



Meeting Notice

TO: Board Members
FROM: Andrew Santillo
DATE: January 11, 2021
RE: Planning Board Meeting

The regular meeting of the Montgomery County Planning Board is scheduled for Thursday, January 14, 2021 at 6:30 p.m., to be held via Zoom meeting teleconference.

To join the meeting from your computer, tablet or smartphone:
Zoom Meeting ID: 899 574 5359
Password: 081958

You can also dial in using your phone:
Dial: 646-558-8656
Enter Meeting Information: 8995745359#, 1#, 081958#

Please call Andrew at (518) 853-8334 between 8:30 a.m. and 4:00 p.m. if you have any questions.

cc: The Recorder
Montgomery Co. Legislature
DPW

The Leader Herald
Daily Gazette



MONTGOMERY COUNTY PLANNING BOARD MEETING

Thursday, January 14, 2021

6:30 PM – Montgomery County Business Development Center (Digital Meeting via Zoom)

- I. Pledge of Allegiance
- II. Role Call
- III. 2021 Organizational Items
- IV. Adoption of Agenda
- V. Approval of previous meeting minutes
- VI. Public comments on agenda items (3 minute limit per person)
- VII. City of Amsterdam — Site Plan Review
- VIII. Town of Amsterdam — Site Plan Review (Housing Referral)
- IX. Town of Amsterdam — Site Plan Review (Solar Referral)
- X. Town of Mohawk — Zoning Law Amendment
- XI. Any other business

Montgomery County Planning Board
Meeting Minutes
December 10th, 2020
(digital meeting via Zoom)

MEMBERS PRESENT:

Wayne DeMallie, Chairman
Ronald Jemmott, Member
Irene Collins, Member
David Wiener, Member
Erin Covey, Member
Angela Frederick, Member
Betty Sanders, Alternate

STAFF MEMBERS PRESENT:

Alex Kuttesch, Senior Planner
Vinnie Nicosia, Economic Dev. Specialist
Irene Andrew Santillo, Economic Dev. Assistant
Karl Gustafson Jr., Grant Assistant
Ken Rose, Director

ABSENT:

John Lyker, Member
Mark Hoffman, Vice Chair

OTHERS PRESENT:

Michael Lossio- Solar Company
Peter Yetto- Ingales Associates

I. Call to Order

The meeting was called to order by Chairman Wayne DeMallie at 6:31 p.m.

II. Roll Call

The roll call of board members was done by Chairman DeMallie.

III. Adoption of the Agenda

Irene Collins made a motion to accept the agenda, Erin Covey seconded. All members present were in favor.

IV. Approval of previous Minutes

Betty Sanders made a motion to accept previous meeting minutes, Erin Covey seconded the motion. The previous minutes were approved.

V. Public Comment

There was no public comment.

VI. Town of Minden- Special Use Permit/Area Variance/ Site Plan Review

Alex Kuttesch explained to the board that this referral is a 2 Megawatt community solar project in the Town of Minden. The referral came to the county planning board because it is located within a 100ft of an adjacent property that is on a county road. Alex stated that the board will be taking 3 actions on this project. The first one being a Special Use Permit due to the fact that the project is zoned agricultural. The second action that needs to be taken is the Area Variance. The Town of Minden recommended that the project has a tree buffer along the neighboring property line. The Solar panels themselves will not be within the 100ft setback requirement but the tree buffer will not be. The Area Variance would give the project the ability to plant the trees for the buffer. Finally, the last action that will need to be taken is the Site Plan review.

Peter Yetto reiterated that the trees are within the 100ft setback, and that is why the Area variance is needed. Peter also stated that there is no impact of the wetlands that are on the property.

Irene Collins asked if the entire property will be used for solar. Peter explained that the entire property is 120 acres but the acreage of the solar panels is about 9.8 acres.

Angela Frederick made the motion to approve the Special Use Permit referral, seconded by Erin Covey.

All were in favor.

The Special Use Permit referral was approved.

Angela Frederick made the motion to approve the Area Variance referral, seconded by Erin Covey.

All were in favor. The Area Variance referral was approved.

Irene Collins made the motion to approve the Site Plan Review referral, seconded by Ron Jemmott.

All were in favor. The Site Plan Review referral was approved.

VII. City of Amsterdam- Form Based Code

Alex Kuttesch explained that this referral is to update the zoning within the DRI boundary in the City of Amsterdam. This boundary includes the downtown area of Amsterdam, the south side and waterfront. This will put more emphasis on design, building height, signage, balconies, lot sizes, colors of paint for buildings, etc. Alex stated that this is to aim at

clustering similar types of businesses and making sure they have a similar type of design. This Form based code document would supersede any zoning in the downtown area that exist today. Alex added that any referral from the City of Amsterdam that falls in this boundary will have to follow this form based code.

Erin Covey asked if a business wants to paint their building will they have to get the City's approval. Alex stated that they will have to follow the color pallet that is in the form based code.

Angela Frederick made a recommendation that all businesses located in this area are notified of the Form Base Code change. She stated that it would be unfair to change the codes without notifying people within the designated zone, in case they have future goals to remodel their business.

David Wiener made the motion to approve the referral with the modification that the City of Amsterdam notifies everyone in the DRI boundary, Erin Covey seconded.

Irene Collins abstained. The rest of the board was in favor. The referral was approved.

VIII. Other Business

There was no other business.

IX. Adjournment

Irene Collins made a motion to adjourn the meeting at 7:00 p.m., seconded by Ron Jemmott. All were in favor.

Respectfully submitted,

Karl Gustafson Jr.
Economic Development Grant Assistant

REFERRAL FORM

MONTGOMERY COUNTY PLANNING BOARD

Referral Number _____

assigned by the MCPB upon
acceptance of referral for review

This Referral must be received **SEVEN CALENDAR DAYS** prior to the MCPB meeting date in order for it to be placed on the agenda.

TO: Montgomery County Planning Board,
Old County Courthouse,
PO Box 1500, Fonda, New York 12068
Phone: 518-853-8334
Fax: 518-853-8336

FROM: Municipal Board: Planning Commission
Referring Officer: Paul Garry
Mail original resolution to: Robin Waldron
101 Church Street, Amsterdam,
NY 12010

1. Applicant: City of Amsterdam 2. Site Address: 27-31 Main Street
3. Tax Map Number(s): 55-43-1-3 4. Acres: NA
5. Is the site currently serviced by public water? ☒ Yes ☐ No
6. On-site waste water treatment is currently provided by: ☒ Public Sewer or ☐ Septic System
7. Current Zoning: DC 8. Current Land Use: Mixed-use
9. Project Description: Personal Wireless Service Facilities

10. MCPB Jurisdiction:

- ☐ Text Adoption or Amendment ☒ Site is located within 500' of: NYS Rtes. 5 and 30
- ☐ a municipal boundary.
 - ☒ a State or County thruway/highway/roadway
 - ☐ an existing or proposed State or County park/recreation area
 - ☐ an existing or proposed County-owned stream or drainage channel
 - ☐ a State or County-owned parcel on which a public building or institution is situated
 - ☐ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. PUBLIC HEARING: Date: 12/10/2020 Time: 6:30 Location: Planning Commission

Referred Action(s)

If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or ☐ Amendment Referring Board:
☐ Comprehensive Plan ☐ Local Law ☐ Zoning Ordinance ☐ Other _____

13. ☐ Zone Change Referring Board:
Proposed Zone District: _____ Number of Acres: _____
Purpose of the Zone Change: _____

14. ☒ Site Plan ☐ Project Site Review Referring Board: Planning Commission
Proposed Improvements: Personal Wireless Service Facilities

Proposed Use: _____

Will the proposed project require a variance? ☐ Yes ☒ No Type: ☐ Area ☐ Use
Specify: _____

Is a State or County DOT work permit needed? If Yes : ☐ State or ☐ County ☒ No
Specify: _____

15. ☐ Special Permit

Referring Board: _____

Section of local zoning code that requires a special permit for this use: _____

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

16. Variance

Referring Board: _____

☐ Area ☐ Use

Section(s) of local zoning code to which the variance is being sought: _____

Describe how the proposed project varies from the above code section: _____

SEQR Determination

Action:

Finding:

- ☐ Type I
☐ Type II
☒ Unlisted Action
☐ Exempt

- ☐ Positive Declaration – Draft EIS
☐ Conditional Negative Declaration
☐ Negative Declaration
☐ No Finding (Type II Only)

SEQR determination made by (Lead Agency):

Planning Commission

Date:

12/16/2020

REQUIRED MATERIAL

Send 3 copies of a "Full Statement of the Proposed Action" which includes:

All materials required by and submitted to the referring body as an application

- If submitting site plans, please submit only 1 large set of plans, and 12 11x17 packets.
- All material may be submitted digitally as well at <http://www.mcbdc.org/planning-services/montgomery-county-planning-board-referrals/>

This referral, as required by GML §239 1 and m, includes complete information, and supporting materials to assist the Montgomery County Planning Board (MCPB) in its review. Recommendations by MCPB shall be made to the Referring Body within thirty days of receipt of the Full Statement.

Name, Title & Phone Number of Person Completing this Form

Transmittal Date

This side to be completed by Montgomery County Planning.

REFERRAL FORM

MONTGOMERY COUNTY PLANNING BOARD

TO: _____

Receipt of 239-m referral is acknowledged on _____. Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on _____ and makes the following recommendation.

- ☐ Approves
- ☐ Approves (with Modification)
- ☐ Disapproves:
- ☐ No significant County-wide or inter-community input
- ☐ Not subject to Planning Board review
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

Date

Kenneth F. Rose, Director
Montgomery County Dept. of Economic
Development and Planning

CITY OF AMSTERDAM
ENGINEERING DEPARTMENT
CITY HALL, RM. 201
AMSTERDAM, NY 12010

APPLICATION FOR PERMIT DENIED:

Case # 20-033 P

Official Use Only

This is the decision of the Zoning Officer of the City of Amsterdam.

REFERRAL TO PLANNING COMMISSION FOR SITE PLAN REVIEW (P)

☒ *SITE PLAN ☐ SPECIAL USE PERMIT ☐ SUBDIVISION of LAND

And/or OFFICIAL DECISION FOR DENYING APPLICATION FOR PERMIT (Z)

☐ USE VARIANCE ☐ AREA VARIANCE ☐ USE/TEXT/MAP INTERPRETATION

LOCATION of SUBJECT PROPERTY: 27-31 Main St

Subject property is in a DC Zoning District. SBL# 55.43-1-3

Proposed use or construction or installation:

Personal Wireless Service Facilities

The undersigned, having examined the plans and specifications and plot or site plan submitted by the applicant(s), makes the following findings:

- () Prior approval of a special permit is required by the provisions of the Zoning Ordinance of the City of Amsterdam.
- () Prior approval of a *Site Plan is required by the provisions of the Zoning Ordinance of the City of Amsterdam.
- () Proposed use, construction or installation is in violation of Section(s) _____ of the Zoning Ordinance of the City of Amsterdam, in that

Dated: 11/9/20

Michael Bell
Zoning Officer/Building Official

- ☐ Copied to Engineering Aid
- ☐ Copied to Corporation Counsel Office

APPLICANT(S): Cellco Partnership d/b/a Verizon Wireless

Mailings to: Legal Address c/o David C. Brennan, Esq., Young/Sommer LLC

5 Palisades Drive, Suite 300, Albany, NY 12205

Contact Phone #: 518-438-9907 x 224

Dated: 10/31/2020

Daniel R. Brennan
Applicant Signature

Co-Applicant Signature



CITY OF AMSTERDAM
BOARD OF APPEALS
CITY HALL
61 CHURCH ST.
AMSTERDAM, NY 12010

ZONING OFFICE
CITY HALL
RM. 201

APPLICATION TO BOARD OF APPEALS

The under signed hereby makes application for appeal with the attached application, plans and specifications: **Attention all pertinent information below shall be filled in or application will be denied.**

Pg. 1 of 3

A. NATURE OF APPLICATION

Application is hereby made to the Board of Appeals for (check appropriate item):

- () Prior approval of subdivision is required by the provisions of Chapter 210, Code of the City of Amsterdam **(Complete Block E)**
- (x) Approval of a Special Permit as required by the provisions of the Zoning Ordinance.
(Complete Blocks B and E)
- (x) Approval of a Site Plan as required by the provisions of the Zoning Ordinance.
(Complete Blocks B and E)
- () Review of a decision of the Zoning Officer in denying a Building Permit or Certificate of Occupancy.
(Complete Blocks C and E)
- () Zoning Officer request for an interpretation of the Zoning Law, Use/Text/Map.
(Complete Blocks D and E)

Description of Premises Involved: Applicant shall fill in below.

The property or properties involved are identified as follows 27-31 Main Street (SBL 55.43-1-3)

B. IF APPLICATION IS FOR A SPECIAL USE PERMIT OR SITE PLAN APPROVAL

The applicant proposes to use the premises for the following purposes (give details) Public utility /
personal wireless service facility (communications facility)

C. IF APPLICATION IS FOR A REVIEW, OF DECISION OF THE ZONING OFFICER

1. The applicant requests relief from the decision of the Zoning Officer with respect to the following section(s) of Zoning Ordinance _____

2. The applicant proposes to use the premises for the following purposes (give details) _____

3. The applicant certifies that the following special circumstances apply to his or her property but do not apply generally to land or buildings in the neighborhood _____

APPLICATION TO BOARD OF APPEALS

pg. 2 of 3

4. The applicant certifies that no permissible use of his property will produce a reasonable return for the following reasons _____

5. The applicant certifies that the relief requested is the minimum variance which will enable reasonable use of his property for the following reasons _____

6. The applicant certifies that the proposed use will not be injurious to the character of the neighbor for the following reasons _____

7. The applicant has owned the subject property since _____.
The applicant certifies that he owns the following adjoining property _____

D. IF APPLICATION IS FOR AN INTERPRETATION TO THE USE/TEXT/MAP

The interpretation is as follows _____

E. MAPS, PLANS OR INFORMATION SUBMITTED HEREWITH

The following are submitted herewith (list and identify accurately) See materials attached: FEAF; landowner authorization form; public utility status; Telecommunications Act of 1996, FCC Licenses, Radio-Frequency Analysis and Propagation Plot; Radio-Frequency Safety Report; non-interference letter; photo simulations; Structural Assessment Report and Site Plan Drawings

*** Applicant must fill in all information below and sign application and if the applicant is not the owner of the for-mentioned premises then the Owner must also sign application.**

*** Applicant Name (Please Print):** Cellco Partnership d/b/a Verizon Wireless

Mailings to Legal Address: c/o David C. Brennan, Esq., Young/Sommer LLC
5 Palisades Drive, Suite 300, Albany, NY 12205

Applicant's Contact Telephone Number: 518-438-9907 x 224

*** Owner Name (If other than applicant):** Cranesville Properties L.L.C.

Owner Address: 1250 Riverfront Center, Amsterdam, NY 12010

*** Owner Signature:** Please see Tab 2

*** Applicant Signature:** 

Date: 10/31/2020

APPLICATION TO BOARD OF APPEALS

pg. 3 of 3

OFFICE USE ONLY

Building Department:

1 copy needed

Date Received 11/16/20

Case No. 20-033P

Is property situated in 500 feet of Montgomery County referral buffer zone?

☐ YES – Preliminary review for Montgomery County Planning Board
☒ NO

City Clerk:

original needed

Date Received 11/16/20

Fee Paid \$75.00



Zoning Board of Appeals:

6 copies needed

Date Received _____

Fee Paid _____

Planning Commission:

7 copies needed

Date Received 11/16/20

Fee Paid \$75.00

Applicant:

1 copy

**PLANNING COMMISSION
CITY OF AMSTERDAM, MONTGOMERY COUNTY, NEW YORK**

In the Matter of the Application of

**CELLCO PARTNERSHIP
d/b/a Verizon Wireless**

Lands n/f Cranesville Properties, L.L.C.
27-31 Main Street
City of Amsterdam, Montgomery County, New York
Section 55.43, Block 1, Lot 3

**APPLICATION FOR SITE PLAN REVIEW/SPECIAL USE PERMIT
and STATEMENT OF INTENT**

Submitted by:

Verizon Wireless
Kathy Pomponio, Manager – Network Real Estate
1275 John Street, Suite 100
West Henrietta, New York 14586
(585) 321-5435

Tectonic Engineering & Surveying Consultants, P.C.
Steven Matthews, P.E.
36 British American Blvd, Suite 101
Latham, New York 12110
(518) 783-1630

Pyramid Network Services, LLC
Logan Parker, Site Acquisition Specialist
6615 Towpath Road
East Syracuse, New York 13057
(585) 410-1714

Young/Sommer LLC
David C. Brennan, Esq.
Executive Woods
Five Palisades Drive
Albany, New York 12205
(518) 438-9907

Dated: October 30, 2020

CITY OF AMSTERDAM
ENGINEERING DEPARTMENT
CITY HALL, RM. 201
AMSTERDAM, NY 12010

APPLICATION FOR PERMIT DENIED:

Case # _____

Official Use Only

This is the decision of the Zoning Officer of the City of Amsterdam.

REFERRAL TO PLANNING COMMISSION FOR SITE PLAN REVIEW (P)

___ *SITE PLAN ___ SPECIAL USE PERMIT ___ SUBDIVISION of LAND

And/or OFFICIAL DECISION FOR DENYING APPLICATION FOR PERMIT (Z)

___ USE VARIANCE ___ AREA VARIANCE ___ USE/TEXT/MAP INTERPRETATION

LOCATION of SUBJECT PROPERTY: _____

Subject property is in a _____ Zoning District. SBL# _____

Proposed use or construction or installation:

The undersigned, having examined the plans and specifications and plot or site plan submitted by the applicant(s), makes the following findings:

- () Prior approval of a special permit is required by the provisions of the Zoning Ordinance of the City of Amsterdam.
- () Prior approval of a *Site Plan is required by the provisions of the Zoning Ordinance of the City of Amsterdam.
- () Proposed use, construction or installation is in violation of Section(s) _____ of the Zoning Ordinance of the City of Amsterdam, in that

Dated: _____

Zoning Officer/Building Official

☐ Copied to Engineering Aid

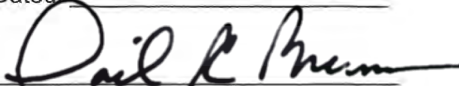
☐ Copied to Corporation Counsel Office

APPLICANT(S): _____

Mailings to: Legal Address _____

Contact Phone #: _____

Dated: 10/31/2020


Applicant Signature

Co-Applicant Signature



CITY OF AMSTERDAM
BOARD OF APPEALS
CITY HALL
61 CHURCH ST.
AMSTERDAM, NY 12010

ZONING OFFICE
CITY HALL
RM. 201

APPLICATION TO BOARD OF APPEALS

The under signed hereby makes application for appeal with the attached application, plans and specifications: **Attention all pertinent information below shall be filled in or application will be denied.**

Pg. 1 of 3

A. NATURE OF APPLICATION

Application is hereby made to the Board of Appeals for (check appropriate item):

- () Prior approval of subdivision is required by the provisions of Chapter 210, Code of the City of Amsterdam **(Complete Block E)**
- () Approval of a Special Permit as required by the provisions of the Zoning Ordinance. **(Complete Blocks B and E)**
- () Approval of a Site Plan as required by the provisions of the Zoning Ordinance. **(Complete Blocks B and E)**
- () Review of a decision of the Zoning Officer in denying a Building Permit or Certificate of Occupancy. **(Complete Blocks C and E)**
- () Zoning Officer request for an interpretation of the Zoning Law, Use/Text/Map. **(Complete Blocks D and E)**

Description of Premises Involved: Applicant shall fill in below.

The property or properties involved are identified as follows _____

B. IF APPLICATION IS FOR A SPECIAL USE PERMIT OR SITE PLAN APPROVAL

The applicant proposes to use the premises for the following purposes (give details) _____

C. IF APPLICATION IS FOR A REVIEW, OF DECISION OF THE ZONING OFFICER

1. The applicant requests relief from the decision of the Zoning Officer with respect to the following section(s) of Zoning Ordinance _____
2. The applicant proposes to use the premises for the following purposes (give details) _____
3. The applicant certifies that the following special circumstances apply to his or her property but do not apply generally to land or buildings in the neighborhood _____

APPLICATION TO BOARD OF APPEALS

pg. 2 of 3

4. The applicant certifies that no permissible use of his property will produce a reasonable return for the following reasons _____

5. The applicant certifies that the relief requested is the minimum variance which will enable reasonable use of his property for the following reasons _____

6. The applicant certifies that the proposed use will not be injurious to the character of the neighbor for the following reasons _____

7. The applicant has owned the subject property since _____
The applicant certifies that he owns the following adjoining property _____

D. IF APPLICATION IS FOR AN INTERPRETATION TO THE USE/TEXT/MAP

The interpretation is as follows _____

E. MAPS, PLANS OR INFORMATION SUBMITTED HEREWITH

The following are submitted herewith (list and identify accurately) _____

* Applicant must fill in all information below and sign application and if the applicant is not the owner of the for-mentioned premises then the Owner must also sign application.

* Applicant Name (Please Print): _____

Mailings to Legal Address: _____

Applicant's Contact Telephone Number: _____

* Owner Name (If other than applicant): _____

Owner Address: _____

* Owner Signature: Please see Tab 2 _____

* Applicant Signature: Dail R. Muen

Date: 10/31/2020

PLANNING COMMISSION
CITY OF AMSTERDAM, MONTGOMERY COUNTY, NEW YORK

In the Matter of the Application of

CELLCO PARTNERSHIP d/b/a Verizon Wireless

Premises: Lands n/f of Cranesville Properties, L.L.C.
27-31 Main Street, Amsterdam, New York 12010
Section 55.43, Block 1, Lot 3

**STATEMENT OF INTENT and
APPLICATION FOR SITE PLAN REVIEW/SPECIAL USE PERMIT**

I. Introduction

CELLCO PARTNERSHIP d/b/a Verizon Wireless (“Verizon Wireless” or the “Applicant”) proposes the location of an unmanned public utility/personal wireless service facility (a “communications facility”) at the above premises. The Applicant proposes to install: 1) eight (8) panel antennas mounted to the existing exterior wall of the existing penthouse and on a proposed ballast mount and steel frame on the rooftop; 2) equipment in the existing abandoned shelter on the rooftop; and 3) installation of electric and telecommunications equipment on a wall mounted strut. The building and lands are owned by Cranesville Properties, L.L.C. (the “premises”). The premises is located at 27-31 Main Street, City of Amsterdam, Montgomery County, New York (Tax Map Parcel No. 55.43-1-3), in the Downtown Core zoning district and Gateway Overlay zoning district. **[Zoning Site Plan Drawings of Tectonic Engineering & Surveying Consultants P.C. at TAB 11].**

Verizon Wireless is considered a public utility for land use purposes under New York decisional law (*Cellular Telephone Company v. Rosenberg*, 82 N.Y.2d 364 [1993]) **[TAB 3]**, and a provider of “personal wireless services” under the federal Telecommunications Act of 1996 (the “TCA”) **[TAB 4]**. Verizon Wireless’ equipment will be in operation twenty-four (24) hours a day, seven (7) days a week, three hundred sixty-five (365) days a year. Copies of the applicable Verizon Wireless FCC licenses are included herewith **[TAB 5]**.

Pursuant to the City of Amsterdam Zoning Law (hereinafter, the “Zoning Law”) and previous applications in the City of Amsterdam, this project requires Site Plan Review/Special Use Permit from the City of Amsterdam Planning Commission.

To the extent any variance relief is required for this project, this State’s highest Court determined in *Rosenberg* that the ordinary variance standard is inapplicable and a cellular telephone company applying for relief need only show that (1) the relief is “required to render safe and adequate service,” and (2) there are “compelling reasons, economic or otherwise,” for needing the variance. *Cellular Telephone Company v. Rosenberg*, 82 N.Y.2d 364, 372 (1993).

II. Purpose of the Amsterdam Center Facility

The purpose of the Amsterdam Center communications facility is to provide an adequate and safe level of emergency and non-emergency Verizon Wireless communications services to the

City of Amsterdam. More specifically, the proposed facility will extend and improve coverage and network capacity for portions of I-90, 3.5± miles along Route 5, 2.5± miles along Route 5s, 2.0± miles along Route 30, and surrounding areas. Coverage along all the main routes and local roads throughout this area including many homes, offices, shops, restaurants and hotels will be significantly improved in all of Verizon Wireless operational frequency bands.

Due to factors such as distance to surrounding Verizon Wireless facilities, significant RF signal degradation and blocking from numerous buildings in the City, exploding customer demand in the area, patches of dense local vegetation, and widely varying terrain in the area, there are significant gaps in adequate LTE service for Verizon Wireless in the 700 and 2100 MHz frequency bands in the City of Amsterdam.

Accordingly, construction of a new, locally-based communications facility is required to provide a dominant (i.e., continuous) level of advanced communications service to this area. See, RF Analysis prepared by Verizon Wireless' Radio Frequency (RF) Engineer, detailing the purpose and need for this facility [TAB 6].

III. Description of Land Use

Verizon Wireless proposes to collocate a new communications facility on the rooftop of the Cranesville Properties building. The new communications facility will consist of the following general components:

- Two (2) panel antennas and appurtenances wall mounted at a centerline of approximately 98' AGL;
- Two (2) panel antennas and appurtenances wall mounted on the existing penthouse at a centerline of approximately 108' AGL;
- Two (2) panel antennas and appurtenances on a ballast mount at a centerline of approximately 104' AGL;
- Two (2) panel antennas and appurtenances attached to a steel frame at a centerline of approximately 104' AGL;
- Equipment located in an existing abandoned equipment shelter located on the rooftop;
- Cabling connecting the antennas to the telecommunications equipment and associated utility service connections.

The total project area is a minimal portion of the .43-acre parcel, limited to lease areas on the roof of the existing commercial building for each antenna sector and a lease area for the equipment in the existing abandoned equipment shelter [see **Zoning Drawings at TAB 11**]. These drawings also show the size and location of the associated equipment.

The proposed communications facility is unmanned, and will be visited for routine maintenance purposes approximately 2 – 3 times per year (only as needed). As such, the project will not have any impact on existing water and sewage services. In addition, neither pedestrian nor vehicular access to the premises will be impacted [see **Zoning Drawings at TAB 11**].

IV. Compliance with Section 250-38 – Communication Facilities

The proposed communications facility complies in all material respects with the zoning requirements of the City of Amsterdam:

A. COMPLIANCE WITH SITE PLAN REVIEW REQUIREMENTS:

1. **Site Plan:** The Applicant has provided a Zoning Site Plan that documents compliance with all applicable requirements of the City of Amsterdam Zoning Law. *See*, Zoning Site Plan of Tectonic Engineering at **TAB 11**.
2. **Environmental Assessment Form.** A complete Full Environmental Assessment Form (EAF) is provided in **TAB 1**, prepared and certified by Steven Matthews, Engineer for the Applicant.
3. **Landscaping Plan.** The proposed facility is collocated on the existing building and penthouse, and therefore no landscaping is proposed.
4. **Documentation of Proposed Height.** The Applicant has provided documentation from the RF engineer that the proposed height of the antennas is necessary to provide service to the community. *See* **TAB 6**.
5. **Statement Regarding Collocation.** The proposed application is for a collocation and therefore a statement regarding future collocation on a new tower facility is not applicable to this application.
6. **Structural Analysis:** The Applicant has submitted a certification with documentation showing that the building proposed for use in this project is structurally sound for this purpose. There are separate reports for the antenna and the shelter. [**TAB 10**].
7. **Radio Frequency (RF) Emissions:** Although a matter of federal jurisdiction, the Applicant has submitted a report documenting that the communications facility proposed will comply with the requirements of the Federal Communications Commission (FCC) concerning radio frequency (RF) emissions [**TAB 7**].

While also a matter of federal jurisdiction, the Applicant has submitted a report from the Verizon Wireless RF Engineer, certifying that the proposed facility will not interfere with communications devices operating in the surrounding vicinity. [**TAB 8**].

8. **Design Criteria:** The Applicant has designed its proposed building-mounted facility in a manner that materially complies with all essential facility specific requirements.
9. **Minimal Visual Impact:** As noted above, Verizon Wireless' collocated facility on this existing building is designed to have a minimum possible visual effect on the surrounding community or neighborhood. Further, the antennas will be painted to match the building, which will further alleviate

any potential minor visual impacts. [TAB 9].

Based upon the foregoing, Verizon Wireless respectfully submits that Site Plan/Special Use Permit approval is appropriate in this case. In addition, Verizon Wireless notes the following:

Public Necessity

The communications facility proposed is a public necessity under *Rosenberg* in that it is required to render adequate and safe service to the City of Amsterdam (as defined above). In an effort to expand and improve telecommunications services to this area, while reducing the need for a new tower, Verizon Wireless has identified an appropriate location for the collocation of antennas on the existing commercial building. As noted herein, the RF engineer has identified that due to factors identified above, 4G coverage and capacity are insufficient in this portion of the City of Amsterdam. This, combined with the federal mandate to expeditiously deploy advanced wireless services across the nation and Verizon Wireless' FCC licenses to provide such services in the City of Amsterdam, demonstrates that Verizon Wireless' facility is a public necessity. Without the construction of the telecommunications facility proposed, the public would be deprived of an essential means of communication, which, in turn, would jeopardize the safety and welfare of the community and traveling public.

Compelling Reasons for Approval

As is demonstrated by the Applicant's Radio Frequency Analysis, the area within which Verizon Wireless can locate its facility and provide capacity relief and adequate and safe service to this area of the City of Amsterdam is limited. The subject site is the most suitable candidate for a new wireless facility.

The facility's antennas and supporting equipment will not be noticeable to the traveling public, or nearby property owners. The proposed antennas will be painted to match the existing building. The communications facility proposed has been sited to have the least practical adverse visual effect on the environment (in particular, local residential areas), and any resulting impact(s) may properly be considered as minimal in nature and scope.

As set forth above, the Applicant has proposed a facility that will enable Verizon Wireless to provide adequate and safe wireless services to an important area of the City of Amsterdam in accordance with its FCC licenses.

V. Conclusion

Approval of this project will enable Verizon Wireless to continue to provide an adequate and safe level of hand-held wireless telephone service to a busy area of Amsterdam, within the confines of applicable technological limitations and in compliance with all applicable land use requirements. Such approval will also be in the public interest, in that it will allow Verizon Wireless to comply with its statutory mandate to build out and operate its network and provide local businesses, residents and public service entities with safe and reliable wireless communications services. For the reasons set forth herein, Verizon Wireless respectfully submits that this project complies in all material respects with the requirements of the Amsterdam Zoning Law and any potential impact on the community created by approval of this project will be minimal and of no significant adverse effect.

Attached to this Application and Statement of Intent are the following:

1. A completed Full Environmental Assessment Form;
2. A redacted copy of the Lease Agreement demonstrating landowner authorization;
3. Documentation of VZW's public utility status and an overview of relevant law;
4. An overview of the Telecommunications Act of 1996;
5. Copies of Verizon Wireless' FCC Licenses for Montgomery County;
6. Radio-Frequency Analysis and Propagation Plot by the Verizon Wireless RF Engineer;
7. Radio-Frequency Safety Report by Site Safe, LLC;
8. Non-Interference letter by the Verizon Wireless RF Engineer;
9. Visual EAF Addendum and photo simulations of the proposed installation;
10. Structural Assessment Reports prepared by Tectonic Engineering; and
11. Site Plan Drawings by Tectonic Engineering

Kindly place this matter on the agenda for discussion at the meeting of the Planning Commission to be held on November 25, 2020. In the meantime, if you should have any questions or require any additional information concerning this project, I can be reached at (518) 438-9907.

Thank you for your consideration.

Respectfully submitted,

CELLCO PARTNERSHIP d/b/a Verizon Wireless



David C. Brennan, Esq.
Regional Local Counsel

Dated: October 30, 2020

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 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

| | | |
|---|--|-----------------|
| Name of Action or Project: Cellco Partnership, d/b/a Verizon Wireless - Amsterdam Center - Unmanned Wireless Communications Facility | | |
| Project Location (describe, and attach a general location map): 27-31 Main Street, Amsterdam, Montgomery County, NY 12010 | | |
| Brief Description of Proposed Action (include purpose or need): Cellco Partnership, d/b/a Verizon Wireless proposes the installation of an unmanned wireless communications facility on the roof of the existing building. Said property being located on Main Street, approximately 100 feet South West of the intersection of Main Street and Chuctanunda Road. Access to the proposed facility will originate from Main Street utilizing the existing paved parking lot. In general, the installation will consist of the following: Installing eight (8) new Verizon antennas at a center-line height(s) of 98,104 and 108 feet on the roof of the existing 112-foot tall building, installing equipment cabinets and related equipment in existing abandoned equipment shelter, and installing all related antenna cabling and utility services (power and telephone). | | |
| Name of Applicant/Sponsor: Cellco Partnership, d/b/a Verizon Wireless; attn: Kathy Pomponio | Telephone: (585) 321-5435 | |
| | E-Mail: Kathy.Pomponio@VerizonWireless.com | |
| Address: 1275 John Street, Suite #100 | | |
| City/PO: West Henrietta | State: New York | Zip Code: 14586 |
| Project Contact (if not same as sponsor; give name and title/role): Young/Sommer, LLC; attn: Dave C. Brennan, Esq. | Telephone: 518.438.9907 Ext. 224 | |
| | E-Mail: DBrennan@youngsommer.com | |
| Address: Executive Woods, Five Palisades Drive | | |
| City/PO: Albany | State: New York | Zip Code: 12205 |
| Property Owner (if not same as sponsor): Cranesville Properties, L.L.C. | Telephone: | |
| | E-Mail: | |
| Address: 1250 Riverfront Center | | |
| City/PO: Amsterdam | State: NY | Zip Code: 12010 |

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 Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees | | |
| b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Special Use Permit, Site Plan Review, Certificate of Appropriateness, Planning Commission | TBD |
| c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Building Permit, Building Department | TBD |
| e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | County Planning Referral | TBD |
| f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| g. State agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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):

NYS Heritage Areas: Mohawk Valley Heritage Corridor

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?

Downtown Core

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

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☒ No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Greater Amsterdam

b. What police or other public protection forces serve the project site?

Amsterdam Police Department, NYS Police Department

c. Which fire protection and emergency medical services serve the project site?

Amsterdam Fire Department

d. What parks serve the project site?

Riverlink Park, Mohawk Valley Gateway Overlook Pedestrian Bridge, Kirk Douglas Park, Amsterdam Recreation Office

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)? Unmanned public utility/personal wireless service facility

b. a. Total acreage of the site of the proposed action? 0.43 acres

b. Total acreage to be physically disturbed? 0 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☒ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

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: 2 months

ii. If Yes:

- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

| | | | | |
|---|-------------------|-------------------|---------------------|---------------------------------------|
| f. Does the project include new residential uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, show numbers of units proposed. | | | | |
| | <u>One Family</u> | <u>Two Family</u> | <u>Three Family</u> | <u>Multiple Family (four or more)</u> |
| Initial Phase | _____ | _____ | _____ | _____ |
| At completion | _____ | _____ | _____ | _____ |
| of all phases | _____ | _____ | _____ | _____ |

| | |
|--|--|
| g. Does the proposed action include new non-residential construction (including expansions)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, | |
| i. Total number of structures _____ 2 | |
| ii. Dimensions (in feet) of largest proposed structure: _____ 13.5' height; _____ 10' width; and _____ 10' length | |
| iii. Approximate extent of building space to be heated or cooled: _____ 0 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, | |
| i. Purpose of the impoundment: _____ | |
| ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____ | |
| iii. If other than water, identify the type of impounded/contained liquids and their source. _____ | |
| iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres | |
| v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length | |
| vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____ | |

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) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? | |
| <ul style="list-style-type: none"> • 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? <input type="checkbox"/> Yes <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: _____ 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: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

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

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

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

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

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

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

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

i. Total anticipated liquid waste generation per day: _____ 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): _____

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

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- 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

| | | |
|---|---|---|
| <ul style="list-style-type: none"> • Do existing sewer lines serve the project site? _____ • Will a line extension within an existing district be necessary to serve the project? _____ <p>If Yes:</p> <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ _____ _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| <p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| <p>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): _____ _____ _____</p> | | |
| <p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____ _____ _____</p> | | |
| <p>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? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel? _____ Square feet or _____ acres (impervious surface) _____ Square feet or _____ acres (parcel size)</p> <p>ii. Describe types of new point sources. _____ _____</p> <p>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)? _____ _____</p> <ul style="list-style-type: none"> • If to surface waters, identify receiving water bodies or wetlands: _____ _____ • Will stormwater runoff flow to adjacent properties? _____ | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| <p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p> | | |
| <p>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? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| <p>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? _____</p> <p>If Yes:</p> <p>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) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No |

| | | | |
|---|--|--|--|
| <p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p> | | | |
| <p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p> | | | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> | | | |
| <p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____</p> <p>iii. Will the proposed action require a new, or an upgrade, to an existing substation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> | | | |
| <p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 8am-5pm • Saturday: _____ • Sunday: _____ • Holidays: _____ </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 24/7/365 (unmanned facility) • Saturday: _____ • Sunday: _____ • Holidays: _____ </td> </tr> </table> | | <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 8am-5pm • Saturday: _____ • Sunday: _____ • Holidays: _____ | <p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 24/7/365 (unmanned facility) • Saturday: _____ • Sunday: _____ • Holidays: _____ |
| <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 8am-5pm • Saturday: _____ • Sunday: _____ • Holidays: _____ | <p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 24/7/365 (unmanned facility) • Saturday: _____ • Sunday: _____ • Holidays: _____ | | |

| | |
|--|--|
| <p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>_____</p> <p>_____</p> | |
| <p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p> | |
| <p>n. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>_____</p> <p>_____</p> | |
| <p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p> | |
| <p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p> <p>_____</p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p> <p>_____</p> | |
| <p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p> | |
| <p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> | |
| <p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ | |

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): Recreation

ii. If mix of uses, generally describe: _____

b. Land uses and covertypes on the project site.

| Land use or Covertypes | Current Acreage | Acreage After Project Completion | Change (Acres +/-) |
|--|-----------------|----------------------------------|--------------------|
| • Roads, buildings, and other paved or impervious surfaces | +/-0.43 | +/-0.43 | 0 |
| • Forested | | | |
| • Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural) | | | |
| • Agricultural (includes active orchards, field, greenhouse etc.) | | | |
| • Surface water features (lakes, ponds, streams, rivers, etc.) | | | |
| • Wetlands (freshwater or tidal) | | | |
| • Non-vegetated (bare rock, earth or fill) | | | |
| • Other Describe: _____ | | | |

Page 10 of 13

| | |
|--|--|
| v. Is the project site subject to an institutional control limiting property uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <ul style="list-style-type: none"> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Explain: _____ | |
| E.2. Natural Resources On or Near Project Site | |
| a. What is the average depth to bedrock on the project site? _____ n/a feet | |
| b. Are there bedrock outcroppings on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ % | |
| c. Predominant soil type(s) present on project site: <div style="display: flex; justify-content: space-between;"> <div> n/a (project is on existing building) _____ _____ </div> <div> _____% _____% _____% </div> </div> | |
| d. What is the average depth to the water table on the project site? Average: _____ n/a feet | |
| e. Drainage status of project site soils: <input type="checkbox"/> Well Drained: _____ n/a % of site <input type="checkbox"/> Moderately Well Drained: _____ % of site <input type="checkbox"/> Poorly Drained: _____ % of site | |
| f. Approximate proportion of proposed action site with slopes: <input checked="" type="checkbox"/> 0-10%: _____ 100 % of site <input type="checkbox"/> 10-15%: _____ % of site <input type="checkbox"/> 15% or greater: _____ % of site | |
| g. Are there any unique geologic features on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, describe: _____ | |
| h. Surface water features. <div style="margin-left: 20px;"> i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ii. Do any wetlands or other waterbodies adjoin the project site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes to either <i>i</i> or <i>ii</i>, 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? <input type="checkbox"/> Yes <input type="checkbox"/> No iv. For each identified regulated wetland and waterbody on the project site, provide the following information: <div style="margin-left: 20px;"> <ul style="list-style-type: none"> Streams: Name _____ Classification _____ Lakes or Ponds: Name _____ Classification _____ Wetlands: Name Riverine _____ Approximate Size 8,812 Acres Wetland No. (if regulated by DEC) R2UBH _____ </div> </div> | |

| | |
|---|--|
| <p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <div style="display: flex; justify-content: space-between;"> Various birds _____ Small rodents _____ </div> <p>_____</p> | |
| <p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres | |
| <p>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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>Peregrine Falcon _____</p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p> | |
| <p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> | |
| <p>E.3. Designated Public Resources On or Near Project Site</p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p> | |
| <p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p> | |
| <p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> | |
| <p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p> | |

| | |
|---|--|
| 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input checked="" type="checkbox"/> Historic Building or District ii. Name: <u>First National Bank Building</u> iii. Brief description of attributes on which listing is based: <div style="border-bottom: 1px solid black; padding-bottom: 2px;">USN Number: 05740.000380</div> | |
| 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Describe possible resource(s): _____ ii. Basis for identification: _____ | |
| h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Identify resource: <u>Riverlink Park, Mohawk Valley Gateway Overlook Pedestrian Bridge, Kirk Douglas Park, Amsterdam Recreation Office</u> ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): <u>Local park, Pedestrian overlook</u> iii. Distance between project and resource: _____ .25 miles. | |
| i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <input type="checkbox"/> Yes <input type="checkbox"/> No | |

F. Additional Information

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

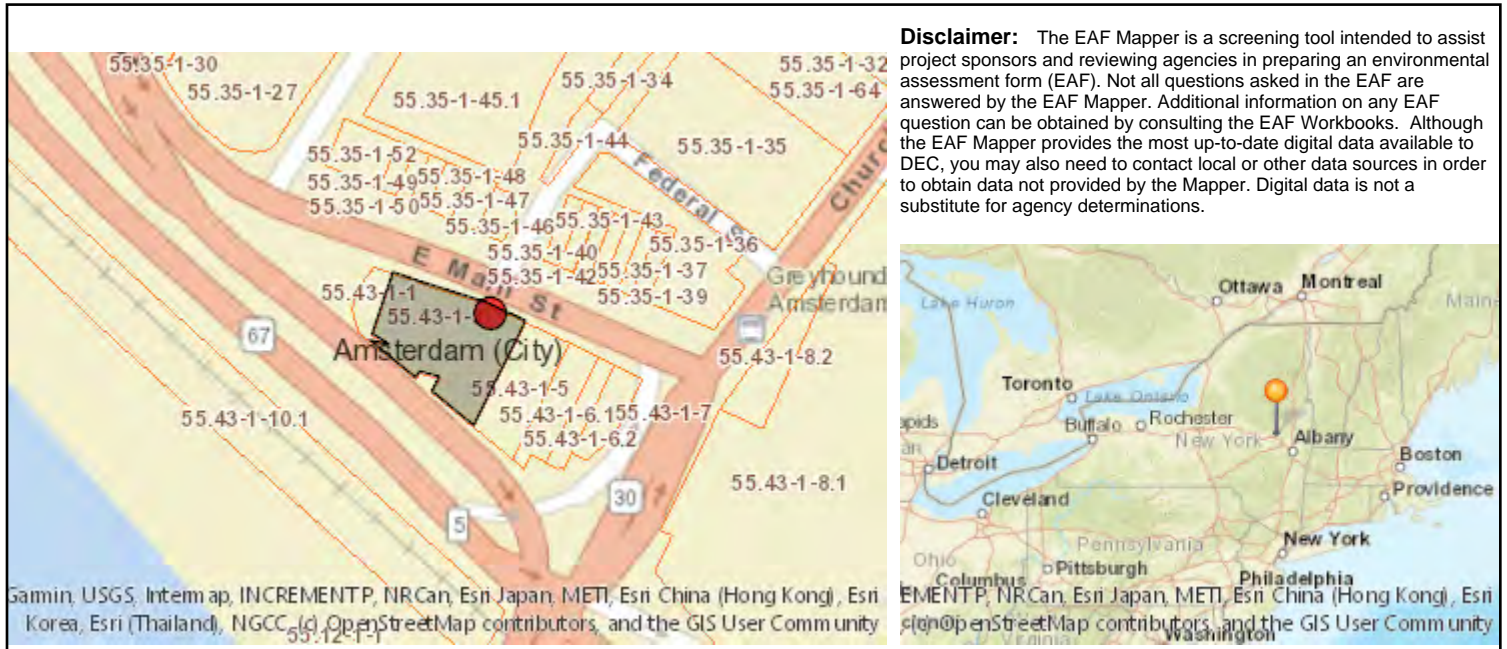
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

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

Applicant/Sponsor Name Steven Matthews, Engineer for applicant Date 10/26/2020

Signature *Steven Matthews* Title Manager of Engineering



| | |
|--|---|
| B.i.i [Coastal or Waterfront Area] | No |
| B.i.ii [Local Waterfront Revitalization Area] | Yes |
| C.2.b. [Special Planning District] | Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook. |
| C.2.b. [Special Planning District - Name] | NYS Heritage Areas: Mohawk Valley Heritage Corridor |
| E.1.h [DEC Spills or Remediation Site - Potential Contamination History] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Listed] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.iii [Within 2,000' of DEC Remediation Site] | Yes |
| E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID] | 429008, E429011, V00367 |
| E.2.g [Unique Geologic Features] | No |
| E.2.h.i [Surface Water Features] | No |
| E.2.h.ii [Surface Water Features] | Yes |
| E.2.h.iii [Surface Water Features] | Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook. |
| E.2.h.v [Impaired Water Bodies] | No |
| E.2.i. [Floodway] | No |
| E.2.j. [100 Year Floodplain] | No |
| E.2.k. [500 Year Floodplain] | No |
| E.2.l. [Aquifers] | Yes |
| E.2.l. [Aquifer Names] | Principal Aquifer |

| | |
|---|--|
| E.2.n. [Natural Communities] | No |
| E.2.o. [Endangered or Threatened Species] | Yes |
| E.2.o. [Endangered or Threatened Species - Name] | Peregrine Falcon |
| E.2.p. [Rare Plants or Animals] | No |
| E.3.a. [Agricultural District] | No |
| E.3.c. [National Natural Landmark] | No |
| E.3.d [Critical Environmental Area] | No |
| E.3.e. [National or State Register of Historic Places or State Eligible Sites] | Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook. |
| E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name] | Eligible property:FIRST NATIONAL BANK BLDG, Eligible property:First National Bank Bldg, Eligible property:McClumpha Block, 3 story, Italiante, brick, commer, Eligible property:[Former Wrestling Hall of Fame], Eligible property:late 19th c, 3 bay, 6 story comm/resd. Italianate cornice, Eligible property:Farmers' National Bank. 1875. Italianate., 3 story comm/resd. Italiante cornice, 3 story comm/resd. Italianate cornice, Enlarged Erie Barge Canal Nominated by NPS (2014), US Post Office--Amsterdam |
| E.3.f. [Archeological Sites] | Yes |
| E.3.i. [Designated River Corridor] | No |

2

BUILDING AND ROOFTOP LEASE AGREEMENT

This Building and Rooftop Lease Agreement (the "Agreement") made this ____ day of _____, 2020, between **CRANESVILLE PROPERTIES, L.L.C.**, with its principal offices located at 1250 Riverfront Center, Amsterdam, New York 12010, hereinafter designated LESSOR and **CELLCO PARTNERSHIP d/b/a Verizon Wireless** with its principal offices at One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 (telephone number 866-862-4404), hereinafter designated LESSEE. LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party."

WITNESSETH

In consideration of the mutual covenants contained herein and intending to be legally bound hereby, the Parties hereto agree as follows:

1. GRANT. In accordance with this Agreement, LESSOR hereby grants to LESSEE the right to install, maintain and operate communications equipment ("Use") in and/or upon that certain building or facility owned, leased or controlled by LESSOR at 27-31 Main Street, City of Amsterdam, Montgomery County, New York, tax id # 55.43-1-3 (the "Property"). The Property is legally described on Exhibit "A" attached hereto and made a part hereof. LESSEE's communications equipment will be installed on a portion of the Property consisting of approximately 375 square feet of floor space on the existing platform and within the existing shelter, approximately 200 square feet of rooftop space on the building and wall space on the penthouse (the "Premises"). The Premises are shown in detail on Exhibit "B" attached hereto and made a part hereof.

2. INITIAL TERM. This Agreement shall be effective as of the date of execution by both Parties ("Effective Date"). The initial term of the Agreement shall be for 5 years beginning on the Commencement Date (as hereinafter defined). The "Commencement Date" shall be the first day of the month after LESSEE begins installation of LESSEE's communications equipment.

3. EXTENSIONS. This Agreement shall automatically be extended for 4 additional 5-year terms unless Lessee terminates it at the end of the then current term by giving LESSOR written notice of the intent to terminate at least 3 months prior to the end of the then current term. The initial term and all extensions shall be collectively referred to herein as the "Term".

4. RENTAL.

a. Rental payments shall begin on the Commencement Date and be due at a total annual rental of [REDACTED], to be paid in equal monthly installments on the first day of the month, in advance, to LESSOR at 1250 Riverfront Center, Amsterdam, NY 12010 or to such other person, firm, or place as LESSOR may, from time to time, designate in writing at least 30 days in advance of any rental payment date by notice given in accordance with Paragraph 22 below. LESSOR and LESSEE acknowledge and agree that the initial rental payment shall not be delivered by LESSEE until 90 days after the Commencement Date. Upon agreement of the

Parties, LESSEE may pay rent by electronic funds transfer and in such event, LESSOR agrees to provide to LESSEE bank routing information for such purpose upon request of LESSEE.

b. LESSEE shall pay LESSOR, within ninety (90) days of full execution of this Agreement, a one-time signing bonus, as additional rent, in the sum of [REDACTED].

c. For any party to whom rental payments are to be made, LESSOR or any successor in interest of LESSOR hereby agrees to provide to LESSEE (i) a completed, current version of Internal Revenue Service Form W-9, or equivalent; (ii) complete and fully executed state and local withholding forms if required; and (iii) other documentation to verify LESSOR's or such other party's right to receive rental as is reasonably requested by LESSEE. Rental shall accrue in accordance with this Agreement, but LESSEE shall have no obligation to deliver rental payments until the requested documentation has been received by LESSEE. Upon receipt of the requested documentation, LESSEE shall deliver the accrued rental payments as directed by LESSOR.

d. The annual rental for each five (5) year extension term shall be equal to [REDACTED] of the annual rental payable with respect to the immediately preceding five (5) year term.

5. ACCESS. LESSEE shall have the non-exclusive right of ingress and egress from a public right-of-way, 7 days a week, 24 hours a day, over the Property to and from the Premises for the purpose of installation, operation and maintenance of LESSEE's communications equipment. Without limitation, the Premises may include certain space within the building, on the roof of the building or elsewhere on the building sufficient for the installation, operation and maintenance of communications equipment. Notwithstanding anything to the contrary, the Premises shall include (1) such additional space necessary for the installation, operation and maintenance of wires, cables, conduits and pipes running between and among the various portion of the Premises and to all necessary electrical, telephone, fiber and other similar support services located within the Property or the nearest public right of way, and (2) such additional space sufficient for LESSEE's radio frequency signage and/or barricades as are necessary to ensure LESSEE's compliance with Laws (as defined in Paragraph 29). In the event it is necessary, LESSOR agrees to grant LESSEE or the support services provider the right to install such services on, through, over and/or under the Property, provided the location of such services shall be reasonably approved by LESSOR.

6. CONDITION OF PROPERTY. LESSOR shall deliver the Premises to LESSEE in a condition ready for LESSEE's Use and clean and free of debris. LESSOR represents and warrants to LESSEE that as of the Effective Date, the structure of the building (including without limitation the roof, foundations and exterior walls), the common areas and all building systems (including, without limitation, the plumbing, electrical, ventilating, air conditioning, heating, and loading doors, if any) are (a) in good operating condition and free of any leakage; (b) in compliance with all Laws; and (c) in compliance with all EH&S Laws (as defined in Paragraph 26).

7. ELECTRICAL.

a. If permitted by the local utility company serving the Premises, LESSEE shall furnish and install an electrical meter at the Premises for the measurement of electrical power used by LESSEE at the Premises and LESSEE shall pay the utility company directly.

b. If an electrical meter is not permitted, then LESSEE may furnish and install an electrical sub-meter at the Premises for the measurement of electrical power used by LESSEE at the Premises and shall pay the utility company directly if permitted by the utility company.

c. In the event a sub-meter is installed and the utility company will not permit LESSEE to pay the utility company directly, then LESSOR shall read LESSEE's sub-meter on a monthly basis and provide LESSEE with an invoice for LESSEE's power consumption on an annual basis. Each invoice shall reflect charges only for LESSEE's power consumption based on the average kilowatt hour rate actually paid by LESSOR to the utility, without mark up or profit.

d. All invoices for power consumption shall be sent by LESSOR to LESSEE at Verizon Wireless, M/S 3846, P.O. Box 2375, Spokane, WA 99210-2375, and shall be provided to LESSEE within 90 days following the conclusion of each calendar year (otherwise, LESSOR waives the right to collect applicable electrical charges). Upon written request from LESSEE, LESSOR shall provide copies of electricity bills received by LESSOR during any period that LESSOR submits invoices to LESSEE for reimbursement and for that same period LESSOR shall provide documentation of the sub-meter readings applicable to such periods. LESSEE shall pay each invoice within 45 calendar days after receipt of the invoice from LESSOR.

e. LESSEE shall be permitted to install, maintain and/or provide access to and use of, as necessary (during any power interruption at the Premises), a temporary power source, and all related equipment and appurtenances within the Premises, or elsewhere on the Property in such locations as reasonably approved by LESSOR. LESSEE shall have the right to install conduits connecting the temporary power source and related appurtenances to the Premises.

8. IMPROVEMENTS. The communications equipment including, without limitation, antennas, conduits, and other improvements shall be at LESSEE's expense and installation shall be at the discretion and option of LESSEE. LESSEE shall have the right to replace, repair, add or otherwise modify its communications equipment, antennas, conduits or other improvements or any portion thereof and the frequencies over which the communications equipment operates, whether or not any of the communications equipment, antennas, conduits or other improvements are listed on any exhibit.

9. GOVERNMENT APPROVALS. LESSEE's Use is contingent upon LESSEE obtaining all of the certificates, permits and other approvals (collectively the "Government Approvals") that may be required by any Federal, State or Local authorities (collectively, the "Government Entities") as well as a satisfactory structural analysis of the building or other

structure that will permit LESSEE's Use. LESSOR shall cooperate with LESSEE in its effort to obtain such approvals, and acknowledges, consents to and joins in any application for Government Approvals and authorizes LESSEE to execute any documents required in furtherance of such applications. LESSOR shall take no action which would adversely affect the status of the Property with respect to LESSEE's Use.

10. TERMINATION. LESSEE may, unless otherwise stated, immediately terminate this Agreement upon written notice to LESSOR in the event that (i) any applications for such Government Approvals should be finally rejected; (ii) any Government Approval issued to LESSEE is canceled, expires, lapses or is otherwise withdrawn or terminated by any Government Entity; (iii) LESSEE determines that such Government Approvals may not be obtained in a timely manner; (iv) LESSEE determines any structural analysis is unsatisfactory; (v) LESSEE, in its sole discretion, determines the Use of the Premises is obsolete or unnecessary; (vi) with 3 months prior notice to LESSOR, upon the annual anniversary of the Commencement Date; or (vii) at any time before the Commencement Date for any reason or no reason in LESSEE's sole discretion.

11. MAINTENANCE. LESSEE will maintain LESSEE's communications equipment within the Premises in good condition, reasonable wear and tear and casualty damage excepted. LESSOR shall maintain, in good operating condition and repair, the structural elements of the building and the Premises, and all building systems (including, but not limited to, the foundations, exterior walls, structural condition of interior bearing walls, exterior roof, fire sprinkler and/or standpipe and hose or other automatic fire extinguishing system, fire hydrants, parking lots, walkways, parkways, driveways, landscaping, fences, signs and utility systems serving the common areas) and the common areas.

12. INDEMNIFICATION. Subject to Paragraph 13, each Party shall indemnify and hold the other harmless against any claim of liability or loss from personal injury or property damage resulting from or arising out of the negligence or willful misconduct of the indemnifying Party, its employees, contractors or agents, except to the extent such claims or damages may be due to or caused by the negligence or willful misconduct of the other Party, or its employees, contractors or agents. The indemnified Party will provide the indemnifying Party with prompt, written notice of any claim covered by this indemnification; provided that any failure of the indemnified Party to provide any such notice, or to provide it promptly, shall not relieve the indemnifying Party from its indemnification obligation in respect of such claim, except to the extent the indemnifying Party can establish actual prejudice and direct damages as a result thereof. The indemnified Party will cooperate appropriately with the indemnifying Party in connection with the indemnifying Party's defense of such claim. The indemnifying Party shall defend any indemnified Party, at the indemnified Party's request, against any claim with counsel reasonably satisfactory to the indemnified Party. The indemnifying Party shall not settle or compromise any such claim or consent to the entry of any judgment without the prior written consent of each indemnified Party and without an unconditional release of all claims by each claimant or plaintiff in favor of each indemnified Party.

13. INSURANCE.

a. The Parties agree that at their own cost and expense, each will maintain commercial general liability insurance with limits not less than \$2,000,000 for injury to or death of one or more persons in any one occurrence and \$2,000,000 for damage or destruction to the building in any one occurrence. The Parties agree to include the other Party as an additional insured. The Parties hereby waive and release any and all rights of action for negligence against the other which may hereafter arise on account of damage to the Premises or the Property, resulting from any fire, or other casualty which is insurable under "Causes of Loss – Special Form" property damage insurance or for the kind covered by standard fire insurance policies with extended coverage, regardless of whether or not, or in what amounts, such insurance is now or hereafter carried by the Parties, even if any such fire or other casualty shall have been caused by the fault or negligence of the other Party. These waivers and releases shall apply between the Parties and they shall also apply to any claims under or through either Party as a result of any asserted right of subrogation. All such policies of insurance obtained by either Party concerning the Premises or the Property shall waive the insurer's right of subrogation against the other Party.

b. LESSOR shall obtain and keep in force during the Term a policy or policies insuring against loss or damage to the building with a commercially reasonable valuation, as the same shall exist from time to time without a coinsurance feature. LESSOR's policy or policies shall insure against all risks of direct physical loss or damage (except the perils of flood and earthquake unless required by a lender or included in the base premium), including coverage for any additional costs resulting from debris removal and reasonable amounts of coverage for the enforcement of any ordinance or law regulating the reconstruction or replacement of any undamaged sections of the building required to be demolished or removed by reason of the enforcement of any building, zoning, safety or land use laws as the result of a covered loss, but not including plate glass insurance.

14. LIMITATION OF LIABILITY. Except for indemnification pursuant to Paragraphs 12 and 26, a violation of Paragraph 31, or a violation of law, neither Party shall be liable to the other, or any of their respective agents, representatives, or employees for any lost revenue, lost profits, loss of technology, rights or services, incidental, punitive, indirect, special or consequential damages, loss of data, or interruption or loss of use of service, even if advised of the possibility of such damages, whether under theory of contract, tort (including negligence), strict liability or otherwise.

15. INTERFERENCE.

a. LESSEE agrees that LESSEE will not cause interference that is measurable in accordance with industry standards to LESSOR's equipment. LESSOR agrees that LESSOR and other occupants of the Property will not cause interference that is measurable in accordance with industry standards to the then existing equipment of LESSEE.

b. Without limiting any other rights or remedies, if interference occurs and continues for a period in excess of 48 hours following notice to the interfering party via telephone to LESSEE'S Network Operations Center (at (800) 224-6620/(800) 621-2622) or to

LESSOR at (518-684-6007), the interfering party shall or shall require any other user to reduce power or cease operations of the interfering equipment until the interference is cured.

c. The Parties acknowledge that there will not be an adequate remedy at law for noncompliance with the provisions of this Paragraph and therefore the Parties shall have the right to equitable remedies such as, without limitation, injunctive relief and specific performance.

16. REMOVAL AT END OF TERM. Upon expiration or within 90 days of earlier termination, LESSEE shall remove LESSEE's communications equipment and restore the Premises to its original condition, reasonable wear and tear and casualty damage excepted. LESSOR agrees and acknowledges that the communications equipment shall remain the personal property of LESSEE and LESSEE shall have the right to remove the same at any time during the Term, whether or not said items are considered fixtures and attachments to real property under applicable laws. If such time for removal causes LESSEE to remain on the Premises after termination of the Agreement, LESSEE shall pay rent at the then existing monthly rate or on the existing monthly pro-rata basis if based upon a longer payment term, until the removal of the communications equipment is completed.

17. HOLDOVER. If upon expiration of the Term the Parties are negotiating a new lease or a lease extension, then this Agreement shall continue during such negotiations on a month to month basis at the rental in effect as of the date of the expiration of the Term. In the event that the Parties are not in the process of negotiating a new lease or lease extension and LESSEE holds over after the expiration or earlier termination of the Term, then LESSEE shall pay rent at the then existing monthly rate or on the existing monthly pro-rata basis if based upon a longer payment term, until the removal of the communications equipment is completed.

18. RIGHT OF FIRST REFUSAL. If at any time after the Effective Date, LESSOR receives an offer or letter of intent from any person or entity that is in the business of owning, managing or operating communications facilities or is in the business of acquiring landlord interests in agreements relating to communications facilities, to purchase fee title, an easement, a lease, a license, or any other interest in the Premises or any portion thereof or to acquire any interest in this Agreement, or an option for any of the foregoing, LESSOR shall provide written notice to LESSEE of said offer ("LESSOR's Notice"). LESSOR's Notice shall include the prospective buyer's name, the purchase price being offered, any other consideration being offered, the other terms and conditions of the offer, a description of the portion of and interest in the Premises and/or this Agreement which will be conveyed in the proposed transaction, and a copy of any letters of intent or form agreements presented to LESSOR by the third party offeror. LESSEE shall have the right of first refusal to meet any bona fide offer of sale or transfer on the terms and conditions of such offer or by effectuating a transaction with substantially equivalent financial terms. If LESSEE fails to provide written notice to LESSOR that LESSEE intends to meet such bona fide offer within thirty (30) days after receipt of LESSOR's Notice, LESSOR may proceed with the proposed transaction in accordance with the terms and conditions of such third party offer, in which event this Agreement shall continue in full force and effect and the right of first refusal described in this paragraph shall survive any such conveyance to a third party. If LESSEE provides LESSOR with notice of LESSEE's intention to meet the third party offer within thirty (30) days after receipt of LESSOR's Notice, then if LESSOR's Notice

describes a transaction involving greater space than the Premises, LESSEE may elect to proceed with a transaction covering only the Premises and the purchase price shall be pro-rated on a square footage basis. Further, LESSOR acknowledges and agrees that if LESSEE exercises this right of first refusal, LESSEE may require a reasonable period of time to conduct due diligence and effectuate the closing of a transaction on substantially equivalent financial terms of the third-party offer. LESSEE may elect to amend this Agreement to effectuate the proposed financial terms of the third party offer rather than acquiring fee simple title or an easement interest in the Premises. For purposes of this Paragraph, any transfer, bequest or devise of LESSOR's interest in the Property as a result of the death of LESSOR, whether by will or intestate succession, or any conveyance to LESSOR's family members by direct conveyance or by conveyance to a trust for the benefit of family members shall not be considered a sale for which LESSEE has any right of first refusal. The intent of this paragraph is to prevent LESSOR from selling, leasing or granting an interest in all or a portion of the Premises, or assigning the lease, to a company that specializes in owning, managing or operating telecommunications facilities without giving LESSEE a right of first refusal to meet the offer or to grant LESSEE's approval, while this lease is in effect.

19. RIGHTS UPON SALE. Should LESSOR, at any time during the Term, decide (i) to sell or otherwise transfer all or any part of the Property, or (ii) to grant to a third party by easement or other legal instrument an interest in and to any portion of the Premises, such sale, transfer, or grant of an easement or interest therein shall be under and subject to this Agreement and any such purchaser or transferee shall recognize LESSEE's rights hereunder. In the event that LESSOR completes any such sale, transfer, or grant described in this paragraph without executing an assignment of the Agreement whereby the third party agrees in writing to assume all obligations of LESSOR under this Agreement, then LESSOR shall not be released from its obligations to LESSEE under this Agreement, and LESSEE shall have the right to look to LESSOR and the third party for the full performance of the Agreement.

20. LESSOR'S TITLE. LESSOR covenants that LESSEE, on paying the rent and performing the covenants herein, shall peaceably and quietly have, hold and enjoy the Premises. LESSOR represents and warrants to LESSEE as of the Effective Date and covenants during the Term that LESSOR has full authority to enter into and execute this Agreement and that there are no liens, judgments, covenants, easements, restrictions or other impediments of title that will adversely affect LESSEE's Use.

21. ASSIGNMENT. Without any approval or consent of the other Party, this Agreement may be sold, assigned or transferred by either Party to (i) any entity in which the Party directly or indirectly holds an equity or similar interest; (ii) any entity which directly or indirectly holds an equity or similar interest in the Party; or (iii) any entity directly or indirectly under common control with the Party. LESSEE may assign this Agreement to any entity which acquires all or substantially all of LESSEE's assets in the market defined by the FCC in which the Property is located by reason of a merger, acquisition or other business reorganization without approval or consent of LESSOR. As to other parties, this Agreement may not be sold, assigned or transferred without the written consent of the other Party, which such consent will not be unreasonably withheld, delayed or conditioned. No change of stock ownership, partnership interest or control of LESSEE or transfer upon partnership or corporate dissolution of either

Party shall constitute an assignment hereunder. LESSEE is prohibited from subletting all or a portion of the Premises.

22. NOTICES. Except for notices permitted via telephone in accordance with Paragraph 15, all notices hereunder must be in writing and shall be deemed validly given if sent by certified mail, return receipt requested or by commercial courier, provided the courier's regular business is delivery service and provided further that it guarantees delivery to the addressee by the end of the next business day following the courier's receipt from the sender, addressed as follows (or any other address that the Party to be notified may have designated to the sender by like notice):

LESSOR: Cranesville Properties, L.L.C.
 1250 Riverfront Center
 Amsterdam, New York 12010

LESSEE: Cellco Partnership
 d/b/a Verizon Wireless
 180 Washington Valley Road
 Bedminster, New Jersey 07921
 Attention: Network Real Estate

Notice shall be effective upon actual receipt or refusal as shown on the receipt obtained pursuant to the foregoing.

23. SUBORDINATION AND NON-DISTURBANCE. Within 15 days of the Effective Date, LESSOR shall obtain a Non-Disturbance Agreement, as defined below, from its existing mortgagee(s), ground lessors and master lessors, if any, of the Property. At LESSOR's option, this Agreement shall be subordinate to any future master lease, ground lease, mortgage, deed of trust or other security interest (a "Mortgage") by LESSOR which from time to time may encumber all or part of the Property; provided, however, as a condition precedent to LESSEE being required to subordinate its interest in this Agreement to any future Mortgage covering the building, LESSOR shall obtain for LESSEE's benefit a non-disturbance and attornment agreement for LESSEE's benefit in a form reasonably satisfactory to LESSEE, and containing the terms described below (the "Non-Disturbance Agreement"), and shall recognize LESSEE's rights under this Agreement. The Non-Disturbance Agreement shall include the encumbering party's ("Lender's") agreement that, if Lender or its successor-in-interest or any purchaser of Lender's or its successor's interest (a "Purchaser") acquires an ownership interest in the building, Lender or such successor-in-interest or Purchaser will honor all of the terms of the Agreement. Such Non-Disturbance Agreement must be binding on all of Lender's participants in the subject loan (if any) and on all successors and assigns of Lender and/or its participants and on all Purchasers. In return for such Non-Disturbance Agreement, LESSEE will execute an agreement for Lender's benefit in which LESSEE (1) confirms that the Agreement is subordinate to the Mortgage or other real property interest in favor of Lender, (2) agrees to attorn to Lender if Lender becomes the owner of the building and (3) agrees to accept a cure by Lender of any of LESSOR's defaults, provided such cure is completed within the deadline applicable to LESSOR. In the event LESSOR defaults in the payment and/or other performance of any mortgage or other real property interest encumbering the Property, LESSEE, may, at its sole option and without

obligation, cure or correct LESSOR's default and upon doing so, LESSEE shall be subrogated to any and all rights, titles, liens and equities of the holders of such mortgage or other real property interest and LESSEE shall be entitled to deduct and setoff against all rents that may otherwise become due under this Agreement the sums paid by LESSEE to cure or correct such defaults.

24. DEFAULT. It is a "Default" if (i) either Party fails to comply with this Agreement and does not remedy the failure within 30 days after written notice by the other Party or, if the failure cannot reasonably be remedied in such time, if the failing Party does not commence a remedy within the allotted 30 days and diligently pursue the cure to completion within 90 days after the initial written notice, or (ii) LESSOR fails to comply with this Agreement and the failure interferes with LESSEE's Use and LESSOR does not remedy the failure within 5 days after written notice from LESSEE or, if the failure cannot reasonably be remedied in such time, if LESSOR does not commence a remedy within the allotted 5 days and diligently pursue the cure to completion within 15 days after the initial written notice. The cure periods set forth in this Paragraph 24 do not extend the period of time in which either Party has to cure interference pursuant to Paragraph 15 of this Agreement.

25. REMEDIES. In the event of a Default, without limiting the non-defaulting Party in the exercise of any right or remedy which the non-defaulting Party may have by reason of such default, the non-defaulting Party may terminate this Agreement and/or pursue any remedy now or hereafter available to the non-defaulting Party under the Laws or judicial decisions of the state in which the Property is located. Further, upon a Default, the non-defaulting Party may at its option (but without obligation to do so), perform the defaulting Party's duty or obligation. The costs and expenses of any such performance by the non-defaulting Party shall be due and payable by the defaulting Party upon invoice therefor. If LESSEE undertakes any such performance on LESSOR's behalf and LESSOR does not pay LESSEE the full undisputed amount within 30 days of its receipt of an invoice setting forth the amount due, LESSEE may offset the full undisputed amount due against all fees due and owing to LESSOR under this Agreement until the full undisputed amount is fully reimbursed to LESSEE.

26. ENVIRONMENTAL. LESSEE shall conduct its business in compliance with all applicable laws governing the protection of the environment or employee health and safety ("EH&S Laws"). LESSEE shall indemnify and hold harmless LESSOR from claims to the extent resulting from LESSEE's violation of any applicable EH&S Laws or to the extent that LESSEE causes a release of any regulated substance to the environment. LESSOR shall indemnify and hold harmless LESSEE from all claims resulting from the violation of any applicable EH&S Laws or a release of any regulated substance to the environment except to the extent resulting from the activities of LESSEE. The Parties recognize that LESSEE is only leasing a small portion of the Property and that LESSEE shall not be responsible for any environmental condition or issue except to the extent resulting from LESSEE's specific activities and responsibilities. In the event that LESSEE encounters any hazardous substances that do not result from its activities, LESSEE may relocate its facilities to avoid such hazardous substances to a mutually agreeable location or, if LESSEE desires to remove at its own cost all or some the hazardous substances or materials (such as asbestos, lead containing materials or soil) containing those hazardous substances, LESSOR agrees to sign any necessary waste manifest associated with the removal, transportation and/or disposal of such substances.

27. CASUALTY. If a fire or other casualty damages the Property or the Premises and impairs LESSEE's Use, rent shall abate until LESSEE'S Use is restored. If LESSEE's Use is not restored within 45 days, LESSEE may terminate this Agreement.

28. CONDEMNATION. If a condemnation of any portion of the Property or Premises impairs LESSEE's Use, LESSEE may terminate this Agreement. LESSEE may on its own behalf make a claim in any condemnation proceeding involving the Premises for losses related to LESSEE's communications equipment, relocation costs and, specifically excluding loss of LESSEE's leasehold interest, any other damages LESSEE may incur as a result of any such condemnation.

29. APPLICABLE LAWS. During the Term, LESSOR shall maintain the Property in compliance with all applicable laws, EH&S Laws, rules, regulations, ordinances, directives, covenants, easements, consent decrees, zoning and land use regulations, and restrictions of record, permits, building codes, and the requirements of any applicable fire insurance underwriter or rating bureau, now in effect or which may hereafter come into effect (including, without limitation, the Americans with Disabilities Act and laws regulating hazardous substances) (collectively "Laws"). LESSEE shall, in respect to the condition of the Premises and at LESSEE's sole cost and expense, comply with (i) all Laws relating solely to LESSEE's specific and unique nature of use of the Premises; and (ii) all building codes requiring modifications to the Premises due to the improvements being made by LESSEE in the Premises. It shall be LESSOR's obligation to comply with all Laws relating to the Property, without regard to specific use (including, without limitation, modifications required to enable LESSEE to obtain all necessary building permits).

30. TAXES.

a. LESSOR shall invoice and LESSEE shall pay any applicable transaction tax (including sales, use, gross receipts, or excise tax) imposed on LESSEE and required to be collected by LESSOR based on any service, rental space, or equipment provided by LESSOR to LESSEE. LESSEE shall pay all personal property taxes, fees, assessments, or other taxes and charges imposed by any Government Entity that are imposed on LESSEE and required to be paid by LESSEE that are directly attributable to LESSEE's equipment or LESSEE's use and occupancy of the Premises. Payment shall be made by LESSEE within 60 days after presentation of a receipted bill and/or assessment notice which is the basis for such taxes or charges. LESSOR shall pay all ad valorem, personal property, real estate, sales and use taxes, fees, assessments or other taxes or charges that are attributable to LESSOR's Property or any portion thereof imposed by any Government Entity.

b. LESSEE shall have the right, at its sole option and at its sole cost and expense, to appeal, challenge or seek modification of any tax assessment or billing for which LESSEE is wholly or partly responsible for payment. LESSOR shall reasonably cooperate with LESSEE at LESSEE's expense in filing, prosecuting and perfecting any appeal or challenge to taxes as set forth in the preceding sentence, including but not limited to, executing any consent, appeal or other similar document. In the event that as a result of any appeal or challenge by LESSEE, there is a reduction, credit or repayment received by LESSOR for any taxes previously paid by LESSEE, LESSOR agrees to promptly reimburse to LESSEE the amount of said

reduction, credit or repayment. In the event that LESSEE does not have the standing rights to pursue a good faith and reasonable dispute of any taxes under this paragraph, LESSOR will pursue such dispute at LESSEE's sole cost and expense upon written request of LESSEE.

31. NON-DISCLOSURE. Except as otherwise permitted or reasonably required to carry out the intent of this Agreement (for example, in connection with obtaining Government Approvals), the Parties agree: this Agreement and any information exchanged between the Parties regarding the Agreement are confidential; they shall not provide copies of this Agreement or any other confidential information to any third party without the prior written consent of the other or as required by law; and, if a disclosure is required by law, prior to disclosure, the Party shall notify the other Party and cooperate to take lawful steps to resist, narrow, or eliminate the need for that disclosure.

32. MOST FAVORED LESSEE. LESSOR represents and warrants that the rent, benefits and terms and conditions granted to LESSEE by LESSOR hereunder are now and shall be, during the Term, no less favorable than the rent, benefits and terms and conditions for substantially the same or similar tenancies or licenses granted by LESSOR to other parties. If at any time during the Term LESSOR shall offer more favorable rent, benefits or terms and conditions for substantially the same or similar tenancies or licenses as those granted hereunder, then LESSOR shall, within 30 days after the effective date of such offering, notify LESSEE of such fact and offer LESSEE the more favorable offering. If LESSEE chooses, the parties shall then enter into an amendment that shall be effective retroactively to the effective date of the more favorable offering, and shall provide the same rent, benefits or terms and conditions to LESSEE. LESSEE shall have the right to decline to accept the offering. LESSOR's compliance with this requirement shall be subject, at LESSEE's option, to independent verification.

33. MISCELLANEOUS. This Agreement contains all agreements, promises and understandings between LESSOR and LESSEE regarding this transaction, and no oral agreement, promises or understandings shall be binding upon either LESSOR or LESSEE in any dispute, controversy or proceeding. This Agreement may not be amended or varied except in a writing signed by all Parties. This Agreement shall extend to and bind the heirs, personal representatives, successors and assigns hereto. The failure of either party to insist upon strict performance of any of the terms or conditions of this Agreement or to exercise any of its rights hereunder shall not waive such rights and such party shall have the right to enforce such rights at any time. The performance of this Agreement shall be governed, interpreted, construed and regulated by the laws of the state in which the Premises is located without reference to its choice of law rules. Except as expressly set forth in this Agreement, nothing in this Agreement shall grant, suggest or imply any authority for one Party to use the name, trademarks, service marks or trade names of the other for any purpose whatsoever. LESSOR agrees to execute a Memorandum of this Agreement, which LESSEE may record with the appropriate recording officer. The provisions of the Agreement relating to indemnification from one Party to the other Party shall survive any termination or expiration of this Agreement.


34. TEMPORARY EASEMENT. LESSOR hereby grants LESSEE a temporary easement (the "Temporary Easement") to encumber a portion of the Property, all as shown on Exhibit "B" hereto (the "Temporary Easement Area"). The Parties acknowledge and agree that the Temporary Easement shall be for the purpose of clearing any rocks, dirt, brush, trees or other

vegetation, grading, excavation, and storing materials (including, without limitation, excavated soil and equipment) in order to allow for the construction and installation of LESSEE's communications facility as described herein. The Temporary Easement shall terminate upon completion of the construction and installation of LESSEE's communications facility and LESSEE shall return the Temporary Easement Area to as good a condition as is reasonably practicable considering the clearing and grading that is to be performed by LESSEE.

[Signature page follows. The remainder of this page is intentionally blank.]

IN WITNESS WHEREOF, the Parties hereto have set their hands and affixed their respective seals on the dates below, effective the day and year first above written.

LESSOR: CRANESVILLE PROPERTIES, L.L.C.

By: 
Name: Joe Tesiero
Its: Member
Date: 9-21-20

LESSEE: CELLCO PARTNERSHIP d/b/a Verizon Wireless

By: _____
Name: Andrew Allen
Its: Director Network Field Engineering
Date: _____

EXHIBIT "A"

DESCRIPTION OF PROPERTY

**27-31 Main Street, City of Amsterdam, Montgomery County, New York
Section 55.43 Block 1 Lot 3**

Schedule A Description

Title Number: AGT-20125-MO-Z

PARCEL 3: 27-31 East Main Street

ALL THOSE CERTAIN TRACTS OR PARCELS OF LAND, together with the buildings and improvements thereon situate in the City of Amsterdam, County of Montgomery and State of New York, more particularly bounded and described as follows:

PARCEL I: Northerly by the southerly margin of East Main Street; Easterly by lands heretofore conveyed by Esther Jackson, now deceased, to John C. Miller; Southerly by lands formerly owned by Adam W. Kline; said southerly line being the continuation of a straight line drawn along the rear walls of the brick stores formerly owned by A.H. Delmater, J. & H. Bell and A.V. Morris, to the westerly wall of the homestead house owned and occupied by Isaac Jackson in the year 1859, and thereafter and by him conveyed to Esther Jackson, and westerly by lands now or formerly owned by Abram V. Morris being the lot formerly occupied by the Merchant's National Bank Building and the alley in the rear thereof. The lot hereby conveyed is about 21 feet breadth in front and rear and about 85 feet deep.

PARCEL II: Commencing at a point in the southerly side of East Main Street where it was intersected by the division line between property formerly of First National Bank of Amsterdam and property formerly of S. & W.H. Sumberg and which point also marks the northeasterly corner of the first parcel conveyed in a deed from Amsterdam Urban Renewal Agency to National Commercial Bank and Trust Company, dated July 13, 1970 and recorded in the Montgomery County Clerk's Office on July 16, 1970 in Book 384 of Deeds at Page 164 and runs South 20° 49' 31" West along the easterly line of said parcel conveyed to National Commercial Bank and Trust Company, as aforesaid, a distance of 60.38 feet, plus or minus to a point; thence North 71° 10' 40" West and continuing along said parcel so conveyed to National Commercial Bank and Trust Company as aforesaid, a distance of 17.04 feet plus or minus, to a point; thence South 20° 53' 38" West and still along the parcel conveyed as aforesaid, a distance of 27.03 feet plus or minus, to a point; thence South 70° 48' 38" East and still along the parcel conveyed as aforesaid a distance of 68.05 feet; thence North 26° 38' 48" East along the westerly boundary of the second parcel described in the deed from the Amsterdam Urban Renewal Agency to National Commercial Bank and Trust Company recorded in the Montgomery County Clerk's Office on July 16, 1970 in Book 384 of Deeds at Page 164, a distance of 86.31 feet to a point in the southerly line of East Main Street; thence North 68° 59' 35" West along the southerly line of East Main Street a distance of 59.72 feet to the point and place of beginning.

TOGETHER with a right of way over, upon and along the alleyway which lies easterly of and adjoining the premises above described for the passage of persons and vehicles in common with others entitled thereto extending in a southerly direction from East Main Street to its intersection with any alleyway extending from such intersection westerly to Bridge Street.

SCHEDULE A Description - continued

Title Number: AGT-20125-MO-Z

TOGETHER with a right of way over said last named alleyway from the aforesaid intersection to Bridge Street for the passage of persons and vehicles in common with others who are entitled to the use of said alleys. Also the right and easement to have each of said alleyways remain open and unobstructed from the surface thereof to the sky for the purpose of affording air and light to the above described real estate and to the buildings or structures thereon.

PARCEL III: BEGINNING at a point in the southerly street margin of East Main Street, which point is the intersection of said street margin, and the westerly property line of a parcel n/f owned by National Commercial Bank and Trust Company, running thence South 20° 49' 31" West, 60.38 feet plus or minus, to a point; thence North 70° 10' 40" West, 17.04 feet plus or minus, to a point; thence South 20° 53' 38" West, 27.03 feet plus or minus, to a point; thence South 70° 48' 38" East, 98.94 feet plus or minus, to a point; which point is the southeasterly corner of property n/f owned by the National Commercial Bank and Trust Company, all of the above lines and courses being boundaries between property hereby conveyed and property formerly owned by the National Commercial Bank and Trust Company; thence running South 27° 26' 13" West, 62.89 feet plus or minus, along the lands reputedly owned by 37 East main Street Corporation, to a point in the northerly boundary of lands owned by the State of New York, thence along the northerly boundary of lands of the State of New York; North 50° 04' 19" West, 44.87 feet plus or minus, to a point; thence continuing along the the northerly line of lands of the State of New York North 48° 42' 45" West, 21.73 feet plus or minus to a point on the easterly bank of Chuctanunda Creek; thence running North 24° 37' 00" East, 18.11 feet plus or minus, along the easterly bank of the creek to a point; thence running North 72° 58' 48" West, 23.0 feet plus or minus, to a point in the westerly bank of the creek; thence running South 33° 13' 08" West, 7.76 feet plus or minus, along the westerly bank of the creek to a point; thence running North 48° 41' 33" West, 21.74 feet plus or minus, along the northerly boundary of lands of the State of New York to a point; thence running North 48° 35' 20" West, 52.19 feet plus or minus, along the northerly boundary of lands of the State of New York to a point; thence running South 71° 41' 31" East, 19.99 feet plus or minus, to a point; thence running North 53° 32' 07" West, 22.06 feet plus or minus to a point; thence running North 18° 43' 32" East, 80.20 feet plus or minus, to a point in the southerly street margin to East Main Street; thence along the southerly street margin of East Main Street South 71° 31' 19" East, 85.08 feet plus or minus, to a point or place of beginning.

The aforesaid described property is encumbered by two permanent easements to the State of New York to be exercised in on and over the property hereinafter described for the purpose of construction, re-construction and maintaining thereon a stream channel, together with appurtenances. The property encumbered by said easements is described as follows:

(i) Easement east side of creek:

BEGINNING at a point on the east bank of the Chuctanunda Creek at its intersection with the northerly property line of the State of New York; thence running North 24° 37' 00" East, 18.11 feet along the east bank of the Chuctanunda Creek to a point; thence running South 71° 42' 30" East, 22.01 feet through the lands above described to a point; thence running South 26° 52' 16" West, 26.79 feet through the lands above

SCHEDULE A Description - continued

Title Number: AGT-20125-MO-Z

described to a point in the northerly margin of lands of the State of New York; thence running North 48° 42' 45" West, along the northerly margin of the lands of the State of New York to the point and place of beginning and;

(ii) Easement west side of creek;

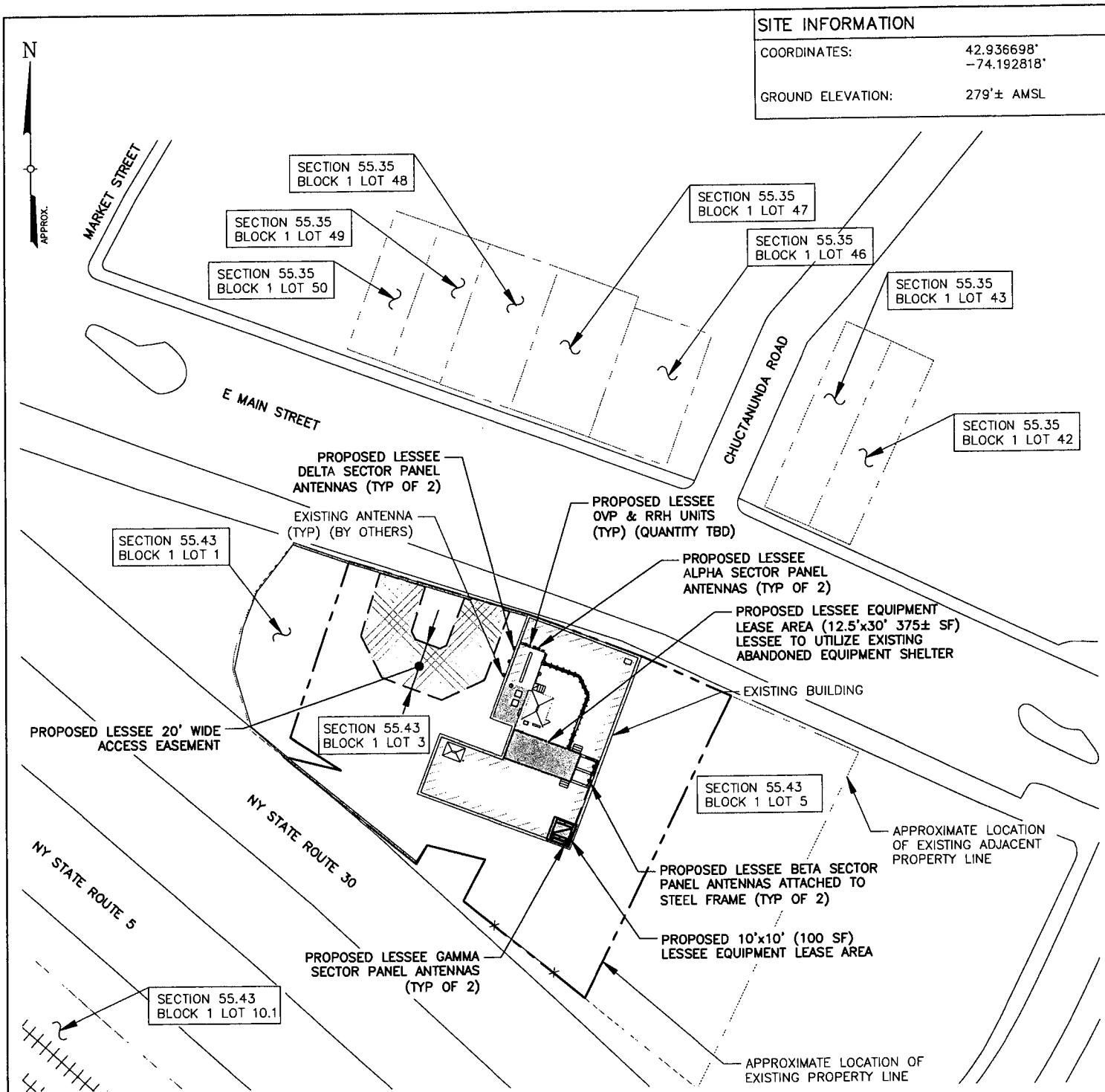
BEGINNING at a point on the west bank of the Chuctanunda Creek at its intersection with the northerly line of property of the State of New York; thence running North 48° 41' 33" West, along the northerly line of the property of the State of New York, 21.74 feet to a point; thence running South 69° 05' 49" East through the lands above described 22.03 feet to a point in the west bank of the Chuctanunda Creek; thence running South 33° 13' 08" West, 7.76 feet along the west bank of the Chuctanunda Creek to the point and place of beginning.

ALSO, ALL THAT PIECE OR PARCEL OF PROPERTY, situate in the City of Amsterdam, Montgomery County, New York and known and described as follows:

BEGINNING at a point in the easterly margin of property formerly owned by the National Commercial Bank and Trust Company and being the northeasterly corner of its bank building in the City of Amsterdam, New York where said northeasterly corner intersects the southerly street margin of East Main Street, and running thence South 68° 59' 35" East, 10.04 feet plus or minus, along the southerly margin of East Main Street to the northwesterly corner of property n/f owned by National Commercial Bank and Trust Company where said northwesterly corner intersects the southerly street margin of East Main Street, South 26° 38' 48" West to 85.00 feet plus or minus, along the westerly line of lands n/f National Commercial Bank and Trust Company to a point, which point is the southeasterly corner of the present bank building; thence North 26° 38' 48" East, 86.31 feet plus or minus, to the southerly margin of East Main Street, the point or place of beginning.

The above described premises is subject to a Right of Way Easement granted by Amsterdam Commercial Corporation to New York State Environmental Facilities Corporation dated October 3, 1973 and recorded in the Montgomery County Clerk's Office on October 15, 1973 in Book 398 of Deeds at Page 99.

EXHIBIT "B"
SITE PLAN OF PREMISES



| SITE INFORMATION | |
|-------------------|---------------------------|
| COORDINATES: | 42.936698° -74.192818° |
| GROUND ELEVATION: | 279'± AMSL |

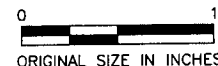
NOTE

1. THIS DRAWING IS FOR OPTION, LEASE, LICENSE AND PERMITTING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.
2. FINAL UTILITY EASEMENT LOCATION WILL BE DETERMINED BY THE UTILITY COMPANY.



