.7	79.3	71.5	45.5	88.5
4D C28 13 1W 97.2°F 25%load fans25% 122ft	dB(A)	46.6	59.8	69.2	73.6	79.1	78.1	73.7	67.0	40.2	83.2
4D C28 13 1W 85.5°F 100%load fans55% 122ft	dB(A)	56.4	69.5	78.7	83.3	88.0	86.2	82.5	74.9	49.1	92.1
4D C28 13 1W 85.5°F 75%load fans35% 122ft	dB(A)	48.7	62.3	73.4	79.3	85.0	83.2	79.8	72.0	46.0	89.0
4D C28 13 1W 85.5°F 50%load fans25% 122ft	dB(A)	46.8	60.1	71.2	78.5	84.3	82.5	79.2	71.3	45.3	88.3
4D C28 13 1W 85.5°F 25%load fans20% 122ft	dB(A)	46.0	59.2	68.7	73.3	78.9	78.0	73.6	66.8	40.0	83.0

GEOCLIMA
Smart HVAC Solutions

modell:	TMA 4D2100B C28 13 1W
data: 09.02.2026	signature:
diagram: MUC26001__SFP	up to data: / data:

Geoclima International S.r.l. Unipersonale Via dell'industria, 12, 34077 Ronchi dei Legionari GO Italia

Order N°:	396777 Stream Bufa and Myra Chillers	Circuit:	2
Refrigerant type:	R513A	Oil type:	-
Refrigerant charge:		Oil charge:	-

REV.	DATA	MODIFICATION	SIGNATURE
		Rev.01 - Update water line	
		Rev.02 - New Evaporator	

TYPE: TMA 4D2100B C28 13 1W	TITLE: TITLE	DRAWER: G. Accardo	N. REV. SFP00 N. ARCH. MUC26001__SF	PAGE: 1	NEXT: 2
GEOCLIMA Smart HVAC Solutions	WIRING DIAGRAM Nø: MUC26001__SF ORDER: 396777 Stream Bufa and Myra Chillers	SIGNATURE:	DATA: 09.02.2026 SCALA:	TOT PAGE: 12	

PAGE NUMBER	DIAGRAM NAME	DESIGNER	DATE	REV. Nø	CUSTOMER REFERENCE	TITLE	UNIT
1	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	TITLE	TMA 4D2100B C28 13 1W
2	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PAGES LIST	TMA 4D2100B C28 13 1W
3	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PED CATEGORY	TMA 4D2100B C28 13 1W
4	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	REFRIGERANT CIRCUIT 1	TMA 4D2100B C28 13 1W
5	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	REFRIGERANT CIRCUIT 2	TMA 4D2100B C28 13 1W
6	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	EVAPORATOR WATER CIRCUIT	TMA 4D2100B C28 13 1W
7	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PART LIST	TMA 4D2100B C28 13 1W
8	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PART LIST	TMA 4D2100B C28 13 1W
9	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PART LIST	TMA 4D2100B C28 13 1W
10	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PART LIST	TMA 4D2100B C28 13 1W
11	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PART LIST	TMA 4D2100B C28 13 1W
12	MUC26001__SF	G. Accardo	09.02.2026	SFP00	396777 Stream Bufa and Myra Chillers	PART LIST	TMA 4D2100B C28 13 1W

Family Type		TMA___/__/13		Internal Job N.:			MUC26001	
Serial N.:		396777 Stream Bufa and Myra Chillers		Model			TMA 4D2100B C28 13 1W	
Project Data								
Refrigerant type	R513a	Ps HP side (psi)	290	Ts min HP side (°F)	14	Ts max HP side (°F) (Gas)	212	199
Refrigerant group	GROUP2	Ps LP side (psi)	160	Ts min LP side (°F)	14	Ts max LP side (°F)	122	
PED CATEGORY 2014/68/CE		Cat. IV						

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: PED CATEGORY

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

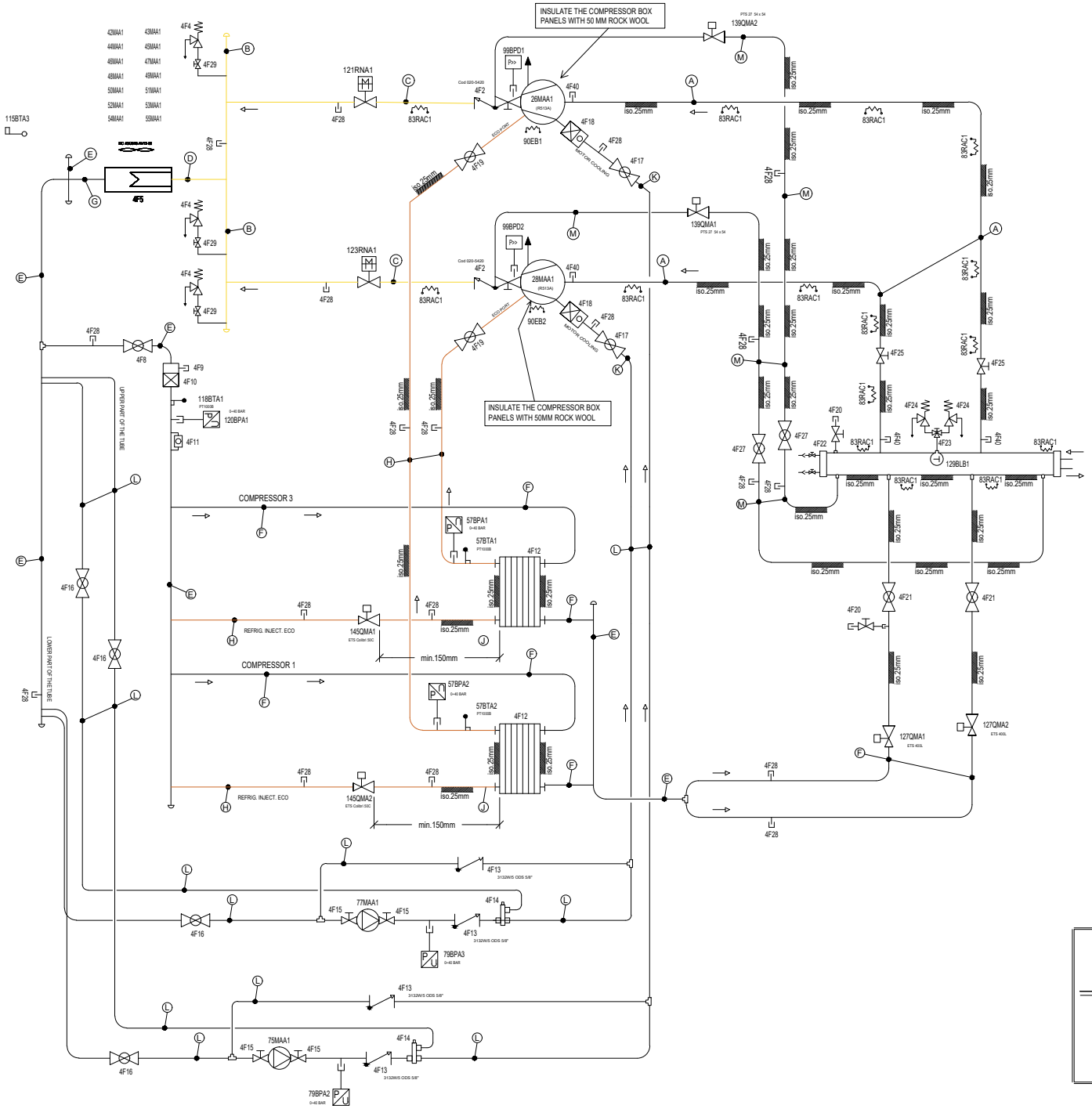
DRAWER: G. Accardo

SIGNATURE:

N. REV. SFP00
N. ARCH. MUC26001__SF
DATA 09.02.2026
SCALA

PAGE 3 | NEXT 4

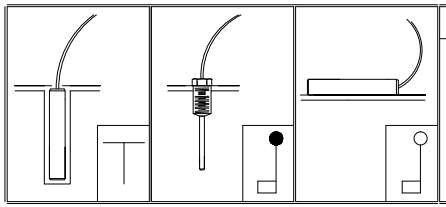
TOT PAGE 12



REFRIGERANT PIPES

SUCTION line	**Line A**	HP SS ASTM 106 Gr. B
DISCHARGE line	**Line B**	R290 EN10204 - 2004 - 3.1
	Line C	R290 EN10204 - 2004 - 3.1
LIQUID line	**Line D**	R290 EN10204 - 2004 - 3.1
	Line E	R290 EN10204 - 2004 - 3.1
	Line F	R220 Cu-DHP EN12735-1
ECONOMIZER line	**Line G**	R220 Cu-DHP EN12735-1
	Line H	R220 Cu-DHP EN12735-1
MOTOR COOLING line	**Line J**	R220 Cu-DHP EN12735-1
BY-PASS line (Staging)	**Line L**	R220 Cu-DHP EN12735-1
HOT GAS line (Load balance)	**Line M**	R220 Cu-DHP EN12735-1
CALIBRATION HD PRESSOSTAT		18 bar

REFRIGERANT CIRCUIT 1



WELDING TABLE		
LAP JOINT	CORNER JOINT	BUTT JOINT
REF. PROCEDURE: BSP PA/BP 010/10 BSP PA/BP 011/10	REF. PROCEDURE: WPS 001-008-19	REF. PROCEDURE: WPS 001-007-19

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: REFRIGERANT CIRCUIT 1

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

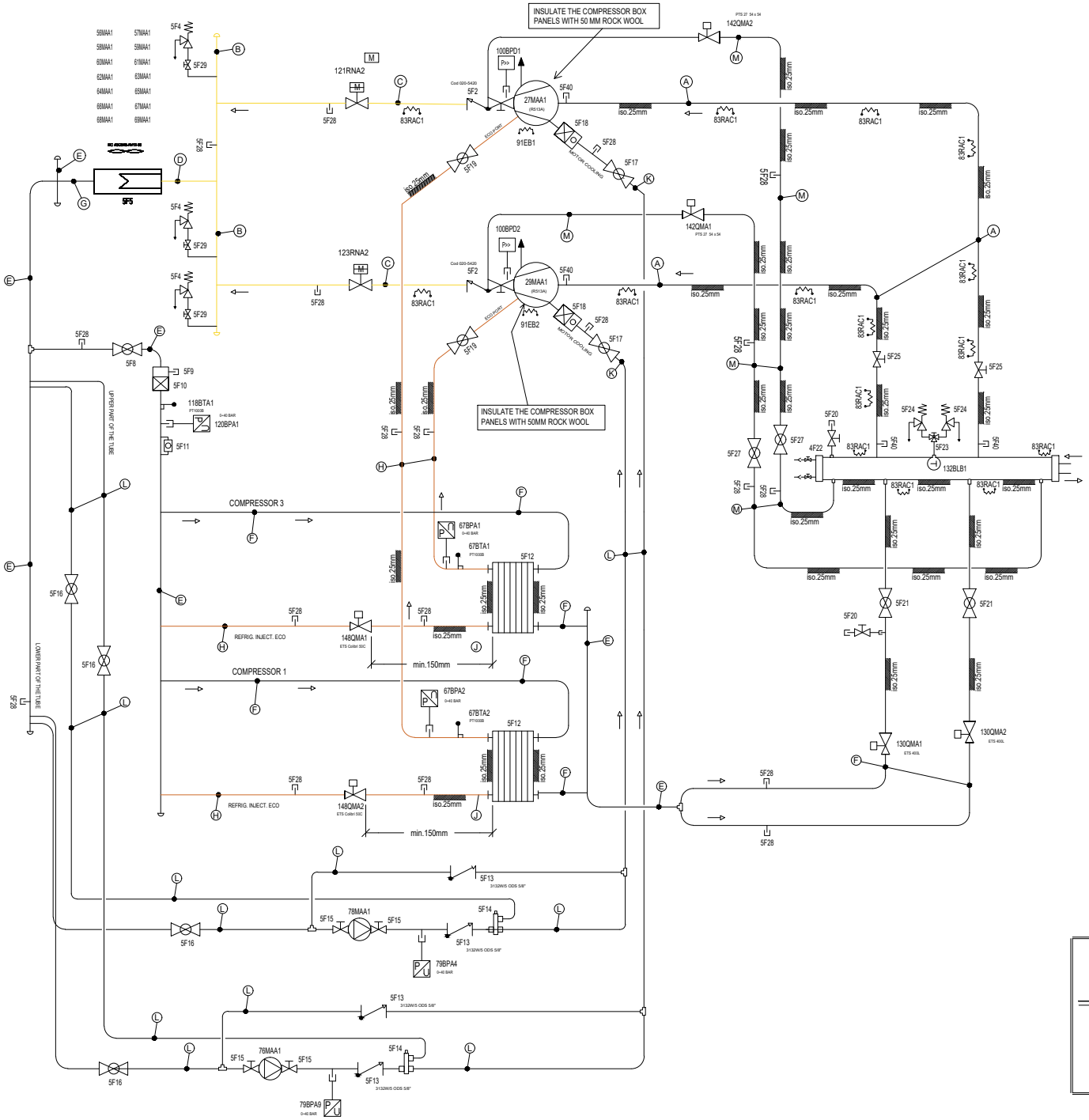
DRAWER: G. Accardo

SIGNATURE:

N. REV. SFP00
N. ARCH. MUC26001__SF
DATA 09.02.2026
SCALA

PAGE 4 | NEXT 5

TOT PAGE 12



REFRIGERANT PIPES

SUCTION line	**Line A**	HP SS ASTM 106 Gr. B
DISCHARGE line	**Line B**	R290 EN10204 - 2004 - 3.1
	Line C	R290 EN10204 - 2004 - 3.1
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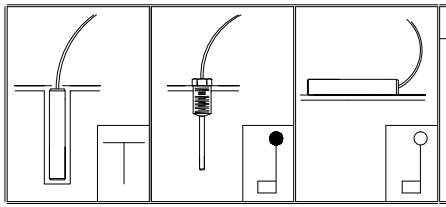
	Line E	R290 EN10204 - 2004 - 3.1
	Line F	R220 Cu-DHP EN12735-1
ECONOMIZER line	**Line G**	R220 Cu-DHP EN12735-1
	Line H	R220 Cu-DHP EN12735-1
MOTOR COOLING line	**Line J**	R220 Cu-DHP EN12735-1
BY-PASS line (Staging)	**Line L**	R220 Cu-DHP EN12735-1
HOT GAS line (Load balance)	**Line M**	R220 Cu-DHP EN12735-1
CALIBRATION HD PRESSOSTAT	18 bar	

REFRIGERANT CIRCUIT 2



WELDING TABLE

LAP JOINT	CORNER JOINT	BUTT JOINT
REF. PROCEDURE: BSP PA/BP 010/10 BSP PA/BP 011/10	REF. PROCEDURE: WPS 001-008-19	REF. PROCEDURE: WPS 001-007-19

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: REFRIGERANT CIRCUIT 2

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

SIGNATURE:

N. REV. SFP00
N. ARCH. MUC26001__SF
DATA 09.02.2026
SCALA

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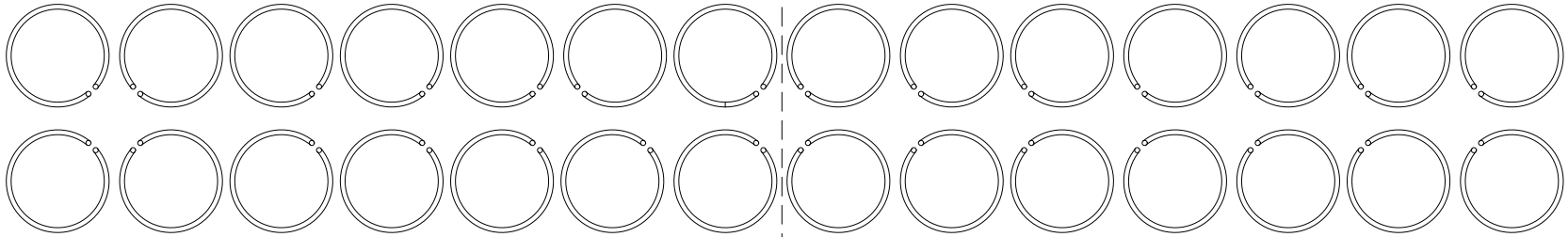
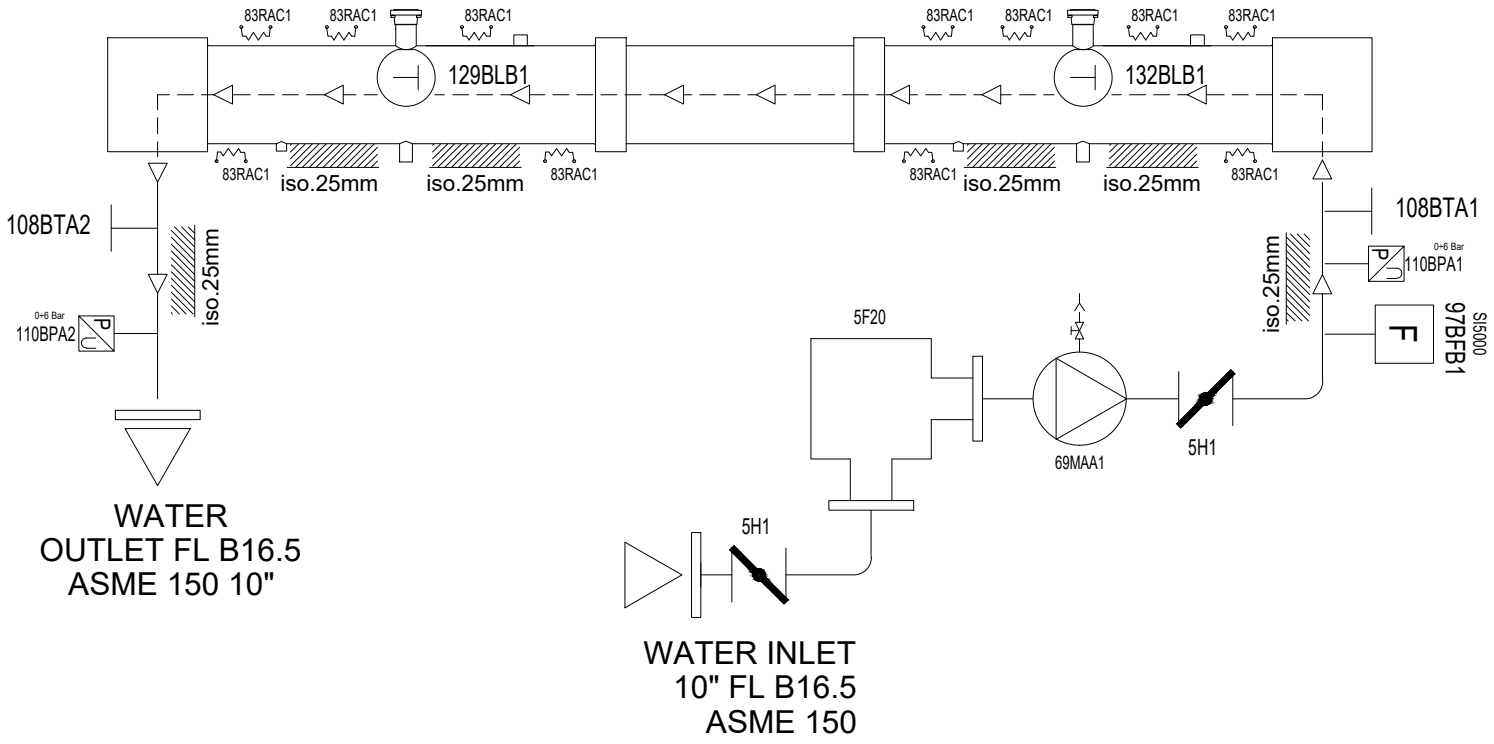
TOT PAGE 12

EVAPORATOR WATER CIRCUIT



Circuit 1
14 Condensing Cylinder

Circuit 2
14 Condensing Cylinder



REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: EVAPORATOR WATER CIRCUIT

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

SIGNATURE:

N. REV. SFP00
N. ARCH. MUC26001__SF

DATA: 09.02.2026

SCALA:

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Suffix	ARTICLE DESCRIPTION	Item code	Alternative code	Quantity	U.M.	Constructor		Position
4F2	CHECK VALVE	1FCESDANOFC80S0010	OFC 80S	2	Pz	DANFOSS	Cod 020-5420	/4.A3
	REINFORCED SPRING KIT	- 1FKITDAN0092	SCA 80	2	Pz	DANFOSS		/4.A3
4F4	SAFETY VALVE	1FSICNGIASME0021	G20/S 20 BAR ASME	3	Pz	Nuova General Instruments		/4.A1
4F5	CONDENSER COIL	1FBATT29001110C20	3M C6 94 01 02860 001 0101 ST	14	Pz	THERMOKEY		/4.B1
4F8	VALVE	1FRUBCAS6570N28A0010	6570N/28A	1	Pz	CASTEL		/4.B1
4F9	PRESSURE TAP	2FATTCAS0010	G9150/R05	1	Pz	CASTEL		/4.B1
4F10	FILTER	1FFILCAS0300	4424/34A	1	Pz	CASTEL		/4.B1
4F11	SIGHT GLASS	1FINDCAS384M10__0010	3840/M10 - UL	1	Pz	CASTEL	inlet/outlet 1/4"	/4.C1
4F12	EVAPORATOR	1FSCASWPV120TH6003	V120THX60 UL	2	Pz	SWEP		/4.D3
4F13	CHECK VALVE	1FRITCAS0093	3132W/5 ODS 5/8"	4	Pz	CASTEL	3132W/5 ODS 5/8"	/4.E3
4F14	VALVOLA BY PASS	1FVALTEODN0380010	VALINOX 3/8"	2	Pz	TEOREMA		/4.F2
4F15	VALVE	1FRUBCAS6110N3301	6110N/33	4	Pz	CASTEL		/4.F2
4F16	VALVE	1FRUBCAS65705A0010	6570/5A	4	Pz	CASTEL	ODS Ø16 mm	/4.F1
4F17	VALVE	1FRUBCAS65704A0010	6570/4A	2	Pz	CASTEL	inlet/outlet 1/2"	/4.B3
4F18	FILTER	1FFILCASDI308N4S	DI308N/4S	2	Pz	CASTEL		/4.B3
4F19	VALVE	1FRUBCAS6570N110010	6570N/11	2	Pz	CASTEL		/4.A3
4F20	VALVE	1FRUBCAS6110N3301	6110N/33	2	Pz	CASTEL		/4.D5
4F21	VALVE	1FRUBCAS6570N17A0010	6570N/17A - ODS 54	2	Pz	CASTEL		/4.C5
4F22	EVAPORATOR		E.1.50.M2.7200.R0.T152	1	Pz	GEOCLIMA SRL INTERNATIONAL		/4.C5
4F23	CHANGEOVER VALVE	1FSICCAS00441	3032/44	1	Pz	CASTEL		/4.C5
4F24	SAFETY VALVE	1FSICNGIASME001408	G14/S 15 BAR ASME	2	Pz	Nuova General Instruments		/4.C5
4F25	VALVE	1FRUBDAN012502	SVA-S 125D ANG CAP	2	Pz	DANFOSS	cod. 148B6101	/4.B5
4F27	VALVE	1FRUBCAS6570NM42A010	6570N/M42A - ODS 42	2	Pz	CASTEL		/4.C4
4F28	PRESSURE TAP	PRESA_PRESS_RAME	2FBOCCAS0140	19	Pz			/4.A2
	FLARE ADAPTER	- 2FBOCCAS0140	1/4" SAE - 7020/20 - FN2-C	19	Pz	CASTEL		/4.A2
	PRESSURE TAP	- 2FOTTCAS0020	GMC SVCI	19	Pz	CASTEL		/4.A2
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	19	Pz	CASTEL		/4.A2
4F29	VALVE	1FRUBCAS3064880010	3064/88	3	Pz	CASTEL		/4.A2
4F40	PRESSURE TAP	PRESA_PRESS_FERRO	2FBOCCAS0140	4	Pz			/4.B3
	FITTING	- 1AMANNPT1010	S.3000 NPT ¼" A 105	4	Pz	EDIL FRIULI		/4.B3
	PRESSURE TAP	- 2FATTCAS0010	G9150/R05	4	Pz	CASTEL		/4.B3

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: PART LIST

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

SIGNATURE:

N. REV. SFP00
N. ARCH. MUC26001__SF

DATA: 09.02.2026

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Suffix	ARTICLE DESCRIPTION	Item code	Alternative code	Quantity	U.M.	Constructor		Position
	FLARE ADAPTER	- 2FBOCCAS0140	1/4" SAE - 7020/20 - FN2-C	4	Pz	CASTEL		/4.B3
5F2	CHECK VALVE	1FCESDANOFC80S0010	OFC 80S	2	Pz	DANFOSS	Cod 020-5420	/5.A3
	REINFORCED SPRING KIT	- 1FKITDAN0092	SCA 80	2	Pz	DANFOSS		/5.A3
5F4	SAFETY VALVE	1FSICNGIASME0021	G20/S 20 BAR ASME	3	Pz	Nuova General Instruments		/5.A1
5F5	CONDENSER COIL	1FBATT29001110C20	3M C6 94 01 02860 001 0101 ST	14	Pz	THERMOKEY		/5.B1
5F8	VALVE	1FRUBCAS6570N28A0010	6570N/28A	1	Pz	CASTEL		/5.B1
5F9	PRESSURE TAP	2FATTCAS0010	G9150/R05	1	Pz	CASTEL		/5.B1
5F10	FILTER	1FFILCAS0300	4424/34A	1	Pz	CASTEL		/5.B1
5F11	SIGHT GLASS	1FINDCAS384M10__0010	3840/M10 - UL	1	Pz	CASTEL	inlet/outlet 1/4"	/5.C1
5F12	EVAPORATOR	1FSCASWPV120TH6003	V120THX60 UL	2	Pz	SWEP		/5.D3
5F13	CHECK VALVE	1FRITCAS0093	3132W/5 ODS 5/8"	4	Pz	CASTEL	3132W/5 ODS 5/8"	/5.E3
5F14	VALVOLA BY PASS	1FVALTEODN0380010	VALINOX 3/8"	2	Pz	TEOREMA		/5.F2
5F15	VALVE	1FRUBCAS6110N3301	6110N/33	4	Pz	CASTEL		/5.F2
5F16	VALVE	1FRUBCAS65705A0010	6570/5A	4	Pz	CASTEL	ODS Ø16 mm	/5.F1
5F17	VALVE	1FRUBCAS65704A0010	6570/4A	2	Pz	CASTEL	inlet/outlet 1/2"	/5.B3
5F18	FILTER	1FFILCASDI308N4S	DI308N/4S	2	Pz	CASTEL		/5.B3
5F19	VALVE	1FRUBCAS6570N110010	6570N/11	2	Pz	CASTEL		/5.A3
5F20				1				/6.D5
5F20	VALVE	1FRUBCAS6110N3301	6110N/33	2	Pz	CASTEL		/5.D5
5F21	VALVE	1FRUBCAS6570N17A0010	6570N/17A - ODS 54	2	Pz	CASTEL		/5.C5
5F23	CHANGEOVER VALVE	1FSICCAS00441	3032/44	1	Pz	CASTEL		/5.C5
5F24	SAFETY VALVE	1FSICNGIASME001408	G14/S 15 BAR ASME	2	Pz	Nuova General Instruments		/5.C5
5F25	VALVE	1FRUBDAN012502	SVA-S 125D ANG CAP	2	Pz	DANFOSS	cod. 148B6101	/5.B5
5F27	VALVE	1FRUBCAS6570NM42A010	6570N/M42A - ODS 42	2	Pz	CASTEL		/5.C4
5F28	PRESSURE TAP	PRESA_PRESS_RAME	2FBOCCAS0140	19	Pz			/5.A2
	FLARE ADAPTER	- 2FBOCCAS0140	1/4" SAE - 7020/20 - FN2-C	19	Pz	CASTEL		/5.A2
	PRESSURE TAP	- 2FOTTCAS0020	GMC SVCI	19	Pz	CASTEL		/5.A2
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	19	Pz	CASTEL		/5.A2
5F29	VALVE	1FRUBCAS3064880010	3064/88	3	Pz	CASTEL		/5.A2
5F40	PRESSURE TAP	PRESA_PRESS_FERRO	2FBOCCAS0140	4	Pz			/5.B3
	FITTING	- 1AMANNPT1010	S.3000 NPT ¼" A 105	4	Pz	EDIL FRIULI		/5.B3

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: PART LIST

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

SIGNATURE:

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N. ARCH. MUC26001__SF
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Suffix	ARTICLE DESCRIPTION	Item code	Alternative code	Quantity	U.M.	Constructor		Position
	PRESSURE TAP	- 2FATTCAS0010	G9150/R05	4	Pz	CASTEL		/5.B3
	FLARE ADAPTER	- 2FBOCCAS0140	1/4" SAE - 7020/20 - FN2-C	4	Pz	CASTEL		/5.B3
5H1	WATER VALVE	1AVALTYC0070_01	DN200 8" BFV 303	2	Pz	TYCO		/6.E6
26MAA1	COMPRESSOR	1FCOMTUR004500120	TTS450HGH2S010X0XXS450	1	PZ	DANFOSS	(R513A)	/4.A3
27MAA1	COMPRESSOR	1FCOMTUR004500120	TTS450HGH2S010X0XXS450	1	PZ	DANFOSS	(R513A)	/5.A3
28MAA1	COMPRESSOR	1FCOMTUR004500120	TTS450HGH2S010X0XXS450	1	PZ	DANFOSS	(R513A)	/4.B3
29MAA1	COMPRESSOR	1FCOMTUR004500120	TTS450HGH2S010X0XXS450	1	PZ	DANFOSS	(R513A)	/5.B3
42MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
43MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
44MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
45MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
46MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
47MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
48MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
49MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
50MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
51MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
52MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
53MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
54MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
55MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/4.A1
56MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
57BPA1	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/4.C3
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/4.C3
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/4.C3
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/4.C3
57BPA2	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/4.D3
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/4.D3
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/4.D3
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/4.D3
57BTA1	TEMPERATURE SENSOR	1WSONMEG0030	AP3791/10000R1	1	Pz	Megatron Sensors S.r.l.	PT1000B	/4.C3