PROPERTY PLAN

SCALE: 1" = 60'



Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (845) 534-5959
P.O. Box 37 (800) 829-8531
Mountainville, NY 10953 www.tectonicengineering.com

Project Contact Info
36 British American Blvd.
Suite 101
Latham, NY 12110

Phone: (518) 783-1630

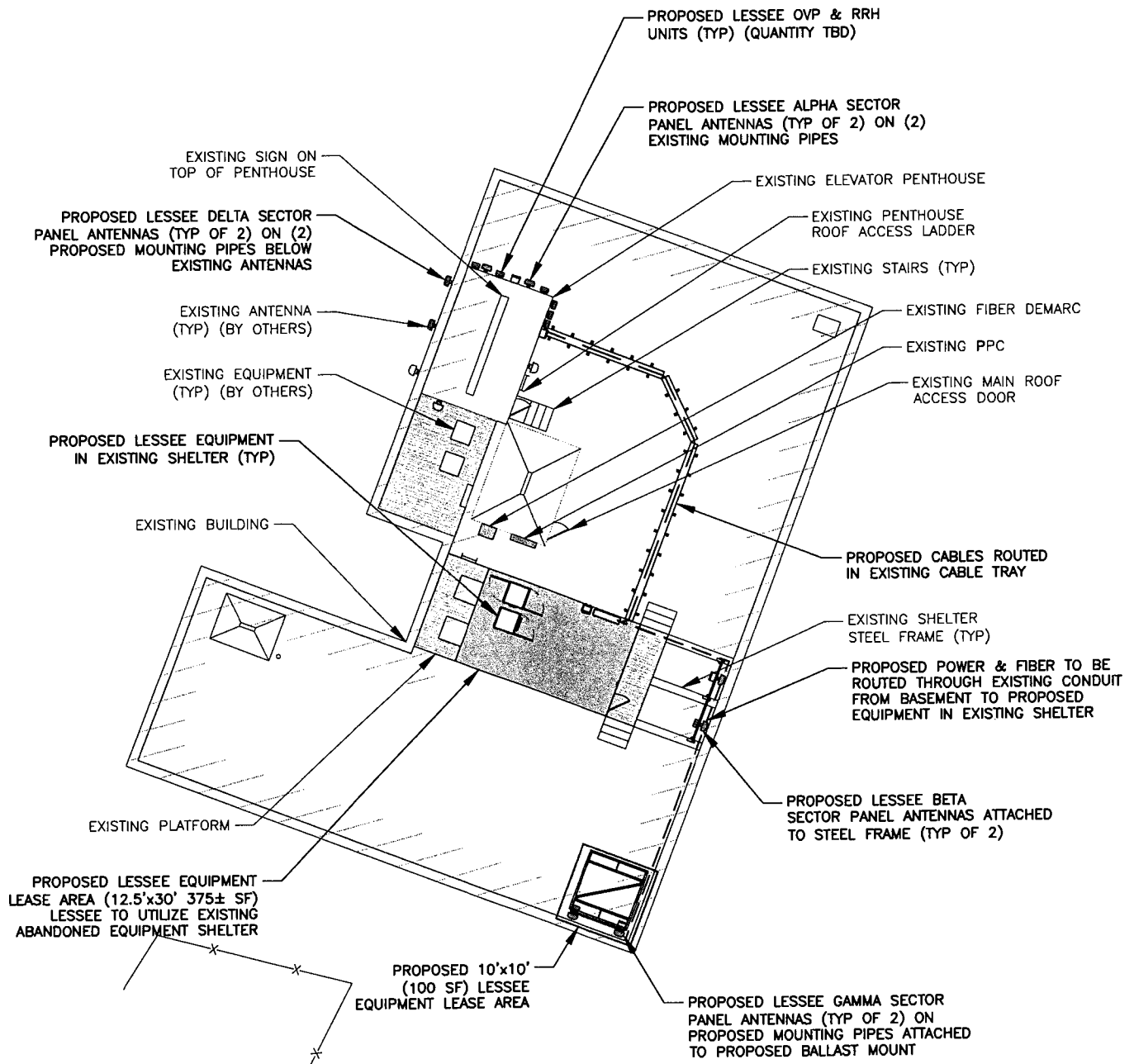
AMSTERDAM CENTER - LEASE EXHIBIT

PROJECT # 20161493464 - LOCATION CODE # 429735

29 E. MAIN ST. - CITY OF AMSTERDAM - MONTGOMERY COUNTY, NY 12010

CELLCO PARTNERSHIP,
(LESSEE)

1275 JOHN STREET, SUITE 100, WEST HENRIETTA, NY 14586



1
LE-2
DETAIL SITE PLAN
SCALE: 1" = 20'

NOTE:
FINAL FIBER/TELCO ROUTING TO BE DETERMINED BY PROVIDER.

0 1
ORIGINAL SIZE IN INCHES

Tectonic
PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (845) 534-5959
P.O. Box 37 (800) 829-6531
Mountainville, NY 10953 www.tectonicengineering.com
Project Contact Info
36 British American Blvd.
Suite 101
Latham, NY 12110 Phone: (518) 783-1630

AMSTERDAM CENTER - LEASE EXHIBIT

PROJECT # 20161493464 - LOCATION CODE # 429735

29 E. MAIN ST. - CITY OF AMSTERDAM - MONTGOMERY COUNTY, NY 12010

CELLCO PARTNERSHIP,
(LESSEE)

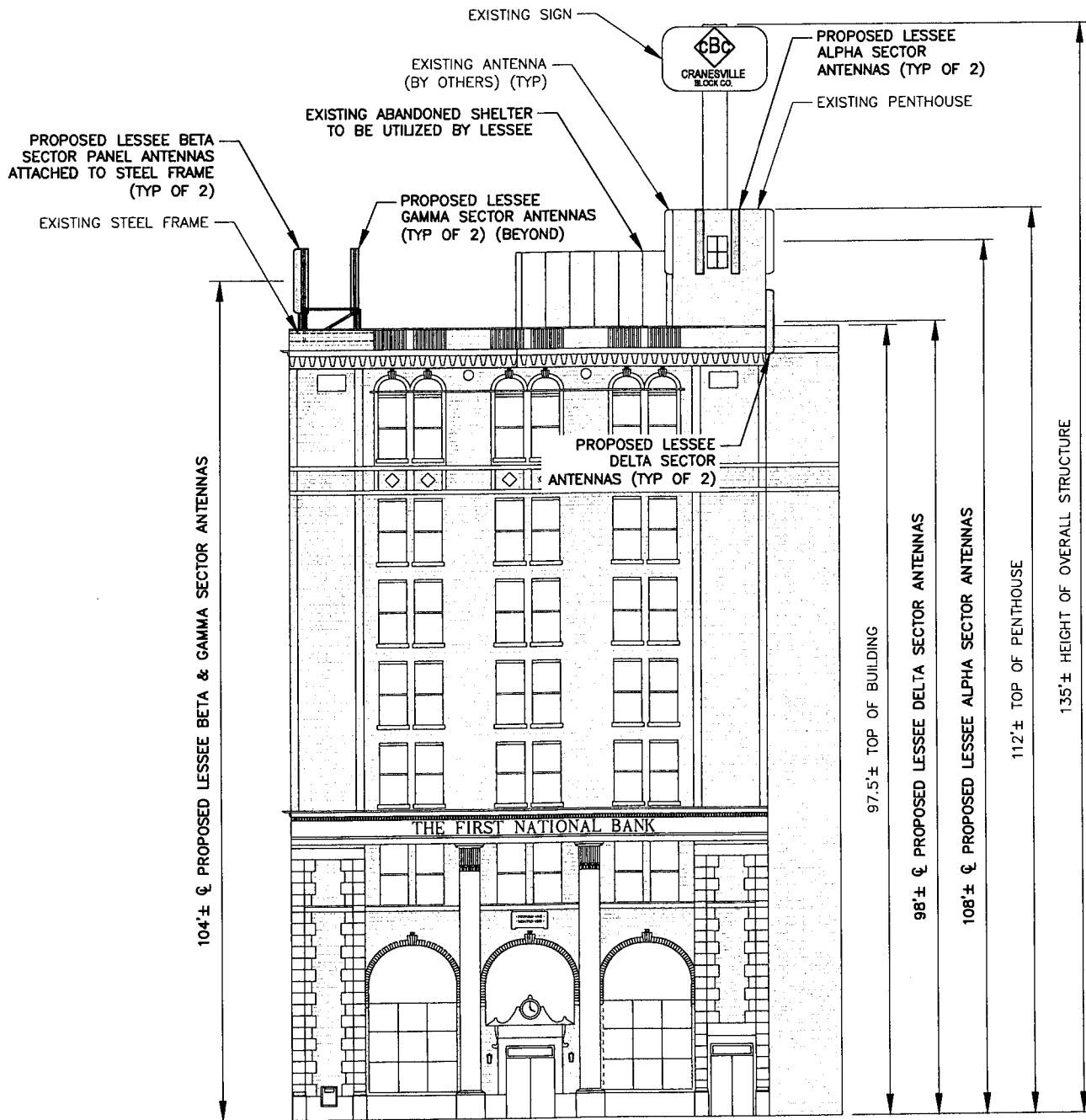
1275 JOHN STREET, SUITE 100, WEST HENRIETTA, NY 14586

TEC WO:10272.13 ISSUED BY: MQ DATE: 9/8/20

SCALE: AS NOTED

SHEET: LE-2

REV: 2



1 ELEVATION
LE-3 SCALE: 1" = 20'

0 1
ORIGINAL SIZE IN INCHES

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (845) 534-5959
P.O. Box 37 (800) 829-6531
Mountainville, NY 10953 www.tectonicengineering.com

Project Contact Info
36 British American Blvd.
Suite 101
Latham, NY 12110

Phone: (518) 783-1630

AMSTERDAM CENTER - LEASE EXHIBIT

PROJECT # 20161493464 - LOCATION CODE # 429735

29 E. MAIN ST. - CITY OF AMSTERDAM - MONTGOMERY COUNTY, NY 12010

CELLCO PARTNERSHIP,
(LESSEE)

1275 JOHN STREET, SUITE 100, WEST HENRIETTA, NY 14586

TEC WO:10272.13

ISSUED BY: MQ

DATE: 9/8/20

SCALE: AS NOTED

SHEET: LE-3

REV: 2

3

**DOCUMENTATION OF PUBLIC UTILITY STATUS
and
OVERVIEW OF ROSENBERG DECISION**

In *Cellular Tel. Co. v. Rosenberg*, 82 N.Y.2d 364 (1993), the New York Court of Appeals determined that cellular telephone companies are public utilities. The Court held that proposed cellular telephone installations are to be reviewed by zoning boards pursuant to the traditional standard afforded to public utilities, rather than the standards generally required for the necessary approvals:

It has long been held that a zoning board may not exclude a utility from a community where the utility has shown a need for its facilities. There can be no question of [the carrier's] need to erect the cell site to eliminate service gaps in its cellular telephone service area. The proposed cell site will also improve the transmission and reception of existing service. Application of our holding in *Matter of Consolidated Edison* to sitings of cellular telephone companies, such as [the applicant], permits those companies to construct structures necessary for their operation which are prohibited because of existing zoning laws and to provide the desired services to the surrounding community. . . . Moreover, the record supports the conclusion that [the applicant] sustained its burden of proving the requisite public necessity. [The applicant] established that the erection of the cell site would enable it to remedy gaps in its service area that currently prevent it from providing adequate service to its customers in the . . . area.

Rosenberg, 82 N.Y.2d at 372-74 (citing *Consolidated Edison Co. v. Hoffman*, 43 N.Y.2d 598 (1978)).

This special treatment of a public utility stems from the essential nature of its service, and the fact that a public utility transmitting facility must be located in a particular area in order to provide service. For instance, water towers, electric switching stations, water pumping stations and telephone poles must be in particular locations (including within residential districts) in order to provide the utility to a specific area:

[Public] utility services are needed in all districts; the service can be provided only if certain facilities (for example, substations) can be located in commercial and even in residential districts. To exclude such use would result in an impairment of an essential service.

Anderson, *New York Zoning Law Practice*, 3d ed., p. 411 (1984) (hereafter "Anderson"). See also, *Cellular Tel. Co. v. Rosenberg*, 82 N.Y.2d 364 (1993); *Payne v. Taylor*, 178 A.D.2d 979 (4th Dep't 1991).

Accordingly, the law in New York is that a municipality may not prohibit facilities, including towers, necessary for the transmission of a public utility. In *Rosenberg*, 82 N.Y.2d at 371, the court found that "the construction of an antenna tower... to facilitate the supply of cellular telephone service is a 'public utility building' within the meaning of a zoning ordinance." See also *Long Island Lighting Co. v. Griffin*, 272 A.D. 551 (2d Dep't 1947) (a municipal corporation may not prohibit the expansion of a public utility where such expansion is necessary to the maintenance of essential services).

In the present case, Verizon Wireless does not have reliable service coverage in areas of the City of Amsterdam. The communications facility proposed is necessary to remedy this service problem and to provide adequate and reliable wireless telecommunications service coverage to this area. Therefore, Verizon Wireless satisfies the requisite showing of need for the facility under applicable New York law.

4

**DOCUMENTATION OF PERSONAL WIRELESS SERVICE FACILITY STATUS
and
FEDERAL TELECOMMUNICATIONS ACT OF 1996**

In addition to being considered a public utility under New York decisional law, Verizon Wireless is classified as a provider of “personal wireless services” under the federal Telecommunications Act of 1996 (the “TCA”).

As stated in the long title of the Act, the goal of the TCA is to “promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.” *Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56 (1996)*.

The TCA mandates a process designed to achieve competitive telecommunications markets. In keeping with the central goals of the TCA, the authors specify in Section 253(a) that “[n]o State or local statute or regulation...may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.” *TCA Section 253(a), emphasis added*.

Section 332(c) of the TCA preserves the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction and modification of personal wireless service facilities, subject to several important limitations:

- the “regulation of the placement...of personal wireless service facilities by any State or local government or instrumentality thereof shall not unreasonably discriminate among providers of functionally equivalent services” (*TCA §332(c)(7)(B)(i)(I)*);
- the “regulation of the placement...of personal wireless service facilities by any State or local government or instrumentality thereof shall not prohibit or have the effect of prohibiting the provision of personal wireless services” (*TCA §332(c)(7)(B)(i)(II)*);
- Applications must be processed within a reasonable period of time, and any decision to deny a request for placement of personal wireless service facilities must be in writing and supported by substantial evidence contained in a written record (*TCA §§332(c)(7)(B)(ii) and (iii)*); and
- regulations based upon the perceived environmental effects of radio frequency emissions are prohibited, so long as the proposed personal wireless service facility complies with FCC regulations concerning such emissions (*TCA §332(c)(7)(B)(iv)*).

A reference copy of the Telecommunications Act of 1996 is included herewith.

TELECOMMUNICATIONS ACT OF 1996

JANUARY 31, 1996. Ordered to be printed

Mr. BAILEY, from the committee of conference,
submitted the following

CONFERENCE REPORT

[To accompany S. 652]

The committee of conference on the disagreeing votes of the two Houses on the amendments of the House to the bill (S. 652), to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition, and for other purposes, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the Senate recede from its disagreement to the amendment of the House to the text of the bill and agree to the same with an amendment as follows:

In lieu of the matter proposed to be inserted by the House amendment, insert the following:

SECTION 1. SHORT TITLE; REFERENCES.

(a) *SHORT TITLE.*—This Act may be cited as the “Telecommunications Act of 1996”.

(b) *REFERENCES.*—Except as otherwise expressly provided, whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Communications Act of 1934 (47 U.S.C. 151 et seq.).

SEC. 2. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

- Sec. 1. Short title; references.
- Sec. 2. Table of contents.
- Sec. 3. Definitions.

~~The owner shall provide written notification of such attachment to any entity that has obtained an attachment to such conduit or right-of-way so that such entity may have a reasonable opportunity to add to or modify its existing attachment. Any entity that adds to or modifies its existing attachment after receiving such notification shall bear a proportionate share of the costs incurred by the owner in making such pole, duct, conduit, or right-of-way accessible.~~

~~Any entity that obtains an attachment to a pole, conduit, or right-of-way shall not be required to bear any of the costs of rearranging or replacing its attachment if such rearrangement or replacement is required as a result of an additional attachment or the modification of an existing attachment sought by any other entity (including the owner of such pole, duct, conduit, or right-of-way).~~

SEC. 704. FACILITIES SITING; RADIO FREQUENCY EMISSION STANDARDS.

(a) **NATIONAL WIRELESS TELECOMMUNICATIONS SITING POLICY.**—Section 332(c) (47 U.S.C. 332(c)) is amended by adding at the end the following new paragraph:

“(7) **PRESERVATION OF LOCAL ZONING AUTHORITY.**—

“(A) **GENERAL AUTHORITY.**—Except as provided in this paragraph, nothing in this Act shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities.

“(B) **LIMITATIONS.**—

“(i) The regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof—

“(I) shall not unreasonably discriminate among providers of functionally equivalent services; and

“(II) shall not prohibit or have the effect of prohibiting the provision of personal wireless services.

“(ii) A State or local government or instrumentality thereof shall act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time after the request is duly filed with such government or instrumentality, taking into account the nature and scope of such request.

“(iii) Any decision by a State or local government or instrumentality thereof to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record.

“(iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.

"(v) Any person adversely affected by any final action or failure to act by a State or local government or any instrumentality thereof that is inconsistent with this subparagraph may, within 30 days after such action or failure to act, commence an action in any court of competent jurisdiction. The court shall hear and decide such action on an expedited basis. Any person adversely affected by an act or failure to act by a State or local government or any instrumentality thereof that is inconsistent with clause (iv) may petition the Commission for relief.

"(C) DEFINITIONS.—For purposes of this paragraph—

"(i) the term 'personal wireless services' means commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services;

"(ii) the term 'personal wireless service facilities' means facilities for the provision of personal wireless services; and

"(iii) the term 'unlicensed wireless service' means the offering of telecommunications services using duly authorized devices which do not require individual licenses, but does not mean the provision of direct-to-home satellite services (as defined in section 303(v))."

(b) RADIO FREQUENCY EMISSIONS.—Within 180 days after the enactment of this Act, the Commission shall complete action in ET Docket 93-62 to prescribe and make effective rules regarding the environmental effects of radio frequency emissions.

(c) AVAILABILITY OF PROPERTY.—Within 180 days of the enactment of this Act, the President or his designee shall prescribe procedures by which Federal departments and agencies may make available on a fair, reasonable, and nondiscriminatory basis, property, rights-of-way, and easements under their control for the placement of new telecommunications services that are dependent, in whole or in part, upon the utilization of Federal spectrum rights for the transmission or reception of such services. These procedures may establish a presumption that requests for the use of property, rights-of-way, and easements by duly authorized providers should be granted absent unavoidable direct conflict with the department or agency's mission, or the current or planned use of the property, rights-of-way, and easements in question. Reasonable fees may be charged to providers of such telecommunications services for use of property, rights-of-way, and easements. The Commission shall provide technical support to States to encourage them to make property, rights-of-way, and easements under their jurisdiction available for such purposes.

RIERS.

Section 332(c) (47 U.S.C. 332(c)) is amended by adding at the end the following new paragraph:

"(8) MOBILE SERVICES ACCESS.—A person engaged in the provision of commercial mobile services, insofar as such person is so engaged, shall not be required to provide equal access to common carriers for the provision of telephone call services."

portionate share of the costs incurred by the owner in making such conduit or right-of-way accessible.

Conference agreement

The conference agreement adopts the Senate provision with modifications. The conference agreement amends section 224 of the Communications Act by adding new subsection (e)(1) to allow parties to negotiate the rates, terms, and conditions for attaching to poles, ducts, conduits, and rights-of-way owned or controlled by utilities. New subsection 224(e)(2) establishes a new rate formula charged to telecommunications carriers for the non-useable space of each pole. Such rate shall be based upon the number of attaching entities. The conferees also agree to three additional provisions from the House amendment. First, subsection (g) requires utilities that engage in the provision of telecommunications services or cable services to impute to its costs of providing such service an equal amount to the pole attachment rate for which such company would be liable under section 224. Second, new subsection 224(h) requires utilities to provide written notification to attaching entities of any plans to modify or alter its poles, ducts, conduit, or rights-of-way. New subsection 224(h) also requires any attaching entity that takes advantage of such opportunity to modify its own attachments shall bear a proportionate share of the costs of such alterations. Third, new subsection 224(i) prevents a utility from imposing the cost of rearrangements to other attaching entities if done solely for the benefit of the utility.

SECTION 704—FACILITIES SITING; RADIO FREQUENCY EMISSION STANDARDS

Senate bill

No provision.

House amendment

Section 108 of the House amendment required the Commission to issue regulations within 180 days of enactment for siting of CMS. A negotiated rulemaking committee comprised of State and local governments, public safety agencies and the affected industries were to have attempted to develop a uniform policy to propose to the Commission for the siting of wireless tower sites.

The House amendment also required the Commission to complete its pending Radio Frequency (RF) emission exposure standards within 180 days of enactment. The siting of facilities could not be denied on the basis of RF emission levels for facilities that were in compliance with the Commission standard.

The House amendment also required that to the greatest extent possible the Federal government make available to use of Federal property, rights-of-way, easements and any other physical instruments in the siting of wireless telecommunications facilities.

Conference agreement

The conference agreement creates a new section 704 which prevents Commission preemption of local and State land use decisions and preserves the authority of State and local governments over

zoning and land use matters except in the limited circumstances set forth in the conference agreement. The conference agreement also provides a mechanism for judicial relief from zoning decisions that fail to comply with the provisions of this section. It is the intent of the conferees that other than under section 332(c)(7)(B)(iv) of the Communications Act of 1934 as amended by this Act and section 704 of the Telecommunications Act of 1996 the courts shall have exclusive jurisdiction over all other disputes arising under this section. Any pending Commission rulemaking concerning the preemption of local zoning authority over the placement, construction or modification of CMS facilities should be terminated.

When utilizing the term "functionally equivalent services" the conferees are referring only to personal wireless services as defined in this section that directly compete against one another. The intent of the conferees is to ensure that a State or local government does not in making a decision regarding the placement, construction and modification of facilities of personal wireless services described in this section unreasonably favor one competitor over another. The conferees also intend that the phrase "unreasonably discriminate among providers of functionally equivalent services" will provide localities with the flexibility to treat facilities that create different visual, aesthetic, or safety concerns differently to the extent permitted under generally applicable zoning requirements even if those facilities provide functionally equivalent services. For example, the conferees do not intend that if a State or local government grants a permit in a commercial district, it must also grant a permit for a competitor's 50-foot tower in a residential district.

Actions taken by State or local governments shall not prohibit or have the effect of prohibiting the placement, construction or modification of personal wireless services. It is the intent of this section that bans or policies that have the effect of banning personal wireless services or facilities not be allowed and that decisions be made on a case-by-case basis.

Under subsection (c)(7)(B)(ii), decisions are to be rendered in a reasonable period of time, taking into account the nature and scope of each request. If a request for placement of a personal wireless service facility involves a zoning variance or a public hearing or comment process, the time period for rendering a decision will be the usual period under such circumstances. It is not the intent of this provision to give preferential treatment to the personal wireless service industry in the processing of requests, or to subject their requests to any but the generally applicable time frames for zoning decision.

The phrase "substantial evidence contained in a written record" is the traditional standard used for judicial review of agency actions.

The conferees intend section 332(c)(7)(B)(iv) to prevent a State or local government or its instrumentalities from basing the regulation of the placement, construction or modification of CMS facilities directly or indirectly on the environmental effects of radio frequency emissions if those facilities comply with the Commission's regulations adopted pursuant to section 704(b) concerning such emissions.

The limitations on the role and powers of the Commission under this subparagraph relate to local land use regulations and are not intended to limit or affect the Commission's general authority over radio telecommunications, including the authority to regulate the construction, modification and operation of radio facilities.

The conferees intend that the court to which a party appeals a decision under section 332(c)(7)(B)(v) may be the Federal district court in which the facilities are located or a State court of competent jurisdiction, at the option of the party making the appeal, and that the courts act expeditiously in deciding such cases. The term "final action" of that new subparagraph means final administrative action at the State or local government level so that a party can commence action under the subparagraph rather than waiting for the exhaustion of any independent State court remedy otherwise required.

With respect to the availability of Federal property for the use of wireless telecommunications infrastructure sites under section 704(c), the conferees generally adopt the House provisions, but substitute the President or his designee for the Commission.

It should be noted that the provisions relating to telecommunications facilities are not limited to commercial mobile radio licensees, but also will include other Commission licensed wireless common carriers such as point to point microwave in the extremely high frequency portion of the electromagnetic spectrum which rely on line of sight for transmitting communication services.

~~SECTION 705 MOBILE SERVICE DIRECT ACCESS TO LONG-DISTANCE CARRIERS~~

Senate bill

Subsection (b) of section 221 of the Senate bill, as passed, states that notwithstanding the MFJ or any other consent decree, no CMS provider will be required by court order or otherwise to provide long distance equal access. The Commission may only order equal access if a CMS provider is subject to the interconnection obligations of section 251 and if the Commission finds that such a requirement is in the public interest. CMS providers shall ensure that its subscribers can obtain unblocked access to the interexchange carrier of their choice through the use of interexchange carrier identification codes, except that the unblocking requirement shall not apply to mobile satellite services unless the Commission finds it is in the public interest.

House amendment

Under section 109 of the House amendment, the Commission shall require providers of two-way switched voice CMS to allow their subscribers to access the telephone toll services provider of their choice through the use of carrier identification codes. The Commission rules will supersede the equal access, balloting and prescription requirements imposed by the MFJ and the AT&T-McCaw consent decree. The Commission may exempt carriers or classes of carriers from the requirements of this section if it is consistent with the public interest, convenience, and necessity, and the

5

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
 CELLCO PARTNERSHIP
 1120 SANCTUARY PKWY, #150 GASA5REG
 ALPHARETTA, GA 30009-7630

| | |
|--|----------------------------------|
| Call Sign WQGA715 | File Number 0006015570 |
| Radio Service AW - AWS, 1710-1755/2110-2155 MHz bands | |

FCC Registration Number (FRN): 0003290673

| | | | |
|---------------------------------|-------------------------------------|--------------------------------------|---------------------------------|
| Grant Date 11-29-2006 | Effective Date 03-12-2014 | Expiration Date 11-29-2021 | Print Date 05-09-2014 |
| Market Number REA001 | Channel Block F | Sub-Market Designator 11 | |
| Market Name Northeast | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

AWS operations must not cause harmful interference across the Canadian or Mexican Border. The authority granted herein is subject to future international agreements with Canada or Mexico, as applicable.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.

**Federal Communications Commission
Wireless Telecommunications Bureau****RADIO STATION AUTHORIZATION****LICENSEE: CELLCO PARTNERSHIP**

ATTN: REGULATORY
CELLCO PARTNERSHIP
1120 SANCTUARY PKWY, #150 GASA5REG
ALPHARETTA, GA 30009-7630

| Call Sign | File Number |
|---|-------------|
| WQGA902 | 0006150136 |
| Radio Service | |
| AW - AWS (1710-1755 MHz and 2110-2155 MHz) | |

FCC Registration Number (FRN): 0003290673

| | | | |
|---|-------------------------------------|--------------------------------------|-----------------------------------|
| Grant Date 11-29-2006 | Effective Date 12-28-2013 | Expiration Date 11-29-2021 | Print Date 02-14-2014 |
| Market Number BEA005 | Channel Block B | | Sub-Market Designator 5 |
| Market Name Albany-Schenectady-Troy, NY | | | |
| 1st Build-out Date | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

AWS operations must not cause harmful interference across the Canadian or Mexican Border. The authority granted herein is subject to future international agreements with Canada or Mexico, as applicable.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|--------------------|
| Call Sign WQVN679 | File Number |
| Radio Service AT - AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz) | |

FCC Registration Number (FRN): 0003290673

| | | | |
|---|---|--------------------------------------|---------------------------|
| Grant Date 04-08-2015 | Effective Date 02-24-2017 | Expiration Date 04-08-2027 | Print Date |
| Market Number BEA006 | Channel Block J | Sub-Market Designator 0 | |
| Market Name Syracuse, NY-PA | | | |
| 1st Build-out Date 04-08-2021 | 2nd Build-out Date 04-08-2027 | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQVN679

File Number:

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission
Wireless Telecommunications Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
1120 SANCTUARY PKWY, #150 GASA5REG
ALPHARETTA, GA 30009-7630

| | |
|---------------------------------------|----------------------------------|
| Call Sign KNKA246 | File Number 0006672353 |
| Radio Service CL - Cellular | |
| Market Numer CMA044 | Channel Block B |
| Sub-Market Designator 0 | |

FCC Registration Number (FRN): 0003290673

| |
|---|
| Market Name Albany-Schenectady-Troy, NY |
|---|

| | | | | |
|---------------------------------|-------------------------------------|--------------------------------------|-------------------------------|---------------------------------|
| Grant Date 04-14-2015 | Effective Date 04-14-2015 | Expiration Date 05-15-2025 | Five Yr Build-Out Date | Print Date 04-14-2015 |
|---------------------------------|-------------------------------------|--------------------------------------|-------------------------------|---------------------------------|

Site Information:

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|------------------------------|----------------------------------|---------------------------------------|
| 2 | 43-08-54.3 N | 073-47-03.4 W | 215.0 | | |

Address: SARATOGA: KINGS STATION ROAD

City: GREENFIELD **County:** SARATOGA **State:** NY **Construction Deadline:**

| | | | | | | | | |
|---|----------|-----------|-----------|------------|------------|------------|------------|------------|
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 41.400 | 174.700 | 188.400 | 175.600 | 172.800 | 110.000 | -41.500 | -71.300 |
| Transmitting ERP (watts) | 100.000 | 57.540 | 7.760 | 0.630 | 0.160 | 0.630 | 7.760 | 57.540 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 41.500 | 174.700 | 188.400 | 175.600 | 172.800 | 110.000 | -41.500 | -71.000 |
| Transmitting ERP (watts) | 1.450 | 19.500 | 79.430 | 95.500 | 36.310 | 3.240 | 0.160 | 0.160 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 41.500 | 174.700 | 188.400 | 175.600 | 172.800 | 110.000 | -41.500 | -71.300 |
| Transmitting ERP (watts) | 1.450 | 0.160 | 0.160 | 3.240 | 36.310 | 95.500 | 79.430 | 19.500 |

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA246

File Number: 0006672353

Print Date: 04-14-2015

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|----------|-----------|------------------------------|----------------------------------|---------------------------------------|
|----------|----------|-----------|------------------------------|----------------------------------|---------------------------------------|

3 42-37-39.4 N 074-00-37.4 W 554.7 46.3
Address: THACHER PARK: 5 MILES SOUTHWEST OF CAMP PINNACLE ROAD

City: New Scotland County: ALBANY State: NY Construction Deadline:

| | | | | | | | | |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 479.100 | 506.400 | 512.200 | 439.300 | 211.900 | 133.200 | 261.500 | 223.800 |
| Transmitting ERP (watts) | 75.080 | 2.650 | 1.000 | 1.000 | 1.000 | 7.850 | 122.830 | 257.550 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 479.100 | 506.400 | 512.200 | 439.300 | 211.900 | 133.200 | 261.500 | 223.800 |
| Transmitting ERP (watts) | 37.050 | 79.470 | 71.390 | 28.640 | 1.470 | 0.930 | 0.930 | 1.810 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 479.100 | 506.400 | 512.200 | 439.300 | 211.900 | 133.200 | 261.500 | 223.800 |
| Transmitting ERP (watts) | 1.000 | 1.000 | 6.450 | 98.460 | 230.900 | 140.000 | 15.040 | 1.000 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|----------|-----------|------------------------------|----------------------------------|---------------------------------------|
|----------|----------|-----------|------------------------------|----------------------------------|---------------------------------------|

4 42-54-41.3 N 074-29-08.6 W 239.9 58.9
Address: PALATINE BRIDGE: MORNING ROAD, 1.1 MILE NORTH OF ROUTE 90

City: PALATINE County: MONTGOMERY State: NY Construction Deadline:

| | | | | | | | | |
|--------------------------------------|--------|---------|---------|---------|---------|---------|---------|--------|
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 1.800 | 113.800 | 153.300 | -16.900 | 9.400 | 64.300 | 128.700 | 51.600 |
| Transmitting ERP (watts) | 79.850 | 41.860 | 4.450 | 0.990 | 0.990 | 0.990 | 24.680 | 85.260 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 1.800 | 113.800 | 153.300 | -16.900 | 9.400 | 64.300 | 128.700 | 51.600 |
| Transmitting ERP (watts) | 1.060 | 62.500 | 403.500 | 403.500 | 71.750 | 2.380 | 0.990 | 0.990 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 1.800 | 113.800 | 153.300 | -16.900 | 9.400 | 64.300 | 128.700 | 51.600 |
| Transmitting ERP (watts) | 0.990 | 0.990 | 0.990 | 6.230 | 129.570 | 368.520 | 230.740 | 26.950 |

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA246

File Number: 0006672353

Print Date: 04-14-2015

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|--|--------------|---------------|------------------------------|----------------------------------|---------------------------------------|
| 5 | 43-10-40.3 N | 073-55-44.5 W | 469.7 | | |
| Address: ALPINE: LOCATED OFF ORMSBEE ROAD | | | | | |
| City: GREENFIELD County: SARATOGA State: NY Construction Deadline: | | | | | |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 225 270 315 |
| Antenna Height AAT (meters) | 97.800 | 242.900 | 307.900 | 353.300 | 310.900 80.200 60.700 59.100 |
| Transmitting ERP (watts) | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 100.000 100.000 100.000 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|---|--------------|---------------|------------------------------|----------------------------------|---------------------------------------|
| 7 | 42-36-20.3 N | 073-27-36.4 W | | | |
| Address: Fire Tower Road | | | | | |
| City: Stephentown County: RENSSELAER State: NY Construction Deadline: | | | | | |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 225 270 315 |
| Antenna Height AAT (meters) | 87.100 | 103.400 | 86.700 | 194.400 | 253.100 332.400 345.400 279.800 |
| Transmitting ERP (watts) | 44.000 | 75.960 | 35.390 | 2.610 | 0.290 12.190 72.680 58.030 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|--|--------------|---------------|------------------------------|----------------------------------|---------------------------------------|
| 8 | 42-58-16.3 N | 074-40-50.5 W | 352.4 | | |
| Address: MINDEN: 0.41 MILES FROM THE INTERSECTION OF ROUTE 5S AND SANDERS ROAD BEARING 4 | | | | | |
| City: MINDEN County: MONTGOMERY State: NY Construction Deadline: | | | | | |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 225 270 315 |
| Antenna Height AAT (meters) | 5.500 | -53.300 | 88.400 | 168.300 | 75.300 -3.700 45.400 124.100 |
| Transmitting ERP (watts) | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 100.000 100.000 100.000 |

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|---|--------------|---------------|------------------------------|----------------------------------|---------------------------------------|
| 9 | 42-51-27.9 N | 073-23-22.8 W | 368.2 | 93.9 | |
| Address: Le Barron Hill Rd. | | | | | |
| City: Hoosick County: RENSSELAER State: NY Construction Deadline: | | | | | |
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 225 270 315 |
| Antenna Height AAT (meters) | 248.400 | 267.300 | 167.000 | 111.500 | 70.400 85.300 293.500 276.100 |
| Transmitting ERP (watts) | 72.440 | 19.050 | 7.240 | 20.420 | 81.280 97.720 97.720 95.500 |

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA246

File Number: 0006672353

Print Date: 04-14-2015

| Location | Latitude | Longitude | Ground Elevation (meters) | Structure Hgt to Tip (meters) | Antenna Structure Registration No. |
|----------|--------------|---------------|------------------------------|----------------------------------|---------------------------------------|
| 10 | 42-17-05.3 N | 074-15-53.9 W | 911.7 | 34.8 | |

Address: Windham Ski Area - Base Lodge

City: Windham **County:** GREENE **State:** NY **Construction Deadline:** 10-27-2009

| | | | | | | | | |
|---|----------|-----------|-----------|------------|------------|------------|------------|------------|
| Antenna: 1 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 310.800 | 465.300 | 318.700 | 266.900 | 255.100 | 310.100 | 350.200 | 327.100 |
| Transmitting ERP (watts) | 116.240 | 92.730 | 14.970 | 0.620 | 0.620 | 0.620 | 16.420 | 99.360 |
| Antenna: 2 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 310.800 | 465.300 | 318.700 | 266.900 | 255.100 | 310.100 | 350.200 | 327.100 |
| Transmitting ERP (watts) | 0.800 | 39.870 | 112.180 | 115.180 | 66.580 | 4.670 | 0.620 | 0.620 |
| Antenna: 3 Azimuth (from true north) | 0 | 45 | 90 | 135 | 180 | 225 | 270 | 315 |
| Antenna Height AAT (meters) | 310.800 | 465.300 | 318.700 | 266.900 | 255.100 | 310.100 | 350.200 | 327.100 |
| Transmitting ERP (watts) | 0.780 | 0.620 | 0.620 | 4.890 | 70.940 | 115.560 | 109.620 | 35.530 |

Control Points:

Control Pt. No. 1

Address: 500 W Dove Rd

City: Southlake **County:** TARRANT **State:** TX **Telephone Number:** (800)264-6620

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.

**Federal Communications Commission
Wireless Telecommunications Bureau****RADIO STATION AUTHORIZATION****LICENSEE:** CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

| | |
|---|----------------------------------|
| Call Sign WQJQ689 | File Number 0008587211 |
| Radio Service WU - 700 MHz Upper Band (Block C) | |

FCC Registration Number (FRN): 0003290673

| | | | |
|---|---|--------------------------------------|---------------------------|
| Grant Date 09-11-2019 | Effective Date 09-11-2019 | Expiration Date 06-13-2029 | Print Date |
| Market Number REA001 | Channel Block C | Sub-Market Designator 0 | |
| Market Name Northeast | | | |
| 1st Build-out Date 06-13-2013 | 2nd Build-out Date 06-13-2019 | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQJQ689

File Number: 0008587211

Print Date:

700 MHz Relicensed Area Information:

| Market | Market Name | Buildout Deadline | Buildout Notification | Status |
|---------------|--------------------|--------------------------|------------------------------|---------------|
|---------------|--------------------|--------------------------|------------------------------|---------------|

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
 CELLCO PARTNERSHIP
 1120 SANCTUARY PKWY, #150 GASA5REG
 ALPHARETTA, GA 30009-7630

| | |
|--|----------------------------------|
| Call Sign WQCS418 | File Number 0006668604 |
| Radio Service CW - PCS Broadband | |

FCC Registration Number (FRN): 0003290673

| | | | |
|--|-------------------------------------|--------------------------------------|---------------------------------|
| Grant Date 04-23-2015 | Effective Date 04-23-2015 | Expiration Date 05-13-2025 | Print Date 04-24-2015 |
| Market Number BTA007 | Channel Block C | Sub-Market Designator 6 | |
| Market Name Albany-Schenectady, NY | | | |
| 1st Build-out Date 05-13-2010 | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.

**Federal Communications Commission
Wireless Telecommunications Bureau****RADIO STATION AUTHORIZATION****LICENSEE: CELLCO PARTNERSHIP**

ATTN: REGULATORY
CELLCO PARTNERSHIP
1120 SANCTUARY PKWY, #150 GASA5REG
ALPHARETTA, GA 30009-7630

| | |
|--|----------------------------------|
| Call Sign WQEM928 | File Number 0007057132 |
| Radio Service CW - PCS Broadband | |

FCC Registration Number (FRN): 0003290673

| | | | |
|--|-------------------------------------|--------------------------------------|---------------------------------|
| Grant Date 03-11-2016 | Effective Date 03-11-2016 | Expiration Date 03-08-2026 | Print Date 03-12-2016 |
| Market Number BTA007 | Channel Block C | Sub-Market Designator 5 | |
| Market Name Albany-Schenectady, NY | | | |
| 1st Build-out Date 03-08-2011 | 2nd Build-out Date | 3rd Build-out Date | 4th Build-out Date |

Waivers/Conditions:

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Conditions:

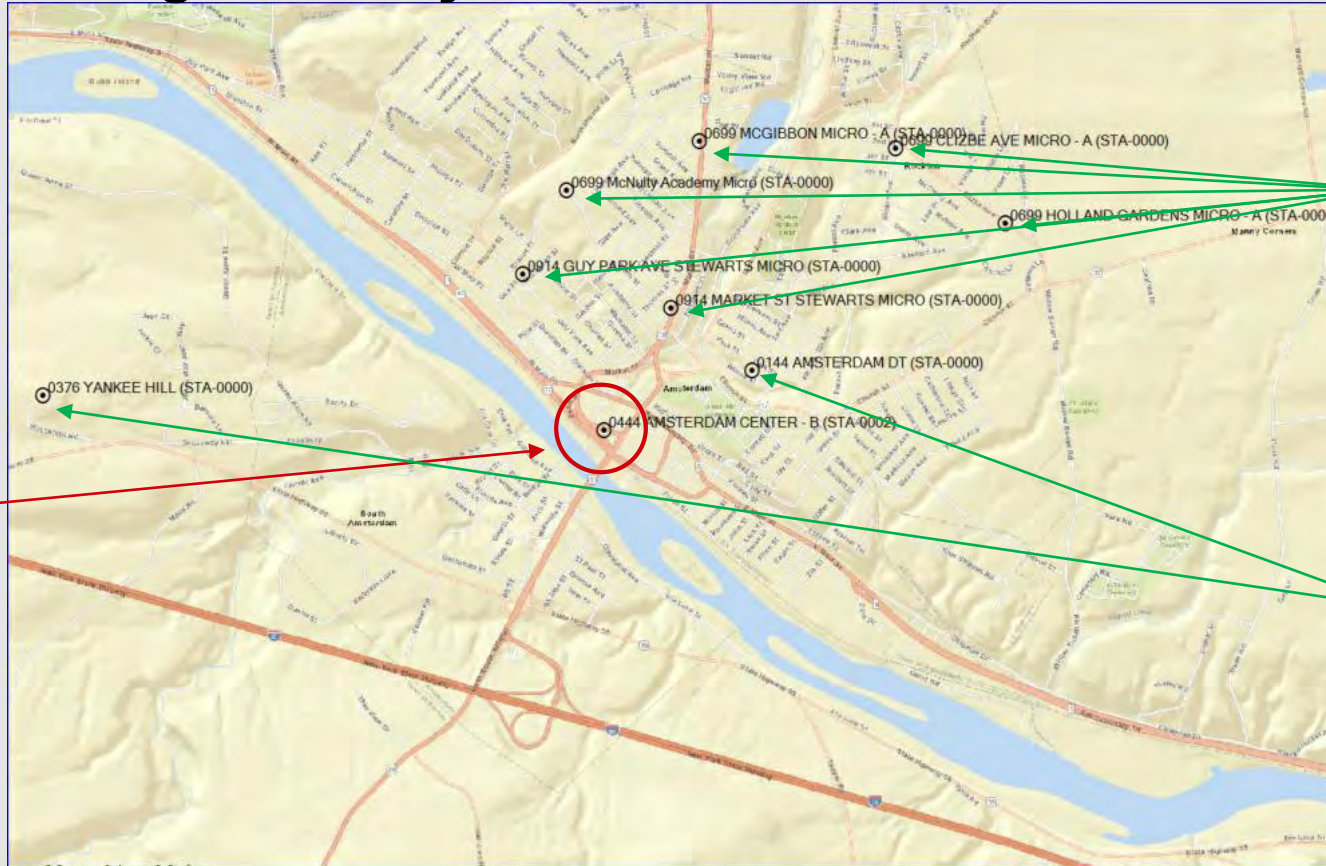
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

6

Verizon Wireless Communications Facility

Engineering Necessity Case – Amsterdam Center



Existing
Verizon
micro sites

Existing
Verizon
macro sites

Proposed
rooftop site
location

Prepared by: Rick Suhocki

Project: The project is for the installation and operation of wireless telecommunications equipment on the existing rooftop at 29 East Main St. in the city of Amsterdam.



October 16, 2020

Introduction

The purpose of this subsequent analysis is to summarize and communicate the technical radio frequency (RF) information used in the justification of this new site.

Coverage and/or capacity deficiencies are the two main drivers that prompt the need for a new wireless communications facility/site. All sites provide a mixture of both capacity and coverage for the benefit of the end user.

Coverage can be defined as the existence of signal of usable strength and quality in an area, including but not limited to in-vehicles or in-buildings.

The need for improved coverage is identified by RF Engineers that are responsible for developing and maintaining the network. RF Engineers utilize both theoretical and empirical data sets (propagation maps and real world coverage measurements). Historically, coverage improvements have been the primary justification of new sites.

Capacity can be defined as the amount of traffic (voice and data) a given site can process before significant performance degradation occurs.

When traffic volume exceeds the capacity limits of a site serving a given area, network reliability and user experience degrades. Ultimately this prevents customers from making/receiving calls, applications cease functioning, internet connections time out and data speeds fail. This critical condition is more important than just a simple nuisance for some users. Degradation of network reliability and user experience can affect emergency responders and to persons in a real emergency situation can literally mean life or death.

Project Need Overview

The purpose of this project is to improve wireless coverage and capacity in the city of Amsterdam, and add new 700 MHz and Advanced Wireless Services (AWS) 2100 MHz frequencies to Verizon Wireless' existing regional wireless network. Verizon Wireless is using these frequencies for commercial activation of its fourth Generation Long Term Evolution (4G LTE) communication services network.

This project is a necessary and critical upgrade of the Verizon Wireless communications network in Montgomery County including the city of Amsterdam. Upon completion, new, advanced emergency and non-emergency 4G Verizon Wireless communication services will be provided across significant portions of the city of Amsterdam and surrounding areas.

The primary objectives for this project are to provide an adequate and safe level of emergency and non-emergency Verizon Wireless 4G communications services across the city of Amsterdam and surrounding areas. More specifically, the facility will offer significant improvements in both coverage and capacity (ability for the network to adequately satisfy the demand for high speed wireless services) to the homes, businesses, and rural communities across the lower areas of the city of Amsterdam and the surrounding areas, including portions of I-90, 3.5± miles along Route 5, 2.5± miles along Route 5s and 2.0± mile along Route 30. Additionally, the proposed facility will improve service and fill in existing 4G network coverage gaps along several community and local roads across the target coverage improvement area.

Following the search for co-locatable structures to resolve the aforementioned challenges and finding this rooftop, Verizon proposes the current application to attach its antennas on the roof of the building located at 29 East Main St. Amsterdam, NY 12010. Verizon's antennas will utilize 108' for the ACL (Antenna Center Line) with a top of antenna height of 112'. This solution will provide the necessary coverage and capacity improvements needed.

Wireless LTE (Voice and Data) Growth

Each year Verizon experiences substantial increases in data volume including VoLTE (Voice over LTE) that its customers utilize. Data traffic grew 65% between Q3 2016 and Q3 2017 (Ericsson Mobility Report, November 2017)

Machine to Machine communications will also increase the data burden on wireless networks. During the next five years increasingly more services that improve our safety and make our lives easier will become available via the wireless infrastructure, such as:

- Autonomous vehicular communications including automatic 911 notification when airbag deploys.
- Medical monitors that alert caretakers of patient related issues.
- Home alarms that notify people when their child arrives home from school.
- Smart street lights that notify the city when they are not working.
- City garbage cans that let people know when they need to be emptied.
- Tracking watches that can aid in finding lost Alzheimer patients, children, etc.

Explanation of Wireless Capacity

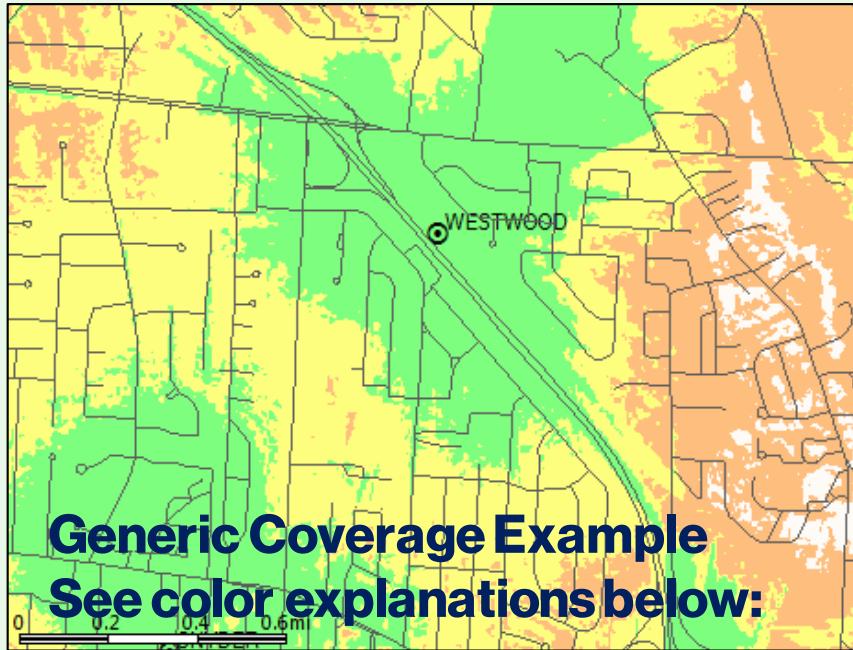


Capacity in this analysis is evaluated with up to three metrics further explained below. These metrics assist in determining actual usage for a given site as well as are used to project when a site is expected to run out of capacity (i.e. reach a point of exhaustion where it can no longer process the volume of voice and data requested by local wireless devices, thus no longer providing adequate service).

- Forward Data Volume (“**FDV**”), is a measurement of usage (data throughput) on a particular site over a given period of time.
- Average Schedule Eligible User (“**ASEU**”), is a measurement of the loading of the control channels and systems of a given site.
- Average Active Connections (“**AvgAC**”) is a measurement of the number of devices actively connected to a site in any given time slot.

Verizon Wireless uses proprietary algorithms developed by a task force of engineers and computer programmers to monitor each site in the network and accurately project and identify when sites will approach their capacity limits. Using a rolling two-year window for projected exhaustion dates allows enough time, in most cases, to develop and activate a new site. It is critical that these capacity approaching sectors are identified early and the process gets started and completed in time for new solutions (sites) to be on air before network issues impact the customers.

Explanation of Wireless Coverage



Note the affect of clutter on the predicted coverage footprint above

**Dark Green \geq -75dBm RSRP, typically serves dense urban areas as well as areas of substantial construction (colleges, hospitals, dense multi family etc.)
Green \geq -85dBm RSRP, typically serves suburban single family residential and light commercial buildings
Yellow \geq -95dBm RSRP, typically serves most rural/suburban-residential and in car applications
Orange \geq -105dBm RSRP, rural highway coverage, subject to variable conditions including fading and seasonality gaps
White = $<$ -105dBm RSRP, variable to no reliable coverage gap area

More detailed, site-specific coverage slides are later in the presentation

*Signal strength requirements vary as dictated by specific market conditions

** Not displayed in example map

Coverage is best shown via coverage maps. RF engineers use computer simulation tools that take into account terrain, vegetation, building types, and site specifics to model the RF environment. This model is used to simulate the real world network and assist engineers to evaluate the impact of a proposed site (along with industry experience and other tools).

Many Verizon Wireless sites provide 3G CDMA at 850 MHz and 4G LTE at 700 MHz. As capacity requirements increase, higher frequency PCS (1900 MHz) and AWS (2100 MHz) carriers are added. In some mountaintop situations the high band AWS and PCS carriers are not effective due to excessive distance from the user population.

Coverage provided by a given site is affected by the frequencies used. Lower frequencies propagate further distances, and are less attenuated by clutter than higher frequencies. To provide similar coverage levels at higher frequencies, a denser network of sites is required (network densification).

Explanation of this Search Area



Amsterdam Center Search Area

To resolve the coverage deficiencies previously detailed, Verizon Wireless is seeking to add one new 'macro' cell facility within or as close to this area as possible to improve wireless service capacity and coverage.

A **Search Area** is the geographical area within which a new site is targeted to solve a coverage or capacity deficiency. Three of the factors taken into consideration when defining a search area are topography, user density, and the existing network.

- **Topography** must be considered to minimize the obstacles between the proposed site and the target coverage area. For example, a site at the bottom of a ridge will not be able to cover the other side from a certain height.
- In general, the farther from a site the **User Population** is, the weaker the RF conditions are and the worse their experience is likely to be. These distant users also have an increased impact on the serving site's capacity. In the case of a multi sector site, centralized proximity is essential to allow users to be evenly distributed and allow efficient utilization of the site's resources.
- The existing **Network Conditions** also guide the design of a new site. Sites placed too close together create interference due to overlap and are an inefficient use of resources. Sites that are too tall or not properly integrated with existing sites cause interference and degrade service for existing users.
- Existing co-locatable structures inside the search area as well as within a reasonable distance of the search area are submitted by site acquisition and reviewed by RF Engineering. If possible, RF will make use of existing or nearby structures before proposing to build new towers.

-105 Coverage Plots

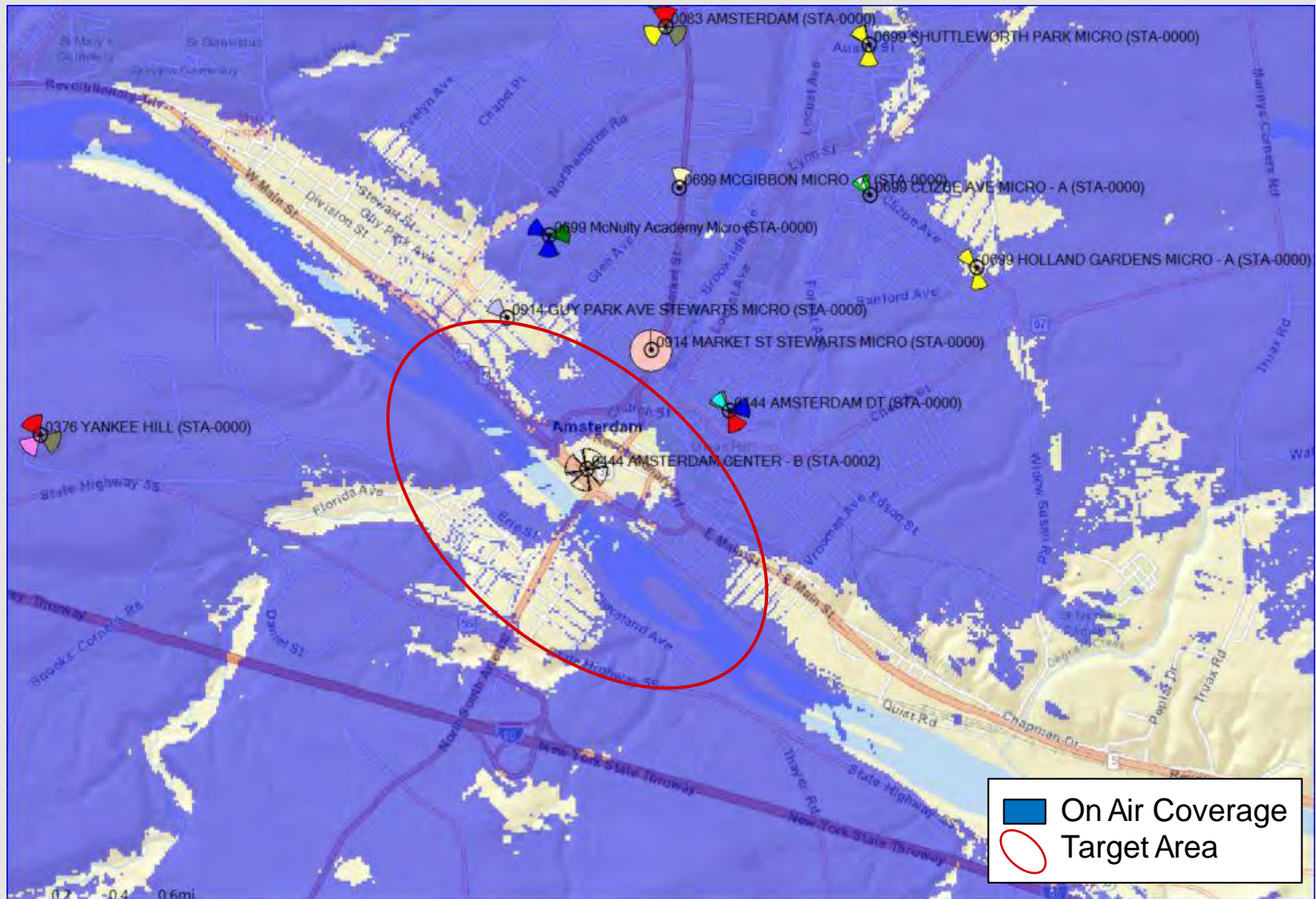
The following slides show the current and proposed -95 and -105 coverage for the Amsterdam area with existing and proposed site locations.

-105 is the Verizon standard for outdoor/in-car coverage, but will NOT provide quality in-building coverage.

-85/-95 is generally required to provide adequate in-building coverage

Existing 700MHz Best Server -95dBm RSRP

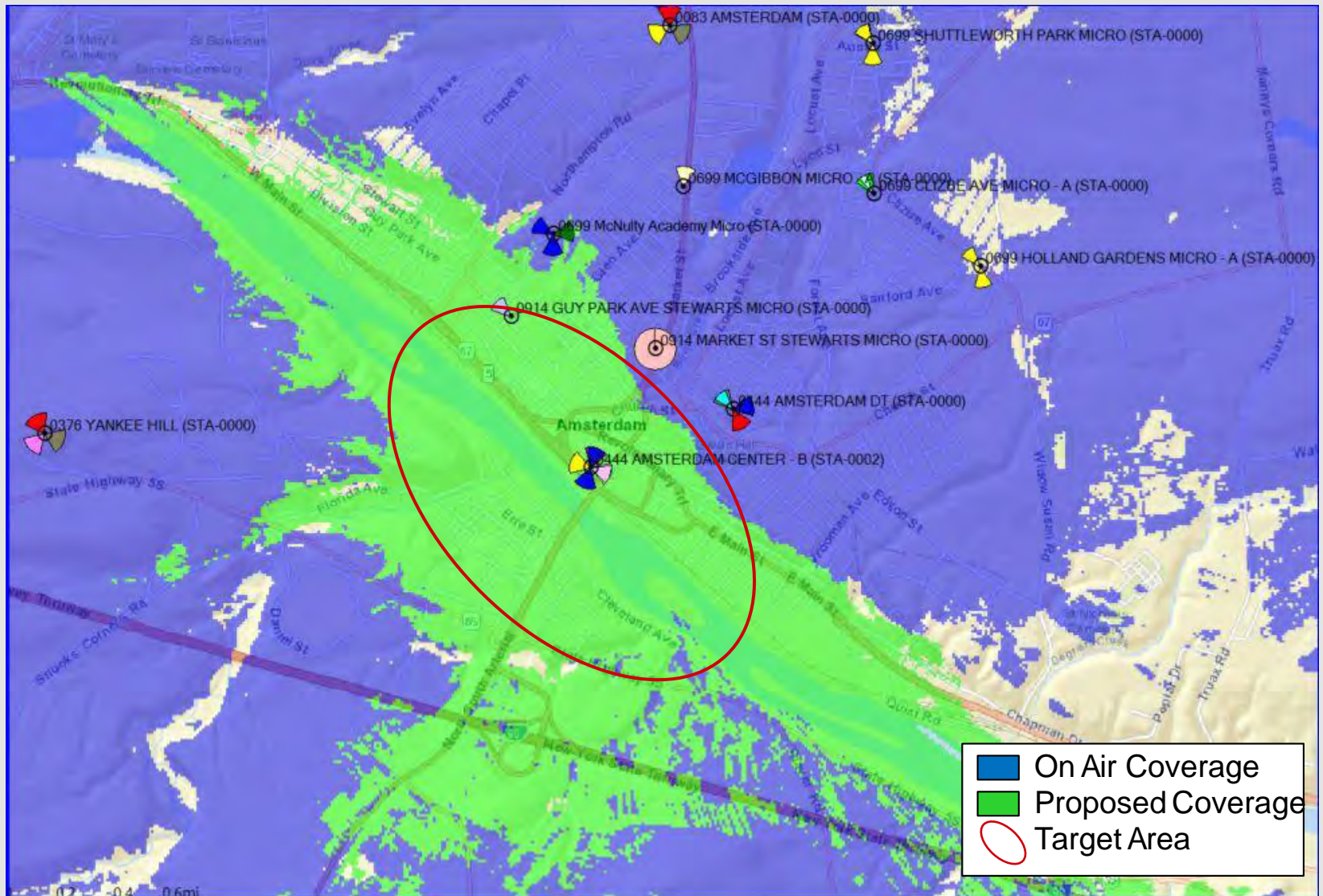
Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the existing coverage area.



The map above represents current -95 coverage from existing sites, Blue coverage is from existing on air sites.

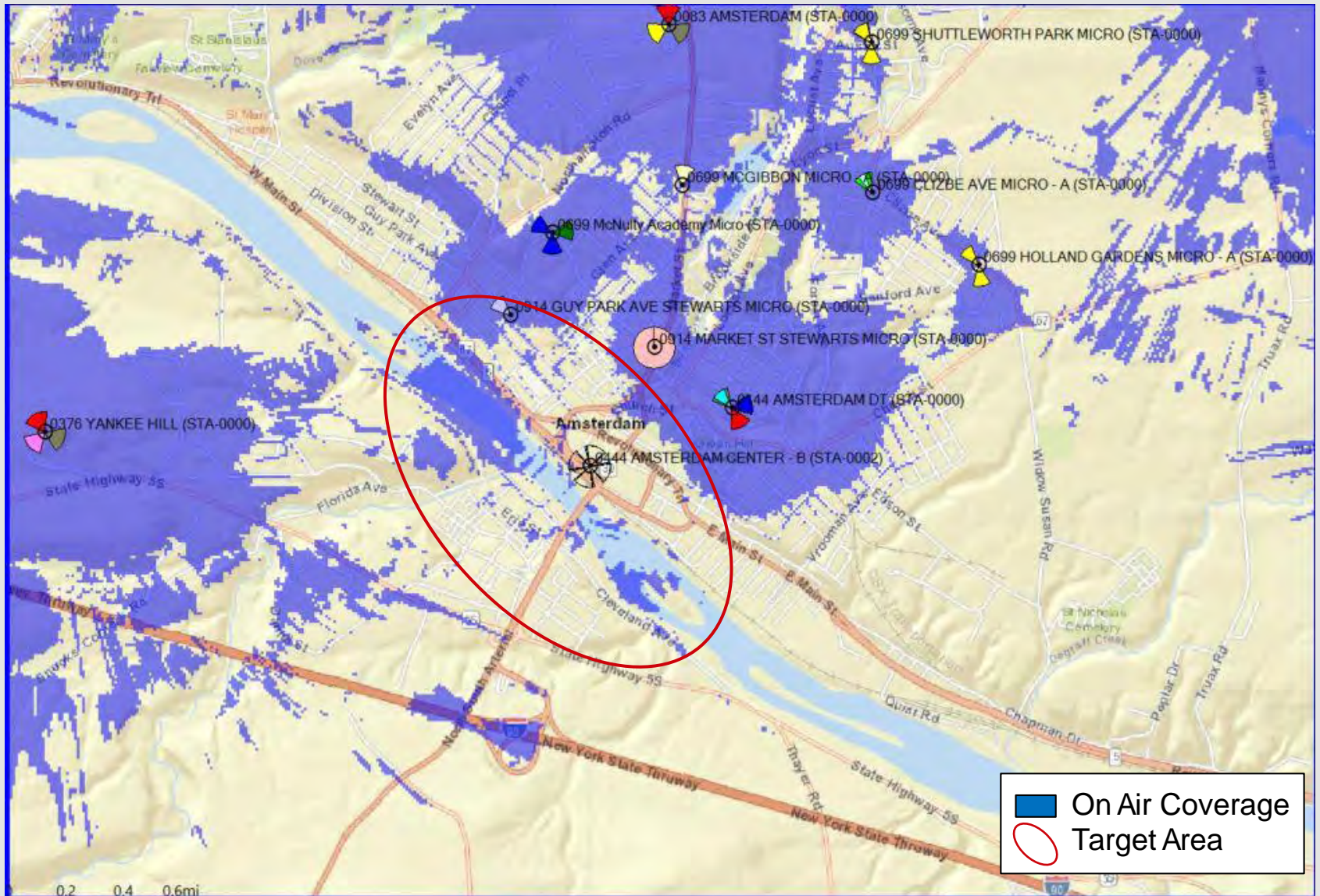
Proposed 700MHz Best Server -95dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the coverage area provided by the new sites dominant signal area.



Existing AWS (2100Mhz) Best Server -95dBm RSRP

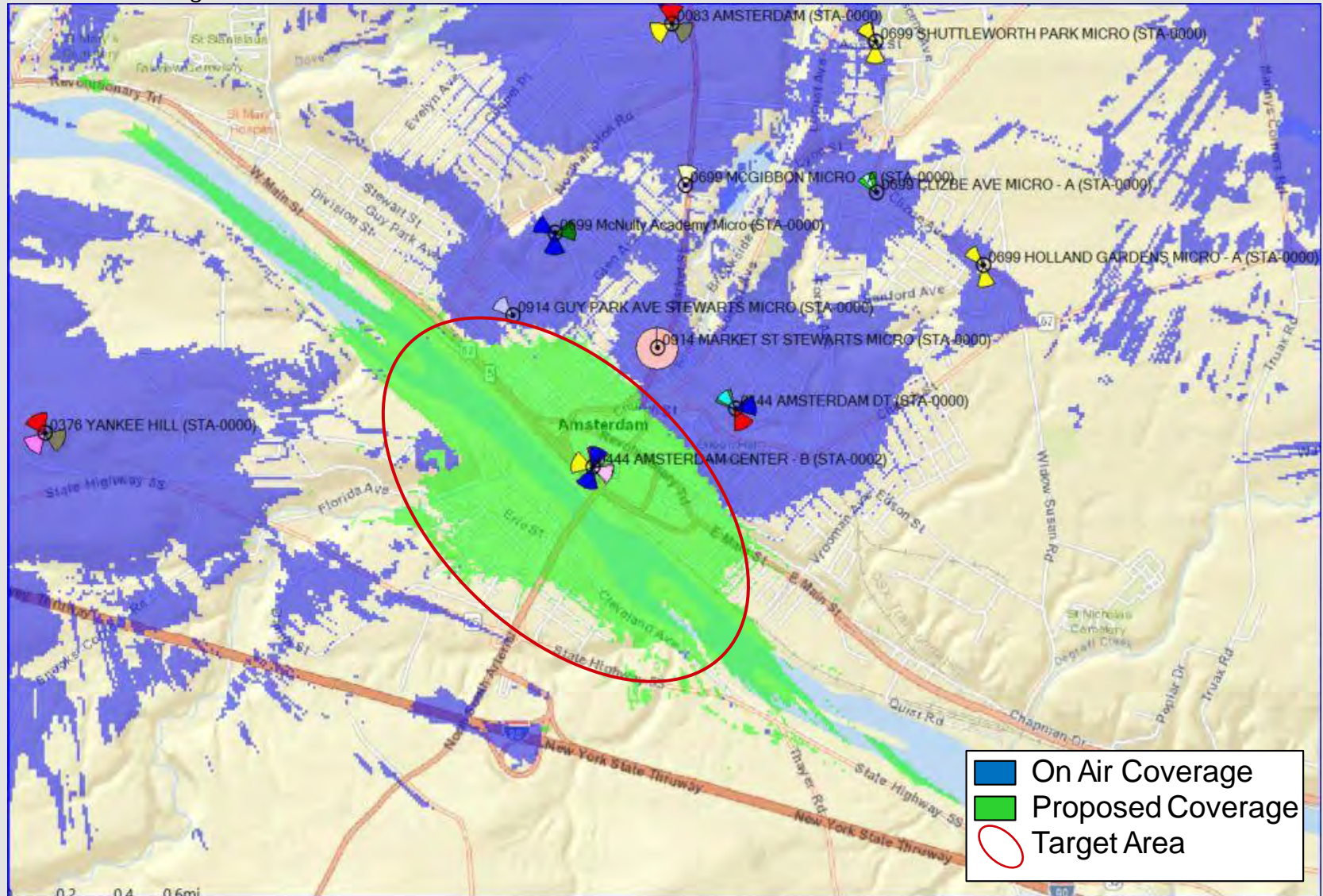
Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the existing coverage area.



The map above represents current -95 coverage from existing sites, Blue coverage is from other on air sites.

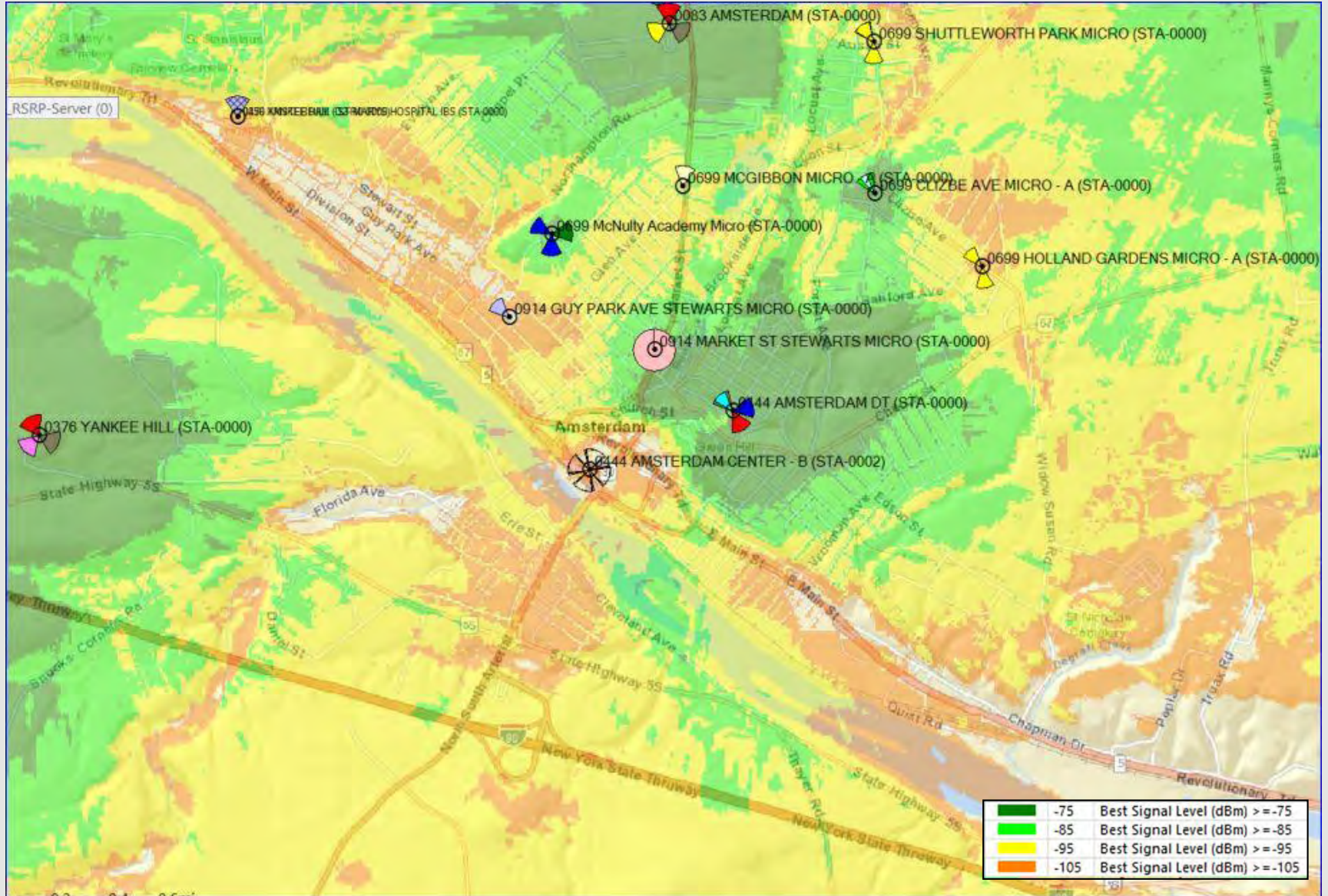
Proposed AWS (2100MHz) Best Server -95dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the coverage area provided by the new sites dominant signal area.



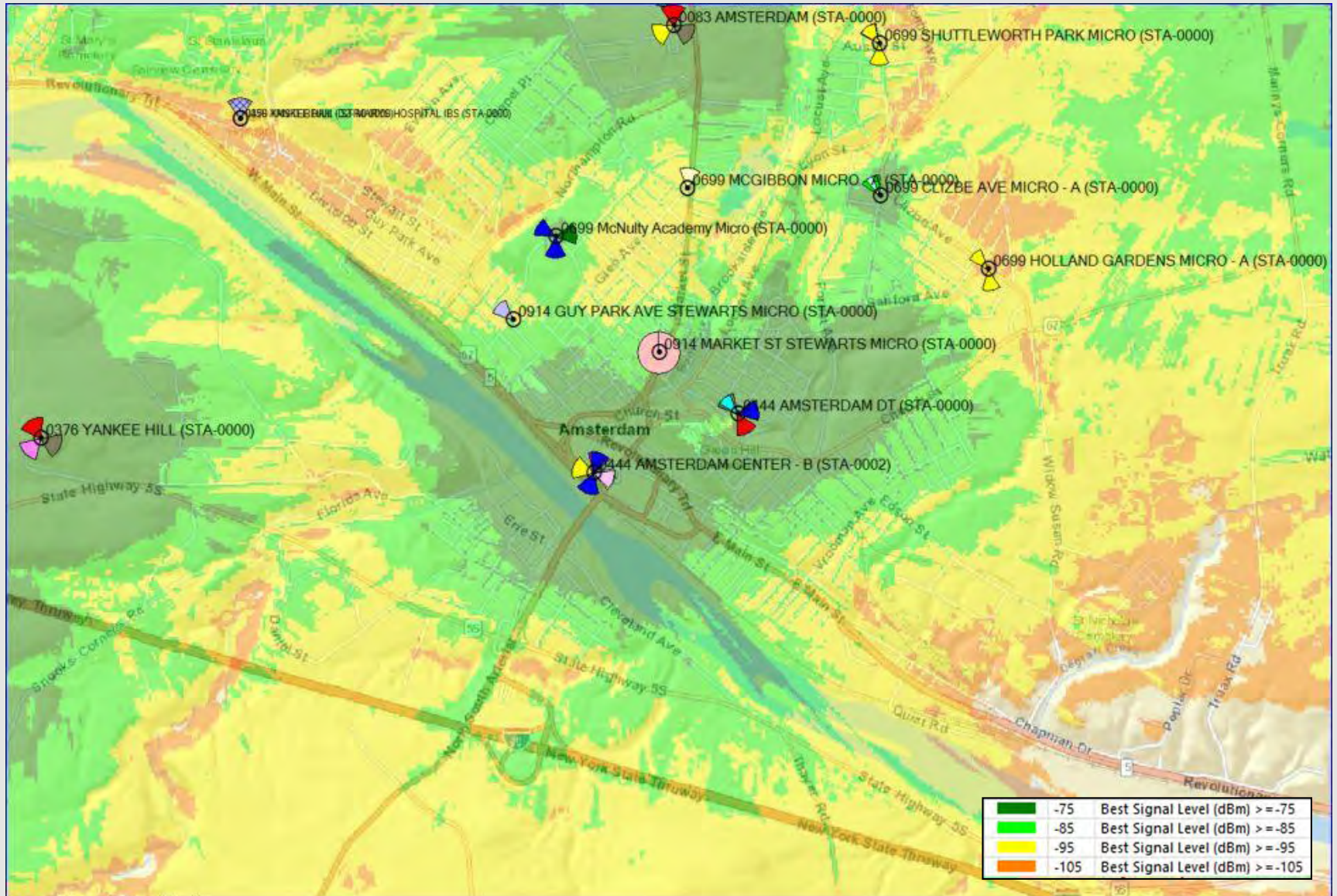
Existing 700MHz Coverage

This coverage map shows the weak RF conditions in the lower downtown Amsterdam area.



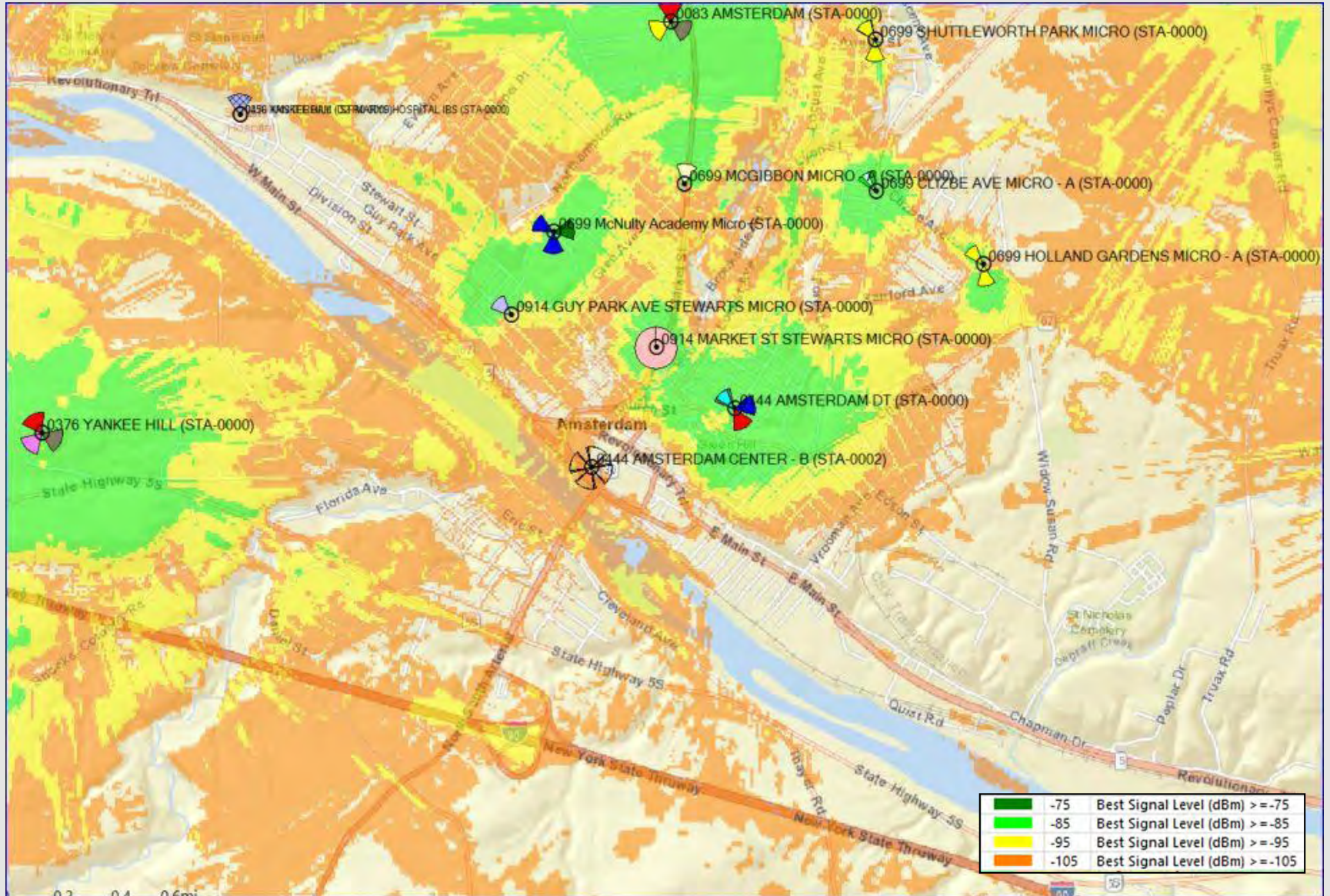
Proposed 700MHz Coverage

This coverage map shows how improved the RF conditions will be in and around the Amsterdam area.



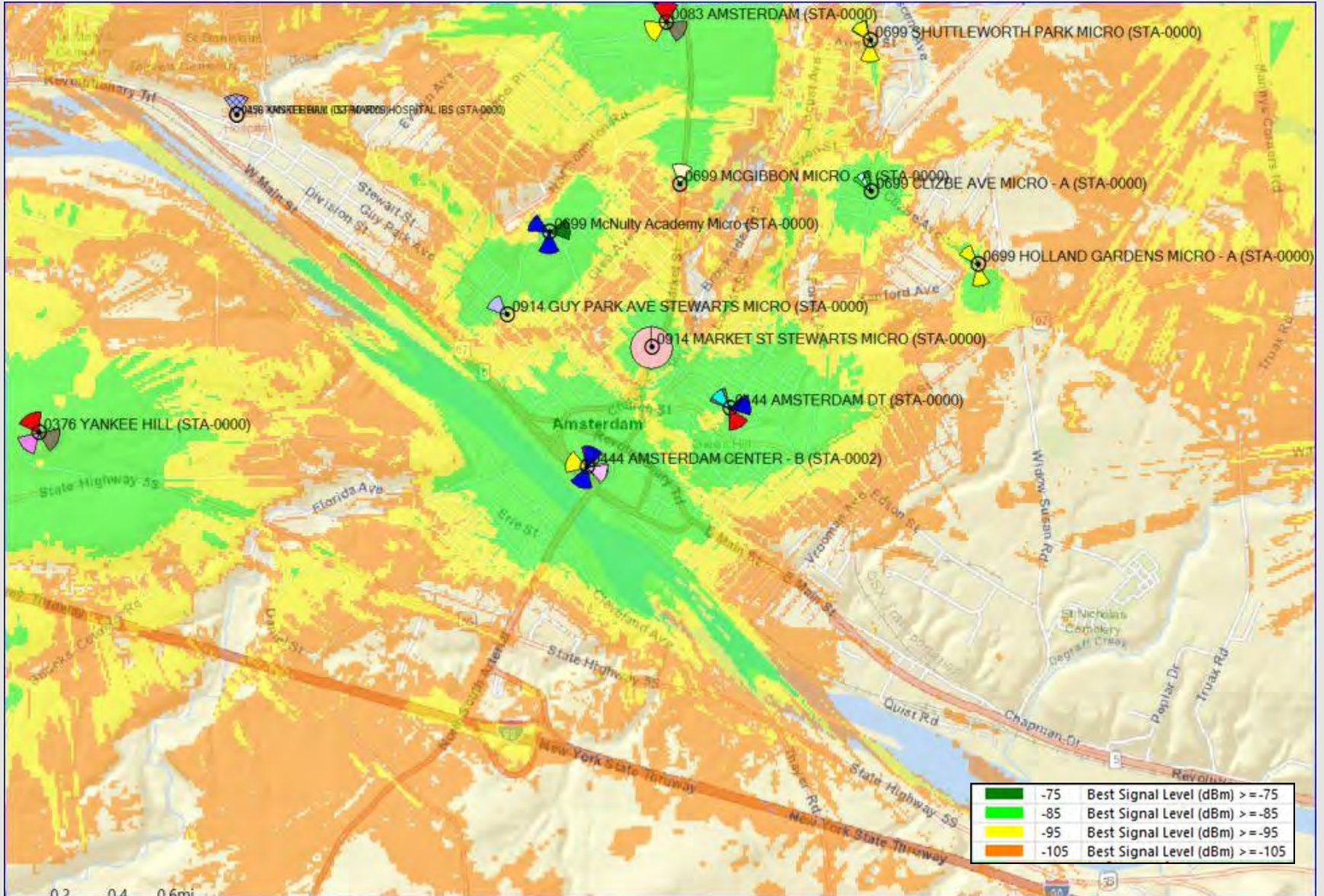
Existing AWS (2100MHz) Coverage

This coverage map shows the weak RF conditions in the lower downtown Amsterdam area.

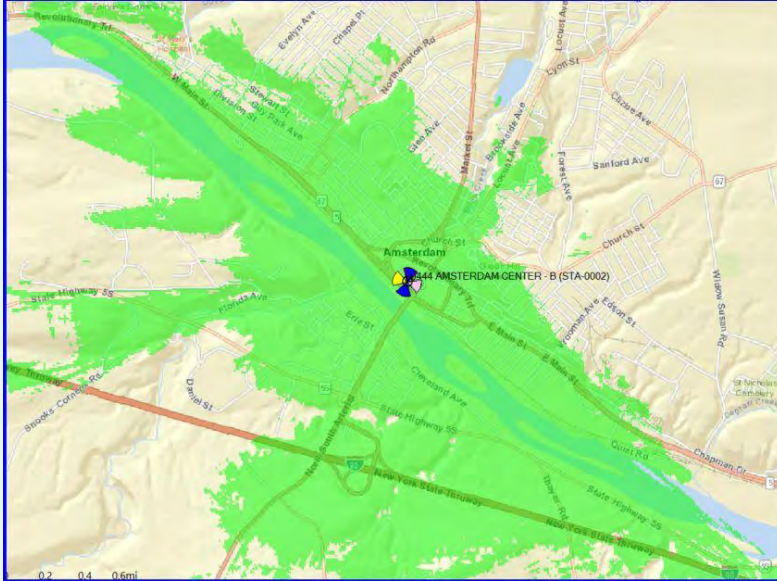


Proposed AWS (2100MHz) Coverage

This coverage map shows how improved the RF conditions will be in and around the Amsterdam area.



RF Justification Summary



The proposed site at 108' ACL resolves the substantial and significant gaps in coverage and capacity impacting the Amsterdam site area. This gap is shown above within the green shaded area.

The network was analyzed to determine whether there is sufficient **RF coverage and capacity** in the city of Amsterdam. It was determined that there are significant gaps in adequate LTE service for Verizon Wireless in the 700 and 2100MHz frequency bands. Based on the need for additional coverage while considering the topography and specific area requiring service, any further addition of capacity to distant existing sites does not remedy Verizon's significant gap in reliable service.

With the existing network configuration there are significant gaps in service which restricts Verizon Wireless customers from originating, maintaining or receiving reliable calls and network access. It is our expert opinion that the proposed height will satisfy the coverage and capacity needs of Verizon Wireless and its subscribers in the Amsterdam project area. The proposed location depicted herein satisfies the identified service gaps and is proposed at the minimum height necessary for adequate service.

Rick Suhocki

Rick Suhocki
Engineer III – RF Design
Verizon Wireless

7

2459808_429735 - AMSTERDAM CENTER Radio Frequency (RF) Site Compliance Report



29 E. Main Street, Amsterdam, NY 12010







© 2020 Site Safe, LLC. Vienna, VA

Radio Frequency Exposure FCC Compliance Assessment

Pre-Activation

| Site Specific Information | | | |
|---|---------------------|--|----------------------------|
| Site Name | AMSTERDAM CENTER | Multi-Licensee Facility | Yes |
| Street Address | 29 E. Main Street | Is Verizon a Significant Contributor to Co-Locator Areas Requiring Mitigation? | No |
| City, State, Zip | Amsterdam, NY 12010 | | |
| Verizon's Max % MPE (Measured – Occupational) | N/A | Verizon's Max % MPE (Predictive – Occupational) | 203.0% Occupational |
| Structure Type | Rooftop | Assessment Date | 10/20/2020 |
| Broadcast (AM/FM/TV) | No | Assessment Purpose | New Rooftop Colo - 2459808 |
| Total Access Points | 1 | Total Report Revisions | 0 |
| Original Report Date | 10/20/2020 | Report Revision Date | N/A |
| Compliance Status | | MITIGATION IS REQUIRED | |

| VERIZON'S WORST-CASE RF EMISSIONS IN ACCESSIBLE AREAS AT THIS FACILITY | |
|--|---|
| <input type="checkbox"/> | BELOW the General Population MPE limit |
| <input type="checkbox"/> | ABOVE the General Population MPE limit and BELOW the Occupational MPE limit |
| <input checked="" type="checkbox"/> | ABOVE the Occupational MPE limit and BELOW 10x the Occupational MPE limit |
| <input type="checkbox"/> | ABOVE 10x the Occupational MPE limit |

| Final Compliance Configuration |  |  |  |  |  |  |
|--------------------------------|---|---|---|--|---|---|
| | GUIDELINES | NOTICE | CAUTION | WARNING | NOC INFO | BARRIER/MARKER |
| Access Point(s) | 1 | | | | 1 | dimensions |
| Alpha | | 2 | | | | X 6' |
| Beta | | | 3 | | | dimensions |
| Gamma | | | 2 | | | X 6' |
| Delta | | | | | | dimensions |

Note: The table above represents EVERY compliance item that MUST be implemented at this location; Also in Sec. 3(b)

| | | | |
|--|---|-----------|--------------|
| Additional Compliance Requirements(s): N/A | | | |
| Consultant Legal Name | Site Safe, LLC | Phone/Fax | 703-276-1100 |
| Address | 8618 Westwood Center Drive, Suite 315 Vienna, VA 22182 | | |

Contents

| | |
|--|----|
| 1. Introduction | 4 |
| 2. Existing Site Characteristics | 5 |
| a. Structure | 5 |
| b. Existing Verizon Observations..... | 5 |
| c. Antenna Inventory | 6 |
| 3. Predictive Model: All Transmitters | 8 |
| 4. Conclusion | 10 |
| a. Conclusion Narrative..... | 10 |
| b. Signage/Barrier Diagram..... | 11 |
| c. Signage/Barrier Installation Detail | 12 |
| 5. Appendix A: RF Consultant Certifications | 14 |
| a. Preparer Certification | 14 |
| b. Reviewer Certification..... | 14 |
| 6. Appendix B: Reference Information | 15 |
| a. FCC Rules & Regulations | 15 |
| b. Occupational Safety and Health Administration (OSHA) Requirements | 15 |
| c. RF Signage | 16 |
| d. Physical..... | 16 |
| e. Indicative Markers | 16 |

1. Introduction

Verizon Wireless has contracted with Site Safe, LLC, an independent Radio Frequency consulting firm, to conduct a **Radio Frequency Exposure (RFE) FCC Compliance Assessment** of the AMSTERDAM CENTER cell site. The following report contains a detailed summary of the Radio Frequency environment as it relates to Federal Communications Commission (FCC) and Occupational Safety & Health Administration (OSHA) Rules and Regulations for all individuals.

The **Verizon Wireless antenna data** was provided by:

| | |
|---------------|-----------------|
| Name | Rick Suhocki |
| Title | RF Engineer III |
| Date | 9/30/2020 |
| Region | East - UPNY |

This compliance assessment and report has been **prepared** and **reviewed** by:

| | Preparer | Reviewer |
|--------------|-------------------|---------------------------------------|
| Name | Nick Kutzke | (See signature on certification page) |
| Title | EME Report Writer | Quality Assurance |
| Date | 10/20/2020 | 10/20/2020 |

This report utilizes the following **for predictive modeling of the ambient RF environment**:

MPE Modeling Program: SitesafeTC

Required Modeling Assumptions: 100% Duty Cycle and Maximum Total Power Output.

Additional Modeling Assumptions:

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at full power at all times. Software modeling derived from the recommendations in OET Bulletin 65 was performed for all transmitting antennas located on the site. Reflection has not been considered in the modeling, i.e. the reflection factor is set to 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

Areas predicted to exceed the RF exposure limit(s) may not actually occur. If power density measurements were made, we believe the real-time measurements would indicate levels below those depicted in the RF exposure diagram(s) in this report.

Sitesafe recommends restricting access to areas predicted to potentially exceed the General Public limits to RF awareness trained personnel and to areas predicted to potentially exceed the Occupational limits to RF awareness trained personnel who are using appropriate personal protective equipment in most cases.

Use of Generic Antennas



For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator, means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event that there is unknown information, Sitesafe will use its industry specific knowledge of equipment, antenna models and transmit power to model the site. If more specific information can be obtained, Sitesafe recommends remodeling the site utilizing the new data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions. Where the frequency is unknown, Sitesafe uses the frequency in the antenna's range which corresponds to the lowest RF exposure limit, resulting in a conservative analysis.

2. Existing Site Characteristics

a. Structure

| | |
|---------------------------|--|
| Physical Description | Rooftop |
| Single-Family Home | No |
| Site Latitude (NAD 83) | N42-56-12.11 |
| Site Longitude (NAD 83) | W74-11-34.14 |
| Total Analyzed Elevations | Main Level = 0' EQ = 3' EQ Shelter = 12' PH 1= 17' PH2 = 17' |

b. Existing Verizon Observations

| Final Compliance Configuration |  |  |  |  |  |  |
|---------------------------------------|---|---|---|---|---|---|
| | GUIDELINES | NOTICE | CAUTION | WARNING | NOC INFO | BARRIER/MARKER |
| Access Point(s) | | | | | | dimensions |
| Alpha | | | | | | dimensions |
| Beta | | | | | | dimensions |
| Gamma | | | | | | dimensions |
| Delta | | | | | | dimensions |

NOTE: The table above represents EXISTING compliance items implemented at this location.

c. Antenna Inventory

| | |
|--|---|
| Z-height represents the distance from the nearest walking surface to the _____ of the antenna. | <input type="checkbox"/> Bottom <input checked="" type="checkbox"/> Centerline <input type="checkbox"/> Top |
| NON-Verizon Co-locator Data | <input checked="" type="checkbox"/> Estimate <input type="checkbox"/> Actual Data |

| Ant ID | Operator | Antenna Make & Model | Type | TX Freq (MHz) | Tech | Az (Deg) | Hor BW (Deg) | Ant Len (ft) | Ant Gain (dBd) | Power | Power Type | Power Units | # of Trans | Total ERP (Watts) | Z | DT | EDT |
|--------|-----------------------------|----------------------------|-------|---------------|------|----------|--------------|--------------|----------------|-------|------------|-------------|------------|-------------------|-----|----|-----|
| 1 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 20 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 13' | 2 | 4 |
| 1 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 20 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 13' | 2 | 4 |
| 1 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 1900 | LTE | 20 | 55.5 | 8 | 15.65 | 160 | TPO | Watt | 1 | 5876.5 | 13' | 2 | 2 |
| 1 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 3550 | LTE | 20 | 56.5 | 8 | 14.55 | 20 | TPO | Watt | 1 | 570.2 | 13' | 2 | 4 |
| 2 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 20 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 13' | 2 | 4 |
| 2 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 20 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 13' | 2 | 4 |
| 2 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | LTE | 20 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 13' | 2 | 2 |
| 2 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | AWS3 | 20 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 13' | 2 | 2 |
| 3 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 110 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 9' | 2 | 4 |
| 3 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 110 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 9' | 2 | 4 |
| 3 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 1900 | LTE | 110 | 55.5 | 8 | 15.65 | 160 | TPO | Watt | 1 | 5876.5 | 9' | 2 | 2 |
| 3 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 3550 | LTE | 110 | 56.5 | 8 | 14.55 | 20 | TPO | Watt | 1 | 570.2 | 9' | 2 | 4 |
| 4 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 110 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 9' | 2 | 4 |
| 4 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 110 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 9' | 2 | 4 |
| 4 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | LTE | 110 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 9' | 2 | 2 |

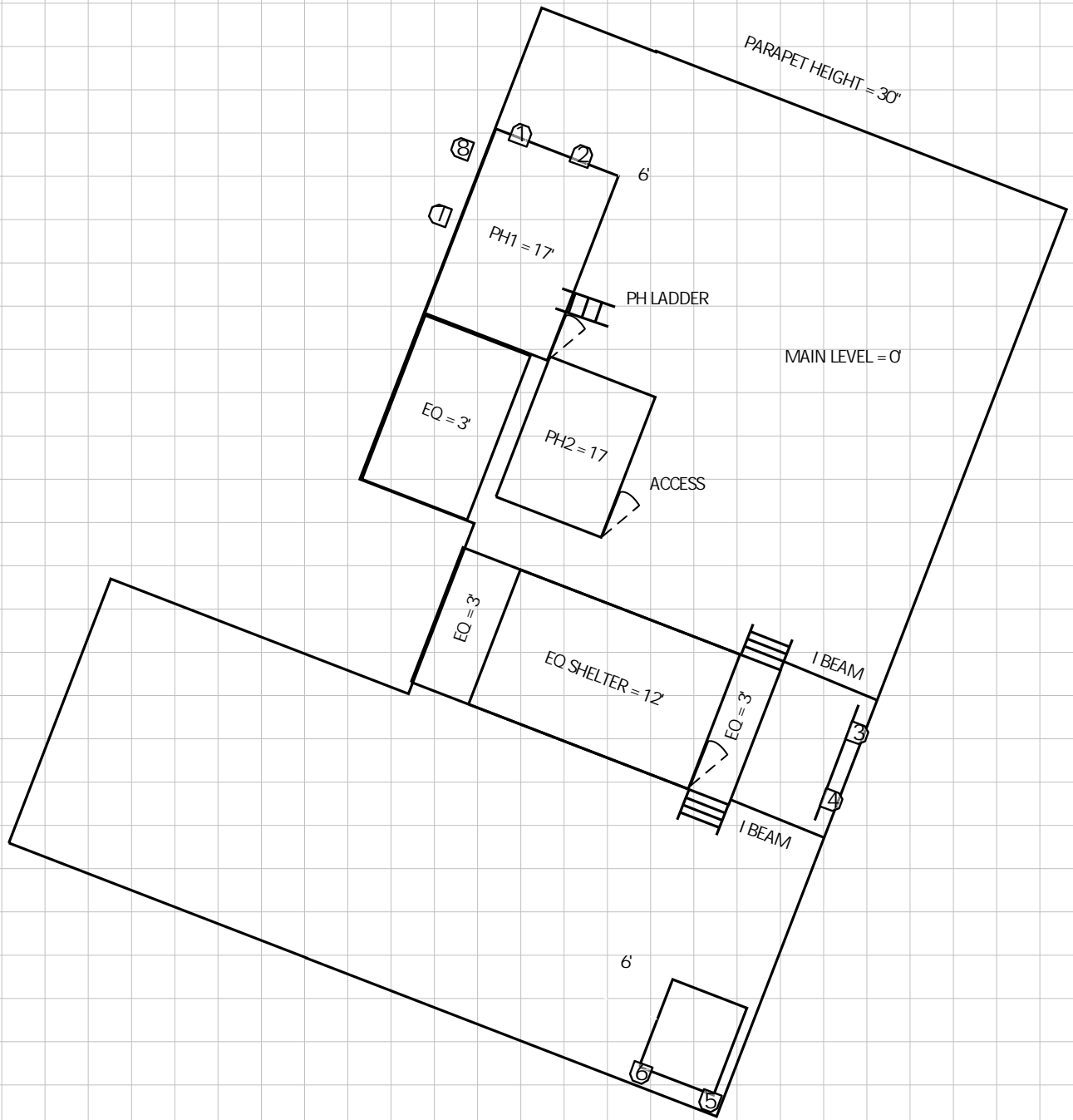
| Ant ID | Operator | Antenna Make & Model | Type | TX Freq (MHz) | Tech | Az (Deg) | Hor BW (Deg) | Ant Len (ft) | Ant Gain (dBd) | Power | Power Type | Power Units | # of Trans | Total ERP (Watts) | Z | DT | EDT |
|--------|-----------------------------|----------------------------|-------|---------------|------|----------|--------------|--------------|----------------|-------|------------|-------------|------------|-------------------|----|----|-----|
| 4 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | AWS3 | 110 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 9' | 2 | 2 |
| 5 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 200 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 9' | 2 | 4 |
| 5 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 200 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 9' | 2 | 4 |
| 5 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 1900 | LTE | 200 | 55.5 | 8 | 15.65 | 160 | TPO | Watt | 1 | 5876.5 | 9' | 2 | 2 |
| 5 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 3550 | LTE | 200 | 56.5 | 8 | 14.55 | 20 | TPO | Watt | 1 | 570.2 | 9' | 2 | 4 |
| 6 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 200 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 9' | 2 | 4 |
| 6 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 200 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 9' | 2 | 4 |
| 6 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | LTE | 200 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 9' | 2 | 2 |
| 6 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | AWS3 | 200 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 9' | 2 | 2 |
| 7 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 290 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 3' | 2 | 4 |
| 7 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 290 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 3' | 2 | 4 |
| 7 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 1900 | LTE | 290 | 55.5 | 8 | 15.65 | 160 | TPO | Watt | 1 | 5876.5 | 3' | 2 | 2 |
| 7 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 3550 | LTE | 290 | 56.5 | 8 | 14.55 | 20 | TPO | Watt | 1 | 570.2 | 3' | 2 | 4 |
| 8 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 751 | LTE | 290 | 62 | 8 | 13.55 | 80 | TPO | Watt | 1 | 1811.7 | 3' | 2 | 4 |
| 8 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 850 | LTE | 290 | 52 | 8 | 14.45 | 80 | TPO | Watt | 1 | 2228.9 | 3' | 2 | 4 |
| 8 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | LTE | 290 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 3' | 2 | 2 |
| 8 | VERIZON WIRELESS (Proposed) | Jma Wireless MX10FRO860-xx | Panel | 2100 | AWS3 | 290 | 52.8 | 8 | 15.85 | 80 | TPO | Watt | 1 | 3076.7 | 3' | 2 | 2 |

NOTE: The Z reference indicates the antenna radiation center height above the main site level unless otherwise indicated. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. Proposed equipment is tagged as (Proposed) under Operator or Antenna Make & Model.

3. Predictive Model: All Transmitters

| | |
|--|-----------|
| Is the area being modeled completely INACCESSIBLE to members of the general population (including untrained maintenance workers)? | No |
|--|-----------|

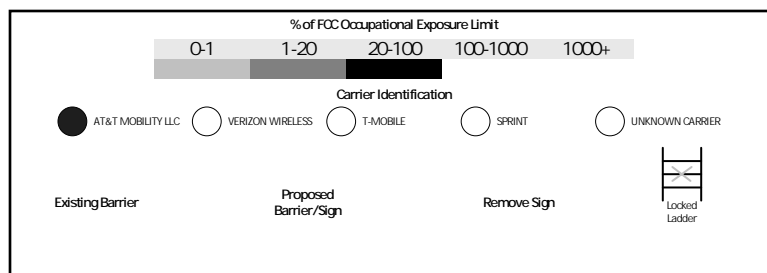
RF Exposure Simulation For: AMSTERDAM CENTER



% of FCC Occupational Exposure Limit
Spatially Averaged

(Feet)
0 7.3 14.6

www.sitesafe.com
10/20/2020 9:16:06 AM



Sitesafe OET-65 Model
Near Field Boundary:
1.5" Aperture
Reflection Factor: 1
Spatially Averaged

4. Conclusion

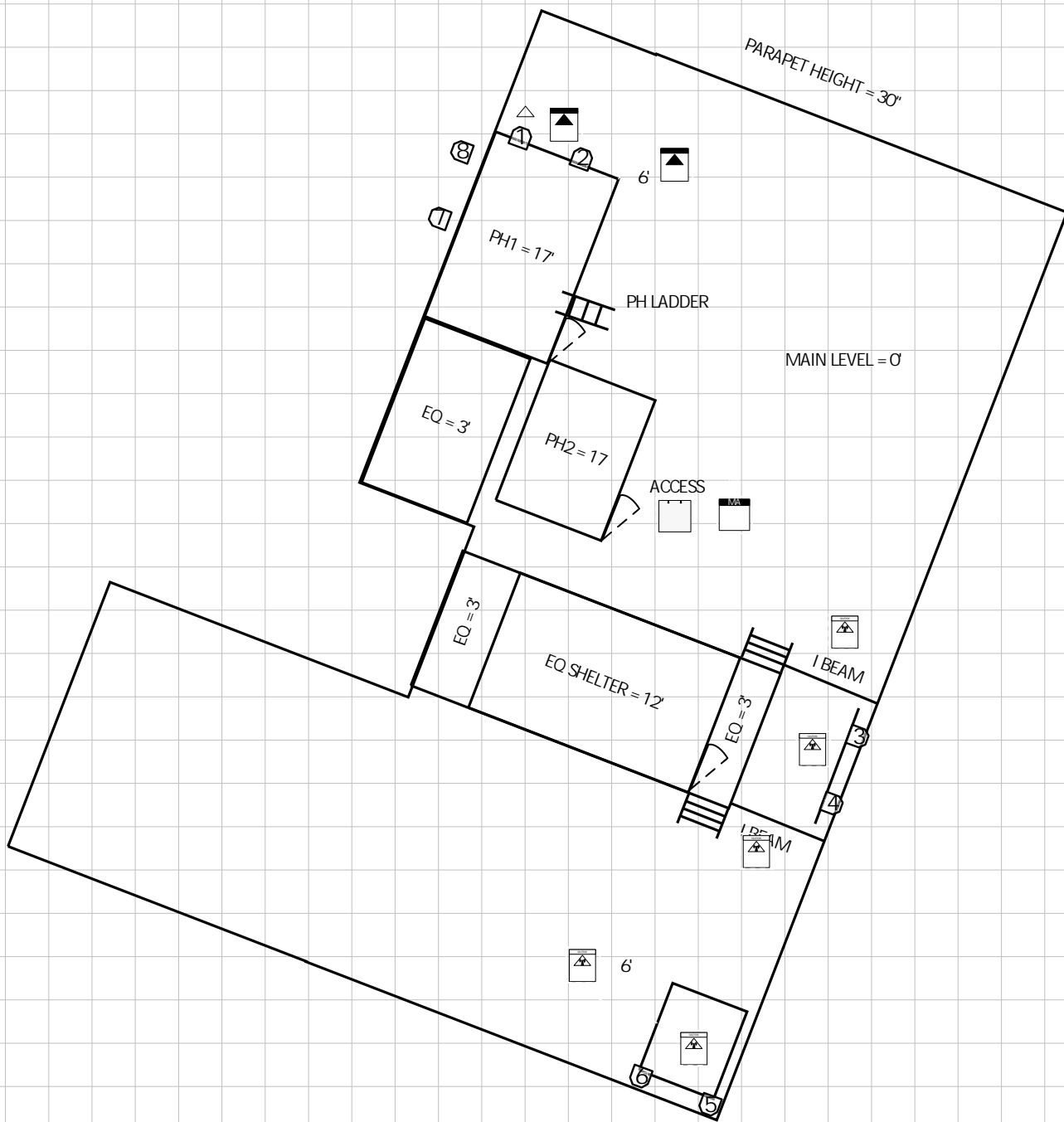
a. Conclusion Narrative

Description of MPE-Limit Exceeding Areas:

Verizon Wireless will be compliant with the FCC Rules and Regulations when the mitigation items below have been implemented.

The Max % MPE predicted on the rooftop is 203.0% Occupational MPE at the Verizon Wireless Beta sector.

Signage Diagram For: AMSTERDAM CENTER



(Feet)
0 6.9 13.8

www.sitesafe.com
10/20/2020 9:18:14 AM

AT&T MOBILITY LLC

VERIZON WIRELESS

T-MOBILE

SPRINT

UNKNOWN CARRIER

Existing Barrier





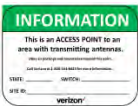

Proposed Barrier/Sign

Remove Sign

Locked Ladder







(Feet)
0 6.9 13.8

www.sitesafe.com
10/20/2020 9:18:14 AM

| <u>Final Compliance Configuration</u> |  |  |  |  |  |  | |
|--|---|---|---|--|---|---|------------|
| | GUIDELINES | NOTICE | CAUTION | WARNING | NOC INFO | BARRIER/MARKER | |
| Access Point(s) | 1 | | | | 1 | | dimensions |
| Alpha | | 2 | | | | X | 6' |
| Beta | | | 3 | | | | dimensions |
| Gamma | | | 2 | | | X | 6' |
| Delta | | | | | | | dimensions |

NOTE: The table above represents EVERY compliance item that MUST be implemented at this location.

c. Signage/Barrier Installation Detail

| <u>Mitigation Actions Required</u> |  |  |  |  |  |  | |
|---|---|---|---|--|---|---|------------|
| | GUIDELINES | NOTICE | CAUTION | WARNING | NOC INFO | BARRIER/MARKER | |
| Access Point(s) | 1 | | | | 1 | | dimensions |
| Alpha | | 2 | | | | X | 6' |
| Beta | | | 3 | | | | dimensions |
| Gamma | | | 2 | | | X | 6' |
| Delta | | | | | | | dimensions |

NOTE: The table represents either the signage/barriers installed / removed OR items required by the market (if mitigation is not installed by consultant/vendor).

SPECIAL MITIGATION INSTRUCTIONS

| | |
|--------------------------------------|---|
| Items to be Installed | <p>Site Access Point Ensure that a 7-Step Guidelines sign is installed. Ensure that a NOC Information sign is installed.</p> <p>Verizon Wireless Proposed Alpha Sector Location Ensure that (1) Notice sign is installed. Install a barrier that is 6' long, as depicted in the site diagrams. Ensure that (1) Notice sign is installed on the barrier.</p> <p>Verizon Wireless Proposed Beta Sector Location Ensure that (1) Caution sign is installed. Ensure that (2) Caution signs are installed with (1) Caution sign on each I-Beam.</p> <p>Verizon Wireless Proposed Gamma Sector Location Ensure that (1) Caution sign is installed. Install a barrier that is 6' long, as depicted in the site diagrams. Ensure that (1) Caution sign is installed on the barrier.</p> |
| Items to be Removed | N/A |
| Items to be Repaired/Replaced | N/A |

Notes:

- € Barriers were only proposed in areas 6' from the unprotected roof edges.
- € Data concerning all other carriers on site was unavailable and therefore not included in this report.

5. Appendix A: RF Consultant Certifications

a. Preparer Certification

I, Nick Kutzke, the preparer of this report, am familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also familiar with the Verizon Wireless Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

Nick Kutzke

b. Reviewer Certification

I, Anthony Handley, the reviewer and approver of this report, am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commission (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I am also fully aware of and familiar with the Verizon Wireless Signage & Demarcation Policy. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

6. Appendix B: Reference Information

a. FCC Rules & Regulations

The Federal Communications Commission (FCC) has established safety guidelines relating to RF exposure from cell sites. The FCC developed those standards, known as Maximum Permissible Exposure (MPE) limits, in consultation with numerous other federal agencies, including the Environmental Protection Agency, the Food and Drug Administration, and the Occupational Safety and Health Administration. The standards were developed by expert scientists and engineers after extensive reviews of the scientific literature related to RF biological effects. The FCC explains that its standards “incorporate prudent margins of safety.” The following represents explanations of the most applicable information:

Two Classifications for Exposure Limits

| | |
|--|--|
| <u>Occupational</u> – Applies to situations in which persons are “exposed as a consequence of their <i>employment</i> ” and are “ <i>fully aware</i> of the potential for exposure and can <i>exercise control</i> over their exposure”. | <u>General Population</u> – Applies to situations in which persons are “exposed as a consequence of their employment <i>may not be made fully aware</i> of the potential for exposure or <i>cannot exercise control</i> over their exposure”. Generally speaking, those without significant and documented RF Safety & Awareness training would be in the General Population classification. |
|--|--|

Environment Classification

| | |
|---|--|
| <u>Controlled</u> – Applies to environments that are restricted or “controlled” in order to prevent access from members of the General Population classification. | <u>Uncontrolled</u> – Applies to environments that are unrestricted or “uncontrolled” that allow access from members of the General Population classification. |
|---|--|

| <i>Limits for Occupational/Controlled Exposure</i> | | |
|--|-----------------------|--------------------------|
| Frequency | Power Density | Averaging Time |
| Range | (S) | $ E ^2$, $ H ^2$, or S |
| (MHz) | (mW/cm ²) | (minutes) |
| 300-1500 | f/300 | 6 |
| 1500-100,000 | 5 | 6 |
| <i>Limits for General Population/Uncontrolled Exposure</i> | | |
| Frequency | Power Density | Averaging Time |
| Range | (S) | $ E ^2$, $ H ^2$, or S |
| (MHz) | (mW/cm ²) | (minutes) |
| 300-1500 | f/1500 | 30 |
| 1500-100,000 | 1 | 30 |
| <i>f = frequency in MHz</i> | | |

Significant Contribution to the RF Environment

| |
|--|
| Any carrier contributing an aggregate MPE percentage of 5 or more (to the applicable RF Environment Classification) is defined as a significant contributor. This means that if any area is determined to be out of compliance with FCC rules, all significant contributors are jointly responsible for correcting any deficiencies. |
|--|

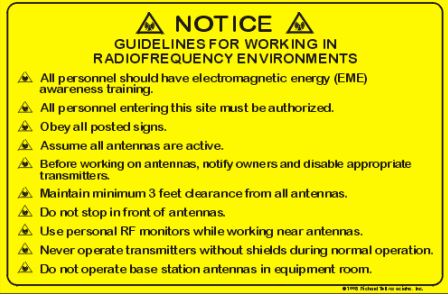
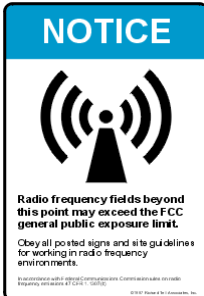


b. Occupational Safety and Health Administration (OSHA) Requirements


A formal adopter of FCC Standards, OSHA stipulates that those in the Occupational classification must complete training in the following: RF Safety, RF Awareness, and Utilization of Personal Protective Equipment. OSHA also provides options for Hazard Prevention and Control:

| Hazard Prevention | Control |
|---|--|
| € Utilization of good equipment | € Employ Lockout/Tag out |
| € Enact control of hazard areas | € Utilize personal alarms & protective clothing |
| € Limit exposures | € Prevent access to hazardous locations |
| € Employ medical surveillance and accident response | € Develop or operate an administrative control program |

c. RF Signage

Areas or portions of any transmitter site may be susceptible to high power densities that could cause personnel exposures in excess of the FCC guidelines. These areas must be demarcated by conspicuously posted signage that identifies the potential exposure. Signage MUST be viewable regardless of the viewer's position.

| GUIDELINES | NOTICE | CAUTION | WARNING |
|---|--|--|---|
| This sign will inform anyone of the basic precautions to follow when entering an area with transmitting radiofrequency equipment. | This sign indicates that RF emissions may exceed the FCC General Population MPE limit. | This sign indicates that RF emissions may exceed the FCC Occupational MPE limit. | This sign indicates that RF emissions may exceed at least 10x the FCC Occupational MPE limit. |
|  |  |  |  |

| INFORMATION SIGN |
|--|
| Information signs are used as a means to provide contact information for any questions or concerns. They will include specific cell site identification information and the Verizon Wireless Network Operations Center phone number. |
|  |

d. Physical

Physical barriers are control measures that require awareness and participation of personnel. Physical barriers are employed as an additional administration control to complement RF signage and physically demarcate an area in which RF exposure levels may exceed the FCC General Population limit.

e. Indicative Markers

Indicative markers are visible control measures that require awareness and participation of personnel, as they cannot physically prevent someone from entering an area of potential concern. Indicative markers are employed as an additional administration control to complement RF signage and visually demarcate an area in which RF exposure levels may exceed the FCC General Population limit.

8



Network Engineering - UPNY
1275 John Street, Suite 100
West Henrietta, New York 14586

October 16, 2020

Planning Commission
City of Amsterdam

RE: **Application for Site Plan Review/Special Use Permit**
Cellco Partnership d/b/a Verizon Wireless, Building located at 27-31 Main Street

Ladies and Gentlemen:

With respect to the above application, and in accordance with applicable provisions of the Wireless Telecommunications Facilities Siting Law for the City of Amsterdam, Cellco Partnership d/b/a Verizon Wireless ("Verizon Wireless") operates Wireless Communications Forth Generation (4G) Services, Personal Communication Service (PCS) and/or Cellular Radiotelephone Services network authorized by the Federal Communications Commission (FCC) to provide state of the art digital and/or cellular wireless communications in many parts of the nation, including upstate New York. Verizon Wireless' operations and network are licensed and regulated by the FCC.

Verizon Wireless' radio equipment is designed to transmit frequencies only within the allocated frequency bands and each transmitter is carefully adjusted to comply with FCC regulations for power output and frequency. These procedures prevent interference with other radio services, public safety communications, airport navigation, cordless phones, computers and other community office or residential household appliances.

The incidence of these transmissions causing interference with other radio service is rare. All other radio communication services, including broadcast radio and television, are assigned to specific frequency bands, separate and distinct from cellular and other frequencies. For instance AM Radio operates between 0.5 -1.5 MHz and VHF Television operates between 54 - 215 MHz. In addition, receivers for other services are similarly designed to prevent interference from out of band service. In the unlikely event that malfunctioning equipment or improper settings are shown to cause interference with an existing service, Verizon Wireless would be required, under the conditions of its FCC license, to take immediate steps to correct any problems.

Thank you for considering this application.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rick Suhocki", written over a horizontal line.

Rick Suhocki
Radio Frequency (RF) Design Engineer

9

617.20
Appendix B
State Environmental Quality Review
VISUAL EAF ADDENDUM

This form may be used to provide additional information relating to Question 11 of Part 2 of the Full EAF.

(To be completed by Lead Agency)

| Visibility | Distance Between Project and Resource (in Miles) | 0 - ¼ | ¼ - ½ | ½ - 3 | 3 - 5 | 5 + |
|---|---|---|--|--------------------------|--------------------------|--------------------------|
| 1. Would the project be visible from: | | | | | | |
| ! A parcel of land which is dedicated to and available to the public for the use, enjoyment and appreciation of natural or man-made scenic qualities? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! An overlook or parcel of land dedicated to public observation, enjoyment and appreciation of natural or man-made scenic qualities? Mohawk Valley Gateway Overlook | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! A site or structure listed on the National or State Registers of Historic Places? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! State Parks? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! The State Forest Preserve? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! National Wildlife Refuges and State Game Refuges? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! National Natural Landmarks and other outstanding natural features? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! National Park Service lands? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! Rivers designated as National or State Wild, Scenic or Recreational? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! Any transportation corridor of high exposure, such as part of the Interstate System, or Amtrak? Amtrak | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! A governmentally established or designated interstate or inter-county foot trail, or one formally proposed for establishment or designation? Riverlink Park | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! A site, area, lake, reservoir or highway designated as scenic? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! Municipal park, or designated open space? Riverlink Park | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! County road? | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! State road? Main St (NY-5), Church St (NY-30) | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ! Local road? Market St, Pearl St, Guy Park Ave, Chuctanunda Rd, Liberty St, Bridge St | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the visibility of the project seasonal? (i.e., screened by summer foliage, but visible during other seasons) | | | | | | |
| | | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | | | |
| 3. Are any of the resources checked in question 1 used by the public during the time of year during which the project will be visible? | | | | | | |
| | | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | | | |

DESCRIPTION OF EXISTING VISUAL ENVIRONMENT

4. From each item checked in question 1, check those which generally describe the surrounding environment.

| | <i>Within</i> *1/4 mile | *1 mile |
|-------------------------|-------------------------------------|--------------------------|
| Essentially undeveloped | <input type="checkbox"/> | <input type="checkbox"/> |
| Forested | <input type="checkbox"/> | <input type="checkbox"/> |
| Agricultural | <input type="checkbox"/> | <input type="checkbox"/> |
| Suburban Residential | <input type="checkbox"/> | <input type="checkbox"/> |
| Industrial | <input type="checkbox"/> | <input type="checkbox"/> |
| Commerical | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Urban | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| River, Lake, Pond | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Cliffs, Overlooks | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Designated Open Space | <input type="checkbox"/> | <input type="checkbox"/> |
| Flat | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Hilly | <input type="checkbox"/> | <input type="checkbox"/> |
| Mountainous | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> |

NOTE: add attachments as needed

5. Are there visually similar projects within:

*1/2 mile ☐ Yes ☒ No 1 mile ☒ Yes ☐ No 2 miles ☒ Yes ☐ No 3 miles ☒ Yes ☐ No

*Distance from project site is provided for assistance. Substitute other distances as appropriate.

EXPOSURE 1,459,270

6. The annual number of viewers likely to observe the proposed project is _____?

NOTE: When user data is unavailable or unknown, use best estimate.

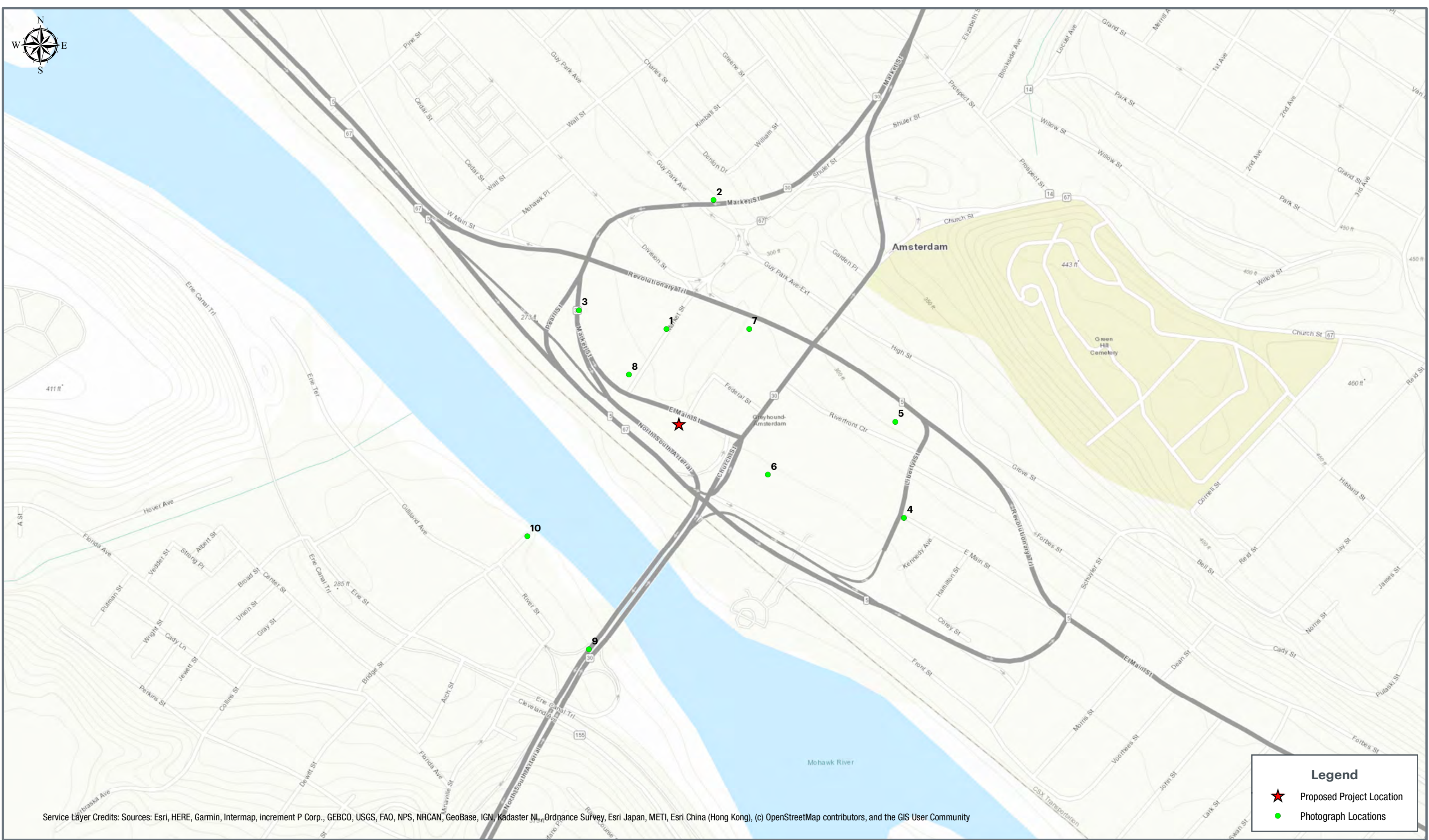
CONTEXT

7. The situation or activity in which the viewers are engaged while viewing the proposed action is:

FREQUENCY

| Activity | Daily | Weekly | Holidays/ Weekends | Seasonally |
|-------------------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|
| Travel to and from work | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Involved in recreational activities | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Routine travel by residents | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| At a residence | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| At worksite | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other _____ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Reset



Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



























10

Date: September 8, 2020

Structural Analysis Report – New Site Build

Project Information:

| | |
|----------------|--|
| Carrier: | Verizon Wireless |
| Scope of Work: | "New Site Build" |
| Site Name: | Amsterdam Center |
| Site Address: | 29 East Main Street, Amsterdam, NY 12010 |
| Site Type: | Rooftop Equipment Antenna Mounts |

| | |
|--------------------------|-------------|
| Tectonic Project Number: | 10272.13 |
| RE Project Number: | 20161493464 |

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C. is pleased to submit this **"Structural Analysis Report – New Site Build"** to determine the structural integrity of the above-mentioned rooftop telecommunication site.

The purpose of the analysis is to design and determine the acceptability of the stress level of the proposed antenna mounts. Based on our analysis we have determined the stress levels to be as follows:

| | |
|---------------|-------------------|
| Alpha Sector: | Sufficient |
| Beta Sector: | Sufficient |
| Gamma Sector: | Sufficient |
| Delta Sector: | Sufficient |

This analysis has been performed in accordance with the ASCE 7-16 and the 2020 NYS Uniform Building Code based upon an ultimate 3-second gust wind speed of 110 mph as required for use in the TIA-222-H Standard. Exposure Category C and Risk Category II were used in this analysis.

We appreciate the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or any other projects please give us a call.

Structural analysis prepared by/reviewed by: Joseph Lubrano/Jeremy Vassell

Respectfully submitted by:

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.,



Edward N. Iamiceli, P.E.
Managing Director - Structural



Project Contact Info

1279 Route 300 | Newburgh, NY 12550
845.567.6656 Tel | 845.567.8703 Fax

tectonicengineering.com
Equal Opportunity Employer

TABLE OF CONTENTS

1) INTRODUCTION/PURPOSE

2) ANALYSIS CRITERIA

Table 1 – Proposed Antenna Equipment Loading Information

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 4 – Stresses/Adequacy

4.1) Results/Conclusions

5) APPENDIX A

Software Input Calculations

6) APPENDIX B – Sector A & D

Wire Frame and Rendered Models

7) APPENDIX C – Sector A & D

Software Analysis Output

8) APPENDIX D – Sector A & D

Additional Calculations

9) APPENDIX E – Sector B

Wire Frame and Rendered Models

10) APPENDIX F – Sector B

Software Analysis Output

11) APPENDIX G – Sector B

Additional Calculations

12) APPENDIX H – Sector C

Wire Frame and Rendered Models

13) APPENDIX I – Sector C

Software Analysis Output

14) APPENDIX J – Sector C

Additional Calculations

15) APPENDIX K

References

1) INTRODUCTION/PURPOSE

Design and analysis of the proposed antenna mounts, connections and existing supporting building structure due to the loading of the proposed equipment and related appurtenances.

2) ANALYSIS CRITERIA

| | |
|----------------------|-----------|
| TIA-222 Revision: | TIA-222-H |
| ASCE Revision: | 7-16 |
| Risk Category: | II |
| Wind Speed: | 110 mph |
| Exposure Category: | C |
| Topographic Factor: | 1.0 |
| Ice Thickness: | 1.00 in |
| Wind Speed with Ice: | 40 mph |
| Service Wind Speed: | 60 mph |

Table 1 – Proposed Antenna Equipment Loading Information

| Mounting Level (ft) | Carrier Designation | Quantity | Equipment Manufacturer | Equipment Model | Proposed Mount Type | Note |
|---------------------|---------------------|----------|------------------------|------------------|--|------|
| 108 (Sector A) | Verizon Wireless | 4 | JMA | MX10-FRO860-04 | Flush Single Pipe Mount | 1 |
| 98 (Sector D) | | 2 | Samsung | B5/B13 RRH 4T4R | Unistrut Frame | 2 |
| | | 2 | Samsung | B2/B66A RRH 4T4R | | |
| | | 1 | Raycap | 12 Circuit OVP | | |
| | | 2 | Samsung | CBRS RRH 4T4R | | |
| 104 (Sector B) | | 2 | JMA | MX10-FRO860-04 | Mount Frame | 2 |
| | | 1 | Samsung | B5/B13 RRH 4T4R | | |
| | | 1 | Samsung | B2/B66A RRH 4T4R | | |
| | | 1 | Samsung | CBRS RRH 4T4R | | |
| | | 1 | Raycap | 6 Circuit OVP | | 3 |
| 104 (Sector C) | | 2 | JMA | MX10-FRO860-04 | Site Pro 1 Non-Penetrating Ballast Mount (P/N: RTP10-3RRU) | 2 |
| | | 1 | Samsung | B5/B13 RRH 4T4R | | |
| | | 1 | Samsung | B2/B66A RRH 4T4R | | |
| | | 1 | Samsung | CBRS RRH 4T4R | | |
| | | 1 | Raycap | 6 Circuit OVP | | 3 |

Notes:

- 1) To be mounted on existing mounts at Sector A & proposed mounts at Sector D.
- 2) To be mounted on proposed mounts.
- 3) 6 Circuit OVP may be substituted for 12 Circuit OVP at Sectors B or C.

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

| Document | Prepared By | Dated |
|------------------------|--|----------|
| RFDS | Verizon Wireless | 09/01/20 |
| Lease Exhibit Drawings | Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C. | 06/19/20 |
| Field Notes & Photos | | 02/13/20 |

3.1) Analysis Method

A tool internally developed, using Microsoft Excel, was used to calculate loading on all equipment, appurtenances and members for various load cases. Selected output from the analysis is included in Appendix A.

RISA-3D, a commercially available analysis software package, was used to check the supporting building framing and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendices C, F & I.

3.2) Assumptions

- 1) All structural elements were properly fabricated, installed, and maintained in good condition in accordance with its original design, standards, and/or manufacturer's specifications.
- 2) The configuration of equipment and other appurtenances are as specified in Tables 1 and 2.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) Steel grades have been assumed as follows, unless noted otherwise:

| | |
|--|--------------------|
| Channel, Solid Round, Angle, Plate, Building Steel | ASTM A36 (GR 36) |
| HSS (Rectangular) | ASTM 500 (GR B-46) |
| Pipe | ASTM A53 (GR 35) |
| Connection Bolts | ASTM A325 |

This analysis may be affected if any assumptions are not valid or have been made in error. Tectonic should be notified to determine the effect on the structural integrity of the mount.

4) ANALYSIS RESULTS

Table 4 - Stresses/Adequacy

| Notes | Sector | Mounting Level (ft) | Maximum % Capacity | Pass / Fail |
|-------|--------|---------------------|--------------------|-------------|
| 1 | Alpha | 108 | 59 | Pass |
| 2 | Beta | 104 | 33 | Pass |
| 3 | Gamma | 104 | 70 | Pass |
| 4 | Delta | 98 | 28 | Pass |

| | |
|--|------------|
| Structure Rating (max from all sectors) = | 70% |
|--|------------|

Note:

- 1) See additional documentation in Appendices C & D for analysis output calculations supporting the % capacity utilized.
- 2) See additional documentation in Appendices F & G for analysis output calculations supporting the % capacity utilized.
- 3) See additional documentation in Appendices I & J for analysis output calculations supporting the % capacity utilized.

4.1) Results/Conclusions

The proposed antenna mounts, connections and supporting building structure are adequate to support the proposed installation as detailed in the following report.

Contractor shall field verify existing conditions and recommendations as noted on the construction drawings and notify the design engineer of any discrepancies prior to construction. Any further changes to the equipment, antennas and/or appurtenance configuration should be reviewed with respect to their effect on structural loads prior to implementation

APPENDIX A
SOFTWARE INPUT CALCULATIONS

WIND AND ICE LOADS PER TIA-222-H

| | |
|--------------|--|
| W.O. | 10272.13 |
| Project Name | Amserdam Center |
| Location | 29 East Main Street, Amsterdam, NY 12010 |
| County | Montgomery |

| | | |
|-----------------------|--------|-------------------------|
| Tower Type | RT | Rooftop |
| Structure Height | 97.5 | ft |
| Supporting Str Height | 0 | ft Or ground mounted |
| Risk Category | II | Moderate risk |
| Exposure Category | C | Open terrain |
| Topo Category | 1 | Flat or rolling terrain |
| Height of crest | 0 | ft |
| Mean elevation (zs) | 279.41 | ft |

| | | |
|--------------------------------|------|-----|
| Basic Wind Speed (3-sec gust): | | |
| Without ice | 110 | mph |
| With ice | 40 | mph |
| Maintenance Wind | 60 | mph |
| Ice thickness | 1.00 | in |

| | |
|--------------------|------|
| Importance Factor | |
| Ice thickness | 1.00 |
| Earthquake | 1.00 |
| Supporting Data: | |
| K _s | 1.00 |
| K _e | 0.99 |
| K _c | 1.00 |
| K _t | N/A |
| f | N/A |
| Z _g | 900 |
| a | 9.5 |
| K _{z,min} | 0.85 |
| K _d | 0.95 |
| G _h | 1.00 |

| | |
|---|----------|
| Rooftop Wind Speed-up Factor | |
| Width of windward face (W _s) | 86.76 ft |
| Height of windward face (H _s) | 97.50 ft |
| Height of parapet | 3.67 ft |
| Horz distance from center (X _b) | 43.38 ft |
| Height above roof (Z _r) | 14.17 ft |

| | | |
|-------------------------|----------|-------|
| Height | **z (ft) | 108 |
| | Kh | N/A |
| | Kzt | 1.00 |
| | Kz | 1.29 |
| | Kiz | 1.13 |
| Wind Pressure, qz (psf) | No Ice | 37.47 |
| | With Ice | 4.95 |
| | Service | 11.15 |
| (tiz) | Ice Thk | 1.13 |
| Appurtenances (qzGh) | No Ice | 37.47 |
| | With Ice | 4.95 |
| | Service | 11.15 |

**Note: The worst case centerline height is conservatively used.

Equipment Information

Shielding factor, Ka 1 Section 16.6

WIND WITHOUT ICE

| Antenna Configuration | (E) or (P) | Quantity | z (ft) | Length or Diameter (ft) | Width (in) | Depth (in) | Flat or Cylindrical? | Antenna (Ca) _N | Antenna (Ca) _T | Face Normal (A _a) _N (ft^2) | Windward Face Normal (CaA _a) _N (ft^2) | Side Face (A _a) _T (ft^2) | Wind Side Face (CaA _a) _T (ft^2) | Normal Antenna Wind Load Each (lb) | Transverse Antenna Wind Load Each (lb) | Antenna Weight (lb) | Total Weight (lb) | |
|-----------------------|------------|----------|--------|-------------------------|------------|------------|----------------------|---------------------------|---------------------------|---|--|---|--|------------------------------------|--|---------------------|-------------------|------|
| MX10FRO860-xx | P | 8 | 108 | 7.99 | 15.00 | 7.40 | Flat | 1.37 | 1.60 | 9.99 | 109.73 | 4.93 | 63.03 | 514 | 295 | 68.4 | 547.2 | |
| CBRS 4T4R RRH | P | 4 | 108 | 1.01 | 8.50 | 4.15 | Flat | 1.20 | 1.22 | 0.71 | 3.43 | 0.35 | 1.70 | 32 | 16 | 17.6 | 70.5 | |
| B2/B66A RRH | P | 4 | 108 | 1.29 | 15.88 | 11.93 | Flat | 1.20 | 1.20 | 1.71 | 8.20 | 1.28 | 6.16 | 77 | 58 | 40.4 | 161.6 | |
| B5/B13 RRH | P | 4 | 108 | 1.29 | 15.88 | 10.03 | Flat | 1.20 | 1.20 | 1.71 | 8.20 | 1.08 | 5.18 | 77 | 49 | 40.4 | 161.6 | |
| 12/6 Circuit OVP | P | 4 | 108 | 1.68 | 18.20 | 6.30 | Flat | 1.20 | 1.23 | 2.55 | 12.25 | 0.88 | 4.35 | 115 | 41 | 43.5 | 174.0 | |
| | | | | | | | | | | Σ(CaA _a) _N | 141.81 | Σ(CaA _a) _T | 80.42 | | | | | 1115 |

WIND WITH ICE

Ice Thk = 1.13 in

| Antenna Configuration | (E) or (P) | Quantity | z (ft) | Length or Diameter (ft) | Width (in) | Depth (in) | Flat or Cylindrical? | Antenna (Ca) _N | Antenna (Ca) _T | Face Normal (A _a) _N (ft^2) | Windward Face Normal (CaA _a) _N (ft^2) | Side Face (A _a) _T (ft^2) | Windward Side Face (CaA _a) _T (ft^2) | Normal Antenna Wind Load Each (lb) | Transverse Antenna Wind Load Each (lb) | Ice Area for Weight (ft^2) | Ice Weight Alone (lbs) | |
|-----------------------|------------|----------|--------|-------------------------|------------|------------|----------------------|---------------------------|---------------------------|---|--|---|--|------------------------------------|--|----------------------------|------------------------|-----|
| MX10FRO860-xx | P | 8 | 108 | 8.18 | 17.25 | 9.65 | Flat | 1.34 | 1.506 | 11.76 | 126.22 | 6.58 | 79.24 | 78 | 49 | 29.8 | 156.8 | |
| CBRS 4T4R RRH | P | 4 | 108 | 1.19 | 10.76 | 6.41 | Flat | 1.20 | 1.200 | 1.07 | 5.14 | 0.64 | 3.06 | 6 | 4 | 2.1 | 11.2 | |
| B2/B66A RRH | P | 4 | 108 | 1.48 | 18.13 | 14.18 | Flat | 1.20 | 1.200 | 2.23 | 10.72 | 1.75 | 8.39 | 13 | 10 | 6.0 | 31.4 | |
| B5/B13 RRH | P | 4 | 108 | 1.48 | 18.13 | 12.28 | Flat | 1.20 | 1.200 | 2.23 | 10.72 | 1.51 | 7.26 | 13 | 9 | 5.6 | 29.3 | |
| 12/6 Circuit OVP | P | 4 | 108 | 1.87 | 20.45 | 8.55 | Flat | 1.20 | 1.206 | 3.19 | 15.31 | 1.33 | 6.43 | 19 | 8 | 6.9 | 36.1 | |
| | | | | | | | | | | Σ(CaA _a) _N | 168.11 | Σ(CaA _a) _T | 104.38 | | | | | 265 |

Mounting System Information

| Mount Center Line: | | 108 ft | | | | | | | | | | | |
|--------------------|----------|-------------|----------------------|------------|----------------------|-------------------|-----------------------|---------------------|------------------------|---------------------|--------------------------------|-------------------------|---------------------------------|
| | | | | | | | | | Reduction Factor = | | 1 | Section 16.6 | |
| Mount Part | Quantity | Length (ft) | Projected Width (in) | Depth (in) | Flat or Cylindrical? | Force Coefficient | Projected Area (ft^2) | Wind Force (lbs/ft) | Ice Weight Area (ft^2) | Ice Weight (lbs/ft) | Projected Area with Ice (ft^2) | Wind Force Ice (lbs/ft) | Maintenance Wind Force (lbs/ft) |
| HSS1.660x0.140 | 1 | 8.00 | 1.66 | 1.66 | Cylindrical | 1.2 | 1.33 | 6.2 | 3.47 | 2.3 | 3.13 | 1.9 | 4.4 |
| HSS2.375x0.154 | 1 | 8.00 | 2.38 | 2.38 | Cylindrical | 1.2 | 1.90 | 8.9 | 4.97 | 3.3 | 3.70 | 2.3 | 5.2 |
| HSS2.875x0.203 | 1 | 8.00 | 2.88 | 2.88 | Cylindrical | 1.2 | 2.30 | 10.8 | 6.02 | 4.0 | 4.10 | 2.5 | 5.7 |
| HSS3.500x0.216 | 1 | 8.00 | 3.50 | 3.50 | Cylindrical | 1.2 | 2.80 | 13.1 | 7.33 | 4.8 | 4.60 | 2.8 | 6.4 |
| L3x3x3/8" | 1 | 8.00 | 3.00 | 3.00 | Flat | 2 | 4.00 | 18.7 | 8.00 | 5.3 | 7.00 | 4.3 | 9.8 |

Seismic Check

Tower Information

| | | |
|-----------------------------|------|----|
| Tower Type: | RT | |
| Structure Height | 97.5 | ft |
| Supporting Structure Height | 0 | ft |
| Mount Height | 108 | ft |

Geographic Information

| | | |
|-----------|------------|-----------------------|
| City: | Amsterdam | |
| State: | New York | |
| County: | Montgomery | |
| Latitude: | 42.936985 | Longitude: -74.193636 |

Seismic Information

| | |
|--------------------------|--------|
| Risk Category | II |
| Importance Factor | 1.00 |
| Site Soil Classification | D |
| S_s | 0.218 |
| S_1 | 0.063 |
| F_a | 1.6 |
| F_v | 2.4 |
| S_{DS} | 0.233 |
| S_{D1} | 0.1008 |
| R | 3.00 |
| A_s | 3.00 |
| C_s | 0.08 |

Table 2-10

<https://asce7hazardtool.online/>

(Table 2-11, interpolation allowed)

(Table 2-12, interpolation allowed)

Section 2.7.5

Section 16.7

Section 16.7 & 2.7.8

> 0.03

Equivalent Lateral Force Procedure

Equipment (Discrete Appurtenances)

| Antenna Configuration | (E) or (P) | Qty per Sector | z (ft) | Antenna Weight (lb) | Shear $V_s = C_s * W$ (lbs) | Vert. Seismic load (Ev, lbs) | Seismic load (Eh, lbs) |
|-----------------------|------------|----------------|--------|---------------------|-----------------------------|------------------------------|------------------------|
| MX10FRO860-xx | P | 8 | 108 | 68 | 5 | 3 | 5 |
| CBRS 4T4R RRH | P | 4 | 108 | 18 | 1 | 1 | 1 |
| B2/B66A RRH | P | 4 | 108 | 40 | 3 | 2 | 3 |
| B5/B13 RRH | P | 4 | 108 | 40 | 3 | 2 | 3 |
| 12/6 Circuit OVP | P | 4 | 108 | 44 | 3 | 2 | 3 |

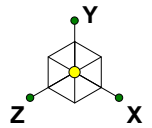
Mounting System (Discrete Appurtenances)

| | | |
|------------------------|--------------|--|
| $E_v = 0.2 S_{DS} * D$ | $0.0466 * D$ | "D" is the dead weight of the mount members. |
| $E_h = \rho * Q_E$ | $0.08 * W$ | "W" total weight of structure above ground |

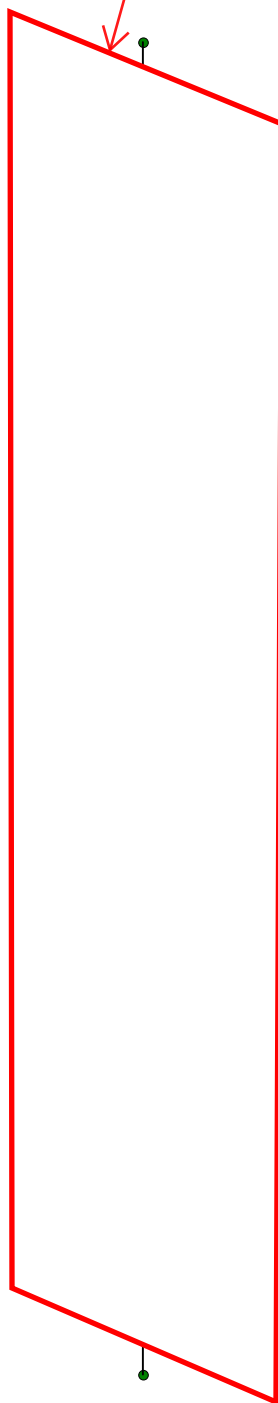
Notes:

1. Wind loads govern over Seismic loads

APPENDIX B – Sectors A & D
WIRE FRAME AND RENDERED MODELS

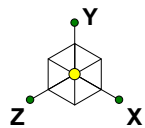


(P) MX10-FRO860-04 Panel Antenna



Note: Proposed RRH's and related equipment to be flush mounted on bulkhead wall.

| | | |
|----------------------|--|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Antenna & Equipment Layout | |
| JL | | Sept 4, 2020 at 5:01 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |

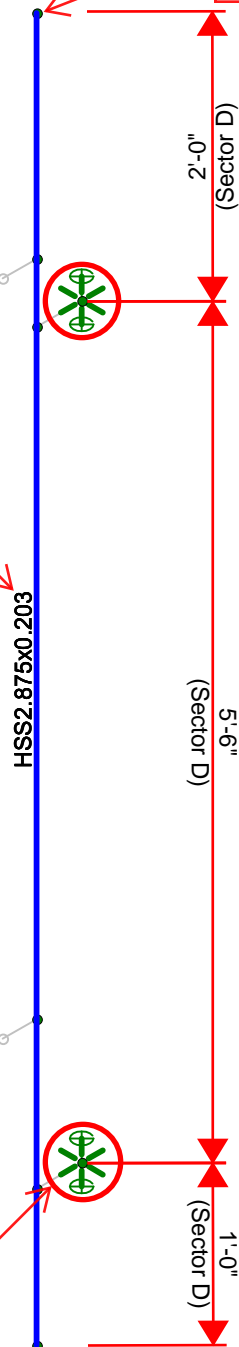


Section Sets

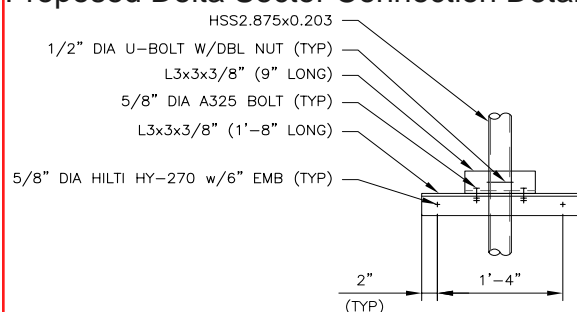
■ HSS2.875x0.203
■ RIGID

Similar size pipe assumed
for Alpha Sector mounts

(P) HSS2.875x0.203 (8'-6" LONG)
(Delta Sector Only)



Proposed Delta Sector Connection Detail



NOTES:

1. CONTRACTOR SHALL VERIFY IF OBSTRUCTIONS ARE PRESENT PRIOR TO FABRICATION OF STEEL AND RELOCATE EXIST OBSTRUCTIONS AS REQUIRED TO ACCOMMODATE INSTALLATION.
2. CONTRACTOR SHALL SEAL ALL CRACKS, HOLES AND PENETRATIONS WEATHER TIGHT.
3. CONTRACTOR TO APPLY BEAD OF SILICONE AROUND TOP 3 SIDES OF NEW ANGLES.
4. TYPICAL DESIGN FOR TOP AND BOTTOM CONNECTION.

Note: Alpha Sector antenna mounts are existing.

Tectonic Engineering

JL

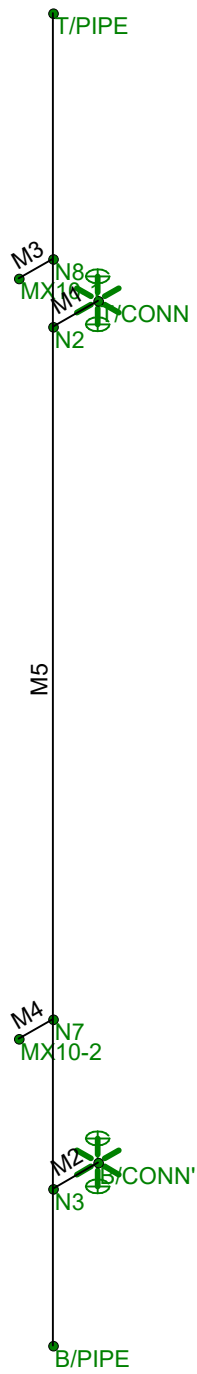
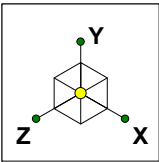
10272.13

Alpha & Delta Sector

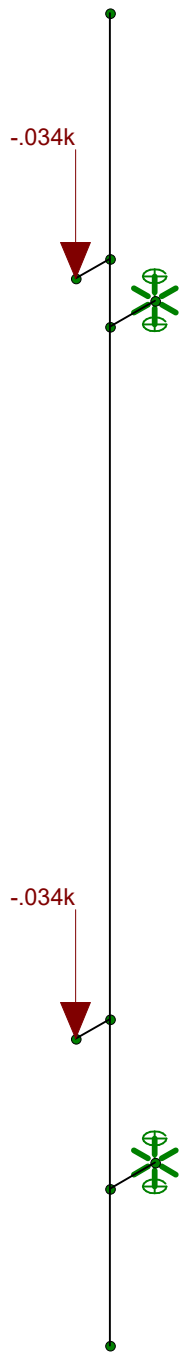
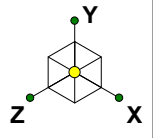
Member Sizes

Sept 4, 2020 at 5:02 PM

10272.13 - Alpha & Delta Sector.r3d

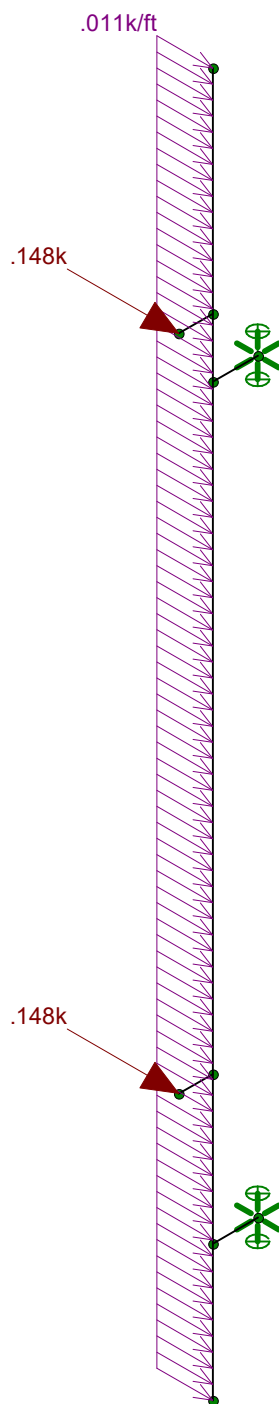
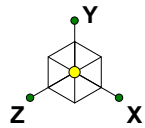


| | | |
|----------------------|--|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Member & Node Labels | |
| JL | | Sept 4, 2020 at 5:00 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |



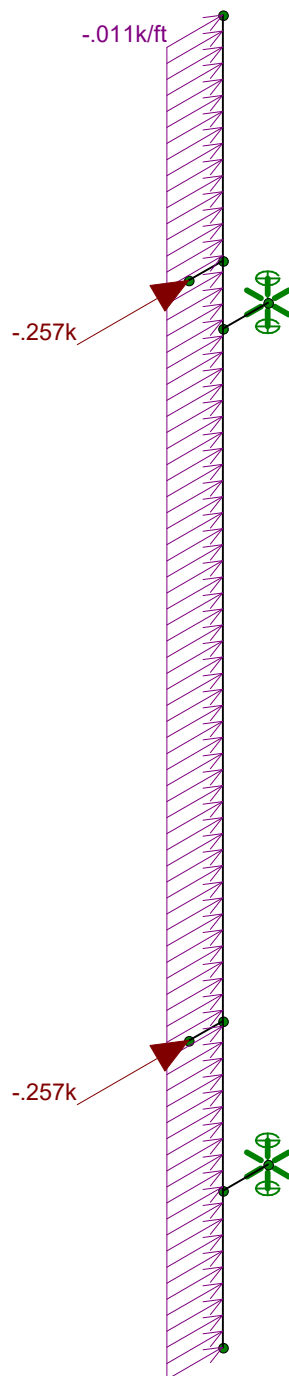
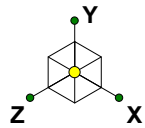
Loads: BLC 1, DL

| | | |
|----------------------|-----------------------------------|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Dead Load | |
| JL | | Sept 4, 2020 at 5:03 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |



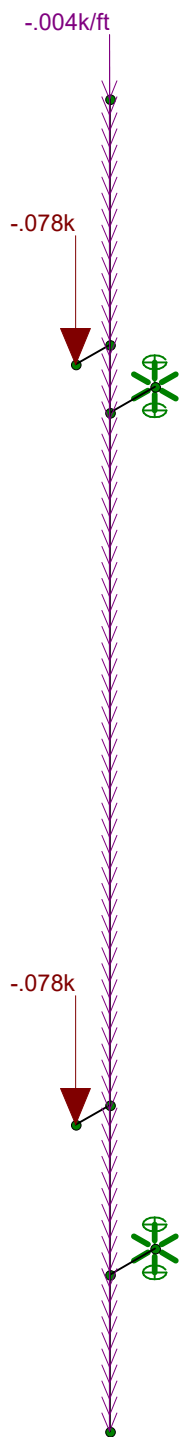
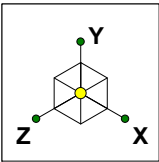
Loads: BLC 2, WLX

| | | |
|----------------------|-------------------------------------|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Wind Load X | |
| JL | | Sept 4, 2020 at 5:03 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |



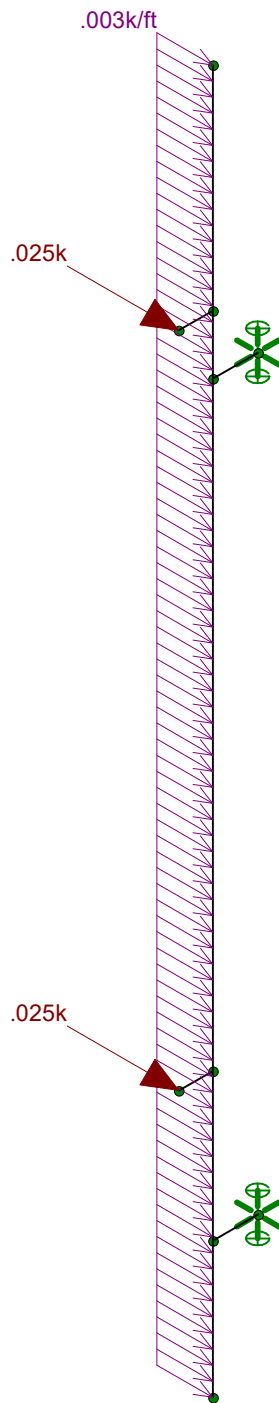
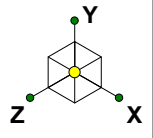
Loads: BLC 3, WLZ

| | | |
|----------------------|-------------------------------------|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Wind Load Z | |
| JL | | Sept 4, 2020 at 5:04 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |



Loads: BLC 4, DLi

| | | |
|----------------------|---------------------------------------|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Dead Load Ice | |
| JL | | Sept 4, 2020 at 5:04 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |



Loads: BLC 5, WLXi

Tectonic Engineering

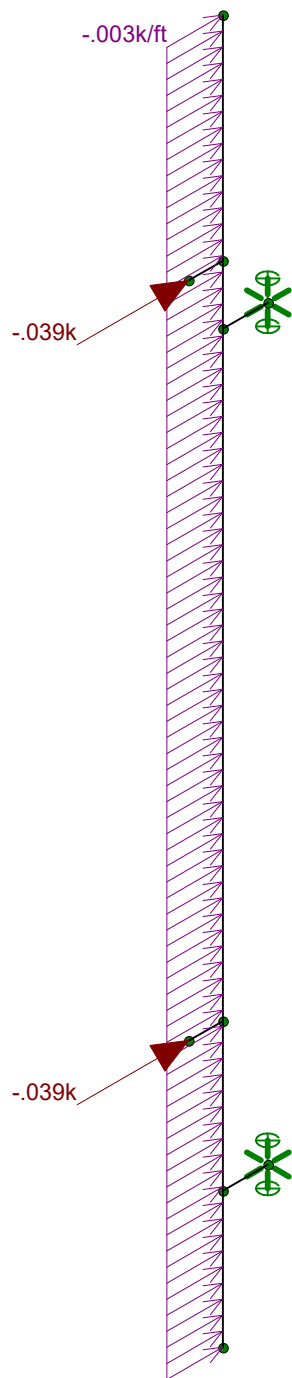
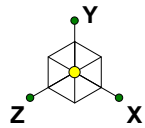
JL

10272.13

Alpha & Delta Sector
Wind Load X Ice

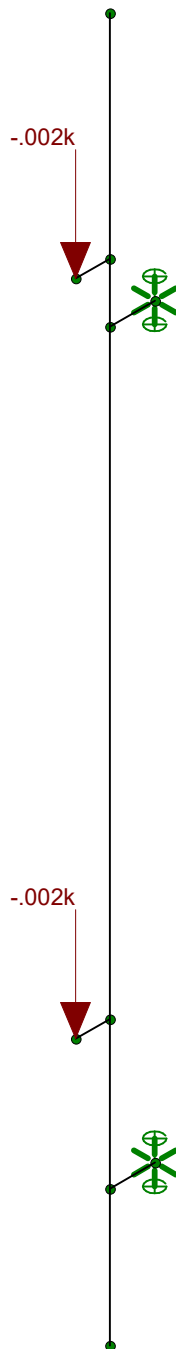
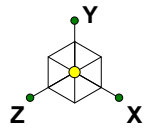
Sept 4, 2020 at 5:05 PM

10272.13 - Alpha & Delta Sector.r3d



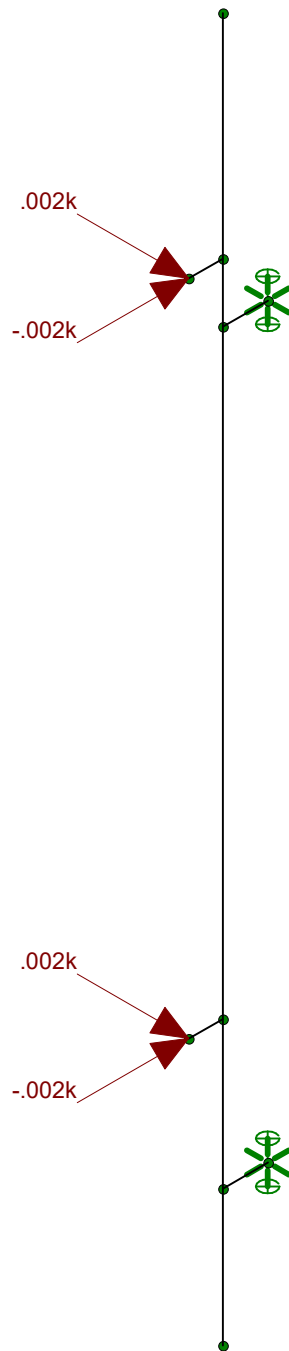
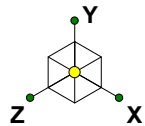
Loads: BLC 6, WLZi

| | | |
|----------------------|---|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Wind Load Z Ice | |
| JL | | Sept 4, 2020 at 5:05 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |



Loads: BLC 7, ELv

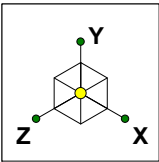
| | | |
|----------------------|---|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Seismic Vertical Load | |
| JL | | Sept 4, 2020 at 5:05 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |



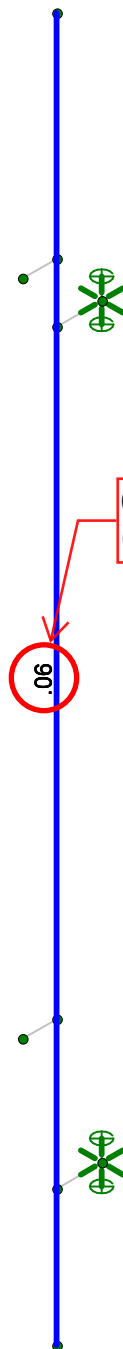
Loads: BLC 8, ELh

| | | |
|----------------------|--|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Seismic Lateral Load | |
| JL | | Sept 4, 2020 at 5:06 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |

APPENDIX C – Sectors A & D
SOFTWARE ANALYSIS OUTPUT



| Code Check (Env) | |
|-----------------------|---------|
| | No Calc |
| | > 1.0 |
| | .90-1.0 |
| | .75-.90 |
| | .50-.75 |
| | 0-.50 |



0.06 < 1.0 OK
(See RISA-3D results for further information)

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

| | | |
|----------------------|---|-------------------------------------|
| Tectonic Engineering | Alpha & Delta Sector Member Stresses | |
| JL | | Sept 4, 2020 at 5:08 PM |
| 10272.13 | | 10272.13 - Alpha & Delta Sector.r3d |

Hot Rolled Steel Properties

| | Label | E [ksi] | G [ksi] | Nu | Therm (1... | Density[k/ft^3] | Yield[ksi] | Ry | Fu[ksi] | Rt |
|---|------------|---------|---------|----|-------------|-----------------|------------|-----|---------|-----|
| 1 | A36 Gr.36 | 29000 | 11154 | .3 | .65 | .49 | 36 | 1.5 | 58 | 1.2 |
| 2 | A572 Gr.50 | 29000 | 11154 | .3 | .65 | .49 | 50 | 1.1 | 65 | 1.1 |
| 3 | A992 | 29000 | 11154 | .3 | .65 | .49 | 50 | 1.1 | 65 | 1.1 |
| 4 | A500 Gr.42 | 29000 | 11154 | .3 | .65 | .49 | 42 | 1.4 | 58 | 1.3 |
| 5 | A500 Gr.46 | 29000 | 11154 | .3 | .65 | .49 | 46 | 1.4 | 58 | 1.3 |
| 6 | A53 Gr. B | 29000 | 11154 | .3 | .65 | .49 | 36 | 1.5 | 58 | 1.2 |

Hot Rolled Steel Section Sets

| | Label | Shape | Type | Design List | Material | Design Rules | A [in2] | Iyy [in4] | Izz [in4] | J [in4] |
|---|----------------|----------------|------|-------------|-----------|--------------|---------|-----------|-----------|---------|
| 1 | HSS2.875x0.203 | HSS2.875X0.203 | Beam | Pipe | A53 Gr. B | Typical | 1.59 | 1.45 | 1.45 | 2.89 |

Hot Rolled Steel Design Parameters

| | Label | Shape | Length[ft] | Lbyy[ft] | Lbzz[ft] | Lcomp top[ft] | Lcomp bot[ft] | L-torqu... | Kyy | Kzz | Cb | Function |
|---|-------|--------------|------------|----------|----------|---------------|---------------|------------|-----|-----|----|----------|
| 1 | M5 | HSS2.875x... | 8.5 | | | Lbyy | | | | | | Lateral |

Basic Load Cases

| | BLC Description | Category | X Gravity | Y Gravity | Z Gravity | Joint | Point | Distributed | Area(Me... | Surface(Plate/Wall) |
|---|-----------------|----------|-----------|-----------|-----------|-------|-------|-------------|------------|---------------------|
| 1 | DL | DL | | -1.05 | | 2 | | | | |
| 2 | WLX | WLX | | | | 2 | | 1 | | |
| 3 | WLZ | WLZ | | | | 2 | | 1 | | |
| 4 | DLi | SL | | | | 2 | | 1 | | |
| 5 | WLXi | OL1 | | | | 2 | | 1 | | |
| 6 | WLZi | OL2 | | | | 2 | | 1 | | |
| 7 | ELv | ELY | | -.057 | | 2 | | | | |
| 8 | ELh | EL | -.23 | | -.23 | 4 | | | | |

Load Combinations

| | Description | Sol... | P... | B... | Fa... | BLC F... | B... | Fa... | B... | F... | B... | F... | BLC F... | BLC F... | BLC F... | F... | F... |
|----|-------------------------------------|--------|------|------|-------|----------|-------|-------|--------|------|-------|------|----------|----------|----------|------|------|
| 1 | *LRFD | | | | | | | | | | | | | | | | |
| 2 | 1.4D | Yes | Y | 1 | 1.4 | | | | | | | | | | | | |
| 3 | 1.2D+(WLX+WLZ) - 0 Deg | Yes | Y | 1 | 1.2 | 2 | 1 | 3 | | | | | | | | | |
| 4 | 1.2D+(WLX+WLZ) - 30 Deg | Yes | Y | 1 | 1.2 | 2 | .8... | 3 | .5 | | | | | | | | |
| 5 | 1.2D+(WLX+WLZ) - 60 Deg | Yes | Y | 1 | 1.2 | 2 | .5 | 3 | .866 | | | | | | | | |
| 6 | 1.2D+(WLX+WLZ) - 90 Deg | Yes | Y | 1 | 1.2 | 2 | 3 | 1 | | | | | | | | | |
| 7 | 1.2D+(WLX+WLZ) - 120 Deg | Yes | Y | 1 | 1.2 | 2 | -.5 | 3 | .866 | | | | | | | | |
| 8 | 1.2D+(WLX+WLZ) - 150 Deg | Yes | Y | 1 | 1.2 | 2 | ---- | 3 | .5 | | | | | | | | |
| 9 | 1.2D+(WLX+WLZ) - 180 Deg | Yes | Y | 1 | 1.2 | 2 | -1 | 3 | | | | | | | | | |
| 10 | 1.2D+(WLX+WLZ) - 210 Deg | Yes | Y | 1 | 1.2 | 2 | ---- | 3 | -.5 | | | | | | | | |
| 11 | 1.2D+(WLX+WLZ) - 240 Deg | Yes | Y | 1 | 1.2 | 2 | -.5 | 3 | -.8... | | | | | | | | |
| 12 | 1.2D+(WLX+WLZ) - 270 Deg | Yes | Y | 1 | 1.2 | 2 | 3 | -1 | | | | | | | | | |
| 13 | 1.2D+(WLX+WLZ) - 300 Deg | Yes | Y | 1 | 1.2 | 2 | .5 | 3 | -.8... | | | | | | | | |
| 14 | 1.2D+(WLX+WLZ) - 330 Deg | Yes | Y | 1 | 1.2 | 2 | .8... | 3 | -.5 | | | | | | | | |
| 15 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 16 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 0 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | 1 | 6 | | | | | | | |
| 17 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 30 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | .5 | | | | | | |
| 18 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 60 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | .8... | | | | | | |
| 19 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 90 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | 6 | 1 | | | | | | | |
| 20 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 120 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | .8... | | | | | | |
| 21 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 150 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | .5 | | | | | | |
| 22 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 180 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -1 | 6 | | | | | | | |

Load Combinations (Continued)

| | Description | Sol | P | B... | Fa... | BLCF... | B... | Fa... | B... | F... | B... | F... | BLCF... | BLCF... | BLCF... | F... | F... |
|----|-------------------------------------|-----|---|------|-------|---------|------|-------|-------|------|------|------|---------|---------|---------|------|------|
| 23 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 210 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -8... | 6 | -5 | | | | | | |
| 24 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 240 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -5 | 6 | -... | | | | | | |
| 25 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 270 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | -1 | | | | | | |
| 26 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 300 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | -... | | | | | | |
| 27 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 330 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | -5 | | | | | | |
| 28 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 29 | 1.2D+ELv+ELh | Yes | Y | 1 | 1.2 | 7 | 1 | 8 | 1 | | | | | | | | |
| 30 | *ASD | | | | | | | | | | | | | | | | |
| 31 | D | | Y | 1 | 1 | | | | | | | | | | | | |
| 32 | D+(0.6WLX) - 0 Deg | | Y | 1 | 1 | 2 | .6 | | | | | | | | | | |
| 33 | D+(0.6WLX+0.6WLZ) - 30 Deg | | Y | 1 | 1 | 2 | .52 | 3 | .3 | | | | | | | | |
| 34 | D+(0.6WLX+0.6WLZ) - 60 Deg | | Y | 1 | 1 | 2 | .3 | 3 | .52 | | | | | | | | |
| 35 | D+(0.6WLZ) - 90 Deg | | Y | 1 | 1 | 2 | | 3 | .6 | | | | | | | | |
| 36 | D+(0.6WLX+0.6WLZ) - 120 Deg | | Y | 1 | 1 | 2 | -.3 | 3 | .52 | | | | | | | | |
| 37 | D+(0.6WLX+0.6WLZ) - 150 Deg | | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 38 | D+(0.6WLX+0.6WLZ) - 180 Deg | | Y | 1 | 1 | 2 | -.6 | 3 | | | | | | | | | |
| 39 | D+(0.6WLX+0.6WLZ) - 210 Deg | | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 40 | D+(0.6WLX+0.6WLZ) - 240 Deg | | Y | 1 | 1 | 2 | -.3 | 3 | -.52 | | | | | | | | |
| 41 | D+(0.6WLX+0.6WLZ) - 270 Deg | | Y | 1 | 1 | 2 | | 3 | -.6 | | | | | | | | |
| 42 | D+(0.6WLX+0.6WLZ) - 300 Deg | | Y | 1 | 1 | 2 | .3 | 3 | -.52 | | | | | | | | |
| 43 | D+(0.6WLX+0.6WLZ) - 330 Deg | | Y | 1 | 1 | 2 | .52 | 3 | -.3 | | | | | | | | |
| 44 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 45 | D+0.7Di+0.6(WLXi+WLZi) - 0 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .6 | 6 | | | | | | | |
| 46 | D+0.7Di+0.6(WLXi+WLZi) - 30 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | .3 | | | | | | |
| 47 | D+0.7Di+0.6(WLXi+WLZi) - 60 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | .52 | | | | | | |
| 48 | D+0.7Di+0.6(WLXi+WLZi) - 90 Deg | | Y | 1 | 1 | 4 | .7 | 5 | | 6 | .6 | | | | | | |
| 49 | D+0.7Di+0.6(WLXi+WLZi) - 120 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | .52 | | | | | | |
| 50 | D+0.7Di+0.6(WLXi+WLZi) - 150 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | .3 | | | | | | |
| 51 | D+0.7Di+0.6(WLXi+WLZi) - 180 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.6 | 6 | | | | | | | |
| 52 | D+0.7Di+0.6(WLXi+WLZi) - 210 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | -.3 | | | | | | |
| 53 | D+0.7Di+0.6(WLXi+WLZi) - 240 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | -.52 | | | | | | |
| 54 | D+0.7Di+0.6(WLXi+WLZi) - 270 Deg | | Y | 1 | 1 | 4 | .7 | 5 | | 6 | -.6 | | | | | | |
| 55 | D+0.7Di+0.6(WLXi+WLZi) - 300 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | -.52 | | | | | | |
| 56 | D+0.7Di+0.6(WLXi+WLZi) - 330 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | -.3 | | | | | | |
| 57 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 58 | D+0.7ELv+0.7ELh | | Y | 1 | 1 | 7 | .7 | 8 | .7 | | | | | | | | |

Envelope Joint Reactions

| | Joint | | X [k] | LC | Y [k] | LC | Z [k] | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|---|---------|-----|-------|----|-------|----|-------|----|-----------|----|-----------|----|-----------|----|
| 1 | T/CONN | max | .244 | 9 | .264 | 12 | .371 | 6 | 0 | 29 | .126 | 9 | 0 | 29 |
| 2 | | min | -.244 | 3 | -.135 | 6 | -.395 | 12 | 0 | 2 | -.126 | 3 | 0 | 2 |
| 3 | B/CONN' | max | .145 | 9 | .274 | 6 | .237 | 6 | 0 | 29 | .078 | 9 | 0 | 29 |
| 4 | | min | -.145 | 3 | -.124 | 12 | -.212 | 12 | 0 | 2 | -.078 | 3 | 0 | 2 |
| 5 | Totals: | max | .39 | 9 | .33 | 25 | .608 | 6 | | | | | | |
| 6 | | min | -.39 | 3 | .14 | 6 | -.608 | 12 | | | | | | |

Envelope AISC 15th(360-16): LRFD Steel Code Checks

| | Member | Shape | Code C... | Loc[ft] | LC | Shear ... | Loc[ft] | Dir | LC | phi*Pnc [k] | phi*Pnt [k] | phi*Mn y-... | phi*Mn z-... | Cb | Eqn |
|---|--------|---------------|-----------|---------|----|-----------|---------|-----|----|-------------|-------------|--------------|--------------|----|-------|
| 1 | M5 | HSS2.875X0... | .063 | 2.036 | 12 | .023 | 1.948 | | 8 | 28.256 | 51.516 | 3.699 | 3.699 | 1 | H1-1b |

Max member stresses do not exceed 6.3% of the 100% allowable capacity. Therefore, the proposed and existing members are adequate to support the proposed installation.

Load Combinations

| | Description | Sol... | P... | B... | Fa... | BLCF... | B... | Fa... | B... | F... | B... | F... | BLCF... | BLCF... | BLCF... | F... | F... |
|----|-------------------------------------|--------|------|------|-------|---------|-------|-------|--------|------|-------|------|---------|---------|---------|------|------|
| 1 | *LRFD | | | | | | | | | | | | | | | | |
| 2 | 1.4D | | Y | 1 | 1.4 | | | | | | | | | | | | |
| 3 | 1.2D+(WLX+WLZ) - 0 Deg | | Y | 1 | 1.2 | 2 | 1 | 3 | | | | | | | | | |
| 4 | 1.2D+(WLX+WLZ) - 30 Deg | | Y | 1 | 1.2 | 2 | .8... | 3 | .5 | | | | | | | | |
| 5 | 1.2D+(WLX+WLZ) - 60 Deg | | Y | 1 | 1.2 | 2 | .5 | 3 | .866 | | | | | | | | |
| 6 | 1.2D+(WLX+WLZ) - 90 Deg | | Y | 1 | 1.2 | 2 | | 3 | 1 | | | | | | | | |
| 7 | 1.2D+(WLX+WLZ) - 120 Deg | | Y | 1 | 1.2 | 2 | -.5 | 3 | .866 | | | | | | | | |
| 8 | 1.2D+(WLX+WLZ) - 150 Deg | | Y | 1 | 1.2 | 2 | ---- | 3 | .5 | | | | | | | | |
| 9 | 1.2D+(WLX+WLZ) - 180 Deg | | Y | 1 | 1.2 | 2 | -1 | 3 | | | | | | | | | |
| 10 | 1.2D+(WLX+WLZ) - 210 Deg | | Y | 1 | 1.2 | 2 | ---- | 3 | -.5 | | | | | | | | |
| 11 | 1.2D+(WLX+WLZ) - 240 Deg | | Y | 1 | 1.2 | 2 | -.5 | 3 | -.8... | | | | | | | | |
| 12 | 1.2D+(WLX+WLZ) - 270 Deg | | Y | 1 | 1.2 | 2 | | 3 | -1 | | | | | | | | |
| 13 | 1.2D+(WLX+WLZ) - 300 Deg | | Y | 1 | 1.2 | 2 | .5 | 3 | -.8... | | | | | | | | |
| 14 | 1.2D+(WLX+WLZ) - 330 Deg | | Y | 1 | 1.2 | 2 | .8... | 3 | -.5 | | | | | | | | |
| 15 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 16 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 0 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | 1 | 6 | | | | | | | |
| 17 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 30 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | .5 | | | | | | |
| 18 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 60 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | .8... | | | | | | |
| 19 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 90 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | 1 | | | | | | |
| 20 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 120 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | .8... | | | | | | |
| 21 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 150 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | .5 | | | | | | |
| 22 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 180 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -1 | 6 | | | | | | | |
| 23 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 210 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | -.5 | | | | | | |
| 24 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 240 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | ---- | | | | | | |
| 25 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 270 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | -1 | | | | | | |
| 26 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 300 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | ---- | | | | | | |
| 27 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 330 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | -.5 | | | | | | |
| 28 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 29 | 1.2D+ELv+ELh | | Y | 1 | 1.2 | 7 | 1 | 8 | 1 | | | | | | | | |
| 30 | *ASD | | | | | | | | | | | | | | | | |
| 31 | D | Yes | Y | 1 | 1 | | | | | | | | | | | | |
| 32 | D+(0.6WLX) - 0 Deg | Yes | Y | 1 | 1 | 2 | .6 | | | | | | | | | | |
| 33 | D+(0.6WLX+0.6WLZ) - 30 Deg | Yes | Y | 1 | 1 | 2 | .52 | 3 | .3 | | | | | | | | |
| 34 | D+(0.6WLX+0.6WLZ) - 60 Deg | Yes | Y | 1 | 1 | 2 | .3 | 3 | .52 | | | | | | | | |
| 35 | D+(0.6WLZ) - 90 Deg | Yes | Y | 1 | 1 | 2 | | 3 | .6 | | | | | | | | |
| 36 | D+(0.6WLX+0.6WLZ) - 120 Deg | Yes | Y | 1 | 1 | 2 | -.3 | 3 | .52 | | | | | | | | |
| 37 | D+(0.6WLX+0.6WLZ) - 150 Deg | Yes | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 38 | D+(0.6WLX+0.6WLZ) - 180 Deg | Yes | Y | 1 | 1 | 2 | -.6 | 3 | | | | | | | | | |
| 39 | D+(0.6WLX+0.6WLZ) - 210 Deg | Yes | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 40 | D+(0.6WLX+0.6WLZ) - 240 Deg | Yes | Y | 1 | 1 | 2 | -.3 | 3 | -.52 | | | | | | | | |
| 41 | D+(0.6WLX+0.6WLZ) - 270 Deg | Yes | Y | 1 | 1 | 2 | | 3 | -.6 | | | | | | | | |
| 42 | D+(0.6WLX+0.6WLZ) - 300 Deg | Yes | Y | 1 | 1 | 2 | .3 | 3 | -.52 | | | | | | | | |
| 43 | D+(0.6WLX+0.6WLZ) - 330 Deg | Yes | Y | 1 | 1 | 2 | .52 | 3 | -.3 | | | | | | | | |
| 44 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 45 | D+0.7Di+0.6(WLXi+WLZi) - 0 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .6 | 6 | | | | | | | |
| 46 | D+0.7Di+0.6(WLXi+WLZi) - 30 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | .3 | | | | | | |
| 47 | D+0.7Di+0.6(WLXi+WLZi) - 60 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | .52 | | | | | | |
| 48 | D+0.7Di+0.6(WLXi+WLZi) - 90 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | | 6 | .6 | | | | | | |
| 49 | D+0.7Di+0.6(WLXi+WLZi) - 120 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | .52 | | | | | | |
| 50 | D+0.7Di+0.6(WLXi+WLZi) - 150 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | .3 | | | | | | |
| 51 | D+0.7Di+0.6(WLXi+WLZi) - 180 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.6 | 6 | | | | | | | |
| 52 | D+0.7Di+0.6(WLXi+WLZi) - 210 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | -.3 | | | | | | |
| 53 | D+0.7Di+0.6(WLXi+WLZi) - 240 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | -.52 | | | | | | |
| 54 | D+0.7Di+0.6(WLXi+WLZi) - 270 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | | 6 | -.6 | | | | | | |
| 55 | D+0.7Di+0.6(WLXi+WLZi) - 300 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | -.52 | | | | | | |
| 56 | D+0.7Di+0.6(WLXi+WLZi) - 330 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | -.3 | | | | | | |

Load Combinations (Continued)

| | Description | Sol... | P... | B... | Fa... | BLCF... | B... | Fa... | B... | F... | B... | F... | BLCF... | BLCF... | BLCF... | F... | F... |
|----|------------------|--------|------|------|-------|---------|------|-------|------|------|------|------|---------|---------|---------|------|------|
| 57 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 58 | D+0.7ELv+0.7ELh | Yes | Y | | 1 | 1 | 7 | .7 | 8 | .7 | | | | | | | |

Envelope Joint Reactions

| | Joint | | X [k] | LC | Y [k] | LC | Z [k] | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|---|---------|-----|-------|----|-------|----|-------|----|-----------|----|-----------|----|-----------|----|
| 1 | T/CONN | max | .146 | 38 | .173 | 41 | .22 | 35 | 0 | 58 | .075 | 38 | 0 | 58 |
| 2 | | min | -.146 | 32 | -.066 | 35 | -.24 | 41 | 0 | 31 | -.075 | 32 | 0 | 31 |
| 3 | B/CONN' | max | .087 | 38 | .182 | 35 | .145 | 35 | 0 | 58 | .047 | 38 | 0 | 58 |
| 4 | | min | -.087 | 32 | -.057 | 41 | -.125 | 41 | 0 | 31 | -.047 | 32 | 0 | 31 |
| 5 | Totals: | max | .234 | 38 | .249 | 55 | .365 | 35 | | | | | | |
| 6 | | min | -.234 | 32 | .116 | 35 | -.365 | 41 | | | | | | |

Reactions used to check the connections

Envelope Joint Displacements

| | Joint | | X [in] | LC | Y [in] | LC | Z [in] | LC | X Rotation ... | LC | Y Rotation ... | LC | Z Rotation [...] | LC |
|----|---------|-----|--------|----|--------|----|--------|----|----------------|----|----------------|----|------------------|----|
| 1 | T/PIPE | max | .002 | 38 | 0 | 35 | .012 | 41 | 4.975e-04 | 41 | 4.294e-05 | 32 | 6.618e-05 | 32 |
| 2 | | min | -.002 | 32 | -.002 | 41 | -.006 | 35 | -2.709e-04 | 35 | -4.294e-05 | 38 | -6.618e-05 | 38 |
| 3 | N2 | max | 0 | 58 | 0 | 35 | 0 | 58 | 3.822e-04 | 41 | 0 | 58 | 1.395e-04 | 32 |
| 4 | | min | 0 | 31 | -.002 | 41 | 0 | 31 | -1.871e-04 | 35 | 0 | 31 | -1.395e-04 | 38 |
| 5 | N3 | max | 0 | 58 | 0 | 35 | 0 | 58 | 4.295e-04 | 41 | 0 | 58 | 5.148e-04 | 38 |
| 6 | | min | 0 | 31 | -.002 | 41 | 0 | 31 | -2.468e-04 | 35 | 0 | 31 | -5.148e-04 | 32 |
| 7 | B/PIPE | max | .006 | 38 | 0 | 35 | .003 | 35 | 4.248e-04 | 41 | 0 | 58 | 5.101e-04 | 38 |
| 8 | | min | -.006 | 32 | -.002 | 41 | -.005 | 41 | -2.421e-04 | 35 | 0 | 31 | -5.101e-04 | 32 |
| 9 | T/CONN | max | 0 | 58 | 0 | 58 | 0 | 58 | 3.822e-04 | 41 | 0 | 58 | 1.395e-04 | 32 |
| 10 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -1.871e-04 | 35 | 0 | 31 | -1.395e-04 | 38 |
| 11 | B/CONN' | max | 0 | 58 | 0 | 58 | 0 | 58 | 4.295e-04 | 41 | 0 | 58 | 5.148e-04 | 38 |
| 12 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -2.468e-04 | 35 | 0 | 31 | -5.148e-04 | 32 |
| 13 | N7 | max | .006 | 32 | 0 | 35 | .005 | 41 | 2.43e-04 | 41 | 8.625e-05 | 32 | 3.335e-04 | 38 |
| 14 | | min | -.006 | 38 | -.002 | 41 | -.004 | 35 | -2.019e-04 | 35 | -8.625e-05 | 38 | -3.335e-04 | 32 |
| 15 | N8 | max | 0 | 38 | 0 | 35 | .002 | 41 | 4.793e-04 | 41 | 4.294e-05 | 32 | 8.43e-05 | 32 |
| 16 | | min | 0 | 32 | -.002 | 41 | -.001 | 35 | -2.528e-04 | 35 | -4.294e-05 | 38 | -8.43e-05 | 38 |
| 17 | MX10-2 | max | .006 | 32 | .002 | 35 | .005 | 41 | 2.43e-04 | 41 | 8.625e-05 | 32 | 3.335e-04 | 38 |
| 18 | | min | -.006 | 38 | -.002 | 41 | -.004 | 35 | -2.019e-04 | 35 | -8.625e-05 | 38 | -3.335e-04 | 32 |
| 19 | MX10-1 | max | 0 | 38 | .001 | 35 | .002 | 41 | 4.793e-04 | 41 | 4.294e-05 | 32 | 8.43e-05 | 32 |
| 20 | | min | 0 | 32 | -.003 | 41 | -.001 | 35 | -2.528e-04 | 35 | -4.294e-05 | 38 | -8.43e-05 | 38 |

Max Deflection = 0.012" < 1.0" OK

APPENDIX D – Sectors A & D
ADDITIONAL CALCULATIONS

Job No. 10272.13
 Sheet No. 1 of 2
 Calculated By JL Date : 09/10/20
 Checked By Date :



Existing Connection Anchor Check - Alpha Sector

Existing anchors are 1/2 diameter HY20 with 6 inch embedment

Tallow = 745 lbs
 Vallow = 930 lbs

Max Loads Per Risa Output: Node T/CONN LC Env.
 Tmax = 195.0 lbs
 Vmax = 120.0 lbs

Interaction:

of Anchors = 1
 Reduction due to existing conditions? Yes

$$\frac{195.0}{496.7} + \frac{120.0}{620.0} = 0.59 \leq 1.0, \text{ OK}$$

Comments: Existing connections are assumed to be (2) 1/2" dia. Hilti HY-20 w/6" embedment spaced 12" OC. Reduced capacity due to spacing.

Existing Connection Masonry Check

Existing anchors are 1/2 diameter HY20 with 6 inch embedment
 with 16 inch edge distance

f'm = 1000 psi Allowable Masonry Stress

| | |
|---------------------|---|
| Vallow = 1310.2 lbs | Allowable Masonry Shear Crushing Per Bolt |
| Vallow = 4470.6 lbs | Allowable Masonry Shear Breakout Per Bolt |
| Vallow = 8941.1 lbs | Allowable Masonry Shear Pryout Per Bolt |
| Vallow = 1310.2 lbs | Total Allowable Masonry Shear |
| Tallow = 4470.6 lbs | Total Allowable Masonry Tension |
| Tallow = 496.7 lbs | Total Allowable Steel Tension |

$$\frac{195.0}{496.7} + \frac{120.0}{620.0} = 0.59 \leq 1.0, \text{ OK}$$

Comments: None

Existing Structure Check

The existing antenna mounts are flush mounted to the façade of the existing building structure. Therefore, there will be no increase in normal load on the structure and all other additional loads will be minimal. Hence, the existing structure will have adequate capacity to support the proposed installation.