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: PART LIST

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

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N. REV. SFP00
N. ARCH. MUC26001__SF
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Suffix	ARTICLE DESCRIPTION	Item code	Alternative code	Quantity	U.M.	Constructor		Position
57BTA2	TEMPERATURE SENSOR	1WSONMEG0030	AP3791/10000R1	1	Pz	Megatron Sensors S.r.l.	PT1000B	/4.D3
57MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
58MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
59MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
60MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
61MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
62MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
63MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
64MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
65MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
66MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
67BPA1	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/5.C3
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/5.C3
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/5.C3
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/5.C3
67BPA2	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/5.D3
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/5.D3
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/5.D3
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/5.D3
67BTA1	TEMPERATURE SENSOR	1WSONMEG0030	AP3791/10000R1	1	Pz	Megatron Sensors S.r.l.	PT1000B	/5.C3
67BTA2	TEMPERATURE SENSOR	1WSONMEG0030	AP3791/10000R1	1	Pz	Megatron Sensors S.r.l.	PT1000B	/5.D3
67MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
68MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
69MAA1	PUMPE		CI4007D	1	Pz	TACO		/6.E6
69MAA1	FAN	1VVENEBMEC910EN0010	106AS2480	1	Pz	EBM	EC A3G910-AV12-09	/5.A1
75MAA1	ELECTRIC PUMP	1FPOMTEOMPO1R0020	MPO 1R	1	Pz	TEOREMA		/4.F2
76MAA1	ELECTRIC PUMP	1FPOMTEOMPO1R0020	MPO 1R	1	Pz	TEOREMA		/5.F2
77MAA1	ELECTRIC PUMP	1FPOMTEOMPO1R0020	MPO 1R	1	Pz	TEOREMA		/4.E2
78MAA1	ELECTRIC PUMP	1FPOMTEOMPO1R0020	MPO 1R	1	Pz	TEOREMA		/5.E2
79BPA2	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/4.F2
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/4.F2

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: PART LIST

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

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N. ARCH. MUC26001__SF
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Suffix	ARTICLE DESCRIPTION	Item code	Alternative code	Quantity	U.M.	Constructor		Position
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/4.F2
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/4.F2
79BPA3	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/4.E3
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/4.E3
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/4.E3
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/4.E3
79BPA4	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/5.E3
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/5.E3
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/5.E3
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/5.E3
79BPA9	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	1	Pz	HUBA	0÷40 BAR	/5.F2
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	1	Pz	HUBA		/5.F2
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	1	Pz	CASTEL		/5.F2
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	1	Pz	CASTEL		/5.F2
83RAC1	HEAT TRACE	1WRESRAY0010	10VPL4-CT	11	MT	RAYCHEM	10W/ft - 480V	/6.D3
83RAC1	POWER LIMITATION HEATING CABLE	1WRESRAY0020	20VPL4-CT	30	MT	RAYCHEM	20W/ft - 480V	/4.C6
90EB1	RESISTANCE	1QRESSTG1000	03092.1-12	1	Pz	STEGO	200 W	/4.A3
90EB2	RESISTANCE	1QRESSTG1000	03092.1-12	1	Pz	STEGO	200 W	/4.B3
91EB1	RESISTANCE	1QRESSTG1000	03092.1-12	1	Pz	STEGO	200 W	/5.A3
91EB2	RESISTANCE	1QRESSTG1000	03092.1-12	1	Pz	STEGO	200 W	/5.B3
97BFB1	FLOW SWITCH	1AFLUIFMSI50000010	SI5000	1	PZ	IFM	SI5000	/6.D7
99BPD1	PRESSOSTAT	1FPREDAN0031	KP 6B (060-519166)	1	Pz	DANFOSS		/4.A3
	COVERING	- 1FCOPDAN0010	060-033066	1	Pz	DANFOSS		/4.A3
99BPD2	PRESSOSTAT	1FPREDAN0031	KP 6B (060-519166)	1	Pz	DANFOSS		/4.B3
	COVERING	- 1FCOPDAN0010	060-033066	1	Pz	DANFOSS		/4.B3
100BPD1	PRESSOSTAT	1FPREDAN0031	KP 6B (060-519166)	1	Pz	DANFOSS		/5.A3
	COVERING	- 1FCOPDAN0010	060-033066	1	Pz	DANFOSS		/5.A3
100BPD2	PRESSOSTAT	1FPREDAN0031	KP 6B (060-519166)	1	Pz	DANFOSS		/5.B3
	COVERING	- 1FCOPDAN0010	060-033066	1	Pz	DANFOSS		/5.B3
108BTA1	TEMPERATURE SENSOR	1WSONMEG0020	AX3776/15000#	1	Pz	Megatron Sensors S.r.l.	PT1000B	/6.D7
108BTA2	TEMPERATURE SENSOR	1WSONMEG0020	AX3776/15000#	1	Pz	Megatron Sensors S.r.l.	PT1000B	/6.D2

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: PART LIST

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

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Suffix	ARTICLE DESCRIPTION	Item code	Alternative code	Quantity	U.M.	Constructor		Position
110BPA1	PRESSURE TRANSMITTER	1FTRAHUB0060010	520.917S03300N	1	Pz	HUBA	0÷6 Bar	/6.D7
110BPA2	PRESSURE TRANSMITTER	1FTRAHUB0060010	520.917S03300N	1	Pz	HUBA	0÷6 Bar	/6.D2
115BTA3	TEMPERATURE SENSOR	1WSONMEG0020	AX3776/15000#	1	Pz	Megatron Sensors S.r.l.	PT1000B	/4.A1
118BTA1	TEMPERATURE SENSOR	1WSONMEG0030	AP3791/10000R1	2	Pz	Megatron Sensors S.r.l.	PT1000B	/4.C1
120BPA1	PRESSURE TRANSMITTER	HUB40_FRIGO_RAME	1FTRAHUB0400010	2	Pz	HUBA	0÷40 BAR	/4.C2
	PRESSURE TRANSMITTER	- 1FTRAHUB0400010	520.933S03300N	2	Pz	HUBA		/4.C2
	PRESSURE TAP	- 2FPRPCAS0010	8350/22	2	Pz	CASTEL		/4.C2
	PRESSURE TAP	- 2FPRPCAS0020	8351/2	2	Pz	CASTEL		/4.C2
121RNA1	BELIMO ACTUATOR PRCA-BAC-S2-T	1ASEMBELPRCABAC0010	PRCA-BAC-S2-T	1	Pz	BELIMO		/4.A2
121RNA2	BELIMO ACTUATOR PRCA-BAC-S2-T	1ASEMBELPRCABAC0010	PRCA-BAC-S2-T	1	Pz	BELIMO		/5.A2
123RNA1	BELIMO ACTUATOR PRCA-BAC-S2-T	1ASEMBELPRCABAC0010	PRCA-BAC-S2-T	1	Pz	BELIMO		/4.B2
123RNA2	BELIMO ACTUATOR PRCA-BAC-S2-T	1ASEMBELPRCABAC0010	PRCA-BAC-S2-T	1	Pz	BELIMO		/5.B2
127QMA1	THERMOSTATIC VALVE	1FVALDANETSOF400L010	034G3659	1	Pz	DANFOSS	ETS 400L	/4.D5
127QMA2	THERMOSTATIC VALVE	1FVALDANETSOF400L010	034G3659	1	Pz	DANFOSS	ETS 400L	/4.D5
129BLB1	LEVEL PROBE	1FSONACAL010	E952836	1	Pz	SPORLAN		/4.C5
130QMA1	THERMOSTATIC VALVE	1FVALDANETSOF400L010	034G3659	1	Pz	DANFOSS	ETS 400L	/5.D5
130QMA2	THERMOSTATIC VALVE	1FVALDANETSOF400L010	034G3659	1	Pz	DANFOSS	ETS 400L	/5.D5
132BLB1	LEVEL PROBE	1FSONACAL010	E952836	1	Pz	SPORLAN		/5.C5
139QMA1	THERMOSTATIC VALVE	1FVALDANPTS275454	PTS 27 54 x 54	1	Pz	DANFOSS	PTS 27 54 x 54	/4.B4
139QMA2	THERMOSTATIC VALVE	1FVALDANPTS275454	PTS 27 54 x 54	1	Pz	DANFOSS	PTS 27 54 x 54	/4.A4
142QMA1	THERMOSTATIC VALVE	1FVALDANPTS275454	PTS 27 54 x 54	1	Pz	DANFOSS	PTS 27 54 x 54	/5.B4
142QMA2	THERMOSTATIC VALVE	1FVALDANPTS275454	PTS 27 54 x 54	1	Pz	DANFOSS	PTS 27 54 x 54	/5.A4
145QMA1	THERMOSTATIC VALVE	1FVALDANETSC05001	034G7702	1	Pz	DANFOSS	ETS Colibrì 50C	/4.D2
145QMA2	THERMOSTATIC VALVE	1FVALDANETSC05001	034G7702	1	Pz	DANFOSS	ETS Colibrì 50C	/4.D2
148QMA1	THERMOSTATIC VALVE	1FVALDANETSC05001	034G7702	1	Pz	DANFOSS	ETS Colibrì 50C	/5.D2
148QMA2	THERMOSTATIC VALVE	1FVALDANETSC05001	034G7702	1	Pz	DANFOSS	ETS Colibrì 50C	/5.D2

REV.	DATA	MODIFICATION	SIGNATURE

TYPE: TMA 4D2100B C28 13 1W

GEOCLIMA Smart HVAC Solutions

TITLE: PART LIST

WIRING DIAGRAM Nø: MUC26001__SF

ORDER: 396777 Stream Bufa and Myra Chillers

DRAWER: G. Accardo

SIGNATURE:

N. REV. SFP00
N. ARCH. MUC26001__SF

DATA: 09.02.2026

SCALA:

PAGE: 12

NEXT:

TOT PAGE: 12

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Smart HVAC Solutions

TYPE	Air Cooled Chiller	OPERATING VOLTAGE 460v	STANDARD UL 60335-2-40 / NEMA CODE TYPE 4
MODEL	TMA 4D2100B C28 13 1W	CONTROLS VOLTAGE 24v 120v	
PLANT	MUC26001_Submittal	SIGNALS VOLTAGE	
ORDER N.	396777	ORIGIN	GEOCLIMA INTERNATIONAL S.r.l. Unipersonale
REPL. BY:		REPL. ON:	

REV.	DESC.	DATE	SIGN.

FRONT PAGE

	DATE	SIGNATURE
DRAW.	19/02/2026	S.Z.
VERIF.		A.D.
APPR.		

SHEET 1

S.C.

FREQUENCY
f = 60 Hz

DIMENSIONS OF THE ELECTRICAL PANEL
2000 b. x 2000 h. x 500 d.

POWER AND CURRENT

Main Enclosure, 460v/3ph/60hz) MCA:	908 A
Main Enclosure, 460v/3ph/60hz) MOP:	1000 A
Pump Feed (Pump Enclosure, 460v/3ph/60hz) MCA:	82 A
Pump Feed (Pump Enclosure, 460v/3ph/60hz) MOP:	125 A
Convenience Outlet Feed (Pump Enclosure, 120v/1ph/60hz) MCA:	19 A
Convenience Outlet Feed (Pump Enclosure, 120v/1ph/60hz) MOP:	20 A
Heat Trace Enclosure (460v/3ph/60hz) MCA:	9 A
Heat Trace Enclosure (460v/3ph/60hz) MOP:	15 A

AC MAIN PHASES COLORS

L1 - U - BLACK / BK
L2 - V - BLACK / BK
L3 - W - BLACK / BK

AC AUXILIARY PHASES COLORS

L - RED / RD
N - GREY / GY

DC AUXILIARY PHASES COLORS

L+ - BLUE / BU
L- - WHITE / WH

PE COLOR

PE - GREEN/YELLOW / GN/YE

MAIN PANEL DISCONNECT SWITCH

3VA5712-6EC31-0AA0
Cross section of the cable size for main switch for each phase:
stranded cable 4 x 1/0…500 kcmil
Wire tightening torque: 42.4 Nm / 375 lb in

PE terminals
WAGO 285-1187
Tightening torque 30 Nm
4 x stranded cable 1/0 AWG .. 250 kcmil
Power Cage Clamp Connection
T-Wrench: 8 mm

L1 L1 L1 L1 L2 L2 L2 L2 L3 L3 L3 L3 PE PE PE PE

PUMP PANEL DISCONNECT SWITCH

3VA5110-6EC31-0AA0
Cross section of the cable size for main switch:
AWG 8 ... 3/0
Wire tightening torque:
8-6 AWG: 55 lb-in - 4-1/0 AWG: 70 lb-in - 2/0-3/0 AWG: 100 lb-in

PE terminals
PTPOWER 35-PE - 3212066
AWG 12 … 2
PowerTurn connection

L1 L2 L3 PE

CONVENIENCE OUTLET (PUMP ENCLOSURE)

Cross section of the cable size for phase: 12 AWG
Max cross section: 8 AWG

PE terminal
PTPOWER 6-PE - 3211822
AWG 20 … 8
Push-in connection

L N PE

HEAT TRACE PANEL DISCONNECT SWITCH

3VA5195-6EC31-0AA0
Cross section of the cable size for main switch:
AWG 14 ... 8
Wire tightening torque:
14 AWG: 20 lb-in - 12-10 AWG: 35 lb-in - 8 AWG: 55 lb-in

PE terminals
PTPOWER 6-PE - 3211822
AWG 20 … 8
Push-in connection

L1 L2 L3 PE

				DATE 19/02/2026	396777	GEOCLIMA INTERNATIONAL S.r.l. Unipersonale Ronchi dei Legionari - GO 34077 - Via dell'Industria, 12	PLANT SUPPLIES BLACK BOX	TMA 4D2100B C28 13 1W
				DRAWER S.Z.				
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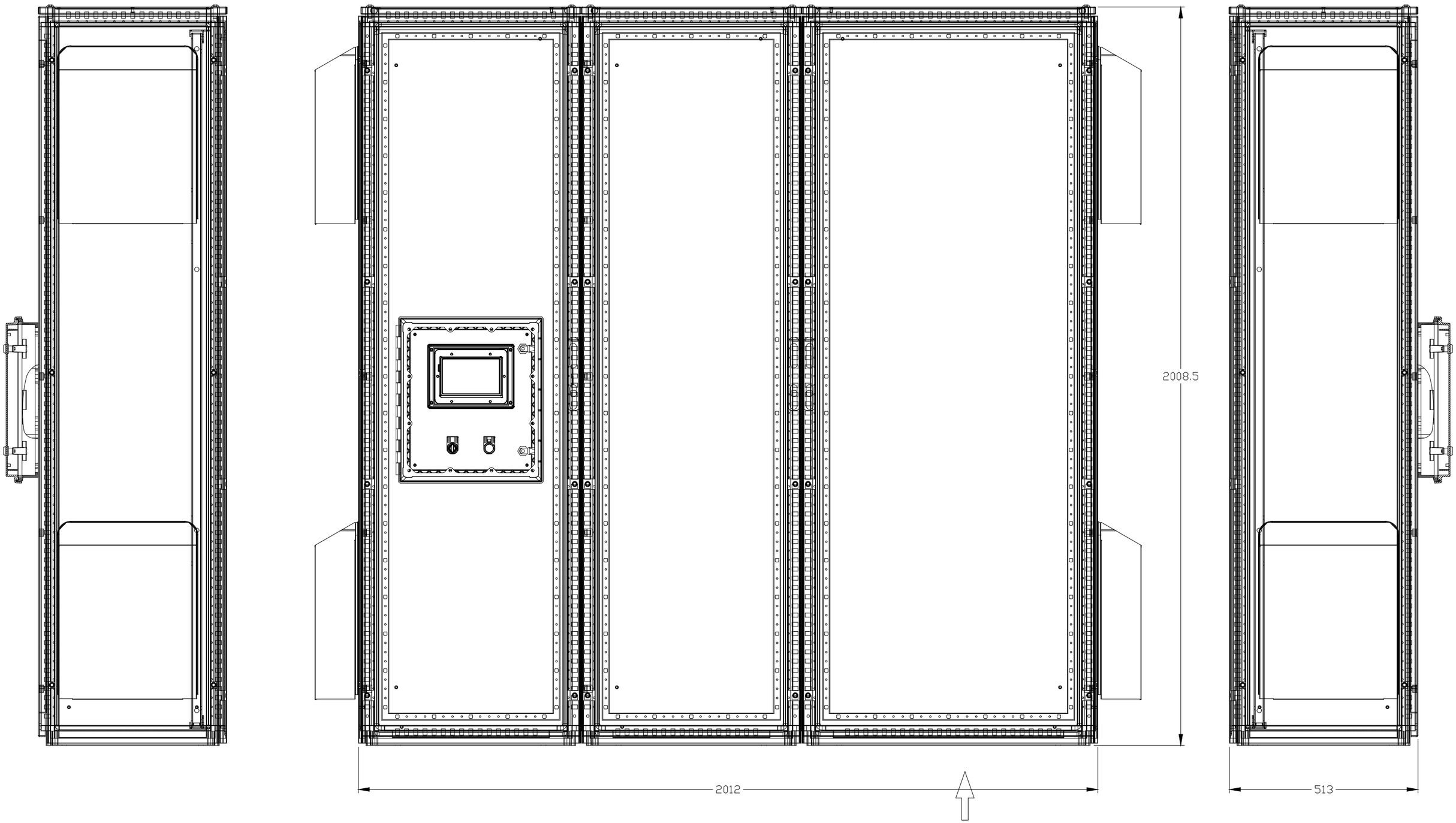
REV.	REV. DESCRIPTION	DATE	SIGN.	APPR.				NEXT



MAIN POWER SUPPLY
460v/3ph/60hz

				DATE 19/02/2026	396777	GEOCLIMA INTERNATIONAL S.r.l. Unipersonale Ronchi dei Legionari - GO 34077 - Via dell'Industria, 12	MAIN ENCLOSURE	TMA 4D2100B C28 13 1W	
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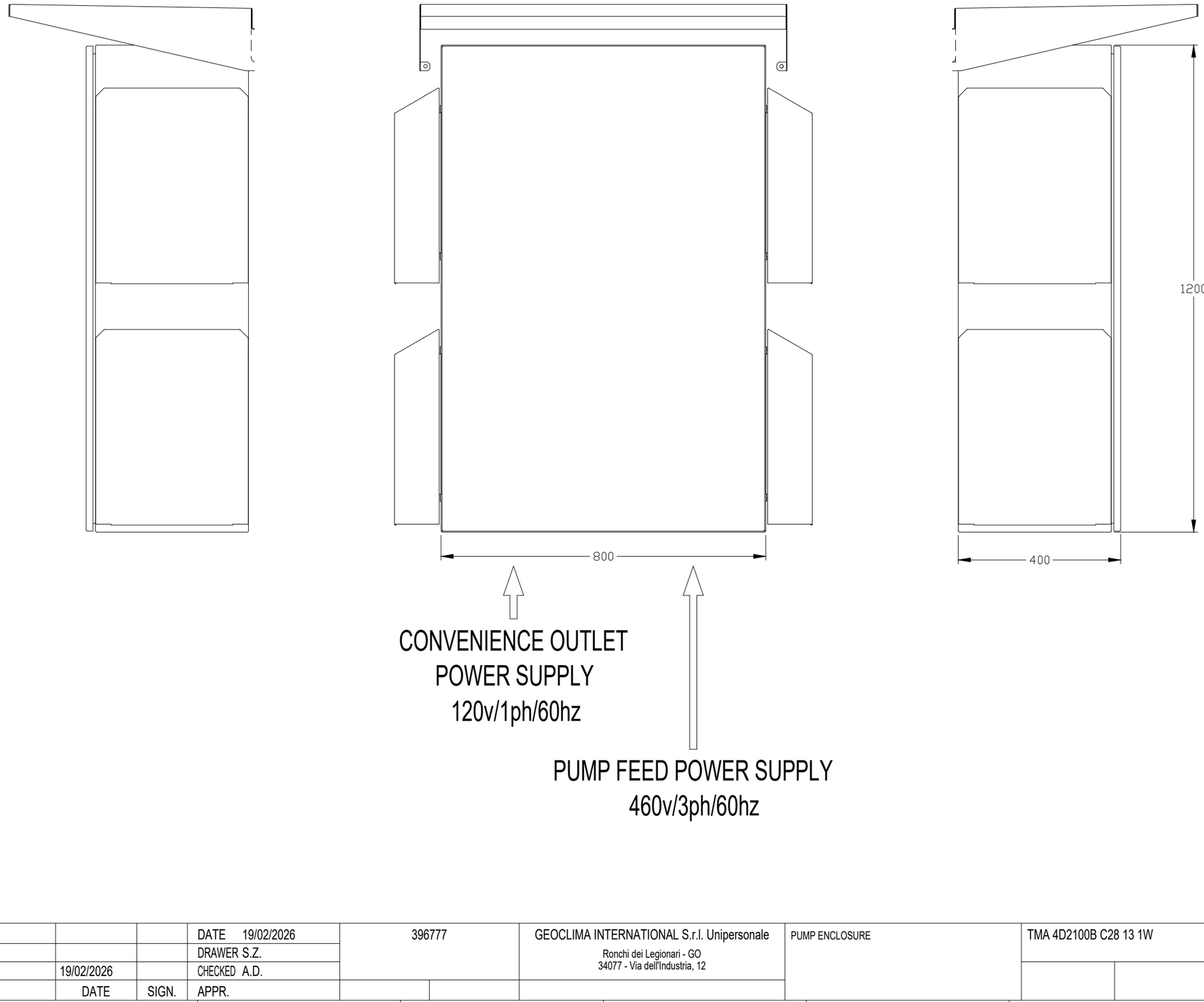
REV.	REV. DESCRIPTION	DATE	SIGN.	APPR.					NEXT



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				DRAWER S.Z.						
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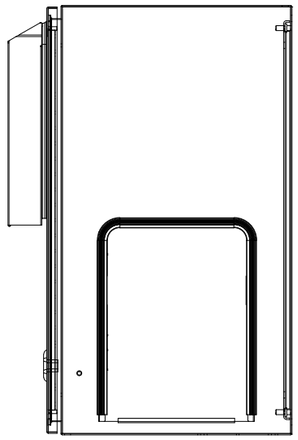
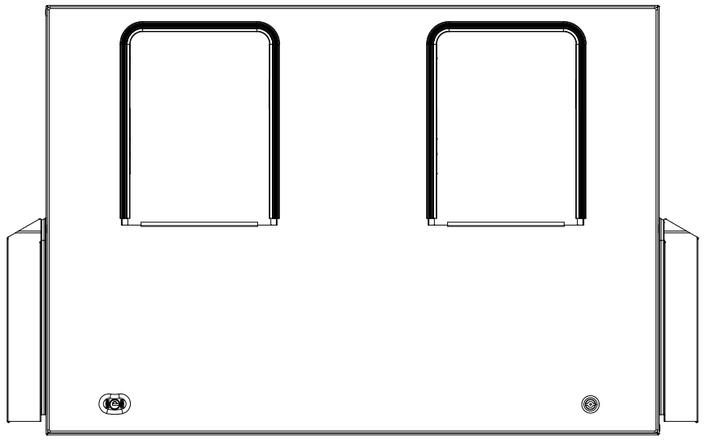
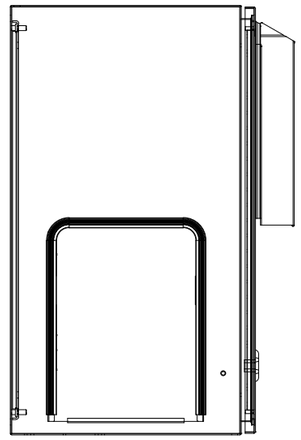
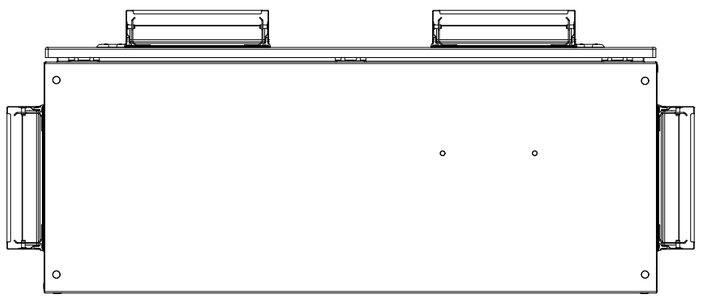
REV.	REV. DESCRIPTION	DATE	SIGN.	APPR.					NEXT	









HEAT TRACE POWER SUPPLY

				DATE 19/02/2026	396777	GEOCLIMA INTERNATIONAL S.r.l. Unipersonale Ronchi dei Legionari - GO 34077 - Via dell'Industria, 12	HEAT TRACE ENCLOSURE	TMA 4D2100B C28 13 1W	
				DRAWER S.Z.					
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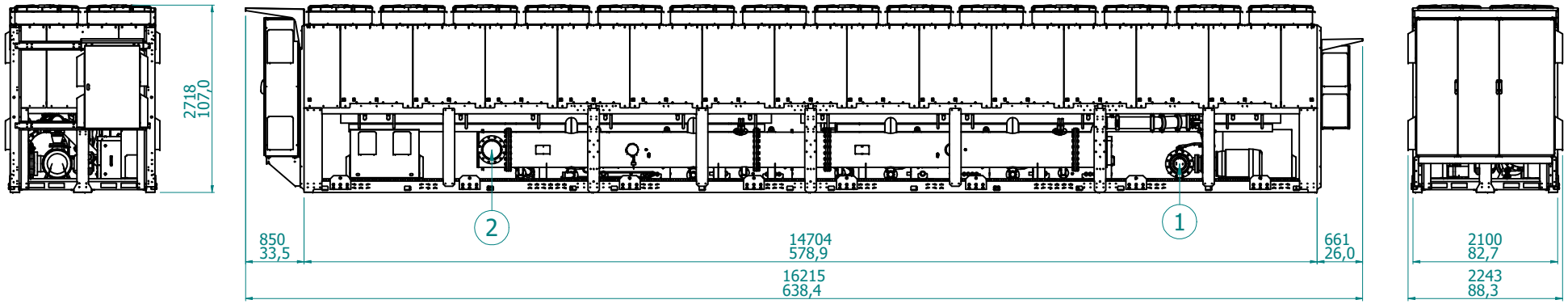
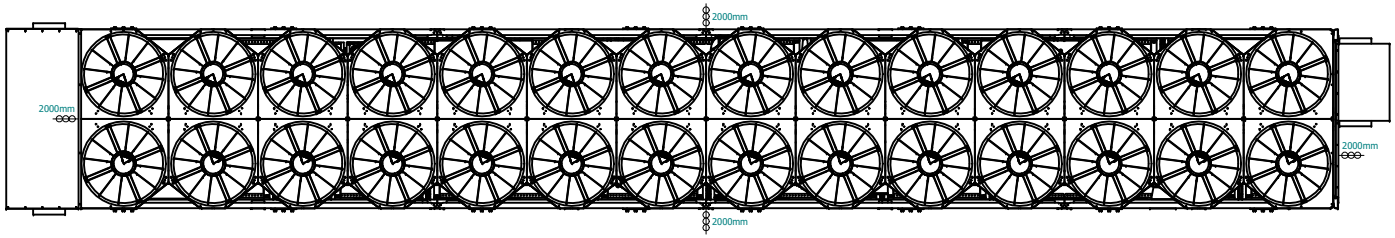
PRELIMINARY





CONNESSIONI ACQUA WATER CONNECTIONS WASSERANSCHLÜSSEN	
Entrata acqua (1) Water inlet Wassereintritt	Uscita acqua (2) Water outlet Wasseraustritt
FL. DN250 ASME150	FL. DN250 ASME150

AZIENDA CERTIFICATA ISO 9001:2015 (EA 18)
Mod. 092_01 del 01/07/2024
GEOCLIMA INTERNATIONAL SRL Unipersonale
Via dell' Industria, 12
34077-Ronchi dei Legionari (GO) - Italy
TEL. +39 (0)481 774411 / FAX +39 (0)481 774455
e-mail: info@geoclima.com / web: www.geoclima.com

CODE	MUC26001__DIP00
MODEL	TMA 4D2100B C28 13 1W

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.