Job No. 10272.13
 Sheet No. 2 of 2
 Calculated By JL Date : 09/10/20
 Checked By Date :



Proposed Connection Anchor Check - Delta Sector

Proposed anchors are 5/8 diameter HY270 with 6 inch embedment

Tallow = 1025 lbs

Vallow = 1405 lbs

Max Loads Per Risa Output: Node T/CONN LC Env.

Tmax = 195.0 lbs

Vmax = 120.0 lbs

Interaction:

of Anchors = 1

Reduction due to existing conditions? No

$$\frac{195.0}{1025.0} + \frac{120.0}{1405.0} = 0.28 \leq 1.0, \text{ OK}$$

Comments: Proposed connection is (2) 5/8" dia. Hilti HY-270 w/6" embedment spaced 16" OC.

Existing Connection Masonry Check

Proposed anchors are 5/8 diameter HY270 with 6 inch embedment
 with 16 inch edge distance

f'm = 1000 psi Allowable Masonry Stress

Vallow = 1464.8 lbs Allowable Masonry Shear Crushing Per Bolt

Vallow = 4470.6 lbs Allowable Masonry Shear Breakout Per Bolt

Vallow = 8941.1 lbs Allowable Masonry Shear Pryout Per Bolt

Vallow = 1464.8 lbs Total Allowable Masonry Shear

Tallow = 4470.6 lbs Total Allowable Masonry Tension

Tallow = 1025.0 lbs Total Allowable Steel Tension

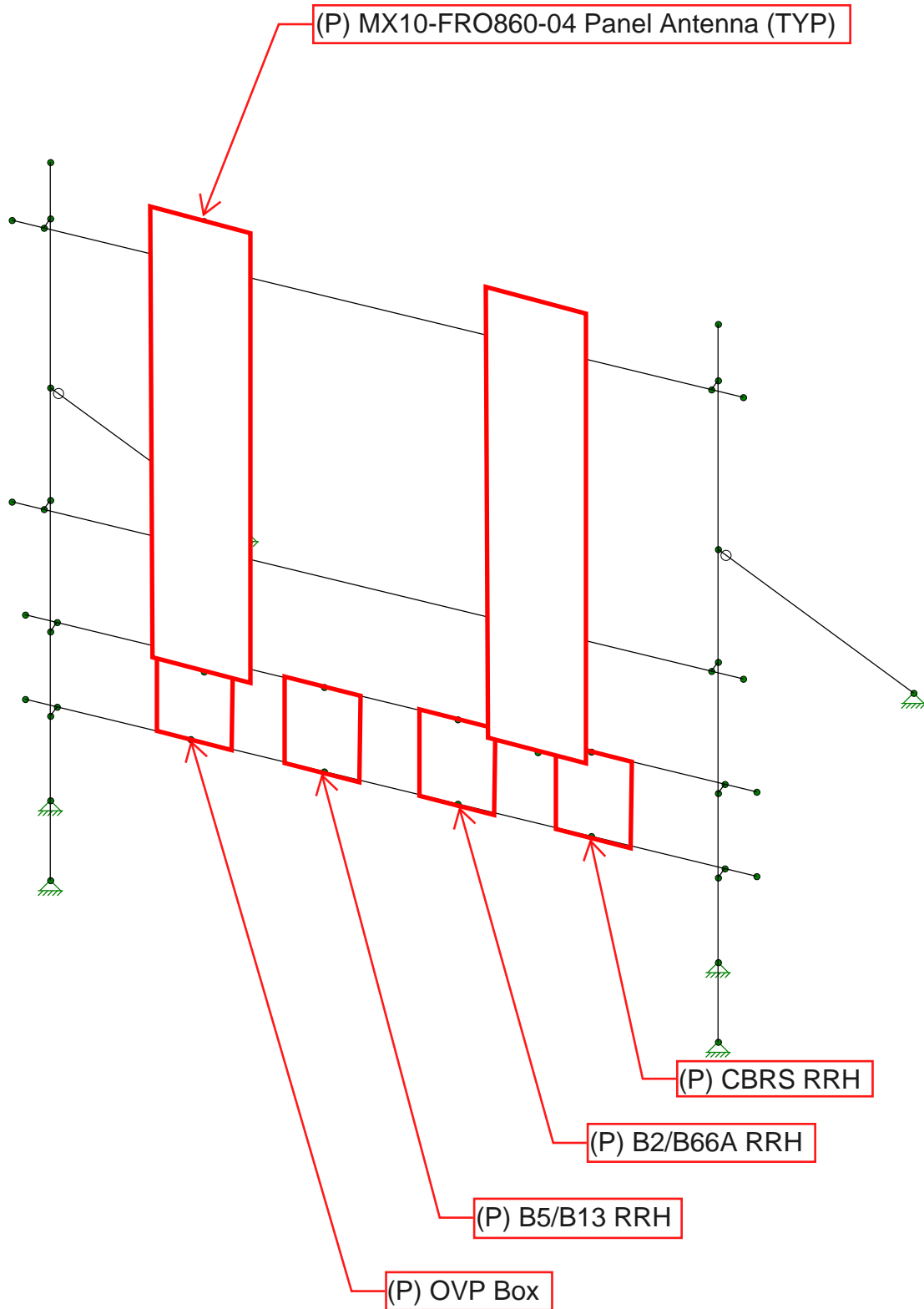
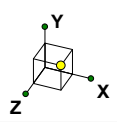
$$\frac{195.0}{1025.0} + \frac{120.0}{1405.0} = 0.276 \leq 1.0, \text{ OK}$$

Comments: 16" minimum edge distance required.

Existing Structure Check

The proposed antenna mounts are flush mounted to the façade of the existing building structure. Therefore, there will be no increase in normal load on the structure and all other additional loads will be minimal. Hence, the existing structure will have adequate capacity to support the proposed installation.

APPENDIX E – Sector B
WIRE FRAME AND RENDERED MODELS



Tectonic Engineering

JL

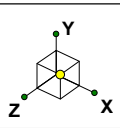
10272.13

Beta Sector

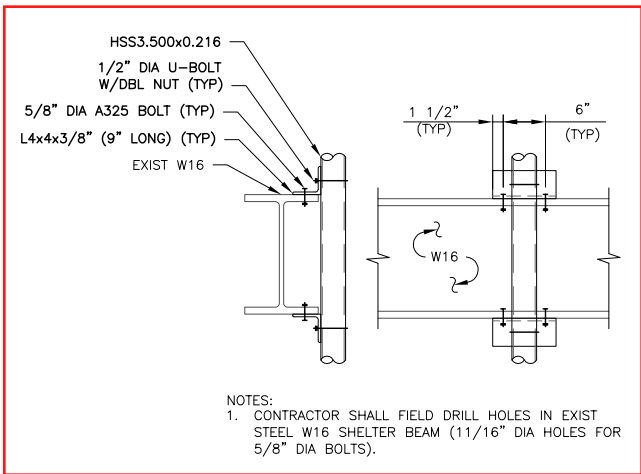
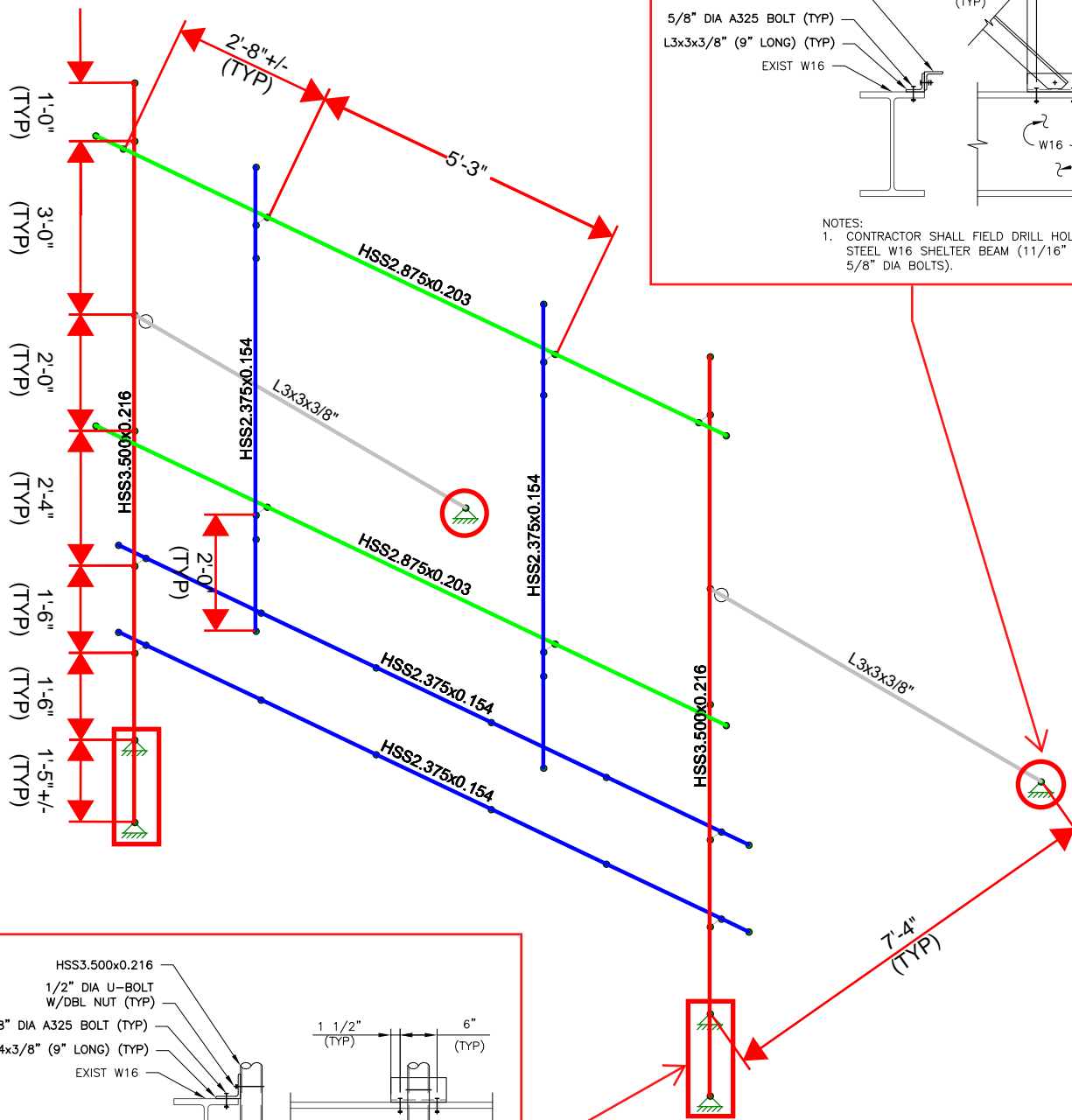
Antenna & Equipment Layout

Sept 10, 2020 at 9:13 AM

10272.13 - Beta Sector.r3d



| Section Sets | |
|--|----------------|
| ■ | HSS2.375x0.154 |
| ■ | HSS2.875x0.203 |
| ■ | HSS3.500x0.216 |
| ■ | L3x3x3/8" |
| ■ | RIGID |



Note: It is our professional engineering judgment that the existing shelter beams will have adequate capacity to support the proposed installation based on the overall beam size and geometry.

Tectonic Engineering

JL

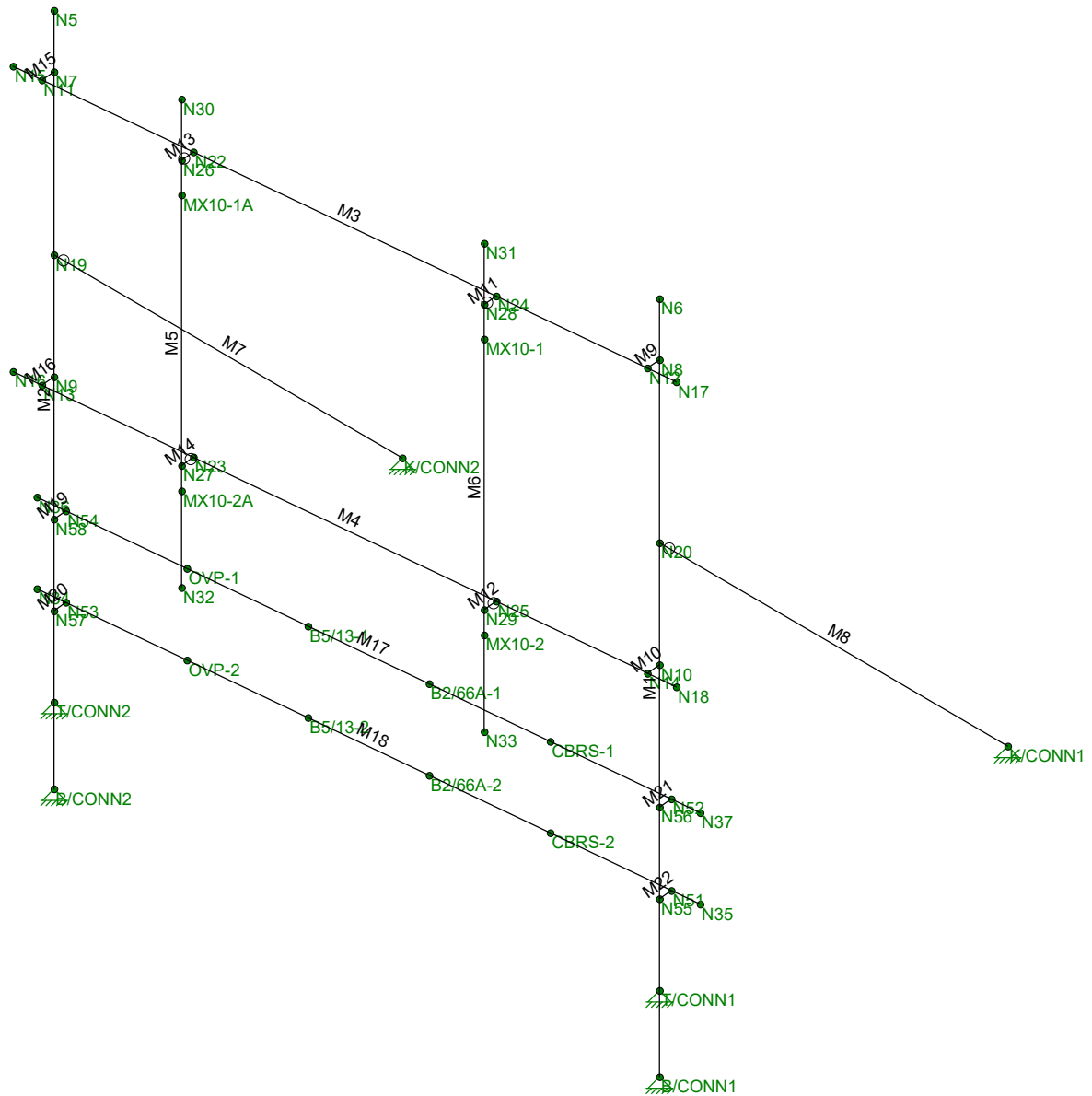
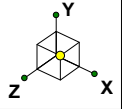
10272.13

Beta Sector

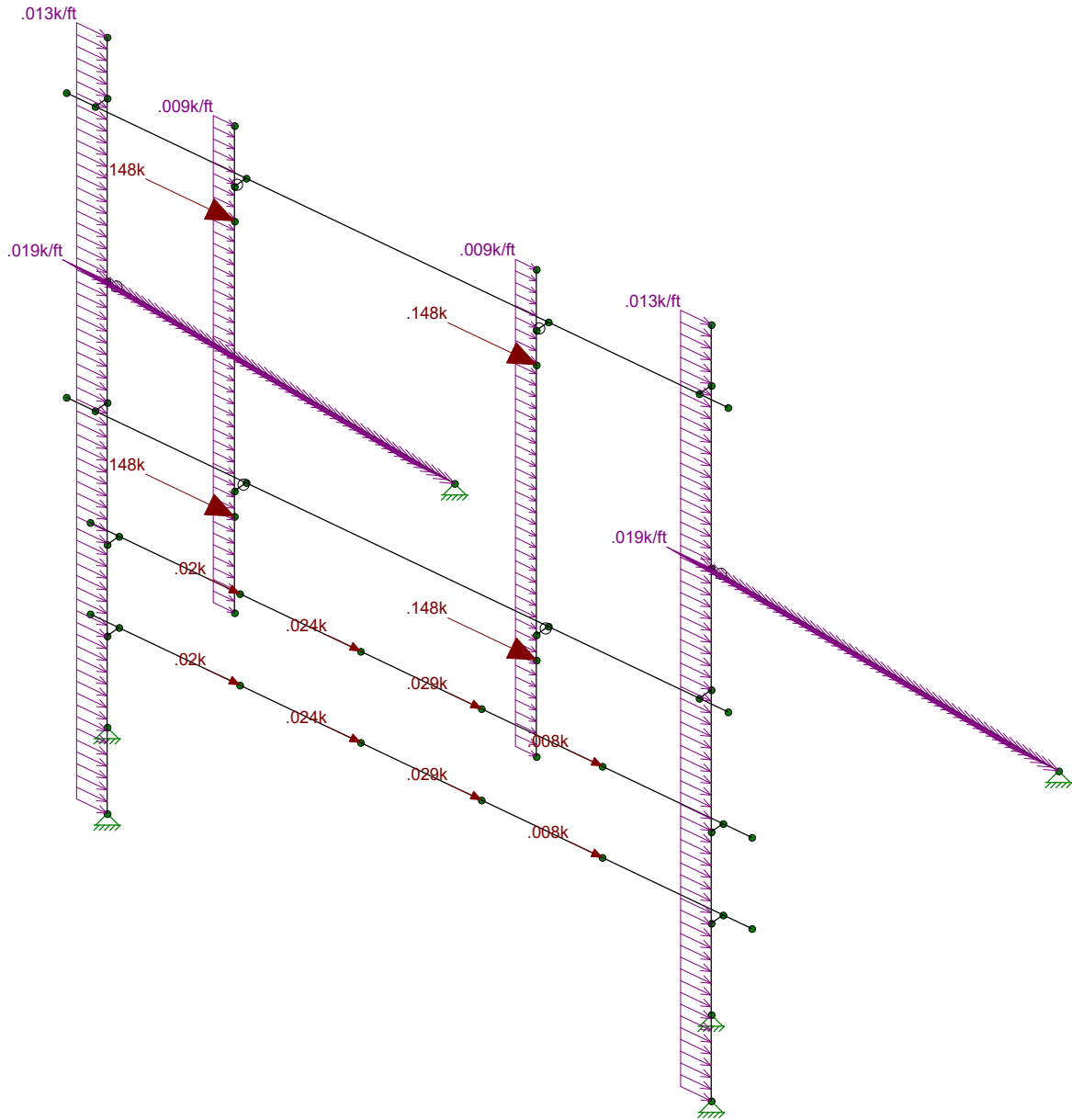
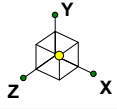
Proposed Member Layout

Sept 10, 2020 at 8:55 AM

10272.13 - Beta Sector.r3d

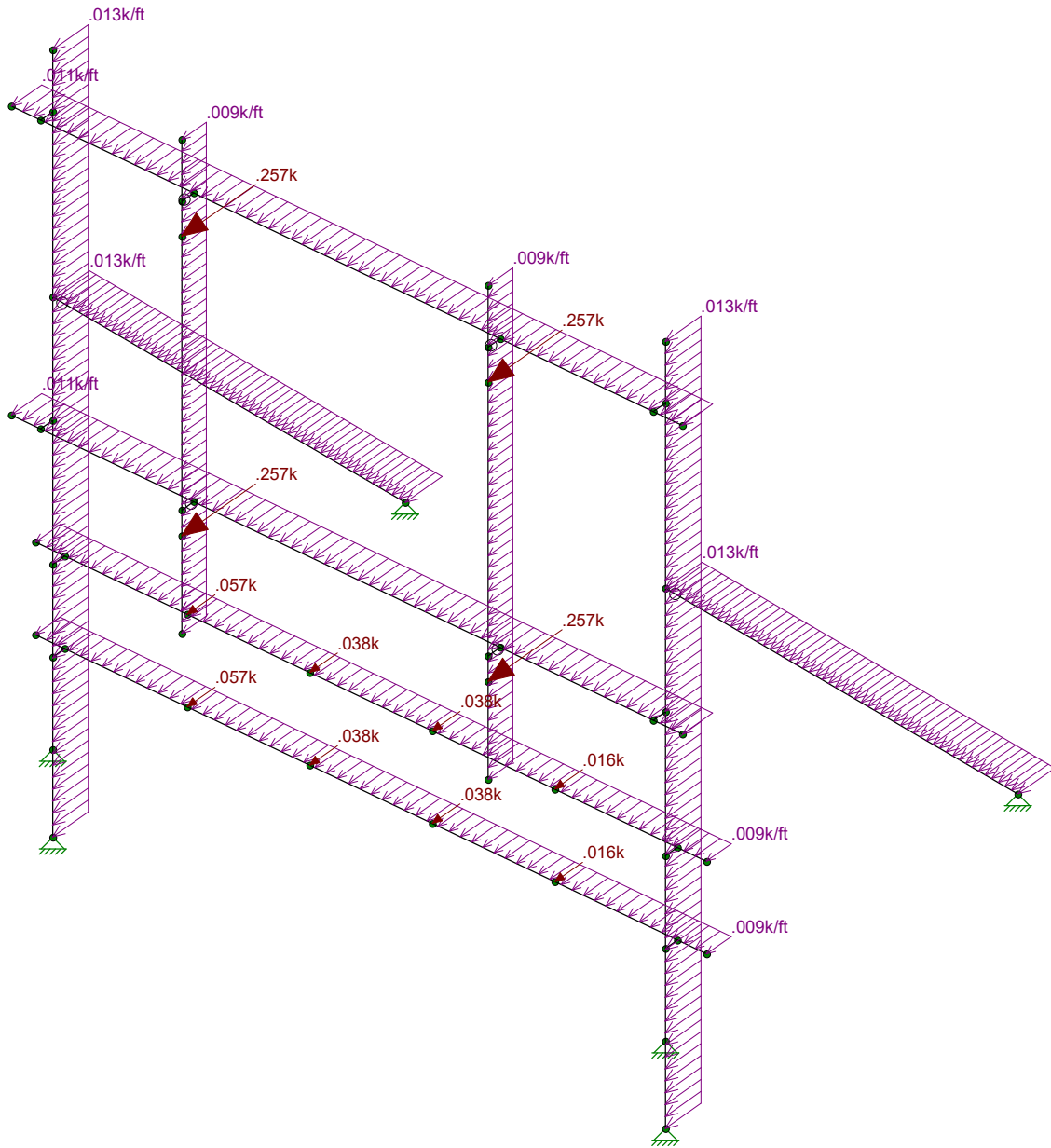
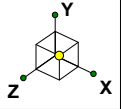


| | | | |
|----------------------|--|-------------------------------------|----------------------------|
| Tectonic Engineering | | Beta Sector Member & Node Labels | |
| JL | | | Sept 10, 2020 at 8:54 AM |
| 10272.13 | | | 10272.13 - Beta Sector.r3d |



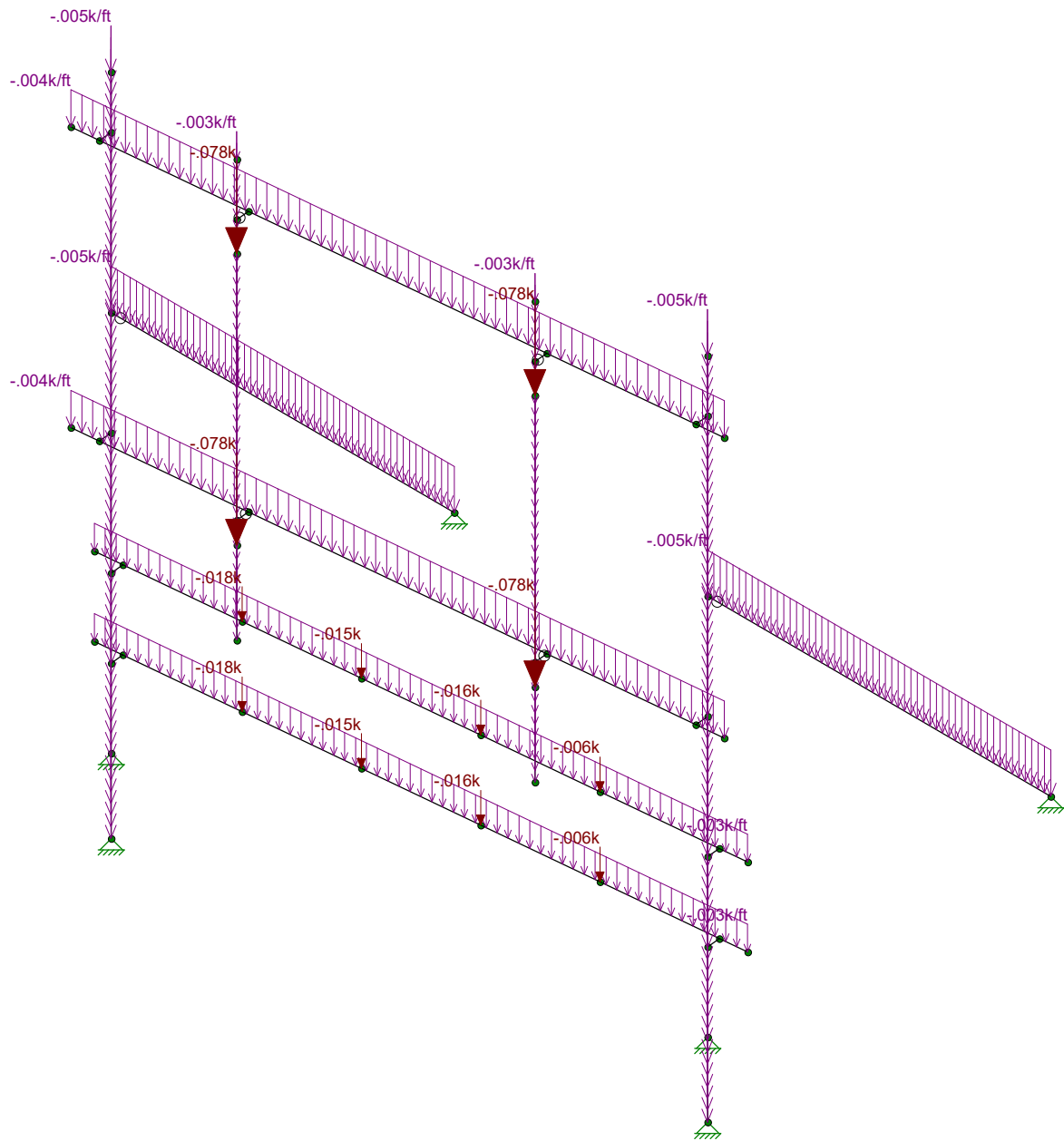
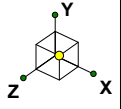
Loads: BLC 2, WLX

| | | |
|----------------------|----------------------------|----------------------------|
| Tectonic Engineering | Beta Sector Wind Load X | |
| JL | | Sept 10, 2020 at 8:58 AM |
| 10272.13 | | 10272.13 - Beta Sector.r3d |



Loads: BLC 3, WLZ

| | | |
|----------------------|----------------------------|----------------------------|
| Tectonic Engineering | Beta Sector Wind Load Z | |
| JL | | Sept 10, 2020 at 8:59 AM |
| 10272.13 | | 10272.13 - Beta Sector.r3d |



Loads: BLC 4, DLi

Tectonic Engineering

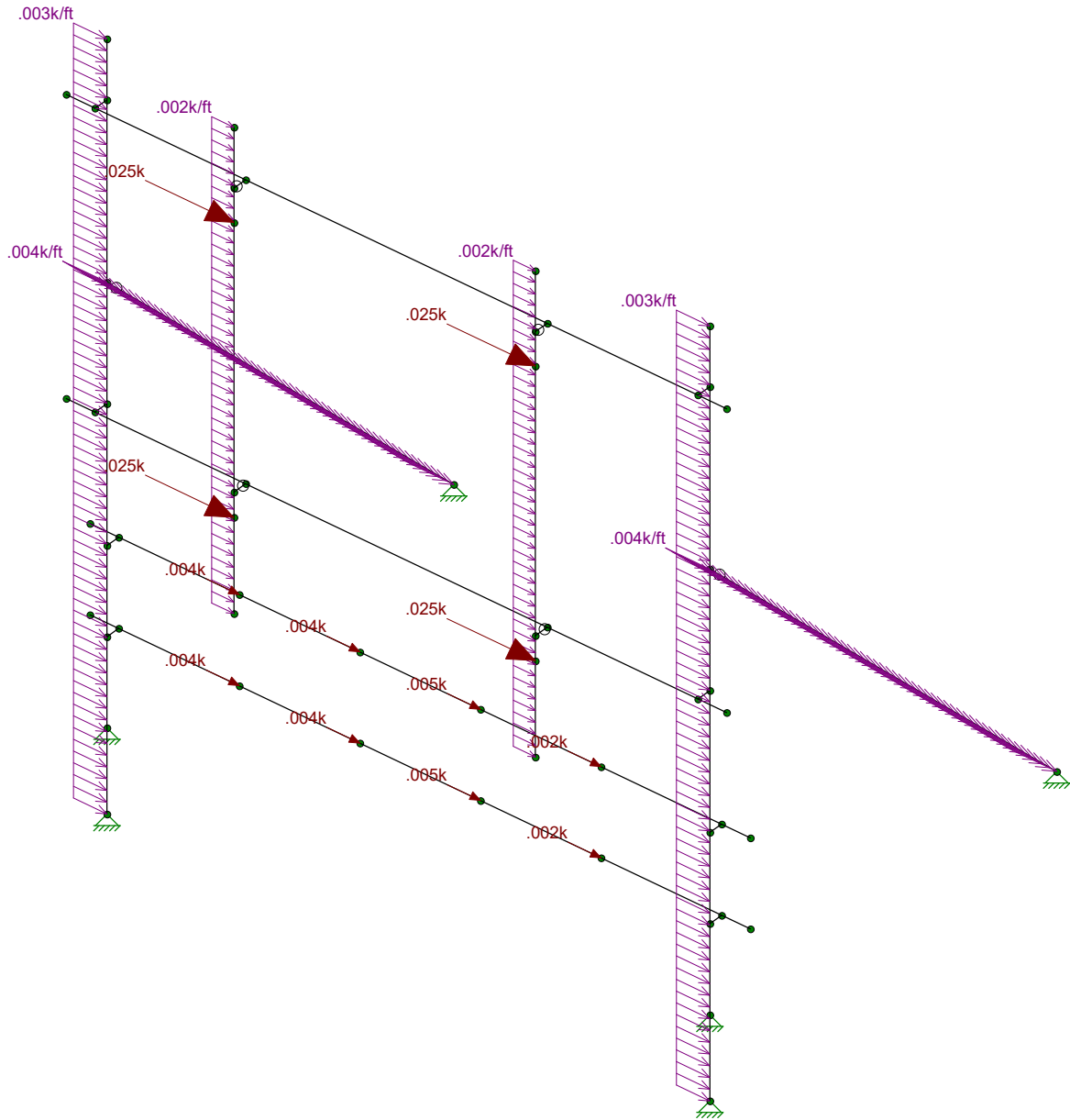
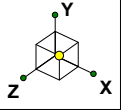
JL

10272.13

Beta Sector
Dead Load Ice

Sept 10, 2020 at 9:00 AM

10272.13 - Beta Sector.r3d



Loads: BLC 5, WLXi

Tectonic Engineering

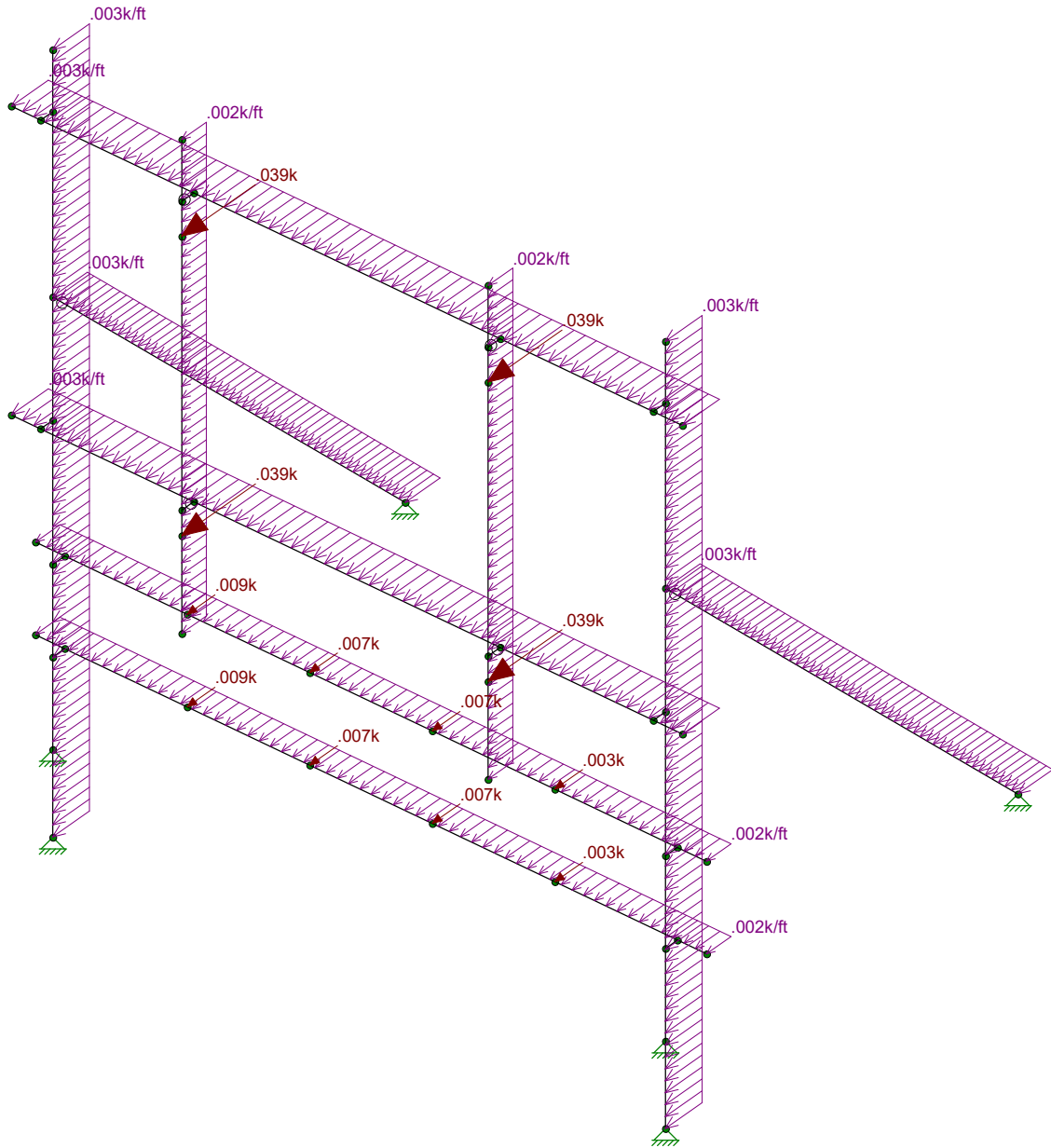
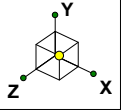
JL

10272.13

Beta Sector
Wind Load X Ice

Sept 10, 2020 at 9:00 AM

10272.13 - Beta Sector.r3d



Loads: BLC 6, WLZi

Tectonic Engineering

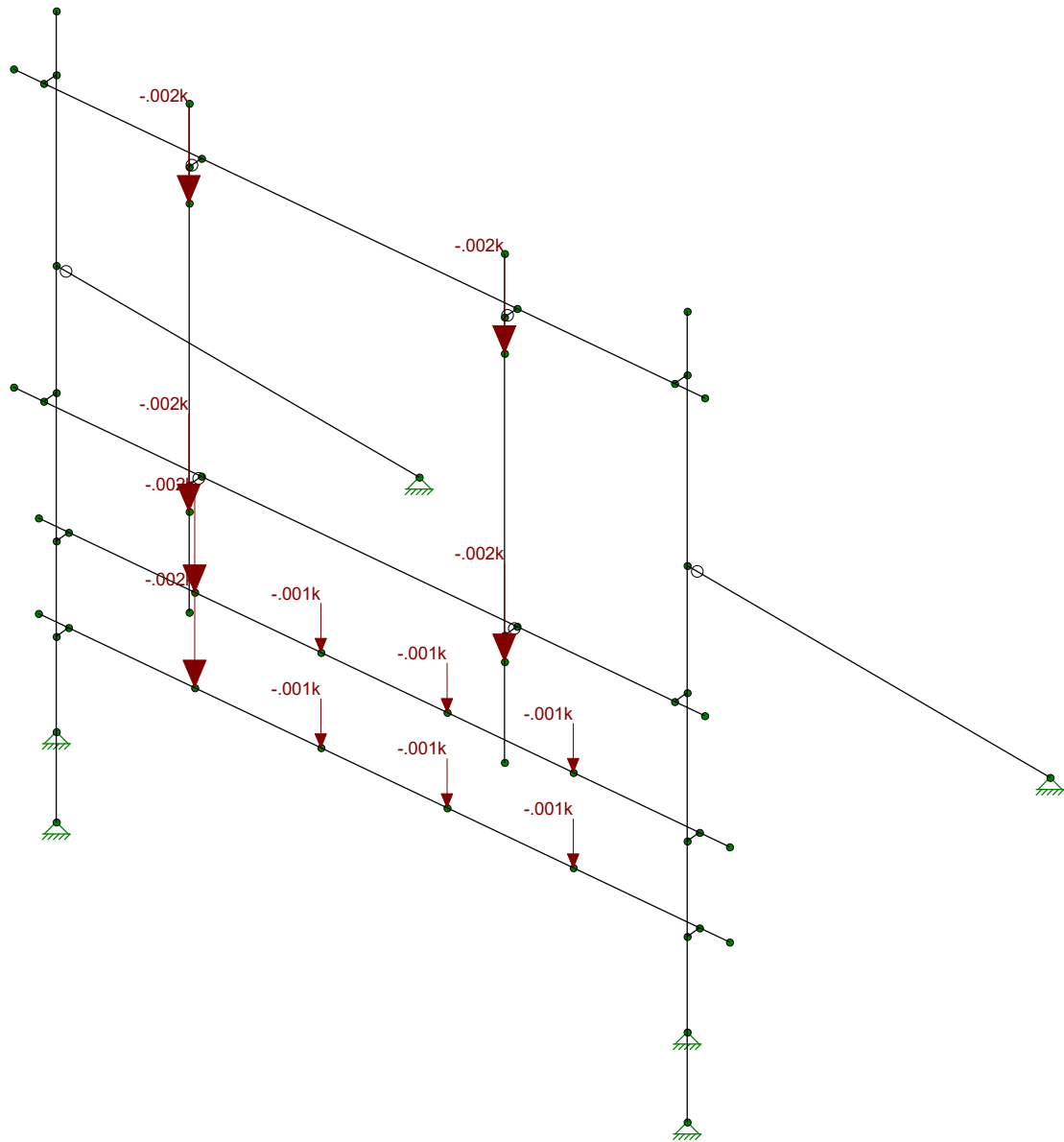
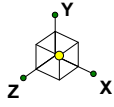
JL

10272.13

Beta Sector
Wind Load Z Ice

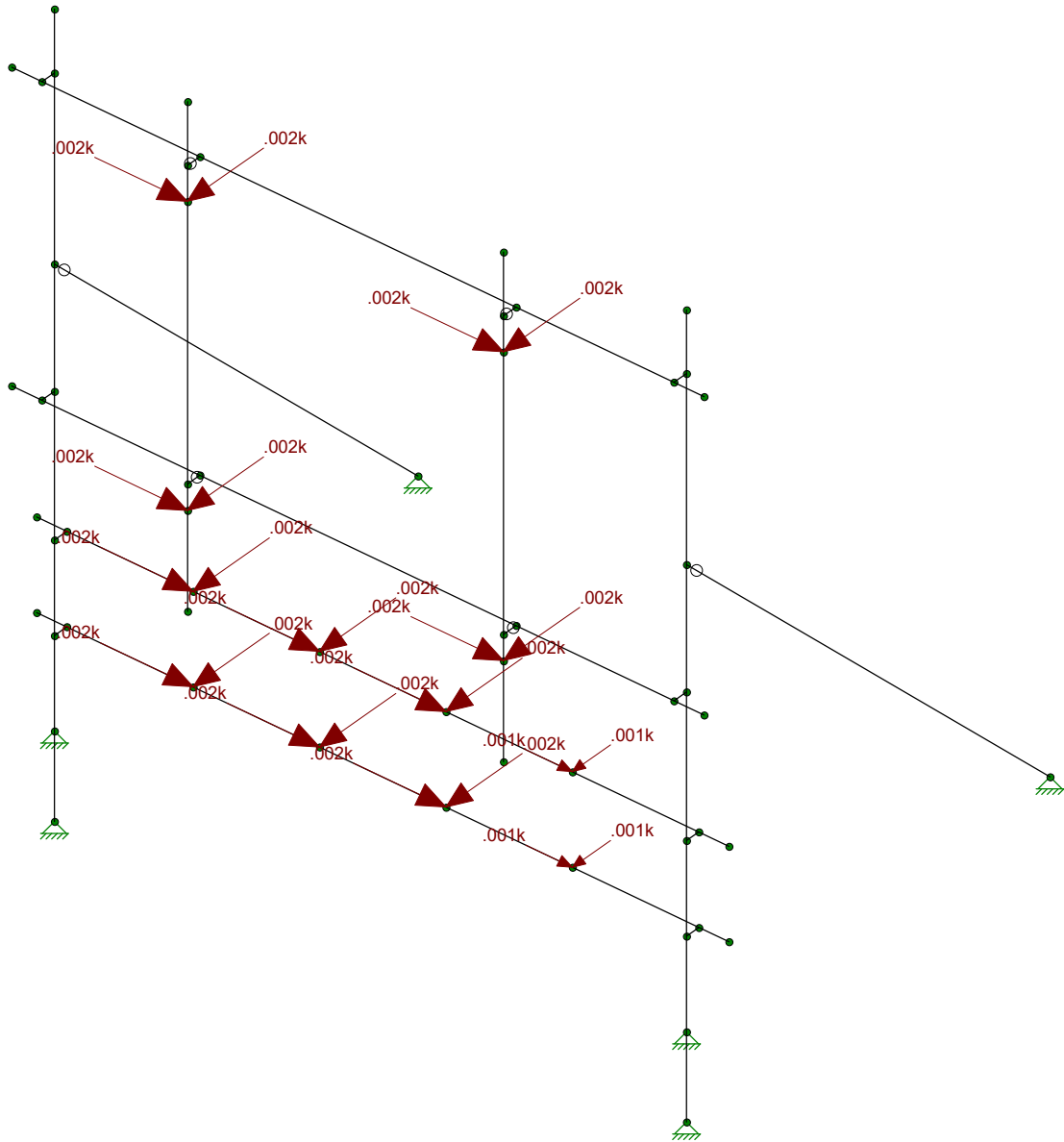
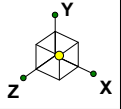
Sept 10, 2020 at 9:01 AM

10272.13 - Beta Sector.r3d



Loads: BLC 7, ELv

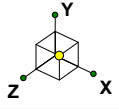
| | | |
|----------------------|--------------------------------------|----------------------------|
| Tectonic Engineering | Beta Sector Seismic Vertical Load | |
| JL | | Sept 10, 2020 at 9:01 AM |
| 10272.13 | | 10272.13 - Beta Sector.r3d |



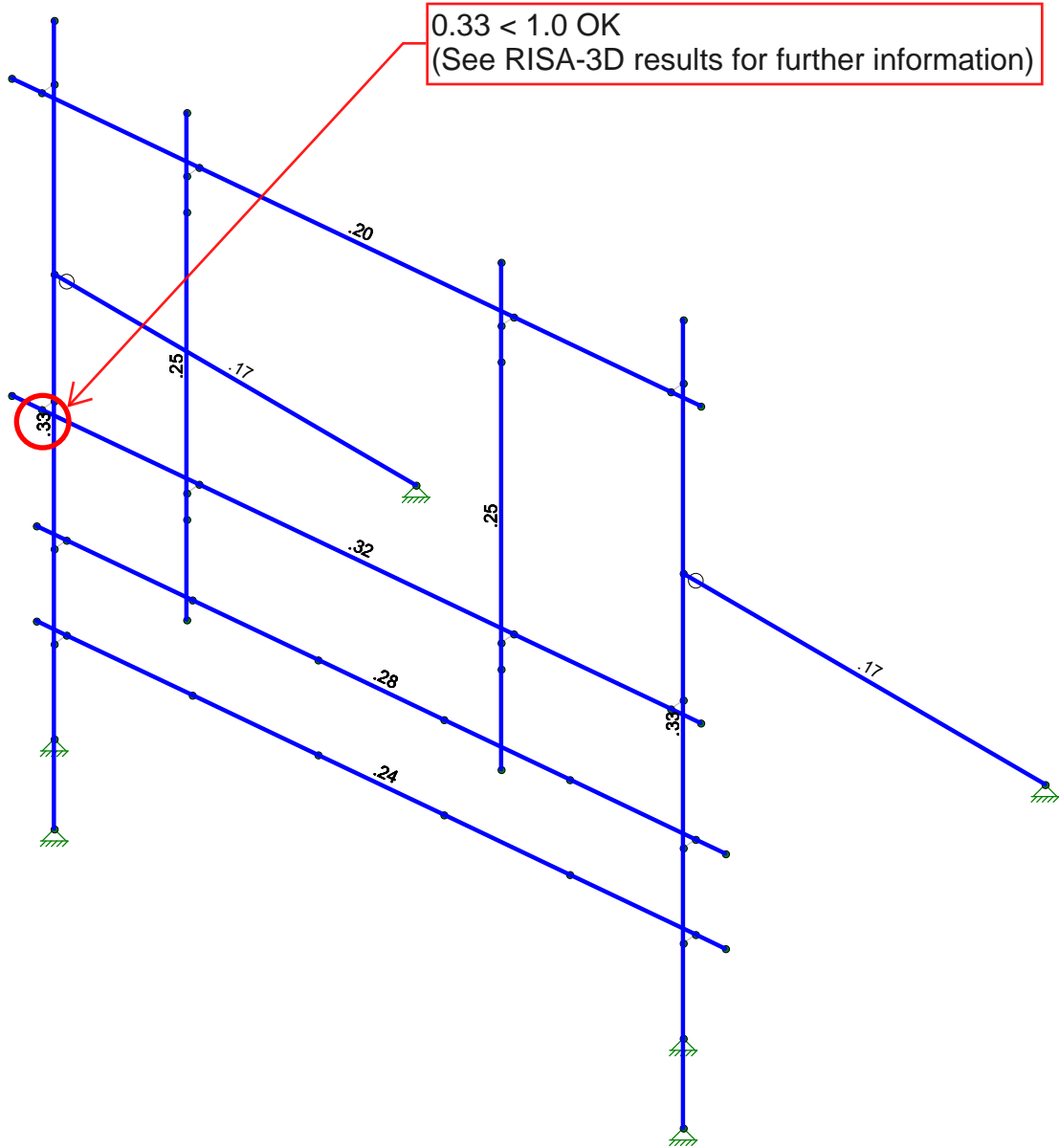
Loads: BLC 8, ELh

| | | |
|----------------------|-------------------------------------|----------------------------|
| Tectonic Engineering | Beta Sector Seismic Lateral Load | |
| JL | | Sept 10, 2020 at 9:01 AM |
| 10272.13 | | 10272.13 - Beta Sector.r3d |

APPENDIX F – Sector B
SOFTWARE ANALYSIS OUTPUT



| Code Check (Env) | |
|-----------------------|---------|
| No Calc | > 1.0 |
| > 1.0 | .90-1.0 |
| .90-1.0 | .75-.90 |
| .75-.90 | .50-.75 |
| .50-.75 | 0-.50 |



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

| | | |
|----------------------|--------------------------------|----------------------------|
| Tectonic Engineering | Beta Sector Member Stresses | |
| JL | | Sept 10, 2020 at 8:53 AM |
| 10272.13 | | 10272.13 - Beta Sector.r3d |

Hot Rolled Steel Properties

| | Label | E [ksi] | G [ksi] | Nu | Therm (\1... | Density[k/ft^3] | Yield[ksi] | Ry | Fu[ksi] | Rt |
|---|------------|---------|---------|----|--------------|-----------------|------------|-----|---------|-----|
| 1 | A36 Gr.36 | 29000 | 11154 | .3 | .65 | .49 | 36 | 1.5 | 58 | 1.2 |
| 2 | A572 Gr.50 | 29000 | 11154 | .3 | .65 | .49 | 50 | 1.1 | 65 | 1.1 |
| 3 | A992 | 29000 | 11154 | .3 | .65 | .49 | 50 | 1.1 | 65 | 1.1 |
| 4 | A500 Gr.42 | 29000 | 11154 | .3 | .65 | .49 | 42 | 1.4 | 58 | 1.3 |
| 5 | A500 Gr.46 | 29000 | 11154 | .3 | .65 | .49 | 46 | 1.4 | 58 | 1.3 |
| 6 | A53 Gr. B | 29000 | 11154 | .3 | .65 | .49 | 36 | 1.5 | 58 | 1.2 |

Hot Rolled Steel Section Sets

| | Label | Shape | Type | Design List | Material | Design Rules | A [in2] | Iyy [in4] | Izz [in4] | J [in4] |
|---|----------------|----------------|------|--------------|-----------|--------------|---------|-----------|-----------|---------|
| 1 | HSS2.375x0.154 | HSS2.375X0.154 | Beam | Pipe | A53 Gr. B | Typical | 1 | .627 | .627 | 1.25 |
| 2 | HSS2.875x0.203 | HSS2.875X0.203 | Beam | Pipe | A53 Gr. B | Typical | 1.59 | 1.45 | 1.45 | 2.89 |
| 3 | HSS3.500x0.216 | HSS3.500X0.216 | Beam | Pipe | A53 Gr. B | Typical | 2.08 | 2.84 | 2.84 | 5.69 |
| 4 | L3x3x3/8" | L3X3X6 | Beam | Single Angle | A36 Gr.36 | Typical | 2.11 | 1.75 | 1.75 | .101 |

Hot Rolled Steel Design Parameters

| | Label | Shape | Length[ft] | Lbyy[ft] | Lbzz[ft] | Lcomp top[ft] | Lcomp bot[ft] | L-torqu... | Kyy | Kzz | Cb | Function |
|----|-------|--------------|------------|----------|----------|---------------|---------------|------------|-----|-----|----|----------|
| 1 | M1 | HSS3.500x... | 12.75 | | | Lbyy | | | | | | Lateral |
| 2 | M2 | HSS3.500x... | 12.75 | | | Lbyy | | | | | | Lateral |
| 3 | M3 | HSS2.875x... | 11.5 | | | Lbyy | | | | | | Lateral |
| 4 | M4 | HSS2.875x... | 11.5 | | | Lbyy | | | | | | Lateral |
| 5 | M5 | HSS2.375x... | 8 | | | Lbyy | | | | | | Lateral |
| 6 | M6 | HSS2.375x... | 8 | | | Lbyy | | | | | | Lateral |
| 7 | M7 | L3x3x3/8" | 10.37 | | | Lbyy | | | | | | Lateral |
| 8 | M8 | L3x3x3/8" | 10.37 | | | Lbyy | | | | | | Lateral |
| 9 | M17 | HSS2.375x... | 11.5 | | | Lbyy | | | | | | Lateral |
| 10 | M18 | HSS2.375x... | 11.5 | | | Lbyy | | | | | | Lateral |

Basic Load Cases

| | BLC Description | Category | X Gravity | Y Gravity | Z Gravity | Joint | Point | Distributed | Area(Me...Surface(Plate/Wall) |
|---|-----------------|----------|-----------|-----------|-----------|-------|-------|-------------|-------------------------------|
| 1 | DL | DL | | -1.05 | | 12 | | | |
| 2 | WLX | WLX | | | | 12 | | 8 | |
| 3 | WLZ | WLZ | | | | 12 | | 10 | |
| 4 | DLi | SL | | | | 12 | | 10 | |
| 5 | WLXi | OL1 | | | | 12 | | 8 | |
| 6 | WLZi | OL2 | | | | 12 | | 10 | |
| 7 | ELv | ELY | | -0.057 | | 12 | | | |
| 8 | ELh | EL | -.23 | | -.23 | 24 | | | |

Load Combinations

| | Description | Sol...P... | B... | Fa... | BLCF... | B... | Fa... | B... | F... | B... | F... | BLCF... | BLCF... | BLCF... | F... | F... |
|----|--------------------------|------------|------|-------|---------|------|-------|------|------|------|------|---------|---------|---------|------|------|
| 1 | *LRFD | | | | | | | | | | | | | | | |
| 2 | 1.4D | Yes | Y | 1 | 1.4 | | | | | | | | | | | |
| 3 | 1.2D+(WLX+WLZ) - 0 Deg | Yes | Y | 1 | 1.2 | 2 | 1 | 3 | | | | | | | | |
| 4 | 1.2D+(WLX+WLZ) - 30 Deg | Yes | Y | 1 | 1.2 | 2 | .8... | 3 | .5 | | | | | | | |
| 5 | 1.2D+(WLX+WLZ) - 60 Deg | Yes | Y | 1 | 1.2 | 2 | .5 | 3 | .866 | | | | | | | |
| 6 | 1.2D+(WLX+WLZ) - 90 Deg | Yes | Y | 1 | 1.2 | 2 | | 3 | 1 | | | | | | | |
| 7 | 1.2D+(WLX+WLZ) - 120 Deg | Yes | Y | 1 | 1.2 | 2 | -.5 | 3 | .866 | | | | | | | |
| 8 | 1.2D+(WLX+WLZ) - 150 Deg | Yes | Y | 1 | 1.2 | 2 | ---- | 3 | .5 | | | | | | | |
| 9 | 1.2D+(WLX+WLZ) - 180 Deg | Yes | Y | 1 | 1.2 | 2 | -1 | 3 | | | | | | | | |
| 10 | 1.2D+(WLX+WLZ) - 210 Deg | Yes | Y | 1 | 1.2 | 2 | ---- | 3 | -.5 | | | | | | | |

Load Combinations (Continued)

| | Description | Sol... | P... | B... | Fa... | BLCF... | B... | Fa... | B... | F... | B... | F... | BLCF... | BLCF... | BLCF... | F... | F... |
|----|-------------------------------------|--------|------|------|-------|---------|-------|-------|--------|------|-------|------|---------|---------|---------|------|------|
| 11 | 1.2D+(WLX+WLZ) - 240 Deg | Yes | Y | 1 | 1.2 | 2 | -5 | 3 | -8... | | | | | | | | |
| 12 | 1.2D+(WLX+WLZ) - 270 Deg | Yes | Y | 1 | 1.2 | 2 | | 3 | -1 | | | | | | | | |
| 13 | 1.2D+(WLX+WLZ) - 300 Deg | Yes | Y | 1 | 1.2 | 2 | .5 | 3 | -8... | | | | | | | | |
| 14 | 1.2D+(WLX+WLZ) - 330 Deg | Yes | Y | 1 | 1.2 | 2 | .8... | 3 | -5 | | | | | | | | |
| 15 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 16 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 0 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | 1 | 6 | | | | | | | |
| 17 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 30 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | .5 | | | | | | |
| 18 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 60 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | .8... | | | | | | |
| 19 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 90 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | 1 | | | | | | |
| 20 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 120 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | .8... | | | | | | |
| 21 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 150 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | .5 | | | | | | |
| 22 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 180 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -1 | 6 | | | | | | | |
| 23 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 210 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | -.5 | | | | | | |
| 24 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 240 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | ---- | | | | | | |
| 25 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 270 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | -1 | | | | | | |
| 26 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 300 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | ---- | | | | | | |
| 27 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 330 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | -.5 | | | | | | |
| 28 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 29 | 1.2D+ELv+ELh | Yes | Y | 1 | 1.2 | 7 | 1 | 8 | 1 | | | | | | | | |
| 30 | *ASD | | | | | | | | | | | | | | | | |
| 31 | D | | Y | 1 | 1 | | | | | | | | | | | | |
| 32 | D+(0.6WLX) - 0 Deg | | Y | 1 | 1 | 2 | .6 | | | | | | | | | | |
| 33 | D+(0.6WLX+0.6WLZ) - 30 Deg | | Y | 1 | 1 | 2 | .52 | 3 | .3 | | | | | | | | |
| 34 | D+(0.6WLX+0.6WLZ) - 60 Deg | | Y | 1 | 1 | 2 | .3 | 3 | .52 | | | | | | | | |
| 35 | D+(0.6WLZ) - 90 Deg | | Y | 1 | 1 | 2 | | 3 | .6 | | | | | | | | |
| 36 | D+(0.6WLX+0.6WLZ) - 120 Deg | | Y | 1 | 1 | 2 | -.3 | 3 | .52 | | | | | | | | |
| 37 | D+(0.6WLX+0.6WLZ) - 150 Deg | | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 38 | D+(0.6WLX+0.6WLZ) - 180 Deg | | Y | 1 | 1 | 2 | -.6 | 3 | | | | | | | | | |
| 39 | D+(0.6WLX+0.6WLZ) - 210 Deg | | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 40 | D+(0.6WLX+0.6WLZ) - 240 Deg | | Y | 1 | 1 | 2 | -.3 | 3 | -.52 | | | | | | | | |
| 41 | D+(0.6WLX+0.6WLZ) - 270 Deg | | Y | 1 | 1 | 2 | | 3 | -.6 | | | | | | | | |
| 42 | D+(0.6WLX+0.6WLZ) - 300 Deg | | Y | 1 | 1 | 2 | .3 | 3 | -.52 | | | | | | | | |
| 43 | D+(0.6WLX+0.6WLZ) - 330 Deg | | Y | 1 | 1 | 2 | .52 | 3 | -.3 | | | | | | | | |
| 44 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 45 | D+0.7Di+0.6(WLXi+WLZi) - 0 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .6 | 6 | | | | | | | |
| 46 | D+0.7Di+0.6(WLXi+WLZi) - 30 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | .3 | | | | | | |
| 47 | D+0.7Di+0.6(WLXi+WLZi) - 60 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | .52 | | | | | | |
| 48 | D+0.7Di+0.6(WLXi+WLZi) - 90 Deg | | Y | 1 | 1 | 4 | .7 | 5 | | 6 | .6 | | | | | | |
| 49 | D+0.7Di+0.6(WLXi+WLZi) - 120 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | .52 | | | | | | |
| 50 | D+0.7Di+0.6(WLXi+WLZi) - 150 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | .3 | | | | | | |
| 51 | D+0.7Di+0.6(WLXi+WLZi) - 180 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.6 | 6 | | | | | | | |
| 52 | D+0.7Di+0.6(WLXi+WLZi) - 210 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | -.3 | | | | | | |
| 53 | D+0.7Di+0.6(WLXi+WLZi) - 240 Deg | | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | -.52 | | | | | | |
| 54 | D+0.7Di+0.6(WLXi+WLZi) - 270 Deg | | Y | 1 | 1 | 4 | .7 | 5 | | 6 | -.6 | | | | | | |
| 55 | D+0.7Di+0.6(WLXi+WLZi) - 300 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | -.52 | | | | | | |
| 56 | D+0.7Di+0.6(WLXi+WLZi) - 330 Deg | | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | -.3 | | | | | | |
| 57 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 58 | D+0.7ELv+0.7ELh | | Y | 1 | 1 | 7 | .7 | 8 | .7 | | | | | | | | |

Envelope Joint Reactions

| | Joint | | X [k] | LC | Y [k] | LC | Z [k] | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|---|---------|-----|--------|----|-------|----|-------|----|-----------|----|-----------|----|-----------|----|
| 1 | B/CONN1 | max | 1.288 | 4 | .01 | 27 | .124 | 6 | 0 | 29 | 0 | 29 | 0 | 29 |
| 2 | | min | -1.239 | 10 | .006 | 3 | -.17 | 12 | 0 | 2 | 0 | 2 | 0 | 2 |
| 3 | T/CONN1 | max | 2.226 | 10 | 1.563 | 5 | .41 | 12 | 0 | 29 | 0 | 29 | 0 | 29 |
| 4 | | min | -2.399 | 4 | -.597 | 11 | -.342 | 6 | 0 | 2 | 0 | 2 | 0 | 2 |

Envelope Joint Reactions (Continued)

| | Joint | | X [k] | LC | Y [k] | LC | Z [k] | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|----|---------|-----|--------|----|-------|----|--------|----|-----------|----|-----------|----|-----------|----|
| 5 | B/CONN2 | max | 1.249 | 14 | .01 | 27 | .16 | 6 | 0 | 29 | 0 | 29 | 0 | 29 |
| 6 | | min | -1.277 | 8 | .006 | 3 | -.206 | 12 | 0 | 2 | 0 | 2 | 0 | 2 |
| 7 | T/CONN2 | max | 2.389 | 8 | 1.588 | 7 | .489 | 12 | 0 | 29 | 0 | 29 | 0 | 29 |
| 8 | | min | -2.237 | 14 | -.581 | 13 | -.423 | 6 | 0 | 2 | 0 | 2 | 0 | 2 |
| 9 | K/CONN2 | max | .099 | 9 | .989 | 12 | 1.011 | 12 | 0 | 29 | 0 | 29 | 0 | 29 |
| 10 | | min | -.099 | 3 | -.915 | 6 | -1.032 | 6 | 0 | 2 | 0 | 2 | 0 | 2 |
| 11 | K/CONN1 | max | .099 | 9 | .983 | 12 | 1.005 | 12 | 0 | 29 | 0 | 29 | 0 | 29 |
| 12 | | min | -.099 | 3 | -.91 | 6 | -1.027 | 6 | 0 | 2 | 0 | 2 | 0 | 2 |
| 13 | Totals: | max | 1.624 | 9 | 1.935 | 18 | 2.54 | 12 | | | | | | |
| 14 | | min | -1.624 | 3 | 1.073 | 11 | -2.54 | 6 | | | | | | |

Envelope AISC 15th(360-16): LRFD Steel Code Checks

| | Member | Shape | Code C... | Loc[ft] | LC | Shear ... | Loc[ft] | Dir | LC | phi*Pnc [k] | phi*Pnt [k] | phi*Mn y-... | phi*Mn z-... | Cb | Eqn |
|----|--------|---------------|-----------|---------|----|-----------|---------|-----|----|-------------|-------------|--------------|--------------|------|-------|
| 1 | M1 | HSS3.500X0... | .328 | 11.289 | 4 | .084 | 8.234 | | 13 | 27.329 | 67.392 | 5.913 | 5.913 | 2... | H1-1b |
| 2 | M2 | HSS3.500X0... | .326 | 11.289 | 8 | .079 | 8.234 | | 11 | 27.329 | 67.392 | 5.913 | 5.913 | 2... | H1-1b |
| 3 | M3 | HSS2.875X0... | .203 | 5.75 | 6 | .022 | 10.901 | | 6 | 17.201 | 51.516 | 3.699 | 3.699 | 2... | H1-1b |
| 4 | M4 | HSS2.875X0... | .323 | 10.901 | 14 | .043 | 10.901 | | 13 | 17.201 | 51.516 | 3.699 | 3.699 | 3... | H1-1b |
| 5 | M5 | HSS2.375X0... | .254 | 6 | 9 | .028 | 6 | | 6 | 14.945 | 32.4 | 1.925 | 1.925 | 1... | H1-1b |
| 6 | M6 | HSS2.375X0... | .254 | 6 | 3 | .028 | 6 | | 6 | 14.945 | 32.4 | 1.925 | 1.925 | 1... | H1-1b |
| 7 | M7 | L3X3X6 | .174 | 5.509 | 13 | .005 | 10.37 | z | 9 | 10.39 | 68.364 | 2.307 | 4.373 | 1... | H2-1 |
| 8 | M8 | L3X3X6 | .173 | 5.509 | 11 | .005 | 10.37 | y | 9 | 10.39 | 68.364 | 2.307 | 4.373 | 1... | H2-1 |
| 9 | M17 | HSS2.375X0... | .279 | 10.901 | 9 | .017 | 10.901 | | 7 | 7.438 | 32.4 | 1.925 | 1.925 | 2... | H1-1b |
| 10 | M18 | HSS2.375X0... | .238 | 10.901 | 8 | .017 | 10.901 | | 11 | 7.438 | 32.4 | 1.925 | 1.925 | 2... | H1-1b |

Max member stresses do not exceed 32.8% of the 100% allowable capacity.
 Therefore, the proposed members are adequate to support the proposed installation.

Load Combinations

| | Description | Sol... | P... | B... | Fa... | BLCF... | B... | Fa... | B... | F... | B... | F... | BLCF... | BLCF... | BLCF... | F... | F... |
|----|-------------------------------------|--------|------|------|-------|---------|-------|-------|--------|------|-------|------|---------|---------|---------|------|------|
| 1 | *LRFD | | | | | | | | | | | | | | | | |
| 2 | 1.4D | | Y | 1 | 1.4 | | | | | | | | | | | | |
| 3 | 1.2D+(WLX+WLZ) - 0 Deg | | Y | 1 | 1.2 | 2 | 1 | 3 | | | | | | | | | |
| 4 | 1.2D+(WLX+WLZ) - 30 Deg | | Y | 1 | 1.2 | 2 | .8... | 3 | .5 | | | | | | | | |
| 5 | 1.2D+(WLX+WLZ) - 60 Deg | | Y | 1 | 1.2 | 2 | .5 | 3 | .866 | | | | | | | | |
| 6 | 1.2D+(WLX+WLZ) - 90 Deg | | Y | 1 | 1.2 | 2 | | 3 | 1 | | | | | | | | |
| 7 | 1.2D+(WLX+WLZ) - 120 Deg | | Y | 1 | 1.2 | 2 | -.5 | 3 | .866 | | | | | | | | |
| 8 | 1.2D+(WLX+WLZ) - 150 Deg | | Y | 1 | 1.2 | 2 | ---- | 3 | .5 | | | | | | | | |
| 9 | 1.2D+(WLX+WLZ) - 180 Deg | | Y | 1 | 1.2 | 2 | -1 | 3 | | | | | | | | | |
| 10 | 1.2D+(WLX+WLZ) - 210 Deg | | Y | 1 | 1.2 | 2 | ---- | 3 | -.5 | | | | | | | | |
| 11 | 1.2D+(WLX+WLZ) - 240 Deg | | Y | 1 | 1.2 | 2 | -.5 | 3 | -.8... | | | | | | | | |
| 12 | 1.2D+(WLX+WLZ) - 270 Deg | | Y | 1 | 1.2 | 2 | | 3 | -1 | | | | | | | | |
| 13 | 1.2D+(WLX+WLZ) - 300 Deg | | Y | 1 | 1.2 | 2 | .5 | 3 | -.8... | | | | | | | | |
| 14 | 1.2D+(WLX+WLZ) - 330 Deg | | Y | 1 | 1.2 | 2 | .8... | 3 | -.5 | | | | | | | | |
| 15 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 16 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 0 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | 1 | 6 | | | | | | | |
| 17 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 30 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | .5 | | | | | | |
| 18 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 60 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | .8... | | | | | | |
| 19 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 90 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | 1 | | | | | | |
| 20 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 120 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | .8... | | | | | | |
| 21 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 150 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | .5 | | | | | | |
| 22 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 180 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -1 | 6 | | | | | | | |
| 23 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 210 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | -.5 | | | | | | |
| 24 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 240 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | ---- | | | | | | |
| 25 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 270 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | -1 | | | | | | |
| 26 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 300 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | ---- | | | | | | |
| 27 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 330 Deg | | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | -.5 | | | | | | |
| 28 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 29 | 1.2D+ELv+ELh | | Y | 1 | 1.2 | 7 | 1 | 8 | 1 | | | | | | | | |
| 30 | *ASD | | | | | | | | | | | | | | | | |
| 31 | D | Yes | Y | 1 | 1 | | | | | | | | | | | | |
| 32 | D+(0.6WLX) - 0 Deg | Yes | Y | 1 | 1 | 2 | .6 | | | | | | | | | | |
| 33 | D+(0.6WLX+0.6WLZ) - 30 Deg | Yes | Y | 1 | 1 | 2 | .52 | 3 | .3 | | | | | | | | |
| 34 | D+(0.6WLX+0.6WLZ) - 60 Deg | Yes | Y | 1 | 1 | 2 | .3 | 3 | .52 | | | | | | | | |
| 35 | D+(0.6WLZ) - 90 Deg | Yes | Y | 1 | 1 | 2 | | 3 | .6 | | | | | | | | |
| 36 | D+(0.6WLX+0.6WLZ) - 120 Deg | Yes | Y | 1 | 1 | 2 | -.3 | 3 | .52 | | | | | | | | |
| 37 | D+(0.6WLX+0.6WLZ) - 150 Deg | Yes | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 38 | D+(0.6WLX+0.6WLZ) - 180 Deg | Yes | Y | 1 | 1 | 2 | -.6 | 3 | | | | | | | | | |
| 39 | D+(0.6WLX+0.6WLZ) - 210 Deg | Yes | Y | 1 | 1 | 2 | -.52 | 3 | -.3 | | | | | | | | |
| 40 | D+(0.6WLX+0.6WLZ) - 240 Deg | Yes | Y | 1 | 1 | 2 | -.3 | 3 | -.52 | | | | | | | | |
| 41 | D+(0.6WLX+0.6WLZ) - 270 Deg | Yes | Y | 1 | 1 | 2 | | 3 | -.6 | | | | | | | | |
| 42 | D+(0.6WLX+0.6WLZ) - 300 Deg | Yes | Y | 1 | 1 | 2 | .3 | 3 | -.52 | | | | | | | | |
| 43 | D+(0.6WLX+0.6WLZ) - 330 Deg | Yes | Y | 1 | 1 | 2 | .52 | 3 | -.3 | | | | | | | | |
| 44 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 45 | D+0.7Di+0.6(WLXi+WLZi) - 0 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .6 | 6 | | | | | | | |
| 46 | D+0.7Di+0.6(WLXi+WLZi) - 30 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | .3 | | | | | | |
| 47 | D+0.7Di+0.6(WLXi+WLZi) - 60 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | .52 | | | | | | |
| 48 | D+0.7Di+0.6(WLXi+WLZi) - 90 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | | 6 | .6 | | | | | | |
| 49 | D+0.7Di+0.6(WLXi+WLZi) - 120 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | .52 | | | | | | |
| 50 | D+0.7Di+0.6(WLXi+WLZi) - 150 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | .3 | | | | | | |
| 51 | D+0.7Di+0.6(WLXi+WLZi) - 180 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.6 | 6 | | | | | | | |
| 52 | D+0.7Di+0.6(WLXi+WLZi) - 210 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.52 | 6 | -.3 | | | | | | |
| 53 | D+0.7Di+0.6(WLXi+WLZi) - 240 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | -.3 | 6 | -.52 | | | | | | |
| 54 | D+0.7Di+0.6(WLXi+WLZi) - 270 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | | 6 | -.6 | | | | | | |
| 55 | D+0.7Di+0.6(WLXi+WLZi) - 300 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .3 | 6 | -.52 | | | | | | |
| 56 | D+0.7Di+0.6(WLXi+WLZi) - 330 Deg | Yes | Y | 1 | 1 | 4 | .7 | 5 | .52 | 6 | -.3 | | | | | | |

Load Combinations (Continued)

| | Description | Sol. | P | B | Fa | BLCF | B | Fa | B | F | B | F | BLCF | BLCF | BLCF | F | F |
|----|------------------|------|---|---|----|------|---|----|---|----|---|---|------|------|------|---|---|
| 57 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 58 | D+0.7ELv+0.7ELh | Yes | Y | | 1 | 1 | 7 | .7 | 8 | .7 | | | | | | | |

Envelope Joint Reactions

| | Joint | | X [k] | LC | Y [k] | LC | Z [k] | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|----|---------|-----|--------|----|-------|----|--------|----|-----------|----|-----------|----|-----------|----|
| 1 | B/CONN1 | max | .778 | 33 | .008 | 56 | .069 | 35 | 0 | 58 | 0 | 58 | 0 | 58 |
| 2 | | min | -.738 | 37 | .005 | 31 | -.107 | 41 | 0 | 31 | 0 | 31 | 0 | 31 |
| 3 | T/CONN1 | max | 1.316 | 39 | 1.051 | 34 | .254 | 41 | 0 | 58 | 0 | 58 | 0 | 58 |
| 4 | | min | -1.46 | 33 | -.246 | 40 | -.197 | 35 | 0 | 31 | 0 | 31 | 0 | 31 |
| 5 | B/CONN2 | max | .747 | 43 | .008 | 56 | .09 | 35 | 0 | 58 | 0 | 58 | 0 | 58 |
| 6 | | min | -.706 | 38 | .005 | 31 | -.129 | 41 | 0 | 31 | 0 | 31 | 0 | 31 |
| 7 | T/CONN2 | max | 1.347 | 36 | 1.071 | 36 | .302 | 41 | 0 | 58 | 0 | 58 | 0 | 58 |
| 8 | | min | -1.325 | 43 | -.231 | 42 | -.246 | 35 | 0 | 31 | 0 | 31 | 0 | 31 |
| 9 | K/CONN2 | max | .059 | 38 | .602 | 41 | .604 | 41 | 0 | 58 | 0 | 58 | 0 | 58 |
| 10 | | min | -.059 | 32 | -.54 | 35 | -.621 | 35 | 0 | 31 | 0 | 31 | 0 | 31 |
| 11 | K/CONN1 | max | .059 | 38 | .598 | 41 | .601 | 41 | 0 | 58 | 0 | 58 | 0 | 58 |
| 12 | | min | -.059 | 32 | -.538 | 35 | -.619 | 35 | 0 | 31 | 0 | 31 | 0 | 31 |
| 13 | Totals: | max | .974 | 38 | 1.497 | 47 | 1.524 | 41 | | | | | | |
| 14 | | min | -.974 | 32 | .894 | 40 | -1.524 | 35 | | | | | | |

Reactions used to check connections

Envelope Joint Displacements

| | Joint | | X [in] | LC | Y [in] | LC | Z [in] | LC | X Rotation ... | LC | Y Rotation ... | LC | Z Rotation ... | LC |
|----|---------|-----|--------|----|--------|----|--------|----|----------------|----|----------------|----|----------------|----|
| 1 | B/CONN2 | max | 0 | 58 | 0 | 58 | 0 | 58 | 8.577e-05 | 41 | 5.221e-03 | 41 | 4.874e-04 | 43 |
| 2 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -6.033e-05 | 35 | -5.529e-03 | 35 | -4.612e-04 | 38 |
| 3 | B/CONN1 | max | 0 | 58 | 0 | 58 | 0 | 58 | 7.139e-05 | 41 | 5.282e-03 | 35 | 5.073e-04 | 33 |
| 4 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -4.647e-05 | 35 | -4.981e-03 | 41 | -4.816e-04 | 37 |
| 5 | T/CONN2 | max | 0 | 58 | 0 | 58 | 0 | 58 | 1.459e-04 | 35 | 5.221e-03 | 41 | 1.097e-03 | 38 |
| 6 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -2.063e-04 | 41 | -5.529e-03 | 35 | -1.159e-03 | 43 |
| 7 | T/CONN1 | max | 0 | 58 | 0 | 58 | 0 | 58 | 1.13e-04 | 35 | 5.282e-03 | 35 | 1.145e-03 | 39 |
| 8 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -1.721e-04 | 41 | -4.981e-03 | 41 | -1.206e-03 | 33 |
| 9 | N5 | max | .447 | 32 | 0 | 42 | .135 | 35 | 3.254e-03 | 35 | 6.683e-03 | 41 | 1.856e-03 | 38 |
| 10 | | min | -.435 | 38 | -.002 | 36 | -.108 | 41 | -2.634e-03 | 41 | -7.042e-03 | 35 | -2.391e-03 | 32 |
| 11 | N6 | max | .439 | 32 | 0 | 40 | .137 | 35 | 3.305e-03 | 35 | 6.981e-03 | 35 | 2.374e-03 | 38 |
| 12 | | min | -.442 | 38 | -.002 | 34 | -.111 | 41 | -2.693e-03 | 41 | -6.621e-03 | 41 | -1.873e-03 | 32 |
| 13 | N7 | max | .418 | 32 | 0 | 42 | .095 | 35 | 3.251e-03 | 35 | 6.683e-03 | 41 | 1.853e-03 | 38 |
| 14 | | min | -.412 | 38 | -.002 | 36 | -.077 | 41 | -2.631e-03 | 41 | -7.042e-03 | 35 | -2.388e-03 | 32 |
| 15 | N8 | max | .417 | 32 | 0 | 40 | .097 | 35 | 3.302e-03 | 35 | 6.981e-03 | 35 | 2.371e-03 | 38 |
| 16 | | min | -.414 | 38 | -.002 | 34 | -.079 | 41 | -2.69e-03 | 41 | -6.621e-03 | 41 | -1.87e-03 | 32 |
| 17 | N9 | max | .235 | 32 | 0 | 42 | .001 | 34 | 5.051e-04 | 40 | 6.157e-03 | 41 | 3.37e-03 | 39 |
| 18 | | min | -.232 | 38 | -.001 | 36 | -.007 | 40 | -2.861e-04 | 34 | -6.381e-03 | 35 | -3.624e-03 | 32 |
| 19 | N10 | max | .235 | 32 | 0 | 40 | 0 | 36 | 4.601e-04 | 42 | 6.277e-03 | 35 | 3.592e-03 | 38 |
| 20 | | min | -.232 | 38 | -.001 | 34 | -.006 | 56 | -2.466e-04 | 36 | -6.055e-03 | 41 | -3.402e-03 | 43 |
| 21 | N11 | max | .418 | 32 | .008 | 41 | .095 | 35 | 3.251e-03 | 35 | 6.683e-03 | 41 | 1.853e-03 | 38 |
| 22 | | min | -.413 | 38 | -.011 | 35 | -.077 | 41 | -2.631e-03 | 41 | -7.042e-03 | 35 | -2.388e-03 | 32 |
| 23 | N12 | max | .418 | 32 | .009 | 41 | .097 | 35 | 3.302e-03 | 35 | 6.981e-03 | 35 | 2.371e-03 | 38 |
| 24 | | min | -.413 | 38 | -.012 | 35 | -.079 | 41 | -2.69e-03 | 41 | -6.621e-03 | 41 | -1.87e-03 | 32 |
| 25 | N13 | max | .235 | 32 | 0 | 33 | .001 | 34 | 5.051e-04 | 40 | 6.157e-03 | 41 | 3.37e-03 | 39 |
| 26 | | min | -.232 | 38 | -.002 | 37 | -.007 | 40 | -2.861e-04 | 34 | -6.381e-03 | 35 | -3.624e-03 | 32 |
| 27 | N14 | max | .235 | 32 | 0 | 38 | 0 | 36 | 4.601e-04 | 42 | 6.277e-03 | 35 | 3.592e-03 | 38 |
| 28 | | min | -.232 | 38 | -.002 | 56 | -.006 | 56 | -2.466e-04 | 36 | -6.055e-03 | 41 | -3.402e-03 | 43 |
| 29 | N15 | max | .418 | 32 | .017 | 43 | .053 | 35 | 3.251e-03 | 35 | 6.683e-03 | 41 | 1.853e-03 | 38 |
| 30 | | min | -.413 | 38 | -.016 | 36 | -.036 | 41 | -2.631e-03 | 41 | -7.041e-03 | 35 | -2.387e-03 | 32 |
| 31 | N16 | max | .235 | 32 | .022 | 32 | .031 | 41 | 5.051e-04 | 40 | 6.156e-03 | 41 | 3.371e-03 | 39 |
| 32 | | min | -.232 | 38 | -.022 | 37 | -.038 | 35 | -2.861e-04 | 34 | -6.381e-03 | 35 | -3.623e-03 | 32 |

Envelope Joint Displacements (Continued)

| | Joint | | X [in] | LC | Y [in] | LC | Z [in] | LC | X Rotation ... | LC | Y Rotation ... | LC | Z Rotation [...] | LC |
|----|----------|-----|--------|----|--------|----|--------|----|----------------|----|----------------|----|------------------|----|
| 33 | N17 | max | .418 | 32 | .017 | 39 | .056 | 35 | 3.302e-03 | 35 | 6.98e-03 | 35 | 2.37e-03 | 38 |
| 34 | | min | -.413 | 38 | -.017 | 33 | -.039 | 41 | -2.69e-03 | 41 | -6.62e-03 | 41 | -1.87e-03 | 32 |
| 35 | N18 | max | .235 | 32 | .022 | 38 | .032 | 41 | 4.601e-04 | 42 | 6.277e-03 | 35 | 3.592e-03 | 38 |
| 36 | | min | -.232 | 38 | -.022 | 43 | -.038 | 35 | -2.466e-04 | 36 | -6.054e-03 | 41 | -3.402e-03 | 43 |
| 37 | N19 | max | .318 | 32 | 0 | 42 | .005 | 35 | 1.109e-03 | 35 | 6.367e-03 | 41 | 3.363e-03 | 38 |
| 38 | | min | -.315 | 38 | -.002 | 36 | -.003 | 41 | -7.487e-04 | 41 | -6.646e-03 | 35 | -3.217e-03 | 32 |
| 39 | N20 | max | .319 | 32 | 0 | 40 | .004 | 35 | 1.168e-03 | 35 | 6.559e-03 | 35 | 3.191e-03 | 38 |
| 40 | | min | -.315 | 38 | -.002 | 34 | -.003 | 41 | -8.177e-04 | 41 | -6.281e-03 | 41 | -3.389e-03 | 32 |
| 41 | N22 | max | .418 | 32 | .015 | 39 | .296 | 35 | 3.264e-03 | 35 | 4.636e-03 | 41 | -3.917e-04 | 39 |
| 42 | | min | -.413 | 38 | -.055 | 33 | -.268 | 41 | -2.646e-03 | 41 | -4.845e-03 | 35 | -1.286e-03 | 46 |
| 43 | N23 | max | .236 | 32 | .018 | 39 | .197 | 35 | 7.919e-04 | 40 | 4.867e-03 | 41 | -4.955e-04 | 42 |
| 44 | | min | -.233 | 38 | -.059 | 33 | -.199 | 41 | -2.205e-04 | 34 | -4.911e-03 | 35 | -1.463e-03 | 49 |
| 45 | N24 | max | .418 | 32 | .015 | 43 | .297 | 35 | 3.289e-03 | 35 | 4.817e-03 | 35 | 1.288e-03 | 50 |
| 46 | | min | -.413 | 38 | -.054 | 38 | -.269 | 41 | -2.675e-03 | 41 | -4.602e-03 | 41 | 3.951e-04 | 43 |
| 47 | N25 | max | .236 | 32 | .019 | 43 | .195 | 35 | 7.704e-04 | 42 | 4.948e-03 | 35 | 1.471e-03 | 47 |
| 48 | | min | -.233 | 38 | -.056 | 38 | -.197 | 41 | -1.988e-04 | 36 | -4.907e-03 | 41 | 5.027e-04 | 40 |
| 49 | N26 | max | .41 | 32 | .016 | 39 | .296 | 35 | 1.227e-03 | 34 | 3.067e-02 | 51 | -3.917e-04 | 39 |
| 50 | | min | -.327 | 38 | -.058 | 33 | -.268 | 41 | -4.226e-04 | 40 | -2.7e-03 | 32 | -1.286e-03 | 46 |
| 51 | N27 | max | .236 | 32 | .016 | 39 | .197 | 35 | 1.247e-03 | 35 | 3.067e-02 | 51 | -4.955e-04 | 42 |
| 52 | | min | -.233 | 38 | -.059 | 33 | -.199 | 41 | -8.914e-04 | 41 | -2.7e-03 | 32 | -1.463e-03 | 49 |
| 53 | N28 | max | .33 | 32 | .016 | 43 | .297 | 35 | 1.261e-03 | 36 | 2.145e-03 | 38 | 1.288e-03 | 50 |
| 54 | | min | -.407 | 38 | -.056 | 38 | -.269 | 41 | -4.713e-04 | 42 | -3.158e-02 | 45 | 3.951e-04 | 43 |
| 55 | N29 | max | .236 | 32 | .016 | 43 | .195 | 35 | 1.296e-03 | 35 | 2.145e-03 | 38 | 1.471e-03 | 47 |
| 56 | | min | -.233 | 38 | -.057 | 38 | -.197 | 41 | -9.422e-04 | 41 | -3.158e-02 | 45 | 5.027e-04 | 40 |
| 57 | N30 | max | .42 | 32 | .016 | 39 | .31 | 35 | 1.235e-03 | 34 | 3.067e-02 | 51 | -3.84e-04 | 39 |
| 58 | | min | -.323 | 38 | -.058 | 33 | -.272 | 41 | -4.304e-04 | 40 | -2.7e-03 | 32 | -1.287e-03 | 46 |
| 59 | N31 | max | .325 | 32 | .016 | 43 | .311 | 35 | 1.269e-03 | 36 | 2.145e-03 | 38 | 1.29e-03 | 50 |
| 60 | | min | -.417 | 38 | -.056 | 38 | -.273 | 41 | -4.791e-04 | 42 | -3.158e-02 | 45 | 3.873e-04 | 43 |
| 61 | N32 | max | .224 | 32 | .016 | 39 | .171 | 35 | 1.043e-03 | 35 | 3.067e-02 | 51 | -4.034e-04 | 43 |
| 62 | | min | -.255 | 38 | -.059 | 33 | -.182 | 41 | -6.873e-04 | 41 | -2.7e-03 | 32 | -1.485e-03 | 50 |
| 63 | N33 | max | .258 | 32 | .016 | 43 | .168 | 35 | 1.092e-03 | 35 | 2.145e-03 | 38 | 1.493e-03 | 46 |
| 64 | | min | -.221 | 38 | -.057 | 38 | -.179 | 41 | -7.382e-04 | 41 | -3.158e-02 | 45 | 4.096e-04 | 37 |
| 65 | N34 | max | .043 | 32 | .02 | 32 | .024 | 41 | 2.449e-04 | 35 | 5.22e-03 | 41 | 3.259e-03 | 38 |
| 66 | | min | -.043 | 38 | -.02 | 38 | -.028 | 35 | -4.463e-04 | 41 | -5.527e-03 | 35 | -3.388e-03 | 32 |
| 67 | N35 | max | .043 | 32 | .02 | 38 | .024 | 41 | 1.89e-04 | 36 | 5.281e-03 | 35 | 3.332e-03 | 38 |
| 68 | | min | -.043 | 38 | -.021 | 32 | -.028 | 35 | -3.8e-04 | 42 | -4.98e-03 | 41 | -3.314e-03 | 32 |
| 69 | N36 | max | .115 | 32 | .026 | 32 | .02 | 41 | -6.08e-06 | 33 | 5.441e-03 | 41 | 4.177e-03 | 38 |
| 70 | | min | -.114 | 38 | -.026 | 38 | -.027 | 35 | -1.701e-04 | 51 | -5.714e-03 | 35 | -4.33e-03 | 32 |
| 71 | N37 | max | .115 | 32 | .026 | 38 | .021 | 41 | -8.823e-06 | 38 | 5.5e-03 | 35 | 4.266e-03 | 38 |
| 72 | | min | -.114 | 38 | -.026 | 32 | -.028 | 35 | -1.64e-04 | 45 | -5.233e-03 | 41 | -4.242e-03 | 32 |
| 73 | CBRS-2 | max | .043 | 32 | .022 | 33 | .136 | 35 | 1.927e-04 | 35 | 4.734e-03 | 35 | 1.839e-03 | 53 |
| 74 | | min | -.043 | 38 | -.06 | 37 | -.13 | 41 | -3.874e-04 | 41 | -4.445e-03 | 41 | 7.361e-04 | 34 |
| 75 | B2/66A-2 | max | .043 | 32 | -.017 | 34 | .224 | 35 | 2.057e-04 | 35 | 1.985e-03 | 35 | 2.08e-03 | 32 |
| 76 | | min | -.043 | 38 | -.074 | 52 | -.213 | 41 | -4.021e-04 | 41 | -1.866e-03 | 41 | -8.084e-04 | 38 |
| 77 | B5/13-2 | max | .043 | 32 | -.019 | 36 | .228 | 35 | 2.188e-04 | 35 | 1.6e-03 | 41 | 9.04e-04 | 32 |
| 78 | | min | -.043 | 38 | -.076 | 56 | -.217 | 41 | -4.169e-04 | 41 | -1.716e-03 | 35 | -1.984e-03 | 38 |
| 79 | OVP-2 | max | .043 | 32 | .018 | 38 | .143 | 35 | 2.318e-04 | 35 | 4.526e-03 | 41 | -7.883e-04 | 36 |
| 80 | | min | -.043 | 38 | -.063 | 43 | -.137 | 41 | -4.316e-04 | 41 | -4.818e-03 | 35 | -1.917e-03 | 55 |
| 81 | CBRS-1 | max | .115 | 32 | .032 | 43 | .142 | 35 | -3.697e-05 | 38 | 4.872e-03 | 35 | 1.858e-03 | 49 |
| 82 | | min | -.114 | 38 | -.07 | 38 | -.14 | 41 | -1.6e-04 | 45 | -4.593e-03 | 41 | 7.065e-04 | 42 |
| 83 | B2/66A-1 | max | .115 | 32 | -.012 | 43 | .232 | 35 | -5.688e-05 | 36 | 2.033e-03 | 35 | 2.491e-03 | 32 |
| 84 | | min | -.114 | 38 | -.076 | 36 | -.225 | 41 | -1.561e-04 | 56 | -1.916e-03 | 41 | -1.211e-03 | 38 |
| 85 | B5/13-1 | max | .115 | 32 | -.014 | 39 | .236 | 35 | -5.406e-05 | 34 | 1.643e-03 | 41 | 1.311e-03 | 32 |
| 86 | | min | -.114 | 38 | -.079 | 33 | -.229 | 41 | -1.577e-04 | 52 | -1.759e-03 | 35 | -2.391e-03 | 38 |
| 87 | OVP-1 | max | .115 | 32 | .029 | 39 | .149 | 35 | -3.149e-05 | 33 | 4.657e-03 | 41 | -7.551e-04 | 40 |
| 88 | | min | -.114 | 38 | -.073 | 33 | -.147 | 41 | -1.637e-04 | 51 | -4.941e-03 | 35 | -1.937e-03 | 47 |
| 89 | MX10-2A | max | .233 | 32 | .016 | 39 | .191 | 35 | 1.078e-03 | 35 | 3.067e-02 | 51 | -4.34e-04 | 43 |

Envelope Joint Displacements (Continued)

| | Joint | | X [in] | LC | Y [in] | LC | Z [in] | LC | X Rotation ... | LC | Y Rotation ... | LC | Z Rotation [... | LC |
|-----|---------|-----|--------|----|--------|----|--------|----|----------------|----|----------------|----|------------------|----|
| 90 | | min | -.237 | 38 | -.059 | 33 | -.195 | 41 | -7.227e-04 | 41 | -2.7e-03 | 32 | -1.478e-03 | 50 |
| 91 | MX10-2 | max | .241 | 32 | .016 | 43 | .189 | 35 | 1.128e-03 | 35 | 2.145e-03 | 38 | 1.486e-03 | 46 |
| 92 | | min | -.23 | 38 | -.057 | 38 | -.193 | 41 | -7.735e-04 | 41 | -3.158e-02 | 45 | 4.402e-04 | 37 |
| 93 | MX10-1A | max | .4 | 32 | .016 | 39 | .289 | 35 | 1.248e-03 | 34 | 3.067e-02 | 51 | 7.191e-04 | 38 |
| 94 | | min | -.326 | 38 | -.058 | 33 | -.266 | 41 | -5.411e-04 | 40 | -2.7e-03 | 32 | -1.978e-03 | 32 |
| 95 | MX10-1 | max | .329 | 32 | .016 | 43 | .289 | 35 | 1.285e-03 | 36 | 2.145e-03 | 38 | 1.98e-03 | 38 |
| 96 | | min | -.397 | 38 | -.056 | 38 | -.266 | 41 | -5.889e-04 | 42 | -3.158e-02 | 45 | -7.17e-04 | 32 |
| 97 | K/CONN2 | max | 0 | 58 | 0 | 58 | 0 | 58 | 3.504e-03 | 36 | 3.758e-03 | 42 | 6.663e-03 | 39 |
| 98 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -8.701e-04 | 43 | -4.949e-03 | 36 | -5.57e-03 | 33 |
| 99 | K/CONN1 | max | 0 | 58 | 0 | 58 | 0 | 58 | 3.594e-03 | 33 | 4.92e-03 | 34 | 4.863e-03 | 38 |
| 100 | | min | 0 | 31 | 0 | 31 | 0 | 31 | -8.701e-04 | 37 | -3.712e-03 | 40 | -6.675e-03 | 43 |
| 101 | N51 | max | .043 | 32 | 0 | 36 | .004 | 35 | 1.89e-04 | 36 | 5.282e-03 | 35 | 3.332e-03 | 38 |
| 102 | | min | -.043 | 38 | -.001 | 42 | -.006 | 41 | -3.8e-04 | 42 | -4.981e-03 | 41 | -3.313e-03 | 32 |
| 103 | N52 | max | .115 | 32 | 0 | 39 | .005 | 36 | -8.823e-06 | 38 | 5.501e-03 | 35 | 4.266e-03 | 38 |
| 104 | | min | -.114 | 38 | -.001 | 33 | -.011 | 42 | -1.64e-04 | 45 | -5.234e-03 | 41 | -4.241e-03 | 32 |
| 105 | N53 | max | .043 | 32 | 0 | 34 | .005 | 35 | 2.449e-04 | 35 | 5.221e-03 | 41 | 3.258e-03 | 38 |
| 106 | | min | -.043 | 38 | -.001 | 40 | -.007 | 41 | -4.463e-04 | 41 | -5.529e-03 | 35 | -3.388e-03 | 32 |
| 107 | N54 | max | .115 | 32 | 0 | 43 | .007 | 34 | -6.08e-06 | 33 | 5.442e-03 | 41 | 4.176e-03 | 38 |
| 108 | | min | -.114 | 38 | -.001 | 50 | -.013 | 40 | -1.701e-04 | 51 | -5.715e-03 | 35 | -4.331e-03 | 32 |
| 109 | N55 | max | .045 | 33 | 0 | 40 | .004 | 35 | 1.89e-04 | 36 | 5.282e-03 | 35 | 3.332e-03 | 38 |
| 110 | | min | -.044 | 37 | 0 | 34 | -.006 | 41 | -3.8e-04 | 42 | -4.981e-03 | 41 | -3.313e-03 | 32 |
| 111 | N56 | max | .116 | 32 | 0 | 40 | .005 | 36 | -8.823e-06 | 38 | 5.501e-03 | 35 | 4.266e-03 | 38 |
| 112 | | min | -.114 | 38 | 0 | 34 | -.011 | 42 | -1.64e-04 | 45 | -5.234e-03 | 41 | -4.241e-03 | 32 |
| 113 | N57 | max | .045 | 43 | 0 | 42 | .005 | 35 | 2.449e-04 | 35 | 5.221e-03 | 41 | 3.258e-03 | 38 |
| 114 | | min | -.043 | 38 | 0 | 36 | -.007 | 41 | -4.463e-04 | 41 | -5.529e-03 | 35 | -3.388e-03 | 32 |
| 115 | N58 | max | .115 | 32 | 0 | 42 | .007 | 34 | -6.08e-06 | 33 | 5.442e-03 | 41 | 4.176e-03 | 38 |
| 116 | | min | -.114 | 38 | 0 | 36 | -.013 | 40 | -1.701e-04 | 51 | -5.715e-03 | 35 | -4.331e-03 | 32 |

Max Deflection = 0.447" < 1.0" OK

APPENDIX G – Sector B
ADDITIONAL CALCULATIONS

Design connection per AISC Steel Manual, 14th edition [ASD].