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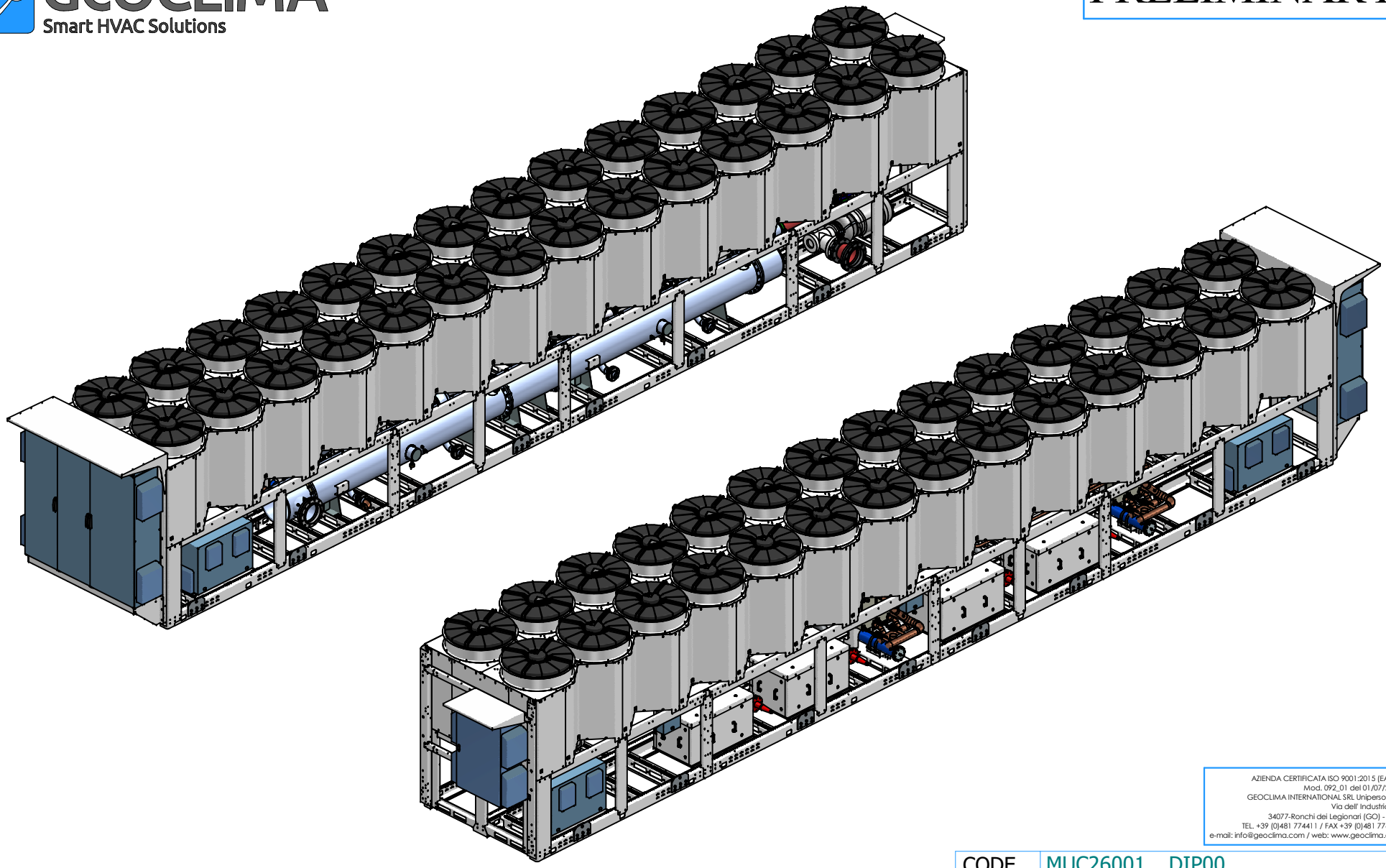

AZIENDA CERTIFICATA ISO 9001:2015 (EA 18)
Mod. 092_01 del 01/07/2024
GEOCLIMA INTERNATIONAL SRL Unipersonale
Via dell' Industria, 12
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TEL. +39 (0)481 774411 / FAX +39 (0)481 774455
e-mail: info@geoclima.com / web: www.geoclima.com

CODE	MUC26001__DIP00
MODEL	TMA 4D2100B C28 13 1W

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.

C:\Users\JTRONANZI\OneDrive - munters.com\Desktop\MUC26001\MUC26001__DIP00.dft

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1. CHILLER AND DRY COOLER STARTING SEQUENCE

Below is the start sequence of the Geoclima chiller:

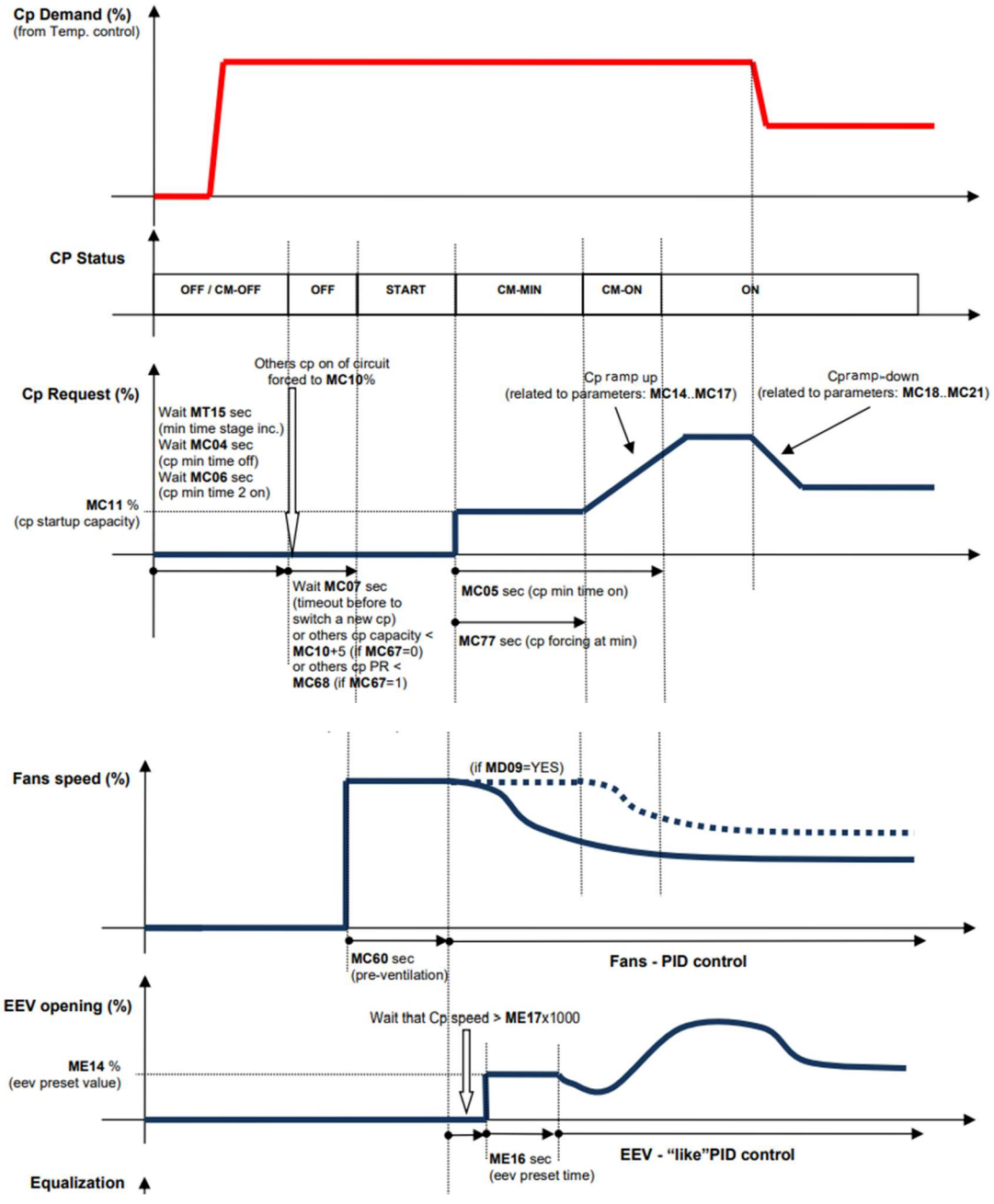

Figure 1 – Standard Timing Startup Sequence

The chiller or dry cooler to produce cooling capacity must be Enabled and in Status ON;

- The first available status is ON, stand-by due to the absence of thermal load falls into the Status ON condition

- the second available state is LOCK: REMOTE OFF (chiller / dry cooler disabled)

- the third state is OFF (chiller / dry cooler does not start when the thermal load increases)

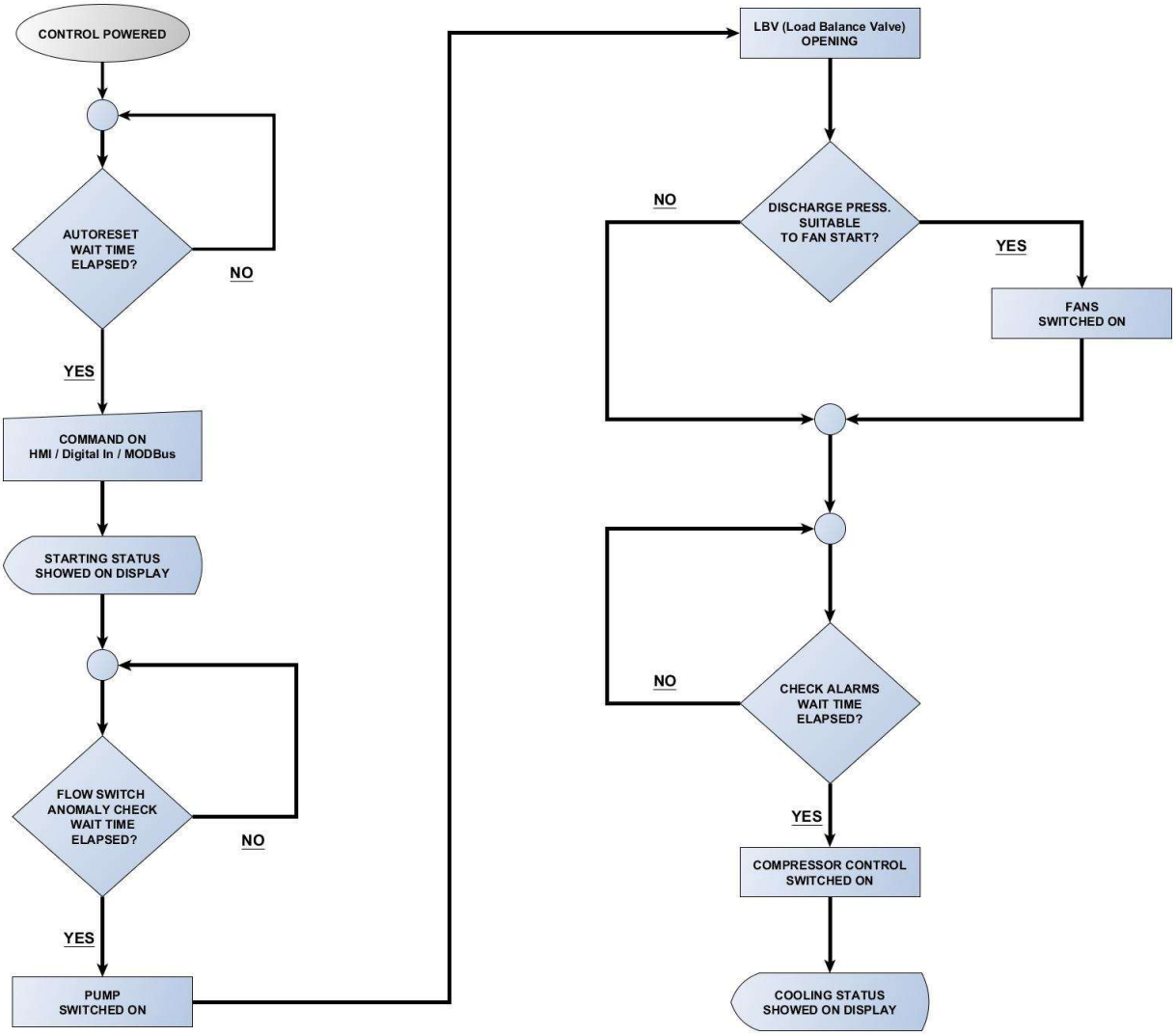

Figure 2 Standard Chiller Startup Sequence Flow Chart

When the machine is powered for the first time, following re-powering of the machine after a blackout (if the fast restart function is disabled or not present, or if the controller has switched off due to the blackout lasting too long), the controller starts a counter which prevents the machine from starting immediate operation of the chiller, in order to verify the presence of alarms or potentially harmful conditions.

Once the counter has run out, it is possible to give the ON command, via HMI or Modbus or Dry Contact; at this point the controller activates the PID system for calculating the Unit Demand (ref: "Capacity Control Loop" flowchart).

2. CHILLER CAPACITY CONTROL

When the thermal load increases -> the Returning Water Temperature increases, the controller (if STATUS ON) calculates the Unit Demand based on the RWT- Setpoint_LWT difference and, if it is higher than the minimum demand for the start of at least one compressor, it starts the drive startup sequence.

Action taken during the chiller capacity control:

- the absence of alarms from the flow switch is verified
- the shut-off valve on the user fluid side is opened (Water Closing Valve WCV, if present)
- the pump(s) is started if present
- the current compression ratio or the current Discharge Pressure is checked and, if necessary, the fans for the pre-ventilation procedure are started.
- a safety countdown is expected
- the compressor(s) are started, the number depending on the calculated Unit Demand and the set control logic
- the staging valve is opened 100%
- the “CM-MIN” status is displayed
- the compressor increases the speed up to the set Min. Speed
- the staging valve is closed following a ramp (“CM-ON” status)
- Compressor status “ON

The start sequence of the n-esimo compressor is the same as the first compressor to start.

Once the compressors are "ON", the capacity is modulated by increasing or decreasing the Demand transmitted to the compressors based on the Unit Demand + Control logic set based on the calculation of the PID function, in reference to the RWT-setpoint_LWT difference.

-

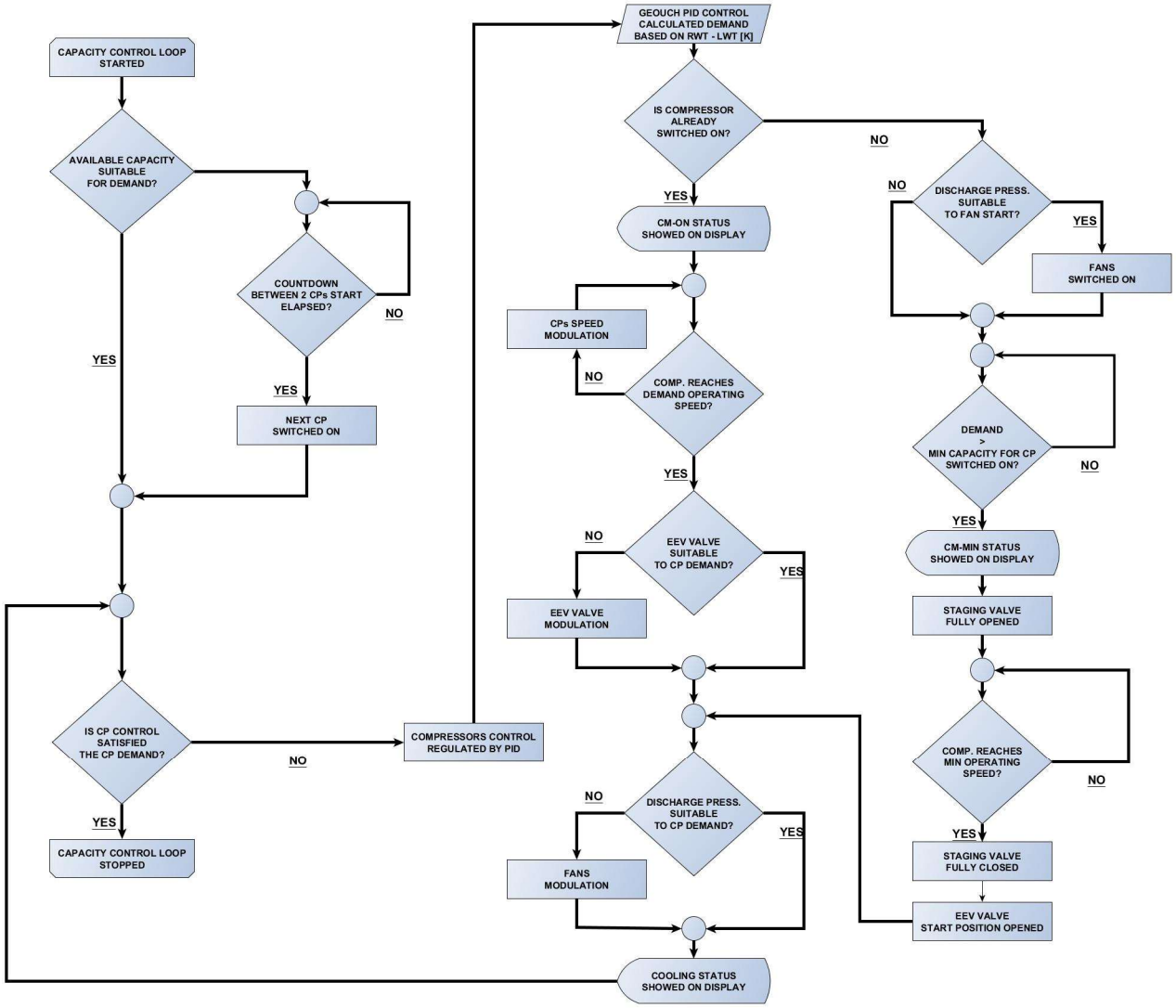

Figure 3 Chiller Capacity Control loop flow chart

3. CHILLER STOPPING SEQUENCE

Below is the stop sequence of the Geoclima chiller

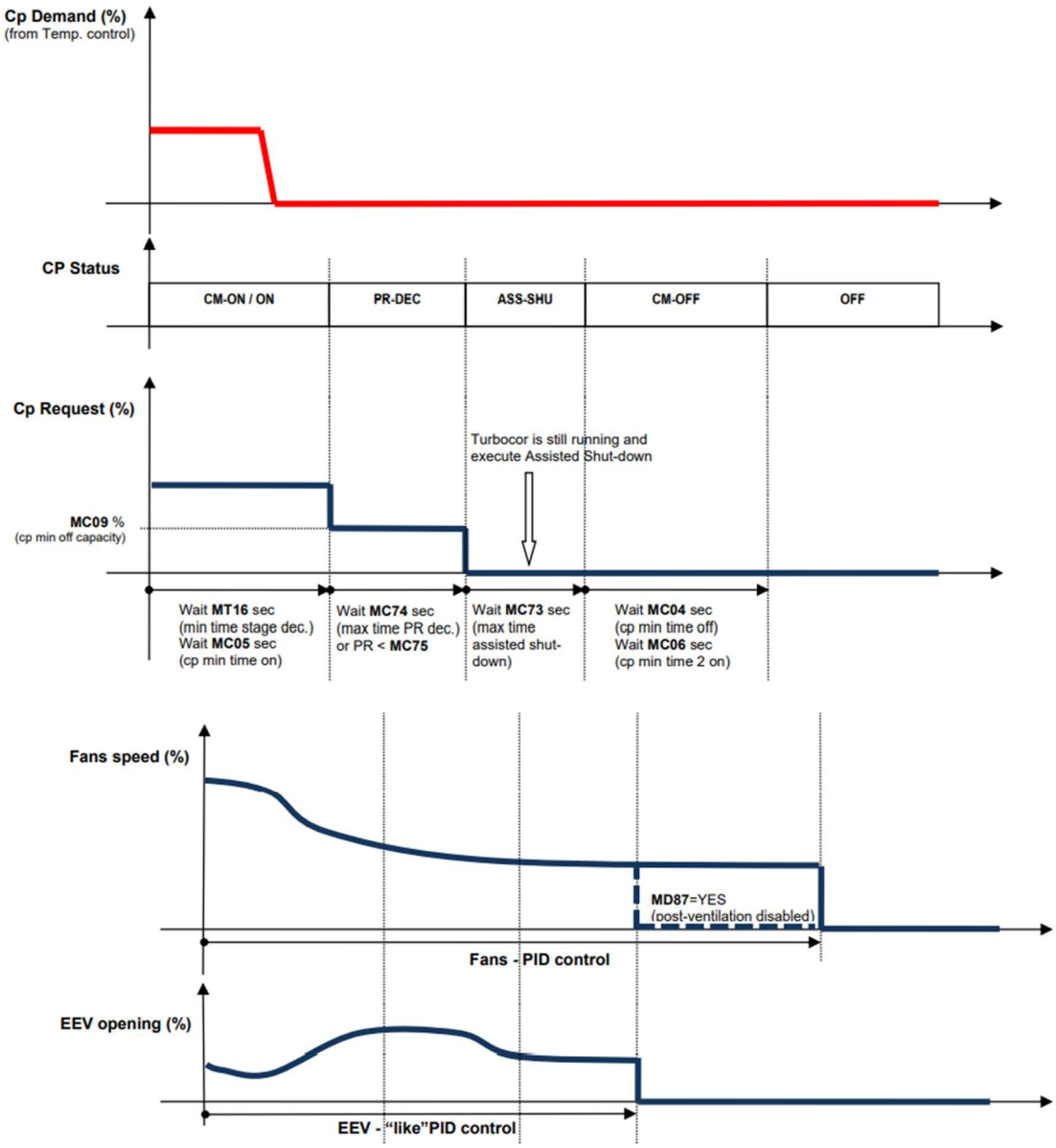

Figure 4 Timing stopping sequence

The Stop sequence includes:

- the reduction of the capacity of the compressors to minimum

- opening the hot gas bypass/staging valve in order to reduce the compression ratio

- stopping the compressors according to a ramp defined by the control

- the stopping of the fans following the final reduction of the pressure in the refrigerant circuit

- stopping the pumps

- visualization of Status OFF on the display

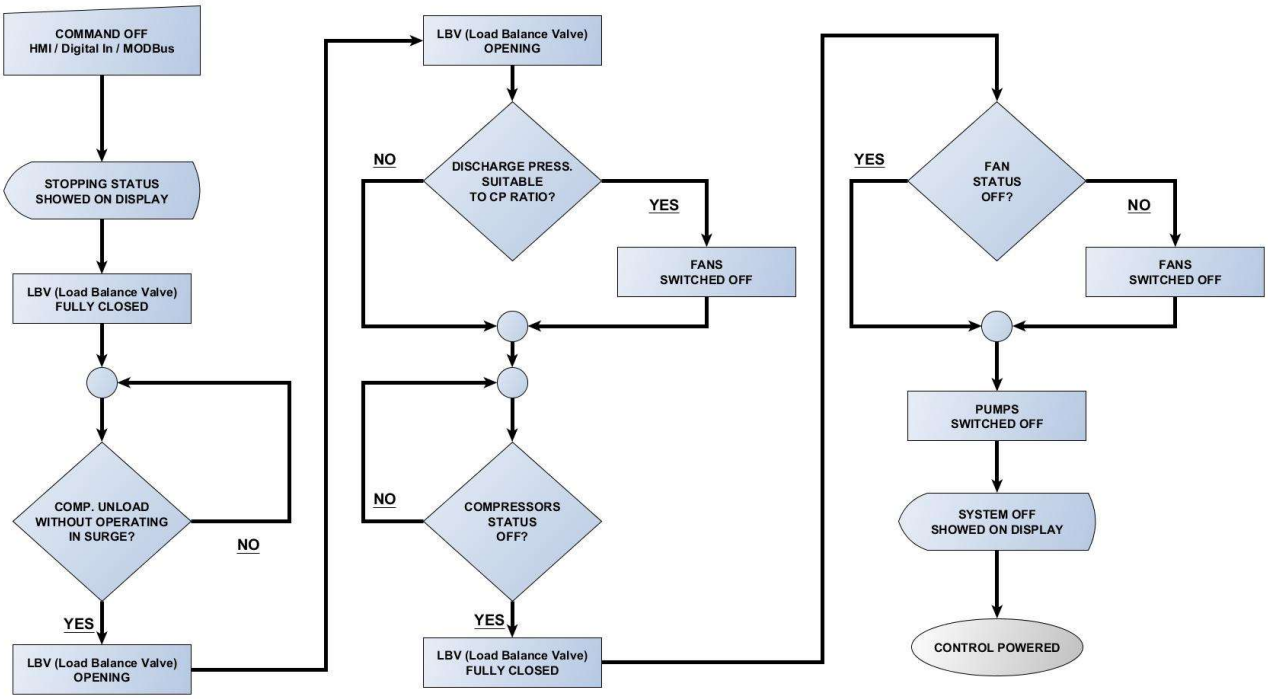

Figure 5 Chiller Stopping sequence flow chart

4. CHILLER ALARMS

The Controller manages two types of signals/notifications:

- Warning: indicates the presence of an anomalous but not dangerous behaviour/event

- Alarm: indicates the presence of a potentially harmful event/condition for the compressor/circuit/chiller

Both Warnings and Alarms are associated (by default, not modifiable) to the single COMPRESSOR, the single CIRCUIT or the entire CHILLER; in the case of Alarms, the element that is stopped until reset (automatic or manual) is the single compressor, circuit (therefore all the compressors belonging to the circuit) or the entire chiller (therefore all)

Both Warnings and Alarms can have Automatic Reset or not, the automatic reset usually occurs 30 seconds after the end of the condition that caused the W. or A.

If Manual Reset is necessary, the command can be given from the screen by pressing the ESC key (CO3 display) or with Reset Alarms (opera display), or via Modbus.

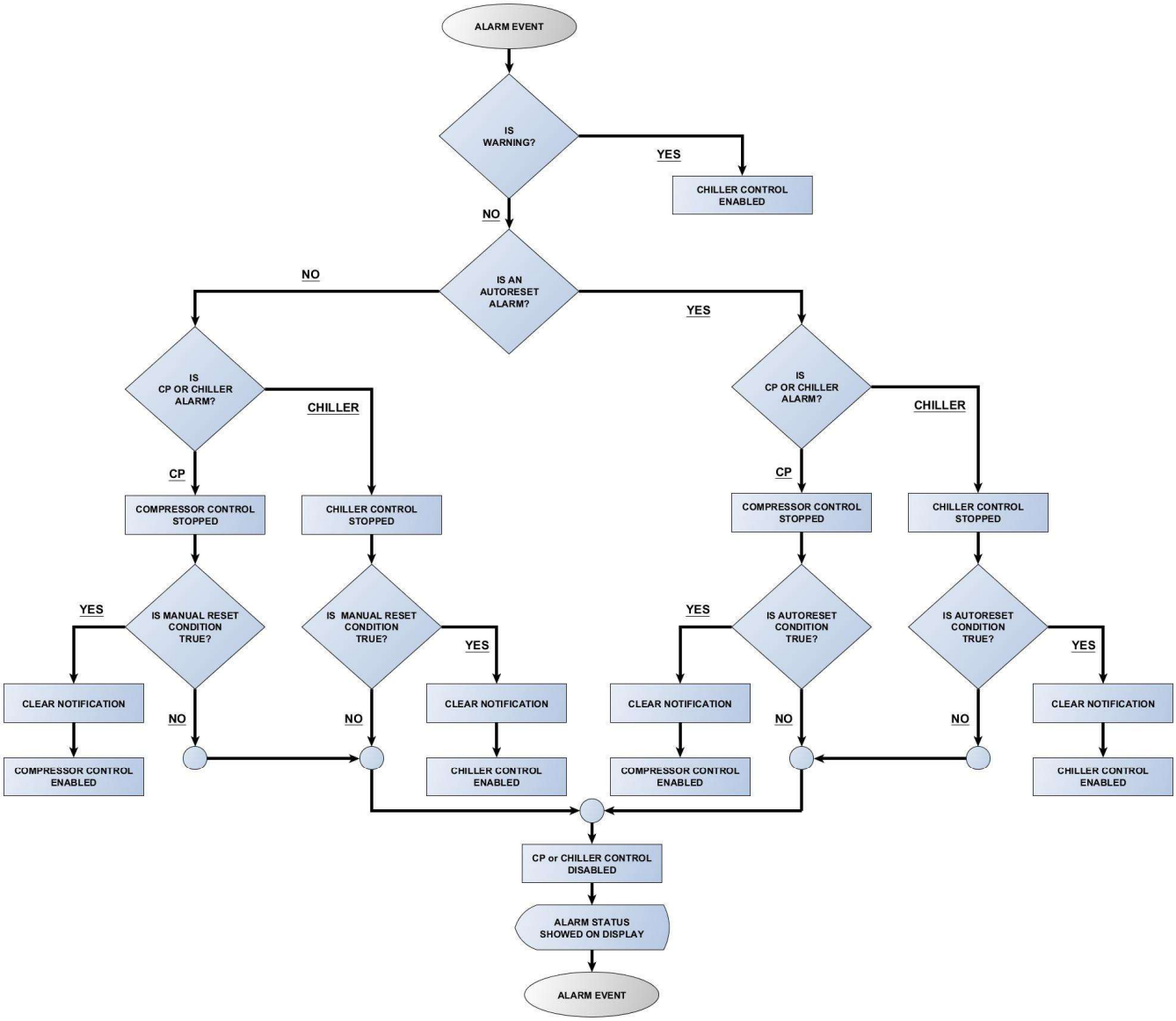

Figura 6 – Chiller Alarm event flow chart

FACT SHEET

FAST START

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Index

1. Concept	3
2. Details	
2.1 Hardware requirements	3
2.2 Principle of operation	3
2.3 Performance summary	4
3. Turbocor chillers	4
4. Other compressor technologies	5

1. Concept

All Geoclima chillers can be configured with “Unit Fast Start” function enabled. This function allows quick unit restart after power failure provided control system remains powered during power outage.

2. Details

2.1 Hardware requirements

Unit must be ordered with “Fast Start” option which provides phase/mains monitoring relay to detect stable presence of main power supply.

Control system must be separately powered from external continuous supply or a backup supply must be selected for onboard installation: Ultracap module or classic lead-acid rechargeable battery UPS are available as options.

Maximum power loss duration is related to backup supply selection: Ultracap modules are available for 10 minutes (please note that Ultracap module count is limited by electrical panel size and also by the absorption of the auxiliary circuit which is powered) while Lead-Acid battery UPS are available with duration up to 1h30m.

2.2 Principle of operation

Turbocor compressors, if installed, are configured for Fast Start functionality.

Controller detects loss of power thru the monitoring relay and triggers “Unit Fast Start” Alarm. At power restore, it initiates a specific sequence:

- Unit is “locked” and all alarms are reset
- Unit is restarted following standard procedure (water valves, pumps, etc) and cooling demand is calculated depending on the duration of power outage.
  - » A: quick (configurable time). Unit will resume with same cooling demand that was present before power failure. Quick mode can be disabled, forcing
  - » B: short (configurable time and capacity). Unit will restart with fixed capacity

» C: long, t > 600s. Unit will restart using standard procedure (basic PID or ECC, early capacity control)

- If unit is equipped with Turbocor compressors, a specific control sequence is performed to achieve the quickest restart timing

- Transition to “special” demand to standard PID control is performed smoothly.

Note: ECC, early capacity control, is a load estimation based on the differential between LWT (leaving water temperature = chilled water outlet) setpoint and PWT (Plant Water temperature, plant supply temperature) compared to the nominal DeltaT of the unit.

2.3 Performance summary

Up to 20 fast-starts per hour are available with Turbocor compressors. If compressors are allowed to restart (> 25 seconds of power presence after blackout), it is recommended to run compressors for at least 1 minute before next cutting power again (eg: transfer back from genset to grid).

Up to 11 fast-start per hour are available with other kind of compressors without VSD/VFD (after 2 restarts, the controller will guarantee minimum time between 2 starts as per compressor manufacturer specification) while up to 12 fast-starts per hour are achievable with VSD/VFD.

3. Turbocor chillers

	Power outage time	
	Blackout (> 2 sec)	Brownout (< 2 sec)
Starts per hour	20	20
Chiller at >90% capacity time after power restoration (depending on spare capacity)	Approx. 180 s	Compressor “Ready” status + Fast Restart time

4. Other compressor technologies

BITZER SCREW	Power outage time	
	Step / Stepless	VSD / VFD
Starts per hour	4 Min. time ON: 5 minutes	12 Min. time ON: 5 minutes
Chiller at >90% capacity time after power restoration (depending on spare capacity)	Approx. 200 s	180s

FRASCOLD SCREW	Power outage time
Starts per hour	6 Min. time ON: 5 minutes
Chiller at >90% capacity time after power restoration (depending on spare capacity)	200s

RECIPROCATING	Power outage time
Starts per hour	6 Min. time ON: 5 minutes

SCROLL	Power outage time
Starts per hour	11 Min. time between starts: 5 minutes



For contacts and information, please visit

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Rev. 1 - 16/10/2024

What is it designed for?

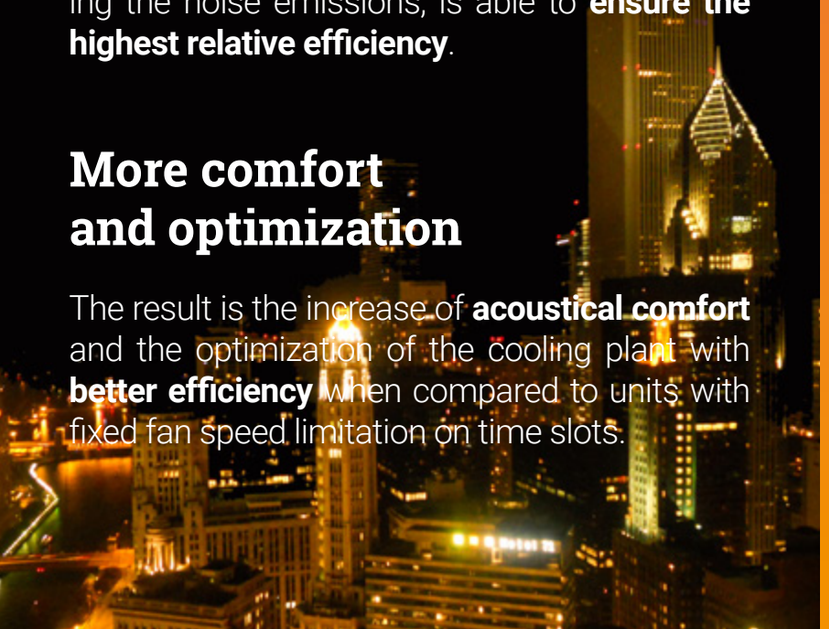
The system consists of a microphone and sound processing system mounted on the chiller or at a suitable remote location from the chiller (say, in the direction of residential buildings), and is linked and integrated into the chiller controls. The DNC is designed to be installed also on existing units and for any kind of application. Though it reduces the performance of the unit, the cooling capacity remains unchanged, ensuring constant operation and high reliability.

High efficiency

In conclusion, the DNC device, unlike all other traditional sound control devices, whilst reducing the noise emissions, is able to **ensure the highest relative efficiency**.

More comfort and optimization

The result is the increase of **acoustical comfort** and the optimization of the cooling plant with **better efficiency** when compared to units with fixed fan speed limitation on time slots.



Included in BUFA scope only



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GEOCLIMA
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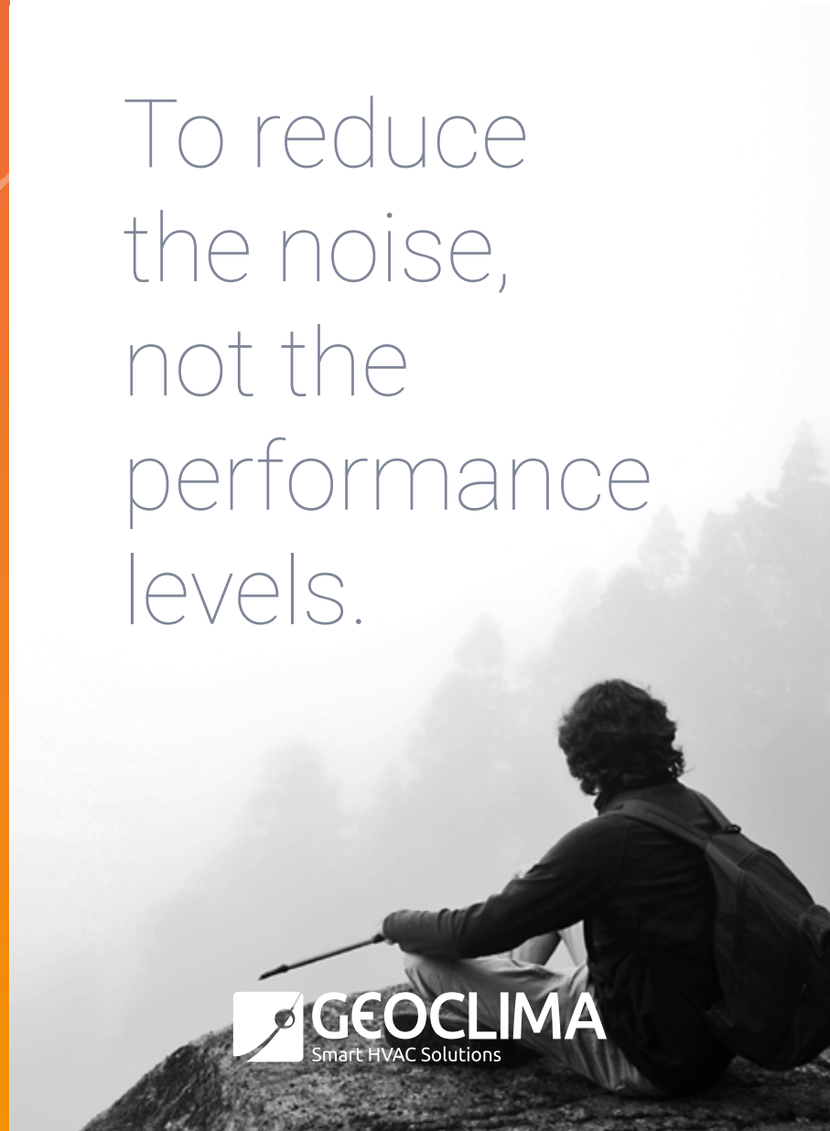
DYNAMIC® NOISE CONTROL

To reduce the noise, not the performance levels.



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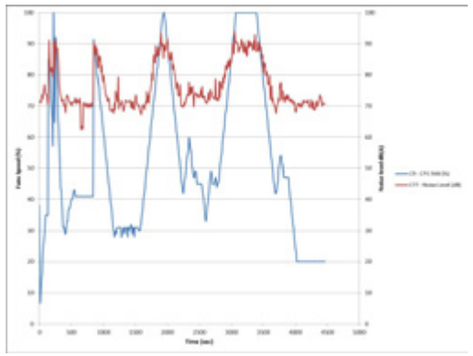
What is it?

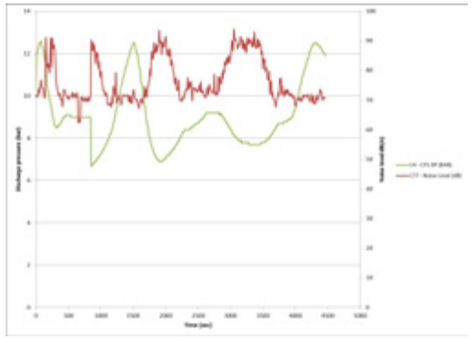
DNC (Dynamic Noise Control) is a device that enables the **measurement of the noise** produced by the chiller and that **adapts the performance** of the chiller in order to not exceed the noise constraints and to provide always a very quiet running.

The weak spot of the traditional sound control devices.

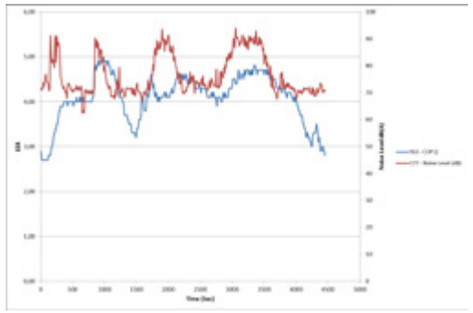
Traditional sound control devices are set up to reduce the noise levels and, as a result of this, the performance, in specific time slots. The weak spot of these systems is represented by the impossibility of adjusting the performance levels on the basis of the actual noise emissions generated by the chiller: as a consequence, there may be a reduction in performance even when it is not necessary.



Fans Speed reduction under DNC operation



Condenser Discharge pressure trend under DNC operation



EER trend under DNC operation

How the smart DNC works.

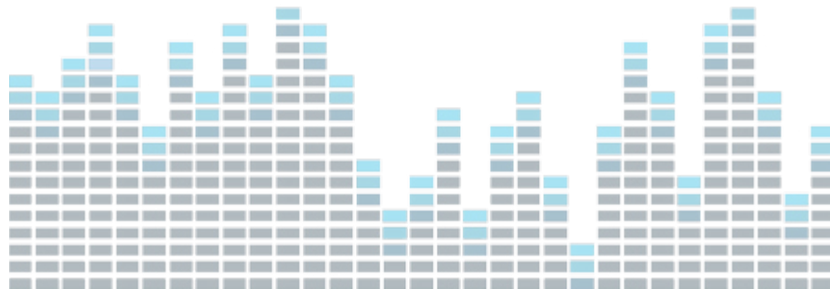
The DNC is designed to avoid this problem: it is designed to be “smart”.

The system constantly measures the noise produced by the chiller and is able to “adapt” the chiller performance in order to not exceed the noise limits set for different time slots.

The main difference between DNC and other systems consists in the fact that **with the Dynamic Noise Control what must be set are only the noise limits, and not the performance levels**: it is the DNC that regulates the fan speed, reducing the performance in order to fall within the highest permissible noise level.

The DNC is also able to **identify the noise source** and “understand” if it is generated by the chiller or by any external source.

This is a very important aspect that helps to ensure precision and reliability to the entire plant.



SPECIFICATION SECTION 23XXXX

Munters-Geoclima Mag Bearing Air Cooled Chiller PART-1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the contract.

1.02 DESCRIPTION OF WORK

A. Furnish and install where indicated on the plans and schedules factory assembled, Data Center air cooled chillers, including the following:

1. Air Cooled Chiller
2. Complete control system, factory installed, wired, programmed, and functionally tested prior to shipping.

1.03 QUALITY ASSURANCE

A. Wiring internal to the unit shall be wired to a numbered terminal strip for simplified identification and ease of trouble shooting. Units shall be ETL listed and labeled, classified in accordance with UL 60335-2-40 / CSA C22.2#60335-2-40.

B. The manufacturer must have a quality management system in place, equal to the quality assurance standard ISO 9001-2000, for the design, manufacture, and service of data center cooling systems.

C. To ensure manufacturer credibility, the manufacturer must have a net worth greater than ten times the value of the equipment being bid. The manufacturer must also be able to demonstrate a minimum of ten years prior experience manufacturing data-center heat rejection systems and a minimum of 500 MW of equipment installed.

1.04 WARRANTY

A. Standard warranty – manufacturer shall provide parts only warranty for a period of 12 months (12 months from factory documented start-up or 15 months from date of original shipment, whichever occurs first).

B. Optional Extended warranty – Manufacturer shall provide parts & labor warranty for a period of 24 months (24 months from factory documented start-up or 27 months from date of original shipment, whichever occurs first).

Above warranty does not cover consumable items such as fuses and filters.

1.05 FACTORY TESTING

A. Standard Factory Test: Manufacturer shall include factory functional testing (also referred to as "Run-Test") on all equipment prior to shipment. This testing is part of the overall Munters QA/QC program and includes the following:

1. Each air cooled chiller shall include functional run test including water flow through the evaporator necessary to run test each refrigerant circuit (individually)
2. Functional validation of all mechanical components (fans, valves and compressors)
3. Controls I/O validation of all factory provided internal controls components (transmitters, switches, actuators, power transfer devices, and digital outputs to mechanical devices)
4. Internal network communication.

1.06 SERVICES

A. Required Field Service:

1. Unit Start-up: Manufacturer shall provide start-up services, with factory employed service technicians, for each unit on the project. Includes 16 site tech hours per system.
2. Commissioning Assistance: Manufacturer shall provide commissioning assistance with factory employed service technicians. Includes 8 site tech hours per system. Additional days of commissioning assistance may be purchased on a per diem basis.
3. Owner Training: Manufacturer shall provide owner training with factory employed service technicians. Includes 8 tech hours on site.

B. Project Management Service:

1. Equipment manufacturer shall assign a dedicated Project Manager (PM) to the job to manage post release (after submittal approval) activities. Project Manager duties shall include oversight of production, testing, shipping, and installation of the equipment.
2. The Project Manager is responsible for communication to key stakeholders including contractors, engineers, commissioning agents, and owner's representatives. The PM serves as the primary point of contact during the entire “post release” project life cycle. The Project Manager oversees day-to-day activity including change order management, scope management, and schedule.
3. The PM shall specifically manage procurement and design coordination, production progress reports, scheduling factory testing, creating/coordinating test scripts, coordinating ship/delivery dates with contractors, scheduling start-up/commissioning support, IOM’s, etc.

1.07 SUBMITTALS

A. Manufacturer shall provide detailed product submittals that include all physical data, performance, electrical, control, installation, and other product data as required for proper engineering evaluation and contractor installation.

PART-2 PRODUCTS

2.01 MANUFACTURERS

A. Provide Data Center Cooling Units in accordance with this specification, plans, and the corresponding schedule.

B. The equipment shall be manufactured by Munters. Overall unit dimensions, weight, and arrangement of internal components shall be as shown on the bid documents. Air cooled chiller shall be internally wired and functionally tested.

C. Unit(s) shall be bid in accordance with the following direction:

1. Munters shall be the Base Bid.
2. Other Approved Manufactures: Other Manufacturers shall be listed as an alternate add or deduct to the Base Bid. Contractors must include the engineering costs associated with redesign, as required by deviations in dimensions, weight, electrical, thermal performance, etc. Alternate manufactures must be pre-approved by the consulting engineer, in writing, at least two (2) weeks prior to the bid date.
3. In order to gain approval, alternate manufacturer must:
   a. Provide factory drawings detailing the overall dimensions and weights of proposed equipment.
   b. Submit equipment performance detailing full and part load performance, dimensions and weights meet or exceed this specification. Provide a bin weather operational analysis that clearly demonstrates knowledge of the equipment and operation. Analysis shall detail the cost of operating fans and refrigeration at all bin conditions. Weather data shall be binned on Dry Bulb 5 degree bins for the purpose of the analysis. Manufacturer shall select the closest binned location to the installation site for analysis. For installation sited outside of the United States, best available weather data shall be used.

2.02 CENTRIFUGAL COMPRESSOR AIR COOLED CHILLER

A. Frame / Casing:

1. The base and structures of the package shall consist of formed powder coated steel frame with cross-members as required to maintain rigidity and frame stiffness. Lifting lugs designed to work with clevises shall be an integral part of the structural frame, and shall easily be removable after equipment rigging.

B. Condenser Fans:

1. The condenser fan(s) shall be direct-drive vertical exhaust axial type. Axial fans shall be attached to an EC external motor rotor with maintenance free ball bearings and permanent lubrication.
2. Fan shall have the following protective features: locked rotor protection, phase failure detection, soft start of the motor, under voltage detection, over temperature protection, and short circuit protection.

3. Complete assembly shall be statically and dynamically balanced in two planes according to DIN/ISO 1940 and to balancing quality of G 6.3.
4. Fan speed shall be controlled through internal Modbus wiring from the unit PLC controller.

C. Circular Condenser:

1. Air-cooled condensers shall be of aluminum microchannel type. Condenser coils to be arranged in a cylindrical configuration to increase the heat exchange surface and boost efficiency.
2. Microchannel coils shall include epoxy coating standard.
3. Condenser coils and fans shall be arranged such that one fan operates with one coil section so that the failure of a fan will not affect the CFM across any coil beyond that fan.
4. Removable heavy gauge inlet screens, powder coated same as chiller structure, shall be provided to minimize hail damage and keep larger debris from being pulled into the coils.

D. Compressors:
1. Compressors shall be of semi-hermetic centrifugal design and operate oil-free with two-stages of compression, magnetic bearings, suction and discharge valves as standard vanes and integrated variable frequency drive system.
2. Automatically positioned and controlled inlet guide vanes shall operate with compressor speed controls.
3. The compressor shall be capable of coming to a controlled stop in the event of a power failure. The unit shall be capable of initializing an automatic restart in the case of a power failure.
4. Each compressor shall have integrated microprocessor control capable of capacity and safety control.
5. Each compressor shall be installed with individual suction, discharge and motor cooling refrigerant line isolation valves.
6. Each compressor shall include AC line reactor with EMI filter.
7. Each compressor shall have an operator interface capable of connecting directly to compressors via serial communication protocol and displaying compressor information using Turbocor monitoring software.
8. Motor cooling shall be provided by liquid refrigerant injection system. The compressor shall utilize magnetic bearings and require no lubricating oil.
9. Compressor’s economizer port shall be utilized by adding an extra subcooling line with braze plate heat exchangers(s) to maximize efficiency.

E. Evaporator:

1. The evaporator shall be shell-and-tube flooded type with refrigerant in the shell and water inside the tubes. Heat exchangers shall be designed, constructed, tested and stamped in accordance with the requirements of ASME Code, Heat exchanger tubing shall have a copper wall thickness of 0.64 mm (0.025 in.). The water side shall be designed for 150 PSI or otherwise specified. The refrigeration side shall be designed for 225 PSI.
2. The water connections for the evaporator shall be either grooved suitable for Victaulic couplings or flange.

3. Tubes shall be mechanically cleanable and provided with drain and vent.
4. Minimum evaporator exiting water temperature shall be 3.3°C (38°F), unless otherwise specified and accepted by the chiller manufacturer.
5. Factory-furnished, field installed water flow switches shall be provided in order to prevent unit operation with no water flowing through the heat exchangers.
6. Evaporator configuration shall be:
    a. Single pass arrangement with 2 independent refrigerant circuits and 4 compressors

F. Cold weather package
1. Factory-installed 25mm (1.0 in) insulation with heat trace on evaporator, water boxes, suction piping, compressor end-bell and chilled water supply and return headers and connections.
2. Factory-installed 25mm (1.0 in) insulation with heat trace on refrigeration suction line.
3. Insulated and heated compressor boxes
    a. Compressor enclosure shall include perforated steel internal liner and solid powder coat steel outer liner (double wall) with minimum 1” 1.5 pcf fiberglass insulation
    b. Electric heat shall be included to automatically ensure compressor compartment is properly warm for any compressor in standby
4. Motorized refrigeration isolation valve on compressor to mitigate refrigeration migration from evaporator to compressor housing when compressors are in standby

G. Electrical:

1. Main Power Feed: Chiller shall require one 460V/60Hz/3ph main power feed.
2. Power feed 2: Cold weather package shall be a separate 460V/60Hz/3ph power feed
3. Power feed 3: Integral pump package and convenience outlet shall be a separate 460V/60Hz/3ph power feed

   a. 15 amp GFCI convenience outlet shall be included on secondary feed with factory transformer
3. An integral electrical control panel shall be provided that has a hinged access door and an approved locking device. All required safety and automatic operating controls, including motor protection, and motor thermal overloads shall be included.
4. All components shall be fully wired and tested prior to shipment and all major electrical components shall be UL listed. Unit shall be ETL listed and labeled, in accordance with UL 60335-2-40. ETL label shall include a unit SCCR rating of 65kA.
5. Electrical-control panel shall include ambient air cooling fans at one side with filtered air inlets on the adjacent side automatically activated based on panel interior temperature.
6. A main disconnect switch shall be furnished and installed on the unit for each of the power feed connections. All internal power and control wiring shall be connected to a numbered terminal strip for easy troubleshooting.
7. All wiring shall be in liquid-tight conduit or outdoor rated cabling.
8. All wiring penetrations into the electrical panel shall be completely sealed to eliminate air and moisture transfer.
9. Unit shall include a microprocessor based power monitor that provides protection from loss of phase, phase reversal, low voltage, high voltage, voltage imbalance, and rapid cycling.

H. Chiller Controls:

1. To be microprocessor fully integrated factory supplied automatic control system.
2. Unit controls shall include the following minimum components:
   a. 4G Router complete with sim card for independent performance and fault monitoring and reporting.
   b. Microprocessor control with non-volatile memory
   c. Power analyzer for Phase protection and EER reporting
   d. Power and control circuit terminal blocks
   e. Temperature sensors for reading fluid temperatures
   f. Pressure and temperature transducers for suction and discharge pressures and temperatures.
3. The controller fitted to the oil-free centrifugal chiller package shall be an embedded real- time microprocessor device that utilizes control software written specifically for chiller applications. User operation shall be accomplished using a panel mounted color touch-screen or LCD interface. The status of the compressors and all system parameters including compressor alarms and temperature trends shall be viewable.
4. Controller Features
   a. Capacity control based on leaving or entering chilled water temperature with set point offset load compensation.
   b. PID Loop rate of change control at start-up to prevent overshoot of temperature set-point.
   c. Auto restart after power failure
5. Control panel shall include a touch screen or LCD display plus keypad for setting of user’s set points and options and providing of alarm descriptions.
6. Evaporator water pressure drop

7. Chiller shall integrate BACnet (IP / MSTP) communication.
8. The controller shall include contacts for interfacing to the building management system for the following functions:
    a. Start / Stop
    b. Alarm
    c. Compressor Status
9. Safeties
    a. Low chilled water temperature
    b. Power supply error
    c. Compressor motor thermal or electrical overload
    d. Phase loss
    e. High pressure
    f. Low pressure
    g. Loss of chilled water flow – interlocked to external flow proving device

2.04 SEISMIC / WIND CERTIFICATION

A. None

PART 3 – EXECUTION

3.01 INSTALLATION

A. See Manufacturer's Installation Manual

B. All field piping and pipe insulation is by installing contractor.

C. All field wiring is by installing contractor.

D. All equipment rigging, crane costs, and / or field assembly is by installing contractor.

E. Networking of controllers and BMS interface and all graphics is by BMS contractor.

F. Cleaning of units, resulting from dirt and grime typical of construction sites, is part of installing contractor's scope of work.

G. Anchoring of unit bases to slab or steel support frames is by installing contractors.

H. Lightning lugs furnished by electrical contractor.



Turbocor® - TTS

COMPRESSOR TTS450HGH2S010X0XXS428
Turbocor® - TTS
TT Series 450 Aero Config
Major Revision H 460V/60Hz
High Temperature Application
Mains Plate 2.48 in
RS232/RS485 IO Brd - 5m Cable
New Compressor
TLH Factory (CE Rated)
Gen Covers/Plate - EN/FR/CH
No CPN (Standard)
No accessories
DTC SW 4.4.0 TGS380/TTS450 (S428)

Model code: TTS450HGH2S010X0XXS428

Danfoss Turbocor® TTS series: Oil free compressors using HFC134a refrigerant
Highly energy efficient and environmentally friendly compressor
Danfoss Turbocor® oil-free centrifugal compressors are specifically designed for the HVAC industry, utilizing magnetic bearings, two stage centrifugal compression, variable speed permanent magnet motor and intelligent electronic controls resulting in the highest efficiencies in the industry in a light weight and compact footprint with low sound levels.
The Danfoss Turbocor® TTS Series of centrifugal compressors delivers nominal capacities of 60 – 200 tons / 200 – 700 kW using environmentally friendly refrigerant HFC134a, with no Ozone Depletion Potential and no phase-out date per the Montreal Protocol. In addition, low GWP, non-flammable (A1 safety rating) R513A refrigerant is available as an option.