Connection Details

Loading Details

T/CONN1 Env.

Bolts

| | | |
|----------------------|-------|----------------|
| Quantity = | 2 | |
| Diameter = | 0.625 | in |
| Vertical Spacing = | - | in (estimated) |
| Horizontal Spacing = | 6 | in (estimated) |
| Grade = | A325 | (assumed) |

| | | |
|------------|----|-----|
| F_{nt} = | 90 | ksi |
| F_{nv} = | 54 | ksi |

| | | |
|--------------|-------|--------------|
| Shear, X = | 1.46 | k |
| Shear, Z = | 0.254 | k |
| Tension, Y = | 0.246 | k |
| M_x = | 0 | k-ft |
| M_y = | 0 | k-ft |
| M_z = | 0 | k-ft |
| | | [Table J3.2] |
| | | [Table J3.2] |

1 - Tensile Capacity

$$R_{nt}/\Omega = F_{nt}A_b$$

[Eqn. J3-1]

| | | |
|-------------------|-------|-----------------|
| Ω = | 2.0 | |
| F_{nt} = | 90 | ksi |
| A_b = | 0.307 | in ² |
| R_{nt}/Ω = | 13.82 | k |
| T_{max} = | 0.12 | k |

R_{nt} > T_{max}

1%

OK

2 - Shear Capacity

$$R_{nv}/\Omega = F_{nv}A_b$$

[Eqn. J3-1]

| | | |
|-------------------|-------|-----------------|
| Ω = | 2.0 | |
| F_{nv} = | 54 | ksi |
| A_b = | 0.307 | in ² |
| R_{nv}/Ω = | 8.29 | k |
| V_{max} = | 0.74 | k |

R_{nv} > V_{max}

9%

OK

3 - Combined Tension and Shear Capacity

$$R'_{nt}/\Omega = F'_{nt}A_b$$

[Eqn. J3-2]

$$F'_{nt} = 1.3F_{nt} - \frac{\Omega F_{nt}}{F_{nv}} f_{rv} \leq F_{nt}$$

[Eqn. J3-3b]

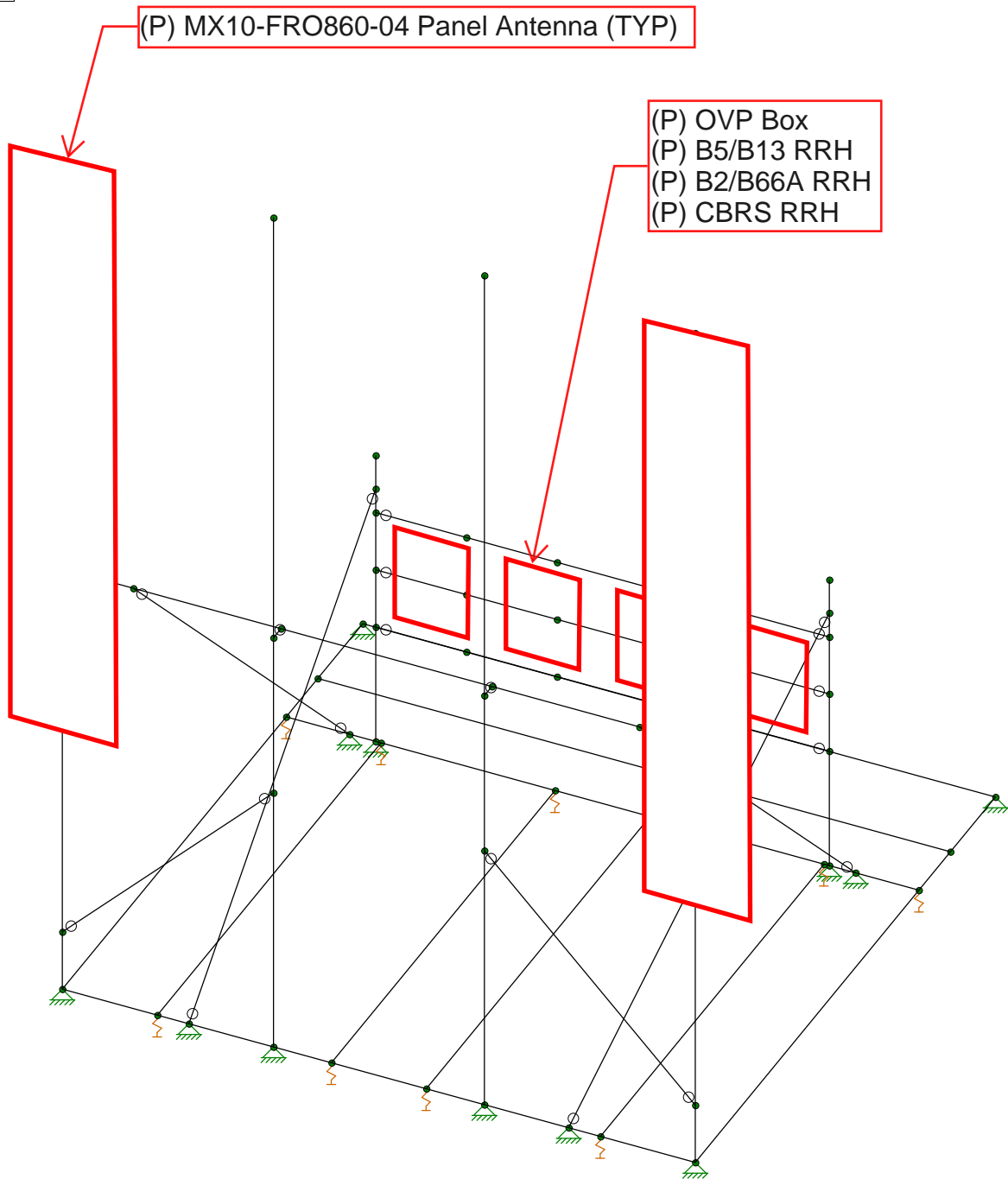
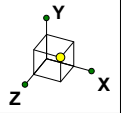
| | | |
|--------------------|-------|-----------------|
| Ω = | 2.0 | |
| F'_{nt} = | 90 | ksi |
| A_b = | 0.307 | in ² |
| R'_{nt}/Ω = | 13.82 | k |
| T_{max} = | 0.12 | k |

R'_{nt} > T_{max}

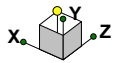
1%

OK

APPENDIX H – Sector C
WIRE FRAME AND RENDERED MODELS



| | | |
|----------------------|--|-----------------------------------|
| Tectonic Engineering | Gamma Sector Antenna & Equipment Layout | Sept 8, 2020 at 8:21 AM |
| JL | | 10272.13 - Gamma Sector - RTP1... |
| 10272.13 | | |



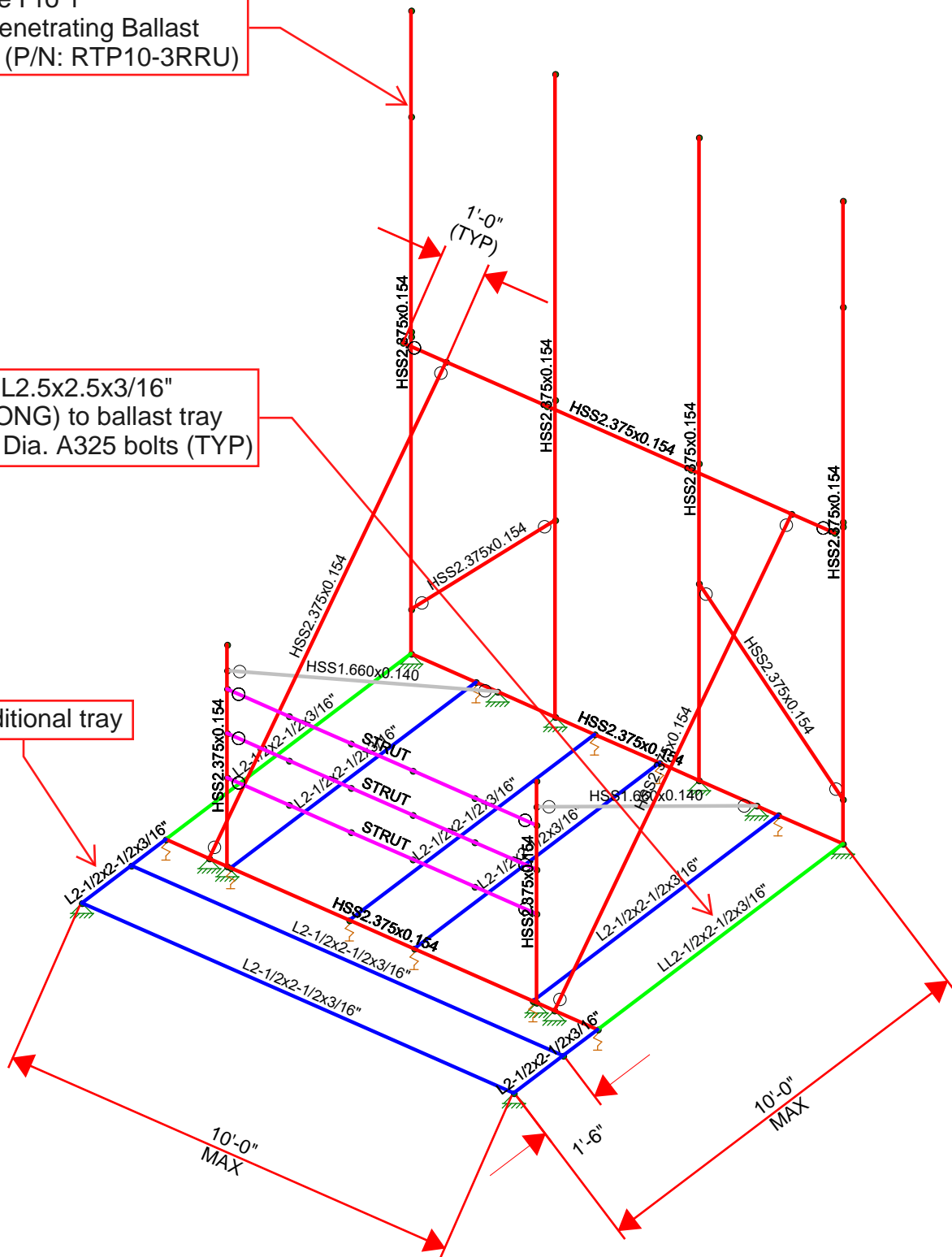
Section Sets

- L2-1/2x2-1/2x3/16"
- LL2-1/2x2-1/2x3/16"
- HSS2.375x0.154
- HSS1.660x0.140
- STRUT
- RIGID

(P) Site Pro 1
Non-Penetrating Ballast
Mount (P/N: RTP10-3RRU)

Connect L2.5x2.5x3/16"
(10'-0" LONG) to ballast tray
with 1/2" Dia. A325 bolts (TYP)

(P) Additional tray



Tectonic Engineering

JL

10272.13

Gamma Sector

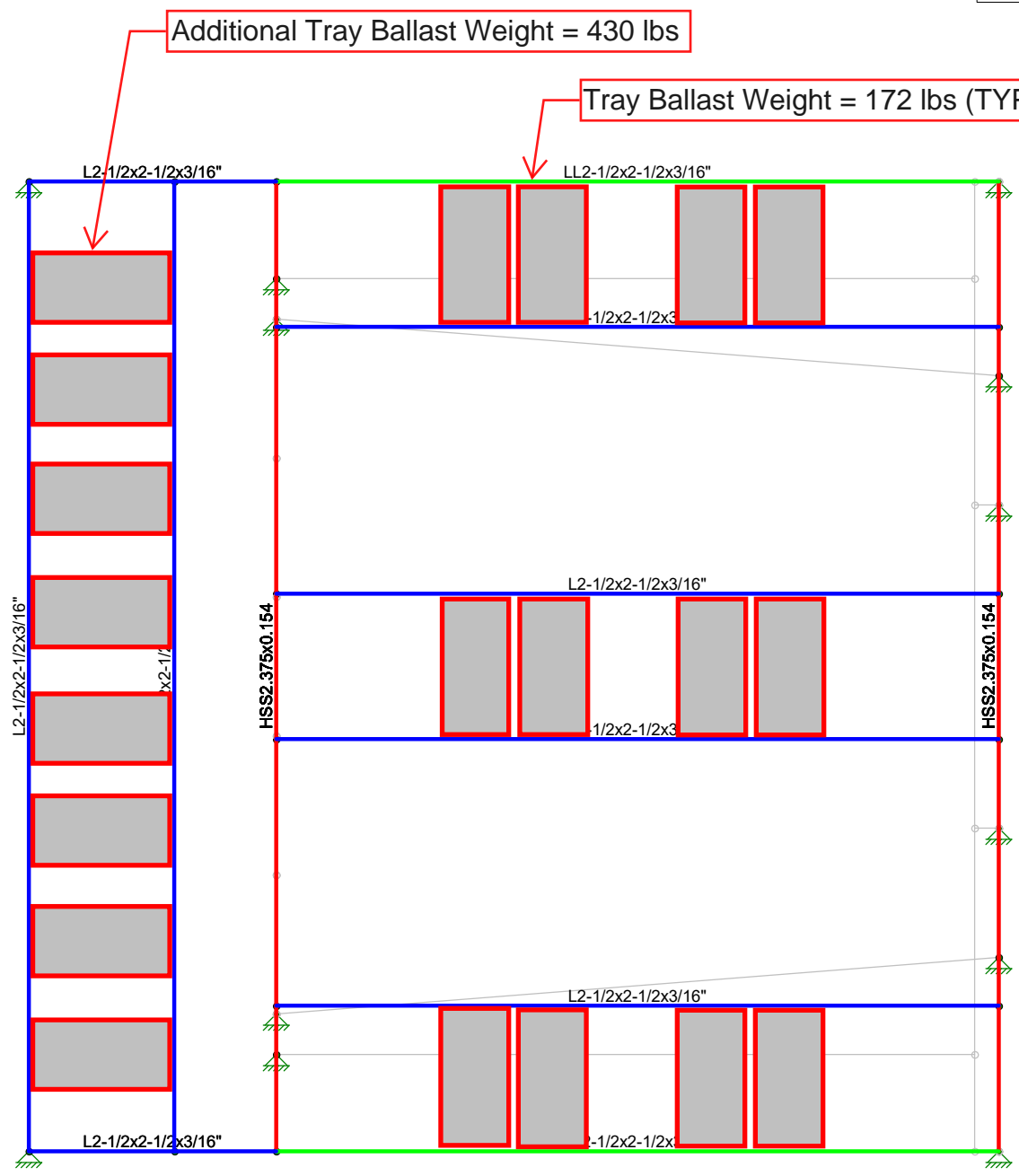
Proposed Member Layout

Sept 8, 2020 at 8:35 AM

10272.13 - Gamma Sector - RTP1...

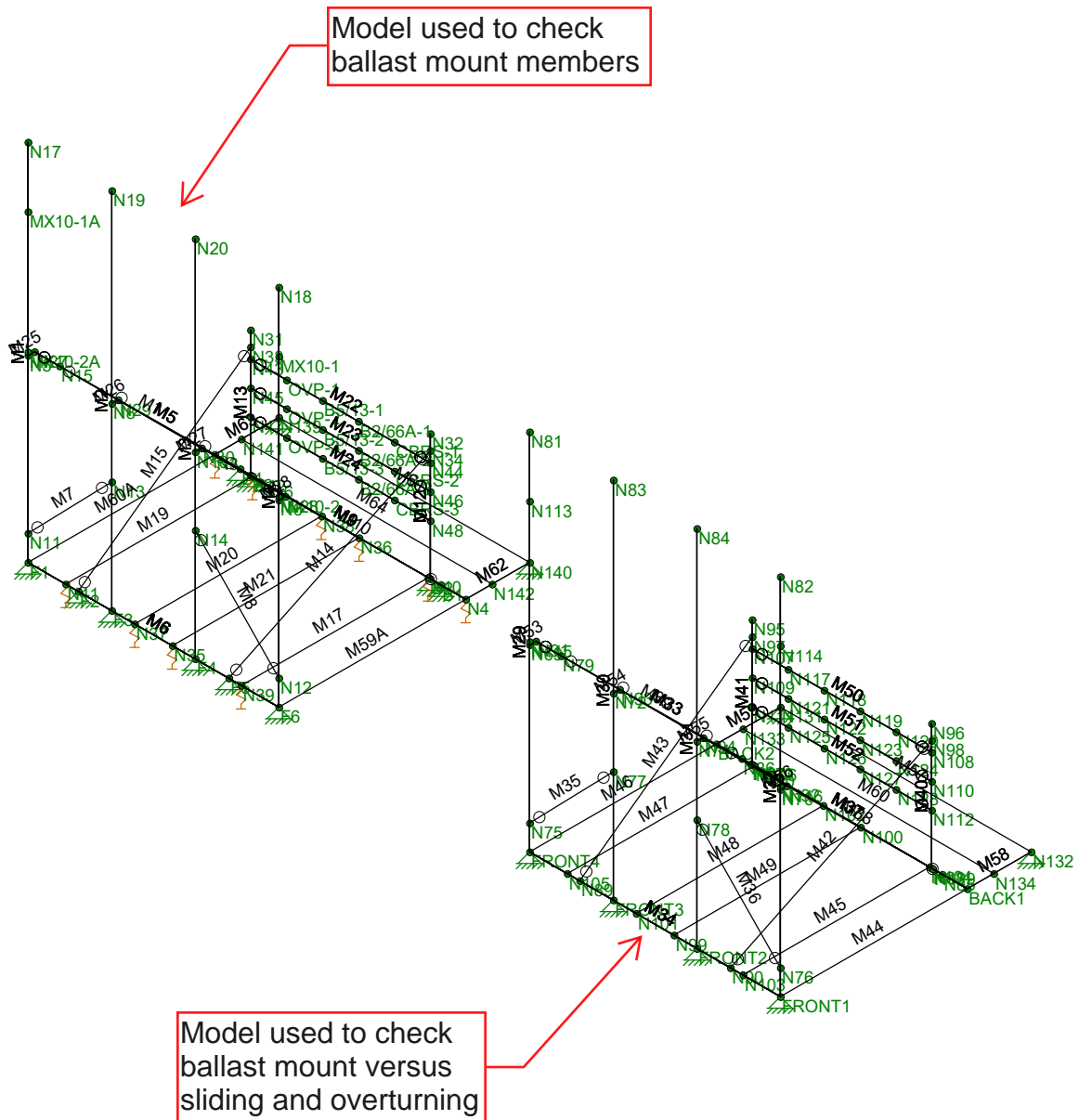
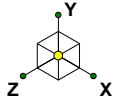


| Section Sets | |
|--|---------------------|
| ■ | L2-1/2x2-1/2x3/16" |
| ■ | LL2-1/2x2-1/2x3/16" |
| ■ | HSS2.375x0.154 |
| ■ | HSS1.660x0.140 |
| ■ | STRUT |
| ■ | RIGID |

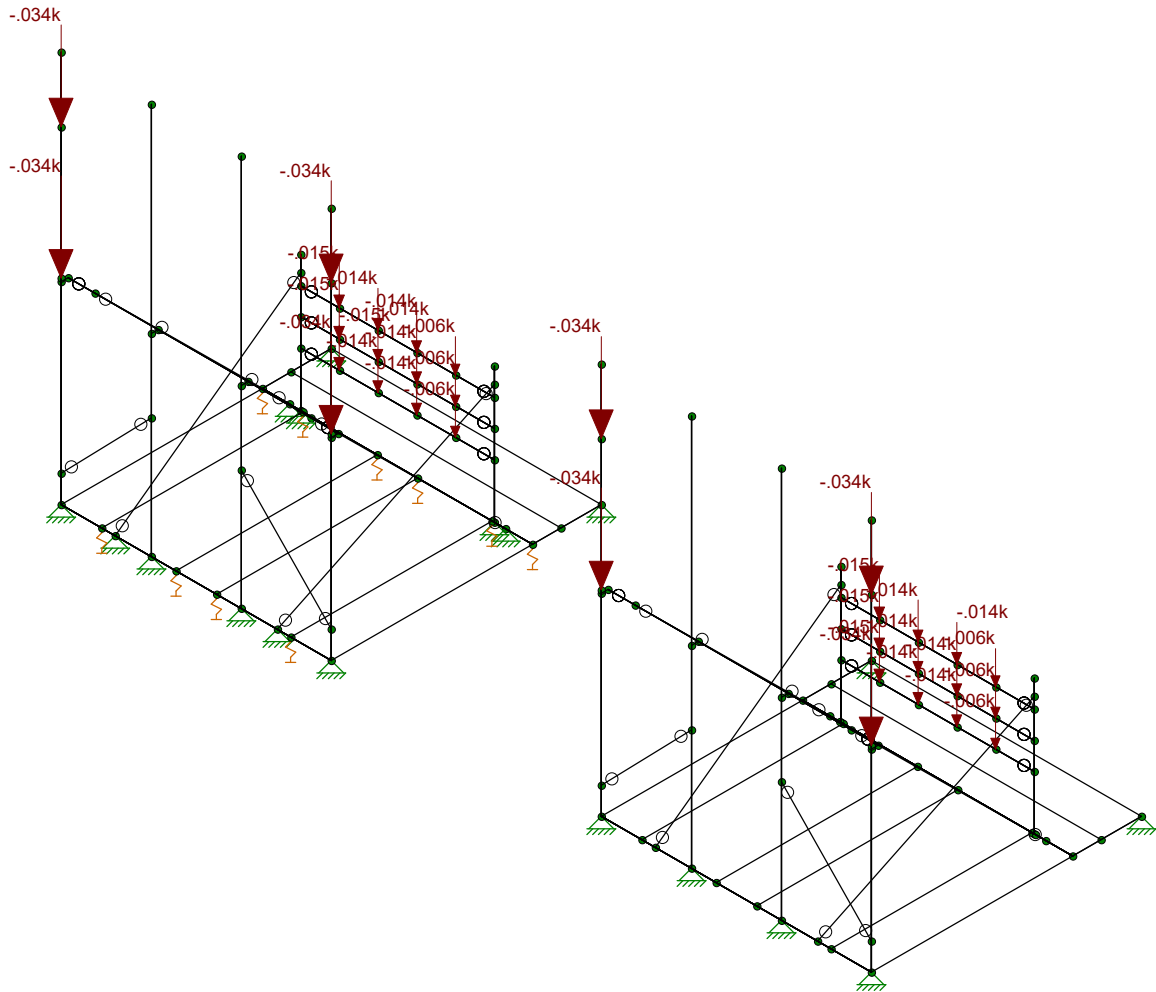
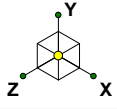


| Ballast Weight Summary: | |
|--|--|
| Tray Weight = 3 x 172 lbs = 516 lbs | |
| Additional Tray Weight = 430 lbs | |
| Total Ballast Weight Required = 516 lbs + 430 lbs = 946 lbs | |

| | | |
|----------------------|---------------------------------------|-----------------------------------|
| Tectonic Engineering | Gamma Sector Ballast Weight Layout | Sept 8, 2020 at 12:02 PM |
| JL | | 10272.13 - Gamma Sector - RTP1... |
| 10272.13 | | |



| | | |
|----------------------|--------------------------------------|-----------------------------------|
| Tectonic Engineering | Gamma Sector Member & Node Labels | |
| JL | | Sept 8, 2020 at 8:37 AM |
| 10272.13 | | 10272.13 - Gamma Sector - RTP1... |



Loads: BLC 1, DL

Tectonic Engineering

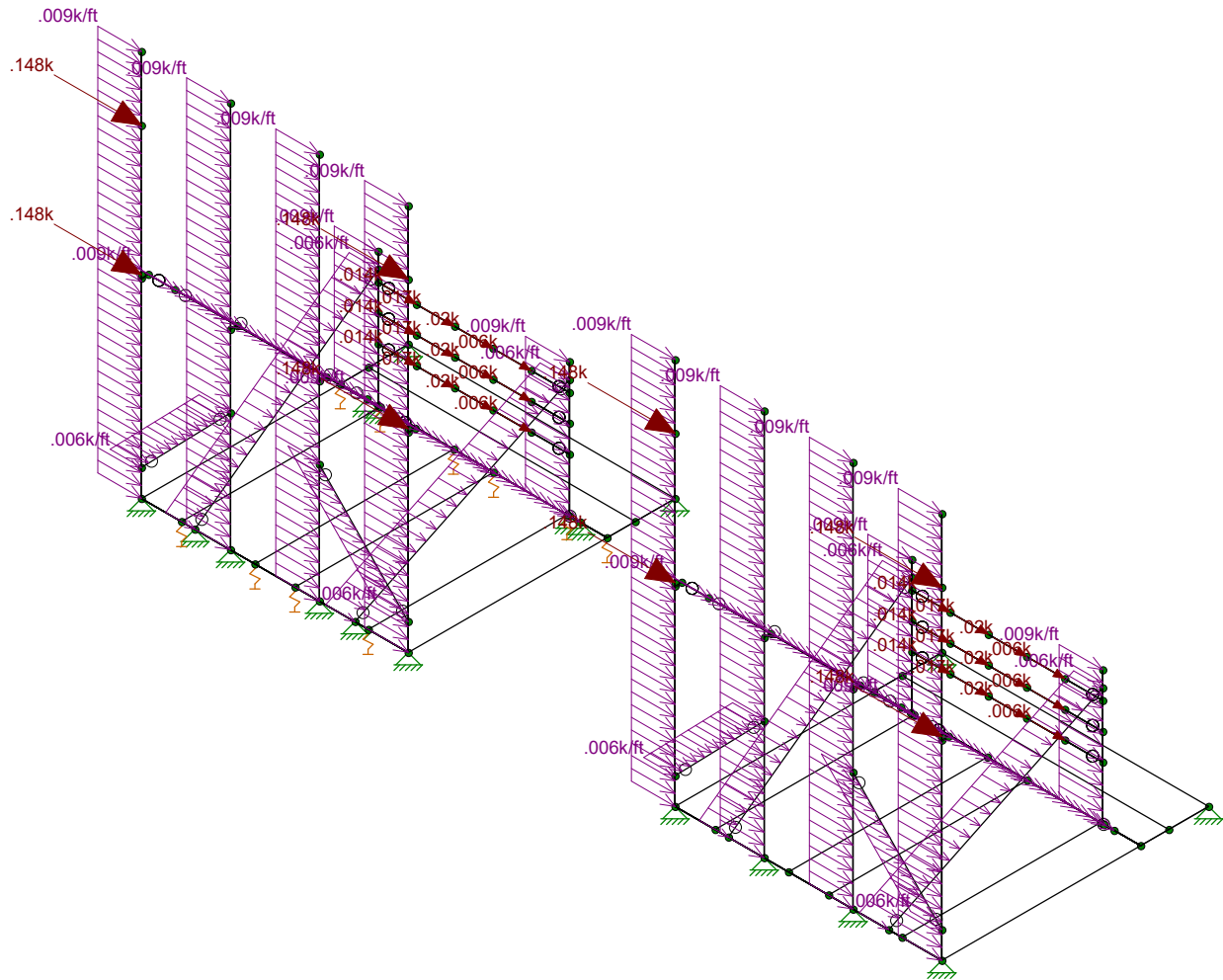
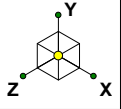
JL

10272.13

Gamma Sector
Dead Load

Sept 8, 2020 at 8:38 AM

10272.13 - Gamma Sector - RTP1...



Loads: BLC 2, WLX

Tectonic Engineering

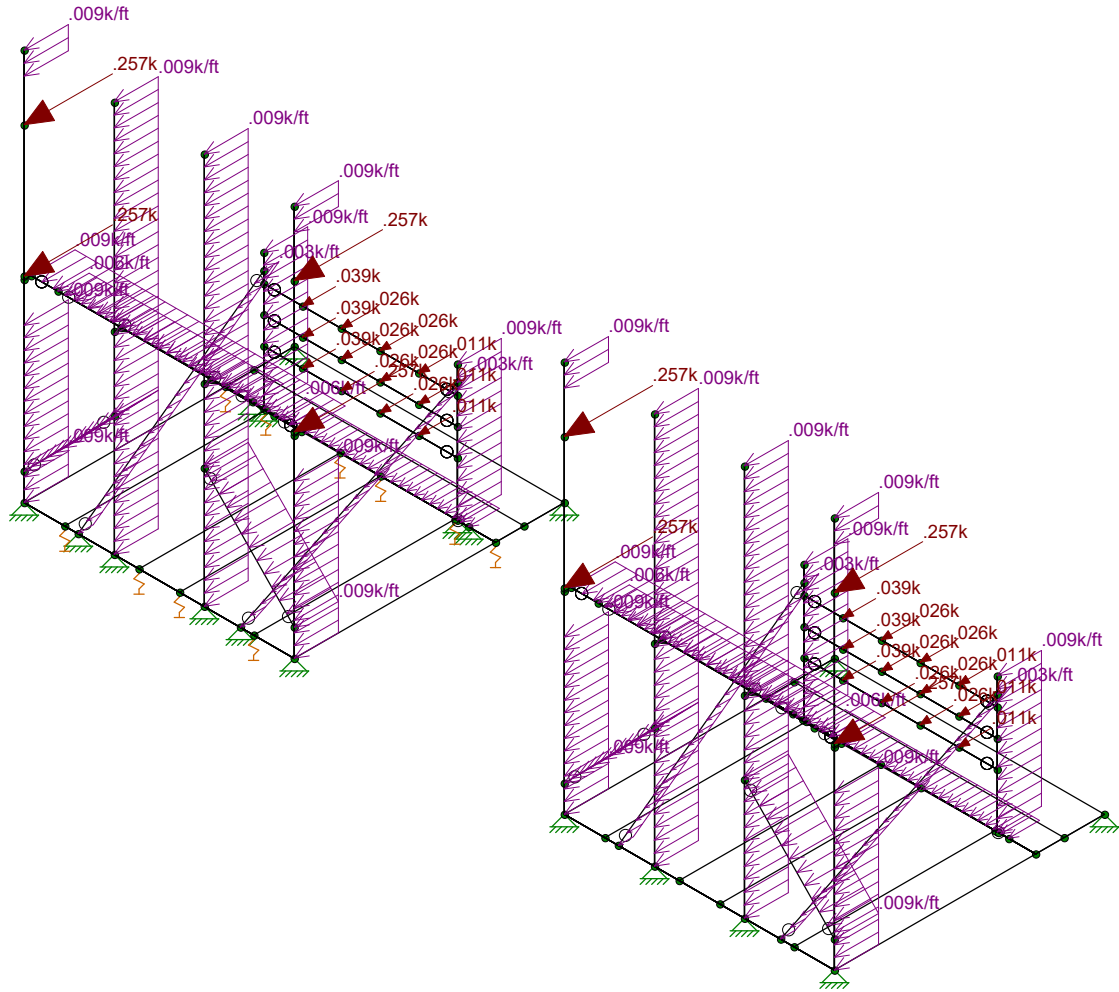
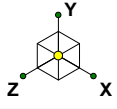
JL

10272.13

Gamma Sector
Wind Load X

Sept 8, 2020 at 8:38 AM

10272.13 - Gamma Sector - RTP1...



Loads: BLC 3, WLZ

Tectonic Engineering

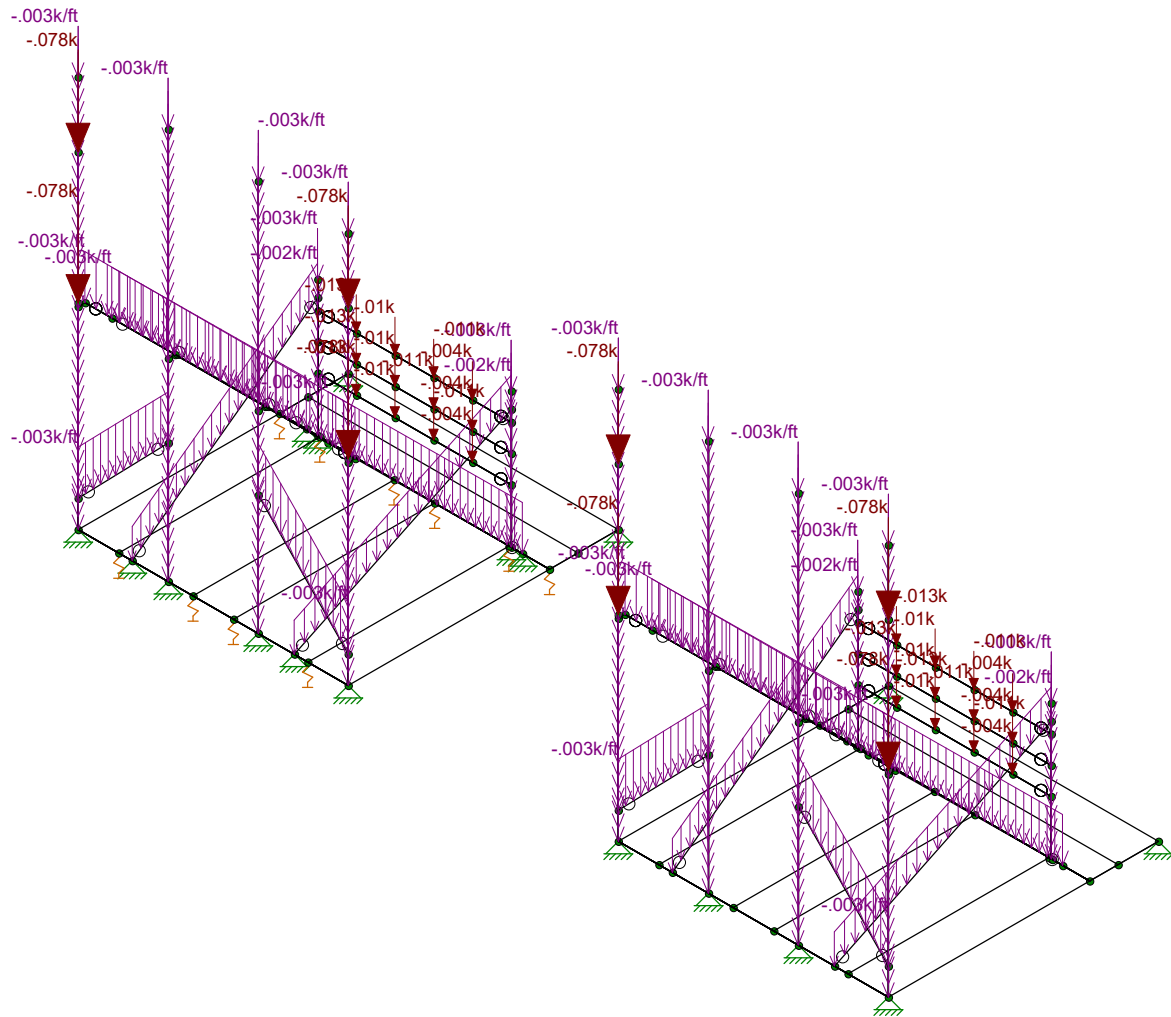
JL

10272.13

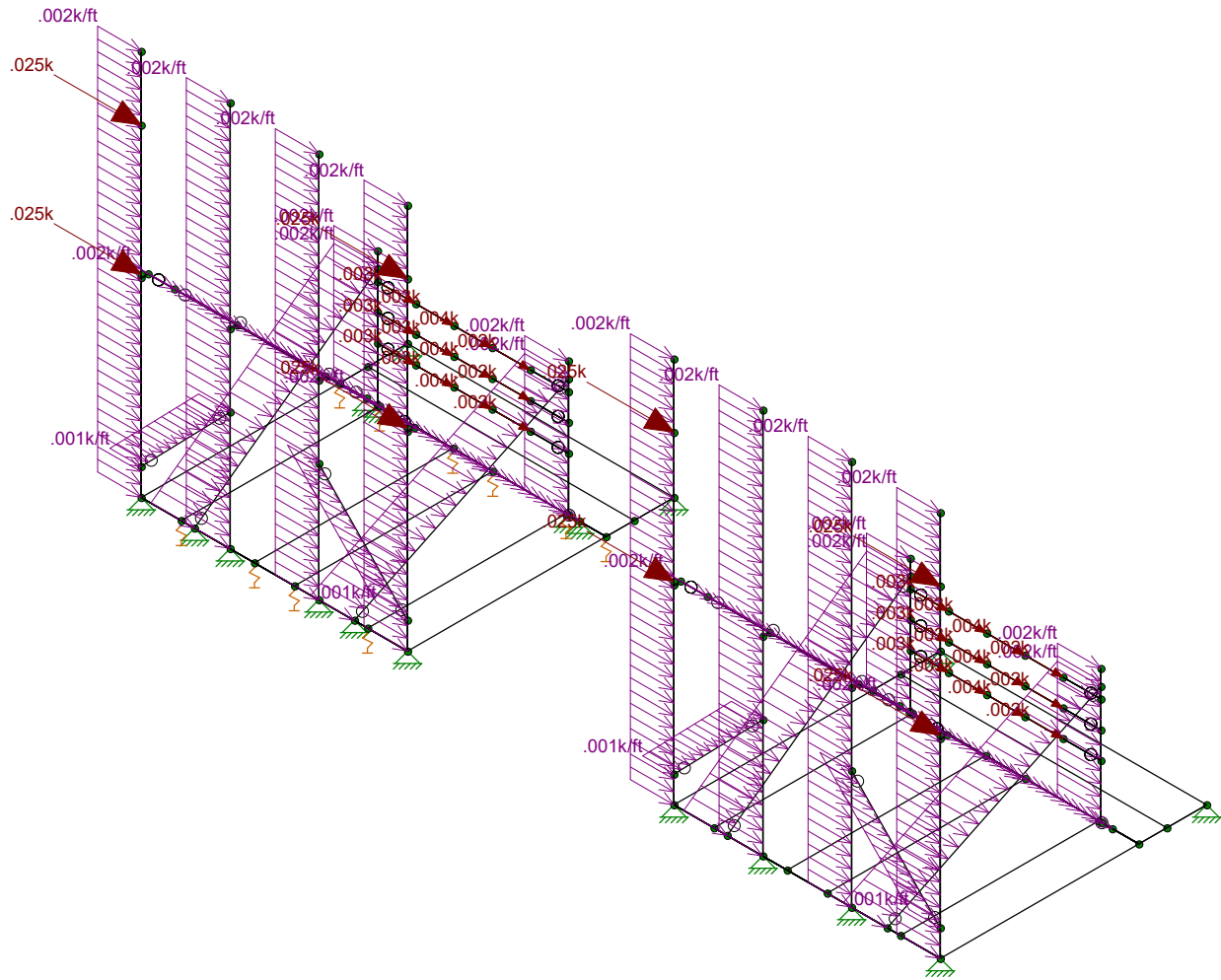
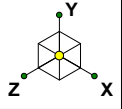
Gamma Sector
Wind Load Z

Sept 8, 2020 at 8:43 AM

10272.13 - Gamma Sector - RTP1...



10272.13 - Gamma Sector - RTP1...



Loads: BLC 5, WLXi

Tectonic Engineering

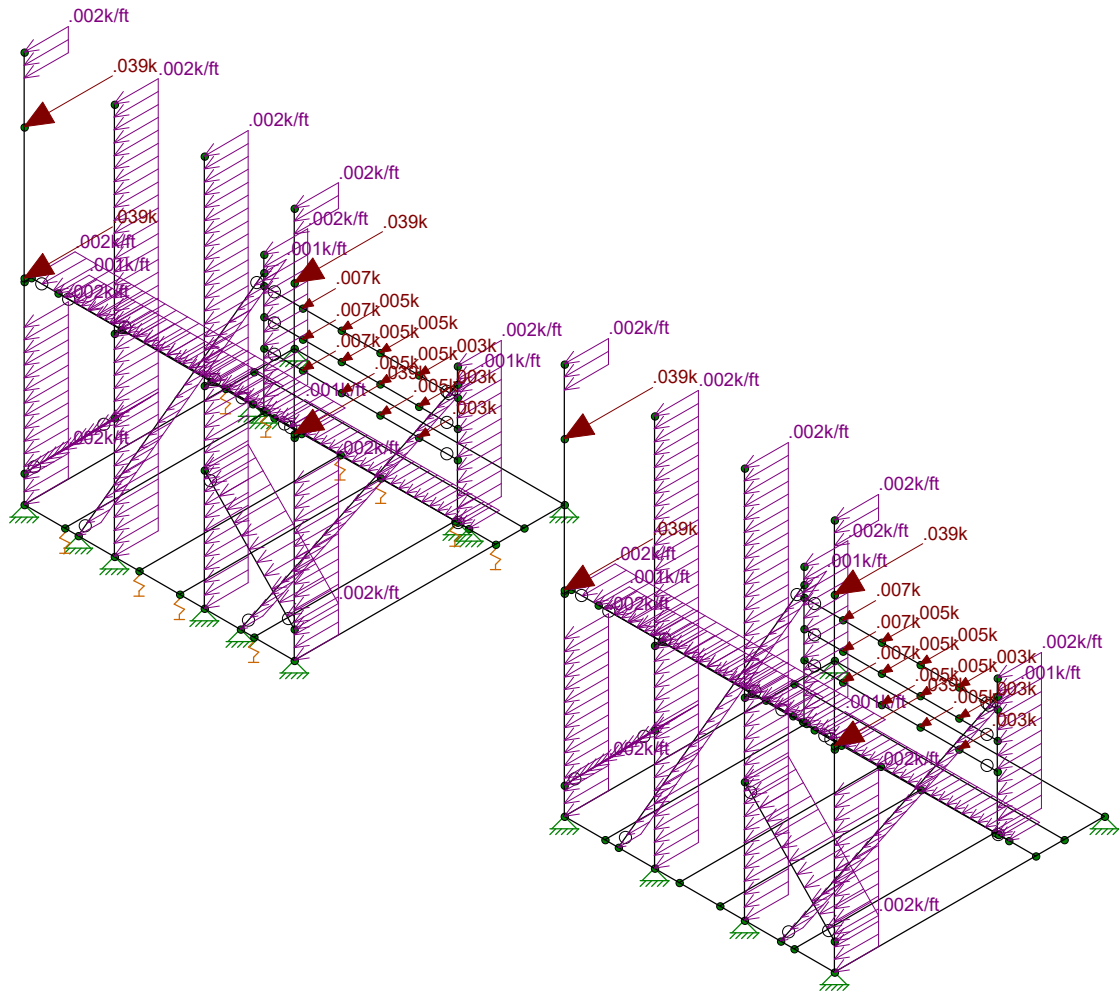
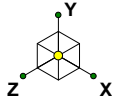
JL

10272.13

Gamma Sector
Wind Load X Ice

Sept 8, 2020 at 8:44 AM

10272.13 - Gamma Sector - RTP1...



Loads: BLC 6, WLZi

Tectonic Engineering

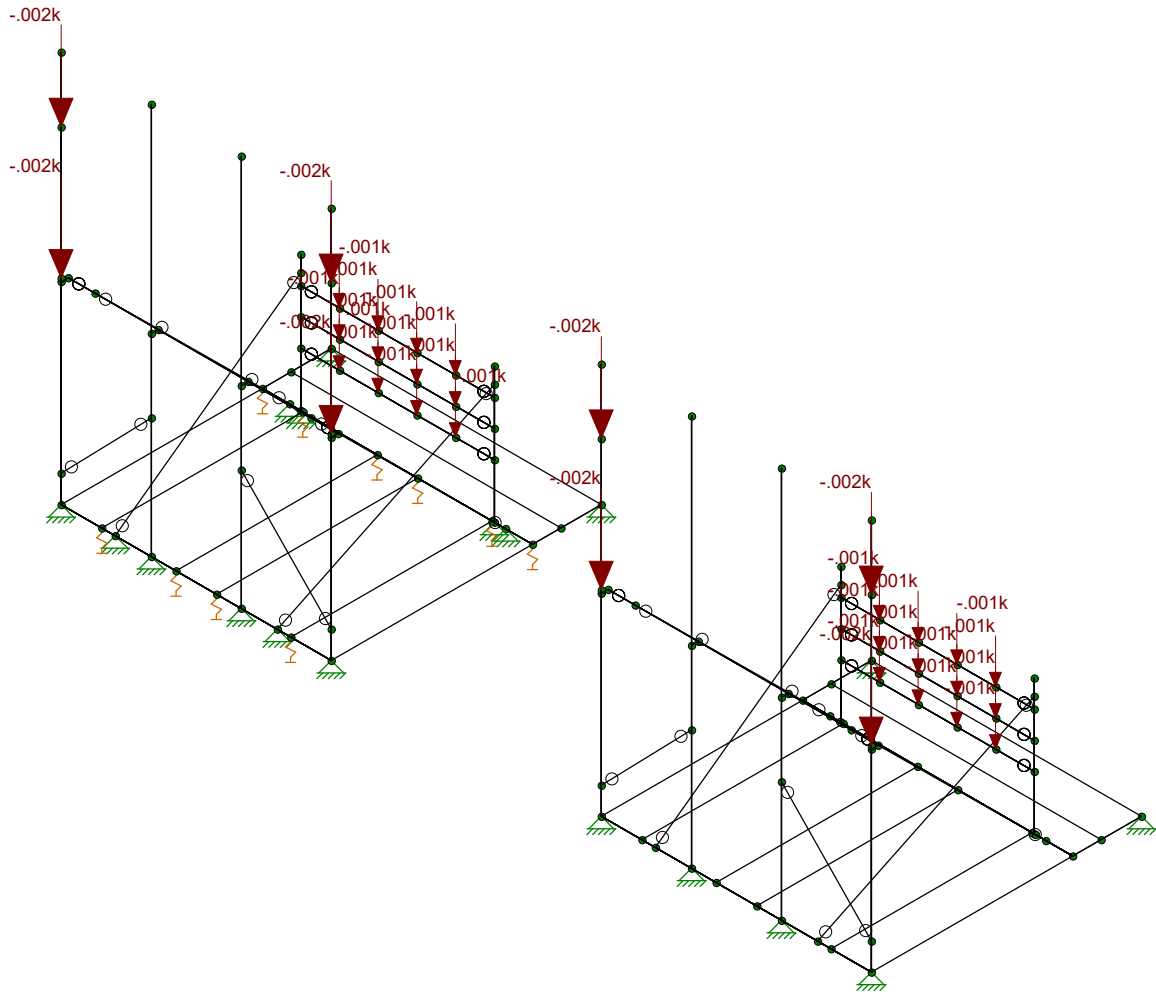
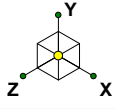
JL

10272.13

Gamma Sector
Wind Load Z Ice

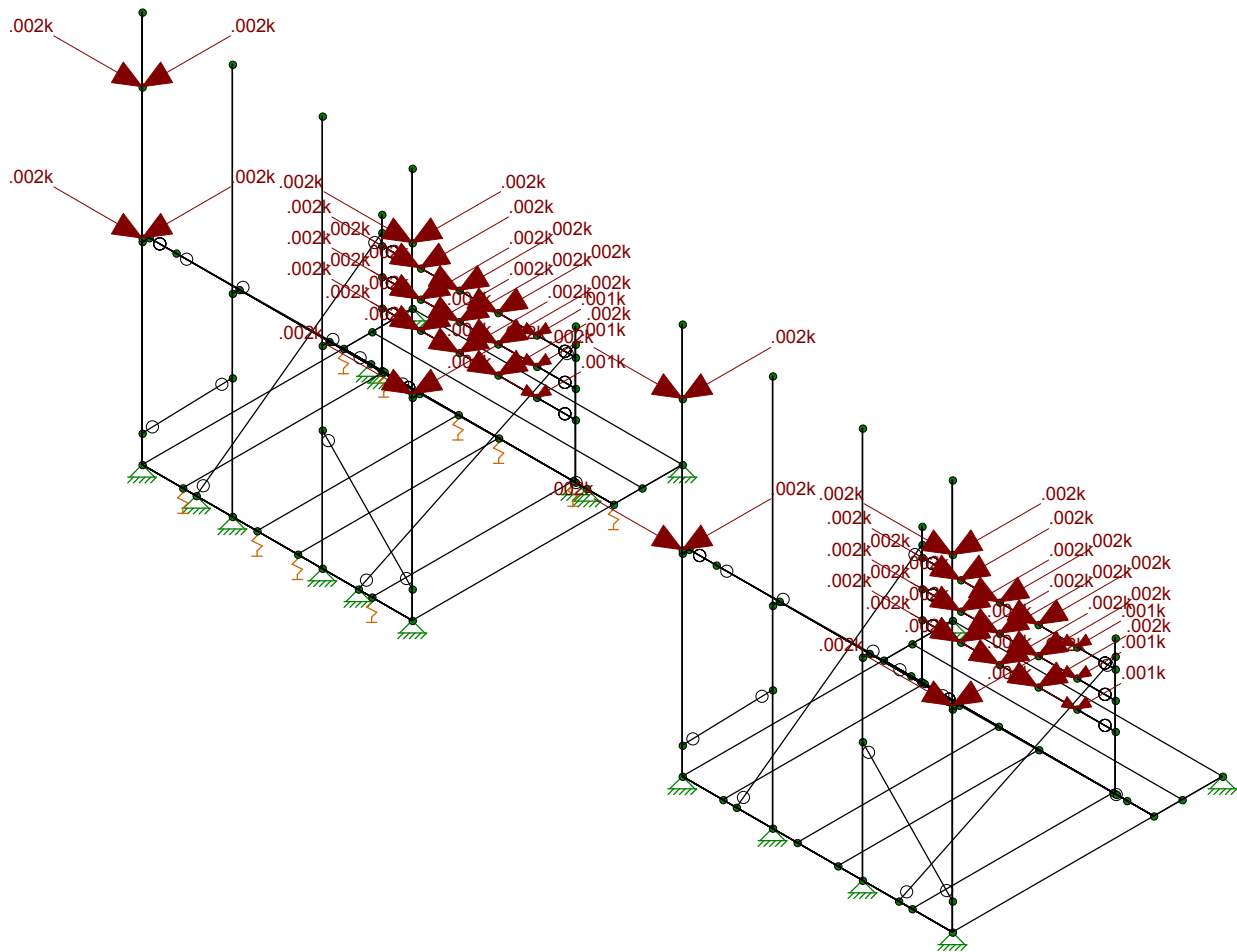
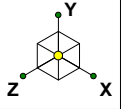
Sept 10, 2020 at 10:03 AM

10272.13 - Gamma Sector - RTP1...



Loads: BLC 7, ELv

| | | |
|----------------------|---------------------------------------|-----------------------------------|
| Tectonic Engineering | Gamma Sector Seismic Vertical Load | |
| JL | | Sept 8, 2020 at 8:45 AM |
| 10272.13 | | 10272.13 - Gamma Sector - RTP1... |



Loads: BLC 8, ELh

Tectonic Engineering

JL

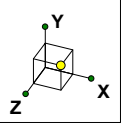
10272.13

Gamma Sector
Seismic Lateral Load

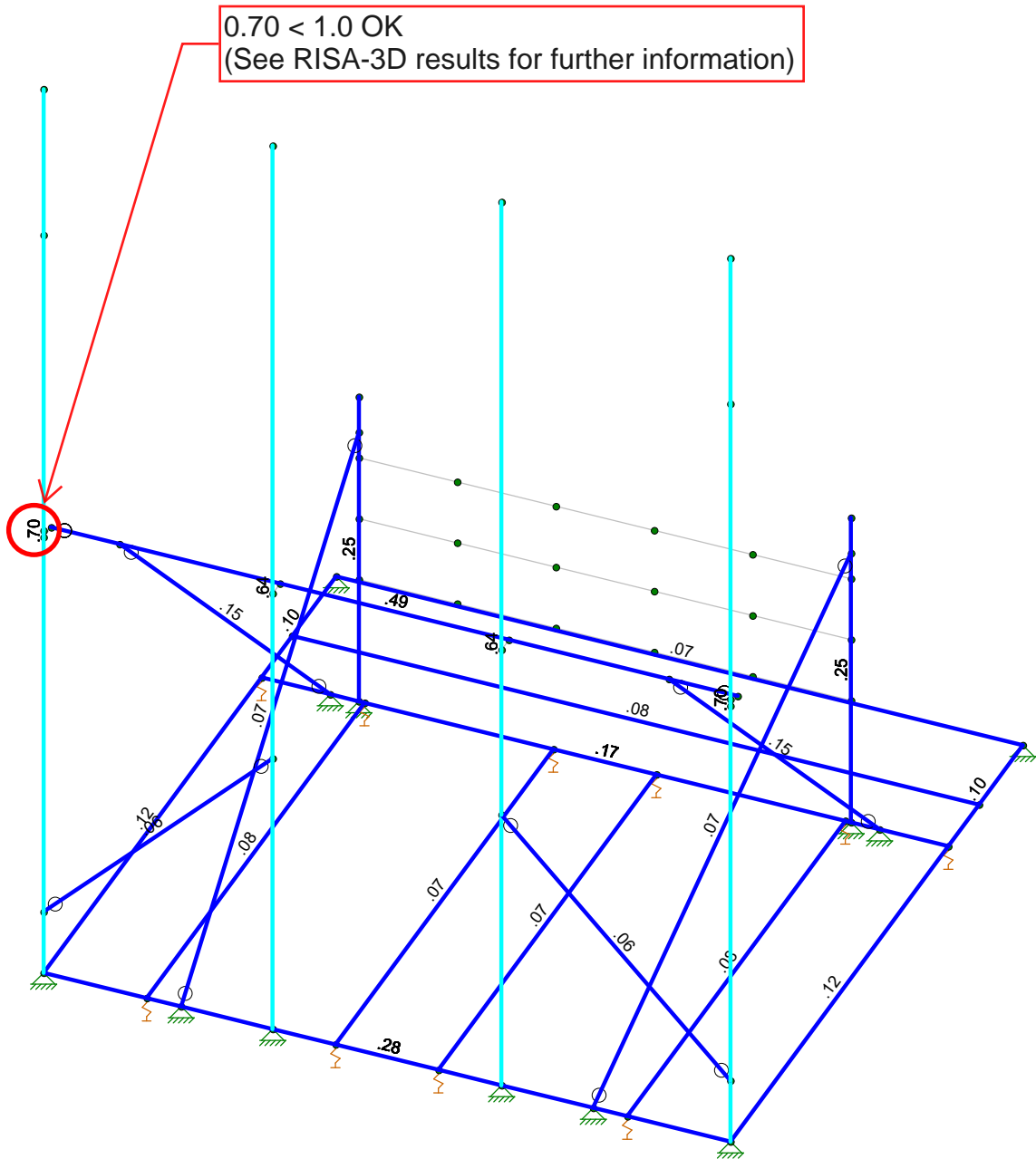
Sept 8, 2020 at 8:46 AM

10272.13 - Gamma Sector - RTP1...

APPENDIX I – Sector C
SOFTWARE ANALYSIS OUTPUT



| Code Check (Env) | |
|-----------------------|----------|
| No Calc | > 1.0 |
| > 1.0 | .90-.1.0 |
| .90-.1.0 | .75-.90 |
| .75-.90 | .50-.75 |
| .50-.75 | 0-.50 |



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

| | | |
|----------------------|---------------------------------|-----------------------------------|
| Tectonic Engineering | Gamma Sector Member Stresses | |
| JL | | Sept 8, 2020 at 8:50 AM |
| 10272.13 | | 10272.13 - Gamma Sector - RTP1... |

Hot Rolled Steel Properties

| | Label | E [ksi] | G [ksi] | Nu | Therm (1... | Density[k/ft^3] | Yield[ksi] | Ry | Fu[ksi] | Rt |
|---|------------|---------|---------|----|-------------|-----------------|------------|-----|---------|-----|
| 1 | A36 Gr.36 | 29000 | 11154 | .3 | .65 | .49 | 36 | 1.5 | 58 | 1.2 |
| 2 | A572 Gr.50 | 29000 | 11154 | .3 | .65 | .49 | 50 | 1.1 | 65 | 1.1 |
| 3 | A992 | 29000 | 11154 | .3 | .65 | .49 | 50 | 1.1 | 65 | 1.1 |
| 4 | A500 Gr.42 | 29000 | 11154 | .3 | .65 | .49 | 42 | 1.4 | 58 | 1.3 |
| 5 | A500 Gr.46 | 29000 | 11154 | .3 | .65 | .49 | 46 | 1.4 | 58 | 1.3 |
| 6 | A53 Gr. B | 29000 | 11154 | .3 | .65 | .49 | 36 | 1.5 | 58 | 1.2 |

Hot Rolled Steel Section Sets

| | Label | Shape | Type | Design List | Material | Design Rules | A [in2] | Iyy [in4] | Izz [in4] | J [in4] |
|---|---------------------|----------------|------|----------------------|-----------|--------------|---------|-----------|-----------|---------|
| 1 | L2-1/2x2-1/2x3/16" | L2.5x2.5x3 | Beam | Single Angle | A36 Gr.36 | Typical | .901 | .535 | .535 | .011 |
| 2 | LL2-1/2x2-1/2x3/16" | LL2.5x2.5x3x0 | Beam | Double Angle (No ... | A36 Gr.36 | Typical | 1.8 | 1.91 | 1.07 | .023 |
| 3 | HSS2.375x0.154 | HSS2.375X0.154 | Beam | Pipe | A53 Gr. B | Typical | 1 | .627 | .627 | 1.25 |
| 4 | HSS1.660x0.140 | HSS1.660X0.140 | Beam | Pipe | A53 Gr. B | Typical | .625 | .184 | .184 | .368 |

Basic Load Cases

| | BLC Description | Category | X Gravity | Y Gravity | Z Gravity | Joint | Point | Distributed | Area(Me...Surface(Plate/Wall) |
|---|-----------------|----------|-----------|-----------|-----------|-------|-------|-------------|-------------------------------|
| 1 | DL | DL | | -1.05 | | 32 | | | |
| 2 | WLX | WLX | | | | 32 | | 26 | |
| 3 | WLZ | WLZ | | | | 32 | | 30 | |
| 4 | DLi | SL | | | | 32 | | 26 | |
| 5 | WLXi | OL1 | | | | 32 | | 26 | |
| 6 | WLZi | OL2 | | | | 32 | | 26 | |
| 7 | ELv | ELY | | -.057 | | 32 | | | |
| 8 | ELh | EL | -.23 | | -.23 | 64 | | | |

Load Combinations

| | Description | Sol...P... | B... | Fa... | BLCF... | B... | Fa... | B... | F... | B... | F... | BLCF... | BLCF... | BLCF... | F... | F... |
|----|-------------------------------------|------------|------|-------|---------|------|-------|------|--------|------|-------|---------|---------|---------|------|------|
| 1 | *LRFD | | | | | | | | | | | | | | | |
| 2 | 1.4D | Yes | Y | 1 | 1.4 | | | | | | | | | | | |
| 3 | 1.2D+(WLX+WLZ) - 0 Deg | Yes | Y | 1 | 1.2 | 2 | 1 | 3 | | | | | | | | |
| 4 | 1.2D+(WLX+WLZ) - 30 Deg | Yes | Y | 1 | 1.2 | 2 | .8... | 3 | .5 | | | | | | | |
| 5 | 1.2D+(WLX+WLZ) - 60 Deg | Yes | Y | 1 | 1.2 | 2 | .5 | 3 | .866 | | | | | | | |
| 6 | 1.2D+(WLX+WLZ) - 90 Deg | Yes | Y | 1 | 1.2 | 2 | | 3 | 1 | | | | | | | |
| 7 | 1.2D+(WLX+WLZ) - 120 Deg | Yes | Y | 1 | 1.2 | 2 | -.5 | 3 | .866 | | | | | | | |
| 8 | 1.2D+(WLX+WLZ) - 150 Deg | Yes | Y | 1 | 1.2 | 2 | ---- | 3 | .5 | | | | | | | |
| 9 | 1.2D+(WLX+WLZ) - 180 Deg | Yes | Y | 1 | 1.2 | 2 | -1 | 3 | | | | | | | | |
| 10 | 1.2D+(WLX+WLZ) - 210 Deg | Yes | Y | 1 | 1.2 | 2 | ---- | 3 | -.5 | | | | | | | |
| 11 | 1.2D+(WLX+WLZ) - 240 Deg | Yes | Y | 1 | 1.2 | 2 | -.5 | 3 | -.8... | | | | | | | |
| 12 | 1.2D+(WLX+WLZ) - 270 Deg | Yes | Y | 1 | 1.2 | 2 | | 3 | -1 | | | | | | | |
| 13 | 1.2D+(WLX+WLZ) - 300 Deg | Yes | Y | 1 | 1.2 | 2 | .5 | 3 | -.8... | | | | | | | |
| 14 | 1.2D+(WLX+WLZ) - 330 Deg | Yes | Y | 1 | 1.2 | 2 | .8... | 3 | -.5 | | | | | | | |
| 15 | **Wind Load with Ice** | | | | | | | | | | | | | | | |
| 16 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 0 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | 1 | 6 | | | | | | |
| 17 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 30 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | .5 | | | | | |
| 18 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 60 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | .8... | | | | | |
| 19 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 90 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | | 6 | 1 | | | | | |
| 20 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 120 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | .8... | | | | | |
| 21 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 150 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | .5 | | | | | |
| 22 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 180 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -1 | 6 | | | | | | |
| 23 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 210 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | -.5 | | | | | |
| 24 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 240 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | ---- | | | | | |

Load Combinations (Continued)

| | Description | Sol | P | B | Fa | BLCF | B | Fa | B | F | B | F | BLCF | BLCF | BLCF | F | F |
|----|-------------------------------------|-----|---|---|-----|------|----|----|------|----|------|---|------|------|------|---|---|
| 25 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 270 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | 6 | -1 | | | | | | | |
| 26 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 300 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | ---- | | | | | | |
| 27 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 330 Deg | Yes | Y | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | -.5 | | | | | | |
| 28 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 29 | 1.2D+ELv+ELh | Yes | Y | 1 | 1.2 | 7 | 1 | 8 | 1 | | | | | | | | |
| 30 | *Ballast Check | | | | | | | | | | | | | | | | |
| 31 | 0.6WLZ | | Y | | | 3 | .6 | | | | | | | | | | |

Envelope AISC 15th(360-16): LRFD Steel Code Checks

| Member | Shape | Code C... | Loc[ft] | LC Shear ... | Loc[ft] | Dir | LC | phi*Pnc [k] | phi*Pnt [k] | phi*Mn y-... | phi*Mn z-... | Cb | Eqn |
|--------|-------|---------------|---------|--------------|---------|------|--------|-------------|-------------|--------------|--------------|-------|-----------------|
| 1 | M1 | HSS2.375X0... | .696 | 7.25 | 12 | .172 | 14.5 | 3 | 4.679 | 32.4 | 1.925 | 1.925 | 3... H1-1b |
| 2 | M2 | HSS2.375X0... | .643 | 7.401 | 9 | .077 | 9.969 | 3 | 4.679 | 32.4 | 1.925 | 1.925 | 2... H1-1b |
| 3 | M3 | HSS2.375X0... | .643 | 7.401 | 3 | .077 | 9.969 | 9 | 4.679 | 32.4 | 1.925 | 1.925 | 2... H1-1b |
| 4 | M4 | HSS2.375X0... | .696 | 7.25 | 12 | .172 | 14.5 | 9 | 4.679 | 32.4 | 1.925 | 1.925 | 3... H1-1b |
| 5 | M5 | HSS2.375X0... | .492 | 3.333 | 9 | .159 | .938 | 6 | 9.837 | 32.4 | 1.925 | 1.925 | 2... H1-1b |
| 6 | M6 | HSS2.375X0... | .276 | 0 | 3 | .058 | 10 | 14 | 9.837 | 32.4 | 1.925 | 1.925 | 4... H1-1b |
| 7 | M7 | HSS2.375X0... | .060 | 0 | 9 | .012 | 4.79 | 8 | 24.551 | 32.4 | 1.925 | 1.925 | 1... H1-1b* |
| 8 | M8 | HSS2.375X0... | .060 | 0 | 3 | .012 | 0 | 4 | 24.549 | 32.4 | 1.925 | 1.925 | 1... H1-1b* |
| 9 | M9 | HSS2.375X0... | .174 | 1.354 | 9 | .111 | 1.042 | 9 | 9.837 | 32.4 | 1.925 | 1.925 | 3... H1-1b |
| 10 | M10 | HSS2.375X0... | .148 | 10.147 | 12 | .053 | 10.147 | 6 | 9.554 | 32.4 | 1.925 | 1.925 | 1... H1-1b* |
| 11 | M11 | HSS2.375X0... | .148 | 10.147 | 12 | .053 | 0 | 6 | 9.554 | 32.4 | 1.925 | 1.925 | 1... H1-1b* |
| 12 | M12 | HSS2.375X0... | .245 | 5 | 9 | .023 | 5 | 3 | 23.948 | 32.4 | 1.925 | 1.925 | 2... H1-1b |
| 13 | M13 | HSS2.375X0... | .246 | 5 | 3 | .023 | 5 | 9 | 23.948 | 32.4 | 1.925 | 1.925 | 2... H1-1b |
| 14 | M14 | HSS1.660X0... | .074 | 4.34 | 3 | .037 | 0 | 3 | 3.831 | 20.25 | .824 | .824 | 1... H1-1b |
| 15 | M15 | HSS1.660X0... | .075 | 4.34 | 8 | .037 | 0 | 9 | 3.831 | 20.25 | .824 | .824 | 1... H1-1b |
| 16 | M17 | L2.5x2.5x3 | .078 | 0 | 12 | .004 | 0 | y | 14 | 5.917 | 29.192 | .873 | 1.699 2... H2-1 |
| 17 | M19 | L2.5x2.5x3 | .077 | 7.45 | 12 | .004 | 7.45 | y | 10 | 5.917 | 29.192 | .873 | 1.671 1... H2-1 |
| 18 | M20 | L2.5x2.5x3 | .068 | 0 | 12 | .002 | 0 | y | 13 | 5.917 | 29.192 | .873 | 1.736 2... H2-1 |
| 19 | M21 | L2.5x2.5x3 | .068 | 7.45 | 12 | .002 | 7.45 | y | 13 | 5.917 | 29.192 | .873 | 1.742 2... H2-1 |
| 20 | M59A | LL2.5x2.5x3x0 | .118 | 7.45 | 13 | .005 | 0 | y | 8 | 28.736 | 58.32 | 3.3 | 2.07 2... H1-1b |
| 21 | M60A | LL2.5x2.5x3x0 | .118 | 0 | 11 | .005 | 7.45 | y | 4 | 28.736 | 58.32 | 3.3 | 2.07 2... H1-1b |
| 22 | M61 | L2.5x2.5x3 | .074 | 5 | 2 | .002 | 0 | y | 2 | 3.284 | 29.192 | .873 | 1.219 1... H2-1 |
| 23 | M62 | L2.5x2.5x3 | .099 | 0 | 6 | .020 | 0 | y | 6 | 23.611 | 29.192 | .873 | 1.972 1... H2-1 |
| 24 | M63 | L2.5x2.5x3 | .103 | 2.55 | 6 | .020 | 2.55 | y | 6 | 23.611 | 29.192 | .873 | 1.972 1... H2-1 |
| 25 | M64 | L2.5x2.5x3 | .084 | 5 | 2 | .002 | 0 | y | 2 | 3.284 | 29.192 | .873 | 1.22 1... H2-1 |

Max member stresses do not exceed 69.6% of the 100% allowable capacity.
Therefore, the proposed members are adequate to support the proposed installation.

Load Combinations

| | Description | Sol... | P... | B... | Fa... | BLC F... | B... | Fa... | B... | F... | B... | F... | BLC F... | BLC F... | BLC F... | F... | F... |
|----|-------------------------------------|--------|------|------|-------|----------|--------|-------|--------|------|--------|------|----------|----------|----------|------|------|
| 1 | *LRFD | | | | | | | | | | | | | | | | |
| 2 | 1.4D | Y | | 1 | 1.4 | | | | | | | | | | | | |
| 3 | 1.2D+(WLX+WLZ) - 0 Deg | Y | | 1 | 1.2 | 2 | 1 | 3 | | | | | | | | | |
| 4 | 1.2D+(WLX+WLZ) - 30 Deg | Y | | 1 | 1.2 | 2 | .8... | 3 | .5 | | | | | | | | |
| 5 | 1.2D+(WLX+WLZ) - 60 Deg | Y | | 1 | 1.2 | 2 | .5 | 3 | .866 | | | | | | | | |
| 6 | 1.2D+(WLX+WLZ) - 90 Deg | Y | | 1 | 1.2 | 2 | | 3 | 1 | | | | | | | | |
| 7 | 1.2D+(WLX+WLZ) - 120 Deg | Y | | 1 | 1.2 | 2 | -.5 | 3 | .866 | | | | | | | | |
| 8 | 1.2D+(WLX+WLZ) - 150 Deg | Y | | 1 | 1.2 | 2 | -.8... | 3 | .5 | | | | | | | | |
| 9 | 1.2D+(WLX+WLZ) - 180 Deg | Y | | 1 | 1.2 | 2 | -1 | 3 | | | | | | | | | |
| 10 | 1.2D+(WLX+WLZ) - 210 Deg | Y | | 1 | 1.2 | 2 | -.8... | 3 | -.5 | | | | | | | | |
| 11 | 1.2D+(WLX+WLZ) - 240 Deg | Y | | 1 | 1.2 | 2 | -.5 | 3 | -.8... | | | | | | | | |
| 12 | 1.2D+(WLX+WLZ) - 270 Deg | Y | | 1 | 1.2 | 2 | | 3 | -1 | | | | | | | | |
| 13 | 1.2D+(WLX+WLZ) - 300 Deg | Y | | 1 | 1.2 | 2 | .5 | 3 | -.8... | | | | | | | | |
| 14 | 1.2D+(WLX+WLZ) - 330 Deg | Y | | 1 | 1.2 | 2 | .8... | 3 | -.5 | | | | | | | | |
| 15 | **Wind Load with Ice** | | | | | | | | | | | | | | | | |
| 16 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 0 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | 1 | 6 | | | | | | | |
| 17 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 30 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | .5 | | | | | | |
| 18 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 60 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | .8... | | | | | | |
| 19 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 90 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | | 6 | 1 | | | | | | |
| 20 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 120 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | .8... | | | | | | |
| 21 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 150 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | .5 | | | | | | |
| 22 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 180 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | -1 | 6 | | | | | | | |
| 23 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 210 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | -.8... | 6 | -.5 | | | | | | |
| 24 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 240 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | -.5 | 6 | -.8... | | | | | | |
| 25 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 270 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | | 6 | -1 | | | | | | |
| 26 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 300 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | .5 | 6 | -.8... | | | | | | |
| 27 | 1.2D+1.0Di+1.0(WLXi+WLZi) - 330 Deg | Y | | 1 | 1.2 | 4 | 1 | 5 | .866 | 6 | -.5 | | | | | | |
| 28 | **Seismic Load** | | | | | | | | | | | | | | | | |
| 29 | 1.2D+ELv+ELh | Y | | 1 | 1.2 | 7 | 1 | 8 | 1 | | | | | | | | |
| 30 | *Ballast Check | | | | | | | | | | | | | | | | |
| 31 | 0.6WLZ | Yes | Y | | | 3 | .6 | | | | | | | | | | |

Joint Reactions

| | LC | Joint Label | X [k] | Y [k] | Z [k] | MX [k-ft] | MY [k-ft] | MZ [k-ft] |
|---|----|-------------|-------|-------|-------|-----------|-----------|-----------|
| 1 | 31 | FRONT4 | -.069 | .162 | -.197 | 0 | 0 | 0 |
| 2 | 31 | FRONT1 | .07 | .16 | -.186 | 0 | 0 | 0 |
| 3 | 31 | FRONT3 | 0 | .292 | -.139 | 0 | 0 | 0 |
| 4 | 31 | FRONT2 | 0 | .284 | -.123 | 0 | 0 | 0 |
| 5 | 31 | N131 | -.283 | -.451 | -.329 | 0 | 0 | 0 |
| 6 | 31 | N132 | .282 | -.446 | -.323 | 0 | 0 | 0 |
| 7 | 31 | COG (ft): | NC | NC | NC | | | |

Reactions used to check ballast versus sliding and overturning

APPENDIX J – Sector C
ADDITIONAL CALCULATIONS

BALLAST MOUNT CHECK

Wind Force Per Rev H (qz): 37.47 PSF

| | | | 8x8x16 Block | | Tray Total | |
|-------------------|----|-------|--------------|-----|------------|-----|
| Tray-1 | 4 | CMU-1 | 43 | lbs | 172 | lbs |
| Tray-2 | 4 | CMU-1 | 43 | lbs | 172 | lbs |
| Tray-3 | 4 | CMU-1 | 43 | lbs | 172 | lbs |
| Additional Tray-4 | 10 | CMU-2 | 43 | lbs | 430 | lbs |
| | | | Total | | 946 | lbs |

Antenna Wind Loads:

| Quantity | Model Number | Weight (lbs) | Dead Load | |
|----------|---------------|--------------|-----------|-----|
| 2 | MX10FRO860-xx | 68.4 | 137 | lbs |
| 1 | CBRS 4T4R RRH | 17.6 | 18 | lbs |
| 1 | B2/B66A RRH | 40.4 | 40 | lbs |
| 1 | B5/B13 RRH | 40.4 | 40 | lbs |
| 1 | 6 Circuit OVP | 43.5 | 44 | lbs |
| | Wt. Total | | 293 | lbs |

Add 5% (brackets, cables, etc)

Mount Wind Loads:

| Length | Width |
|--------|-------|
| 10.00 | 10.00 |
| ft | ft |

Member Summary:

| Quantity | Part No. | Size (in) | Length (ft) | Unit Weight (lbs) | Net Weight (lbs) | |
|----------|--|-----------|-------------|-------------------|------------------|-----|
| 2 | P2174 (Antenna Pipe) | 2.375 | 14.50 | 55.75 | 112 | lbs |
| 2 | P2174 (Antenna Pipe) | 2.375 | 8.50 | 32.68 | 65 | lbs |
| 2 | P1126 (Stiff Arm) | 1.66 | 10.50 | 25.12 | 50 | lbs |
| 3 | P2126 (Horizontal) | 2.375 | 10.50 | 40.75 | 122 | lbs |
| 4 | P263 (Brace) | 2.375 | 5.25 | 20.18 | 81 | lbs |
| 3 | X-232696 (Tray) | 2.5 | 7.45 | 66.53 | 200 | lbs |
| 2 | X-RTP10 (Tray Support) | - | - | 44.81 | 90 | lbs |
| 6 | UNT10 (Unistrut) | - | Varies | 20.38 | 122 | lbs |
| 4 | L2-1/2"x2-1/2"x3/16" | 2.5 | 10.00 | 32.235 | 129 | lbs |
| 690 | Other (Clamps, Bolts, Nuts, Washers, Etc.) | - | - | Varies | 140 | lbs |

| | | |
|---------------------|---------|--------------------------|
| Frame Weight Total | 1110.85 | lbs (Excludes Equipment) |
| Frame Weight For MR | 777 | lbs |

Sliding Check:

| | | |
|------------------------------|------|-------------------------------|
| Horizontal Wind Force Total: | 1297 | lbs (Per RISA-3D Output LC31) |
| Resisting Force: | 1645 | lbs |
| FS | 1.27 | ≥ 1.2 OK |

Overturn Check:

| | | |
|-----------------|--------|---------------------------------|
| Overturn moment | 8970.0 | lb-ft (Per RISA-3D Output LC31) |
| Direction 1 | | |
| Base | 5.00 | ft |
| CMU-1 | 3.73 | ft |
| CMU-2 | 9.25 | ft |

| | | |
|------------------|---------|----------|
| Resisting Moment | 10842.2 | lb-ft |
| FS | 1.21 | ≥ 1.2 OK |

Final Roof Pressure:

| | | |
|--------------|--------|------|
| L | 11.00 | ft |
| W | 11.00 | ft |
| Area | 121.00 | ft^2 |
| Total Weight | 2350 | lbs |
| | 19.4 | psf |

THE SAFETY FACTORS AGAINST SLIDING AND OVERTURNING ARE GREATER THAN OR EQUAL TO 1.20. ADDITIONALLY, THE FINAL ROOF PRESSURE IS LESS THAN THE ALLOWABLE 20 PSF. THEREFORE, THE BALLAST MOUNT AND SUPPORTING STRUCTURE ARE ADEQUATE TO SUPPORT THE PROPOSED INSTALLATION.

APPENDIX K
REFERENCES



ASCE 7 Hazards Report

Address:

29 E Main St
Amsterdam, New York
12010

Standard:

ASCE/SEI 7-16

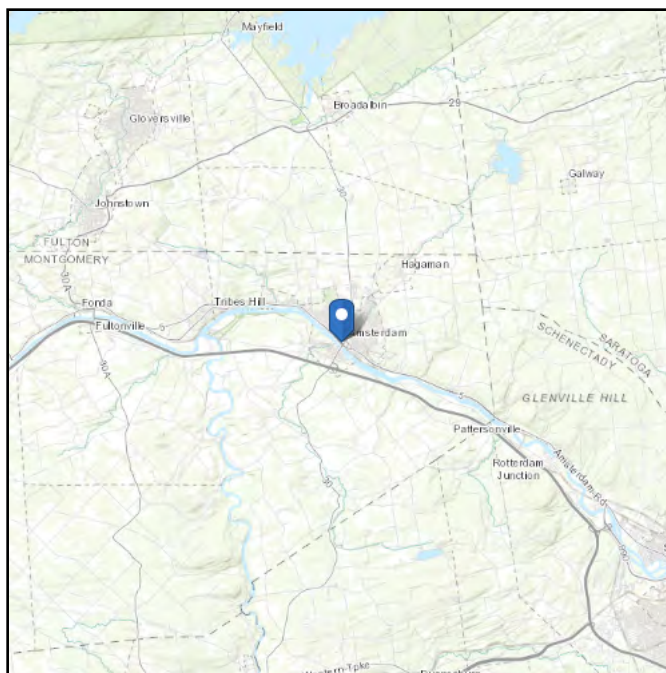
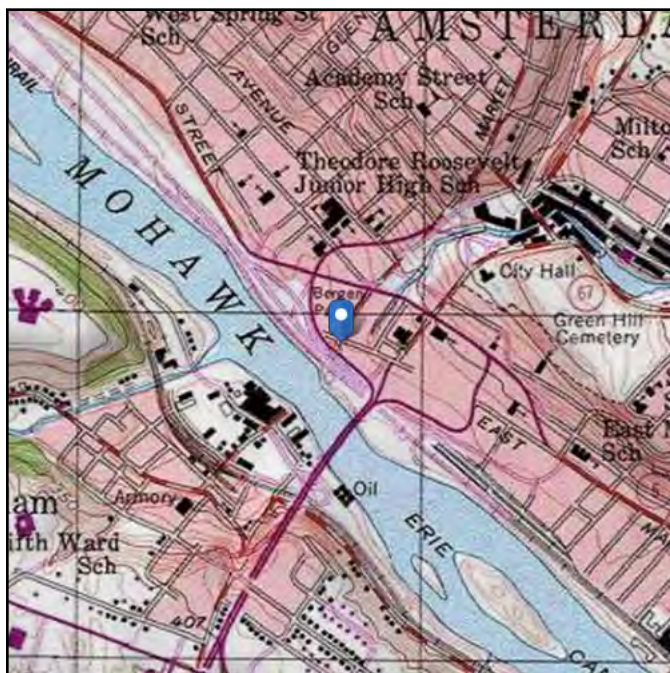
Risk Category: II**Soil Class:**

D - Stiff Soil

Elevation: 279.41 ft (NAVD 88)

Latitude: 42.936985

Longitude: -74.193636



Wind

Results:

| | |
|--------------|----------|
| Wind Speed: | 110 Vmph |
| 10-year MRI | 75 Vmph |
| 25-year MRI | 81 Vmph |
| 50-year MRI | 87 Vmph |
| 100-year MRI | 93 Vmph |

Data Source:

ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4

Date Accessed:

Thu Sep 03 2020

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.



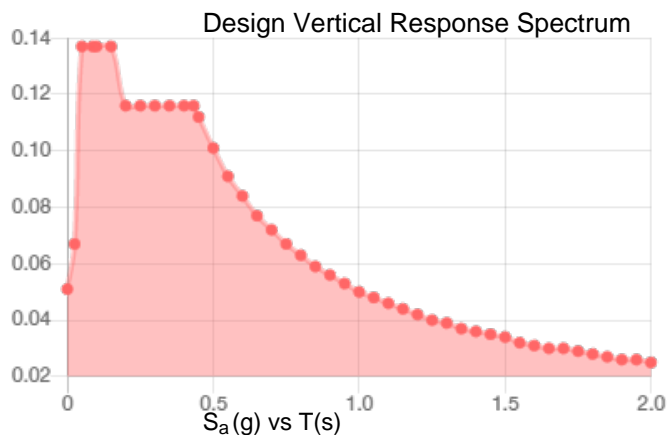
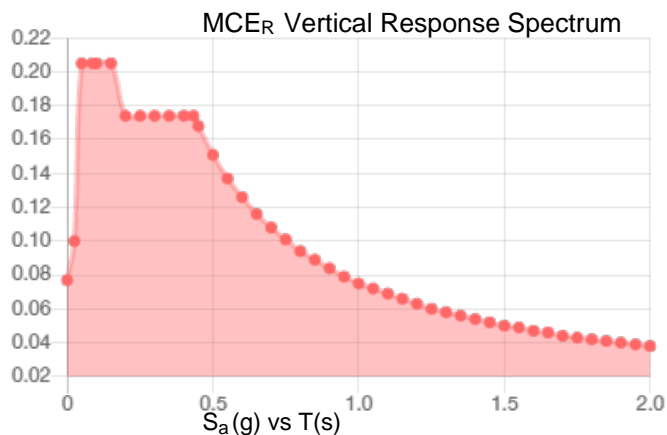
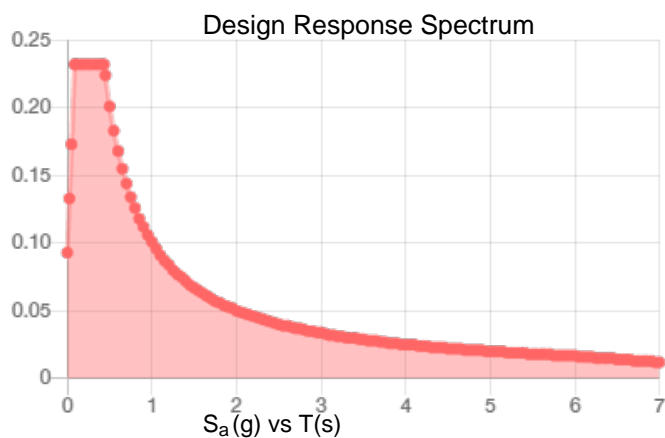
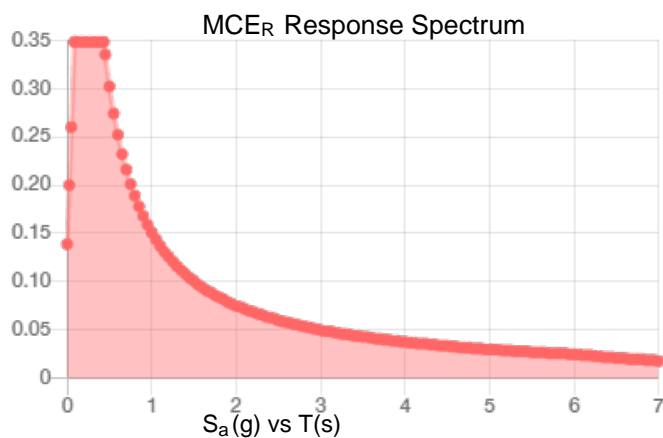
Seismic

Site Soil Class: D - Stiff Soil

Results:

| | | | |
|------------|-------|--------------------|-------|
| S_S : | 0.218 | S_{D1} : | 0.101 |
| S_1 : | 0.063 | T_L : | 6 |
| F_a : | 1.6 | PGA : | 0.12 |
| F_v : | 2.4 | PGA _M : | 0.188 |
| S_{MS} : | 0.348 | F_{PGA} : | 1.559 |
| S_{M1} : | 0.151 | I_e : | 1 |
| S_{DS} : | 0.232 | C_v : | 0.735 |

Seismic Design Category B



Data Accessed:

Thu Sep 03 2020

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.



Ice

Results:

| | |
|-------------------------|----------|
| Ice Thickness: | 1.00 in. |
| Concurrent Temperature: | 5 F |
| Gust Speed: | 40 mph |

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Thu Sep 03 2020

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Snow

Results:

| | |
|---------------------------|-----------------------|
| Ground Snow Load, p_g : | 40 lb/ft ² |
| Elevation: | 279.4 ft |

Data Source: ASCE/SEI 7-16, Table 7.2-8

Date Accessed: Thu Sep 03 2020

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow loads at elevations not covered.