PRODUCT DETAILS

Product Series	TT Series
Build	New Compressor
Compressor Capacity	450 Aero Config
Major Revision	Major Revision H
Voltage Code	460V/60Hz
Application	High Temperature Application
Mains Plate Size	Mains Plate 2.48 in
I/O Board Option	RS232/RS485 IO Brd - 5m Cable
Factory	TLH Factory (CE Rated)
Customer Spec Configuration	Gen Covers/Plate - EN/FR/CH
Customer Engraved Nameplate	No CPN (Standard)
Accessories Configuration	No accessories
Software	DTC SW 4.4.0 TGS380/TTS450
Software Version	S428
Modelcode01	TTS450HGH2S010X0XXS428
Product Catalog	Global (Standard)
Calc. Net Weight [KG]	133

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PRODUCT DETAILS

Calc. Gross Weight [KG]	144
Calc. Net Weight [LB]	292
Calc. Gross Weight [LB]	317
Gross weight	0 kg
Net weight	0 kg
Volume	0 l

For Documents, Software, Visuals and more information, please use this link to visit the product page on Danfoss Product Store

Accessories

100058-5
COMP INTERFACE CABLE, 20M



100058-4
COMP INTERFACE CABLE, 10M



100058-1
COMP INTERFACE CABLE, 5M



100076-1
I/O BOARD ASSY



199K0000
TTS-TGS COMP PACKAGING

Spare Parts



100043-11
INVERTER ASSY, 613

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Spare Parts



100373-1
COOLING FAN & ADAPTER



100037-2
KIT-DISCHARGE PT SENSOR- TALL SNUBBED- 5



100021-2
BACKPLANE ASSY



100050-26
IGV DRIVE ASSY, SLVR THROAT



100309-15
SCR COOLING MANIFOLD



100417-2
KIT-CAPACITOR SNUBBER 0.47x1000 SCD474K



199K0015
O-RING, PT SENSORS



199K0002
R134a-R513A LABELS

Services

Image coming soon

IA-RPT-ONLY
Investigation Report No Repair

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Services

Image coming soon

REPAIR_TTS450H
REPAIR ORDER FOR TTS450H

Image coming soon

IA-RPT-WITH-REPAIR
Investigation Report with Repair

Image coming soon

WAR-EXT-2-TT450
TTS450 - 2 Yr Extd Warranty

Image coming soon

WAR-EXT-5-TT450
TTS450 - 5 Yr Extd Warranty

Image coming soon

DWAR-1-TTS450
TTS450 - Delayed Start 1 Yr Wty Add

Image coming soon

WAR-PWT-10-TT450
TTS450 - 5 Yr Extd+10 Yr PWT Warranty

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A3G910-AV12-03

EC axial fan - HyBlade

sickle-shaped blades (S series)

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Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**A3G910-AV12-03**
Motor	**M3G150-NA**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1020
Power consumption	W	3100
Current draw	A	4.7
Max. back pressure	Pa	220
Max. back pressure	in. wg	0.88
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	49.2	36.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		52.4	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	3.1
09 Air flow q_v	m^3/h	23440
09 Pressure increase p_{fs}	Pa	224
10 Speed (rpm) n	min^{-1}	1025
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-201996

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

EC axial fan - HyBlade

sickle-shaped blades (S series)

Technical description

Weight	30.02 kg
Size	910 mm
Motor size	150
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted gray
Blade material	Sheet aluminum insert, sprayed with PP plastic
Number of blades	5
Blade pitch	0°
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Operation and alarm display with LED - External 15-50 VDC input (parameterization) - Alarm relay - Integrated PI controller - Configurable inputs/outputs (I/O) - MODBUS V6.3 - Motor current limitation - RS-485 MODBUS-RTU - Soft start - Voltage output 3.3-24 VDC, Pmax = 800 mW - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment), except EN 61000-3-2 for professionally used equipment with a total rated power greater than 1 kW
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Reverse polarity and locked-rotor protection
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	UL 1004-7 + 60730-1; EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1

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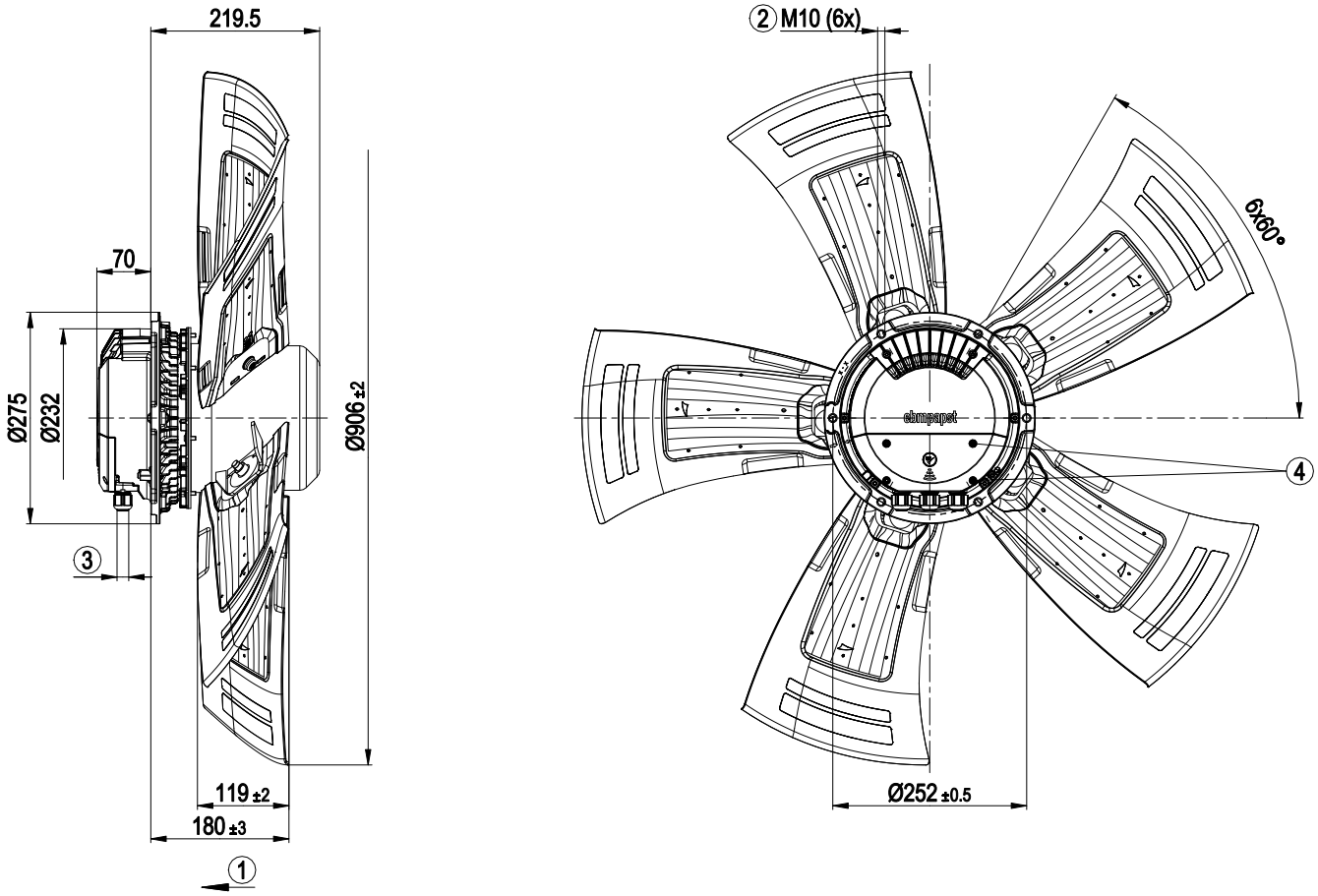
EC axial fan - HyBlade

sickle-shaped blades (S series)

Product drawing



1	Airflow direction "V"
2	Max. clearance for screw 20 mm
3	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
	(The tightening torque is designed for PVC cables. If the cable materials are different, the tightening torque may have to be adjusted)
4	Tightening torque 1.5 ± 0.2 Nm

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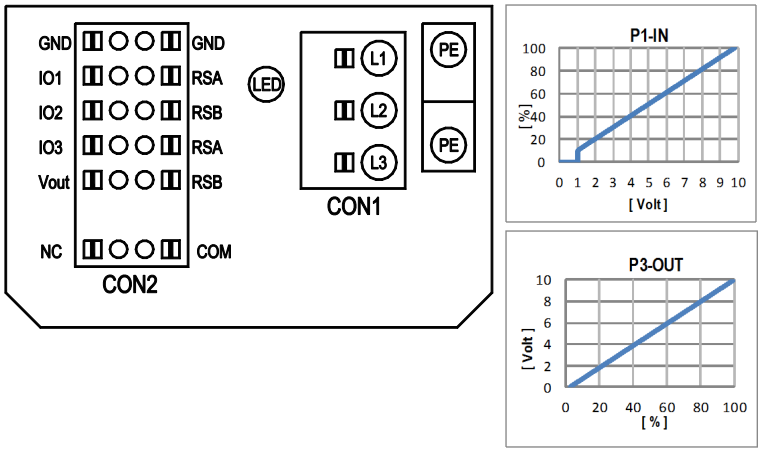
EC axial fan - HyBlade

sickle-shaped blades (S series)

Connection diagram



No.	Conn.	Designation	Function/assignment
	CON1	L1, L2, L3	Power supply, phase, see nameplate for voltage range
	PE	PE	Protective earth
	CON2	RSA	RS485 interface for MODBUS, RSA; SELV
	CON2	RSB	RS485 interface for MODBUS, RSB; SELV
	CON2	GND	Reference ground for control interface, SELV
	CON2	IO1	Function parameterizable (see “Optional interface functions” table) Factory setting: Digital input - high active, function: Disable input, SELV - inactive: Pin open or applied voltage < 1.5 VDC - active: applied voltage 3.5-50 VDC Reset function: Triggering of error reset on change of state from "enabled" to "disabled"
	CON2	IO2	Function parameterizable (see “Optional interface functions” table) Factory setting: Analog input 0-10 V / PWM, Ri=100 kΩ, function: Set value Characteristic curve parameterizable (see input characteristic curve P1-IN), SELV
	CON2	IO3	Function parameterizable (see “Optional interface functions” table) Factory setting: Analog output 0-10 V, max. 5 mA, function: Fan modulation level Characteristic curve parameterizable (see output characteristic curve P3-OUT), SELV
	CON2	Vout	Voltage output 3.3-24 VDC ±5%, Pmax=800 mW, voltage parameterizable Factory setting: 10 VDC short-circuit-proof, supply for external devices, SELV alternatively: 15-50 VDC input for parameterization via MODBUS without line voltage
	CON2	COM	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) / min. 10 mA, reinforced insulation on supply side and on control interface side
	CON2	NC	Status relay, floating status contact, break for failure
		LED	green: status = good, ready for operation orange: status = warning red: status = failure
		P1-IN	Input characteristic curve
		P3-OUT	Output characteristic curve

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sickle-shaped blades (S series)

Terminal/plug assignment

CON2	configurable IO mode	electrical specification	MODBUS Register for IO mode configuration	configurable IO functions: normal / inverse	INPUT: source: set value	INPUT: source: sensor value	INPUT: switch: parameter set: #1 / #2	INPUT: switch: control function: heating (pos.) / cooling (neg.)	INPUT: switch: direction of rotation: cw / ccw	INPUT: switch: set value source	INPUT: switch: fan enable / disable	OUTPUT: signal: tach out (selected directly via IO mode)	OUTPUT: signal: diagnostics out (selected directly via IO mode)	OUTPUT: signal: fan modulation level %	OUTPUT: signal: actual speed	OUTPUT: signal: system modulation level %	OUTPUT: signal: remote control output 0-10V	pulse input for auto-adressing	pulse output for auto-adressing
			D158 [0]		D101 [...]	D147 [...]	D104 [...]	D12E [...]	D148 [...]	D16C [...]	D16A [...]			D130 [0]	D130 [1]	D130 [2]	D130 [5]	D00C [1]	D130 [4]
IO1	○ **Din1 (active high)**: digital input	active: applied voltage 3,5-50VDC, SELV not active: pin open or applied voltage < 1,5VDC	D158 [0]		○		○	○	○	○	○								
	○ **Ain1 0-10V/PWM**: analog input	Ri = 100K, characteristic curve parameterizable, f_{PWM} = 1k..10KHz, SELV	D158 [2]		○	○													
	○ **Tach out** (open collector output)	Umax = 50VDC, Imax = 20mA, SELV	D158 [5]									○							
	○ **Diagnostics out** (open collector output)	Umax = 50VDC, Imax = 20mA, SELV	D158 [6]										○						
IO2	○ **Din2 (active high)**: digital input	active: applied voltage 3,5-50VDC, SELV not active: pin open or applied voltage < 1,5VDC	D159 [0]				○	○	○	○	○								
	○ **Ain2 0-10V/PWM**: analog input	Ri = 100K, characteristic curve parameterizable, f_{PWM} = 1k..10KHz, SELV	D159 [2]		○	○													
	○ **Ain2 4-20mA**: analog input	Ri = 125R, characteristic curve parameterizable, SELV	D159 [3]																
IO3	○ **Din3 (active high)**: digital input	active: applied voltage 3,5-50VDC, SELV not active: pin open or applied voltage < 1,5VDC	D15A [0]				○	○	○	○	○								
	○ **Din3 (active low)**: digital input	active: applied voltage < 1,5VDC, SELV not active: pin open or applied voltage 3,5-50VDC	D15A [1]																
	○ **PWMin3**: digital input, idle level high	PWM = 40Hz- 10kHz, characteristics parameterizable active: pin open or applied voltage 3,5-50VDC not active: applied voltage < 1,5VDC, SELV	D15A [7]		○														
	○ **PWMin3**: digital input, idle level low	40Hz- 10kHz, characteristics parameterizable active: applied voltage 3,5-50VDC not active: pin open or applied voltage < 1,5VDC, SELV	D15A [8]		○														
	○ **Aout3 0-10V**: analog output	function parameterizable, max. 5mA, max output frequency 300Hz, SELV	D15A [4]											○		○	○		○
	○ **Tacho out** (pulses), analog output	0-10V/ max. 5mA, max output frequency 300Hz, SELV	D15A [5]									○							
	○ **Diagnostics out** (pulses)	0-10V/ max. 5mA, max output frequency 300Hz, SELV	D15A [6]										○						
RSA RSB	RS485 bus connection,	MODBUS RTU, specification V6.3, SELV			○		○	○	○	○	○								
Vout	voltage output	voltage parameterizable 3,3...24VDC +/- 5%, Pmax=800mW, short-circuit-proof, supply for external devices, SELV	D16E [...]																
	alternatively: Input auxillary power supply for parameterization via RS485/MODBUS RTU without line voltage	15...50VDC																	

○ configurable option

For further information and additional functions see EC Control Software, Fan-Set-App, or MODBUS Parameter Specification V6.3

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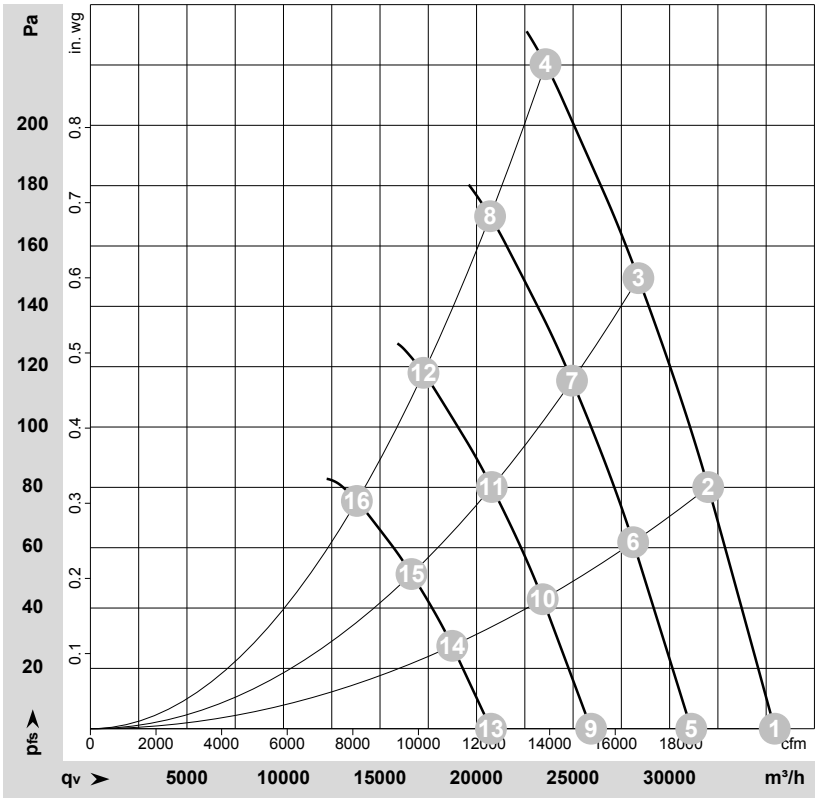
EC axial fan - HyBlade

sickle-shaped blades (S series)

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-201996-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	3~	400	50	1020	2052	3.21	71	78	80	35445	0	20860	0.00
2	3~	400	50	1020	2462	3.81	70	77	77	32000	80	18835	0.32
3	3~	400	50	1020	2759	4.25	70	77	77	28380	150	16705	0.60
4	3~	400	50	1020	3100	4.70	75	81	81	23570	220	13875	0.88
5	3~	400	50	900	1389	2.17	68	75	76	31120	0	18315	0.00
6	3~	400	50	900	1669	2.58	67	74	74	28110	62	16545	0.25
7	3~	400	50	900	1873	2.89	67	74	74	24945	116	14680	0.47
8	3~	400	50	900	2097	3.22	71	78	77	20700	171	12185	0.69
9	3~	400	50	750	804	1.26	63	70	72	25935	0	15265	0.00
10	3~	400	50	750	966	1.49	62	69	69	23425	43	13790	0.17
11	3~	400	50	750	1084	1.67	62	69	69	20785	80	12235	0.32
12	3~	400	50	750	1214	1.86	67	73	73	17250	118	10155	0.47
13	3~	400	50	600	412	0.64	57	64	66	20745	0	12210	0.00
14	3~	400	50	600	495	0.77	56	63	64	18740	27	11030	0.11
15	3~	400	50	600	555	0.85	57	64	64	16630	51	9790	0.20
16	3~	400	50	600	621	0.95	61	68	67	13800	76	8125	0.31

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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CI PUMP SERIES | Submittal Data

Submittal No: 301-1320D **| MODEL NO** CI4007D **| RPM** 3500 **| HP** 50 **| Effective:** January 27, 2020 **| Supersedes** December 31, 2018

JOB: _____ **REPRESENTATIVE:** _____

ENGINEER: _____ **CONTRACTOR:** _____

PRODUCT DATA

ITEM NO. 002 **MODEL NO** CI4007D **DOE BASIC MODEL NO.** CI4007D-2P-PM

IMPELLER DIA 7 **GPM** 1160 **HEAD** 130 **PEI:** 0.92 **HI ENERGY RATING** 8

NSF 61 CERTIFIED No **RPM** 3500 **HP** 50

VOLTAGE / PHASE / CYCLE (HZ) 230-460

OPERATING SPECIFICATIONS

FLANGE 125 **TEMPERATURE** 250 Deg F

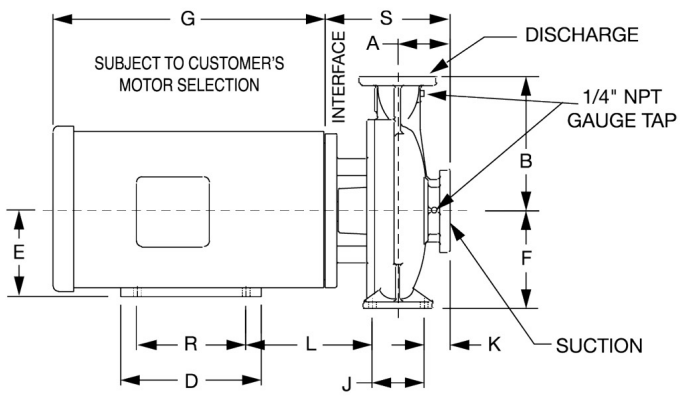
PRESSURE 175 PSIG

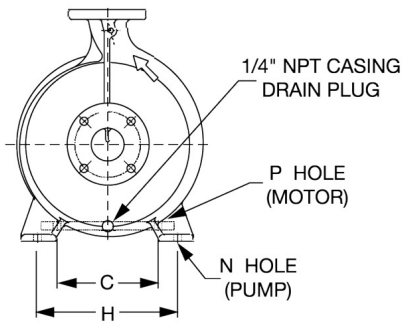
Quantity 1 **Tag** _____

DIMENSIONS

Flange Size 5.0 x 4.0

HORSEPOWER	50
MOTOR ENCLOSURE (TEFC VS ODP)	TEFC
MOTOR FRAME	326JM
G MAX	25.40 (645)
MAX ASSEMBLY WEIGHT LBS. (KG)	872 (396)
A	5.56 (141)
B	10.50 (267)
C (MOTOR)	12.50 (318)
D	13.50 (343)
E	8.00 (203)
F	9.84 (250)
H(PUMP)	12.40 (315)
J	4.72 (120)
K	3.20 (81)
L	9.02 (229)
N (PUMP)	0.56 (14)
P	0.66 (17)
R	12.00 (305)
S	11.61 (295)





English dimensions are in inches. Metric dimensions are in milimeters.
Metric data is presented in ( ). Do not use for construction purposes unless certified.

MATERIALS OF CONSTRUCTION

NOTES:

BRONZE FITTED Yes **NSF** No

FLANGE	125
CASING	Cast Iron ASTM A48/A48M-03 Class 30A
COVER	Cast Iron ASTM A48/A48M-03 Class 30A
IMPELLER	Stainless Steel
WEAR RING	n/a
SHAFT	Carbon Steel
SHAFT SLEEVE	Bronze
MECHANICAL SEAL	Seat Half: Ceramic, Rubber: EPT,
SEAL FLUSH LINE ASSEMBLY	n/a

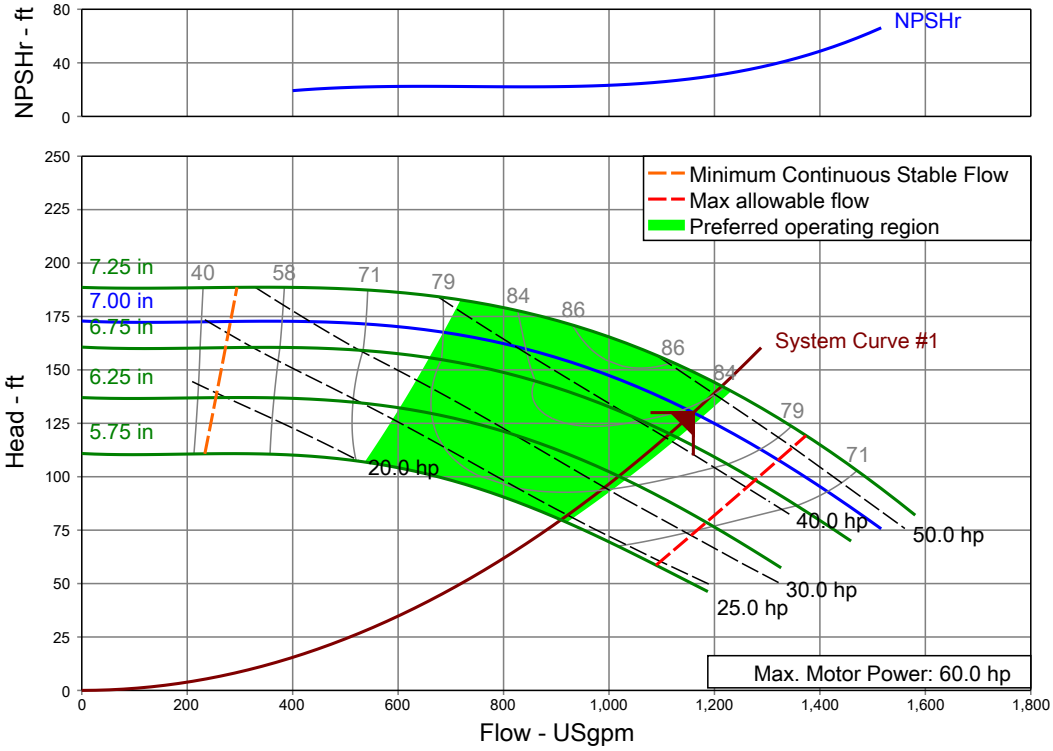
Representative :
Job Reference :
Engineer : buytaco integration2
Contractor :

Pump Performance Datasheet

Taco Quotation System 26.0.0

Item number	: 002	Head, rated (actual)	: 131.4 ft
Quantity	: 1	Flow, rated	: 1,160.0 USgpm
Job number	: TCR-7907-100-Q	Speed	: 3500 rpm
Model	: CI4007D	Site Supply Frequency	: 60 Hz
Impeller dia.	: 7.00 in	Power, rated	: 45.51 hp

Operating Conditions		**Liquid**	
Head, rated (requested)	: 130.0 ft	Liquid type	: Water
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Additional liquid description	:
NPSH available	: Ample	Solids diameter, max	: 0.00 in
Performance		Solids concentration, by volume	: 0.00 %
Impeller diameter, maximum	: 7.25 in	Temperature	: 68.00 deg F
Impeller diameter, minimum	: 5.75 in	Fluid density	: 1.000 / 1.000 SG
Efficiency	: 84 %	Viscosity	: 1.00 cP
PEI/CEI (CL)	: 0.92	Vapor pressure, rated	: 0.34 psi.a
NPSH required / margin required	: 28.3 / 0.0 ft	**Material**	
Ns (imp. eye flow) / Nss (imp. eye flow)	: 2,457 / 10,427 US Units	Material selected	: Standard
Minimum Continuous Stable Flow	: 283.3 USgpm	**Pressure Data**	
Head max.	: 172.9 ft	Maximum working pressure	: 74.81 psi.g
Head rise to shutoff	: 32.97 %	Maximum allowable working pressure	: 175.0 psi.g
Flow, best eff. point	: 996.5 USgpm	Maximum allowable suction pressure	: 125.0 psi.g
Flow ratio, rated / BEP	: 116.40 %	Hydrostatic test pressure	: N/A
Diameter ratio (rated / max)	: 96.55 %	**Driver & Power Data (@Max density)**	
Head ratio (rated dia / max dia)	: 87.21 %	Driver sizing specification	: Rated power
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Margin over specification	: 0.00 %
Selection status	: Acceptable	Service factor	:1.08 (used)
		Power, hydraulic	: 38.07 hp
		NOL Power	: 46.95 hp
		Rec. HP @ BHP	: 50.00 hp / 37.29 kW



Taco · · ,
phone: · fax:

DATA SHEET
Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency

Frame	: 324/6JM	Locked rotor time	: 20 s (hot) 36 s (cold)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: S1
Frequency	: 60 Hz	Ambient temperature	: -20 °C to +50 °C
Rated voltage	: 230/460 V	Altitude	: 3280 ft
Rated current	: 115/57.4 A	Protection degree	: IP55
L. R. Amperes	: 723/362 A	Cooling method	: IC411 - TEFC
LRC	: 6.3	Mounting	: F-1
No load current	: 31.8/15.9 A	Rotation[1]	: Both
Rated speed	: 3560 rpm	Noise level[2]	: 76.0 dB(A)
Slip	: 1.11 %	Vibration class	: B
Rated torque	: 72.7 ft.lb	Starting method	: Inverter
Locked rotor torque	: 240 %	Coupling	: Direct
Pull up torque	: 165 %	Approx. weight[3]	: 525 lb
Breakdown torque	: 240 %	Painting plan	: 203A
Insulation class	: F	Color	: RAL 5009
Service factor	: 1.00	Design	: B
Moment of inertia (J)	: 5.75 sq.ft.lb		

Output	50%	75%	100%
Efficiency (%)	93.0	93.0	93.0
Power Factor	0.78	0.85	0.87

	Drive end	Non drive end
Bearing type	6312-C3	6212-C3
Lubrication interval	7000 h	9000 h
Lubricant amount	21 g	13 g
Lubricant type	MOBIL POLYREX EM	

Load type	: -
Load torque	: -
Load inertia (J=GD²/4)	: -

Foundation loads

Max. traction	: 1811 N
Max. compression	: 4145 N

Operation limits with inverter

Voltage Peak Phase-Phase	= 2000 V
dV/dt	= 6500 V/µs
Rise time	= 0.1 µs

Notes
See notes on page 2.

Losses at normative operating points (speed;torque), in percentage of rated output power

P1 (0,9;1,0)	P2 (0,5;1,0)	P3 (0,25;1,0)	P4 (0,9;0,5)	P5 (0,5;0,5)	P6 (0,5;0,25)	P7 (0,25;0,25)
7.0	5.1	4.6	3.8	2.1	1.4	0.8

This revision replaces and cancel the previous one, which must be eliminated.
(1) Looking the motor from the shaft end.
(2) Measured at 1m and with tolerance of +3dB(A).
(3) Approximate weight, subject to be changed after manufacturing process.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG 1-12.

Rev.	Changes Summary	Rev.	Checked	Date

Performed by	rpulido		1728568710	
Checked by	AUTOMATICO		Page	Rev.
Date	22/07/2025		1 / 8	2

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DATA SHEET
Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency
Notes	

Customer information
CSA
Class I, Div 2, Gr A, B, C, D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr F, G - T4
For use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3

Standards				
	Specification	: MG1 - Part 10	Vibration	: MG1 - Part 7
	Test	: MG1 - Part 12	Tolerance	: MG1 - Part 12
	Noise	: MG1 - Part 9		

This revision replaces and cancel the previous one, which must be eliminated.
(1) Looking the motor from the shaft end.
(2) Measured at 1m and with tolerance of +3dB(A).
(3) Approximate weight, subject to be changed after manufacturing process.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG 1-12.

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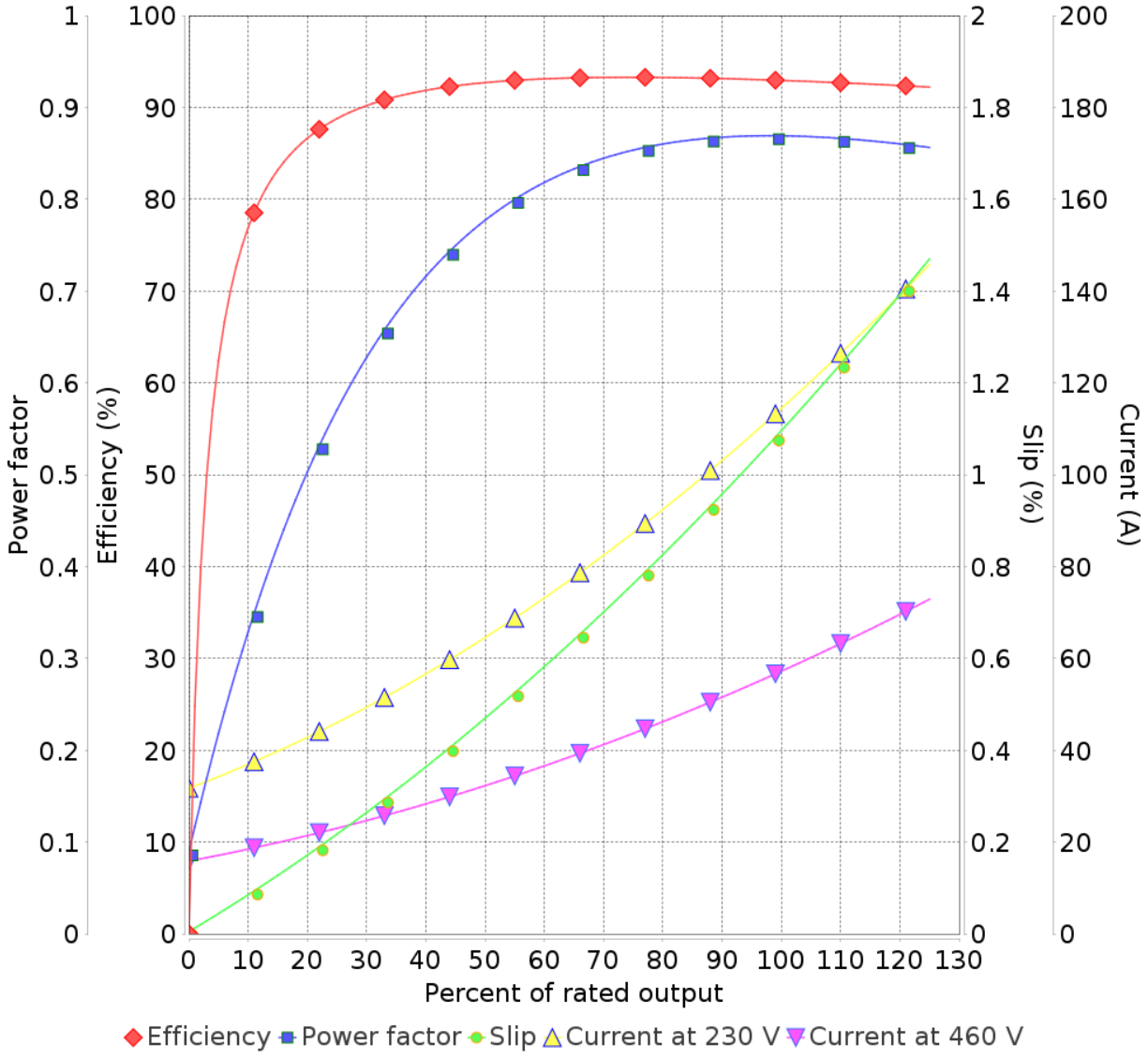
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency



Performance	: 50 HP (37 kW) 230/460 V 60 Hz 2P 324/6JM

Rated current	: 115/57.4 A	Moment of inertia (J)	: 5.75 sq.ft.lb
LRC	: 6.3	Duty cycle	: S1
Rated torque	: 72.7 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

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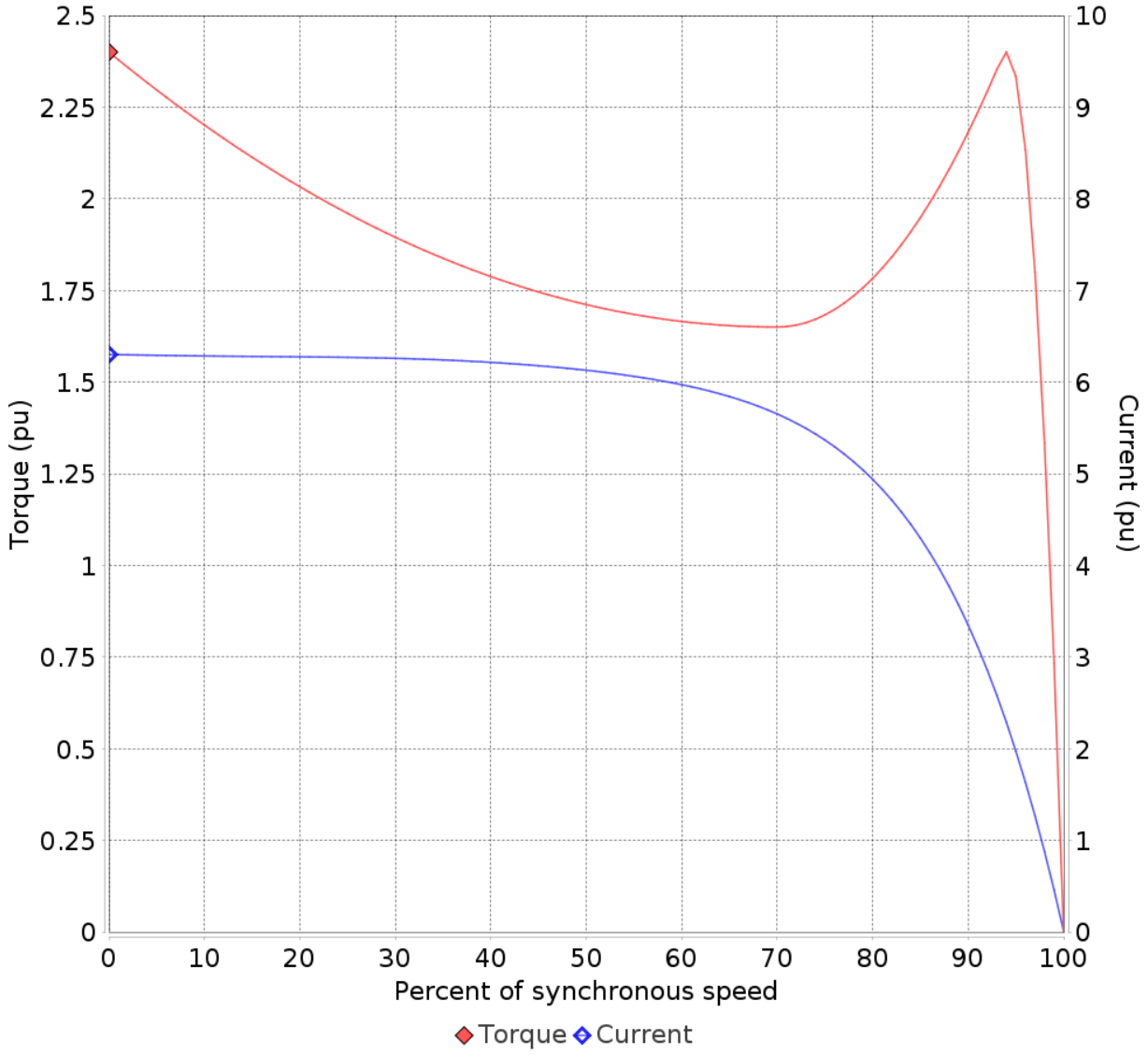
TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency



Performance	: 50 HP (37 kW) 230/460 V 60 Hz 2P 324/6JM

Rated current	: 115/57.4 A	Moment of inertia (J)	: 5.75 sq.ft.lb
LRC	: 6.3	Duty cycle	: S1
Rated torque	: 72.7 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

Locked rotor time 100%	: 20 s (hot) 36 s (cold)
Load inertia (J=GD²/4)	: 5.7474 sq.ft.lb
Allowable run up time 100%	: 16 s (hot) 28 s (cold)

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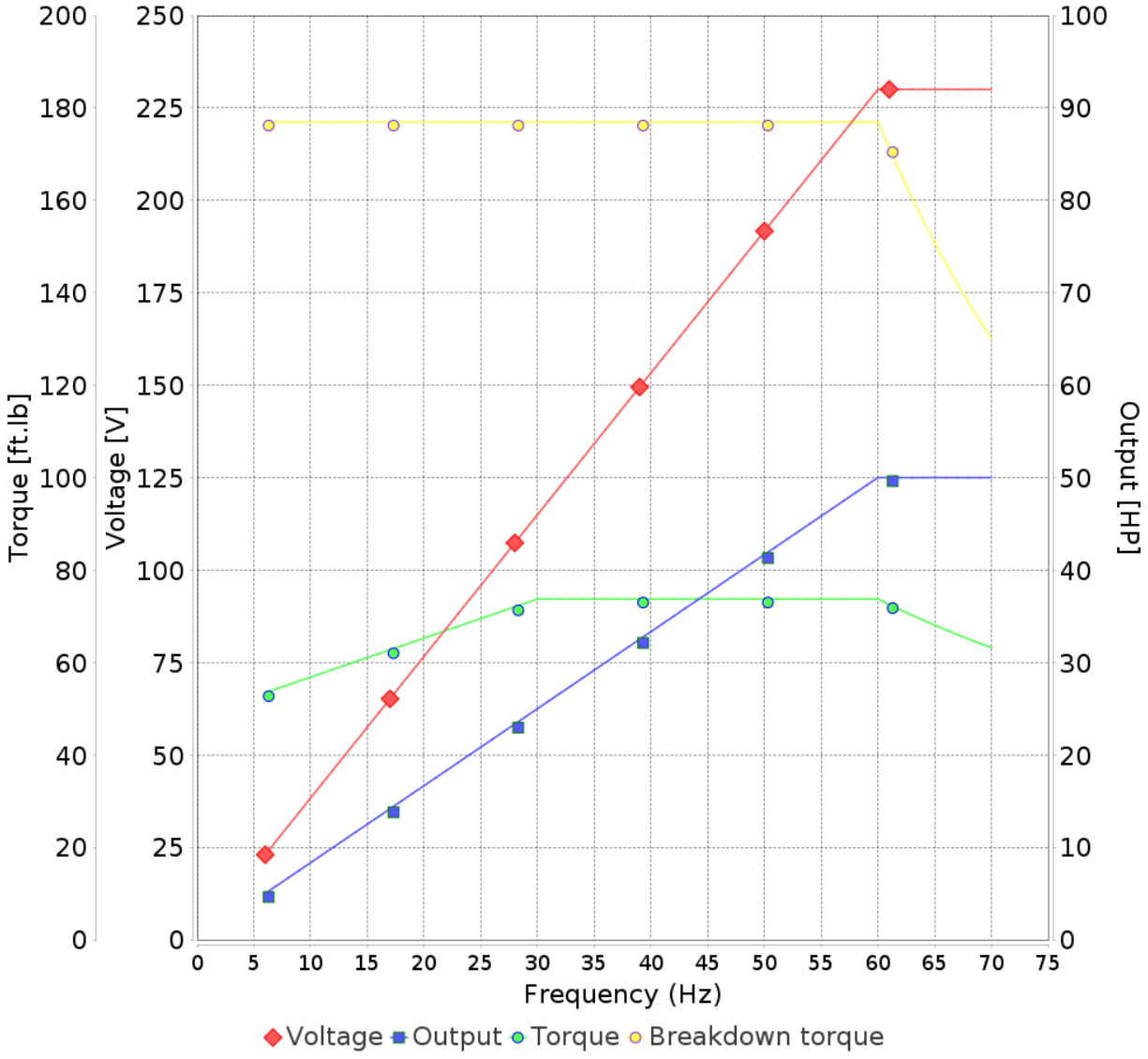
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency



Performance	: 50 HP (37 kW) 230/460 V 60 Hz 2P 324/6JM

Rated current	: 115/57.4 A	Moment of inertia (J)	: 5.75 sq.ft.lb
LRC	: 6.3	Duty cycle	: S1
Rated torque	: 72.7 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

Voltage Peak Phase-Phase	<= 2000.0
dV/dt	<= 6500.0
Rise time	= 0.1

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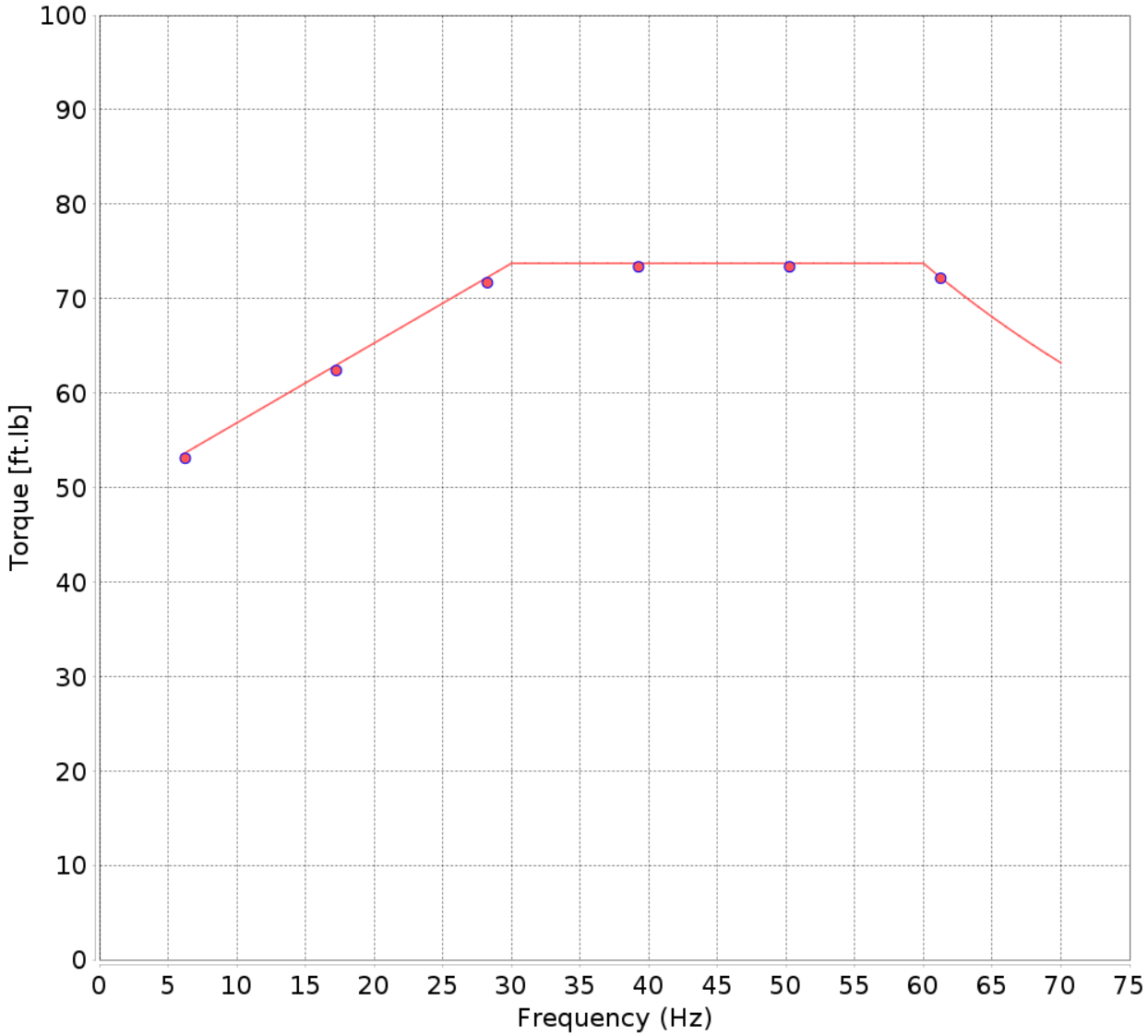
INVERTER CURVE WITH LOAD TORQUE

Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency



Performance	: 50 HP (37 kW) 230/460 V 60 Hz 2P 324/6JM

Rated current	: 115/57.4 A	Moment of inertia (J)	: 5.75 sq.ft.lb
LRC	: 6.3	Duty cycle	: S1
Rated torque	: 72.7 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B

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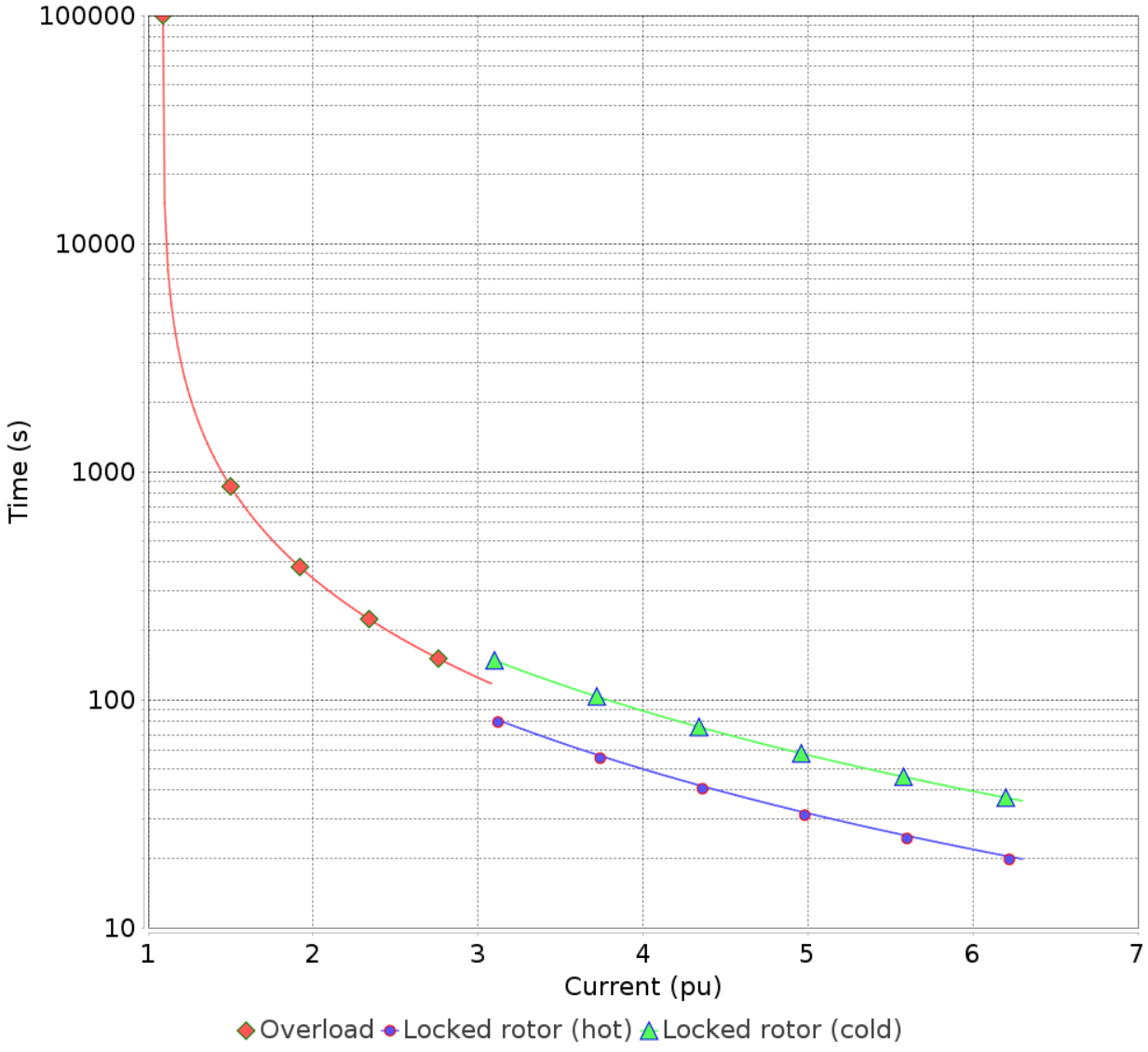
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency



Performance	: 50 HP (37 kW) 230/460 V 60 Hz 2P 324/6JM

Rated current	: 115/57.4 A	Moment of inertia (J)	: 5.75 sq.ft.lb
LRC	: 6.3	Duty cycle	: S1
Rated torque	: 72.7 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 3560 rpm	Design	: B
Heating constant	: 27.4 min		
Cooling constant	: 82.2 min		

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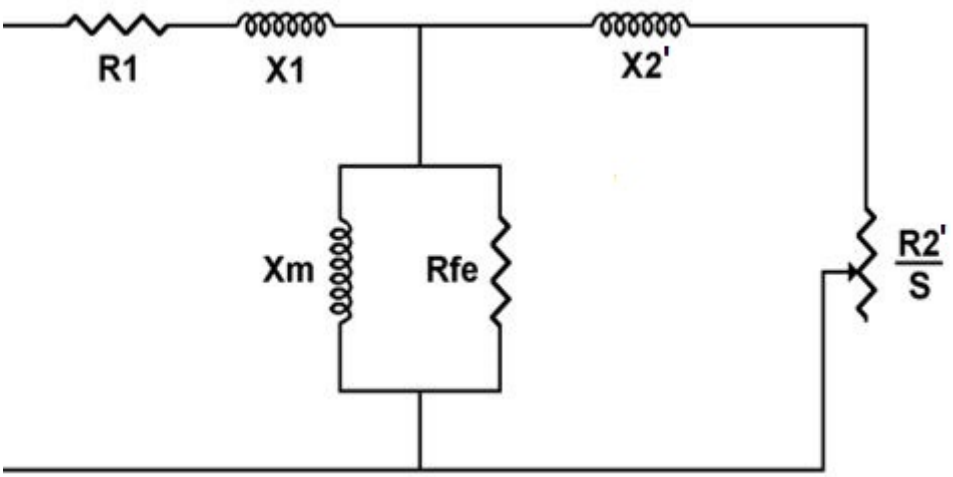
EQUIVALENT CIRCUIT

Three Phase Induction Motor - Squirrel Cage

Customer	: TACO INC.
Product line	: W22 Jet Pump Motors JM - Nema Premium Efficiency



Rated			
R1	0.2105 omhs / 0.0368 p.u.	**X1**	1.3100 omhs / 0.2291 p.u.
R2'	0.1169 omhs / 0.0204 p.u.	**X2'**	1.8390 omhs / 0.3216 p.u.
Rfe	1269.6540 omhs / 222.0102 p.u.	**Xm**	46.3260 omhs / 8.1005 p.u.

Locked rotor			
R1	0.2273 omhs / 0.0397 p.u.	**X1**	1.1690 omhs / 0.2044 p.u.
R2'	0.6534 omhs / 0.1143 p.u.	**X2'**	0.9400 omhs / 0.1644 p.u.
Rfe	1123.1690 omhs / 196.3960 p.u.	**Xm**	55.6920 omhs / 9.7382 p.u.

T"do	0.8233 s	**X/R**	6.1633 p.u.
T"d	0.0365 s	**RS**	0.0913 omhs / 0.0160 p.u.
Ta	0.0163 s	**X"d = Xs**	2.1090 omhs / 0.3688 p.u.
Zbase	5.7189 omhs	**X2(-)**	1.3257 omhs / 0.2318 p.u.

All parameters reflected to stator side.
Per phase values, for T connection.
Resistances at 20.0 °C, reactances at rated voltage and frequency.

R1	: Stator resistance	T"do	: Open circuit AC time constant
R2'	: Rotor resistance	T'd	: Short circuit AC time constant
Rfe	: Core loss resistance	Ta	: Short circuit DC time constant
X1	: Stator leakage reactance	X/R	: X/R ratio
X2'	: Rotor leakage reactance	RS	: Supplementary losses resistance
Xm	: Magnetizing reactance	X"d = Xs	: Subtransient reactance
Zbase	: Base impedance	X2(-)	: Negative sequence reactance

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Submittal Data Information
Suction Diffuser Rear Strainer Pullout (RSP)
"Flanged"

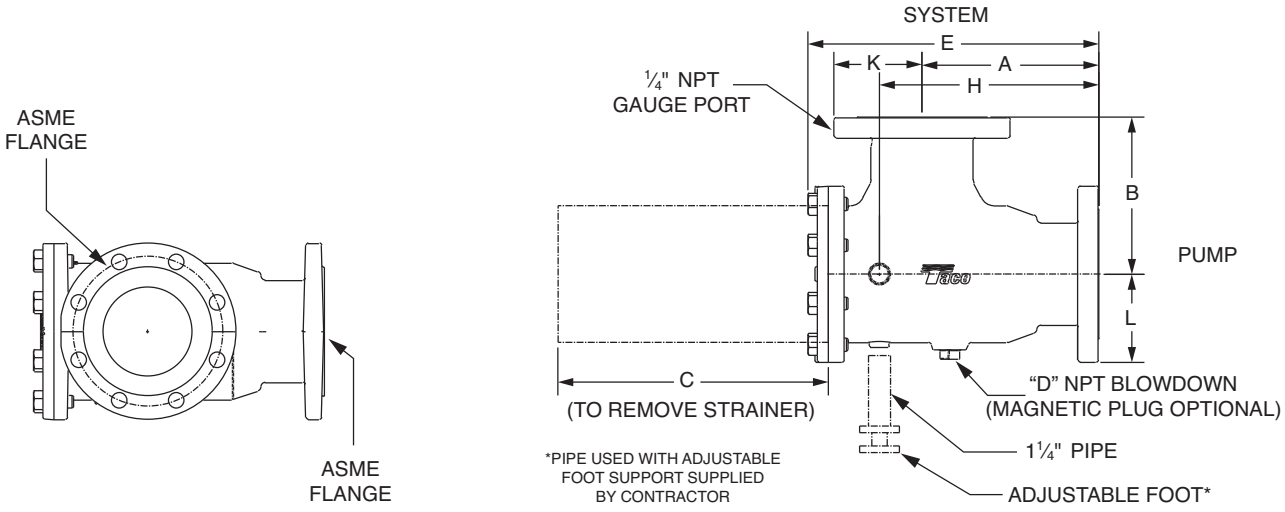
301-239.1

SUPERSEDES: September 17, 2013 EFFECTIVE: July 15, 2017

JOB _____ ENGINEER _____ CONTRACTOR _____ REP. _____

ITEM	QUANTITY	MODEL NO.	SIZE

DIMENSIONS



Model Number	System	Pump	C_v	Free Area (sq. in.)	A (Class 125)*	A (Class 250)*	B	C	D	E (Class 125)*	E (Class 250)*	H (Class 125)*	H (Class 250)*	K (Class 125)*	K (Class 250)*	L (Class 125)*	L (Class 250)*	WGT. (Class 125)*	WGT. (Class 250)*
SD020015-5	2 Flanged	1½ Flanged	54	21	5.69 (145)	6.06 (154)	5.39 (137)	8.49 (216)	¾	9.25 (235)	9.62 (244)	6.92 (176)	7.29 (185)	3.00 (076)	3.25 (083)	2.50 (064)	3.06 (078)	22 (010)	27 (012)
SD020020-5	2 Flanged	2 Flanged	106	21	5.44 (138)	5.69 (145)	5.39 (137)	8.24 (209)	¾	9.00 (229)	9.25 (235)	6.67 (169)	6.92 (176)	3.00 (076)	3.25 (083)	3.00 (076)	3.25 (083)	24 (011)	28 (013)
SD025020-5	2½ Flanged	2 Flanged												3.50 (089)	3.75 (095)	3.00 (076)	3.25 (083)	27 (012)	35 (016)
SD030020-5	3 Flanged	2 Flanged												3.75 (095)	4.12 (105)	3.00 (076)	3.25 (083)	29 (013)	39 (018)
SD025025-5	2½ Flanged	2½ Flanged	135	24	6.06 (154)	6.56 (167)	6.01 (153)	8.97 (228)	¾	9.83 (250)	10.35 (263)	7.41 (188)	7.91 (201)	3.50 (089)	3.75 (095)	3.50 (089)	3.75 (095)	38 (017)	54 (025)
SD030025-5	3 Flanged	2½ Flanged			6.06 (154)	6.56 (167)	6.01 (153)		1	9.83 (250)		7.41 (188)	7.91 (201)	3.75 (095)	4.12 (105)	3.50 (089)	3.75 (095)	38 (017)	52 (024)
SD040025-5	4 Flanged	2½ Flanged			6.07 (154)	6.07 (154)	8.45 (215)		¾	8.93 (227)		7.59 (193)	7.59 (193)	4.43 (113)	4.93 (125)	3.50 (089)	3.75 (095)	52 (024)	65 (030)
SD030030-5	3 Flanged	3 Flanged	220	35	6.86 (174)	7.62 (194)	6.56 (167)	10.47 (266)	1	11.41 (290)	12.18 (309)	8.32 (211)	9.09 (231)	3.75 (095)	4.12 (105)	3.75 (095)	4.12 (105)	50 (023)	66 (030)
SD040030-5	4 Flanged	3 Flanged												4.50 (114)	5.00 (127)	3.75 (095)	4.12 (105)	55 (025)	72 (033)
SD050030-5	5 Flanged	3 Flanged				6.86 (174)	8.94 (227)					8.51 (216)	8.51 (216)	4.93 (125)	5.43 (138)	3.75 (095)	4.13 (105)	65 (030)	83 (038)
SD040040-5	4 Flanged	4 Flanged	380	64	7.94 (202)	8.93 (227)	8.45 (215)	12.86 (327)	1	13.96 (355)	14.90 (378)	10.29 (261)	11.28 (287)	4.50 (114)	5.00 (127)	4.50 (114)	5.00 (127)	73 (033)	91 (041)
SD050040-5	5 Flanged	4 Flanged												5.00 (127)	5.50 (140)	4.50 (114)	5.00 (127)	75 (034)	97 (044)
SD060040-5	6 Flanged	4 Flanged												5.50 (140)	6.25 (159)	4.50 (114)	5.00 (127)	79 (036)	109 (049)

NOTE: Dimensions are in inches. Metric dimensions are in millimeters and are in parentheses ( ). Weights are in lb (kg).
'C' is the distance required to replace strainer.

* Append **'A'** for Class 250 working pressure flanged units (pump side) – e.g. Model Number SD040030-4A.

DIMENSIONS (continued)

Model Number	System	Pump	C_v	Free Area (sq. in.)	A (Class 125)*	A (Class 250)*	B	C	D	E (Class 125)*	E (Class 250)*	H (Class 125)*	H (Class 250)*	K (Class 125)*	K (Class 250)*	L (Class 125)*	L (Class 250)*	WGT. (Class 125)*	WGT. (Class 250)*
SD050050-5	5 Flanged	5 Flanged	669	100	10.06 (256)	10.06 (256)	8.94 (227)	15.36 (390)	1	16.54 (420)	16.54 (420)	12.48 (317)	12.48 (317)	5.00 (127)	5.50 (140)	5.00 (127)	5.50 (140)	90 (041)	116 (053)
SD060050-5	6 Flanged	5 Flanged												5.50 (140)	6.25 (159)	5.00 (127)	5.50 (140)	96 (044)	127 (058)
SD080050-5	8 Flanged	5 Flanged					13.21 (336)					12.67 (322)	12.67 (322)	6.68 (170)	7.43 (189)	5.00 (127)	5.50 (140)	151 (069)	194 (088)
SD060060-5	6 Flanged	6 Flanged	985	146	11.58 (294)	12.08 (307)	11.17 (284)	19.02 (483)	1	20.39 (518)	20.89 (531)	16.17 (411)	16.67 (423)	5.50 (140)	6.25 (159)	5.50 (140)	6.25 (159)	151 (069)	193 (088)
SD080060-5	8 Flanged	6 Flanged												6.75 (171)	7.50 (191)	5.50 (140)	6.25 (159)	170 (077)	215 (098)
SD100060-5	10 Flanged	6 Flanged												8.00 (203)	8.75 (222)	5.50 (140)	6.25 (159)	182 (083)	238 (108)
SD080080-5	8 Flanged	8 Flanged	1657	248	14.43 (367)	15.31 (389)	13.21 (336)	23.79 (604)	1	25.32 (643)	26.19 (685)	20.22 (514)	21.1 (536)	6.75 (171)	7.50 (191)	6.75 (171)	7.50 (191)	271 (123)	319 (145)
SD100080-5	10 Flanged	8 Flanged												8.00 (203)	8.75 (222)	6.75 (171)	7.50 (191)	284 (129)	351 (159)
SD120080-5	12 Flanged	8 Flanged												9.50 (241)	10.25 (260)	6.75 (171)	7.50 (191)	305 (138)	388 (176)
SD100100-5	10 Flanged	10 Flanged	2650	394	18.36 (466)	19.61 (498)	14.54 (369)	29.40 (747)	1	31.10 (790)	32.35 (822)	25.64 (651)	26.89 (683)	8.00 (203)	8.75 (222)	8.00 (203)	8.75 (222)	400 (182)	482 (219)
SD120100-5	12 Flanged	10 Flanged												9.50 (241)	10.25 (260)	8.00 (203)	8.75 (222)	420 (191)	518 (235)
SD140100-5	14 Flanged	10 Flanged												11.50 (292)	10.25 (260)	8.00 (203)	8.75 (222)	441 (200)	557 (253)
SD120120-5	12 Flanged	12 Flanged	3000	570	20.39 (518)	22.64 (575)	16.62 (422)	33.72 (856)	1	35.50 (902)	37.75 (959)	29.83 (758)	32.08 (815)	9.50 (241)	10.25 (260)	9.50 (241)	10.25 (260)	589 (267)	703 (319)
SD140120-5	14 Flanged	12 Flanged												11.50 (292)	11.50 (292)	9.50 (241)	10.25 (260)	617 (280)	786 (357)
SD160120-5	16 Flanged	12 Flanged												11.75 (298)	12.75 (324)	9.50 (241)	10.25 (260)	651 (296)	802 (364)
SD140140-5	14 Flanged	14 Flanged	3940	628	22.31 (567)	22.31 (567)	19.26 (489)	34.00 (864)	1	37.66 (957)	37.66 (957)	31.61 (803)	31.61 (803)	10.50 (267)	11.50 (292)	10.50 (267)	11.50 (292)	895 (406)	1049 (476)
SD160140-5	16 Flanged	14 Flanged												11.75 (298)	12.75 (324)	10.50 (267)	11.50 (292)	934 (424)	1106 (502)

NOTE: Dimensions are in inches. Metric dimensions are in millimeters and are in parentheses ( ). Weights are in lb (kg).
'C' is the distance required to replace strainer.