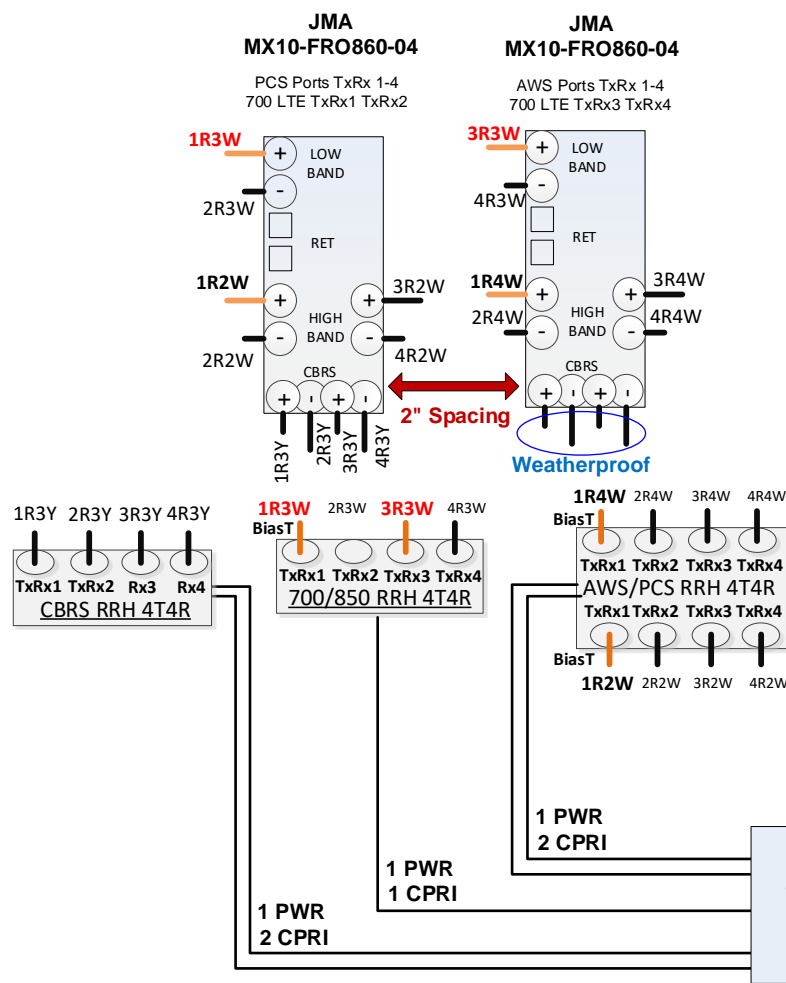
The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

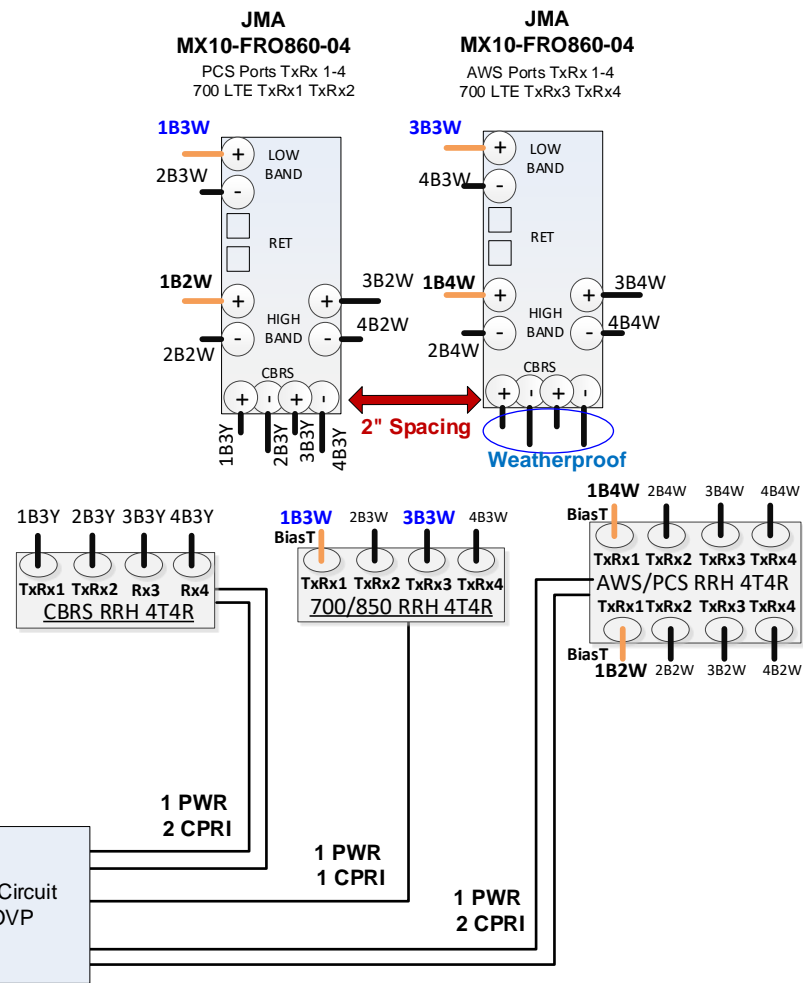
ALPHA (D1)

Left (looking out from tower) Right



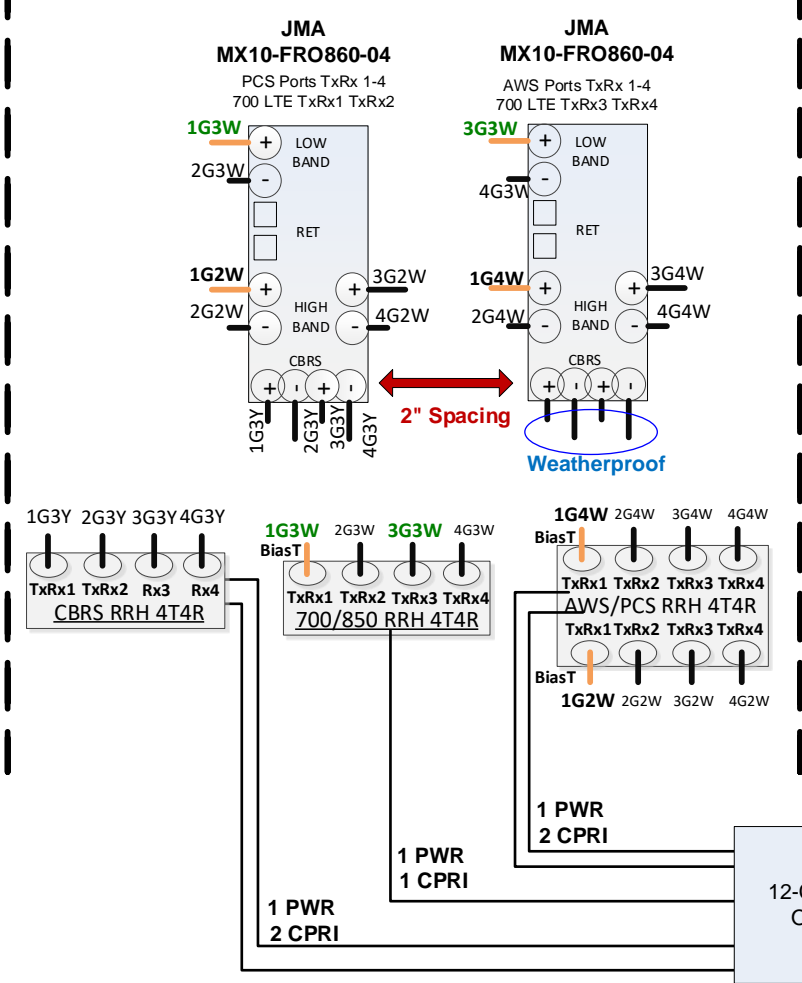
BETA (D2)

Left (looking out from tower) Right



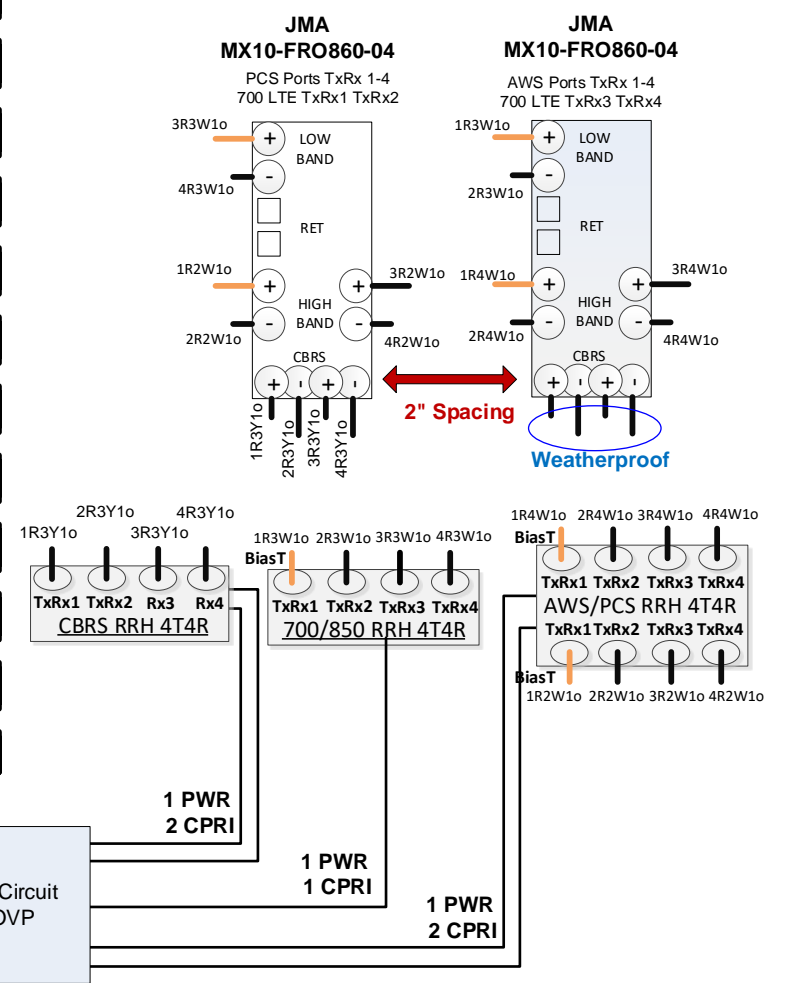
GAMMA (D3)

Left (looking out from tower) Right



DELTA(D4)

Left (looking out from tower) Right



Building

[CBRS 4T4R RRH] I/O Ports

RET and RF connector topology

Each RET device can be controlled either via the designated external AISG connector or RF smart bias-t port as shown below:

| Band | RF port | Band | RF port | Band | RF port |
|-----------|---------|-----------|---------|---------|---------|
| 3400-4200 | 7-10 | 1695-2180 | 3-6 | 698-894 | 1-2 |

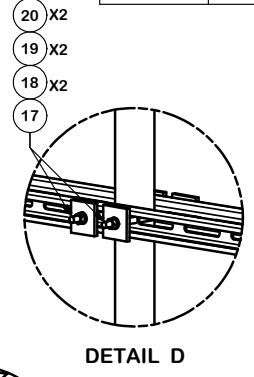
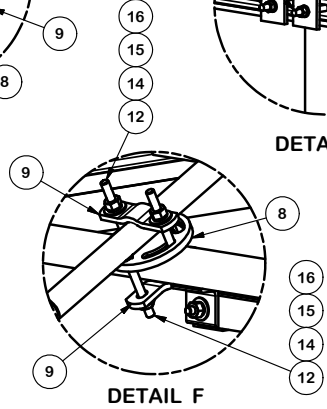
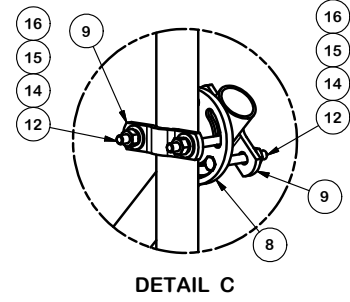
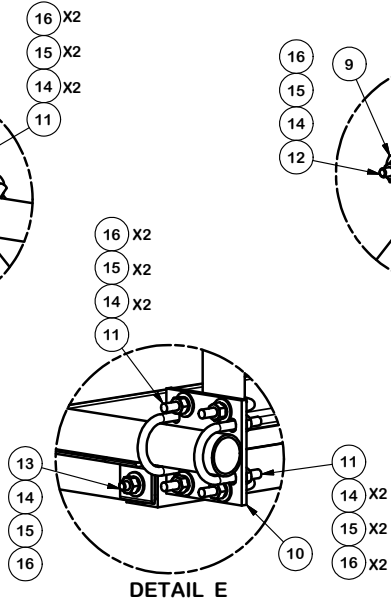
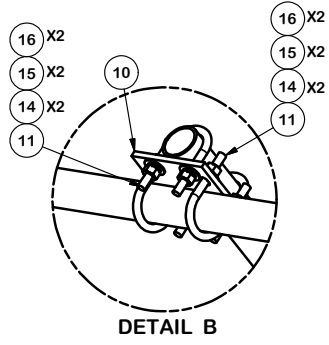
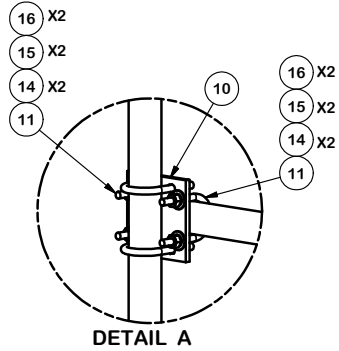
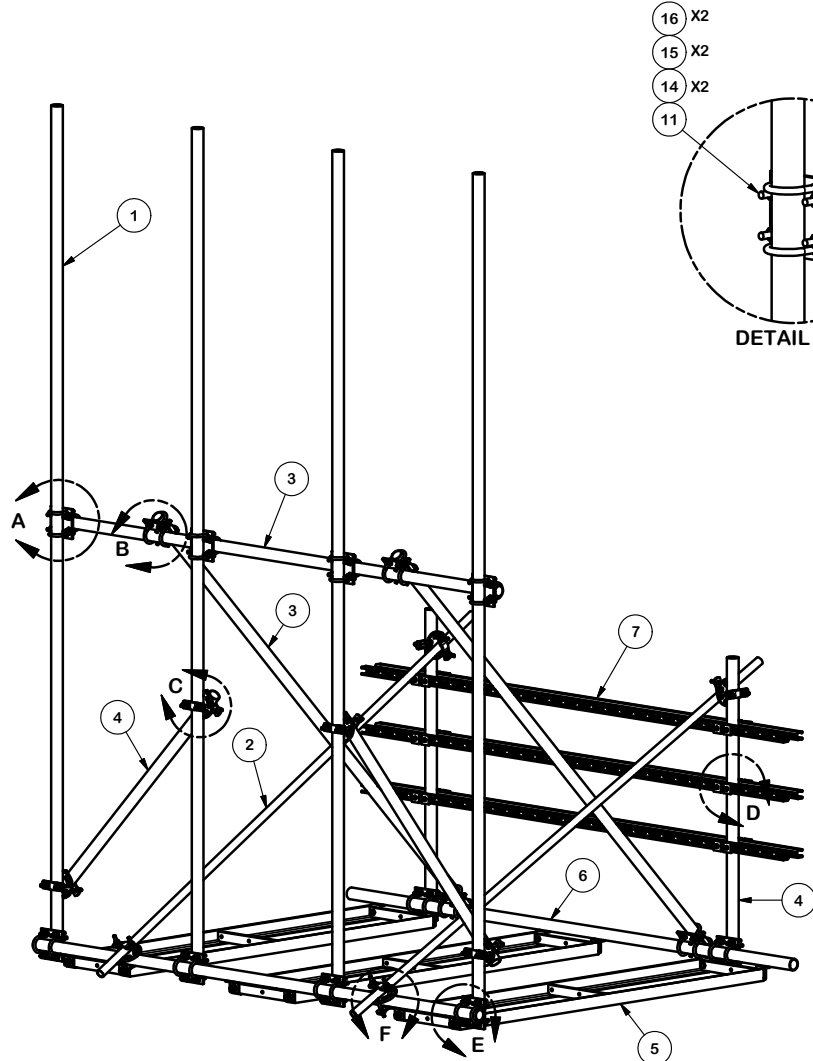
Note: The RET Device for 3400-4200 MHz is connected via the 1695-2180 Port 3 Bias T port or 1695-2180/3400-4200 MHz AISG ports.

Array topology

5 sets of radiating arrays

| Band | RF port |
|-----------|---------|
| 698-894 | 1-2 |
| 1695-2180 | 3-4 |
| 1695-2180 | 5-6 |
| 3400-4200 | 7-8 |
| 3400-4200 | 9-10 |

AMSTERDAM CENTER - NEW ROOFTOP – PROPOSED ANTENNA LAYOUT



| PARTS LIST | | | | | |
|-------------|-----|----------|---|---------|----------|
| ITEM | QTY | PART NO. | PART DESCRIPTION | LENGTH | UNIT WT. |
| 1 | 4 | P2174 | 2-3/8" OD X 174" SCH 40 GALVANIZED PIPE | 174 in | 55.75 |
| 2 | 2 | P1126 | 1 1/4" X 126" SCH 40 PIPE (STIFF ARM) | 126 in | 25.12 |
| 3 | 3 | P2126 | 2-3/8" OD X 126" SCH 40 GALVANIZED PIPE | 126 in | 40.75 |
| 4 | 4 | P263 | 2-3/8" X 63" SCH 40 GALVANIZED PIPE | 63 in | 20.18 |
| 5 | 3 | X-232696 | BALLAST TRAY WELDMENT - SITE PRO 1 | | 66.53 |
| 6 | 2 | X-RTP10 | FRONT AND BACK HORIZONTAL TRAY SUPPORT WELDMENT | | 44.81 |
| 7 | 6 | UNT10 | UNISTRUT | 120 in | 20.38 |
| 8 | 8 | X-127594 | FLAT DISK CLAMP PLATE 4" CENTERS (GALV.) | | 2.51 |
| 9 | 16 | X-100064 | CLAMP (4" V-CLAMP) GALVANIZED | | 0.91 |
| 10 | 14 | SCX1 | CROSSOVER PLATE 2-3/8" X 2-3/8" | 6 in | 3.71 |
| 11 | 56 | X-UB1212 | 1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.) | | 0.63 |
| 12 | 32 | G1204 | 1/2" x 4" HDG HEX BOLT GR5 FULL THREAD | 4 in | 0.27 |
| 13 | 12 | G1202 | 1/2" x 2" HDG HEX BOLT GR5 | 2 in | 0.18 |
| 14 | 156 | G12FW | 1/2" HDG USS FLATWASHER | 3/32 in | 0.03 |
| 15 | 156 | G12LW | 1/2" HDG LOCKWASHER | 1/8 in | 0.01 |
| 16 | 156 | G12NUT | 1/2" HDG HEAVY 2H HEX NUT | | 0.07 |
| 17 | 12 | SS38R-8 | 3/8" X 8" THREADED ROD (STAINLESS STEEL) | | 0.25 |
| 18 | 24 | SQW38 | 3/8" SQUARE WASHER | 2 in | 0.29 |
| 19 | 24 | SS38LW | 3/8" SS LOCKWASHER | | 0.01 |
| 20 | 24 | SS38NUT | 3/8" SS HEX NUT | | 0.02 |
| TOTAL WT. # | | | | | 1049.24 |

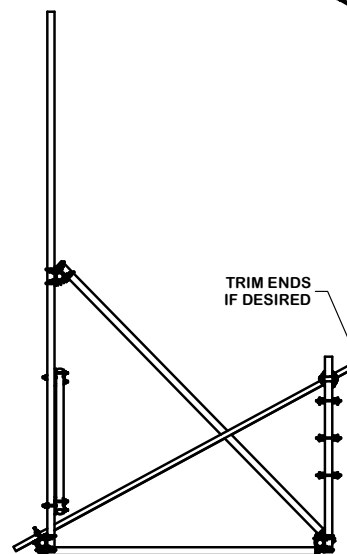
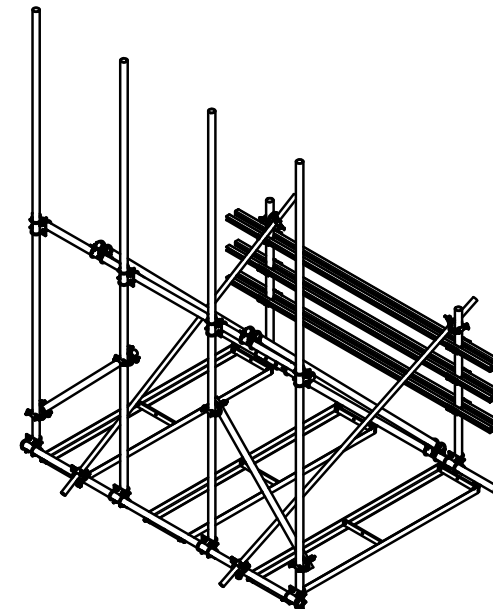
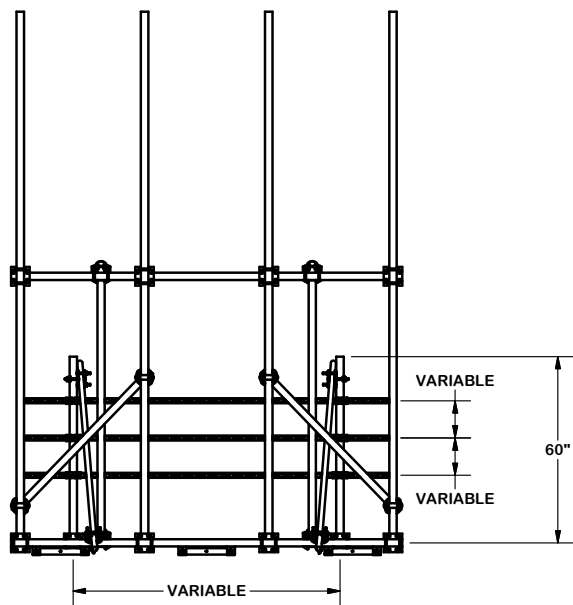
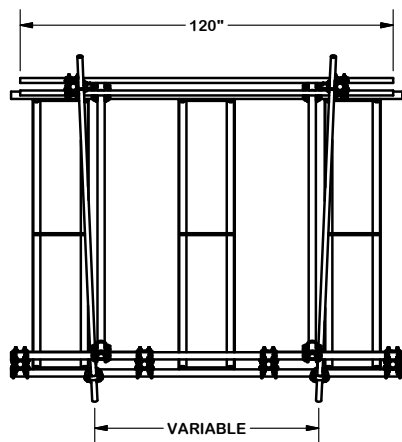
TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.060"$)

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

| DESCRIPTION | | | |
|---|----------|---------------|--|
| 3 LEVEL RRU / EQUIPMENT RACK FOR RTP FRAMES | | | |
| CPD NO. | DRAWN BY | ENG. APPROVAL | |
| CLASS | SUB | DRAWING USAGE | |
| 81 | 01 | CUSTOMER | |
| CHECKED BY | | BMC 4/24/2015 | |

| | | |
|---|------------|---|
| | | Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX |
| Engineering Support Team: 1-888-753-7446 | | |
| A valmont COMPANY | | |
| PART NO. | RTP10-3RRU | |
| DWG. NO. | RTP10-3RRU | |



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.060"$)

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION

3 LEVEL
 RRU / EQUIPMENT RACK
 FOR RTP FRAMES

CPD NO.

DRAWN BY

ENG. APPROVAL

CLASS

SUB

DRAWING USAGE

CHECKED BY

PART NO.

RTP10-3RRU

DWG. NO.

RTP10-3RRU



Engineering
 Support Team:
 1-888-753-7446

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

Date: **September 17, 2020**

Structural Opinion Letter

Project Information:

Carrier: Verizon Wireless
Scope of Work: "New Site Build"
Site Name: Amsterdam Center
Site Address: 29 East Main Street, Amsterdam, NY 12010
Site Type: Rooftop Equipment Shelter

Tectonic Project Number: 10272.13
RE Project Number: 20161493464

Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C. is pleased to submit this **"Structural Opinion Letter"** to determine the structural integrity of the existing shelter of the above-mentioned rooftop telecommunication site.

A limited visual inspection of the existing site was performed on February 13, 2020. In addition, the following information was provided for this assessment:

- Lease Exhibit Drawings by Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C., dated 06/19/20.

Based on the above information, the final equipment configuration upon this installation will be as follows:

Table 1 - Proposed Platform Equipment Information

| Mounting Level (ft) | Carrier Designation | Quantity | Equipment Type | Design Weight (lbs) | Note |
|---------------------|---------------------|----------|----------------|---------------------|----------|
| 107 | Verizon Wireless | 2 | Equipment Rack | 2000 | 1 |
| | | 2 | Battery Rack | 8000 | |
| | | 1 | Fiber Rack | 200 | |
| | | 1 | Power Plant | 1000 | |
| | | 6 | Total | 11,200 | 2 |

Notes:

- To be mounted in existing shelter
- Total equipment quantity and weight.

Based on our review, the proposed installation inside the existing equipment shelter is less than total allowable load of 150 psf as well as no change of wind area. Therefore, the existing equipment shelter and building structure will have adequate capacity for the proposed Verizon Wireless installation.

This structural assessment is solely based on the information provided in the documents referenced above. This assessment also assumes that the equipment and building were designed, fabricated, and constructed in accordance with the approved construction drawings.

Project Contact Info

1279 Route 300 | Newburgh, NY 12550
845.567.6656 Tel | 845.567.8703 Fax

tectonicengineering.com
Equal Opportunity Employer

The contractor shall field verify existing conditions and notify the design engineer of any discrepancies prior to installation of the proposed upgrade. Any further changes to the equipment or other appurtenance's configuration should be reviewed with respect to their effect on structural loads prior to implementation.

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

Sincerely,
Tectonic Engineering Consultants, Geologists, and Land Surveyors D.P.C.,



Edward N. Iamiceli, P.E.
Managing Director – Structural



11

The Verizon logo, consisting of the word "verizon" in a bold, black, sans-serif font, followed by a red checkmark symbol.

RE PROJECT NUMBER: 20161493464
LOCATION CODE: 429735



DIRECTIONS TO SITE:

FROM NORTH GREENBUSH.

FROM NORTH GREENBUSH.

TAKE US-4 S AND FOLLOW FOR 1.5± MILES. TURN RIGHT ONTO NY-43 W AND FOLLOW FOR 1.1± MILES. KEEP RIGHT AT FORK AND MERGE ONTO I-90 W AND FOLLOW FOR 25.5± MILES. TAKE EXIT 27 FOR NY-30 N AND FOLLOW FOR 0.8± MILES. TURN LEFT ONTO MAIN ST AND FOLLOW FOR 292± FEET. SITE WILL BE ON THE LEFT.

PROJECT SUMMARY

THE PROPOSED WORK CONSISTS OF INSTALLING CELLULAR ANTENNAS AND RELATED EQUIPMENT ON AN EXISTING BUILDING.

SHEET INDEX

THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL ITEMS OF CONCERN HAVE BEEN ADDRESSED AND EACH OF THE DRAWINGS HAS BEEN REVISED AND ISSUED "FOR CONSTRUCTION".

Before You Dig, Drill Or Blast!

Dig Safely.
New York

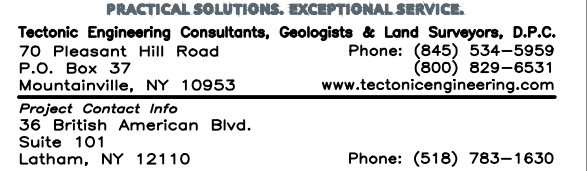
UNDERGROUND FACILITIES
PROTECTIVE ORGANIZATION

CALL US TOLL FREE 1-800-962-7962

NY industrial code rule 753 requires no less than two working days notice, but not more than ten days notice.

DIG SAFELY — NEW YORK

THESE DRAWINGS ARE FORMATTED FOR 22"x34" FULL SIZE AND 11"x17" HALF SIZE. OTHER SIZED VERSIONS ARE NOT PRINTED TO THE SCALE SHOWN. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



| NO. | DATE | ISSUE |
|-----|------|-------|
|-----|------|-------|

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

| | |
|-------------|------|
| RELEASED BY | DATE |
|-------------|------|



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN
BEARING THE SEAL OF A LICENSED ENGINEER OR LAND
SURVEYOR IS A VIOLATION OF SECTION 7209
SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION
LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE
OF THE SIGNATURE AND AN ORIGINAL EMBOSSED
SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF
THE PROFESSIONAL ENGINEER OR LAND SURVEYOR
SHALL NOT BE CONSIDERED VALID COPIES.



SITE INFORMATION

AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

| SITE ADDRESS |
|--------------|
|--------------|

27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1



NOTE:

THE PROPERTY LINES HEREON ARE APPROXIMATE BASED ON GIS DATA AND ARE FOR ORIENTATION PURPOSES ONLY. THEY DO NOT REPRESENT A PROPERTY/BOUNDARY DECISION BY A LAND SURVEYOR.

1 ADJOINERS PLAN
SCALE: 1" = 60' (11x17 SIZE)
1" = 30' (22x34 SIZE)

| ID | SBL | OWNER | ADDRESS | CITY/STATE | ZIP |
|----|--------------|-------------------------------|-------------------------|------------------|-------|
| 1 | 55.43-1-3 | CRANESVILLE PROPERTIES L.L.C. | 1250 RIVERFRONT CENTER | AMSTERDAM, NY | 12010 |
| 2 | 55.43-1-5 | TJB LEGACY LLC | 54 CEMETERY RD | CLIFTON PARK, NY | 12065 |
| 3 | 55.43-1-10.1 | NY CENTRAL LINES LLC | 500 WATER STREET (C910) | JACKSONVILLE, FL | 32202 |
| 4 | 55.43-1-1 | CITY OF AMSTERDAM | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 5 | 55.35-1-49 | KUO MARK | 16 MAIN ST | AMSTERDAM, NY | 12010 |
| 6 | 55.35-1-48 | CITY OF AMSTERDAM | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 7 | 55.35-1-47 | AIDA | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 8 | 55.35-1-46 | AIDA | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 9 | 55.35-1-43 | GURME UTTAM S | 9 MILAN CT | SCHENECTADY, NY | 12309 |

2 ADJOINERS LIST
SCALE: NTS

verizon

1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (518) 554-5659
P.O. Box 37 Mountaineer, NY 10953 (800) 859-6551
www.tectoniceengineering.com
Project Contact Info
36 British American Blvd.
Suite 101
Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER 10272.13
DRAWN BY TRR

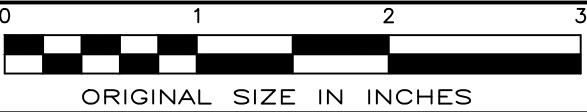
| NO. | DATE | ISSUE |
|-----|----------|-------------|
| 0 | 10/23/20 | FOR COMMENT |
| 1 | 11/4/20 | FOR ZONING |

RELEASED BY DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.



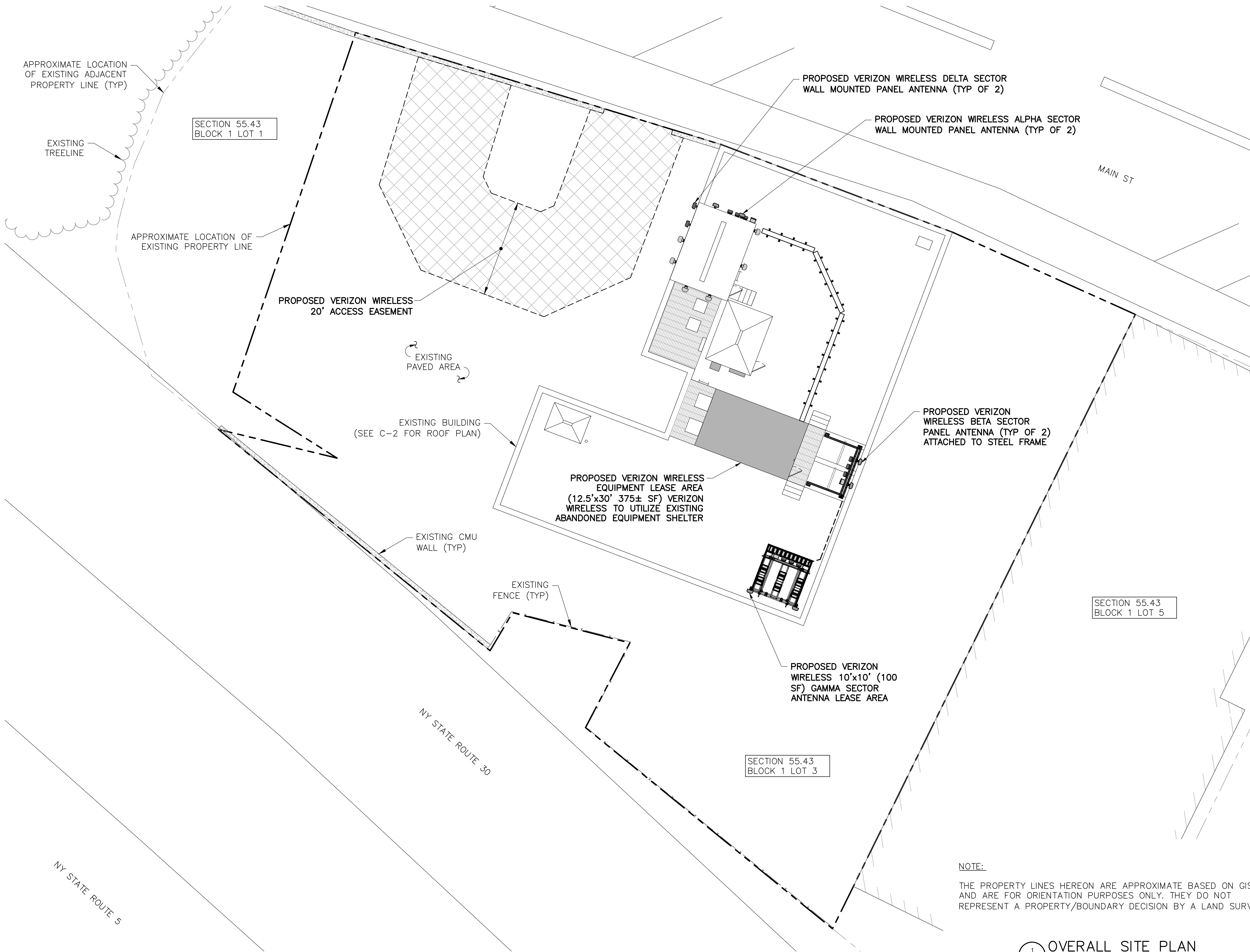
ORIGINAL SIZE IN INCHES

SITE INFORMATION
AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

SITE ADDRESS
27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE
ADJOINERS PLAN

SHEET NUMBER
AD-1



NOTE:
THE PROPERTY LINES HEREON ARE APPROXIMATE BASED ON GIS DATA AND ARE FOR ORIENTATION PURPOSES ONLY. THEY DO NOT REPRESENT A PROPERTY/BOUNDARY DECISION BY A LAND SURVEYOR.

1
C-1
OVERALL SITE PLAN
SCALE: 1" = 20' (11x17 SIZE)
1" = 10' (22x34 SIZE)

verizon

1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (845) 554-5859
P.O. Box 37 Mountville, NY 10953 (800) 859-6551
www.tectonicengineering.com
Project Contact Info
36 British American Blvd.
Suite 101 Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER
10272.13
DRAWN BY
TRR

| NO. | DATE | ISSUE |
|-----|----------|-------------|
| 0 | 10/23/20 | FOR COMMENT |
| 1 | 11/4/20 | FOR ZONING |

RELEASED BY
DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.



ORIGINAL SIZE IN INCHES

SITE INFORMATION

AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

SITE ADDRESS

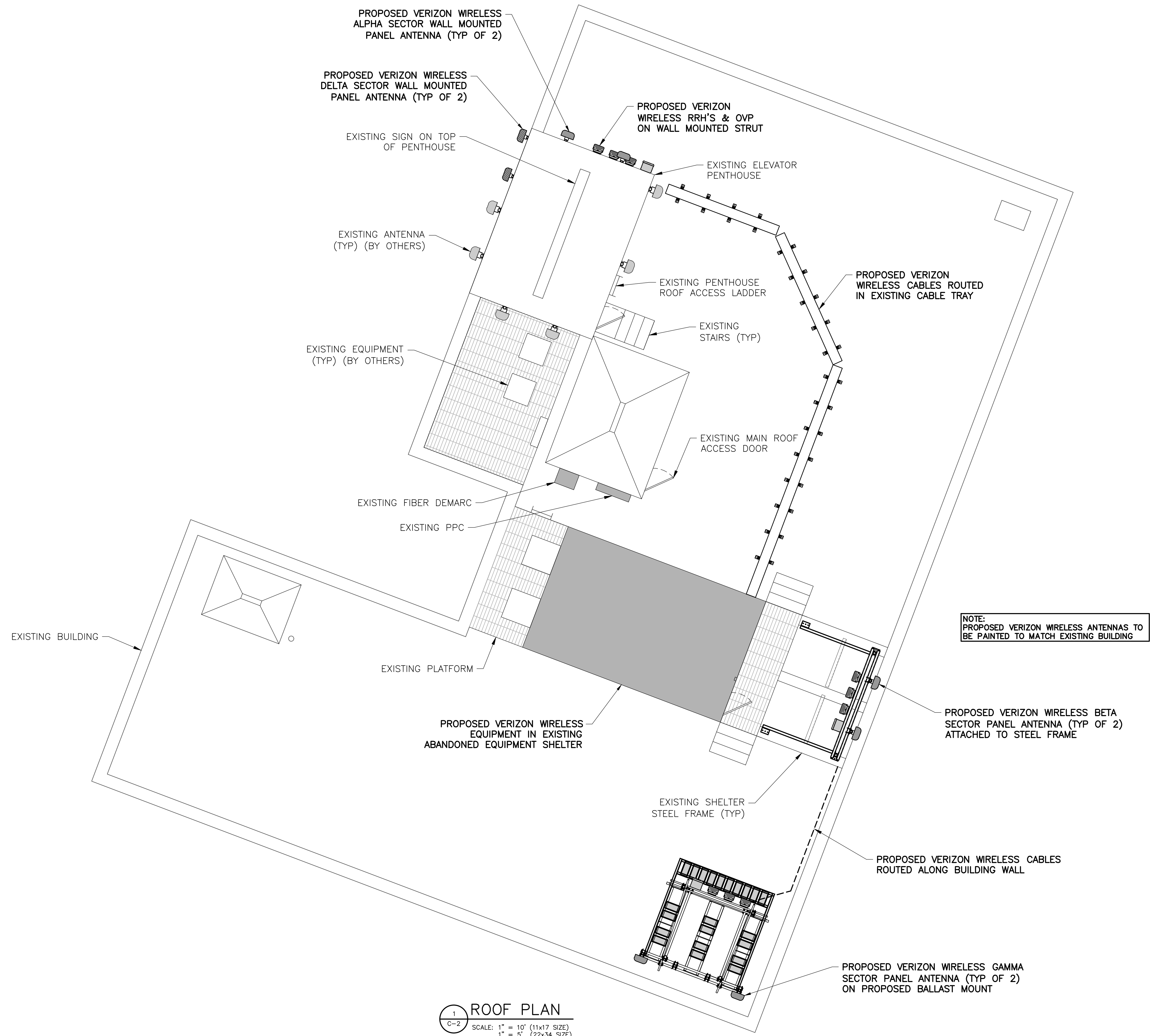
27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

C-1



1
C-2
ROOF PLAN
SCALE: 1" = 10' (11x17 SIZE)
1" = 5' (22x34 SIZE)



1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586



PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (518) 534-5559
P.O. Box 37 Mount Airy, NY 10953 (800) 829-6531
www.tectonicengineering.com
Project Contact Info
36 British American Blvd.
Suite 101 Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER 10272.13 DRAWN BY TRR

| NO. | DATE | ISSUE |
|-----|----------|-------------|
| 0 | 10/23/20 | FOR COMMENT |
| 1 | 11/4/20 | FOR ZONING |

RELEASED BY DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.



ORIGINAL SIZE IN INCHES

SITE INFORMATION

AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

SITE ADDRESS

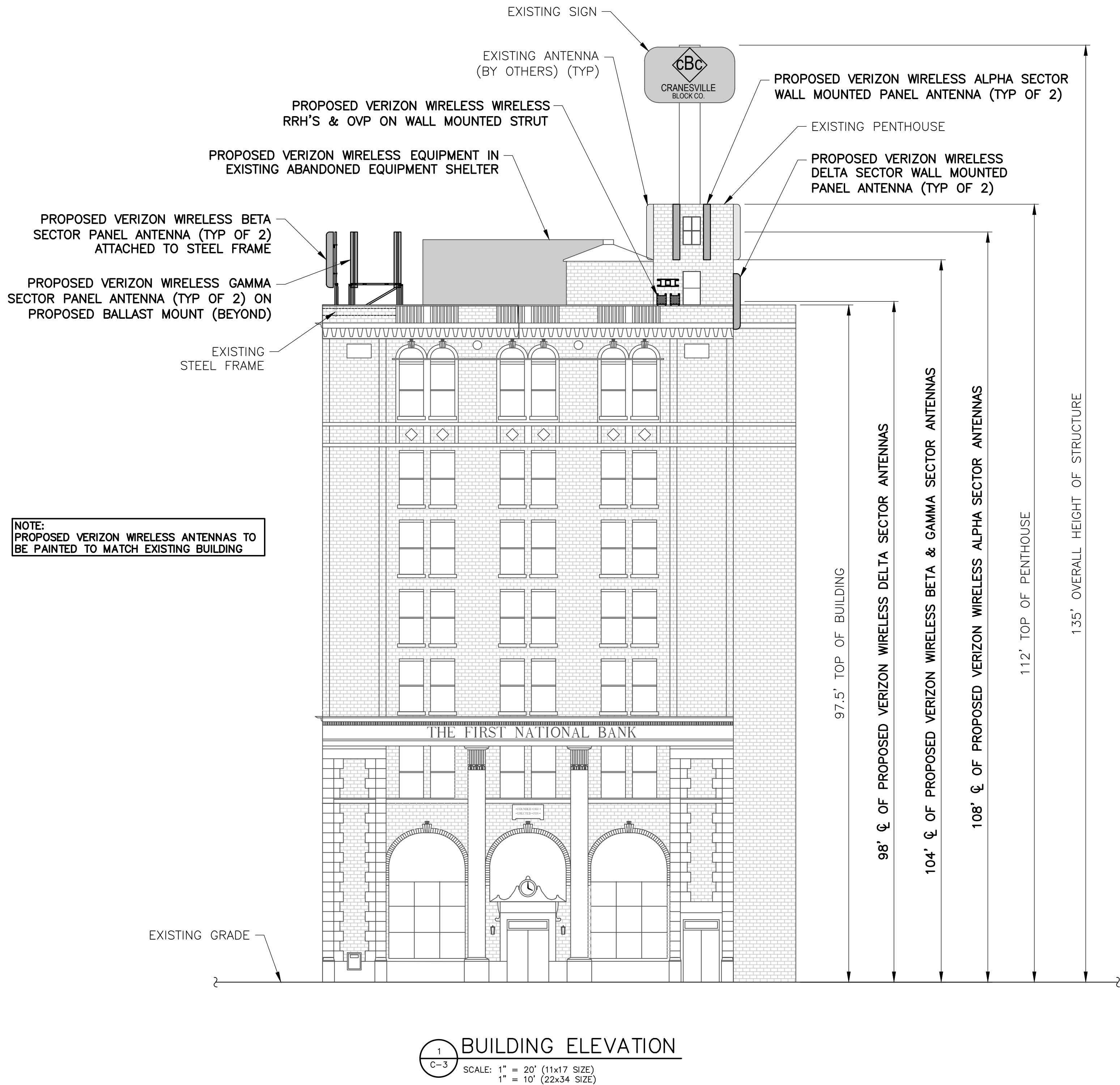
27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE

ROOF PLAN

SHEET NUMBER

C-2



1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586



PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (645) 534-5659
P.O. Box 37 Mountainville, NY 10953 (800) 829-6531
Project Contact Info: www.tectoniceengineering.com
36 British American Blvd.
Suite 101 Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER

10272.13

DRAWN BY

TRR

NO. DATE ISSUE

0 10/23/20 FOR COMMENT

1 11/4/20 FOR ZONING

RELEASED BY

DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

0 1 2 3

ORIGINAL SIZE IN INCHES

SITE INFORMATION

AMSTERDAM CENTER

RE PN: 20161493464

LC: 429735

SITE ADDRESS

27-31 MAIN ST

CITY OF AMSTERDAM

MONTGOMERY COUNTY

NY 12010

SHEET TITLE

BUILDING ELEVATION

SHEET NUMBER

C-3

The Verizon logo, consisting of the word "verizon" in a bold, black, sans-serif font, followed by a red checkmark symbol.

RE PROJECT NUMBER: 20161493464
LOCATION CODE: 429735



DIRECTIONS TO SITE:

FROM NORTH GREENBUSH.

FROM NORTH GREENBUSH.

TAKE US-4 S AND FOLLOW FOR 1.5± MILES. TURN RIGHT ONTO NY-43 W AND FOLLOW FOR 1.1± MILES. KEEP RIGHT AT FORK AND MERGE ONTO I-90 W AND FOLLOW FOR 25.5± MILES. TAKE EXIT 27 FOR NY-30 N AND FOLLOW FOR 0.8± MILES. TURN LEFT ONTO MAIN ST AND FOLLOW FOR 292± FEET. SITE WILL BE ON THE LEFT.

PROJECT SUMMARY

THE PROPOSED WORK CONSISTS OF INSTALLING CELLULAR ANTENNAS AND RELATED EQUIPMENT ON AN EXISTING BUILDING.

SHEET INDEX

THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL ITEMS OF CONCERN HAVE BEEN ADDRESSED AND EACH OF THE DRAWINGS HAS BEEN REVISED AND ISSUED "FOR CONSTRUCTION".

Before You Dig, Drill Or Blast!

Dig Safely.
New York

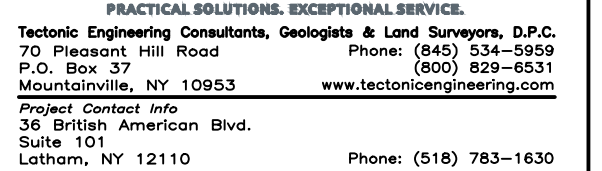
UNDERGROUND FACILITIES
PROTECTIVE ORGANIZATION

CALL US TOLL FREE 1-800-962-7962

NY industrial code rule 753 requires no less than two working days notice, but not more than ten days notice.

DIG SAFELY — NEW YORK

THESE DRAWINGS ARE FORMATTED FOR 22"x34" FULL SIZE AND 11"x17" HALF SIZE. OTHER SIZED VERSIONS ARE NOT PRINTED TO THE SCALE SHOWN. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



| | |
|-------------------|----------|
| WORK ORDER NUMBER | DRAWN BY |
| 10272.13 | TRR |

| RELEASED BY | DATE |
|-------------|------|
|-------------|------|



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN
BEARING THE SEAL OF A LICENSED ENGINEER OR LAND
SURVEYOR IS A VIOLATION OF SECTION 7209
SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION
LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE
OF THE SIGNATURE AND AN ORIGINAL EMBOSSED
SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF
THE PROFESSIONAL ENGINEER OR LAND SURVEYOR
SHALL NOT BE CONSIDERED VALID COPIES.



SITE INFORMATION

AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

SITE ADDRESS

27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1



NOTE:

THE PROPERTY LINES HEREON ARE APPROXIMATE BASED ON GIS DATA AND ARE FOR ORIENTATION PURPOSES ONLY. THEY DO NOT REPRESENT A PROPERTY/BOUNDARY DECISION BY A LAND SURVEYOR.

1 ADJOINERS PLAN
SCALE: 1" = 60' (11x17 SIZE)
1" = 30' (22x34 SIZE)

| ID | SBL | OWNER | ADDRESS | CITY/STATE | ZIP |
|----|--------------|-------------------------------|-------------------------|------------------|-------|
| 1 | 55.43-1-3 | CRANESVILLE PROPERTIES L.L.C. | 1250 RIVERFRONT CENTER | AMSTERDAM, NY | 12010 |
| 2 | 55.43-1-5 | TJB LEGACY LLC | 54 CEMETERY RD | CLIFTON PARK, NY | 12065 |
| 3 | 55.43-1-10.1 | NY CENTRAL LINES LLC | 500 WATER STREET (C910) | JACKSONVILLE, FL | 32202 |
| 4 | 55.43-1-1 | CITY OF AMSTERDAM | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 5 | 55.35-1-49 | KUO MARK | 16 MAIN ST | AMSTERDAM, NY | 12010 |
| 6 | 55.35-1-48 | CITY OF AMSTERDAM | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 7 | 55.35-1-47 | AIDA | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 8 | 55.35-1-46 | AIDA | 61 CHURCH ST | AMSTERDAM, NY | 12010 |
| 9 | 55.35-1-43 | GURME UTTAM S | 9 MILAN CT | SCHENECTADY, NY | 12309 |

2 ADJOINERS LIST
SCALE: NTS

verizon

1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (518) 554-5659
P.O. Box 37 Mountaineer, NY 10953 (800) 859-6551
www.tectonicengineering.com
Project Contact Info
36 British American Blvd.
Suite 101
Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER 10272.13
DRAWN BY TRR

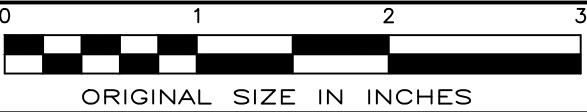
| NO. | DATE | ISSUE |
|-----|----------|-------------|
| 0 | 10/23/20 | FOR COMMENT |
| 1 | 11/4/20 | FOR ZONING |

RELEASED BY DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.



ORIGINAL SIZE IN INCHES

SITE INFORMATION

AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

SITE ADDRESS

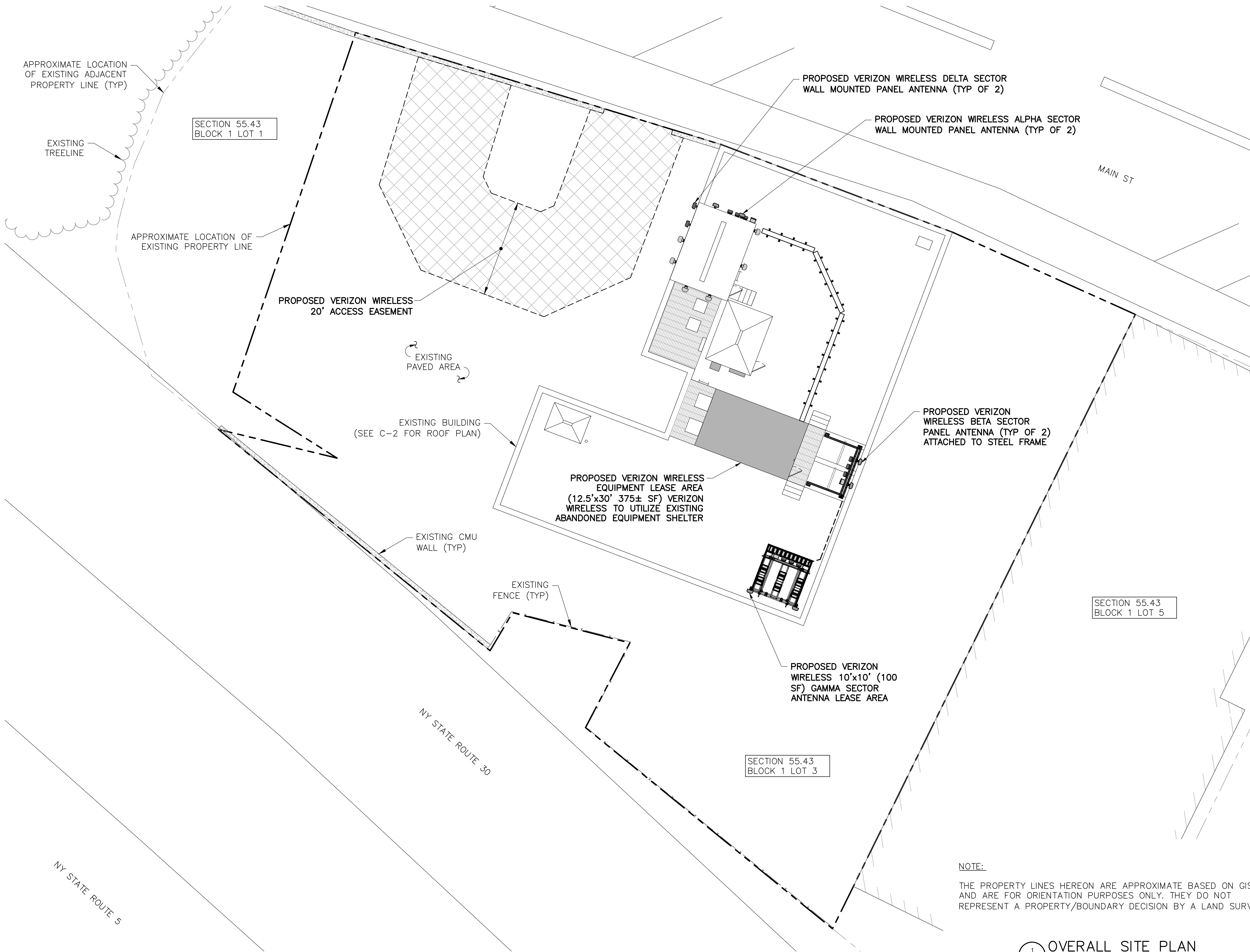
27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE

ADJOINERS PLAN

SHEET NUMBER

AD-1



NOTE:
THE PROPERTY LINES HEREON ARE APPROXIMATE BASED ON GIS DATA
AND ARE FOR ORIENTATION PURPOSES ONLY. THEY DO NOT
REPRESENT A PROPERTY/BOUNDARY DECISION BY A LAND SURVEYOR.

1
C-1
OVERALL SITE PLAN
SCALE: 1" = 20' (11x17 SIZE)
1" = 10' (22x34 SIZE)

verizon

1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (845) 554-5859
P.O. Box 37 Mountville, NY 10953 (800) 859-6551
www.tectonicengineering.com
Project Contact Info
36 British American Blvd.
Suite 101 Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER
10272.13
DRAWN BY
TRR

| NO. | DATE | ISSUE |
|-----|----------|-------------|
| 0 | 10/23/20 | FOR COMMENT |
| 1 | 11/4/20 | FOR ZONING |

RELEASED BY
DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN
BEARING THE SEAL OF A LICENSED ENGINEER OR LAND
SURVEYOR IS A VIOLATION OF SECTION 7209
SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION
LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE
OF THE SIGNATURE AND AN ORIGINAL EMBOSSED
SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF
THE PROFESSIONAL ENGINEER OR LAND SURVEYOR
SHALL NOT BE CONSIDERED VALID COPIES.

0 1 2 3
ORIGINAL SIZE IN INCHES

SITE INFORMATION

AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

SITE ADDRESS

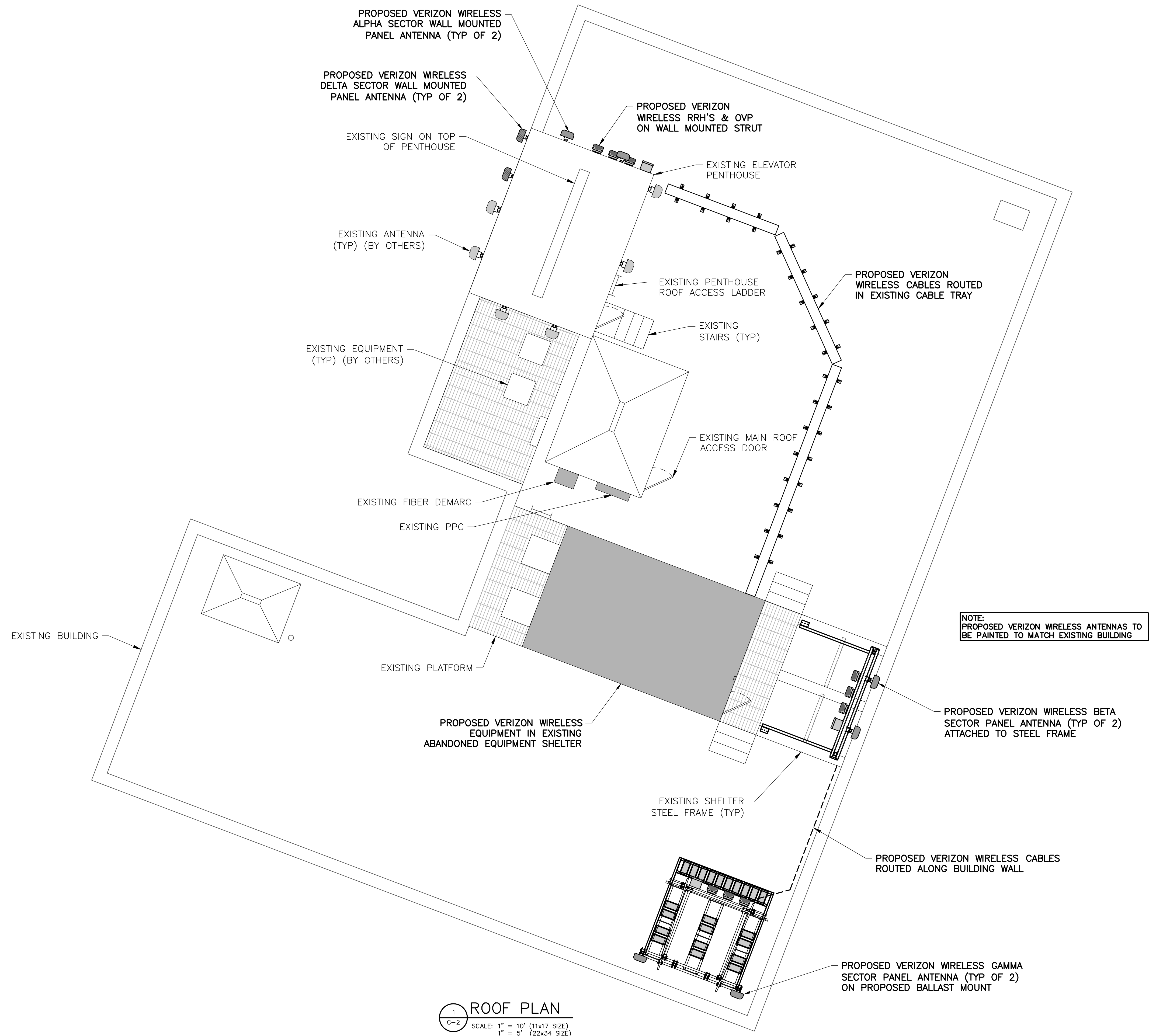
27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

C-1



1
C-2
ROOF PLAN
SCALE: 1" = 10' (11x17 SIZE)
1" = 5' (22x34 SIZE)

verizon

1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (518) 534-5559
P.O. Box 37 Mount Airy, NY 10953 (800) 829-6531
www.tectonicengineering.com
Project Contact Info
36 British American Blvd.
Suite 101 Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER 10272.13 DRAWN BY TRR

NO. DATE ISSUE

0 10/23/20 FOR COMMENT

1 11/4/20 FOR ZONING

RELEASED BY DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

0 1 2 3
ORIGINAL SIZE IN INCHES

SITE INFORMATION

AMSTERDAM CENTER
RE PN: 20161493464
LC: 429735

SITE ADDRESS

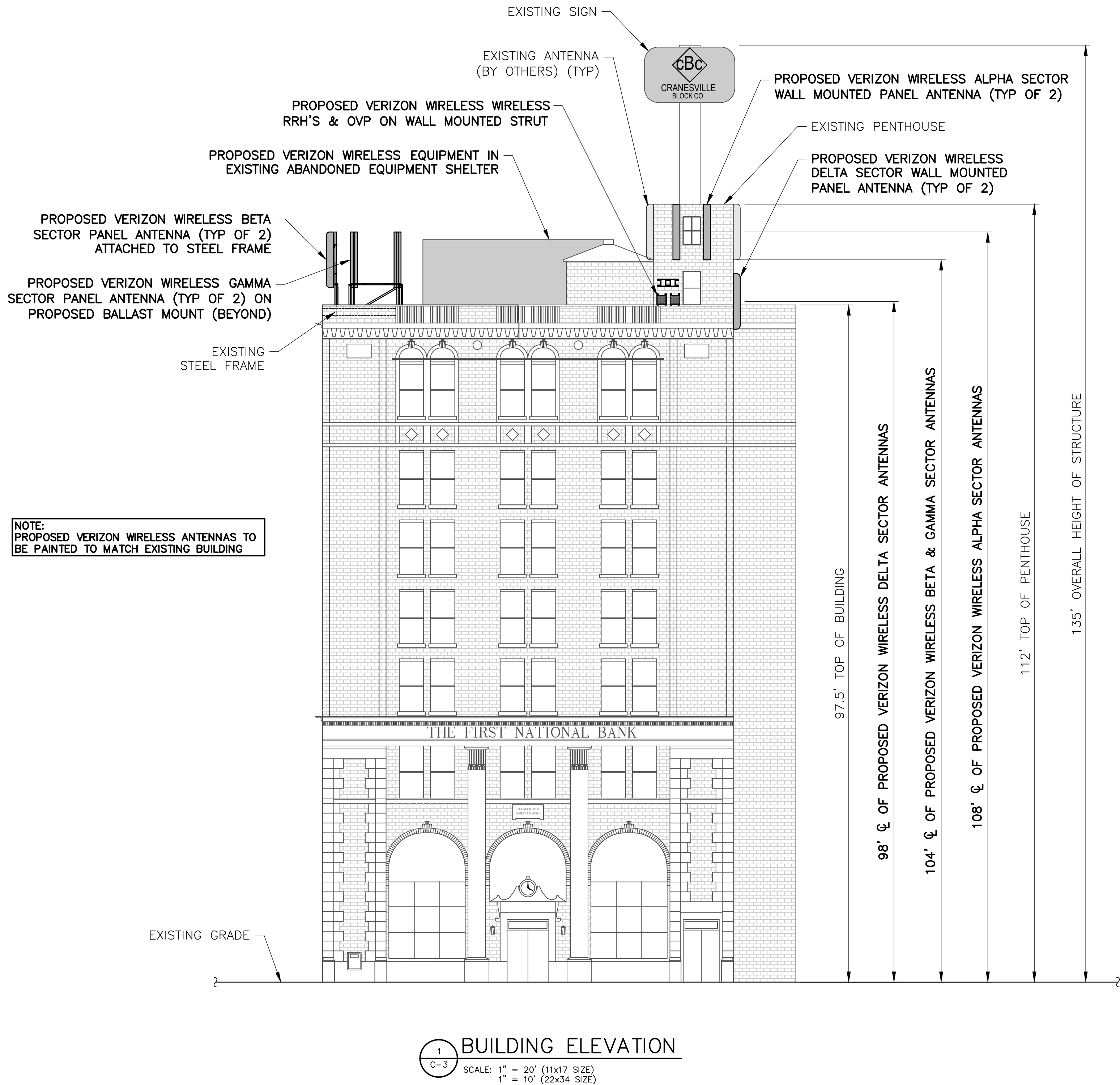
27-31 MAIN ST
CITY OF AMSTERDAM
MONTGOMERY COUNTY
NY 12010

SHEET TITLE

ROOF PLAN

SHEET NUMBER

C-2



verizon

1275 JOHN STREET, SUITE 100
WEST HENRIETTA, NY 14586

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.
Tectonic Engineering Consultants, Geologists & Land Surveyors, D.P.C.
70 Pleasant Hill Road Phone: (845) 534-5699
P.O. Box 37 Mountainville, NY 10953 (800) 829-6531
www.tectonicengineering.com
Project Contact Info
36 British American Blvd.
Suite 101
Latham, NY 12110 Phone: (518) 783-1630

WORK ORDER NUMBER

10272.13

DRAWN BY

TRR

NO. DATE ISSUE

0 10/23/20 FOR COMMENT

1 11/4/20 FOR ZONING

RELEASED BY

DATE



UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

0 1 2 3
ORIGINAL SIZE IN INCHES

SITE INFORMATION

AMSTERDAM CENTER

RE PN: 20161493464

LC: 429735

SITE ADDRESS

27-31 MAIN ST

CITY OF AMSTERDAM

MONTGOMERY COUNTY

NY 12010

SHEET TITLE

BUILDING ELEVATION

SHEET NUMBER

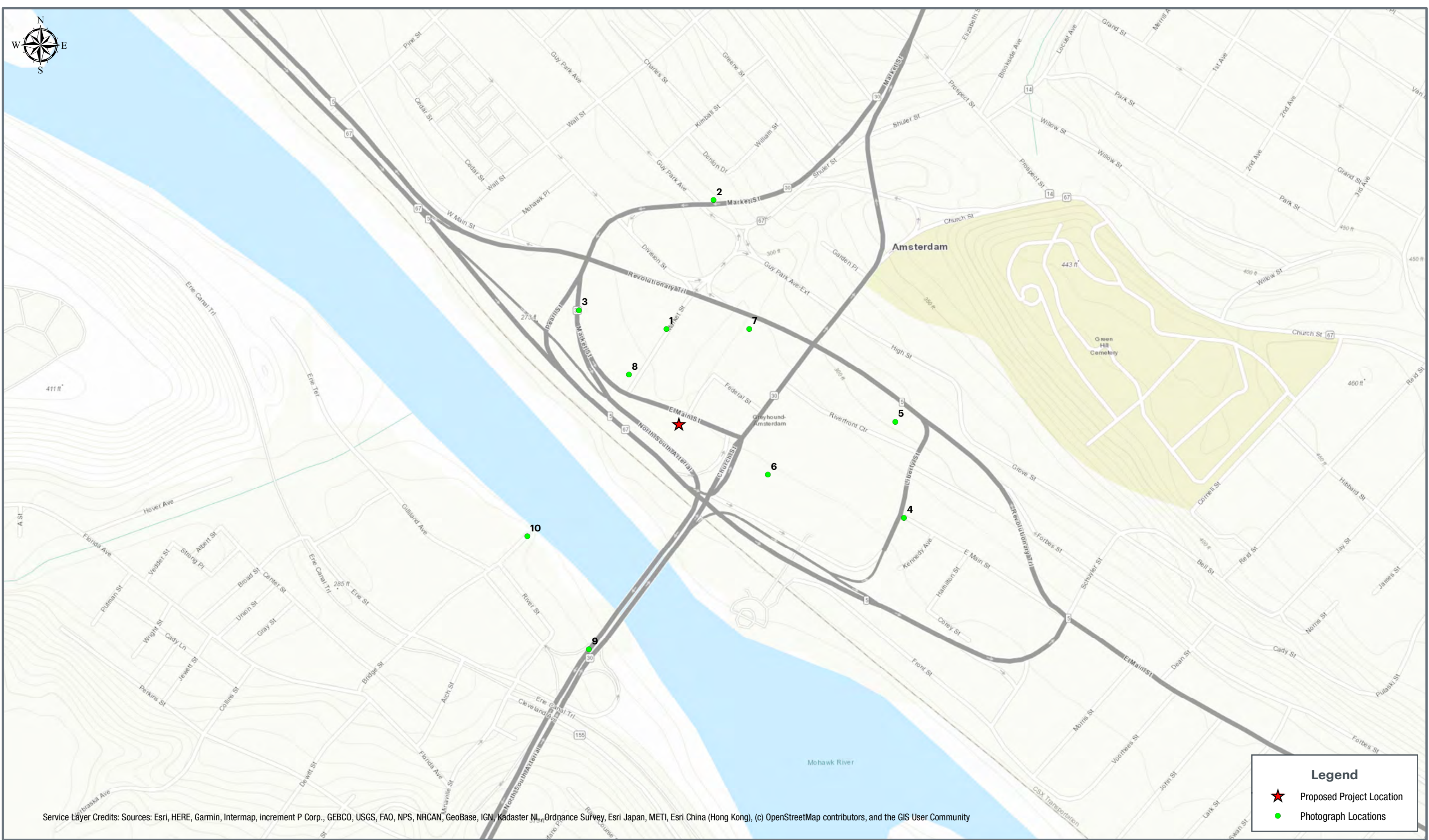
C-3











Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



























REFERRAL FORM
MONTGOMERY COUNTY PLANNING BOARD

Referral Number _____
assigned by the MCPB upon
acceptance of referral for review

This Referral must be received **SEVEN CALENDAR DAYS** prior to the MCPB meeting date in order for it to be placed on the agenda.
Town of Amsterdam

TO: Montgomery County Planning Board,
Old County Courthouse,
PO Box 1500, Fonda, New York 12068
Phone: 518-853-8334
Fax: 518-853-8336

FROM: Municipal Board: Planning Board
Referring Officer: secretary
Mail original resolution to: Town of Amsterdam
283 Manny's Corner Rd
Amsterdam, NY 12010

1. **Applicant:** Concord Development 2. **Site Address:** Log City Rd Amsterdam NY
3. **Tax Map Number(s):** 24.00-1 - 43.11 4. **Acres:** 92.25
5. **Is the site currently serviced by public water?** ☐ Yes ☒ No proposing to install public
6. **On-site waste water treatment is currently provided by:** ☐ Public Sewer or ☐ Septic System providing
7. **Current Zoning:** changed R-1 to PUD 8. **Current Land Use:** vacant public sewer
R-2 & B-1
9. **Project Description:** construct multi-family development with mixed
housing types including duplex homes and condominiums

10. MCPB Jurisdiction:

- ☐ Text Adoption or Amendment ☐ Site is located within 500' of: _____
☐ a municipal boundary.
☒ a State or County thruway/highway/roadway
☐ an existing or proposed State or County park/recreation area
☐ an existing or proposed County-owned stream or drainage channel
☐ a State or County-owned parcel on which a public building or institution is situated
☐ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. **PUBLIC HEARING:** Date: July 1, 2020 Time: 6:55 pm Location: Town of Amsterdam
Town Hall 283 Manny's
Corner Rd Amsterdam
Referred Action(s)
If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or ☐ Amendment **Referring Board:**
☐ Comprehensive Plan ☐ Local Law ☐ Zoning Ordinance ☐ Other _____

13. ☐ Zone Change **Referring Board:**
Proposed Zone District: _____ Number of Acres: _____

Purpose of the Zone Change: _____

14. ☒ Site Plan ☐ Project Site Review **Referring Board:** Planning Board

Proposed Improvements: _____

Proposed Use: housing development

Will the proposed project require a variance? ☐ Yes ☒ No Type: ☐ Area ☐ Use

Specify: _____

Is a State or County DOT work permit needed? If Yes : ☐ State or ☐ County ☐ No

Specify: _____

15. ☐ Special Permit

Referring Board:

Section of local zoning code that requires a special permit for this use: _____

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

16. Variance

Referring Board:

☐ Area ☐ Use

Section(s) of local zoning code to which the variance is being sought: _____

Describe how the proposed project varies from the above code section: _____

SEQR Determination

Action:

Finding:

☐ Type I

☐ Positive Declaration – Draft EIS

☐ Type II

☐ Conditional Negative Declaration

☒ Unlisted Action

☐ Negative Declaration

☐ Exempt

☐ No Finding (Type II Only)

SEQR determination made by (Lead Agency): no determination yet Date: _____

REQUIRED MATERIAL

Send 3 copies of a "Full Statement of the Proposed Action" which includes:

All materials required by and submitted to the referring body as an application

- If submitting site plans, please submit only 1 large set of plans, and 12 11x17 packets.
- All material may be submitted digitally as well at <http://www.mcfdc.org/planning-services/montgomery-county-planning-board-referrals/>

This referral, as required by GML §239 1 and m, includes complete information, and supporting materials to assist the Montgomery County Planning Board (MCPB) in its review. Recommendations by MCPB shall be made to the Referring Body within thirty days of receipt of the Full Statement.

Deleane Whitbread secretary

Name, Title & Phone Number of Person Completing this Form

518-842-1217

12/23/20

Transmittal Date

This side to be completed by Montgomery County Planning.

REFERRAL FORM
MONTGOMERY COUNTY PLANNING BOARD

TO: _____

Receipt of 239-m referral is acknowledged on _____, Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on _____ and makes the following recommendation.

- ☐ Approves
- ☐ Approves (with Modification)
- ☐ Disapproves:
- ☐ No significant County-wide or inter-community input
- ☐ Not subject to Planning Board review
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

Date

Kenneth F. Rose, Director
Montgomery County Dept. of Economic
Development and Planning

2/10/2011

Application #: _____

Date: _____

**Town of Amsterdam
Planning Board
Application to the Planning Board**

A completed Application must be filed at least fourteen (14) days prior to the meeting at which it is to be considered by the Planning Board, including all applicable attached information.

Applicant: Concorde Development Co. ^{UC} Applicant's Representative: Brett L. Steenburgh PE PLLC
(must be property owner) (if applicable)
Address: PO Box 9614 Address: 2832 Rosendale Rd
Niskayuna, NY 12309 Niskayuna, NY 12309
Phone: (518) 423-0703 Phone: (518) 365-0675
Professional Advisor: Brett L. Steenburgh PE Other: _____
(Licensed Engineer, Architect, Surveyor, etc.) (If appropriate, please specify)
Address: 2832 Rosendale Rd Address: _____
Niskayuna, NY 12309
Phone: (518) 365-0675 Phone: () _____

Property Location

Address: Log City Road
General Location: 2,800 Ft west of Rt 30 on
South side of Log City Rd
Zoning District: R-1 Residential
Tax Parcel ID # (SBL) 24000-1-43.11

Type of Application (please check appropriate box(es)):

☐ Subdivision

☐ Site Plan

☐ Special Use Permit

☒ Planned Unit Development Review (formal action required by Town Board)

Attached please find Appendix A-SEQR compliance, and Appendix B-Ag. Data Statement compliance. Compliance with these items is required under the applicable NYS Laws, a brief explanation is included in the appendices to assist the applicant. For specifics on submission/application requirements, procedures, time frames, etc., the applicant should refer to the applicable Town regulations (Zoning, Subdivision, etc.) and/or NYS law (SEQR, Ag. & Markets, General Municipal, etc.).

Applicant _____

Date _____

Applicant's Representative _____

Date 5/7/20



TOWN OF AMSTERDAM

283 Manny's Corner Road
Amsterdam, NY 12010
Phone: 518-842-7961 • Fax: 518-843-6136
www.townofamsterdam.org

APPLICATION FOR ZONING/USE PERMIT

APPLICATION DATE: 5/7/2010

ZONE: R-1 Residential

APPLICATION #: _____ FBB PD: _____ TAX MAP NO.: 24.00-1-43.11

1.) PROPERTY/BUILDING LOCATION: Long City Road

2.) PROPERTY OWNER'S NAME: Concorde Development Co. LLC TELEPHONE: (518) 423-0103
ADDRESS: PO Box 9614, Niskayuna, NY 12309

3.) APPLICATION IS HEREBY MADE FOR: (Check ALL that are applicable).

☒ NEW CONSTRUCTION

☐ RESIDENTIAL

☐ 1 FAMILY

☒ 2 FAMILY

☒ MULTIPLE

☐ COMMERCIAL

☐ MOBILE HOME INSTALLATION

☐ MODULAR HOME INSTALLATION

☐ GARAGE ☐ ATTACHED GARAGE

☐ ACCESSORY BUILDING/STORAGE SHED

☐ CHIMNEY CONSTRUCTION

☐ SOLID FUEL BURNING DEVICE

☐ STOVE INSERT

☐ RENOVATION, ALTERATION, CONVERSION

☐ RESIDENTIAL

☐ COMMERCIAL

☐ POOL ☐ IN GROUND ☐ ABOVE GROUND

☐ SEPTIC SYSTEM ☐ WELL

☐ OTHER: _____

☐ PLANNED UNIT DEVELOPMENT

☐ KENNEL/STABLES

☐ HOME OCCUPATION

☐ OUTDOOR FURNACES

☐ SOLAR COLLECTORS +
INSTALLATIONS

☐ WIND ENERGY FACILITIES

☐ COMMERCIAL OCCUPANCY (WITH NO RENOVATIONS) INSPECTION ONLY.

☐ DEMOLITION

☐ COMMERCIAL OR ☐ RESIDENTIAL (CHECK ONE)

METHOD OF DEMOLITION: _____

PLACE OF DEBRIS DISPOSAL: _____

DISCONNECTION DATE OF UTILITIES: _____

4.) THE FOLLOWING DESCRIPTION OF THE USE FOR THIS PROPERTY, FOR WHICH APPLICATION IS MADE HEREBY, IS SUBMITTED: Proposed To Develop the parcel under a PUD with a mixture of (4) Unit Condominium Buildings and (2) Family Duplexes

5.) SITE INFORMATION (THE FOLLOWING INFORMATION MUST BE PROVIDED ALONG WITH DETAILED PLOT PLAN)

A.) DIMENSIONS OF LOT: FRONTAGE 1570' REAR _____ RIGHT SIDE _____ LEFT SIDE _____

ACREAGE: 9.225

B.) IS THIS A CORNER LOT? ☐ YES OR ☒ NO

C.) WILL THE GRADE OF THIS LOT BE CHANGED AS A RESULT OF THIS CONSTRUCTION? ☒ YES OR ☐ NO

IF "YES", DESCRIBE AND SHOW ON PLOT PLAN

D.) ☒ PUBLIC WATER OR ☐ PRIVATE WELL

E.) ☒ SEWER OR ☐ PRIVATE SEPTIC

*** SEPARATE PERMITS ARE REQUIRED FOR PUBLIC WATER AND SANITARY SEWER

F.) DISTANCE FROM LOT LINES: FRONT _____ REAR _____ RIGHT SIDE _____ LEFT SIDE _____ N/A

6.) TYPE OF CONSTRUCTION: (CHECK ALL THAT APPLY)

STYLE: ☐ RANCH ☐ RAISED RANCH ☐ SPLIT LEVEL ☐ CAPE COD ☐ COLONIAL ☒ DUPLEX
☒ OTHER: 4 - Unit Condo's

BASEMENT (CHECK ONE): ☒ FULL ☐ CRAWL ☒ SLAB

GARAGE: ☒ 1 STALL ☒ 2 STALL ☐ 3 STALL ☐ PRIVATE ☐ PUBLIC

THE ACCESSORY BUILDING WILL BE AS FOLLOWS: ☐ DESCRIPTION: Proposed new road through Parcel

☐ DIMENSIONS: FRONT WIDTH: Varies SIDE LENGTH: Varies HEIGHT: Varies

7.) CONTRACTOR'S NAME: Unknown DAY PHONE: ()

MAILING ADDRESS: _____

(ALL CONTRACTORS MUST PROVIDE PROOF OF WORKERS COMPENSATION AND LIABILITY INSURANCE)

8.) ESTIMATED VALUE OF ALL WORK (LABOR & MATERIALS): \$ 5 million

9.) SIGNATURE OF PROPERTY OWNER: _____

I CERTIFY THAT THE CONSTRUCTION PLANS AND ALL OTHER INFORMATION SUBMITTED AS PART OF THIS APPLICATION ARE ACCURATE.

10.) FOR OFFICE USE ONLY:

DATE APPROVED: _____ DATE DENIED: _____

SIGNATURE: _____
(ZONING OFFICER)

PERMIT EXPIRES: _____ ☐ DENIED AND REFERRED TO PLANNING BOARD
☐ DENIED AND REFERRED TO ZONING BOARD OF APPEALS

NOTES OR COMMENTS: _____

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 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

| | | |
|--|-----------|--|
| Name of Action or Project: Log City Road PUD | | |
| Project Location (describe, and attach a general location map): Log City Road | | |
| Brief Description of Proposed Action (include purpose or need): Re-zone 92.25 Acres from R-1 Residential to PUD for the purpose of development a multi-family development with mixed housing types including duplex homes and condominiums. | | |
| Name of Applicant/Sponsor: Concorde Development Corporation LLC | | Telephone: (518) 423-0703 E-Mail: cmyers4699@aol.com |
| Address: PO Box 9614 | | |
| City/PO: Niskayuna | State: NY | Zip Code: 12309 |
| Project Contact (if not same as sponsor; give name and title/role): Brett Steenburgh PE | | Telephone: (518) 365-0675 E-Mail: bsteenburghpe@gmail.c |
| Address: 2832 Rosendale Road | | |
| City/PO: Niskayuna | State: NY | Zip Code: 12309 |
| Property Owner (if not same as sponsor): | | Telephone: E-Mail: |
| Address: | | |
| City/PO: | State: | Zip Code: |

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 Counsel, Town Board, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees | Town Board | PUD |
| b. City, Town or Village <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Planning Board or Commission | Planning Board | PUD, Site Plan and Subdivision |
| c. City, Town or <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Village Zoning Board of Appeals | | |
| d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Montgomery County Planning | Referral |
| f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | NYSDOT | Traffic study & utility connections |
| h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | USACOE | Wetlands |
| i. Coastal Resources. | | |
| i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| iii. Is the project site within a Coastal Erosion Hazard Area? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| <ul style="list-style-type: none"> • 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| If Yes, identify the plan(s): NYS Heritage Areas: Mohawk Valley Heritage Corridor | |
| 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

R-1 Residential

- 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

i. What is the proposed new zoning for the site? PLUD

i. What is the proposed new zoning for the site? PUD

C.4. Existing community services.

- a. In what school district is the project site located? City of Amsterdam

- b. What police or other public protection forces serve the project site?

Montgomery County Sheriff

- c. Which fire protection and emergency medical services serve the project site?

Hagaman Volunteer Fire

- d. What parks serve the project site?

| |
|-----|
| N/A |
|-----|

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

- | | |
|--|-------------|
| b. a. Total acreage of the site of the proposed action? | 92.25 acres |
| b. Total acreage to be physically disturbed? | 25.00 acres |
| c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? | 92.25 acres |

- c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

- d. Is the proposed action a subdivision, or does it include a subdivision? ☒ Yes ☐ No

If Yes, _____

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

Residential

ii. Is a cluster/conservation layout proposed? ☐ Yes ☒ No

iii. Number of lots proposed? 52+/-

iv. Minimum and maximum proposed lot sizes? Minimum 8,000 Maximum 24,000

- 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 | 4 |
| • Anticipated commencement date of phase 1 (including demolition) | 11 month 2020 year |
| • Anticipated completion date of final phase | 11 month 2026 year |

Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

Water and sewer will need to be developed to the site in the first phase of construction

| | | | | |
|--|-------------------|-------------------|---------------------|---------------------------------------|
| f. Does the project include new residential uses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| If Yes, show numbers of units proposed. | | | | |
| | <u>One Family</u> | <u>Two Family</u> | <u>Three Family</u> | <u>Multiple Family (four or more)</u> |
| Initial Phase | _____ | 26 | _____ | 56 |
| At completion of all phases | _____ | 52 | _____ | 112 |

| | |
|---|--|
| g. Does the proposed action include new non-residential construction (including expansions)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes, | |
| i. Total number of structures _____ | |
| ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length | |
| iii. Approximate extent of building space to be heated or cooled: _____ 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? <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| If Yes, | |
| i. Purpose of the impoundment: <u>Storm water management</u> | |
| ii. If a water impoundment, the principal source of the water: <input checked="" type="checkbox"/> Ground water <input checked="" type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____ | |
| iii. If other than water, identify the type of impounded/contained liquids and their source. <u>N/A</u> | |
| iv. Approximate size of the proposed impoundment. Volume: <u>2.6 million gallons</u> ; surface area: <u>86000</u> acres | |
| v. Dimensions of the proposed dam or impounding structure: <u>4</u> height; <u>200</u> length | |
| vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): <u>Earth</u> | |

D.2. Project Operations

| | |
|---|--|
| a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) | |
| If Yes: | |
| i. What is the purpose of the excavation or dredging? _____ | |
| 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? <input type="checkbox"/> Yes <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| If Yes: | |
| i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): <u>USACOE Jurisdictional wetland impacts less than 0.25 Acres.</u> | |

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:

General filling of scrub shrub wetlands for road crossings and utilities

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: 49280 gallons/day

ii. Will the proposed action obtain water from an existing public water supply?

☒ Yes ☐ No

If Yes:

- Name of district or service area: Town of Amsterdam
- 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: _____
Water mains will need to be run from the existing main on Route 30 to the parcel
- Source(s) of supply for the district: Town of Amsterdam

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: _____

From the Town of Amsterdam

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: 49280 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 Waste

iii. Will the proposed action use any existing public wastewater treatment facilities?

☒ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: City of Amsterdam
- Name of district: Town of Amsterdam
- 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

| | |
|--|--|
| <ul style="list-style-type: none"> • Do existing sewer lines serve the project site? • Will a line extension within an existing district be necessary to serve the project? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| If Yes: <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ Low pressure sewer mains will be utilized to connect to the existing sewer main in Route 30 | |
| iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| If Yes: <ul style="list-style-type: none"> • Applicant/sponsor for new district: <u>Town of Amsterdam</u> • Date application submitted or anticipated: <u>7/2020</u> • What is the receiving water for the wastewater discharge? <u>Mohawk River</u> | |
| 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): <u>N/A</u> | |
| vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____ <u>N/A</u> | |
| | |
| 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? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| If Yes: <ul style="list-style-type: none"> i. How much impervious surface will the project create in relation to total size of project parcel? _____ Square feet or <u>7.5</u> acres (impervious surface) _____ Square feet or <u>92.25</u> acres (parcel size) ii. Describe types of new point sources. <u>SMP's created to manage stormwater on the parcel</u> | |
| 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)? <u>USACOE Wetlands</u> | |
| <ul style="list-style-type: none"> • If to surface waters, identify receiving water bodies or wetlands: _____ <u>USACOE Wetlands</u> • Will stormwater runoff flow to adjacent properties? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| If Yes, identify: <ul style="list-style-type: none"> i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) 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) | |
| | |
| 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> 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) <input type="checkbox"/> Yes <input type="checkbox"/> No ii. In addition to emissions as calculated in the application, the project will generate: <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) | |

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

If Yes:

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

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

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

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

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

If Yes:

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

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

iii. Parking spaces: Existing 0 Proposed 320 Net increase/decrease +320

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:
New Roads

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: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____

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: | | ii. During Operations: | |
| • Monday - Friday: | <u>6am - 7pm</u> | • Monday - Friday: | <u>N/A</u> |
| • Saturday: | <u>6am - 7pm</u> | • Saturday: | <u>N/A</u> |
| • Sunday: | <u>6am - 7pm</u> | • Sunday: | <u>N/A</u> |
| • Holidays: | <u>6am - 7pm</u> | • Holidays: | <u>N/A</u> |

| | |
|--|--|
| <p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>_____</p> | |
| <p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> | |
| <p>n. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>_____</p> | |
| <p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> | |
| <p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p> | |
| <p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> | |
| <p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> | |
| <p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ | |

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:

Mostly agricultural land with forested tree lines

b. Land uses and covertypes on the project site.

| Land use or Covertype | Current Acreage | Acreage After Project Completion | Change (Acres +/-) |
|--|-----------------|----------------------------------|--------------------|
| • Roads, buildings, and other paved or impervious surfaces | 0 | 7.5 | +7.5 |
| • Forested | 30.48 | 29.00 | -1.48 |
| • Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural) | 61.77 | 38.25 | -23.52 |
| • Agricultural (includes active orchards, field, greenhouse etc.) | 0 | 0 | 0 |
| • Surface water features (lakes, ponds, streams, rivers, etc.) | 0 | 0 | 0 |
| • Wetlands (freshwater or tidal) | 32.43 | 32.2 | -.23 |
| • Non-vegetated (bare rock, earth or fill) | 0 | 0 | 0 |
| • Other Describe: _____ | | | |

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☒ No
i. If Yes: explain: _____

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

e. Does the project site contain an existing dam? ☐ Yes ☒ No
If Yes:
i. Dimensions of the dam and impoundment:
• Dam height: _____ feet
• Dam length: _____ feet
• Surface area: _____ acres
• Volume impounded: _____ gallons OR acre-feet
ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection: _____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☒ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
• If yes, cite sources/documentation: _____
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: _____

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

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☒ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: _____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☒ No
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): V00372
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? _____ >6' 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:

| | | |
|------------------|-------|------|
| Darian Silt Loam | _____ | 20 % |
| Broadalbin Loam | _____ | 60 % |
| Illion Silt Loam | _____ | 20 % |

d. What is the average depth to the water table on the project site? Average: _____ 1. feet

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

f. Approximate proportion of proposed action site with slopes: ☒ 0-10%: _____ 60 % of site
☒ 10-15%: _____ 40 % 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 USACOE Jurisdictional Wetlands Approximate Size 32.43 Ac.
- 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: Principal Aquifer

| | | | | | | | | |
|--|-------|---------|------|-------|---------|------------|--|--|
| <p>m. Identify the predominant wildlife species that occupy or use the project site:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; border-bottom: 1px solid black;">Deer</td> <td style="width: 33%; border-bottom: 1px solid black;">Skunk</td> <td style="width: 33%; border-bottom: 1px solid black;">Raccoon</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Ground Hog</td> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> </tr> </table> | | | Deer | Skunk | Raccoon | Ground Hog | | |
| Deer | Skunk | Raccoon | | | | | | |
| Ground Hog | | | | | | | | |
| <p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p>ii. Source(s) of description or evaluation: _____</p> <p>iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres | | | | | | | | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Species and listing (endangered or threatened): _____</p> <p>_____</p> | | | | | | | | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Species and listing: _____</p> <p>_____</p> | | | | | | | | |
| <p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p> | | | | | | | | |
| <p>E.3. Designated Public Resources On or Near Project Site</p> | | | | | | | | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p> | | | | | | | | |
| <p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>i. If Yes: acreage(s) on project site? _____</p> <p>ii. Source(s) of soil rating(s): _____</p> | | | | | | | | |
| <p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p>ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p> | | | | | | | | |
| <p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. CEA name: _____</p> <p>ii. Basis for designation: _____</p> <p>iii. Designating agency and date: _____</p> | | | | | | | | |

| | |
|---|--|
| 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Describe possible resource(s): _____ ii. Basis for identification: _____ | |
| h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Identify resource: _____ ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____ iii. Distance between project and resource: _____ miles. | |
| i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <input type="checkbox"/> Yes <input type="checkbox"/> No | |

F. Additional Information

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

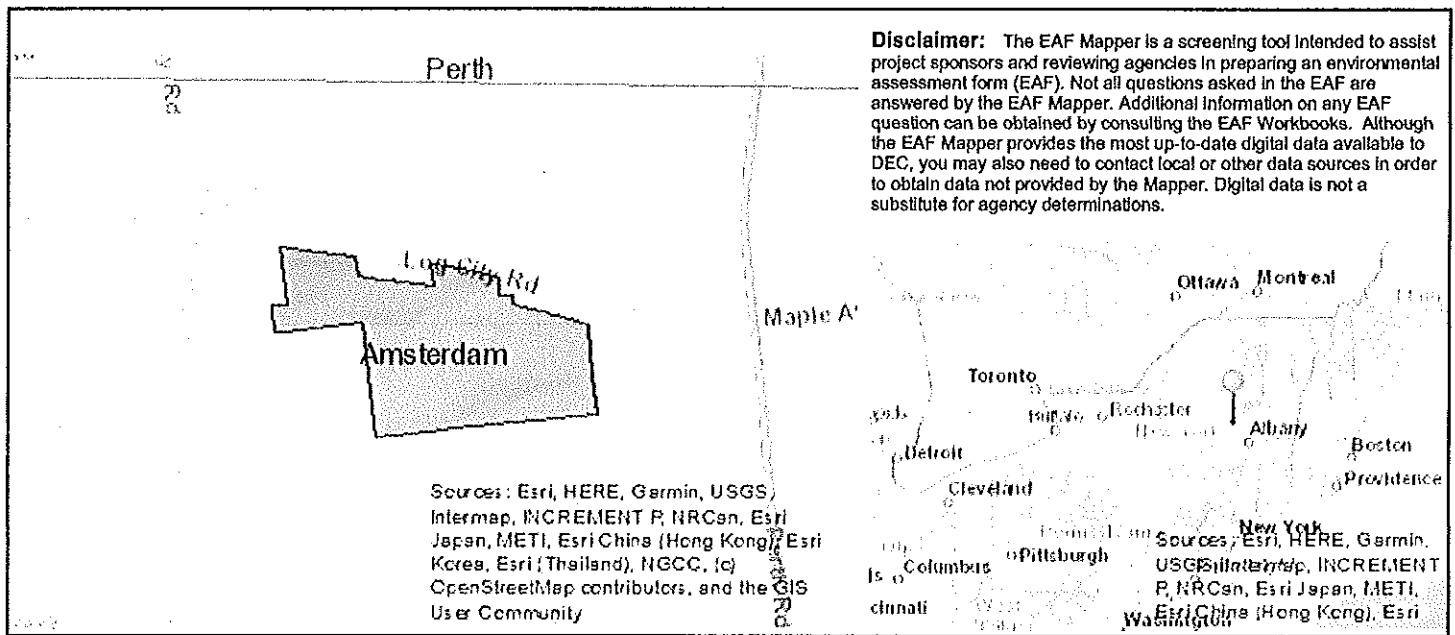
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

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

Applicant/Sponsor Name Brett L. Steenburgh Date 5/22/2020

Signature Brett Steenburgh PE Digitally signed by Brett Steenburgh PE
DN: cn=Brett Steenburgh PE, o=Brett L. Steenburgh
PE PLLC, ou=email-bsteenburgh@pegrm.com, c=US
Date: 2020.05.22 08:54:21 -0400 Title Engineer For Applicant



| | |
|--|---|
| B.1.i [Coastal or Waterfront Area] | No |
| B.1.ii [Local Waterfront Revitalization Area] | No |
| C.2.b. [Special Planning District] | Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook. |
| C.2.b. [Special Planning District - Name] | NYS Heritage Areas: Mohawk Valley Heritage Corridor |
| E.1.h [DEC Spills or Remediation Site - Potential Contamination History] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Listed] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.iii [Within 2,000' of DEC Remediation Site] | Yes |
| E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID] | V00372 |
| E.2.g [Unique Geologic Features] | No |
| E.2.h.i [Surface Water Features] | No |
| E.2.h.ii [Surface Water Features] | Yes |
| E.2.h.iii [Surface Water Features] | Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook. |
| E.2.h.v [Impaired Water Bodies] | No |
| E.2.i. [Floodway] | No |
| E.2.j. [100 Year Floodplain] | No |
| E.2.k. [500 Year Floodplain] | No |
| E.2.l. [Aquifers] | Yes |
| E.2.l. [Aquifer Names] | Principal Aquifer |

| | |
|--|--|
| E.2.n. [Natural Communities] | No |
| E.2.p. [Endangered or Threatened Species] | No |
| E.2.p. [Rare Plants or Animals] | No |
| E.3.a. [Agricultural District] | No |
| E.3.c. [National Natural Landmark] | No |
| E.3.d [Critical Environmental Area] | No |
| E.3.e. [National or State Register of Historic Places or State Eligible Sites] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.3.f. [Archeological Sites] | No |
| E.3.i. [Designated River Corridor] | No |



September 16, 2020

Ref: 20492.00

Mr. Chris Myers
Concord Development Co. LLC
c/o Brett Steenburgh
2382 Rosendale Road
Niskayuna, NY 12309

Re: Traffic Impact Evaluation, Concord Development, Log City Road, Town of Amsterdam, NY

Dear Mr. Myers,

VHB has conducted a traffic impact and access study to assess the potential traffic impacts associated with the construction of the Concord Development located on the south side of Log City Road (County Road (CR) 17) in the Town of Amsterdam. The proposed residential and light industrial development includes the construction of 4 single-family homes, 82 condominium units, 74 apartment units, and up to 60,000 square feet (SF) of light industrial land use in five separate lots on Log City Road (CR 17). The proposed Overall Development Plan prepared by Brett L. Steenburgh, PE PLLC is included as Attachment A.

This letter includes an evaluation of the existing traffic operations and future conditions with and without construction of the Concord Development. As detailed herein, the proposed project is expected to have a minor impact on local traffic operations.

Site Location and Proposed Development

The approximate 92-acre project site, as shown in the following aerial image, is located along the south side of Log City Road between NY Route 30 (Perth Rd) and McKay Road (CR 40) in the Town of Amsterdam. Access to the Concord Development site is proposed via four new full access roadways intersecting Log City Road; one is a shared driveway to three condominium buildings, the second provides direct access to the majority of the condominium units, the third provides direct access to the apartment units (Log City Road Extension), and the fourth provides access to the industrial land uses (Log City Road Extension). Two of the internal site roadways will connect and provide access between the majority of the condominium units and the apartment units. Individual driveways with direct access to Log City Road are provided for the four single-family homes. The project is anticipated to be fully constructed in 2026. After completion of the proposed project, additional land may be developed (Phase 2) pending market conditions. A new traffic evaluation may be necessary to assess the impacts of Phase 2 in the future.

Engineers | Scientists | Planners | Designers

100 Great Oaks Boulevard
Suite 118

Albany, New York 12203

P 518.389.3600

F 518.452.0324



Existing Conditions

Based on a review of the study area and magnitude of traffic generate by the project, the traffic study includes an evaluation the Log City Road (CR 17)/NY Route 30/Maple Avenue (CR 39) intersection and the proposed site driveway intersections with Log City Road. The following sections provide a description of the existing study area roadways and intersection characteristics.

Study Area Roadway

The following roadway is included in the project study area and described in detail below.

Log City Road (CR 17)

Log City Road, also designated as Montgomery County Road 17, is classified as an urban major collector and provides east-west travel from McKay Road (CR 40) to NY Route 30. Log City Road provides one 12-foot travel lane in each direction with approximate 8-foot paved shoulders on the eastern portion of the roadway (Log City Road Extension) and one 11-foot travel lane in each direction from Log City Road Extension to McKay Road with very narrow or no shoulder. The posted speed limit on Log City Road is 45-mph. There are no sidewalks provided on Log City Road. Traffic volume data published by the New York State Department of Transportation (NYSDOT) collected in 2016 indicates that near the project site, this roadway serves approximately 2,100 vehicles per day (vpd). Land uses in the project vicinity are primarily residential and agricultural.



Study Area Intersection

For the purposes of evaluating existing and future traffic conditions near the site, a project study area has been established and includes one intersection and the four new site driveways. The study area intersection is described in detail below:

Log City Road (CR 17)/NY Route 30 (Perth Road)/Maple Avenue (CR 39)

The Log City Road (CR 17)/NY Route 30 (Perth Road)/Maple Avenue (CR 39) intersection is a four-leg intersection controlled with a traffic signal. The northbound NY Route 30 approach provides a left-turn lane, a through lane, and a shared through/right-turn lane. The southbound NY Route 30 approach provides a left-turn lane and a shared through/right-turn lane. The eastbound Log City Road and westbound Maple Avenue approaches each provide a single lane for shared travel movements. Sidewalks are provided on the west side of NY Route 30 at the intersection. A small sidewalk landing is also provided on the southeast quadrant of the intersection. Marked crosswalks with pushbuttons, indicators, and countdown timers are provided on the northbound and eastbound approaches to the intersection.

Traffic Volumes

The most recent NYSDOT traffic volume data (2016) near the project site is summarized in Table 1 to illustrate general traffic volumes in the study area. The NYSDOT traffic volume data is included in Attachment B.

Table 1 Existing Traffic Volume Summary

| Location | Weekday Daily | Weekday Morning Peak Hour | | | Weekday Evening Peak Hour | | |
|---------------------|---------------------|---------------------------|-----------------------|------------|---------------------------|----------|------------|
| | Volume ^a | Vol ^b | K Factor ^c | Dir. Dist. | Volume | K Factor | Dir. Dist. |
| Log City Rd (CR 17) | 2,098 | 157 | 7.5% | 59% EB | 217 | 10.3% | 53% WB |

Source: NYSDOT volume data dated June 2016.

Note: Peak hours do not necessarily coincide with the peak hours of turning movement counts.

- a. Daily traffic expressed in vehicles per day (vpd).
- b. Peak hour volumes expressed in vehicles per hour.
- c. Percent of daily traffic which occurs during the peak hour.

As shown in Table 1, Log City Road carries approximately 2,098 vpd on a typical weekday, with 7.5% of the daily traffic occurring during the weekday morning peak hour and 10.3% occurring during the evening peak hour. Log City Road traffic is heavier in the eastbound direction during the morning peak hour and slightly heavier in the westbound direction during the evening peak hour.

Peak hour turning movement counts (TMCs) were conducted by NYSDOT at the study intersection on May 25, 2020 from 3:00 to 5:45 PM and on May 27, 2020 from 7:00 to 9:00 AM. Based on the count data, the peak hours occurred from 7:15 to 8:15 AM and 4:15 to 5:15 PM. Consistent with guidance provided by NYSDOT, the existing traffic volumes were reviewed and adjusted to account for the change in traffic volumes and travel patterns associated with the COVID-19 pandemic. Other data sources used to adjust



the May 2020 TMCs included automatic traffic recorder (ATR) data collected in 2009 and 2019 on NY Route 30, ATR data collected in 2016 and 2020 on Log City Road, and ATR data collected in 2019 on Maple Avenue. To represent more typical conditions, the westbound left-turn, through, and right-turn movements and the eastbound through movement were increased slightly. The 2020 Existing traffic volumes are illustrated on Figure 1. The traffic volume count data is provided in Attachment C.

Multi-Modal Accommodations

As noted, sidewalks are not provided in the study area on Log City Road; however, sidewalks are provided on the west side of NY Route 30. Marked crosswalks, indicators, countdown timers, and pushbuttons are provided on the eastbound and northbound approaches to the Log City Road/NY Route 30/Maple Avenue intersection with a small sidewalk segment in the southeast quadrant of the intersection. Pedestrians on Log City Road share the travel lane with vehicles and use the available paved shoulders between Log City Road Extension and NY Route 30.

NY Route 30 is a signed bicycle route. On Log City Road, bicyclists use the paved shoulders where available or share the road with vehicles.

Transit service in the study area is provided by the Gloversville Transit System with stops further south on NY Route 30 at The Amsterdam Commons and Sanford Farms Shopping Centers on weekdays, with four transit runs between 8:20 AM and 3:30 PM.

Future Conditions

To determine the impacts of the site-generated traffic volumes near the site, future traffic conditions were evaluated. The project is expected to be fully built and occupied in 2026.

Traffic growth on area roadways is a function of the expected land development, environmental activity, and changes in demographics. A frequently used procedure is to identify estimated traffic generated by planned developments that would be expected to affect the project study area roadways. An alternative procedure is to estimate an annual percentage increase and apply that increase to study area traffic volumes. For this evaluation, both procedures were used. The following summarizes this traffic forecasting process.

Historic Growth

Regression analyses performed using data published by the NYSDOT showed that there is little traffic growth in the study area. To be consistent with other recent traffic studies completed in the study area and based on NYSDOT historical data, the 2020 existing traffic volumes were increased by a small growth rate of 0.5% for 6 years to represent any general increase in traffic volumes by 2026.

Site Specific Growth

Information provided by the Town Designated Engineer (TDE) for the Town of Amsterdam identified the following other development projects to consider in the estimation of future traffic volumes:



- St. Mary's Rao Outpatient Pavilion Addition, located at St. Mary's hospital south of Log City Road on NY Route 30 to include additional space for outpatient services relocated from existing buildings and a new pharmacy
- A 6,500 SF restaurant located south of Log City Road on the southeast quadrant of the NY Route 30/Wallins Corners Road intersection
- A 1,775 SF branch of the Sidney Federal Credit Union, located at 4839 NY Route 30 south of Log City Road
- MHA Affordable Housing Project located on Holland Circle Drive south of Log City Road to include 48 multi-family dwelling units in 4 buildings
- The 4,2000 SF Bunn Creek Animal Hospital located at 4800 NY Route 30 south of Log City Road

Trips associated with the proposed developments were added to the study area network as appropriate based on a review of available documentation provided by the TDE.

No-Build Traffic Volumes

The 2026 No-Build traffic volumes were generated by consideration of the general and site-specific growth described above. The resulting 2026 No-Build peak hour traffic volumes are provided on Figure 2 and represent future traffic volumes in the study area prior to development of the proposed project.

Trip Generation

To estimate the site-generated traffic anticipated at the project site, the Institute of Transportation Engineers' (ITE) publication *Trip Generation, 10th Edition*¹ was utilized. The number of vehicle trips generated by the proposed project was estimated based on ITE land use codes (LUC) 110 – General Light Industrial, LUC 210 – Single Family Detached Housing, and LUC 220 – Multifamily Housing (Low Rise, 1 or 2 levels). The trip generation estimate for the proposed project is summarized in Table 2.

¹ Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, Washington D.C., September 2017.



Table 2 Trip Generation Summary

| Weekday Time Period | Movement | Light Industrial ^a | Residential ^b | New Trips ^c |
|---------------------|----------|-------------------------------|--------------------------|------------------------|
| Morning Peak Hour | Enter | 27 | 18 | 45 |
| | Exit | 4 | 58 | 62 |
| | Total | 31 | 76 | 107 |
| Evening Peak Hour | Enter | 3 | 58 | 61 |
| | Exit | 23 | 34 | 57 |
| | Total | 26 | 92 | 118 |

a. Trip generation estimate based on ITE LUC 110 (General Light Industrial) for 60,000 SF.

b. Trip generation estimate based on ITE LUC 210 (Single Family Housing) for 4 units and LUC 220 (Multifamily Housing) for 156 units.

c. Total new trips.

Based on the projections outlined above, the proposed project is expected to generate 107 new vehicle trips during the morning peak hour (45 entering and 62 exiting) and 118 new vehicle trips during the evening peak hour (61 entering and 57 exiting).

Trip Distribution

The directional distribution of traffic approaching and departing the site is a function of several variables including population densities, existing travel patterns, and the efficiency of the roadways leading to and from the site. Based on a review of the existing travel patterns and population centers in the area it is estimated that 40% of the site generated traffic will travel to and from the west on Log City Road and 60% will travel to and from the east on Log City Road toward NY Route 30 and Maple Avenue. Of the 60% traveling to and from the east, 15% of the site trips will travel to and from the north on NY Route 30, 35% will travel to and from the south on NY Route 30, and the remaining 10% will travel to and from the east on Maple Avenue. The detailed trip distribution patterns for the industrial and residential components of the project are illustrated on Figures 3, 4, and 5 including the single-family homes and 12 of the multi-family units with a separate shared access directly to Log City Road.

Build Traffic Volumes

The project-related traffic volumes shown in Table 2 were assigned to the study area roadway network based on the trip distribution patterns and are summarized on Figures 3-5. These assigned volumes were then added to the 2026 No-Build peak hour traffic volumes to develop the 2026 Build peak hour traffic volumes. The 2026 Build traffic volumes are summarized on Figure 6.

Traffic Operations Analysis

To assess quality of flow, intersection capacity analyses were conducted with respect to 2020 Existing, 2026 No-Build, and 2026 Build traffic volume conditions. Capacity analyses provide an indication of how



well the roadway facilities serve the traffic demands placed upon them. Roadway operating conditions are classified by calculated levels of service.

The evaluation criteria used to analyze the study area intersections is based on the procedures set forth in the latest version of the *Highway Capacity Manual* (HCM)². Level of service (LOS) is a measure that considers a number of factors including roadway geometry, speed, and travel delay. Levels of service range from A to F, with LOS A representing short vehicle delays and LOS F representing long vehicle delays.

Intersection Capacity Analysis

Levels of service analyses were conducted for the 2020 Existing, 2026 No-Build, and 2026 Build conditions for the study area intersection and at the new site driveway intersection for the 2026 Build condition. Table 3 summarizes the capacity analysis results for the study area intersection and three site driveways. The fourth site driveway on Log City Road servicing 12 condominium units was analyzed qualitatively due to the low peak hour traffic volumes at this intersection. The capacity analyses worksheets are included in Attachment D.

The following is noted regarding the analysis summarized in Table 3:

- The project is expected to have minimal impacts on traffic operations at the signalized study area intersection during the AM and PM peak hours, with average vehicle delays of 18 seconds or less on all approaches during both peak hours and good overall intersection operations (LOS B). These results are consistent with current operations.
- The three proposed site driveways on Log City Road will operate with good levels of service (LOS A/B) and minimal delays as unsignalized intersections with single lanes entering and exiting the site at all three locations.
- The fourth site driveway intersection with Log City Road providing access to 12 condominium units is expected to serve approximately 4 AM peak hour trips and 7 PM peak hour trips. As shown in Table 3, the Residential Driveway West providing access to 70 condominium units operates at LOS A conditions with little vehicle delays. This lower volume intersection will also operate at good conditions with little vehicle delays.

² Highway Capacity Manual, 6th Edition, Transportation Research Board, Washington D.C., 2016.



Table 3 Intersection Levels of Service Summary

| Location/Movement | 2020 Existing | | 2026 No-Build | | 2026 Build | |
|---|------------------|--------------------|---------------|-----------|------------|-----------|
| | LOS ^a | Delay ^b | LOS | Delay | LOS | Delay |
| Log City Road (CR 17)/NY Rt 30 (Perth Rd)/Maple Avenue (CR 39) | | | | | | |
| <i>AM Peak Hour</i> | | | | | | |
| Log City Road EB LTR | B | 16 | B | 17 | B | 18 |
| Maple Avenue WB LTR | B | 16 | B | 17 | B | 18 |
| NY Rt 30 NB L | A | 8 | A | 8 | A | 8 |
| T,TR | A | 7 | A | 7 | A | 7 |
| NY Rt 30 SB L | A | 5 | A | 5 | A | 5 |
| TR | B | 13 | B | 15 | B | 16 |
| Overall | B | 11 | B | 12 | B | 13 |
| <i>PM Peak Hour</i> | | | | | | |
| Log City Road EB LTR | B | 16 | B | 16 | B | 17 |
| Maple Avenue WB LTR | B | 17 | B | 17 | B | 17 |
| NY Rt 30 NB L | A | 7 | A | 7 | A | 7 |
| T,TR | A | 8 | A | 9 | A | 9 |
| NY Rt 30 SB L | A | 6 | A | 6 | A | 7 |
| TR | A | 10 | B | 11 | B | 12 |
| Overall | A | 10 | B | 10 | B | 11 |
| Log City Road Extension (CR 17)/Industrial Driveway | | | | | | |
| <i>AM Peak Hour</i> | | | | | | |
| Log City Road WB LT | --- | --- | --- | --- | A | 8 |
| Industrial Dwy NB LR | --- | --- | --- | --- | A | 10 |
| <i>PM Peak Hour</i> | | | | | | |
| Log City Road WB LT | --- | --- | --- | --- | A | 8 |
| Industrial Dwy NB LR | --- | --- | --- | --- | A | 10 |
| Log City Road Extension (CR 17)/Residential Driveway (East) | | | | | | |
| <i>AM Peak Hour</i> | | | | | | |
| Log City Road WB LT | --- | --- | --- | --- | A | 8 |
| Residential Dwy (East) NB LR | --- | --- | --- | --- | A | 9 |
| <i>PM Peak Hour</i> | | | | | | |
| Log City Road WB LT | --- | --- | --- | --- | A | 8 |
| Residential Dwy (East) NB LR | --- | --- | --- | --- | A | 10 |
| Log City Road (CR 17)/Residential Driveway (West) | | | | | | |
| <i>AM Peak Hour</i> | | | | | | |
| Log City Road WB LT | --- | --- | --- | --- | A | 8 |
| Residential Dwy (West) NB LR | --- | --- | --- | --- | A | 10 |
| <i>PM Peak Hour</i> | | | | | | |
| Log City Road WB LT | --- | --- | --- | --- | A | 8 |
| Residential Dwy (West) NB LR | --- | --- | --- | --- | B | 10 |

- a. Level of service
 b. Average total delay, in seconds per vehicle
 Na Not applicable



Travel To and From the West

As noted previously, 40% of the site generated traffic will travel to and from the west toward McKay Road. This equates to approximately 43 new vehicle trips during the AM peak hour (18 eastbound and 25 westbound) and approximately 47 new vehicle trips during the PM peak hour (24 eastbound and 23 westbound). This equates to less than one new car per minute during either peak hour. The number of new trips is also less than the addition of 100 trips on any one approach to an adjacent intersection, which is the NYSDOT and ITE threshold for determining the need for off-site intersection analysis. Therefore, the new trips to and from the west will be adequately serviced by Log City Road/McKay Road intersection.

Sight Distance

Sight distance analysis, in conformance with guidelines of the American Association of State Highway and Transportation Officials (AASHTO)³ was performed at the proposed site access intersections on Log City Road. Both stopping sight distance (SSD) for traffic approaching the site roadways and intersection sight distance (ISD) at the site roadways were measured. The posted speed limit on Log City Road is 45-mph. Based on travel speed data collected for the project on Log City Road, the 85th percentile operating speed was measured to be 52-mph in the eastbound direction and 53-mph in the westbound direction; therefore, the sight distance evaluation was completed for a 55-mph operating speed. to the anticipated land use and the potential for a higher percentage of heavy vehicles entering and exiting the site at the industrial driveway, sight distance measurements were completed from the perspective of both passenger vehicles and heavy vehicles, while the residential access sight distance measurements were completed from the perspective of passenger vehicles.

SSD is the distance along the roadway for a vehicle approaching an intersection from either direction to perceive, react and come to a complete stop before colliding with an object in the road, in this case a vehicle exiting from a driveway or a vehicle waiting on the mainline to turn into the site. Table 4 summarizes the stopping sight distance evaluation at the site access intersections. The stopping sight distance guideline is not affected by vehicle type, so Table 4 only provides one comparison.

Stopping sight distance was also reviewed along Log City Road approaching the single-family driveways with access directly to Log City Road. Consistent with industry practices, these locations were only reviewed for stopping sight distance due to the very low number of trips entering and exiting each driveway.

³ A Policy on the Geometric Design of Highways and Streets, 7th Edition, American Association of State Highway and Transportation Officials, 2018.



Table 4 Stopping Sight Distance

| Location | Traveling | Measured (feet) ^a | Guideline (feet) ^b |
|---|-----------|------------------------------|-------------------------------|
| Log City Road at Industrial Driveway | EB | 700+ | 495 |
| | WB | 700+ | |
| Log City Road at Residential Driveway (East Access) | EB | 700+ | 495 |
| | WB | 700+ | |
| Log City Road at Residential Driveway (West Access) | EB | 650 | 495 |
| | WB | 650 | |
| Log City Road at Access to 3 Buildings | EB | 700+ | 495 |
| | WB | 700+ | |
| Log City Road at Single Family Lot (East) | EB | 700+ | 495 |
| | WB | 700+ | |
| Log City Road at Single Family Lot (West) | EB | 700+ | 495 |
| | WB | 700+ | |

a. Based on field measurements taken by VHB.

b. Based on standards established in A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 2018 for a 55-mph operating speed. Note passenger and heavy vehicle measurements and guidelines are the same for stopping sight distance.

A review of Table 4 shows that the stopping sight distances meet the AASHTO guidelines for the operating speed at the proposed site access roadways and individual driveways.

ISD is based on the time required for perception, reaction, and completion of the desired turning maneuver into or out of the site driveway. Calculation of the ISD includes the time to (1) turn and clear the intersection without conflicting with approaching vehicles; and (2) upon turning, to accelerate to the operating speed on the roadway without causing approaching vehicles on the main road to unduly reduce their speed. Table 5 summarizes the intersection sight distance analysis for passenger vehicles at all four site roadways and heavy vehicles at the industrial access.



Table 5 Intersection Sight Distance

| Location | View | Field Measurement Distance (feet) ^a | AASHTO Guideline (feet) ^b | | |
|---|------------------|---|--------------------------------------|----------------|--------------|
| | | | Left-turn Out | Right-turn Out | Left-turn In |
| Log City Road at Industrial Driveway (Passenger Vehicles) | Looking Left | 1000+ | 610 | 530 | Na |
| | Looking Right | 1000+ | 610 | Na | Na |
| | Looking Straight | 700+ | Na | Na | 445 |
| Log City Road at Industrial Driveway (Heavy Vehicles) | Looking Left | 1000+ | 930 | 850 | Na |
| | Looking Right | 1000+ | 930 | Na | Na |
| | Looking Straight | 700+ | Na | Na | 610 |
| Log City Road at Residential Driveway (East Access) | Looking Left | 700+ | 610 | 530 | Na |
| | Looking Right | 700+ | 610 | Na | Na |
| | Looking Straight | 700+ | Na | Na | 445 |
| Log City Road at Residential Driveway (West Access) | Looking Left | 650 | 610 | 530 | Na |
| | Looking Right | 630 | 610 | Na | Na |
| | Looking Straight | 650 | Na | Na | 445 |
| Log City Road at Access to 3 Buildings | Looking Left | 530 (650) | 610 | 530 | Na |
| | Looking Right | 700+ | 610 | Na | Na |
| | Looking Straight | 700+ | Na | Na | 445 |

a. Based on field measurements taken by VHB.

b. Based on standards established in A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 2018 for a 55-mph operating speed.

Na Not applicable

(###) = Existing Measurement (Measurement with mitigation)

A review of Table 5 shows that the intersection sight distances meet the recommended AASHTO guideline for a 55-mph operating speed with the exception for the sight distance looking left when exiting the access to the 3 condominium buildings which is limited by some existing vegetation. By clearing the vegetation, the sight distance looking left meets the AASHTO guideline. To maintain good sight lines at all of the site access intersections and the individual driveways, any vegetation along the site frontage should be cleared a minimum of 14.5 feet back from the travel way and any site signing be placed outside of the 14.5-foot clear zone

Conclusions

VHB has conducted a traffic impact and access study to assess the potential traffic impacts associated with the construction of the Concord Development located on the southern side of Log City Road (CR 17) in the Town of Amsterdam. The proposed project includes the construction of 4 single-family homes, 82 condominium units, 74 apartment units, and up to 60,000 SF of light industrial space on Log City Road.




Access to the site is proposed via four new full access roadways intersecting Log City Road; one is a shared driveway to three condominium buildings, the second provides direct access to the majority of the condominium units, the third provides direct access to the apartment units (Log City Road Extension), and the fourth provides access to the industrial land uses (Log City Road Extension). Two of the internal site roadways will connect and provide access between the majority of the condominium units and the apartment units. Individual driveways with direct access to Log City Road are provided for the four single-family homes. The project is anticipated to be fully constructed in 2026. The following is noted:

- The proposed project is expected to generate 107 new vehicle trips during the morning peak hour (45 entering and 62 exiting) and 118 new vehicle trips during the evening peak hour (61 entering and 57 exiting).
- The project is expected to have minimal impacts on traffic operations at the signalized study area intersection with good overall intersection operations and average vehicle delays consistent with current operations.
- The proposed site driveways will operate with good levels of service and minimal average vehicle delays as unsignalized intersections with single lanes entering and exiting the site at all four locations.
- Approximately 40% of the site generated traffic is expected to travel to and from the west resulting in an increase of 43 new vehicle trips (18 eastbound and 25 westbound) during the AM peak hour and 47 new vehicle trips (24 eastbound and 23 westbound) during the PM peak hour. Based on ITE and NYSDOT industry guideline thresholds, the additional trips will be accommodated for on the existing roadway network.
- The sight distance evaluation shows that the stopping and intersection sight distances meet the AASHTO guidelines for a 55-mph operating speed with the exception of the sight distance looking left out of the driveway to the three condominium buildings. By clearing the vegetation obstruction, the sight distance meets AASHTO guidelines. To maintain good sight lines at the sight access roadways and individual driveways it is recommended that all vegetation be cleared a minimum of 14-5 feet back from the travel way along the project frontage and any site signing be placed outside the 14.5-foot clear zone.

The proposed development with residential and industrial land use will be adequately serviced by the existing roadway network and no off-site mitigation is recommended. Please call with any questions regarding the above evaluation.

Sincerely,

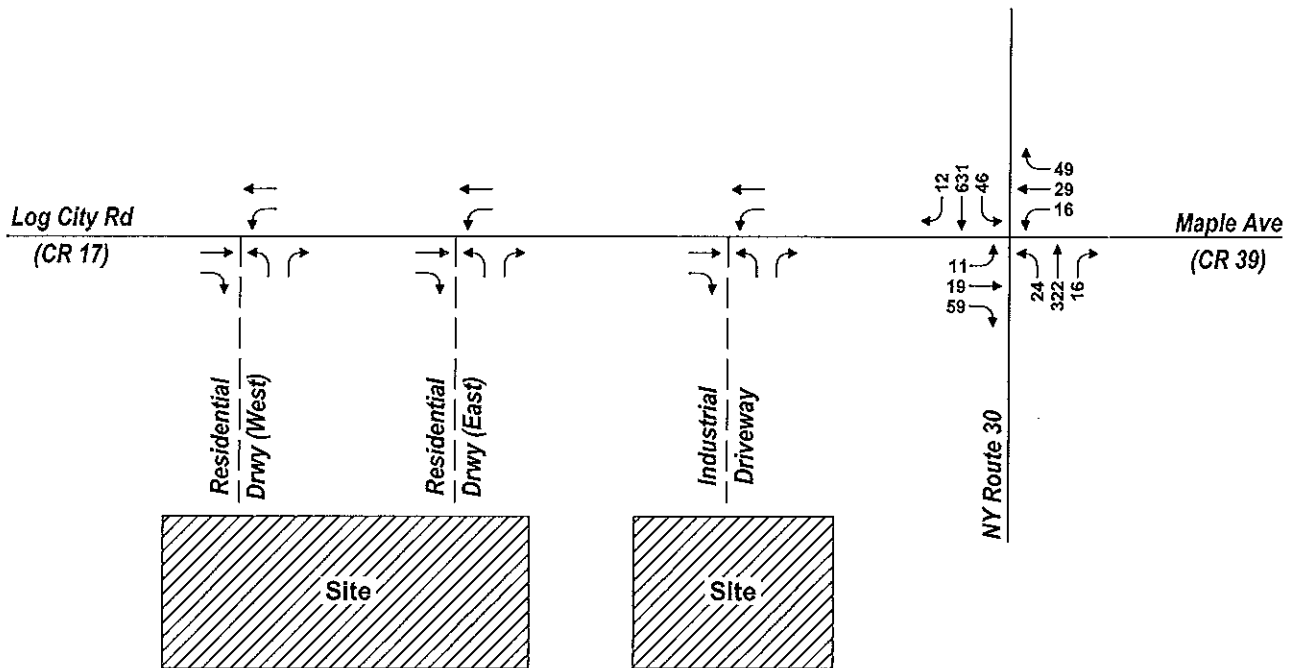
VHB Engineering, Surveying, Landscape Architecture and Geology, P.C.


Wendy C. Holsberger, PE, PTOE
Office Manager - Albany
wholsberger@vhb.com

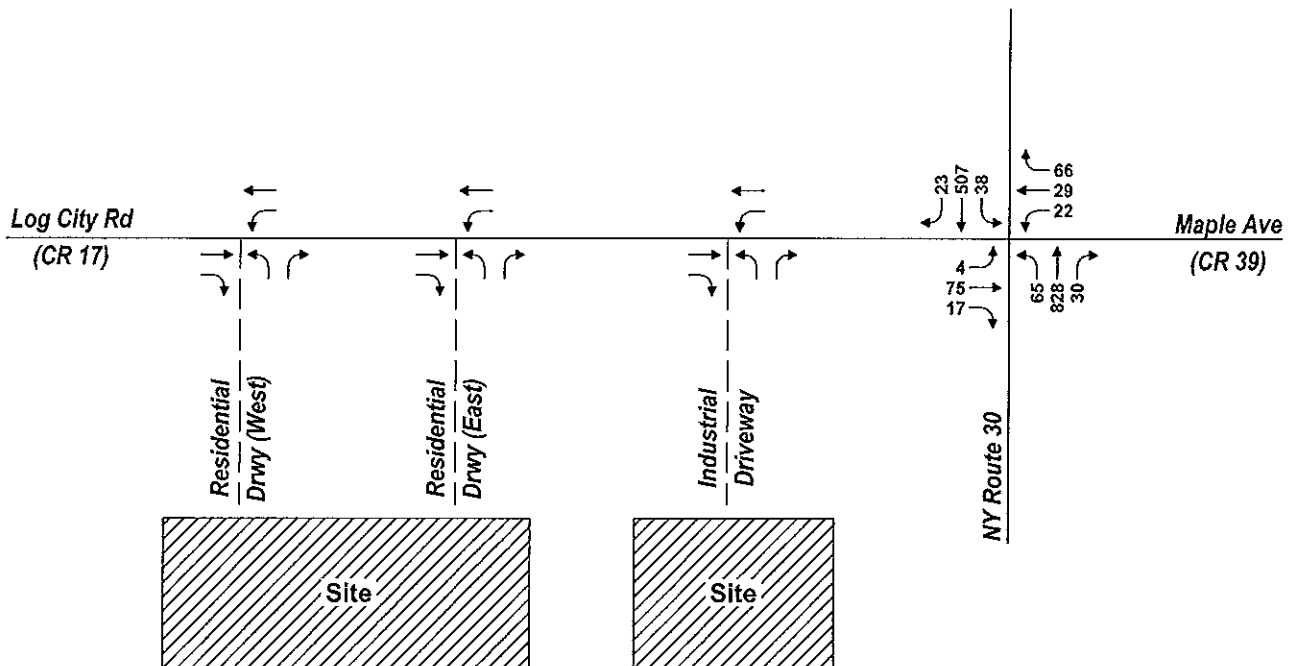

Alanna M. Moran
Project Manager
amoran@vhb.com

Attachments

AM Peak Hour



PM Peak Hour



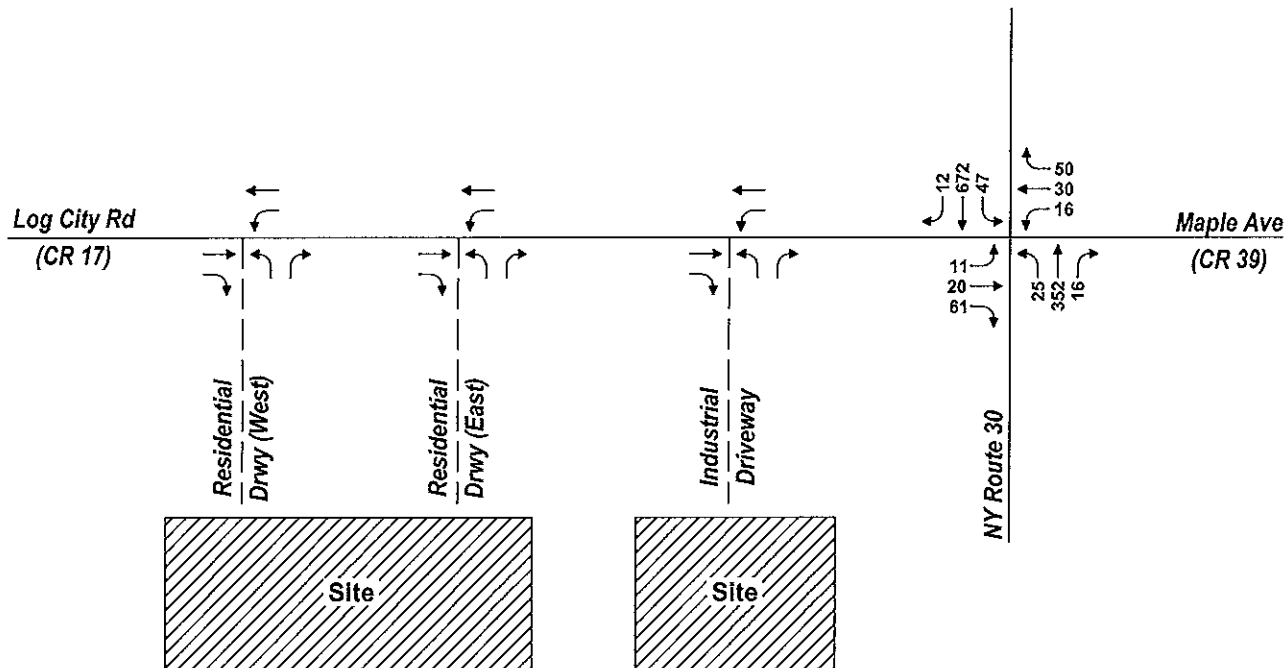
Not to Scale



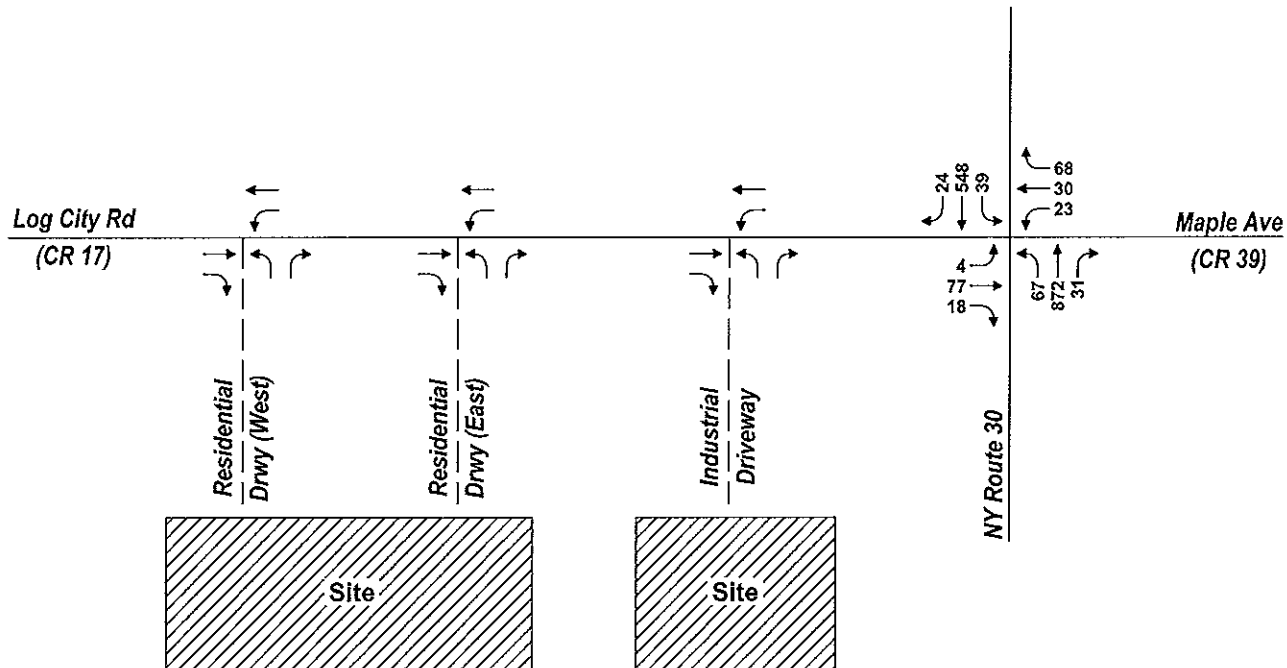
2020 Existing
Traffic Volumes
Concord Development
Amsterdam, New York

Figure 1

AM Peak Hour



PM Peak Hour



Not to Scale

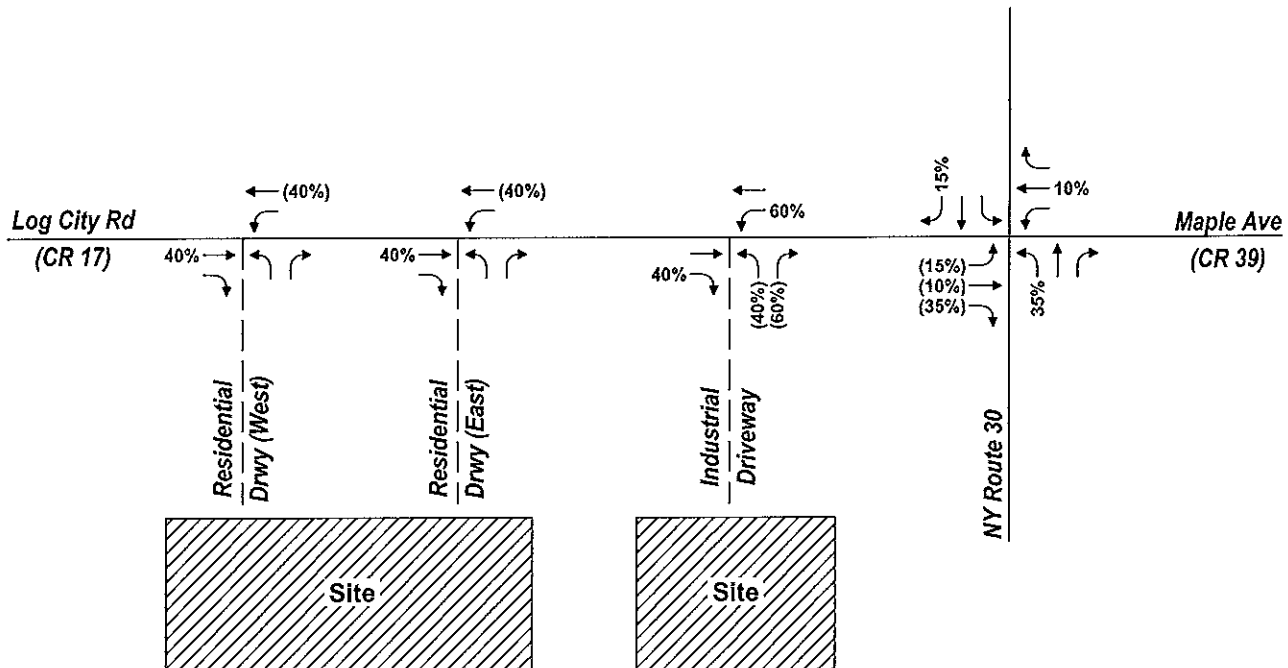


2026 No-Build
Traffic Volumes
Concord Development
Amsterdam, New York

Figure 2

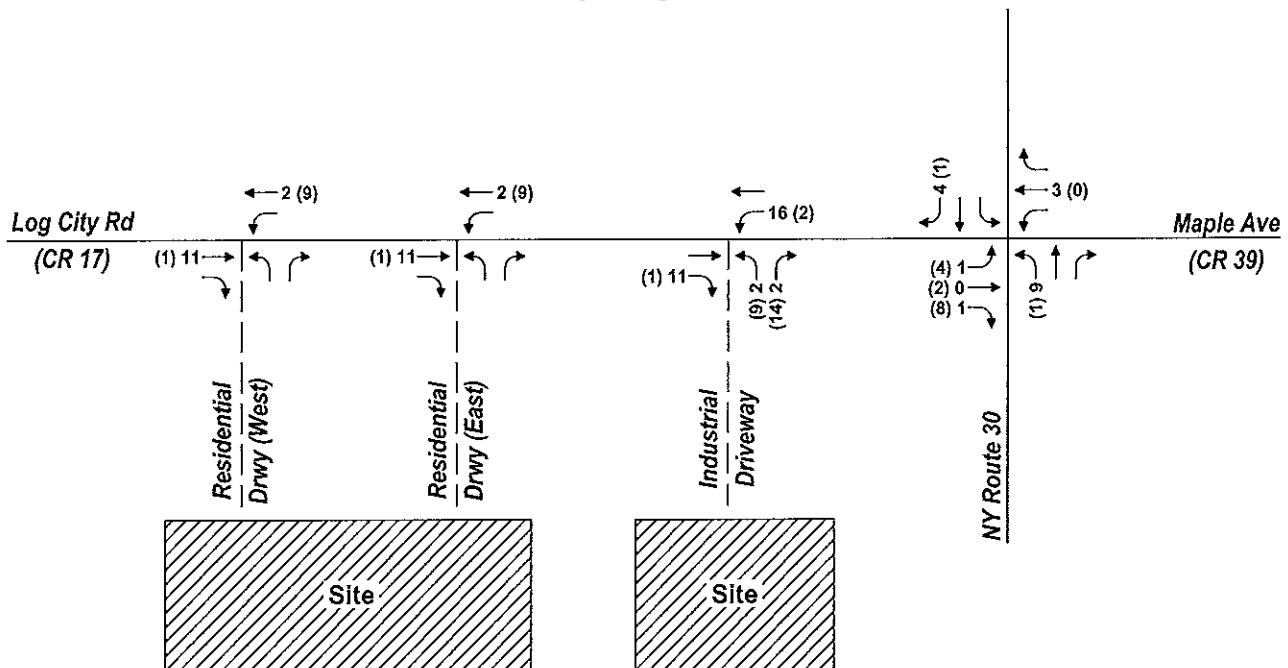
Trip Distribution

xx = Entering Trips
(xx) = Exiting Trips



Trip Assignment

xx = AM Peak Hour
(xx) = PM Peak Hour

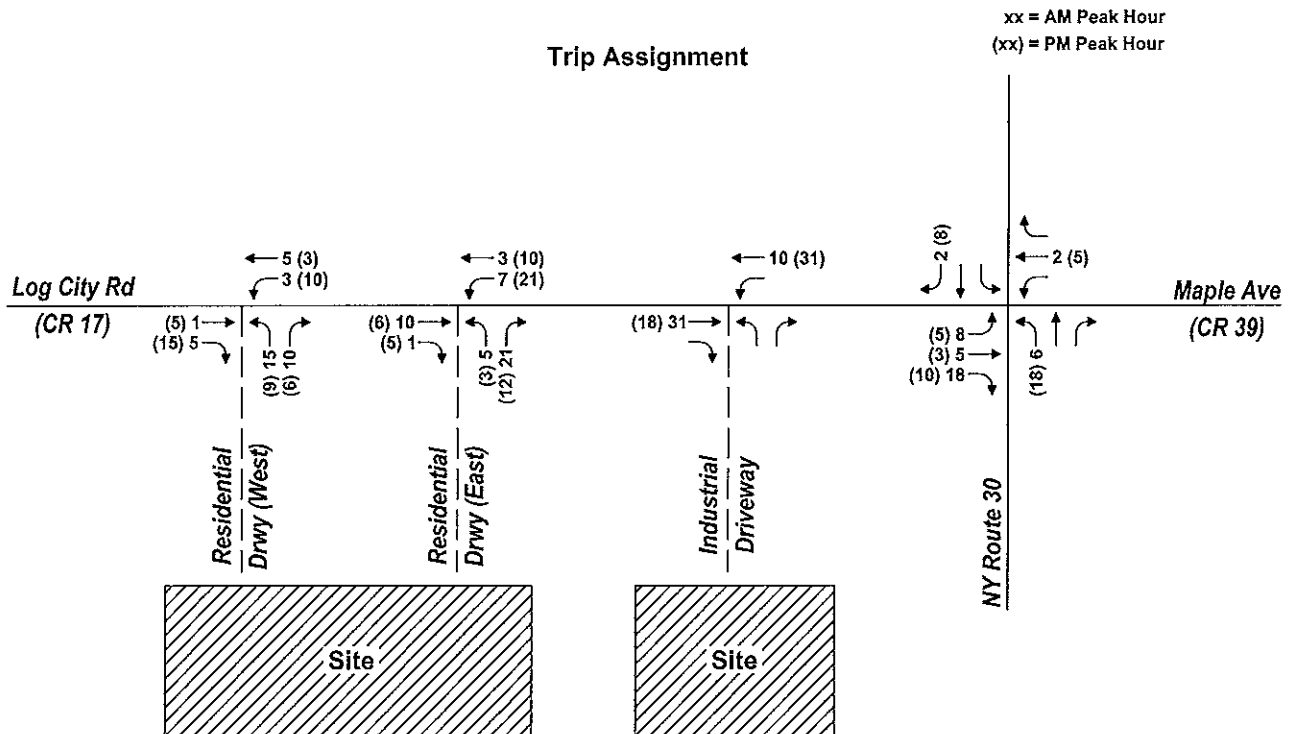
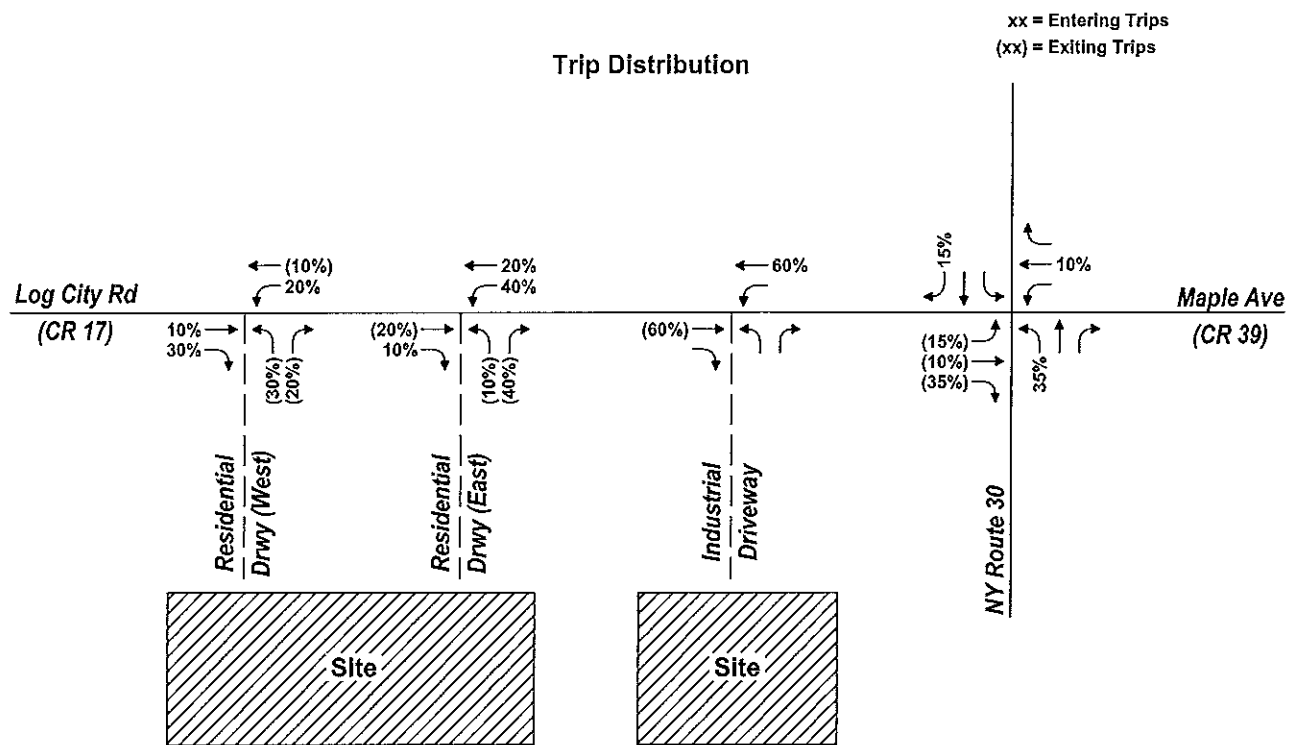


Not to Scale



Trip Distribution & Assignment
Industrial
Concord Development
Amsterdam, New York

Figure 3



Not to Scale

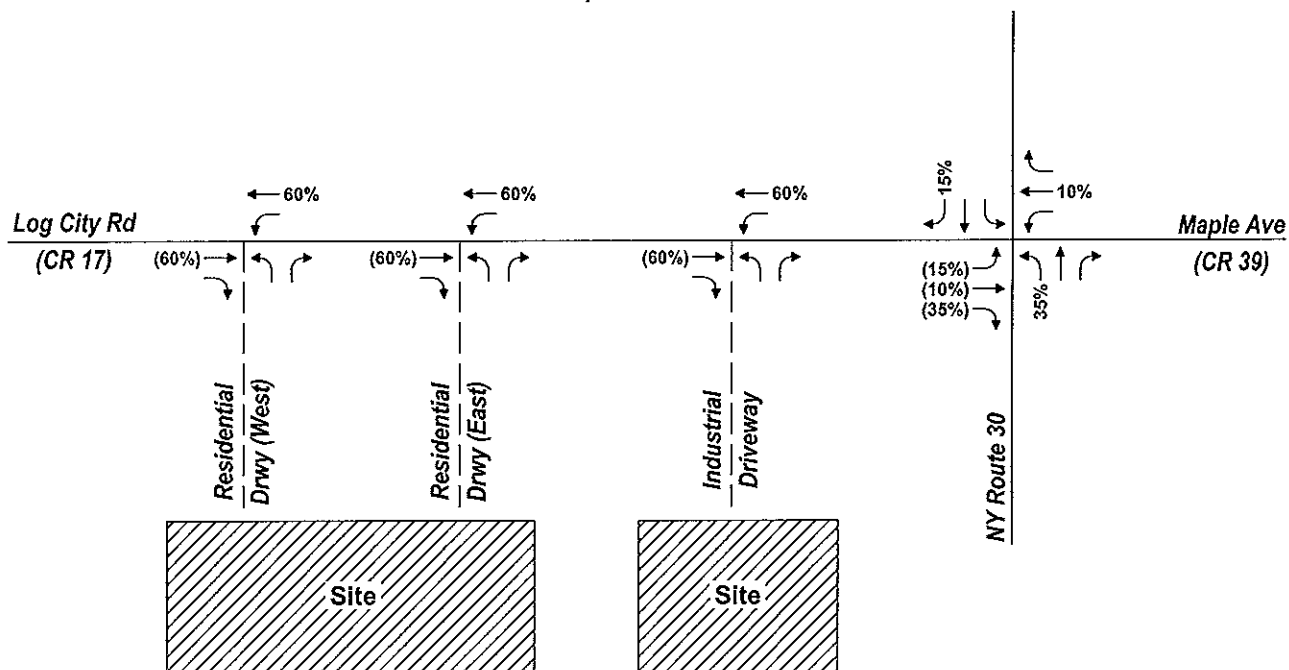


Trip Distribution & Assignment
Residential - Off Street Access
Concord Development
Amsterdam, New York

Figure 4

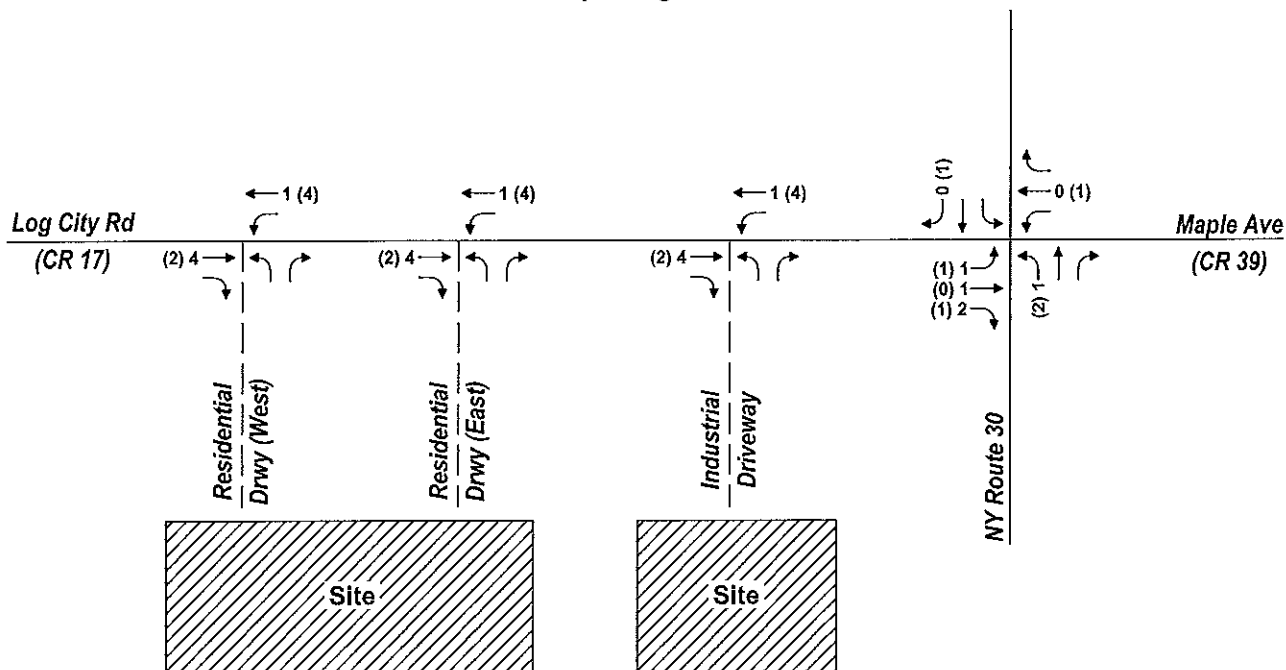
Trip Distribution

xx = Entering Trips
(xx) = Exiting Trips



Trip Assignment

xx = AM Peak Hour
(xx) = PM Peak Hour



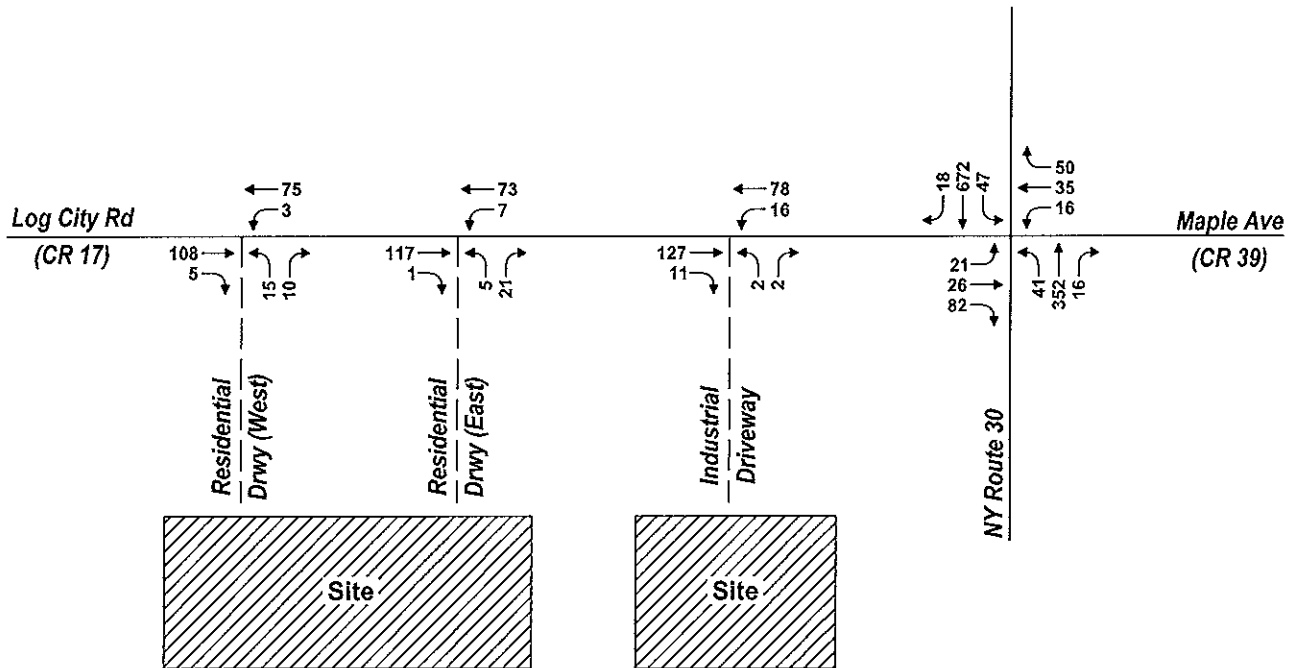
Not to Scale



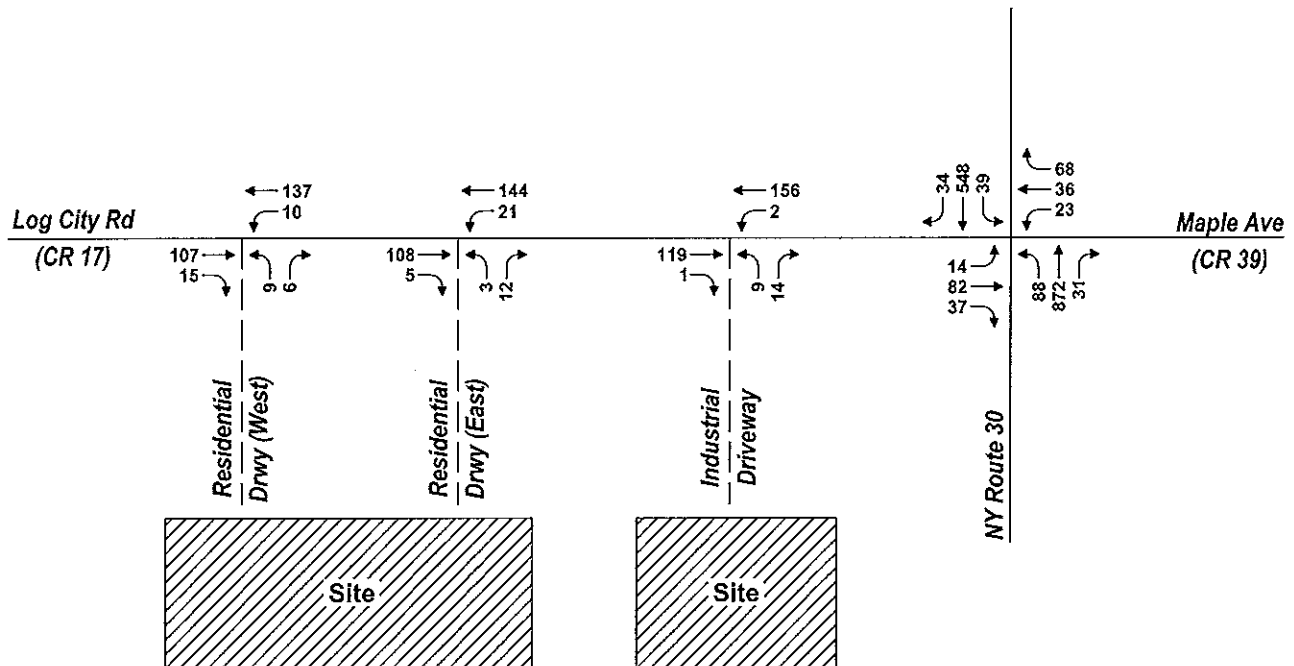
Trip Distribution & Assignment
Residential - On Street Access
Concord Development
Amsterdam, New York

Figure 5

AM Peak Hour



PM Peak Hour



Not to Scale



2026 Build
Traffic Volumes
Concord Development
Amsterdam, New York

Figure 6

Appendix

- A. Overall Development Plan
- B. Automatic Traffic Recorder Data
- C. Peak Hour Volume Data
- D. Capacity Analysis Worksheets

Appendix A – Overall Development Plan

Appendix B – Automatic Traffic Recorder Data

STATION: 258020

New York State Department of Transportation
Traffic Count Hourly Report

Page 1 of 2

ROAD # CR CR17 ROAD NAME: LOG CITY RD FROM: MCKAY RD TO: NY 30
DIRECTION: Eastbound FACTOR GROUP: 30 REC. SERIAL #: BT88 COUNTY: Montgomery
STATE DIR CODE: 6 WK OF YR: 23 PLACEMENT: 500' east of mckay TOWN: TOWN:
DATE OF COUNT: 06/01/2016 @ REF MARKER: JURIS: Village NHS: no LION#: LION#:
NOTES LANE 1: ADDL DATA: Class Speed CC Str: RR CROSSING: HPMS SAMPLE:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R02CMixMTG

COUNT TAKEN BY: ORG CODE: MTG INITIALS: DKS

PROCESSED BY: ORG CODE: DOT INITIALS: WW

| DATE | DAY | AM | | | | | | | | | | | | PM | | | | | | | | | | | | DAILY HIGH | DAILY COUNT | DAILY HIGH | DAILY COUNT |
|------|-----|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|---------------|----------------|---------------|----------------|
| | | 12 TO | 1 TO | 2 TO | 3 TO | 4 TO | 5 TO | 6 TO | 7 TO | 8 TO | 9 TO | 10 TO | 11 TO | 12 TO | 1 TO | 2 TO | 3 TO | 4 TO | 5 TO | 6 TO | 7 TO | 8 TO | 9 TO | 10 TO | 11 TO | | | | |
| 1 | W | 2 | 2 | 0 | 5 | 8 | 24 | 41 | 94 | 81 | 62 | 86 | 82 | 83 | 83 | 83 | 89 | 130 | 83 | 54 | 49 | 28 | 21 | 9 | 4 | 98 | 14 | 14 | |
| 2 | T | 4 | 0 | 1 | 5 | 8 | 33 | 52 | 86 | 87 | 72 | 92 | 79 | 71 | 70 | 91 | 96 | 98 | 98 | 83 | 41 | 26 | 20 | 5 | 7 | 1220 | 98 | 16 | |
| 3 | F | 5 | 3 | 5 | 4 | 1 | 13 | 27 | 52 | 68 | 96 | 100 | 89 | 97 | 87 | 69 | 65 | 53 | 63 | 46 | 47 | 28 | 23 | 12 | 14 | 1067 | 100 | 10 | |
| 4 | S | 8 | 0 | 2 | 2 | 1 | 15 | 24 | 28 | 39 | 49 | 64 | 53 | 64 | 58 | 38 | 37 | 33 | 26 | 24 | 15 | 14 | 5 | 5 | 605 | 64 | 11 | | |
| 5 | S | 1 | 1 | 2 | 7 | 10 | 28 | 46 | 110 | 94 | 54 | 76 | 55 | 65 | 65 | 87 | 83 | 84 | 93 | 54 | 43 | 31 | 19 | 7 | 3 | 1118 | 110 | 7 | |
| 6 | M | 0 | 0 | 2 | 7 | 9 | 35 | 41 | 94 | 88 | 78 | 61 | 61 | 70 | 62 | 97 | 92 | 95 | 84 | 48 | 53 | 26 | 16 | 9 | 4 | 1132 | 97 | 14 | |
| 7 | T | 0 | 0 | 2 | 6 | 7 | 27 | 45 | 86 | 89 | 68 | 59 | 70 | 74 | 74 | 89 | 86 | 100 | 81 | 49 | 36 | 19 | 15 | 6 | 4 | 1092 | 100 | 16 | |
| 8 | W | 0 | 0 | 2 | 6 | 7 | 27 | 45 | 86 | 89 | 68 | 59 | 70 | 74 | 74 | 89 | 86 | 100 | 81 | 49 | 36 | 19 | 15 | 6 | 4 | 1092 | 100 | 16 | |
| 9 | T | 1 | 2 | 0 | 6 | 7 | 33 | 50 | 90 | 98 | 58 | 59 | 71 | 62 | 70 | 84 | 73 | 103 | 86 | 62 | 36 | 31 | 11 | 9 | 2 | 1104 | 103 | 16 | |

| DAYS Counted | HOURS Counted | WEEKDAYS WEEKDAY | | AVERAGE WEEKDAY | | AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon) | | ADT | |
|-----------------|------------------|------------------|-------|---------------------------------------|----------|--|-------|---------|-------|
| | | Counted | Hours | High Hour | % of day | Counted | Hours | Counted | Hours |
| 9 | 202 | 6 | 136 | 101 | 9% | 1000 | 1,106 | 88 | 1147 |
| | | ESTIMATED | | Seasonal/Weekday Adjustment Factor | | Axle Adj. Factor | | ADT | |
| | | AADT | | 1.106 | | 1.000 | | 1037 | |

ROAD # CR17 ROAD NAME: LOG CITY RD FROM: MCKAY RD TO: NY 30 COUNTY: Montgomery
STATION: 258020 STATE DIR CODE: 6 PLACEMENT: 500' east of mckay DATE OF COUNT: 06/01/2016

STATION: 258020

New York State Department of Transportation
Traffic Count Hourly Report

Page 2 of 2

ROAD #: CR CR17 ROAD NAME: LOG CITY RD FROM: MCKAY RD TO: NY 30
DIRECTION: Westbound FACTOR GROUP: 30 REC. SERIAL #: BT88
STATE DIR CODE: 7 WK OF YR: 23 PLACEMENT: 500' east of mckay
DATE OF COUNT: 06/01/2016 @ REF MARKER: NHS: no
NOTES LANE 1: ADDL DATA: Class Speed JURIS: Village
COUNT TYPE: AXLE PAIRS CC Sht: RR CROSSING: HPMS SAMPLE: BATCH ID: DOT-R02CMixMTG
COUNT TAKEN BY: ORG CODE: MTG INITIALS: DKS PROCESSED BY: ORG CODE: DOT INITIALS: WW

COUNTY: Montgomery

TOWN: LION#:

BIN: RR CROSSING: HPMS SAMPLE:

CC Sht: RR CROSSING: HPMS SAMPLE:

BATCH ID: DOT-R02CMixMTG

RR CROSSING: HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

HPMS SAMPLE:

| DATE | DAY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | PM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL | DAILY | HIGH | LOW |
|------|-----|----|---|---|---|---|---|----|----|----|----|----|----|-----|----|-----|-----|-----|-----|----|----|----|----|----|----|------|-------|-------|------|-----|
| 1 | W | 4 | 2 | 0 | 1 | 3 | 4 | 26 | 64 | 64 | 50 | 45 | 71 | 98 | 77 | 102 | 107 | 125 | 114 | 71 | 64 | 57 | 41 | 22 | 9 | 1227 | 133 | 16 | | |
| 2 | T | 1 | 1 | 2 | 0 | 1 | 5 | 21 | 78 | 59 | 65 | 80 | 85 | 72 | 89 | 93 | 103 | 133 | 117 | 85 | 66 | 52 | 38 | 17 | 14 | 1227 | 128 | 16 | | |
| 3 | F | 5 | 3 | 3 | 1 | 4 | 6 | 7 | 24 | 38 | 62 | 89 | 97 | 106 | 82 | 103 | 120 | 128 | 116 | 88 | 73 | 64 | 42 | 19 | 20 | 1332 | 106 | 12 | | |
| 4 | S | 13 | 4 | 3 | 1 | 2 | 1 | 5 | 12 | 27 | 28 | 39 | 50 | 68 | 70 | 87 | 64 | 50 | 61 | 46 | 44 | 52 | 43 | 28 | 11 | 1013 | 70 | 13 | | |
| 5 | S | 1 | 3 | 3 | 1 | 3 | 7 | 27 | 63 | 66 | 68 | 57 | 80 | 72 | 68 | 97 | 102 | 127 | 117 | 77 | 53 | 27 | 22 | 11 | 6 | 657 | 127 | 16 | | |
| 6 | M | 1 | 3 | 1 | 1 | 3 | 7 | 21 | 60 | 67 | 54 | 61 | 57 | 69 | 72 | 77 | 91 | 106 | 127 | 76 | 48 | 57 | 34 | 23 | 15 | 1132 | 127 | 17 | | |
| 7 | T | 3 | 2 | 1 | 1 | 3 | 7 | 23 | 60 | 59 | 43 | 50 | 85 | 60 | 76 | 97 | 106 | 112 | 110 | 93 | 58 | 40 | 27 | 16 | 11 | 1140 | 112 | 16 | | |
| 8 | W | 3 | 0 | 1 | 2 | 3 | 5 | 23 | 60 | 72 | 60 | 60 | 55 | 68 | 46 | 89 | 85 | 92 | 119 | 78 | 67 | 53 | 39 | 12 | 11 | 1108 | 119 | 17 | | |
| 9 | T | 5 | 0 | 3 | 2 | 3 | 6 | 22 | 61 | 72 | 60 | 60 | 55 | 68 | 46 | 89 | 85 | 92 | 119 | 78 | 67 | 53 | 39 | 12 | 11 | 1108 | 119 | 17 | | |
| 10 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | AVERAGE WEEKDAY Hours | Average Weekday Factor | Seasonal/Weekday Adjustment Factor | ESTIMATED AADT |
|-----------------|------------------|---------------------|--------------------------|---------------------------|---------------------------------------|-------------------|
| 9 | 202 | 6 | 136 | 10% | 1.106 | 1061 |

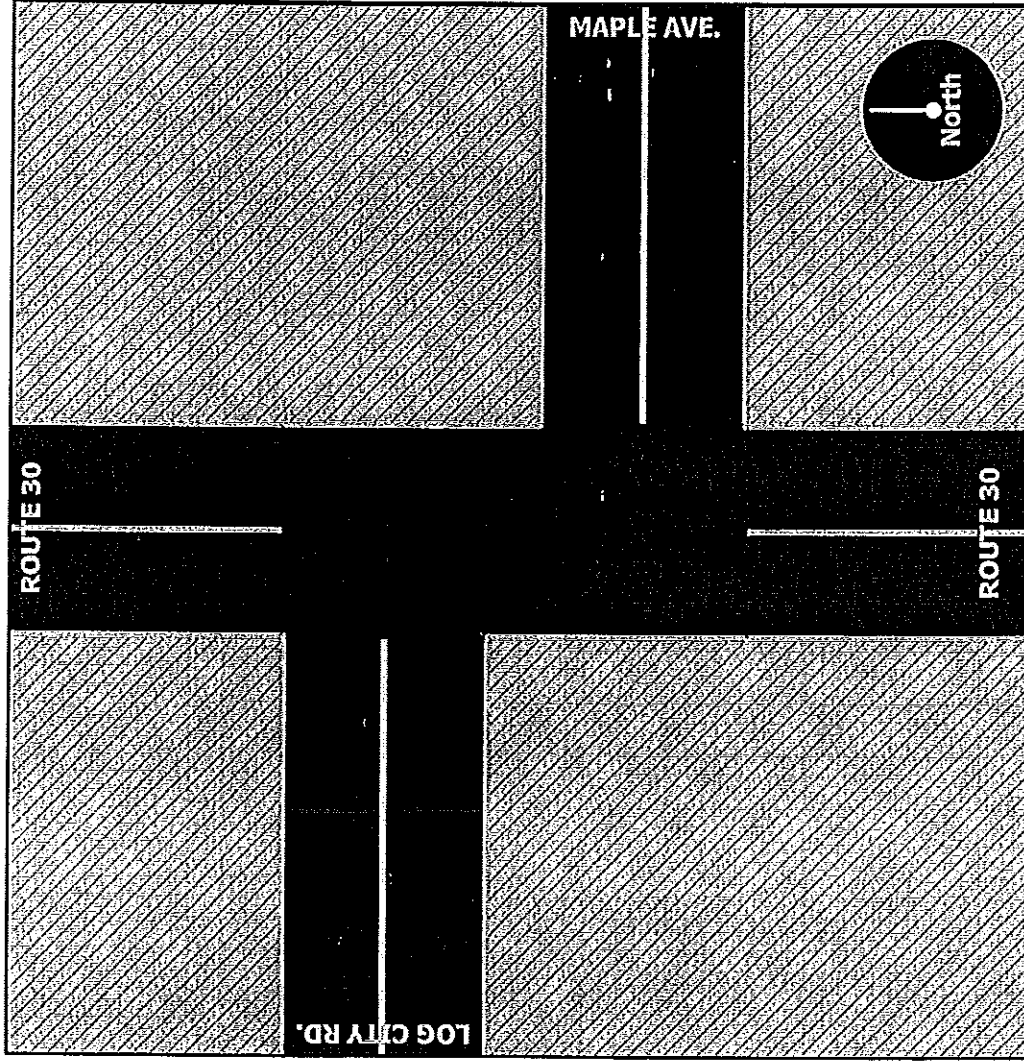
ROAD #: CR17 ROAD NAME: LOG CITY RD FROM: MCKAY RD TO: NY 30
STATION: 258020 STATE DIR CODE: 7 PLACEMENT: 500' east of mckay
COUNTY: Montgomery
DATE OF COUNT: 06/01/2016

Appendix C – Peak Hour Volume Data

PLANNING & PROGRAM
DATA SERVICES UNIT

File name : untitled0:
Site Code : 0002222
Start Date : 05/27/20
Page No : 4

Card #
Server: D. Clements & M. Davis
Author: Sunny



PLANNING & PROGRAM DATA SERVICES UNIT

File Name : untitled0:
Site Code : 0002222
Start Date : 05/27/20
Page No : 1

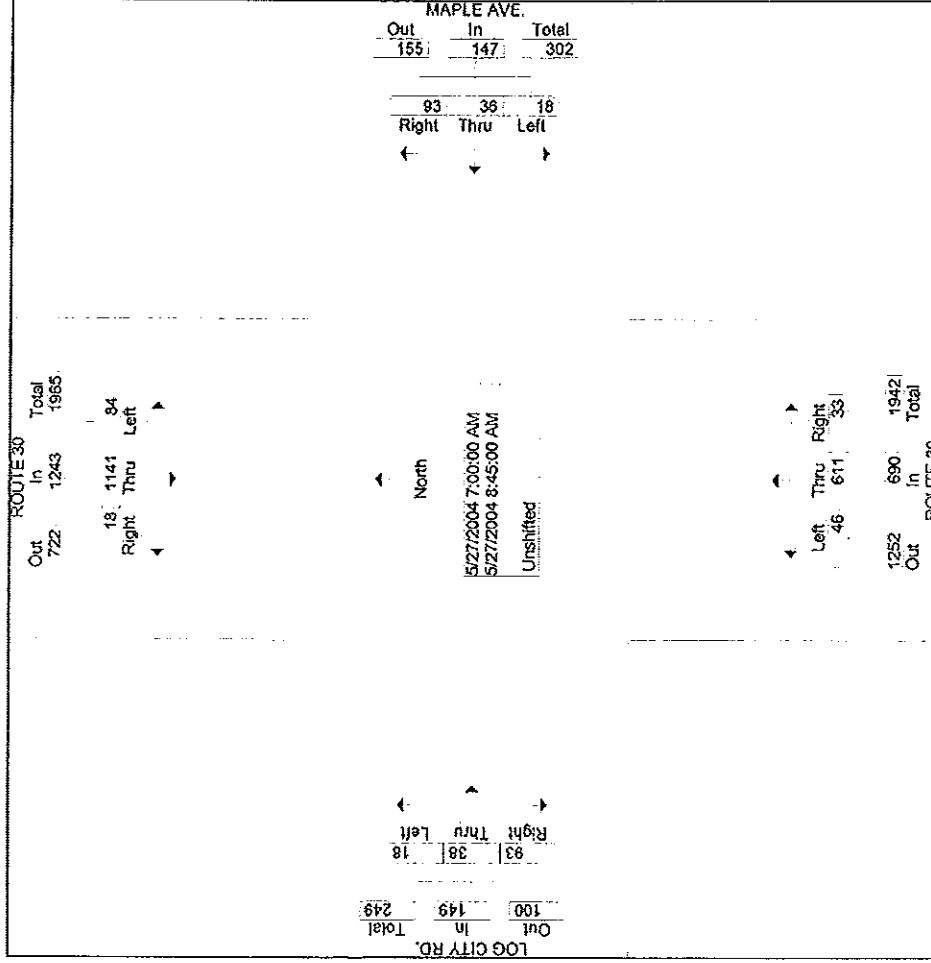
card #
tserver: D. Clements & M. Davis
eather: Sunny

| Groups Printed- Unshifted | | | | | | | | | | | |
|---------------------------|-------|------|------|----------------------|-------|------|------|---------------------|-------|------------------------|------|
| ROUTE 30 Southbound | | | | MAPLE AVE. Westbound | | | | ROUTE 30 Northbound | | | |
| Start Time | Right | Thru | Left | HV | Right | Thru | Left | HV | Right | LOG CITY RD. Eastbound | |
| | | | | | | | | | | Thru | Left |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 07:00 AM | 2 | 116 | 14 | 10 | 10 | 2 | 0 | 0 | 6 | 4 | 2 |
| 07:15 AM | 2 | 162 | 13 | 8 | 8 | 11 | 3 | 4 | 9 | 3 | 5 |
| 07:30 AM | 3 | 151 | 12 | 6 | 8 | 4 | 2 | 1 | 12 | 8 | 3 |
| 07:45 AM | 2 | 172 | 10 | 8 | 12 | 1 | 3 | 1 | 17 | 3 | 2 |
| Total | 9 | 601 | 49 | 32 | 38 | 18 | 8 | 6 | 44 | 18 | 12 |
| 08:00 AM | 5 | 146 | 11 | 9 | 11 | 3 | 3 | 1 | 6 | 5 | 1 |
| 08:15 AM | 2 | 127 | 5 | 9 | 13 | 12 | 2 | 2 | 11 | 6 | 3 |
| 08:30 AM | 0 | 128 | 14 | 16 | 16 | 3 | 5 | 1 | 5 | 4 | 1 |
| 08:45 AM | 2 | 139 | 5 | 12 | 15 | 0 | 0 | 2 | 14 | 5 | 1 |
| Total | 9 | 540 | 35 | 46 | 55 | 18 | 10 | 6 | 43 | 20 | 6 |
| Grand Total | 18 | 1141 | 84 | 78 | 93 | 36 | 18 | 12 | 87 | 38 | 18 |
| Approch % | 1.4 | 91.8 | 6.8 | | 63.3 | 24.5 | 12.2 | | 62.4 | 25.5 | 12.1 |
| Total % | 0.8 | 51.2 | 3.8 | | 4.2 | 1.6 | 0.8 | | 4.2 | 1.7 | 0.8 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

PLANNING & PROGRAM DATA SERVICES UNIT

File Name : untitled0:
Site Code : 0002222
Start Date : 05/27/20
Page No : 2

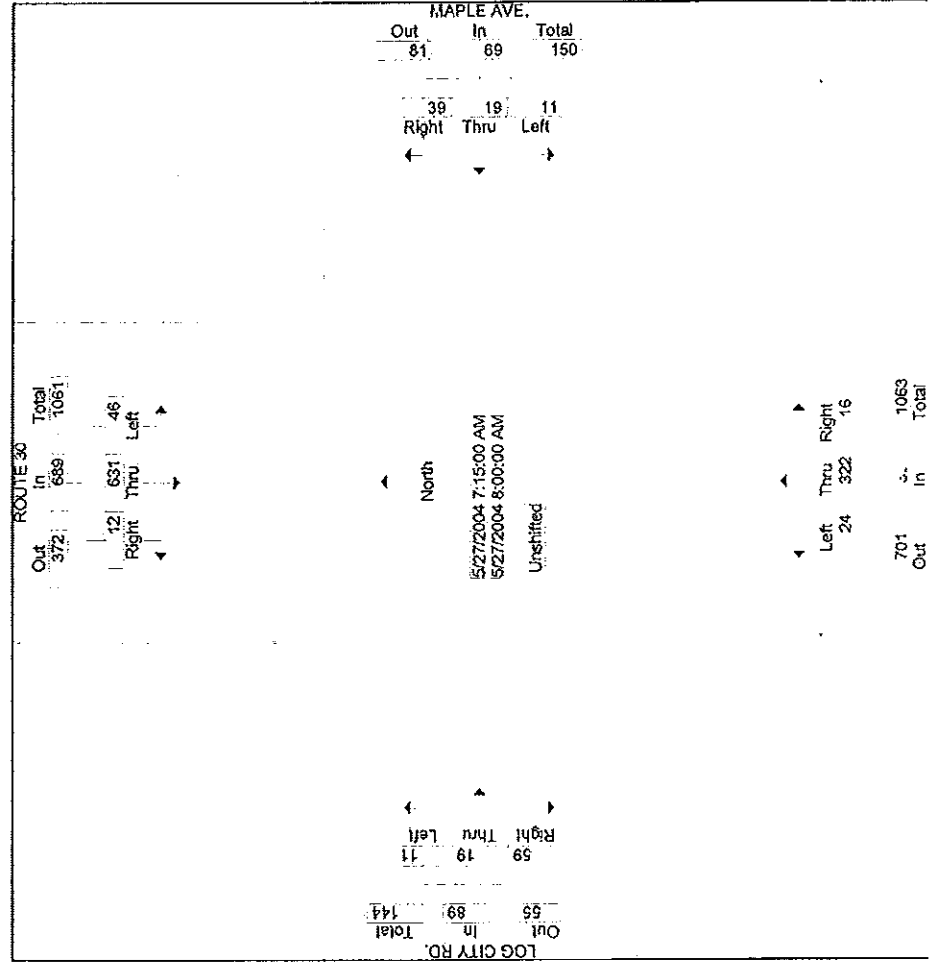
Card #
User: D. Clements & M. Davis
Author: Sunny



File Name : untitled0:
Site Code : 0002222
Start Date : 05/27/20
Page No : 3

File Name : untitled0:
Site Code : 0002222
Start Date : 05/27/20
Page No : 3

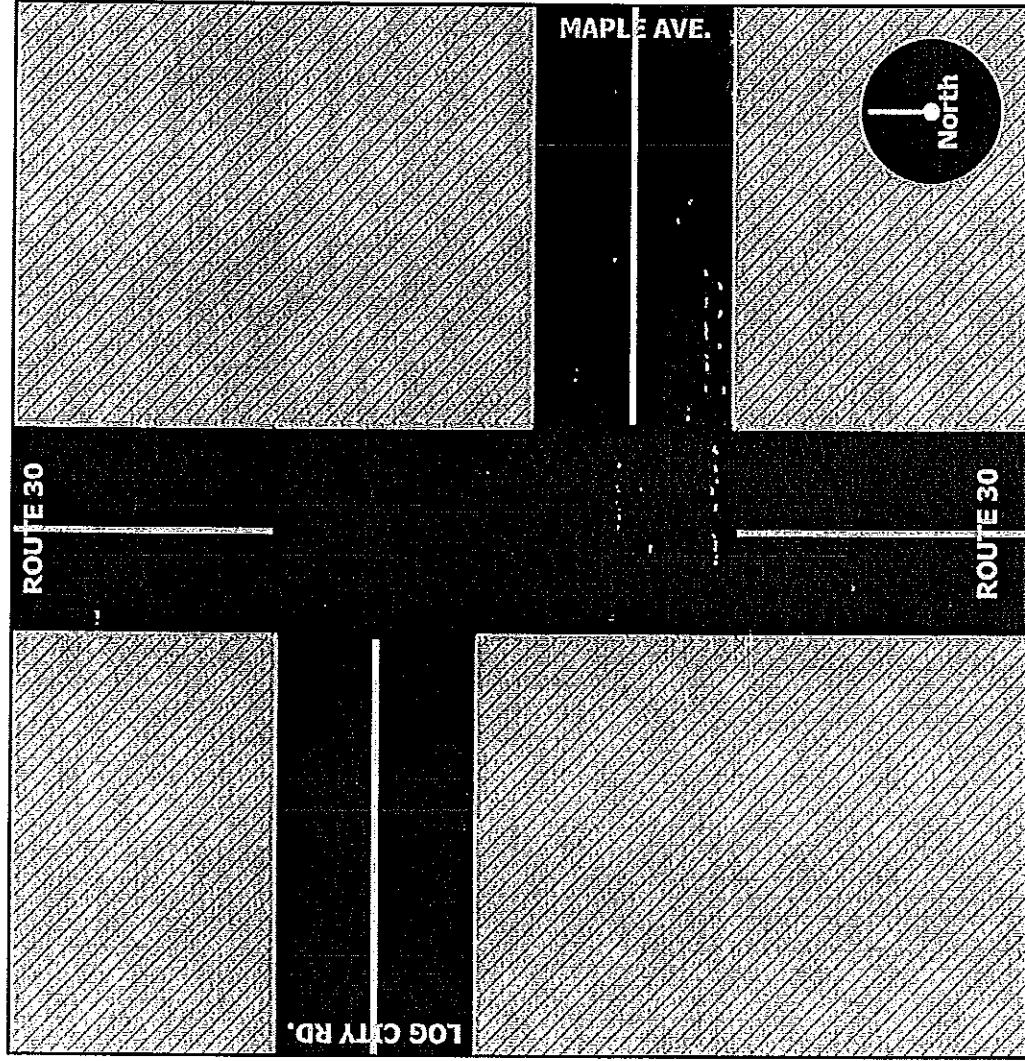
| Start Time | ROUTE 30 Southbound | | | MAPLE AVE. Westbound | | | ROUTE 30 Northbound | | | LOG CITY RD. Eastbound | | | Int Tot |
|---|---------------------|------|------|----------------------|------|------|---------------------|------|------|------------------------|------|------|---------|
| | Right | Thru | Left | Right | Thru | Left | Right | Thru | Left | Right | Thru | Left | |
| Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | |
| Intersection | 07:15 AM | | | | | | | | | | | | |
| Volume | 12 | 631 | 46 | 39 | 19 | 11 | 69 | 322 | 24 | 59 | 19 | 11 | 89 |
| Percent | 1.7 | 91.6 | 6.7 | 56.5 | 27.5 | 15.9 | 4.4 | 89.0 | 6.6 | 66.3 | 21.3 | 12.4 | 120 |
| 07:45 Volume | 2 | 172 | 10 | 12 | 1 | 3 | 16 | 93 | 7 | 24 | 3 | 2 | 33 |
| Peak Factor | | | | | | | | | | | | | 0.902 |
| High Int. | 07:45 AM | | | 07:15 AM | | | 07:45 AM | | | 07:45 AM | | | |
| Volume | 2 | 172 | 10 | 8 | 11 | 3 | 22 | 93 | 7 | 24 | 3 | 2 | 29 |
| Peak Factor | | | | 0.936 | | | 0.784 | | | 0.854 | | | 0.767 |



PLANNING & PROGRAM
DATA SERVICES UNIT

File name : untitled0;
Site Code : 0111111
Start Date : 05/25/20
Page No : 4

card #
tserver: M Davis & D Clements
eather: Sunny



PLANNING & PROGRAM DATA SERVICES UNIT

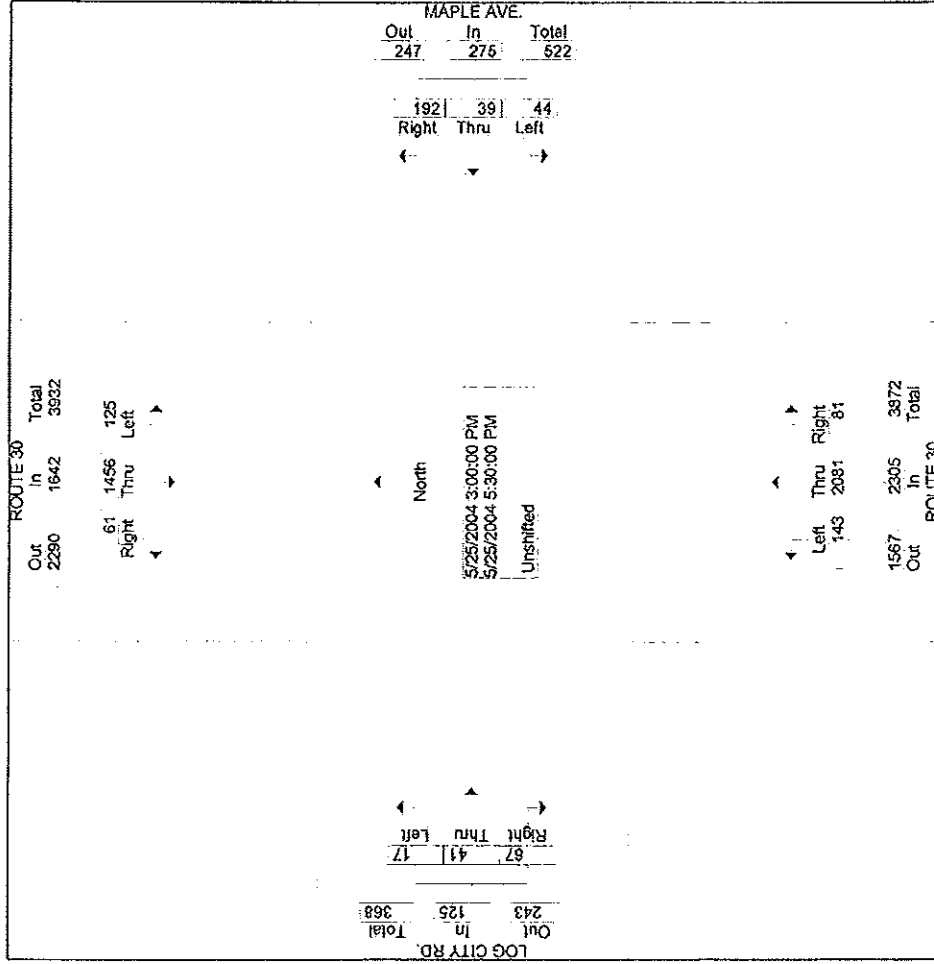
File Name : untitled0:
Site Code : 0111111
Start Date : 05/25/20
Page No : 1

card #
tserver: M Davis & D Clements
eather: Sunny

| Start Time | ROUTE 30 Southbound | | | | MAPLE AVE. Westbound | | | | Groups Printed- Unshifted ROUTE 30 Northbound | | | | LOG CITY RD. Eastbound | | | | Exclu. Total | Inclu. Total | Int. Tot |
|-------------|------------------------|------|------|-----|-------------------------|------|------|-----|---|------|------|-----|---------------------------|------|------|-----|-----------------|-----------------|----------|
| | Right | Thru | Left | HV | Right | Thru | Left | HV | Right | Thru | Left | HV | Right | Thru | Left | HV | | | |
| Factor | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | | |
| 03:00 PM | 4 | 120 | 8 | 10 | 11 | 3 | 3 | 2 | 5 | 175 | 11 | 17 | 7 | 4 | 2 | 1 | 30 | 383 | 38 |
| 03:15 PM | 2 | 155 | 13 | 12 | 16 | 4 | 3 | 0 | 11 | 169 | 11 | 9 | 8 | 2 | 1 | 0 | 21 | 395 | 41 |
| 03:30 PM | 5 | 161 | 9 | 10 | 29 | 4 | 5 | 0 | 7 | 179 | 7 | 2 | 4 | 1 | 3 | 0 | 12 | 414 | 42 |
| 03:45 PM | 2 | 146 | 9 | 5 | 22 | 1 | 2 | 3 | 9 | 176 | 4 | 3 | 10 | 3 | 2 | 0 | 11 | 386 | 39 |
| Total | 13 | 582 | 39 | 37 | 78 | 12 | 13 | 5 | 32 | 699 | 33 | 31 | 29 | 10 | 8 | 1 | 74 | 1548 | 162 |
| 04:00 PM | 11 | 118 | 19 | 7 | 12 | 4 | 5 | 0 | 10 | 194 | 16 | 9 | 1 | 3 | 2 | 0 | 16 | 395 | 41 |
| 04:15 PM | 3 | 129 | 5 | 12 | 16 | 4 | 3 | 1 | 7 | 226 | 11 | 10 | 3 | 6 | 1 | 0 | 23 | 414 | 43 |
| 04:30 PM | 9 | 136 | 18 | 10 | 13 | 3 | 8 | 1 | 5 | 207 | 16 | 6 | 5 | 6 | 1 | 0 | 17 | 427 | 44 |
| 04:45 PM | 6 | 123 | 5 | 7 | 16 | 4 | 6 | 1 | 9 | 194 | 12 | 7 | 6 | 5 | 2 | 0 | 15 | 388 | 40 |
| Total | 29 | 506 | 47 | 36 | 57 | 15 | 22 | 3 | 31 | 821 | 55 | 32 | 15 | 20 | 6 | 0 | 71 | 1624 | 169 |
| 05:00 PM | 5 | 119 | 10 | 6 | 21 | 3 | 5 | 1 | 9 | 201 | 26 | 8 | 3 | 2 | 0 | 0 | 15 | 404 | 41 |
| 05:15 PM | 5 | 129 | 16 | 5 | 17 | 0 | 1 | 0 | 6 | 185 | 12 | 6 | 11 | 4 | 2 | 0 | 11 | 388 | 39 |
| 05:30 PM | 9 | 120 | 13 | 6 | 19 | 9 | 3 | 0 | 3 | 175 | 17 | 2 | 9 | 5 | 1 | 1 | 9 | 383 | 39 |
| Grand Total | 61 | 1456 | 125 | 90 | 192 | 39 | 44 | 9 | 81 | 2081 | 143 | 79 | 67 | 41 | 17 | 2 | 180 | 4347 | 452 |
| Approch % | 3.7 | 88.7 | 7.6 | | 69.8 | 14.2 | 16.0 | | 3.5 | 90.3 | 6.2 | | 53.6 | 32.8 | 13.6 | | 4.0 | | |
| Total % | 1.4 | 33.5 | 2.9 | | 4.4 | 0.9 | 1.0 | | 1.9 | 47.9 | 3.3 | | 1.5 | 0.9 | 0.4 | | | 96.0 | |