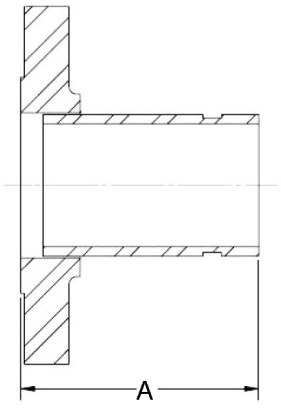
* Append **'A'** for Class 250 working pressure flanged units (pump side) – e.g. Model Number SDG040030-4A.

GROOVED ADAPTER

FLANGED - GROOVED

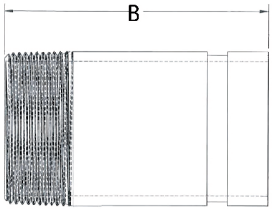
Class 125 Assembly Part No.	Class 250 Assembly Part No	Size	'A'
FTG020-5	FTG020-5A	2"	4"
FTG025-5	FTG025-5A	2-1/2"	
FTG030-F	FTG030-5A	3"	
FTG040-5	FTG040-5A	4"	6"
FTG050-5	FTG050-5A	5"	
FTG060-5	FTG060-5A	6"	
FTG080-5	FTG080-5A	8"	
FTG100-5	FTG100-5A	10"	8"
FTG120-5	FTG120-5A	12"	
FTG140-5	FTG140-5A	14"	

FLANGED - GROOVED



THREADED - GROOVED

Class 125 + 250 Assembly Part No.	Size	'B'
TTG015-5	1-1/2"	4"
TTG020-5	2"	
TTG025-5	2-1/2"	



Note: Adapters required to convert flanged & threaded MPV to grooved.

FEATURES

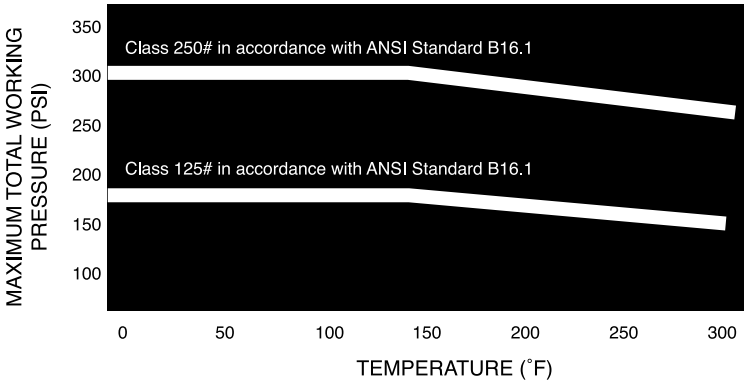
- Integral Cast Straightening Vanes ensure uniform flow to the suction inlet of the pump
- Oversized Body Cylinder ensures minimal pressure drop
- Metering Port allows for the monitoring of system conditions
- Disposable Fine Mesh Start-Up Strainer promotes cleaner, more trouble-free system
- Removable Cover Plate and reusable “O” Ring allows for easy access and maintenance of Permanent Strainer
- Blow Down port allows for routine maintenance and removal of sediment and debris
- Ductile Iron Body on all units
- Optional Magnetic Insert to trap small metallic particles
- Available with Class 125* flanges or Class 250* flanges. Consult pressure/temperature chart below for operating limitations. (Flanged units are raised faced design.)

(All sizes available with optional DIN Flanges. Consult factory for details)

MATERIALS OF CONSTRUCTION

Body	-	Ductile Iron
Cover	-	Ductile Iron
Straightening Vanes	-	Integral Ductile Iron
Permanent Strainer	-	Stainless Steel (304)
Disposable Start Up Strainer	-	Bronze (16 Mesh)
Cover O-Ring	-	EPDM
Grooved Adapter	-	Steel

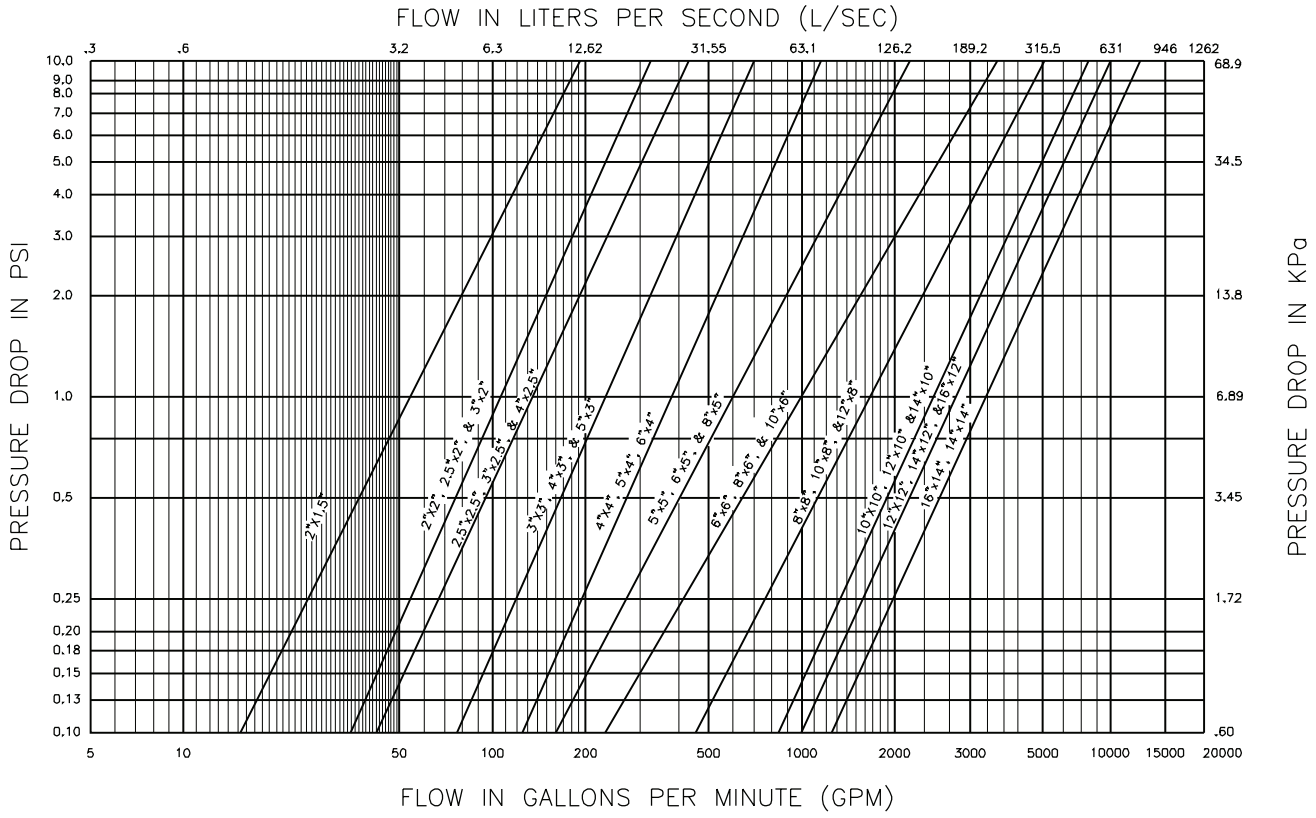
PRESSURE TEMPERATURE RATINGS



OPERATING SPECIFICATIONS

	Standard	Optional
Flange	Class 125*	Class 250*
Pressure	175 PSIG* (1210 KPA)	300 PSIG* (2070 KPA)
Temperature	250˚F (120˚C**)	250˚F (120˚C**)

* Per Pressure Temperature Ratings chart to left.



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*Supplied loose for field installation.
*Quoted as a separate add option

Overview



The SITRANS FMS500 is a magnetic flow meter sensor suitable for volume flow measurement of liquids (conductive) and is the ideal product for applications in water abstraction, wastewater treatment, water distribution networks, and irrigation.

The rugged, fully welded design supports direct burial, constant flooding and to stand up a wide range of harsh chemicals found in water-based applications in many different industries.

Designed for highly accurate measurement in low-flow conditions, these meters can measure from very low velocities up to 10 m/s, giving it a very wide measurement range.

Combined with a flow meter transmitter it is a traditional externally powered electromagnetic flow meter system

Benefits

- Zero Up and Zero Down installation capabilities
- NBR rubber liner for all water and wastewater applications
- EPDM liner specifically for drinking water applications requiring special approvals
- Soft elastomer facing provides high abrasion resistance
- Increased low flow accuracy for water leak detection
- Rugged construction with no moving parts for maintenance-free operation over many years.
- Simple on-site upgrade to IP68 of a standard sensor allowing underground installation, permanent immersion or underwater installation
- Integrated grounding electrodes – no grounding rings required for many applications
- Short delivery time
- Built-in length according to ISO 20456 (up to DN 400 mm)
- SENSORPROM™ Technology provides an automatic upload of start-up settings and calibration data for easy commissioning
- Designed to allow in-situ verification for easy performance check
- In conformity with ISO 4064, OIML R49 and EN 14154

Application

The SITRANS FMS500 with its NBR or EPDM soft rubber lining is a flow meter sensor for all kinds of water applications such as ground water, potable water, cooling water, wastewater, sewage, or sludge applications.

Connected to the compatible transmitter SITRANS FMT020, either mounted remotely or as a compact unit, it forms the magnetic flow meter system SITRANS FM520 which can be used in almost all general-purpose water applications.

SITRANS FM520

Perfect match for a cost-effective solution for all water and wastewater applications. Measuring accuracy ±0.4% of flow rate, optional ± 0.2% of flow rate available.

Vibrostop AA



CARATTERISTICHE *Features*	• Ampia gamma di portate: carichi da 10 a 9000 daN. • Funzionamento multidirezionale: ottimo comportamento nel caso di sollecitazioni assiali (trazione e compressione) e tangenziali. • Elastomero protetto: elevatissima durata nel tempo. • Grande capacità di resistere agli urti: sono possibili sovraccarichi istantanei di eccezionale entità • Elevato grado di sicurezza: l'eventuale distruzione degli elastomeri non comporta il distacco delle apparecchiature (es. incendio).	• *Large loads range: between 10 and 9000 daN.* • *Reacts to vibrations in all directions (tension, compression, shear).* • *Sheltered elastomer: long lasting.* • *Big resistance against shocks: very large instant overloads are possible.* • *Big safety: the hypothetical destruction of the rubber parts does not lead to the detachment of the appliances (ex. fire).*
MATERIALI *Materials*	• Componenti in gomma: elastomero Vibrostop. • Componenti in metallo: lega di alluminio, a richiesta verniciatura secondo MIL STD 202 per impiego navale.	• *Rubber components: Vibrostop elastomer.* • *Metal components: aluminium alloy, on request MIL STD 202 paint for naval appliances.*
APPLICAZIONI *Applications*	• Motori - Pompe - Condizionatori - Ventilatori - Gruppi elettrogeni - Centrifughe - Apparati su mezzi di trasporto - Settore ferroviario - Quadri elettrici.	• *Engines - Pumps - Air conditioning units - Fans - Generators - Centrifugal machines - Appliances on means of transportation - Railway industry - Electrical appliances.*
INSTALLAZIONE *Installation*	• Fissaggio tra macchinario e antivibrante. • Fissaggio al piano di appoggio.	• *Fixing between machinery and A.V. mounting.* • *Fixing to the mounting plate.*

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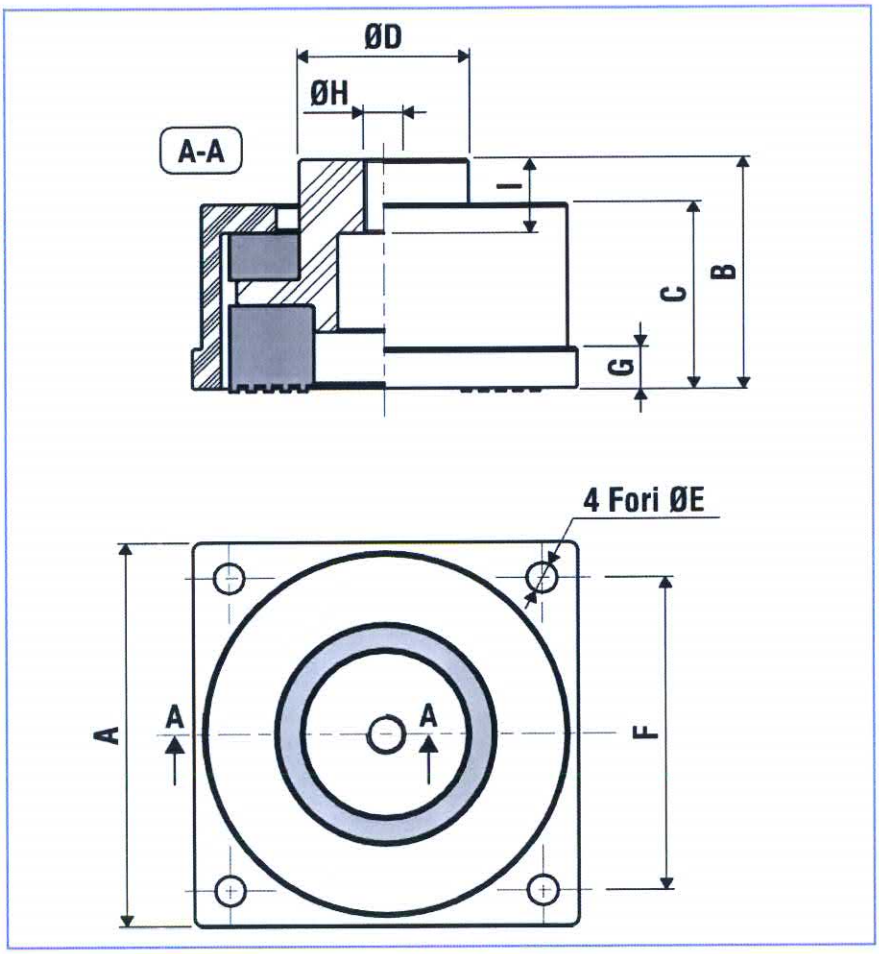
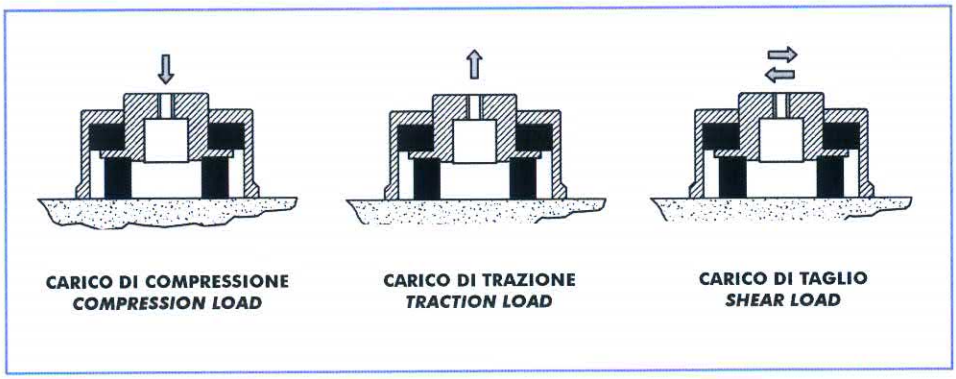
PORTATA *LOAD*						DIMENSIONI *DIMENSIONS*								
AS MESCOLA ALTA SESIBILITA' *HIGH SENSITIVITY* [45° Sh]		**N** MESCOLA NORMALE *NORMAL* [60° Sh]		**R** MESCOLA ALTA RESISTENZA *HIGH RESISTANCE* [75° Sh]		A [mm]	B [mm]	C [mm]	ØD [mm]	ØE [mm]	F [mm]	G [mm]	H	I [mm]
TIPO *Type*	CARICO *Load* [daN]	TIPO *Type*	CARICO *Load* [daN]	TIPO *Type*	CARICO *Load* [daN]									
AA 20/AS	10 - 15	AA 20/N	20 - 30	AA 20/R	30 - 50	46	28	22	20	3	34	3	M6	22
AA 30/AS	15 - 25	AA 30/N	30 - 50	AA 30/R	50 - 100	54	36	26,5	23	5,5	42	5,5	M8	31
AA 50/AS	25 - 50	AA 50/N	50 - 100	AA 50/R	100 - 200	65	49	35	30	6	52	8	M10	38
AA 100/AS	50 - 100	AA 100/N	100 - 200	AA 100/R	200 - 300	80	54	43	25	6,5	67	8	M12	41
AA 200/AS	100 - 150	AA 200/N	200 - 300	AA 200/R	300 - 400	108	73	55	40	8,5	90	10	M12	25
AA 300/AS	150 - 200	AA 300/N	300 - 400	AA 300/R	400 - 600	136	81,5	65	60	10,5	110	14	M14	25,5
AA 400/AS	200 - 300	AA 400/N	400 - 600	AA 400/R	600 - 800	155	93	74	65	12,5	125	14	M14	25
AA 600/AS	300 - 400	AA 600/N	600 - 800	AA 600/R	800 - 1000	175	95	77	70	14	140	15	M16	27
AA 800/AS	400 - 500	AA 800/N	800 - 1000	AA 800/R	1000 - 1500	180	118	93	75	15	150	16	M18	40
AA 1000/AS	500 - 750	AA 1000/N	1000 - 1500	AA 1000/R	1500 - 2000	203	148	118	100	16	162	20	M20	35
AA 1500/AS	750 - 1000	AA 1500/N	1500 - 2000	AA 1500/R	2000 - 4000	220	148	120	80	17	182	18	M20	98
AA 2000/AS	1000 - 2000	AA 2000/N	2000 - 4000	AA 2000/R	4000 - 6000	255	162	137	106	22	205	21	M36	115
AA 4000/AS	2000 - 4000	AA 4000/N	4000 - 6000	AA 4000/R	6000 - 9000	315	155	130	128	27	255	22	M42	59

Dimensioni indicative

Dimensions for reference only





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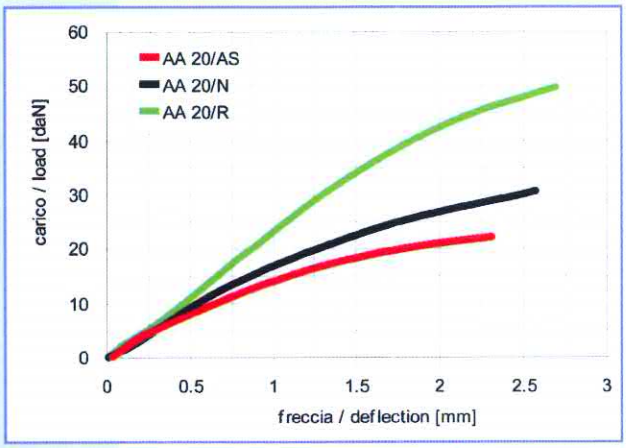
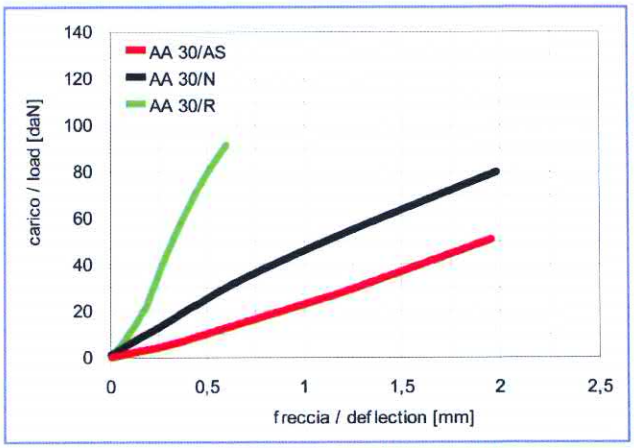
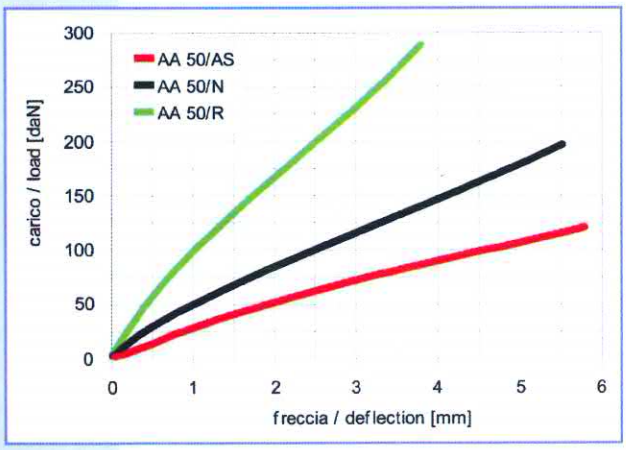
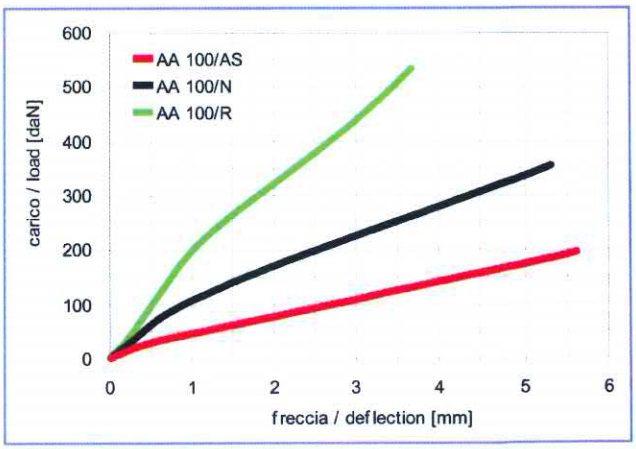
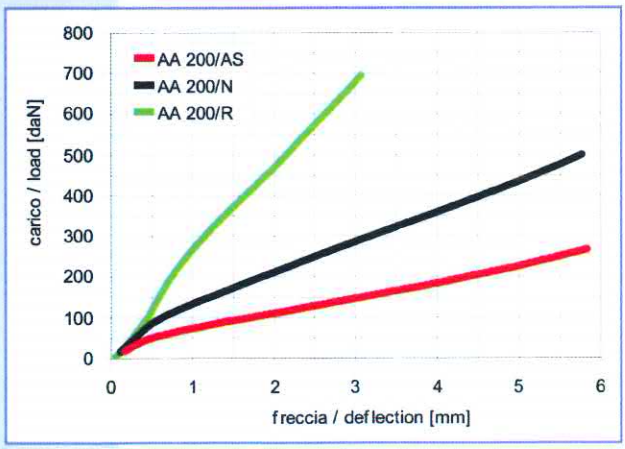
Diagrammi di carico — Load diagrams

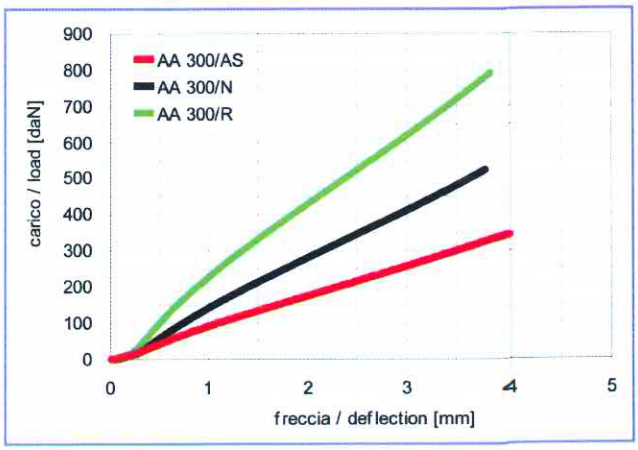








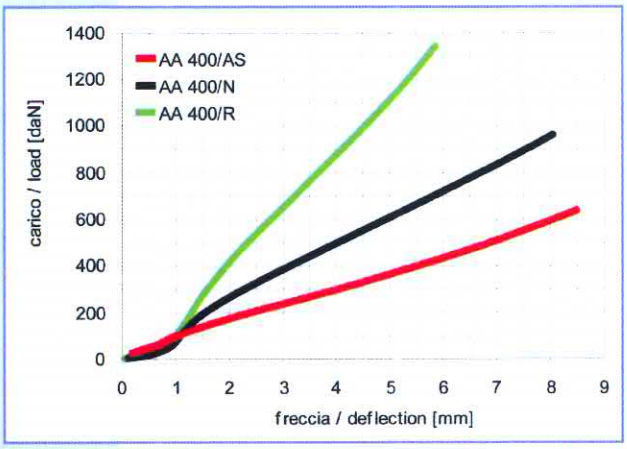


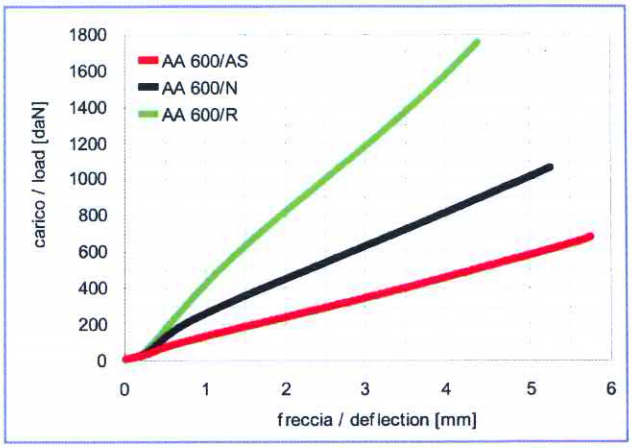


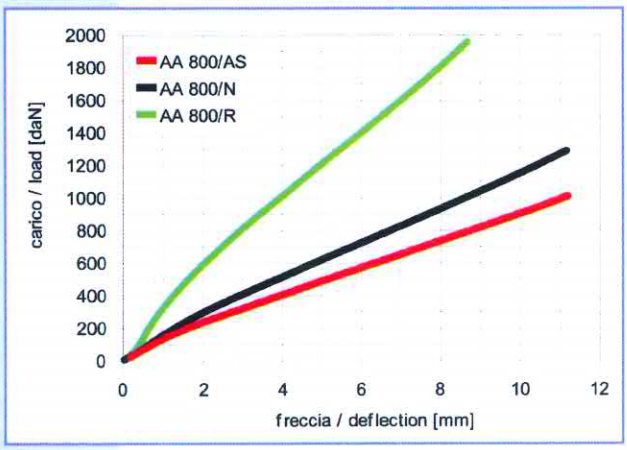
Curve caratteristiche indicative

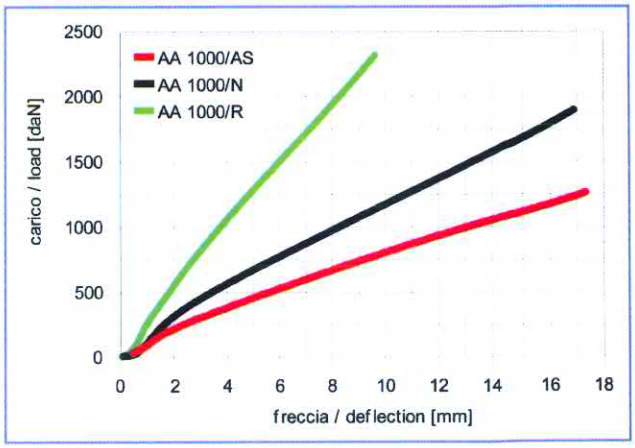
Performance characteristics for reference only

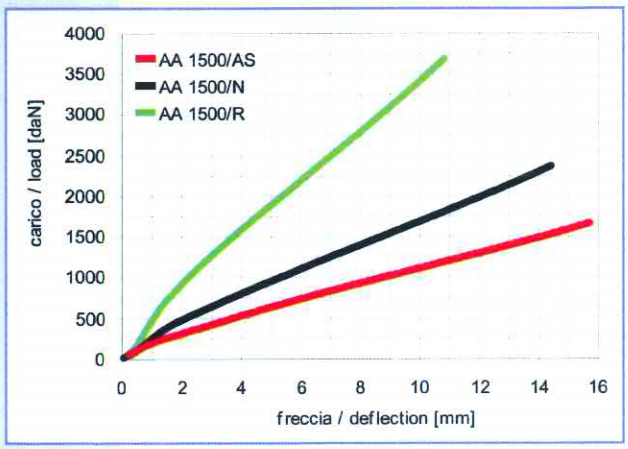
Diagrammi di carico — Load diagrams

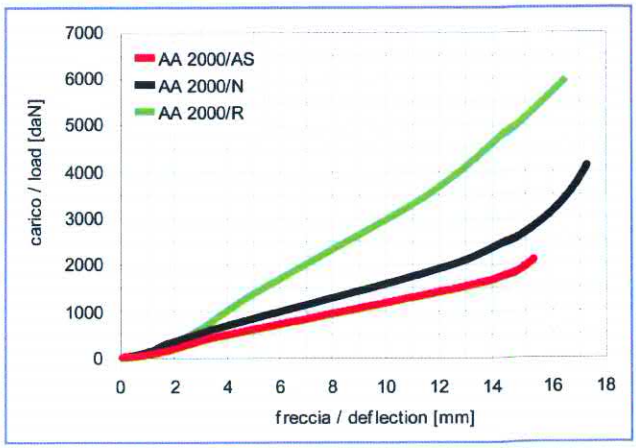












Curve caratteristiche indicative

Performance characteristics for reference only

VIBROSTOP SRL - Via Savona, 125 - 20144 Milano, Italy - Tel. +39-02-4895.0008 Fax +39-02-4895.3807 - www.vibrostop.it

*Shipped loose for field installation and wiring
*Quoted as an add option

MIRUS International Inc.

The Lineator™

Advanced Universal Harmonic Filter



Proven Performance. Trusted Around the World.

THE ORIGINAL HARMONIC FILTER SOLUTION

Originally developed to address VFD harmonics across a variety of industries, the Lineator passive harmonic filter was the first of its kind. Today, the Lineator remains a symbol of our commitment to solving the harmonic challenges in modern power systems.

Mirus delivers innovative and reliable solutions for the most unique power quality problems, staying at the forefront of industry knowledge and expertise.

WHY CHOOSE THE LINEATOR?

- IEEE Std 519 compliance guaranteed
- Easy to install, configure and maintain
- Improved power system reliability
- Reduced energy use and overall operating costs
- Generator compatible

ABOUT MIRUS

- Products built for real-world conditions
- Iron-clad performance guarantee
- Best-in-class warranty
- Over 100,000 units in service
- Fully customizable solutions available

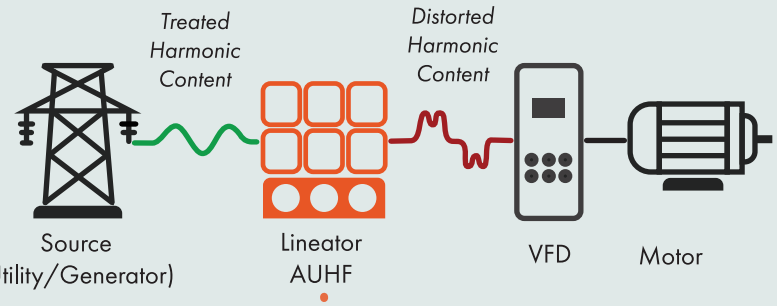
APPLICATIONS

Data Centres | Marine | HVAC | Oil & Gas | Agriculture | Water & Wastewater

1-888-TO MIRUS | www.mirusinternational.com

THE KEY TO A HEALTHY POWER SYSTEM

Mitigate the negative effects of harmonics, improve the power quality and efficiency of your electrical distribution system, and ensure compliance with international standards.



A LINEATOR FOR ANY APPLICATION

AUHF
Standard Duty

Cost-effective and designed to handle all common harmonic frequencies generated by VFDs and similar 3-phase, 6-pulse rectifier loads.

AUHF HP
High Performance

When the highest power quality demands must be met and energy efficiency is critical.

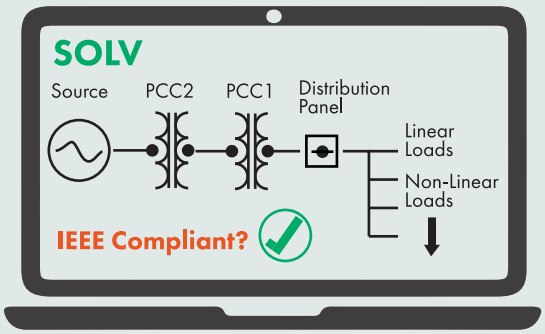
AUHF HP2
High Performance (EC Fans/Motors)

For applications with low DC bus capacitance, where most passive and active filters are ineffective.

AUHF ED
Extreme Duty

For high levels of grid voltage distortion (≤ 18% VTHD), high ambient temperatures (≤ 55°C), and high altitudes.

ANALYZE THE DETAILS



Mirus' SOLV™ harmonic simulation software let's you quickly and accurately model your entire power system.

By inputting source and load conditions, SOLV calculates the voltage and current distortion levels in your system and generates comprehensive IEEE Std 519 compliance reports.

Contact Mirus for complete sizing and pricing options.

SPECIFICATIONS

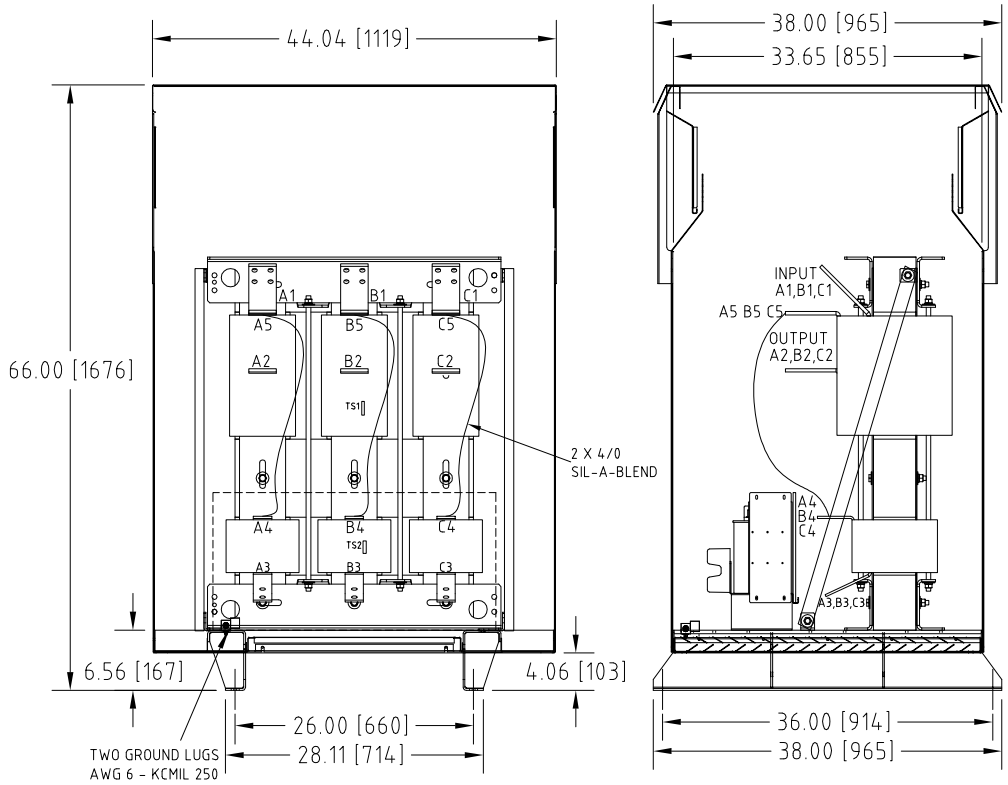
Power (HP/KW)	≤ 4500/3350
Current (A)	≤ 5000
Voltage (VAC)	Standard voltages up to 690
Frequency (Hz)	50/60
Cooling	Convection air cooled; Liquid cooled
Enclosure	Open (no enclosure); NEMA 3R; Contact factory for custom options
Options	DNV or Lloyds certification; Contactor; Temp. switches; Tin plating; Coordinated surge protection; InSight™ power meter

For full specifications see the Lineator AUHF technical data sheet.

©Mirus International Inc. All specifications subject to change without notice.

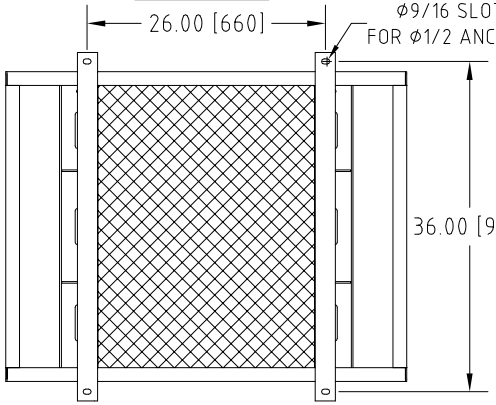
For 4 compressor chiller

Rev. No.	Revision Note	Date	By	Checked
A1	MOVED SUPPORT UNISTRUT BACK	11-SEP-2025	TCS	BDK

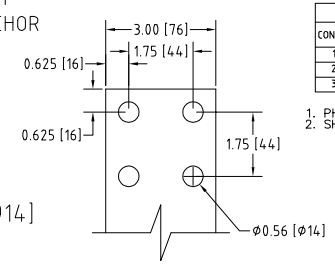


Front View

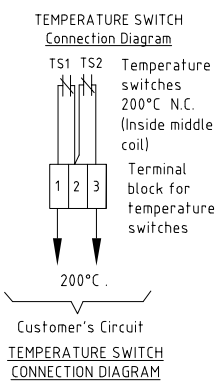
Side View



Bottom View

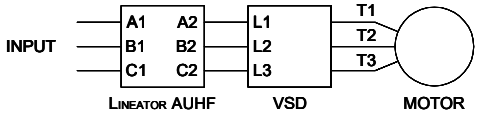


Input A1,B1,C1 & Output A2,B2,C2
TERMINALS
THICKNESS: 3/8"



TEMPERATURE SWITCH
CONNECTION DIAGRAM

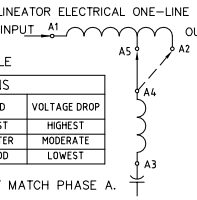
Connection Diagram



UNIT SPECIFICATIONS				INPUT	OUTPUT	APPROX. WT
HP [kW]	PHASE	VOLTS	Hz	AMPS	kW	lb [kg]
800 [560]	3	480	60	890	662	2000 (909)

NOTES:
1. Customer is responsible for installation to meet all national and local electrical codes and other applicable electrical safety authorities.
2. Type 3R Enhanced enclosure suitable for outdoor installation. Only front access is required but minimum 6" clearance should be provided at rear for proper ventilation.

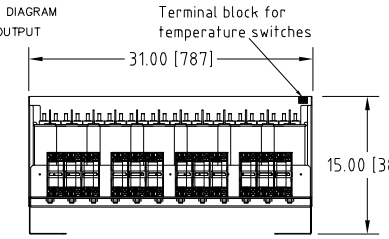
LINEATOR ELECTRICAL ONE-LINE DIAGRAM



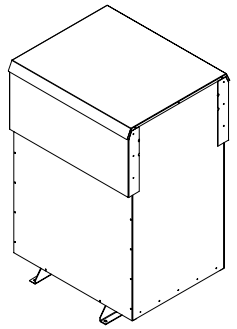
CONNECTION TABLE

PHASE A CONNECTIONS				
CONFIG.	JUMPER FROM A4 TO:	OUTPUT TO VFD	THD	VOLTAGE DROP
1	A5	A2	BEST	HIGHEST
2	A2	A2	BETTER	MODERATE
3	A5	A5	GOOD	LOWEST

1. PHASE B & C CONNECTIONS MUST MATCH PHASE A.
2. SHIPPED IN CONFIGURATION #1.



Capacitor Board



Isometric View

MIRUS International Inc.
31 Sun Pac Boulevard, Brampton, ON, Canada L6S 5P6
Tel:(905) 494-1120 Fax: (905) 494-1140 Toll Free: 1-888-TO MIRUS

Unless otherwise specified, dimensions are in inches and [mm].	Drawn by	Date	Checked by	Approved by - date	Scale
	TCS	23-JUL-2025	BDK	BDK-23-JULY-2025	NTS

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Title			
800 HP, 480 V, 60 Hz, HP, ED LINEATOR™ AUHF (Type-3R Enh.)			
Filename		Revision	Sheet
AUHF-800-480-60-D-E1E-HP-ED-A1		A1	1/1

MIRUS International Inc.
31 Sun Pac Blvd., Brampton, Ontario, Canada L6S 5P6

TECHNICAL DATA | **THE LINEATOR™**

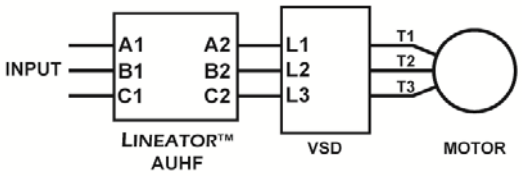
Advanced Universal Harmonic Filter (AUHF) Enclosed

Product Code:

AUHF - HP - VVV - Hz - D - En - O

- **HP** (Motor HP, 5 to 3500 HP)
- **VVV** (Line Voltage): All standard voltages up to 690 VAC
- **Hz** (Frequency): 50 = 50; 60 = 60; 56 = 50/60
- **D** (Load Type): D = Diode Bridge Rectifier; T = Thyristor Bridge Rectifier
- **En** (Enclosure): E0 = No Enclosure; E0P = No Enclosure Panelmount; E0M = No Enclosure Modular; E1 = Std Indoor Enclosure Nema3R [IP23]; E1E = Enhanced Outdoor Enclosure Nema3R [IP23]; M1 = E1 + Marine Coating / Galvanneal; M1E = E1E + Marine Coating / Galvanneal
- **O** (Options): HP = High Performance; HP2 = For Low DC Capacitance; ED = Extreme Duty; M = Marine Duty

Connection Diagram



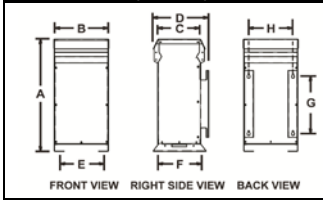
GENERAL SPECIFICATIONS:

RATING	For motor/drive system sizes 5HP(4kW) to 3500HP(2600kW)	**INPUT CURRENT DISTORTION**	< 8% @ Full Load < 5% @ Full Load for HP version
VOLTAGE	Standard voltages up to 690V	**EFFICIENCY**	5 to 600HP: > 99% 700 to 1800HP: > 99.2% 2000 to 3500HP: > 99.4%
FREQUENCY	50 Hz or 60Hz models	**ELEVATION**	≤ 3300ft [1000m] above sea level
TORQUE RATING	Constant Torque	**VENTILATION**	Convection air cooled
OVERLOAD CAPABILITY	Suitable for overload of 150% for 60 seconds every 10 minutes	**AMBIENT TEMPERATURE**	≤ 40 Deg C [104 Deg F] Up to 55 Deg C for ED version
HARMONICS TREATED	All harmonics 5th and higher	**WINDING MATERIAL**	Copper
K-FACTOR SUITABILITY	Up to 20 (Reduced to <1.5 on input of AUHF)	**ENCLOSURE**	Type: TYPE-3R Indoor, Colour: ANSI 61 Grey Paint: Polyester powder coated Optional: Enhanced Outdoor, Marine Coating / Galv.
MAXIMUM CAPACITIVE REACTIVE CURRENT @ N.L. (kVAR as % of rated kW)	5 to 75HP: < 20% 100 to 3500HP: 10 to 15%	**OPTIONS:**	Capacitor Switching Contactor, Performance / Capacitor Monitoring, CSP, Temp Switches, Tin Plating

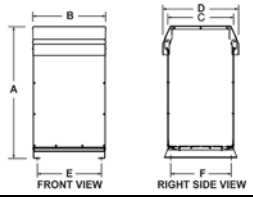
Motor Size		Lineator Rating (3-Phase)								480V (60Hz)				600V (60Hz), 690V (50-60Hz)			
		Current Rating (Amps)						Output		Standard Enclosure		Enhanced Enclosure		Standard Enclosure		Enhanced Enclosure	
HP	kW	460/480V 60Hz		575/600V 60Hz		660/690V 50/60Hz				Case	Weight	Case	Weight	Case	Weight	Case	Weight
		Input	Output	Input	Output	Input	Output	kVA	kW	Style	lbs [kg][1]	Style	lbs [kg][1]	Style	lbs [kg][1]	Style	lbs [kg][1]
5	4	7	7	5	5	5	5	6	4.5	SU1	58 [26]	SU1-E	68 [31]	SU1	57 [26]	SU1-E	67 [30]
7.5	5.5	9	10	7	7	6	6	8	6.3		67 [30]		77 [35]		67 [30]		77 [35]
10	7.5	12	13	10	11	8	8	10	8.5		78 [35]		88 [40]		77 [35]		87 [39]
15	11	17	18	14	15	12	13	14	13		90 [41]		100 [45]		86 [39]		96 [44]
20	15	23	24	18	19	16	17	19	17	SU2	118 [54]	SU2-E	128 [58]		98 [45]	SU2-E	128 [58]
25	18.5	29	31	23	24	20	21	25	21		130 [59]		140 [64]	SU2	125 [57]		135 [61]
30	22	34	36	28	30	24	25	29	25		142 [65]		152 [69]		137 [62]		147 [67]
40	30	46	49	37	39	32	34	39	34		154 [70]		164 [74]		149 [68]		159 [72]
50	37.5	57	60	45	48	40	42	48	42		186 [84]	SU3-E	196 [89]		184 [83]	SU3-E	196 [89]
60	45	69	73	55	58	48	51	58	51	SU3	218 [99]		228 [103]		206 [94]		216 [98]
75	55	85	90	68	72	59	63	72	63		304 [138]		314 [142]	SU3	298 [135]		308 [140]
100	75	113	120	90	95	79	84	96	84		323 [147]		333 [151]		315 [143]		325 [147]
125	90	141	149	112	119	98	104	119	104		345 [156]	SU4-E	419 [191]		345 [156]	SU4-E	419 [191]
150	110	169	179	135	143	118	125	143	125	SU4	365 [166]		439 [200]	SU4	365 [166]		439 [200]
175	132	200	212	159	169	139	147	166	148		390 [177]	MT3-E	455 [207]		390 [177	MT3-E	455 [207]
200	150	226	240	180	191	158	167	191	168		415 [189]		489 [222]		415 [189]		489 [222]
250	185	281	298	225	239	196	208	237	209	MT3	578 [262]		640 [290]	MT3	578 [262]		640 [290]
300	220	337	357	270	286	235	249	284	251		585 [266]	MT4-E	695 [316]		585 [266]	MT4-E	695 [316]
350	250	395	419	315	334	275	292	334	292	MT4	800 [363]		1006 [456]	MT4	780 [354]		1006 [456]
400	315	470	498	375	398	325	345	397	349		825 [374]	LT1-E	1031 [467]		805 [365]	LT1-E	1031 [467]
450	355	530	562	424	449	369	391	448	394		870 [395]		1076 [488]		870 [395]		1076 [488]
500	400	595	631	475	504	415	440	503	443		915 [415]		1121 [508]		915 [415]		1121 [510]
600	450	670	710	535	567	470	498	566	499	LT1	1398 [634]		1476 [670]	LT1	1398 [634]		1476 [670]
700	500	780	827	625	663	545	578	659	579		1700 [771]	LT2-E	1839 [834]		1650 [748]	LT2-E	1740 [789]
800	560	890	943	715	758	620	657	751	662	LT2	1882 [854]		1954 [886]	LT2	1805 [819]		1852 [842]
900	630	990	1049	795	843	690	731	836	736		1920 [871]	LT3-E	2054 [931]		1882 [854]	LT3-E	2054 [932]
1000	710	1100	1166	880	933	770	816	929	818		1950 [884]		2084 [945]		1915 [869]		2064 [936]
1100	800	1210	1283	970	1028	845	896	1022	900	LT3	2465 [1118]		2564 [1163]	LT3	2331 [1057]		2515 [1141]
1200	900	1330	1410	1060	1124	925	981	1123	987		2568 [1167]		2958 [1245]		2465 [1121]		2855 [1298]
1300	970	1430	1516	1145	1214	1000	1060	1208	1064		2718 [1236]	HT2-E / LT4-E	3408 [1549]		2609 [1186]	HT2-E / LT4-E	2999 [1363]
1400	1000	1540	1632	1235	1309	1075	1140	1300	1145		2858 [1299]		3548 [1613]		2782 [1265]		3172 [1442]
1500	1120	1650	1749	1325	1405	1155	1224	1394	1228	HT2 / LT4	3598 [1635]		3690 [1677]	HT2 / LT4	3540 [1606]		3620 [1642]
1600	1200	1770	1876	1415	1500	1235	1309	1495	1316		3748 [1703]		3840 [1745]		3702 [1679]		3800 [1724]
1800	1350	1990	2109	1595	1691	1390	1473	1680	1481		3848 [1749]	HT3-E	4376 [1943]		3798 [1723]	HT3-E	3875 [1758]
2000	1450	2200	2332	1765	1871	1535	1627	1858	1636		3978 [1808]		4506 [2048]		3945 [1789]		4250 [1928]
2300	1700	2530	2682	2030	2152	1765	1871	2137	1882		4075 [1850]		4600 [2088]		4015 [1821]		4340 [1969]
2500	1850	2755	2920	2205	2337	1920	2035	2326	2045	HT3	4650 [2111]		4750 [2157]	HT3	4600 [2087]		4750 [2155]
2800	2100	3100	3286	2480	2629	2160	2290	2618	2303		5000 [2270]		5100 [2315]		4945 [2243]		5100 [2313]
3000	2250	3320	3519	2660	2820	2315	2454	2804	2468		5225 [2372]				5180 [2350]		
3500	2600	3855	4086	3085	3270	2685	2846	3255	2825		5550 [2520]				5490 [2490]		

Motor Size		Lineator Rating (3-Phase)										208, 240V (60Hz)				400, 440V (50Hz)			
		Current Rating (Amps)										Standard Enclosure		Enhanced Enclosure		Standard Enclosure		Enhanced Enclosure	
HP	kW	208V 60Hz		220/240V 50/60Hz		380/400V 50Hz		415/440V 50Hz		Output		Case	Weight	Case	Weight	Case	Weight	Case	Weight
		I/P A	O/P A	I/P A	O/P A	I/P A	O/P A	I/P A	O/P A	kVA	kW	Style	lbs [kg][1]	Style	lbs [kg][1]	Style	lbs [kg][1]	Style	lbs [kg][1]
5	4	14	15	13	14	8	8	7	7	6	4.5	SU1	65 [30]	SU1-E	75 [34]	SU1	58 [26]	SU1-E	68 [31]
7.5	5.5	20	21	18	19	11	12	10	11	8	6.3		76 [35]		86 [39]		67 [30]		77 [35]
10	7.5	27	29	24	25	14	15	13	14	10	8.5	SU2	80 [36]	SU2-E	80 [36]		78 [35]		88 [40]
15	11	40	42	36	38	21	22	19	20	14	13		117 [53]		127 [58]	SU2	90 [41]	SU2-E	100 [45]
20	15	53	56	48	51	28	30	25	27	19	17		138 [63]		148 [67]		118 [54]		128 [58]
25	18.5	66	70	60	64	35	37	32	34	25	21		154 [70]	SU3-E	164 [74]		130 [59]		140 [64]
30	22	79	84	72	76	42	45	38	40	29	25	SU3	189 [86]		199 [90]		142 [65]		152 [69]
40	30	105	111	95	101	55	58	51	54	39	34		253 [115]		263 [119]		154 [70]	SU3-E	164 [74]
50	37.5	131	139	119	126	69	73	63	67	48	42		275 [125]	SU4-E	333 [151]	SU3	186 [84]		196 [88]
60	45	158	167	143	152	83	88	76	81	58	51		315 [143]		337 [153]		218 [99]		228 [103]
75	55	196	208	178	189	103	109	95	101	72	63	SU4	325 [148]		399 [181]		304 [138]		314 [142]
100	75	260	276	236	250	137	145	125	133	96	84		442 [201]	MT3-E	516 [235]		323 [147]	SU4-E	414 [188]
125	90	323	342	294	312	170	180	156	165	119	104		468 [213]		542 [246]	SU4	345 [156]		434 [197]
150	110	388	411	353	374	204	216	187	198	143	125		553 [251]		627 [285]		365 [166]	MT3-E	469 [213]
175	132	453	480	412	436	241	255	221	234	166	148	MT3	600 [272]		615 [279]	MT3	390 [177]		492 [223]
200	150	517	548	470	499	274	290	250	265	191	168	MT4	700 [318]	MT4-E	720 [327]		415 [189]		514 [234]
250	185	647	686	588	623	340	360	312	331	237	209		850 [386]	LT1-E	1000 [453]		578 [262]	MT4-E	600 [273]
300	220	776	823	706	748	410	435	374	396	284	251		1125 [510]		1150 [522]		585 [266]		670 [305]
350	250	906	960	823	873	475	504	436	462	334	292	LT1	1250 [567]	LT2-E	1350 [612]	MT4	800 [363]		1006 [456]
400	315	1035	1097	941	997	565	599	520	551	397	349		1325 [601]		1500 [680]		825 [374]	LT1-E	1031 [467]
450	355					641	679	587	622	448	394						870 [395]		1076 [488]
500	400					720	763	660	700	503	443					LT1	915 [415]		1121 [508]
600	450					810	859	740	784	566	499						1098 [499]	LT2-E	1176 [535]
700	500					940	996	865	917	659	579						1700 [771]		1839 [834]
800	560					1075	1140	985	1044	751	662					LT2	1882 [854]	LT3-E	1954 [886]
900	630					1200	1272	1100	1166	836	736						1920 [871]		2054 [931]
1000	710					1335	1415	1220	1293	929	818						1950 [884]		2084 [945]
1100	800					1470	1558	1340	1420	1022	900						2465 [1118]		2564 [1163]
1200	900					1610	1707	1470	1558	1123	987					LT3	2568 [1167]		2958 [1245]
1300	970					1735	1839	1585	1680	1208	1064						2718 [1236]	HT2-E / LT4-E	3408 [1549]
1400	1000					1870	1982	1710	1813	1300	1145						2858 [1299]		3548 [1613]
1500	1120					2000	2120	1835	1945	1394	1228						3598 [1635]		3690 [1677]
1600	1200					2145	2274	1965	2083	1495	1316					HT2 / LT4	3748 [1703]		3840 [1745]
1800	1350					2410	2555	2210	2343	1680	1481						3848 [1749]		4376 [1943]
2000	1450					2670	2830	2440	2586	1858	1636						3978 [1808]		4506 [2048]
2300	1700					3065	3249	2810	2979	2137	1882						4075 [1850]	HT3-E	4600 [2088]
2500	1850					3335	3535	3050	3233	2326	2045						4650 [2111]		4750 [2157]
2800	2100					3750	3975	3435	3641	2618	2303					HT3	5000 [2270]		5100 [2315]
3000	2250					4020	4261	3680	3901	2804	2468						5225 [2372]		
3500	2600					4265	4521	3905	4139	3255	2825						5550 [2520]		

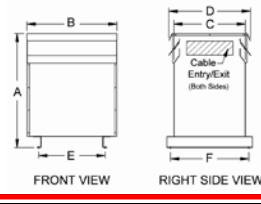
'SU1', 'SU2' ,' SU3'



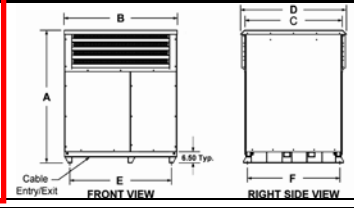
'SU4' ENCLOSURE



'MT3', 'MT4', 'LT'



'HT' ENCLOSURE



CASE STYLE		ENCLOSURE DIMENSIONS - inches [mm]							
Standard	Enhanced	A	B	C	D	E	F	G	H
SU1	SU1-E	23.50 [597]	11.25 [286]	8.75 [222]	11.25 [286]	9.00 [229]	9.50 [242]	12.00 [305]	9.00 [228]
SU2	SU2-E	30.00 [762]	13.25 [336]	10.25 [260]	12.75 [324]	11.00 [279]	11.25 [286]	16.00 [406]	11.00[279]
SU3	SU3-E	34.00 [864]	20.25 [514]	13.25 [336]	16.00 [406]	18.00 [457]	14.25 [362]	20.00 [508]	18.00[457]
SU4	SU4-E	40.00 [1016]	22.00 [559]	19.75 [502]	22.00 [559]	20.00 [508]	20.00 [508]		
MT3	MT3-E	45.00 [1143]	26.00 [661]	21.00 [534]	25.00 [635]	21.50 [546]	19.00 [483]		
MT4	MT4-E	51.50 [1308]	32.00 [813]	25.50 [648]	29.50 [749]	23.50 [597]	23.50 [597]		
LT1	LT1-E	59.00 [1499]	39.50 [1003]	30.00 [762]	34.00 [864]	24.00 [610]	32.00 [813]		
LT2	LT2-E	66.00 [1677]	44.00 [1118]	34.00 [864]	38.00 [965]	26.00 [660]	36.00 [915]		
LT3	LT3-E	75.00 [1905]	48.50 [1232]	39.00 [991]	43.00 [1092]	27.50 [699]	41.00 [1041]		
LT4	LT4-E	78.00 [1981]	59.00 [1499]	50.50 [1283]	54.25 [1378]	32.00 [813]	52.00 [1321]		
HT2	HT2-E	78.00 [1981]	59.00 [1499]	52.00 [1321]	56.25 [1442]	54.00 [1372]	52.00 [1321]		
HT3	HT3-E	84.00 [2134]	69.00 [1753]	59.50 [1511]	64.50 [1638]	64.00 [1626]	60.00 [1524]		

Notes:
1. Approx. Values. Enclosure dimensions and weights listed above apply to standard diode bridge type model without options. Refer to product specific drawings.
2. Specifications are subject to change without notice.
3. For more information regarding Lineator sizing, consult Mirus Lineator Sizing Guide.
4. Cable entry is from left or right side only unless otherwise indicated.
5. For additional information refer to: Typical Specifications, Internal Layout and Connection Diagrams.

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