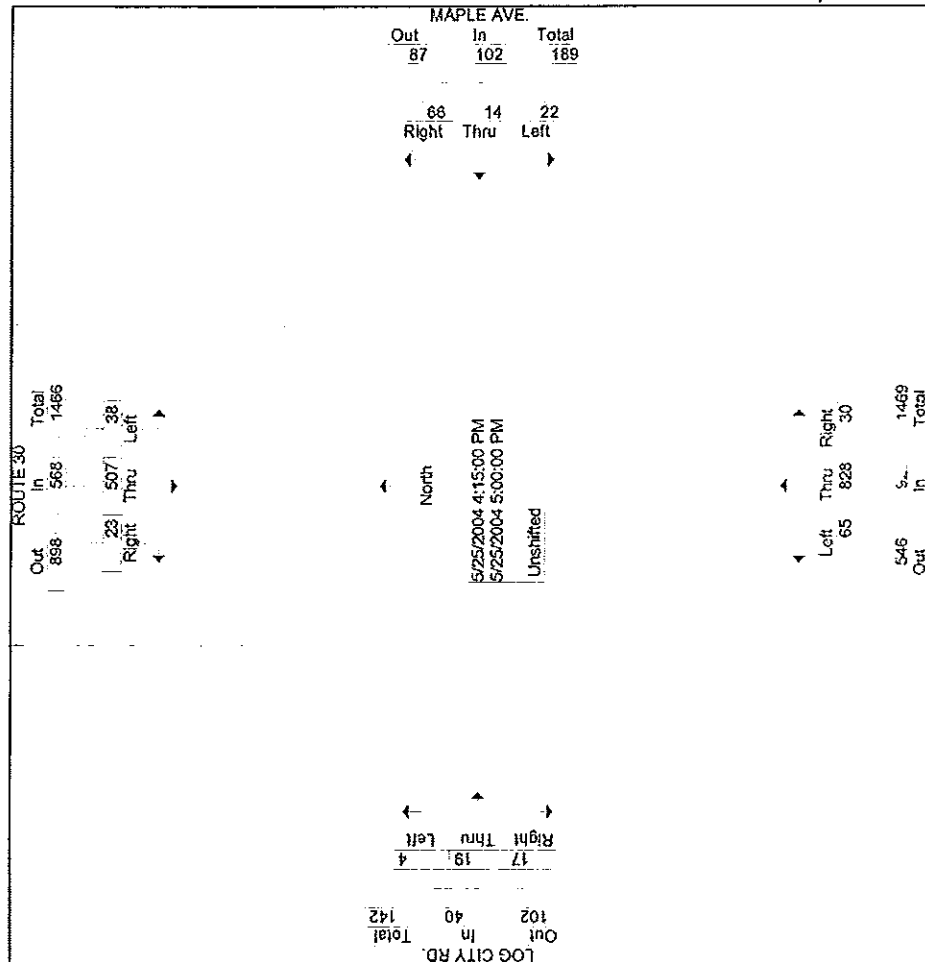
PLANNING & PROGRAM
 DATA SERVICES UNIT

card #
 tserver: M Davis & D Clements
 eather: Sunny



Card # _____
 Server: M Davis & D Clements
 Weather: Sunny



















| | ROUTE 30 Southbound | | | | MAPLE AVE. Westbound | | | | ROUTE 30 Northbound | | | | LOG CITY RD. Eastbound | | | | |
|---|------------------------|------|------|------------|-------------------------|------|------|------------|------------------------|------|------|------------|---------------------------|------|------|------------|-----------|
| | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Totl |
| Peak Hour From 03:00 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Intersection 04:15 PM | | | | | | | | | | | | | | | | | |
| Volume | 23 | 507 | 38 | 568 | 66 | 14 | 22 | 102 | 30 | 828 | 65 | 923 | 17 | 19 | 4 | 40 | 163 |
| Percent | 4.0 | 89.3 | 6.7 | | 64.7 | 13.7 | 21.6 | | 3.3 | 89.7 | 7.0 | | 42.5 | 47.5 | 10.0 | | |
| 04:30 Volume | 9 | 136 | 18 | 163 | 13 | 3 | 8 | 24 | 5 | 207 | 16 | 228 | 5 | 6 | 1 | 12 | 42 |
| Peak Factor | | | | | | | | | | | | | | | | | |
| High Int. 04:30 PM | 9 | | | | 05:00 PM | | | | 04:15 PM | | | | 04:45 PM | | | | 0.956 |
| Volume | | 136 | 18 | 163 | 21 | 3 | 5 | 29 | 7 | 226 | 11 | 244 | 6 | 5 | 2 | 13 | |
| Peak Factor | | | | 0.871 | | | | 0.879 | | | | 0.946 | | | | 0.769 | |



Appendix D – Capacity Analysis Worksheets

HCM 6th Signalized Intersection Summary 1: NY Route 30 & Log City Rd/Maple Ave

2020 Existing
AM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 11 | 19 | 59 | 16 | 29 | 49 | 24 | 322 | 16 | 46 | 631 | 12 |
| Future Volume (veh/h) | 11 | 19 | 59 | 16 | 29 | 49 | 24 | 322 | 16 | 46 | 631 | 12 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1945 | 1870 | 1870 | 1945 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 12 | 21 | 66 | 18 | 32 | 54 | 27 | 358 | 18 | 51 | 701 | 13 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 116 | 57 | 145 | 129 | 82 | 115 | 331 | 1545 | 77 | 662 | 853 | 16 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.03 | 0.45 | 0.45 | 0.04 | 0.47 | 0.47 |
| Sat Flow, veh/h | 114 | 429 | 1085 | 180 | 615 | 858 | 1853 | 3444 | 173 | 1853 | 1830 | 34 |
| Grp Volume(v), veh/h | 99 | 0 | 0 | 104 | 0 | 0 | 27 | 184 | 192 | 51 | 0 | 714 |
| Grp Sat Flow(s),veh/h/ln | 1627 | 0 | 0 | 1653 | 0 | 0 | 1853 | 1777 | 1839 | 1853 | 0 | 1864 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 2.6 | 2.6 | 0.6 | 0.0 | 13.3 |
| Cycle Q Clear(g_c), s | 2.2 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | 0.3 | 2.6 | 2.6 | 0.6 | 0.0 | 13.3 |
| Prop In Lane | 0.12 | | 0.67 | 0.17 | | 0.52 | 1.00 | | 0.09 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 319 | 0 | 0 | 327 | 0 | 0 | 331 | 797 | 825 | 662 | 0 | 869 |
| V/C Ratio(X) | 0.31 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 | 0.08 | 0.23 | 0.23 | 0.08 | 0.00 | 0.82 |
| Avail Cap(c_a), veh/h | 702 | 0 | 0 | 711 | 0 | 0 | 514 | 1108 | 1146 | 813 | 0 | 1162 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.0 | 0.0 | 0.0 | 16.0 | 0.0 | 0.0 | 7.7 | 6.8 | 6.8 | 5.4 | 0.0 | 9.3 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 3.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.1 | 0.6 | 0.6 | 0.1 | 0.0 | 3.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.2 | 0.0 | 0.0 | 16.2 | 0.0 | 0.0 | 7.7 | 6.9 | 6.9 | 5.4 | 0.0 | 12.9 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | B |
| Approach Vol, veh/h | | 99 | | | 104 | | | 403 | | | 765 | |
| Approach Delay, s/veh | | 16.2 | | | 16.2 | | | 7.0 | | | 12.4 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.7 | 23.0 | | 10.4 | 6.0 | 23.7 | | 10.4 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 25.0 | | 15.0 | 5.0 | 25.0 | | 15.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.6 | 4.6 | | 4.2 | 2.3 | 15.3 | | 4.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.8 | | 0.2 | 0.0 | 3.1 | | 0.2 | | | | |

Intersection Summary



















HCM 6th Ctrl Delay 11.4
HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary 1: NY Route 30 & Log City Rd/Maple Ave

2026 No-Build
AM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 11 | 20 | 61 | 16 | 30 | 50 | 25 | 352 | 16 | 47 | 672 | 12 |
| Future Volume (veh/h) | 11 | 20 | 61 | 16 | 30 | 50 | 25 | 352 | 16 | 47 | 672 | 12 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1945 | 1870 | 1870 | 1945 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 12 | 22 | 68 | 18 | 33 | 56 | 28 | 391 | 18 | 52 | 747 | 13 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 112 | 57 | 143 | 125 | 81 | 114 | 312 | 1601 | 74 | 655 | 879 | 15 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.03 | 0.46 | 0.46 | 0.04 | 0.48 | 0.48 |
| Sat Flow, veh/h | 111 | 434 | 1089 | 175 | 615 | 868 | 1853 | 3460 | 159 | 1853 | 1833 | 32 |
| Grp Volume(v), veh/h | 102 | 0 | 0 | 107 | 0 | 0 | 28 | 200 | 209 | 52 | 0 | 760 |
| Grp Sat Flow(s),veh/h/ln | 1633 | 0 | 0 | 1658 | 0 | 0 | 1853 | 1777 | 1842 | 1853 | 0 | 1865 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 2.8 | 2.8 | 0.6 | 0.0 | 14.8 |
| Cycle Q Clear(g_c), s | 2.3 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.3 | 2.8 | 2.8 | 0.6 | 0.0 | 14.8 |
| Prop In Lane | 0.12 | | 0.67 | 0.17 | | 0.52 | 1.00 | | 0.09 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 312 | 0 | 0 | 320 | 0 | 0 | 312 | 822 | 852 | 655 | 0 | 894 |
| V/C Ratio(X) | 0.33 | 0.00 | 0.00 | 0.33 | 0.00 | 0.00 | 0.09 | 0.24 | 0.24 | 0.08 | 0.00 | 0.85 |
| Avail Cap(c_a), veh/h | 680 | 0 | 0 | 689 | 0 | 0 | 487 | 1072 | 1111 | 798 | 0 | 1125 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.6 | 0.0 | 0.0 | 16.7 | 0.0 | 0.0 | 8.0 | 6.7 | 6.7 | 5.3 | 0.0 | 9.5 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 5.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.1 | 0.6 | 0.6 | 0.1 | 0.0 | 4.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.9 | 0.0 | 0.0 | 16.9 | 0.0 | 0.0 | 8.0 | 6.9 | 6.9 | 5.3 | 0.0 | 14.7 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | B |
| Approach Vol, veh/h | | 102 | | | 107 | | | 437 | | | 812 | |
| Approach Delay, s/veh | | 16.9 | | | 16.9 | | | 7.0 | | | 14.1 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.8 | 24.2 | | 10.5 | 6.1 | 24.9 | | 10.5 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 25.0 | | 15.0 | 5.0 | 25.0 | | 15.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.6 | 4.8 | | 4.3 | 2.3 | 16.8 | | 4.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.2 | 0.0 | 3.0 | | 0.2 | | | | |

Intersection Summary



















HCM 6th Ctrl Delay 12.3
HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary 1: NY Route 30 & Log City Rd/Maple Ave

2026 Build
AM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 21 | 26 | 82 | 16 | 35 | 50 | 41 | 352 | 16 | 47 | 672 | 18 |
| Future Volume (veh/h) | 21 | 26 | 82 | 16 | 35 | 50 | 41 | 352 | 16 | 47 | 672 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1945 | 1870 | 1870 | 1945 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 23 | 29 | 91 | 18 | 39 | 56 | 46 | 391 | 18 | 52 | 747 | 20 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 121 | 56 | 139 | 120 | 92 | 112 | 323 | 1642 | 75 | 661 | 867 | 23 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.04 | 0.47 | 0.47 | 0.04 | 0.48 | 0.48 |
| Sat Flow, veh/h | 175 | 423 | 1047 | 170 | 690 | 845 | 1853 | 3460 | 159 | 1853 | 1813 | 49 |
| Grp Volume(v), veh/h | 143 | 0 | 0 | 113 | 0 | 0 | 46 | 200 | 209 | 52 | 0 | 767 |
| Grp Sat Flow(s),veh/h/ln | 1645 | 0 | 0 | 1705 | 0 | 0 | 1853 | 1777 | 1842 | 1853 | 0 | 1862 |
| Q Serve(g_s), s | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 2.9 | 2.9 | 0.6 | 0.0 | 15.7 |
| Cycle Q Clear(g_c), s | 3.4 | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 0.5 | 2.9 | 2.9 | 0.6 | 0.0 | 15.7 |
| Prop In Lane | 0.16 | | 0.64 | 0.16 | | 0.50 | 1.00 | | 0.09 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 316 | 0 | 0 | 324 | 0 | 0 | 323 | 843 | 874 | 661 | 0 | 890 |
| V/C Ratio(X) | 0.45 | 0.00 | 0.00 | 0.35 | 0.00 | 0.00 | 0.14 | 0.24 | 0.24 | 0.08 | 0.00 | 0.86 |
| Avail Cap(c_a), veh/h | 657 | 0 | 0 | 671 | 0 | 0 | 466 | 1034 | 1072 | 797 | 0 | 1084 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 17.6 | 0.0 | 0.0 | 17.3 | 0.0 | 0.0 | 8.2 | 6.7 | 6.7 | 5.2 | 0.0 | 9.9 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 6.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.1 | 0.6 | 0.7 | 0.1 | 0.0 | 5.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 18.0 | 0.0 | 0.0 | 17.5 | 0.0 | 0.0 | 8.3 | 6.8 | 6.8 | 5.3 | 0.0 | 16.1 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | B |
| Approach Vol, veh/h | | 143 | | | 113 | | | 455 | | | 819 | |
| Approach Delay, s/veh | | 18.0 | | | 17.5 | | | 7.0 | | | 15.4 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.8 | 25.4 | | 10.7 | 6.7 | 25.5 | | 10.7 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 25.0 | | 15.0 | 5.0 | 25.0 | | 15.0 | | | | |
| Max Q Clear Time (g_c+1), s | 2.6 | 4.9 | | 5.4 | 2.5 | 17.7 | | 4.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.3 | 0.0 | 2.8 | | 0.2 | | | | |

Intersection Summary



















HCM 6th Ctrl Delay 13.3
HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary 1: NY Route 30 & Log City Rd/Maple Ave

2020 Existing
PM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 4 | 75 | 17 | 22 | 29 | 66 | 65 | 828 | 30 | 38 | 507 | 23 |
| Future Volume (veh/h) | 4 | 75 | 17 | 22 | 29 | 66 | 65 | 828 | 30 | 38 | 507 | 23 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1945 | 1870 | 1870 | 1945 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 4 | 78 | 18 | 23 | 30 | 69 | 68 | 862 | 31 | 40 | 528 | 24 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 97 | 195 | 44 | 133 | 69 | 125 | 459 | 1608 | 58 | 427 | 786 | 36 |
| Arrive On Green | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.05 | 0.46 | 0.46 | 0.04 | 0.44 | 0.44 |
| Sat Flow, veh/h | 34 | 1439 | 323 | 202 | 506 | 922 | 1853 | 3499 | 126 | 1853 | 1775 | 81 |
| Grp Volume(v), veh/h | 100 | 0 | 0 | 122 | 0 | 0 | 68 | 438 | 455 | 40 | 0 | 552 |
| Grp Sat Flow(s),veh/h/ln | 1797 | 0 | 0 | 1630 | 0 | 0 | 1853 | 1777 | 1848 | 1853 | 0 | 1856 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.8 | 7.2 | 7.2 | 0.5 | 0.0 | 9.6 |
| Cycle Q Clear(g_c), s | 2.1 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 | 0.8 | 7.2 | 7.2 | 0.5 | 0.0 | 9.6 |
| Prop In Lane | 0.04 | | 0.18 | 0.19 | | 0.57 | 1.00 | | 0.07 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 336 | 0 | 0 | 326 | 0 | 0 | 459 | 817 | 849 | 427 | 0 | 822 |
| V/C Ratio(X) | 0.30 | 0.00 | 0.00 | 0.37 | 0.00 | 0.00 | 0.15 | 0.54 | 0.54 | 0.09 | 0.00 | 0.67 |
| Avail Cap(c_a), veh/h | 751 | 0 | 0 | 695 | 0 | 0 | 589 | 1093 | 1136 | 588 | 0 | 1141 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.1 | 0.0 | 0.0 | 16.4 | 0.0 | 0.0 | 6.6 | 7.9 | 7.9 | 6.2 | 0.0 | 9.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.5 | 0.5 | 0.0 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.2 | 1.6 | 1.7 | 0.1 | 0.0 | 2.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.3 | 0.0 | 0.0 | 16.6 | 0.0 | 0.0 | 6.7 | 8.4 | 8.4 | 6.2 | 0.0 | 9.9 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | A |
| Approach Vol, veh/h | | 100 | | | 122 | | | 961 | | | 592 | |
| Approach Delay, s/veh | | 16.3 | | | 16.6 | | | 8.3 | | | 9.7 | |
| Approach LOS | | B | | | B | | | A | | | A | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.5 | 23.7 | | 10.5 | 7.1 | 23.0 | | 10.5 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 25.0 | | 15.0 | 5.0 | 25.0 | | 15.0 | | | | |
| Max Q Clear Time (g_c+1), s | 2.5 | 9.2 | | 4.1 | 2.8 | 11.6 | | 4.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.6 | | 0.2 | 0.0 | 2.7 | | 0.2 | | | | |

Intersection Summary



















HCM 6th Ctrl Delay 9.8
HCM 6th LOS A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary 1: NY Route 30 & Log City Rd/Maple Ave

2026 No-Build
PM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 4 | 77 | 18 | 23 | 30 | 68 | 67 | 872 | 31 | 39 | 548 | 24 |
| Future Volume (veh/h) | 4 | 77 | 18 | 23 | 30 | 68 | 67 | 872 | 31 | 39 | 548 | 24 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1945 | 1870 | 1870 | 1945 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 4 | 80 | 19 | 24 | 31 | 71 | 70 | 908 | 32 | 41 | 571 | 25 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 96 | 195 | 45 | 133 | 69 | 125 | 428 | 1608 | 57 | 411 | 786 | 34 |
| Arrive On Green | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.05 | 0.46 | 0.46 | 0.04 | 0.44 | 0.44 |
| Sat Flow, veh/h | 33 | 1432 | 331 | 206 | 507 | 920 | 1853 | 3502 | 123 | 1853 | 1778 | 78 |
| Grp Volume(v), veh/h | 103 | 0 | 0 | 126 | 0 | 0 | 70 | 461 | 479 | 41 | 0 | 596 |
| Grp Sat Flow(s),veh/h/ln | 1796 | 0 | 0 | 1632 | 0 | 0 | 1853 | 1777 | 1848 | 1853 | 0 | 1856 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.8 | 7.7 | 7.7 | 0.5 | 0.0 | 10.8 |
| Cycle Q Clear(g_c), s | 2.1 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 | 0.8 | 7.7 | 7.7 | 0.5 | 0.0 | 10.8 |
| Prop In Lane | 0.04 | | 0.18 | 0.19 | | 0.56 | 1.00 | | 0.07 | 1.00 | | 0.04 |
| Lane Grp Cap(c), veh/h | 336 | 0 | 0 | 328 | 0 | 0 | 428 | 816 | 848 | 411 | 0 | 820 |
| V/C Ratio(X) | 0.31 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 0.16 | 0.56 | 0.56 | 0.10 | 0.00 | 0.73 |
| Avail Cap(c_a), veh/h | 749 | 0 | 0 | 693 | 0 | 0 | 556 | 1090 | 1134 | 571 | 0 | 1139 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.1 | 0.0 | 0.0 | 16.4 | 0.0 | 0.0 | 6.9 | 8.0 | 8.0 | 6.3 | 0.0 | 9.3 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.6 | 0.6 | 0.0 | 0.0 | 1.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.2 | 1.7 | 1.8 | 0.1 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.3 | 0.0 | 0.0 | 16.7 | 0.0 | 0.0 | 7.0 | 8.7 | 8.6 | 6.4 | 0.0 | 10.8 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | B |
| Approach Vol, veh/h | | 103 | | | 126 | | | 1010 | | | 637 | |
| Approach Delay, s/veh | | 16.3 | | | 16.7 | | | 8.5 | | | 10.5 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.5 | 23.7 | | 10.6 | 7.2 | 23.0 | | 10.6 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 25.0 | | 15.0 | 5.0 | 25.0 | | 15.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.5 | 9.7 | | 4.1 | 2.8 | 12.8 | | 4.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.9 | | 0.2 | 0.0 | 2.8 | | 0.2 | | | | |

Intersection Summary



















HCM 6th Ctrl Delay 10.2
HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary 1: NY Route 30 & Log City Rd/Maple Ave

2026 Build
PM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 14 | 82 | 37 | 23 | 36 | 68 | 88 | 872 | 31 | 39 | 548 | 34 |
| Future Volume (veh/h) | 14 | 82 | 37 | 23 | 36 | 68 | 88 | 872 | 31 | 39 | 548 | 34 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1945 | 1870 | 1870 | 1945 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 15 | 85 | 39 | 24 | 38 | 71 | 92 | 908 | 32 | 41 | 571 | 35 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 112 | 159 | 68 | 130 | 81 | 124 | 427 | 1618 | 57 | 411 | 759 | 47 |
| Arrive On Green | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.06 | 0.46 | 0.46 | 0.04 | 0.44 | 0.44 |
| Sat Flow, veh/h | 111 | 1147 | 491 | 199 | 581 | 894 | 1853 | 3502 | 123 | 1853 | 1744 | 107 |
| Grp Volume(v), veh/h | 139 | 0 | 0 | 133 | 0 | 0 | 92 | 461 | 479 | 41 | 0 | 606 |
| Grp Sat Flow(s),veh/h/ln | 1750 | 0 | 0 | 1675 | 0 | 0 | 1853 | 1777 | 1848 | 1853 | 0 | 1851 |
| Q Serve(g_s), s | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 7.8 | 7.8 | 0.5 | 0.0 | 11.4 |
| Cycle Q Clear(g_c), s | 3.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 1.1 | 7.8 | 7.8 | 0.5 | 0.0 | 11.4 |
| Prop In Lane | 0.11 | | 0.28 | 0.18 | | 0.53 | 1.00 | | 0.07 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 339 | 0 | 0 | 335 | 0 | 0 | 427 | 821 | 854 | 411 | 0 | 806 |
| V/C Ratio(X) | 0.41 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 | 0.22 | 0.56 | 0.56 | 0.10 | 0.00 | 0.75 |
| Avail Cap(c_a), veh/h | 720 | 0 | 0 | 690 | 0 | 0 | 534 | 1074 | 1118 | 568 | 0 | 1119 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.6 | 0.0 | 0.0 | 16.6 | 0.0 | 0.0 | 7.2 | 8.1 | 8.1 | 6.5 | 0.0 | 9.8 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.6 | 0.6 | 0.0 | 0.0 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 0.2 | 1.8 | 1.8 | 0.1 | 0.0 | 3.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.9 | 0.0 | 0.0 | 16.9 | 0.0 | 0.0 | 7.3 | 8.7 | 8.7 | 6.5 | 0.0 | 11.7 |
| LnGrp LOS | B | A | A | B | A | A | A | A | A | A | A | B |
| Approach Vol, veh/h | | 139 | | | 133 | | | 1032 | | | 647 | |
| Approach Delay, s/veh | | 16.9 | | | 16.9 | | | 8.5 | | | 11.3 | |
| Approach LOS | | B | | | B | | | A | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.5 | 24.1 | | 10.7 | 7.6 | 23.0 | | 10.7 | | | | |
| Change Period (Y+Rc), s | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | | 5.0 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 25.0 | | 15.0 | 5.0 | 25.0 | | 15.0 | | | | |
| Max Q Clear Time (g_c+1), s | 2.5 | 9.8 | | 5.0 | 3.1 | 13.4 | | 4.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.8 | | 0.3 | 0.0 | 2.8 | | 0.2 | | | | |

Intersection Summary

HCM 6th Ctrl Delay 10.6
HCM 6th LOS B

Notes




User approved pedestrian interval to be less than phase max green.

HCM 6th TWSC
2: Industrial Drwy & Log City Rd

2026 Build
AM Peak Hour

Intersection

Int Delay, s/veh 0.7

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|------|---|---|------|
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 127 | 11 | 16 | 78 | 2 | 2 |
| Future Vol, veh/h | 127 | 11 | 16 | 78 | 2 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 165 | 14 | 21 | 101 | 3 | 3 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | 179 | 0 | 315 |
| Stage 1 | - | - | - | - | 172 |
| Stage 2 | - | - | - | - | 143 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1397 | - | 678 |
| Stage 1 | - | - | - | - | 858 |
| Stage 2 | - | - | - | - | 884 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1397 | - | 667 |
| Mov Cap-2 Maneuver | - | - | - | - | 667 |
| Stage 1 | - | - | - | - | 858 |
| Stage 2 | - | - | - | - | 870 |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 1.3 | 9.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 756 | - | - | 1397 | - |
| HCM Lane V/C Ratio | 0.007 | - | - | 0.015 | - |
| HCM Control Delay (s) | 9.8 | - | - | 7.6 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - |

HCM 6th TWSC
2: Industrial Drwy & Log City Rd

2026 Build
PM Peak Hour

Intersection

Int Delay, s/veh 0.8

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ | | | ↑ | ↑ | |
| Traffic Vol, veh/h | 119 | 1 | 2 | 156 | 9 | 14 |
| Future Vol, veh/h | 119 | 1 | 2 | 156 | 9 | 14 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 155 | 1 | 3 | 203 | 12 | 18 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | 156 | 0 | 365 |
| Stage 1 | - | - | - | - | 156 |
| Stage 2 | - | - | - | - | 209 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1424 | - | 635 |
| Stage 1 | - | - | - | - | 872 |
| Stage 2 | - | - | - | - | 826 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1424 | - | 634 |
| Mov Cap-2 Maneuver | - | - | - | - | 634 |
| Stage 1 | - | - | - | - | 872 |
| Stage 2 | - | - | - | - | 824 |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 0.1 | 9.9 |
| HCM LOS | | | A |




| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 769 | - | - | 1424 | - |
| HCM Lane V/C Ratio | 0.039 | - | - | 0.002 | - |
| HCM Control Delay (s) | 9.9 | - | - | 7.5 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

HCM 6th TWSC
3: Residential Drwy East & Log City Rd

2026 Build
AM Peak Hour

Intersection

Int Delay, s/veh 1.3

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|------|---|---|------|
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 117 | 1 | 7 | 73 | 5 | 21 |
| Future Vol, veh/h | 117 | 1 | 7 | 73 | 5 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 152 | 1 | 9 | 95 | 6 | 27 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | 153 | 0 | 266 |
| Stage 1 | - | - | - | - | 153 |
| Stage 2 | - | - | - | - | 113 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1428 | - | 723 |
| Stage 1 | - | - | - | - | 875 |
| Stage 2 | - | - | - | - | 912 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1428 | - | 718 |
| Mov Cap-2 Maneuver | - | - | - | - | 718 |
| Stage 1 | - | - | - | - | 875 |
| Stage 2 | - | - | - | - | 906 |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 0.7 | 9.4 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 853 | - | - | 1428 | - |
| HCM Lane V/C Ratio | 0.04 | - | - | 0.006 | - |
| HCM Control Delay (s) | 9.4 | - | - | 7.5 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

HCM 6th TWSC
3: Residential Drwy East & Log City Rd

2026 Build
PM Peak Hour

Intersection

Int Delay, s/veh 1

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ | | | ↑ | ↑ | |
| Traffic Vol, veh/h | 108 | 5 | 21 | 144 | 3 | 12 |
| Future Vol, veh/h | 108 | 5 | 21 | 144 | 3 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 140 | 6 | 27 | 187 | 4 | 16 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | 146 | 0 | 384 |
| Stage 1 | - | - | - | - | 143 |
| Stage 2 | - | - | - | - | 241 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1436 | - | 619 |
| Stage 1 | - | - | - | - | 884 |
| Stage 2 | - | - | - | - | 799 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1436 | - | 606 |
| Mov Cap-2 Maneuver | - | - | - | - | 606 |
| Stage 1 | - | - | - | - | 884 |
| Stage 2 | - | - | - | - | 782 |

| Approach | EB | WB | NB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 1 | 9.5 |
| HCM LOS | | | A |




| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 824 | - | - | 1436 | - |
| HCM Lane V/C Ratio | 0.024 | - | - | 0.019 | - |
| HCM Control Delay (s) | 9.5 | - | - | 7.6 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.1 | - |

HCM 6th TWSC
4: Residential Drwy West & Log City Rd

2026 Build
AM Peak Hour

Intersection

Int Delay, s/veh 1.2

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|------|---|---|------|
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 108 | 5 | 3 | 75 | 15 | 10 |
| Future Vol, veh/h | 108 | 5 | 3 | 75 | 15 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 140 | 6 | 4 | 97 | 19 | 13 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | 146 | 0 | 248 |
| Stage 1 | - | - | - | - | 143 |
| Stage 2 | - | - | - | - | 105 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1436 | - | 740 |
| Stage 1 | - | - | - | - | 884 |
| Stage 2 | - | - | - | - | 919 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1436 | - | 738 |
| Mov Cap-2 Maneuver | - | - | - | - | 738 |
| Stage 1 | - | - | - | - | 884 |
| Stage 2 | - | - | - | - | 916 |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 0.3 | 9.7 |
| HCM LOS | | | A |




| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 797 | - | - | 1436 | - |
| HCM Lane V/C Ratio | 0.041 | - | - | 0.003 | - |
| HCM Control Delay (s) | 9.7 | - | - | 7.5 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

HCM 6th TWSC
4: Residential Drwy West & Log City Rd

2026 Build
PM Peak Hour

Intersection

Int Delay, s/veh 0.8

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|------|---|---|------|
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 107 | 15 | 10 | 137 | 9 | 6 |
| Future Vol, veh/h | 107 | 15 | 10 | 137 | 9 | 6 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 139 | 19 | 13 | 178 | 12 | 8 |

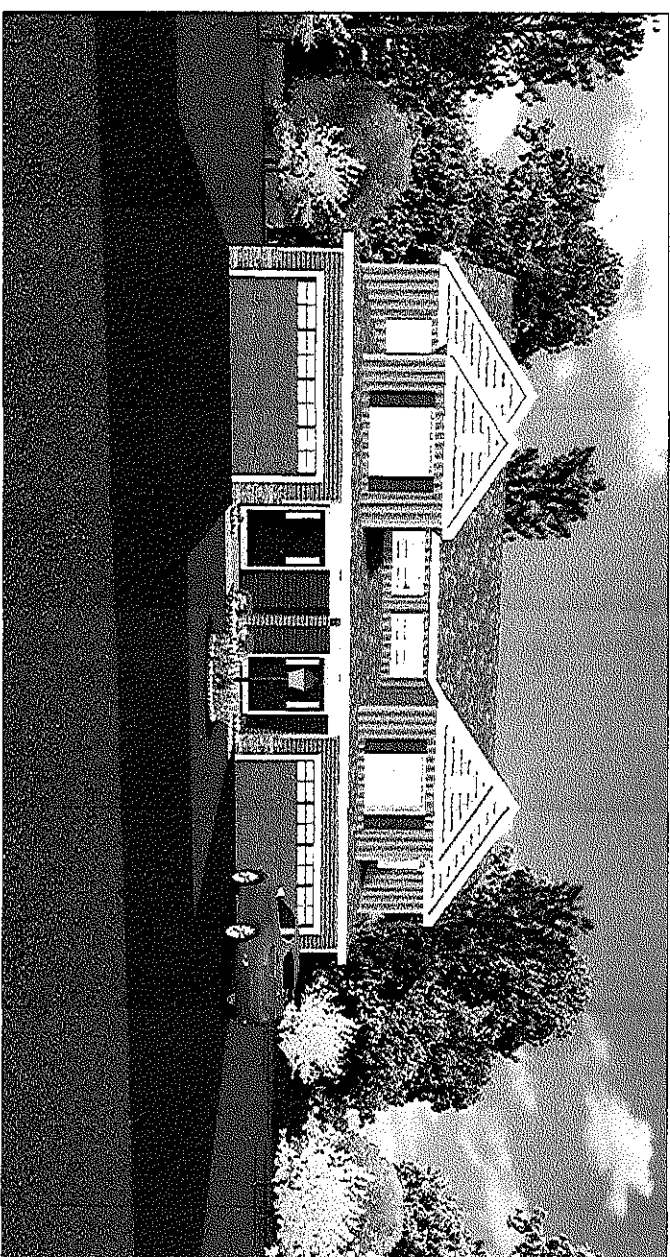
| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | 158 | 0 | 353 |
| Stage 1 | - | - | - | - | 149 |
| Stage 2 | - | - | - | - | 204 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1422 | - | 645 |
| Stage 1 | - | - | - | - | 879 |
| Stage 2 | - | - | - | - | 830 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1422 | - | 639 |
| Mov Cap-2 Maneuver | - | - | - | - | 639 |
| Stage 1 | - | - | - | - | 879 |
| Stage 2 | - | - | - | - | 822 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.5 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 722 | - | - | 1422 | - |
| HCM Lane V/C Ratio | 0.027 | - | - | 0.009 | - |
| HCM Control Delay (s) | 10.1 | - | - | 7.6 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

LOG CITY VILLAGE

LOG CITY ROAD * TOWN OF AMSTERDAM * STATE OF NEW YORK



THE GABLES - A CONDOMINIUM COMMUNITY



THE LOFTS - AN APARTMENT COMMUNITY

DEVELOPER:
CONCORD DEVELOPMENT CO. LLC
PO BOX 9614
NISKAYUNA, NY 12309

PREPARED BY:
BRETT L. STEENBURGH, P.E. LLC



2018 LICENSE
NYS
(609) 325-0070
bsteenburgh@bsteenburgh.com

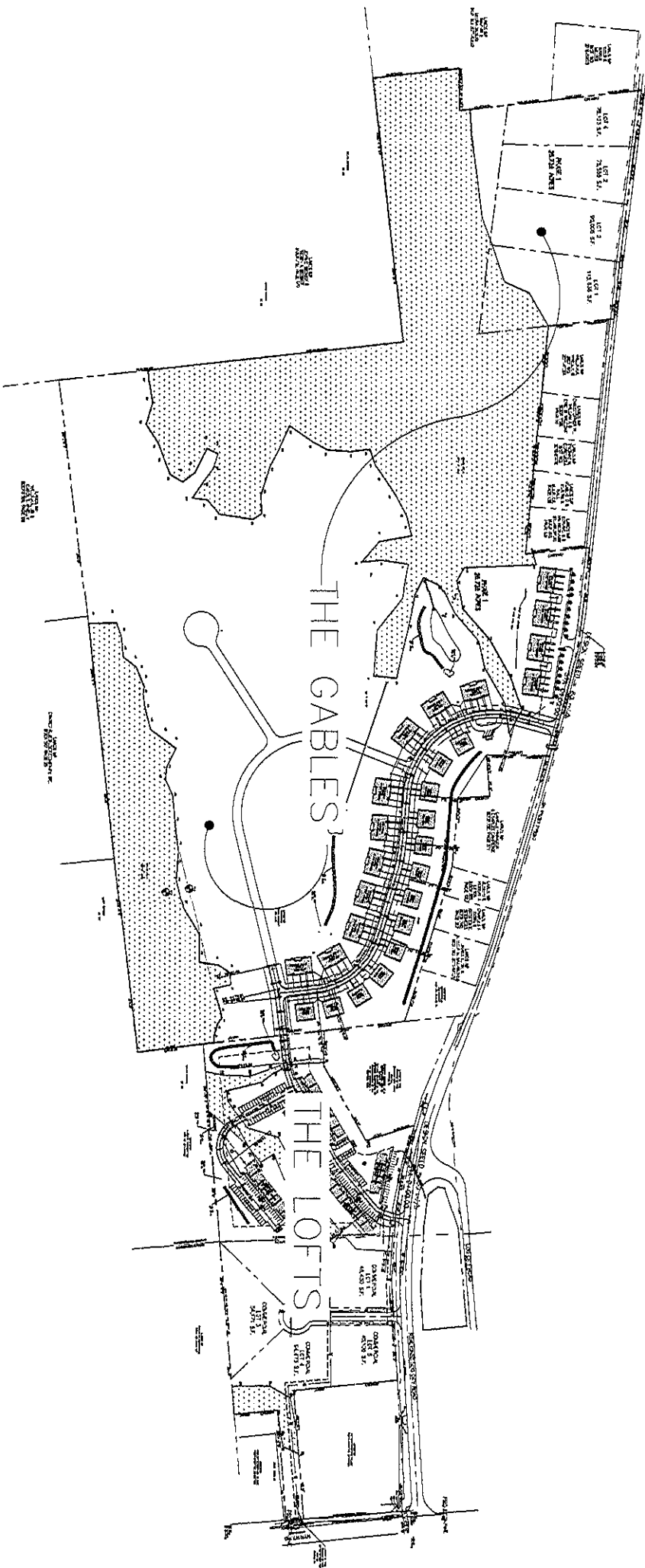
Civil, Environmental, Structural
Engineering

SITE STATISTICS - THE GABLES

SBL 24.002-2.431
SUBMITTER: CONCORD DEVELOPMENT COMPANY LLC
APPLICANT: CONCORD DEVELOPMENT COMPANY LLC
PO BOX 9614
HICKORY, NY 12309
AREA = 92.254 AC.
EXISTING ZONING: PLANNED UNIT DEVELOPMENT (PUD)
USACE WETLANDS ON SITE = 32,431 ACRES
TOTAL UNRESTRICTED BUILDABLE AREA = 59,821 AC.
PROPOSED DEVELOPMENT AREA = 18,54 ACRES
CONDOMINIUMS 56 (4 UNIT BUILDINGS - 1 CAR GARAGE)
CONDOMINIUMS 26 (2 UNIT BUILDINGS - 2 CAR GARAGE)
SIDE FAMILY BUILDING LOTS - 4 TOTAL (75,000 S.F. AREA)
TOTAL - 88 RESIDENTIAL UNITS
PROPOSED DENSITY - 0.93 UNITS PER ACRE

SITE STATISTICS - THE LOFTS

SBL 24.12-4-7.3
AREA = 16.54 AC. (8.80 ACRES R-2 & 7.70 ACRES B-1)
USE: 74 RESIDENTIAL UNITS
DENSITY: 8.40 UNITS/ACRE
PARKING PROVIDED: 121 SPC. + 72 GARAGE SPC.=193 SPACES
PARKING REQUIRED: 74 UNITS x 2 SPC/UNIT = 148 SPACES
USE: 5 COMMERCIAL BUILDING LOTS
DENSITY: 0.65 LOTS/ACRE
MIN. AREA = 45,100 S.F.
MAX. AREA = 94,473 S.F.



OVERALL PLAN
GABLES AT LOG CITY VILLAGE
CONCORD DEVELOPMENT

TOWN OF AMSTERDAM
COUNTY OF MONTESSUMMIT
STATE OF NEW YORK
DRAWN BY: JON WIL
CHECKED BY: JON WIL
DATE: OCTOBER 27, 2020
SCALE: 1" = 50'
SHEET 0-1

BRETT L. STEENBURGH, P.E. PLLC
3030 BONDWALK ROAD
ROCKATOWN, NY 12091
(518) 586-1070
bsteenburg@peonyaboo.com
CIVIL ENVIRONMENTAL STRUCTURAL
ENGINEERING

BRETT L. STEENBURGH, P.E.
NY License No. 27202

| NO. | DATE | DESCRIPTION | BY | NO. | DATE | DESCRIPTION | BY |
|-----|----------|-------------|----|-----|----------|-------------|----|
| 1 | 10/27/20 | PRELIMINARY | JW | 2 | 10/27/20 | REVISION | JW |
| 3 | 10/27/20 | REVISION | JW | 4 | 10/27/20 | REVISION | JW |
| 5 | 10/27/20 | REVISION | JW | 6 | 10/27/20 | REVISION | JW |
| 7 | 10/27/20 | REVISION | JW | 8 | 10/27/20 | REVISION | JW |
| 9 | 10/27/20 | REVISION | JW | 10 | 10/27/20 | REVISION | JW |
| 11 | 10/27/20 | REVISION | JW | 12 | 10/27/20 | REVISION | JW |
| 13 | 10/27/20 | REVISION | JW | 14 | 10/27/20 | REVISION | JW |
| 15 | 10/27/20 | REVISION | JW | 16 | 10/27/20 | REVISION | JW |
| 17 | 10/27/20 | REVISION | JW | 18 | 10/27/20 | REVISION | JW |
| 19 | 10/27/20 | REVISION | JW | 20 | 10/27/20 | REVISION | JW |
| 21 | 10/27/20 | REVISION | JW | 22 | 10/27/20 | REVISION | JW |
| 23 | 10/27/20 | REVISION | JW | 24 | 10/27/20 | REVISION | JW |
| 25 | 10/27/20 | REVISION | JW | 26 | 10/27/20 | REVISION | JW |
| 27 | 10/27/20 | REVISION | JW | 28 | 10/27/20 | REVISION | JW |
| 29 | 10/27/20 | REVISION | JW | 30 | 10/27/20 | REVISION | JW |
| 31 | 10/27/20 | REVISION | JW | 32 | 10/27/20 | REVISION | JW |
| 33 | 10/27/20 | REVISION | JW | 34 | 10/27/20 | REVISION | JW |
| 35 | 10/27/20 | REVISION | JW | 36 | 10/27/20 | REVISION | JW |
| 37 | 10/27/20 | REVISION | JW | 38 | 10/27/20 | REVISION | JW |
| 39 | 10/27/20 | REVISION | JW | 40 | 10/27/20 | REVISION | JW |
| 41 | 10/27/20 | REVISION | JW | 42 | 10/27/20 | REVISION | JW |
| 43 | 10/27/20 | REVISION | JW | 44 | 10/27/20 | REVISION | JW |
| 45 | 10/27/20 | REVISION | JW | 46 | 10/27/20 | REVISION | JW |
| 47 | 10/27/20 | REVISION | JW | 48 | 10/27/20 | REVISION | JW |
| 49 | 10/27/20 | REVISION | JW | 50 | 10/27/20 | REVISION | JW |
| 51 | 10/27/20 | REVISION | JW | 52 | 10/27/20 | REVISION | JW |
| 53 | 10/27/20 | REVISION | JW | 54 | 10/27/20 | REVISION | JW |
| 55 | 10/27/20 | REVISION | JW | 56 | 10/27/20 | REVISION | JW |
| 57 | 10/27/20 | REVISION | JW | 58 | 10/27/20 | REVISION | JW |
| 59 | 10/27/20 | REVISION | JW | 60 | 10/27/20 | REVISION | JW |
| 61 | 10/27/20 | REVISION | JW | 62 | 10/27/20 | REVISION | JW |
| 63 | 10/27/20 | REVISION | JW | 64 | 10/27/20 | REVISION | JW |
| 65 | 10/27/20 | REVISION | JW | 66 | 10/27/20 | REVISION | JW |
| 67 | 10/27/20 | REVISION | JW | 68 | 10/27/20 | REVISION | JW |
| 69 | 10/27/20 | REVISION | JW | 70 | 10/27/20 | REVISION | JW |
| 71 | 10/27/20 | REVISION | JW | 72 | 10/27/20 | REVISION | JW |
| 73 | 10/27/20 | REVISION | JW | 74 | 10/27/20 | REVISION | JW |
| 75 | 10/27/20 | REVISION | JW | 76 | 10/27/20 | REVISION | JW |
| 77 | 10/27/20 | REVISION | JW | 78 | 10/27/20 | REVISION | JW |
| 79 | 10/27/20 | REVISION | JW | 80 | 10/27/20 | REVISION | JW |
| 81 | 10/27/20 | REVISION | JW | 82 | 10/27/20 | REVISION | JW |
| 83 | 10/27/20 | REVISION | JW | 84 | 10/27/20 | REVISION | JW |
| 85 | 10/27/20 | REVISION | JW | 86 | 10/27/20 | REVISION | JW |
| 87 | 10/27/20 | REVISION | JW | 88 | 10/27/20 | REVISION | JW |
| 89 | 10/27/20 | REVISION | JW | 90 | 10/27/20 | REVISION | JW |
| 91 | 10/27/20 | REVISION | JW | 92 | 10/27/20 | REVISION | JW |
| 93 | 10/27/20 | REVISION | JW | 94 | 10/27/20 | REVISION | JW |
| 95 | 10/27/20 | REVISION | JW | 96 | 10/27/20 | REVISION | JW |
| 97 | 10/27/20 | REVISION | JW | 98 | 10/27/20 | REVISION | JW |
| 99 | 10/27/20 | REVISION | JW | 100 | 10/27/20 | REVISION | JW |

NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION
ACTIVITIES, THE CONTRACTOR SHALL CONTACT
THE UTILITY TO LOCATE ALL UNDERGROUND
UTILITIES. 1-800-962-7962

- LEGEND**
- 1. PROPERTY LINE
 - 2. EXISTING BUILDING
 - 3. EXISTING DRIVEWAY
 - 4. EXISTING DRIVEWAY
 - 5. EXISTING DRIVEWAY
 - 6. EXISTING DRIVEWAY
 - 7. EXISTING DRIVEWAY
 - 8. EXISTING DRIVEWAY
 - 9. EXISTING DRIVEWAY
 - 10. EXISTING DRIVEWAY
 - 11. EXISTING DRIVEWAY
 - 12. EXISTING DRIVEWAY
 - 13. EXISTING DRIVEWAY
 - 14. EXISTING DRIVEWAY
 - 15. EXISTING DRIVEWAY
 - 16. EXISTING DRIVEWAY
 - 17. EXISTING DRIVEWAY
 - 18. EXISTING DRIVEWAY
 - 19. EXISTING DRIVEWAY
 - 20. EXISTING DRIVEWAY
 - 21. EXISTING DRIVEWAY
 - 22. EXISTING DRIVEWAY
 - 23. EXISTING DRIVEWAY
 - 24. EXISTING DRIVEWAY
 - 25. EXISTING DRIVEWAY
 - 26. EXISTING DRIVEWAY
 - 27. EXISTING DRIVEWAY
 - 28. EXISTING DRIVEWAY
 - 29. EXISTING DRIVEWAY
 - 30. EXISTING DRIVEWAY
 - 31. EXISTING DRIVEWAY
 - 32. EXISTING DRIVEWAY
 - 33. EXISTING DRIVEWAY
 - 34. EXISTING DRIVEWAY
 - 35. EXISTING DRIVEWAY
 - 36. EXISTING DRIVEWAY
 - 37. EXISTING DRIVEWAY
 - 38. EXISTING DRIVEWAY
 - 39. EXISTING DRIVEWAY
 - 40. EXISTING DRIVEWAY
 - 41. EXISTING DRIVEWAY
 - 42. EXISTING DRIVEWAY
 - 43. EXISTING DRIVEWAY
 - 44. EXISTING DRIVEWAY
 - 45. EXISTING DRIVEWAY
 - 46. EXISTING DRIVEWAY
 - 47. EXISTING DRIVEWAY
 - 48. EXISTING DRIVEWAY
 - 49. EXISTING DRIVEWAY
 - 50. EXISTING DRIVEWAY
 - 51. EXISTING DRIVEWAY
 - 52. EXISTING DRIVEWAY
 - 53. EXISTING DRIVEWAY
 - 54. EXISTING DRIVEWAY
 - 55. EXISTING DRIVEWAY
 - 56. EXISTING DRIVEWAY
 - 57. EXISTING DRIVEWAY
 - 58. EXISTING DRIVEWAY
 - 59. EXISTING DRIVEWAY
 - 60. EXISTING DRIVEWAY
 - 61. EXISTING DRIVEWAY
 - 62. EXISTING DRIVEWAY
 - 63. EXISTING DRIVEWAY
 - 64. EXISTING DRIVEWAY
 - 65. EXISTING DRIVEWAY
 - 66. EXISTING DRIVEWAY
 - 67. EXISTING DRIVEWAY
 - 68. EXISTING DRIVEWAY
 - 69. EXISTING DRIVEWAY
 - 70. EXISTING DRIVEWAY
 - 71. EXISTING DRIVEWAY
 - 72. EXISTING DRIVEWAY
 - 73. EXISTING DRIVEWAY
 - 74. EXISTING DRIVEWAY
 - 75. EXISTING DRIVEWAY
 - 76. EXISTING DRIVEWAY
 - 77. EXISTING DRIVEWAY
 - 78. EXISTING DRIVEWAY
 - 79. EXISTING DRIVEWAY
 - 80. EXISTING DRIVEWAY
 - 81. EXISTING DRIVEWAY
 - 82. EXISTING DRIVEWAY
 - 83. EXISTING DRIVEWAY
 - 84. EXISTING DRIVEWAY
 - 85. EXISTING DRIVEWAY
 - 86. EXISTING DRIVEWAY
 - 87. EXISTING DRIVEWAY
 - 88. EXISTING DRIVEWAY
 - 89. EXISTING DRIVEWAY
 - 90. EXISTING DRIVEWAY
 - 91. EXISTING DRIVEWAY
 - 92. EXISTING DRIVEWAY
 - 93. EXISTING DRIVEWAY
 - 94. EXISTING DRIVEWAY
 - 95. EXISTING DRIVEWAY
 - 96. EXISTING DRIVEWAY
 - 97. EXISTING DRIVEWAY
 - 98. EXISTING DRIVEWAY
 - 99. EXISTING DRIVEWAY
 - 100. EXISTING DRIVEWAY

SITE SPECIFICATIONS - SEE SHEETS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR WATERWAYS AND MARINE STRUCTURES.

3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR AIRPORTS AND OBSTACLE LIGHTS.

4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR RAILROADS AND CANALS.

5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR UTILITIES AND STRUCTURES.

6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR LANDSCAPE ARCHITECTURE.

7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR ENVIRONMENTAL ENGINEERING.

8. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR CIVIL ENGINEERING.

9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR ELECTRICAL ENGINEERING.

10. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR MECHANICAL ENGINEERING.

11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR CHEMICAL ENGINEERING.

12. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR METALLURGICAL ENGINEERING.

13. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR AERONAUTICAL ENGINEERING.

14. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR AGRICULTURAL ENGINEERING.

15. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR MINING ENGINEERING.

16. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR PETROLEUM ENGINEERING.

17. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR MARINE ENGINEERING.

18. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR AEROSPACE ENGINEERING.

19. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR ENVIRONMENTAL ENGINEERING.

20. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR CIVIL ENGINEERING.

21. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR ELECTRICAL ENGINEERING.

22. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR MECHANICAL ENGINEERING.

23. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR CHEMICAL ENGINEERING.

24. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR METALLURGICAL ENGINEERING.

25. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR AERONAUTICAL ENGINEERING.

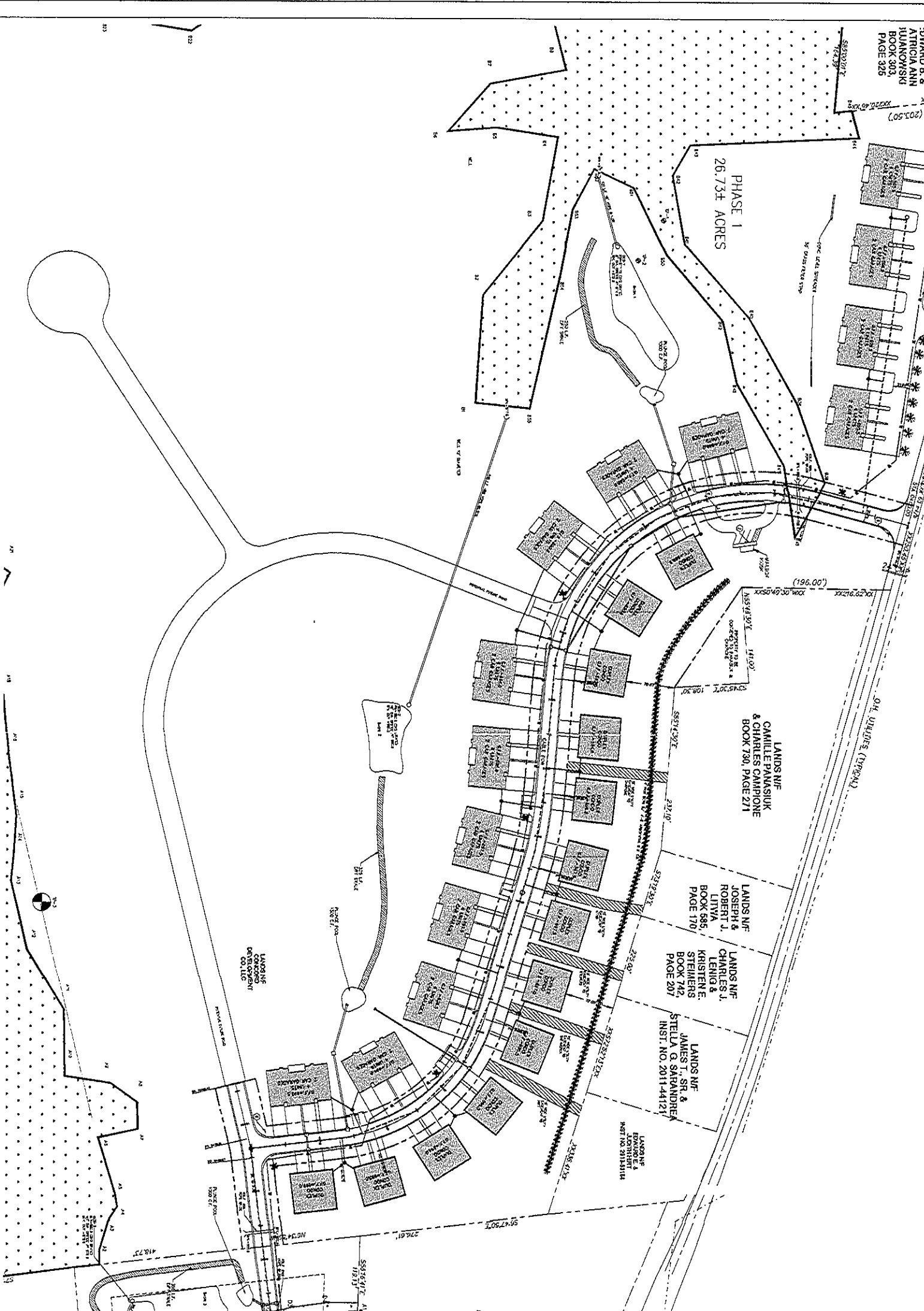
26. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR AGRICULTURAL ENGINEERING.

27. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR MINING ENGINEERING.

28. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR PETROLEUM ENGINEERING.

29. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR MARINE ENGINEERING.

30. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE AND FEDERAL SPECIFICATIONS FOR AEROSPACE ENGINEERING.



SITE PLAN
GABLES AT LOC CITY VILLAGE
CONCORD DEVELOPMENT

TOWN OF AMSTERDAM
COUNTY OF MONTEGOMERY
STATE OF NEW YORK

SCALE: 1" = 50'

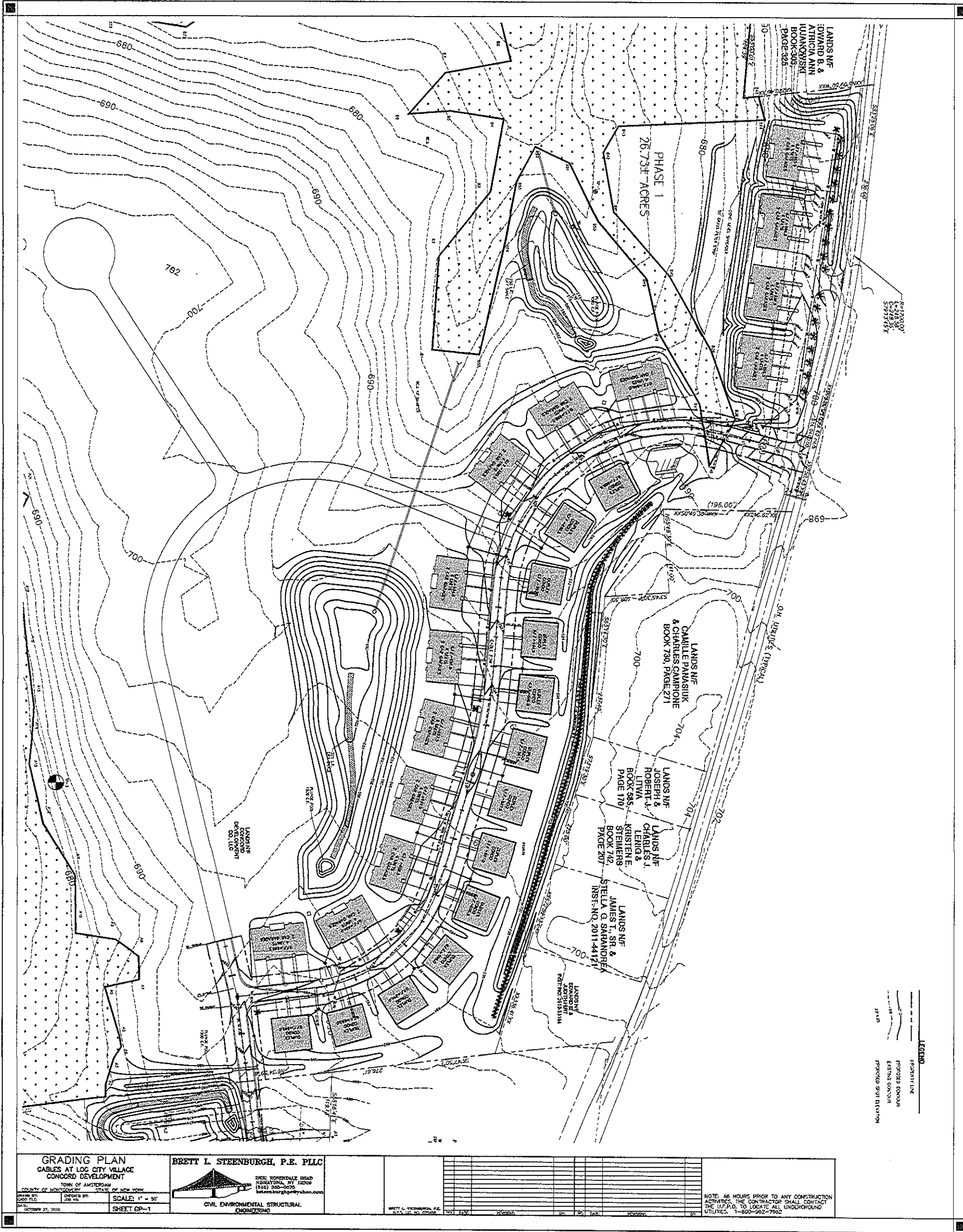
SHEET SP-1

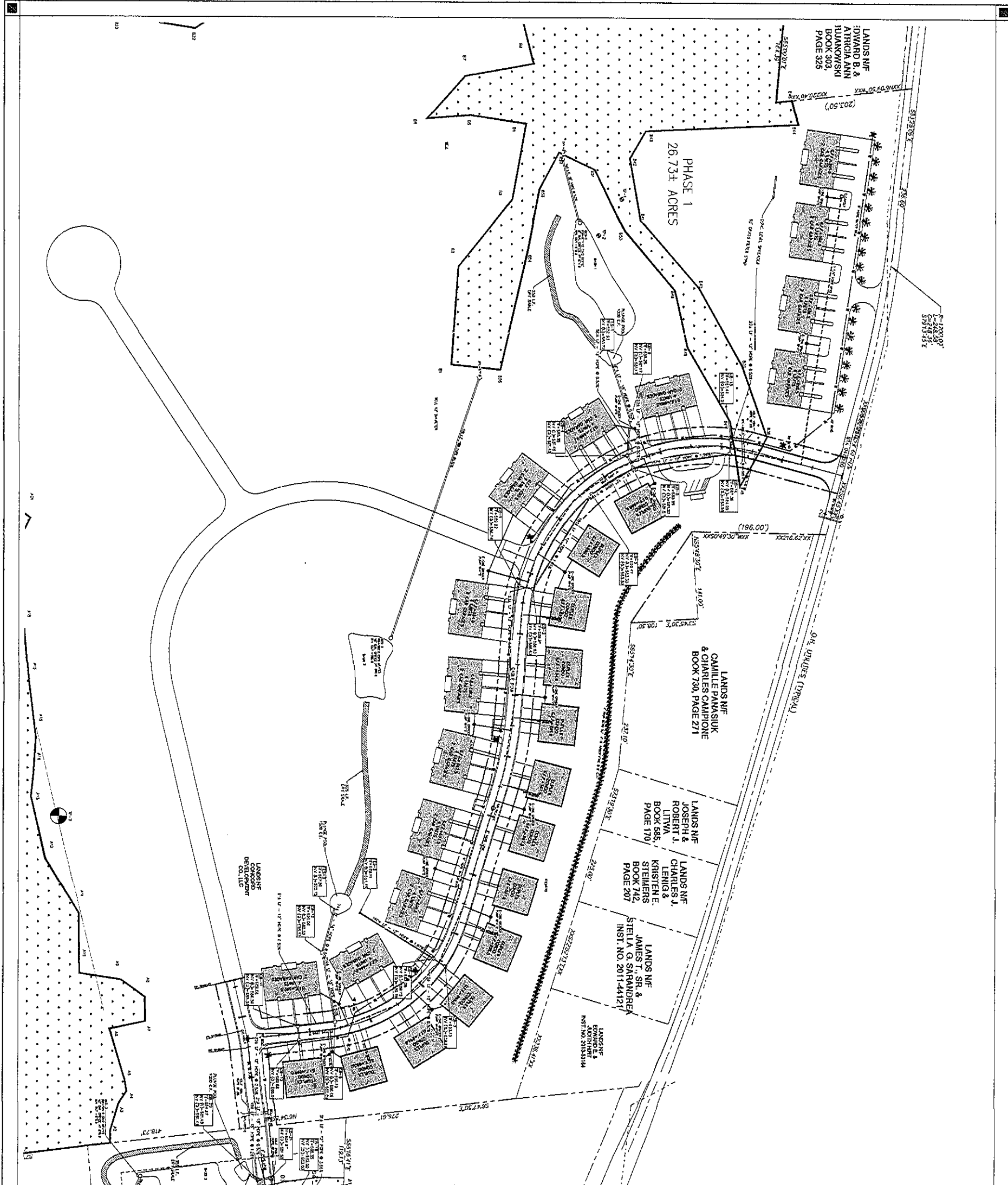
BRETT L. STEENBURGH, P.E. PLLC

2010 BONDING ROAD
MIDDLETOWN, NY 10940
(815) 360-0000
bsteenburg@yahoo.com

CIVIL ENVIRONMENTAL STRUCTURAL
ENGINEERING

NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION
ACTIVITIES, THE CONTRACTOR SHALL CONTACT
THE UTILITY TO LOCATE ALL UNDERGROUND
UTILITIES. 1-800-452-7862





| | | | | | |
|--|-----------------|---|--|--|--|
| UTILITY PLAN CABLES AT LOG CITY VILLAGE CONCORD DEVELOPMENT | | BRETT L. STEENBURGH, P.E. PLLC 200 BORDENHALL ROAD ROCKYHILL, CT 06381 (860) 396-0070 bsteenburgh@bsteenburgh.com | | | |
| TOWN OF AMSTERDAM COUNTY OF MONTGOMERY STATE OF NEW YORK | | BRETT L. STEENBURGH, P.E. N.Y.C.E.C. NO. 009292 | | | |
| DATE: OCTOBER 27, 2023 | SCALE: 1" = 50' | NOTES: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT THE U.P.D. TO LOCATE ALL UNDERGROUND UTILITIES. 1-800-492-7992 | | | |
| SHEET U-1 | | | | | |

STANDARD NOTES

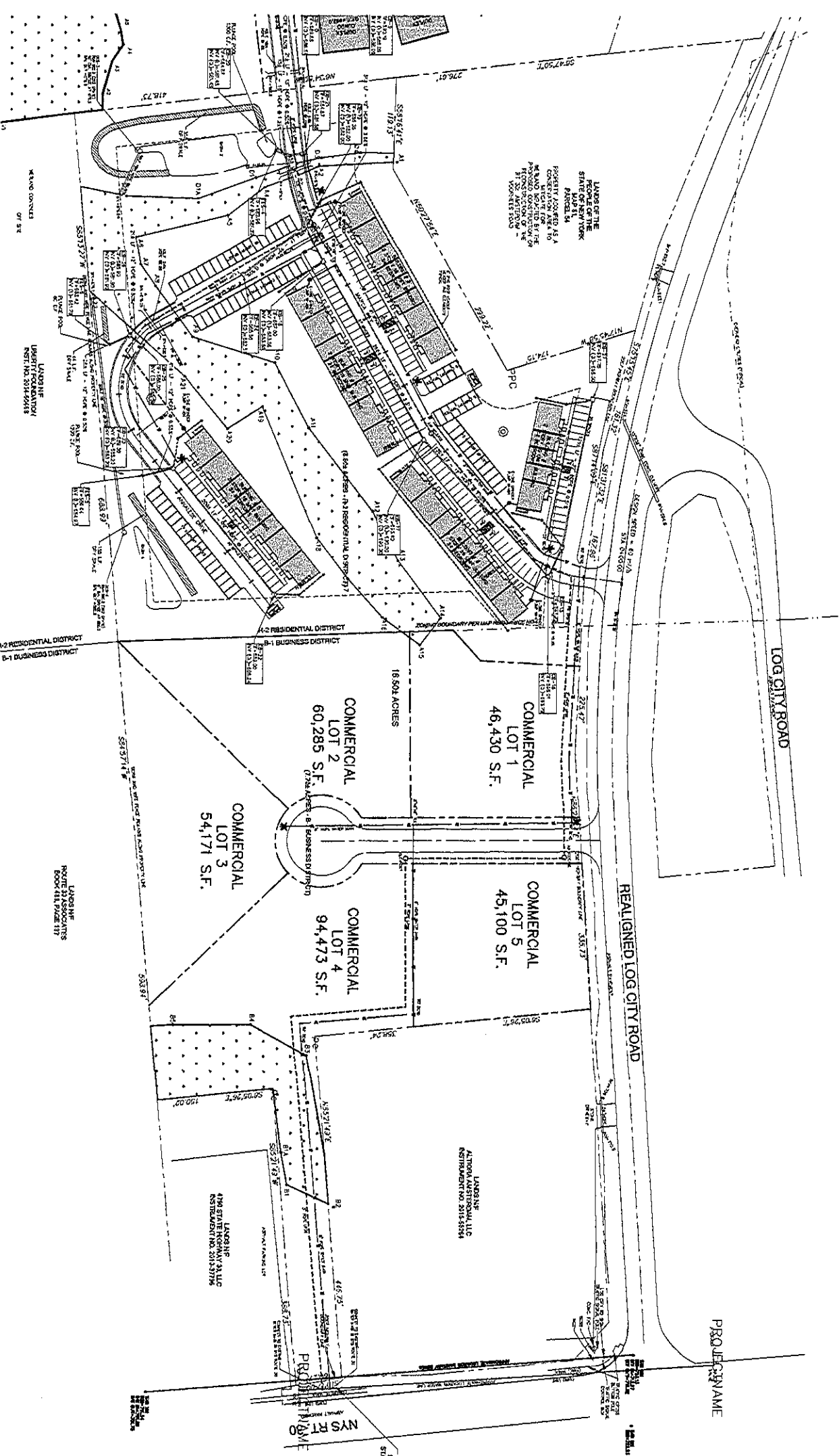
1. ALL NOTES TO BE READ IN CONJUNCTION WITH THE CITY OF AMSTERDAM ZONING ORDINANCE AND THE CONCORD DEVELOPMENT SUBDIVISION MAP.
2. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
3. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
4. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
5. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
6. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
7. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
8. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
9. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
10. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.


STANDARD NOTES

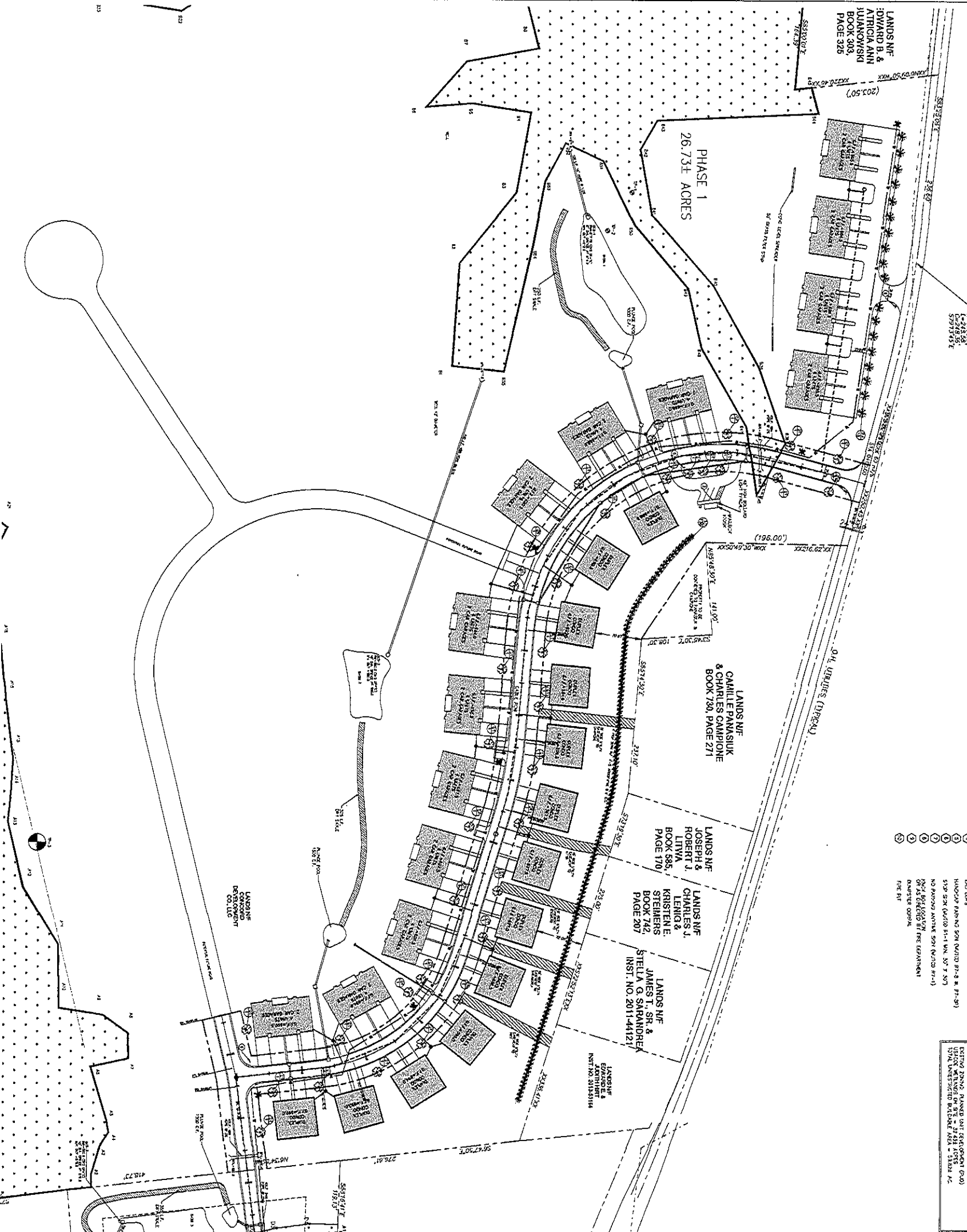
1. ALL NOTES TO BE READ IN CONJUNCTION WITH THE CITY OF AMSTERDAM ZONING ORDINANCE AND THE CONCORD DEVELOPMENT SUBDIVISION MAP.
2. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
3. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
4. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
5. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
6. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
7. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
8. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
9. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
10. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.

STANDARD NOTES

1. ALL NOTES TO BE READ IN CONJUNCTION WITH THE CITY OF AMSTERDAM ZONING ORDINANCE AND THE CONCORD DEVELOPMENT SUBDIVISION MAP.
2. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
3. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
4. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
5. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
6. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
7. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
8. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
9. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.
10. THE LOTS SHOWN ARE FOR INFORMATION ONLY. THE ACTUAL LOTS SHALL BE DETERMINED BY THE CITY OF AMSTERDAM.



| | | | | | | | | | | | | | | | | | |
|--|--|---|--|--|--|----------------|--|----------------------|--|--------------|--|----------------|--|----------------------|--|---------------|--|
| UTILITY PLAN LOFTS AT LOG CITY VILLAGE CONCORD DEVELOPMENT | | BRETT L. STEENBURGH, P.E. PLLC | | | | | | | | | | | | | | | |
| TOWN OF AMSTERDAM COUNTY OF MONROGHTON STATE OF NEW YORK | |  | | 2426 HORIZONDALE ROAD ROCKATOWN, NY 12090 (516) 340-9070 bsteenb@bsteengpcc.com | | | | | | | | | | | | | |
| DATE: OCTOBER 27, 2000 | | SCALE: 1" = 50' | | CIVIL ENVIRONMENTAL STRUCTURAL ENGINEERING | | | | | | | | | | | | | |
| SHEET U-2 | | | | BRETT L. STEENBURGH, P.E. N.Y. LIC. NO. 000000 | | DATE: 10/27/00 | | DESIGNED BY: [blank] | | REV: [blank] | | SCALE: [blank] | | REVIEWED BY: [blank] | | DATE: [blank] | |
| NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT THE U.P.D. TO LOCATE ALL UNDERGROUND UTILITIES. 1-800-692-7992 | | | | | | | | | | | | | | | | | |

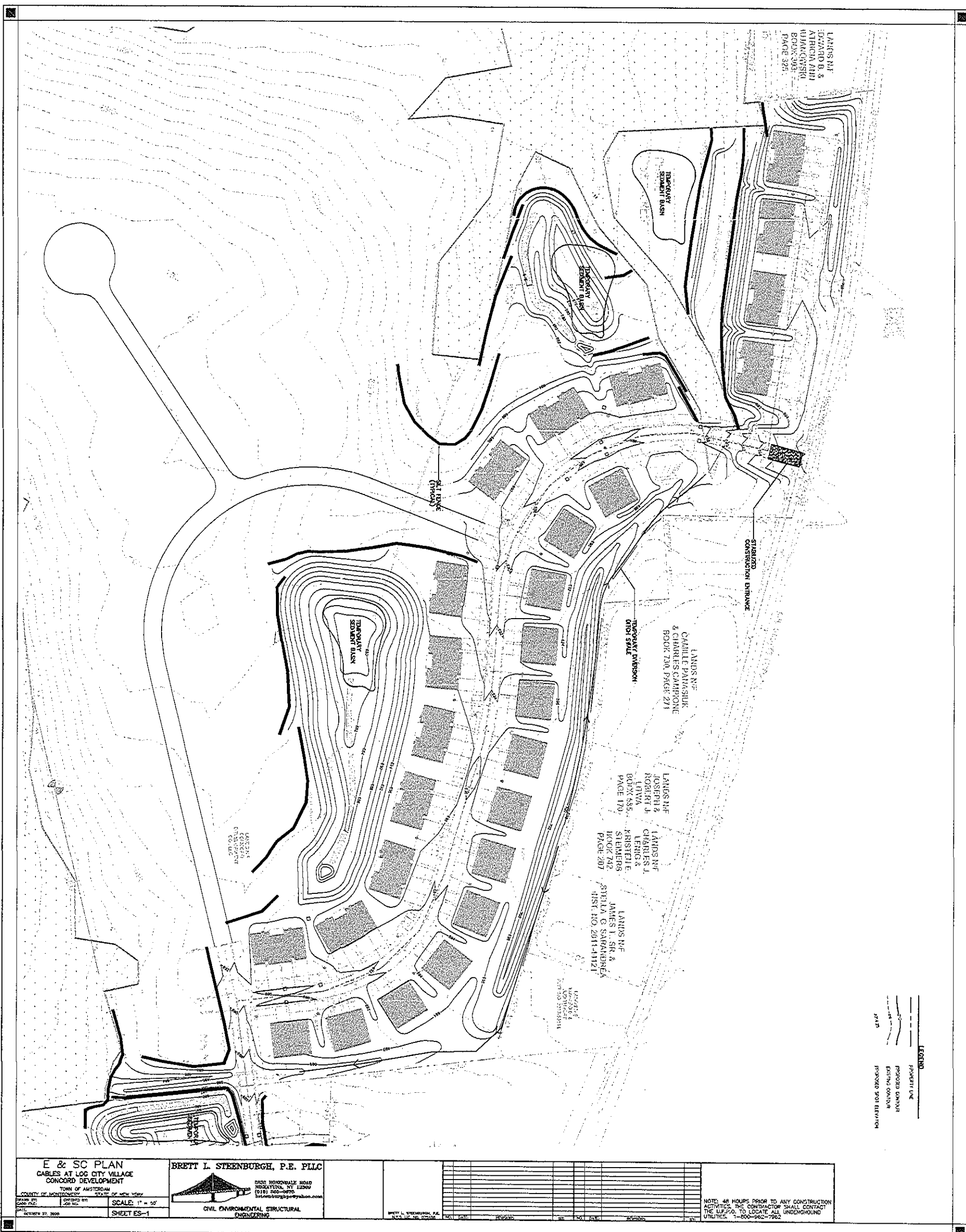


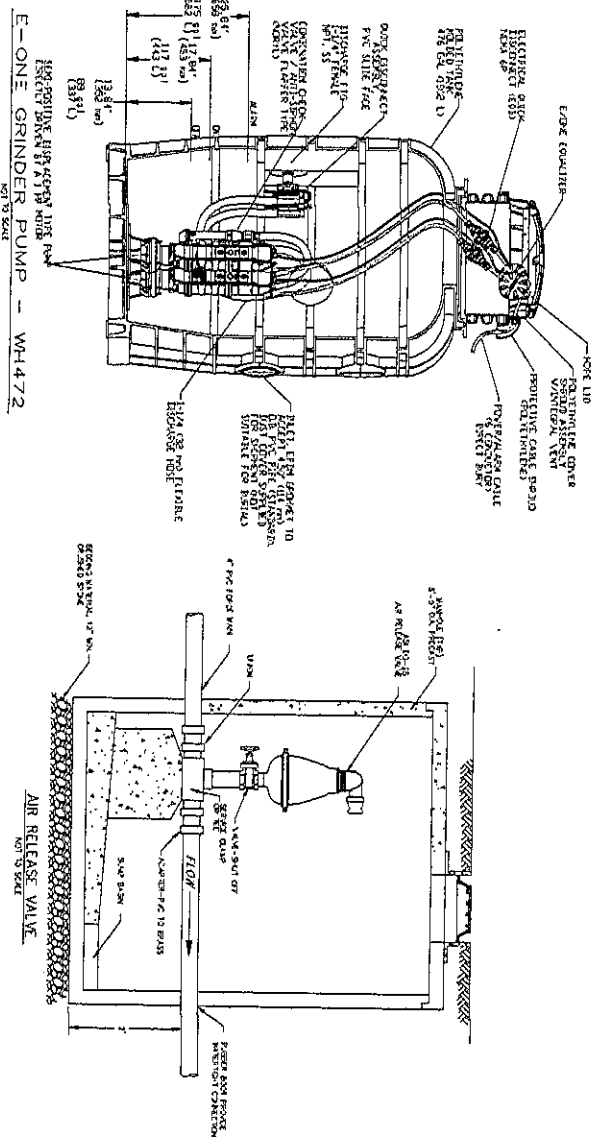
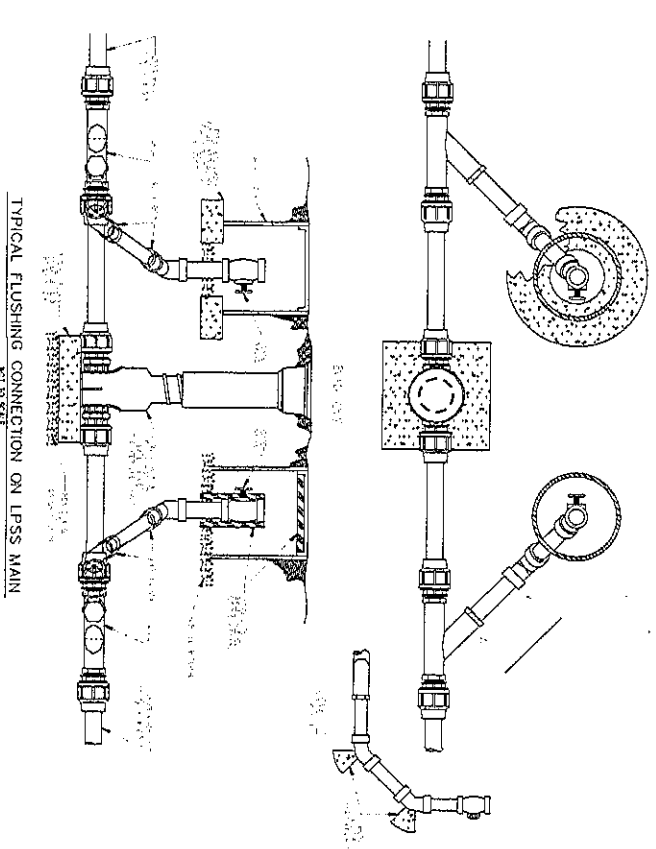
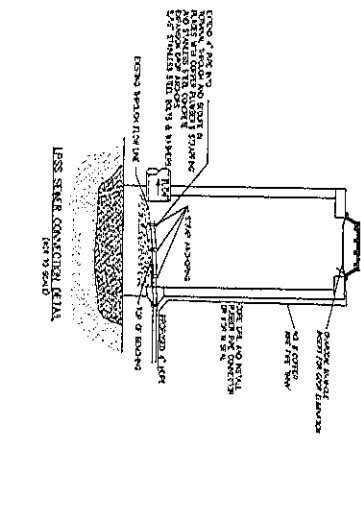
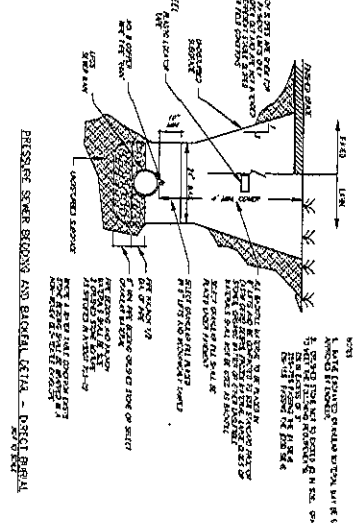
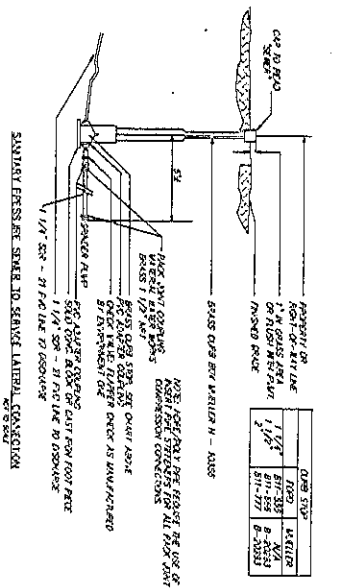
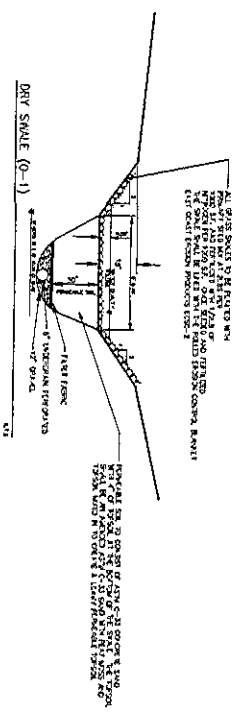
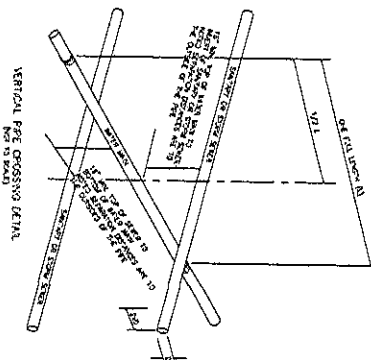
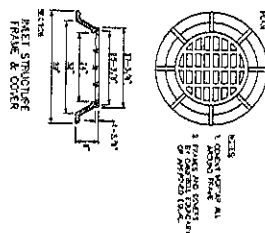
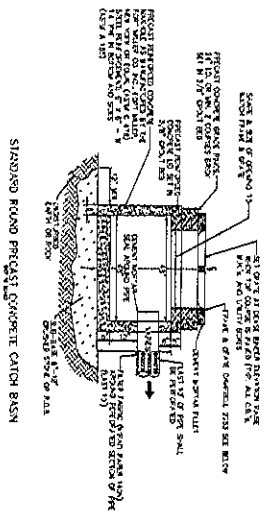
- LEGEND**
- 1 PROPOSED PARKING LOT
 - 2 PROPOSED DRIVE
 - 3 PROPOSED DRIVE
 - 4 PROPOSED DRIVE
 - 5 PROPOSED DRIVE
 - 6 PROPOSED DRIVE
 - 7 PROPOSED DRIVE
 - 8 PROPOSED DRIVE
 - 9 PROPOSED DRIVE
 - 10 PROPOSED DRIVE
 - 11 PROPOSED DRIVE
 - 12 PROPOSED DRIVE
 - 13 PROPOSED DRIVE
 - 14 PROPOSED DRIVE
 - 15 PROPOSED DRIVE
 - 16 PROPOSED DRIVE
 - 17 PROPOSED DRIVE
 - 18 PROPOSED DRIVE
 - 19 PROPOSED DRIVE
 - 20 PROPOSED DRIVE
 - 21 PROPOSED DRIVE
 - 22 PROPOSED DRIVE
 - 23 PROPOSED DRIVE
 - 24 PROPOSED DRIVE
 - 25 PROPOSED DRIVE
 - 26 PROPOSED DRIVE
 - 27 PROPOSED DRIVE
 - 28 PROPOSED DRIVE
 - 29 PROPOSED DRIVE
 - 30 PROPOSED DRIVE
 - 31 PROPOSED DRIVE
 - 32 PROPOSED DRIVE
 - 33 PROPOSED DRIVE
 - 34 PROPOSED DRIVE
 - 35 PROPOSED DRIVE
 - 36 PROPOSED DRIVE
 - 37 PROPOSED DRIVE
 - 38 PROPOSED DRIVE
 - 39 PROPOSED DRIVE
 - 40 PROPOSED DRIVE
 - 41 PROPOSED DRIVE
 - 42 PROPOSED DRIVE
 - 43 PROPOSED DRIVE
 - 44 PROPOSED DRIVE
 - 45 PROPOSED DRIVE
 - 46 PROPOSED DRIVE
 - 47 PROPOSED DRIVE
 - 48 PROPOSED DRIVE
 - 49 PROPOSED DRIVE
 - 50 PROPOSED DRIVE
 - 51 PROPOSED DRIVE
 - 52 PROPOSED DRIVE
 - 53 PROPOSED DRIVE
 - 54 PROPOSED DRIVE
 - 55 PROPOSED DRIVE
 - 56 PROPOSED DRIVE
 - 57 PROPOSED DRIVE
 - 58 PROPOSED DRIVE
 - 59 PROPOSED DRIVE
 - 60 PROPOSED DRIVE
 - 61 PROPOSED DRIVE
 - 62 PROPOSED DRIVE
 - 63 PROPOSED DRIVE
 - 64 PROPOSED DRIVE
 - 65 PROPOSED DRIVE
 - 66 PROPOSED DRIVE
 - 67 PROPOSED DRIVE
 - 68 PROPOSED DRIVE
 - 69 PROPOSED DRIVE
 - 70 PROPOSED DRIVE
 - 71 PROPOSED DRIVE
 - 72 PROPOSED DRIVE
 - 73 PROPOSED DRIVE
 - 74 PROPOSED DRIVE
 - 75 PROPOSED DRIVE
 - 76 PROPOSED DRIVE
 - 77 PROPOSED DRIVE
 - 78 PROPOSED DRIVE
 - 79 PROPOSED DRIVE
 - 80 PROPOSED DRIVE
 - 81 PROPOSED DRIVE
 - 82 PROPOSED DRIVE
 - 83 PROPOSED DRIVE
 - 84 PROPOSED DRIVE
 - 85 PROPOSED DRIVE
 - 86 PROPOSED DRIVE
 - 87 PROPOSED DRIVE
 - 88 PROPOSED DRIVE
 - 89 PROPOSED DRIVE
 - 90 PROPOSED DRIVE
 - 91 PROPOSED DRIVE
 - 92 PROPOSED DRIVE
 - 93 PROPOSED DRIVE
 - 94 PROPOSED DRIVE
 - 95 PROPOSED DRIVE
 - 96 PROPOSED DRIVE
 - 97 PROPOSED DRIVE
 - 98 PROPOSED DRIVE
 - 99 PROPOSED DRIVE
 - 100 PROPOSED DRIVE

NOTES:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK STATE ENGINEERING LAW AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REGULATIONS.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
- 3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES.
- 5. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AND EROSION CONTROL MEASURES.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL TREES AND LANDSCAPE ELEMENTS.
- 7. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SAFETY MEASURES DURING CONSTRUCTION.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES.
- 9. THE CONTRACTOR SHALL MAINTAIN ADEQUATE ACCESS TO ALL ADJACENT PROPERTIES.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES.

| | | | | | |
|--|--|--|--|---|--|
| LANDSCAPING PLAN CABLES AT LOG CITY VILLAGE CONCORD DEVELOPMENT | | BRETT L. STEENBURGH, P.E. PLLC 2010 BROADWAY ROAD ROCKY HILL, CT 06067 (860) 366-8870 bsteenburg@bsteenburg.com | | CIVIL ENVIRONMENTAL STRUCTURAL ENGINEERING | |
| TOWN OF AMSTERDAM COUNTY OF MONROGUE STATE OF NEW YORK | | SCALE: 1" = 50' | | DATE: OCTOBER 27, 2020 | |
| DRAWN BY: [Name] CHECKED BY: [Name] | | SHEET SP-1 | | NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT THE U.S. F.D. TO LOCATE ALL UNDERGROUND UTILITIES. 1-800-645-7902 | |





DETAILS
LOFTS AT 102 CITY VILLAGE
CONCORD DEVELOPMENT

TOWN OF AMSTERDAM
COUNTY OF MONROGHERY
STATE OF NEW YORK

DESIGNED BY: BRETT L. STEENBURGH, P.E. PLLC
DATE: OCTOBER 27, 2020

SCALE: 1" = 10'
SHEET D-2

BRETT L. STEENBURGH, P.E. PLLC

2100 BOWEN ROAD
MIDWAY, NY 11901
(618) 540-0670
bsteenburg@bsteenburg.com

CIVIL ENVIRONMENTAL STRUCTURAL
ENGINEERING

NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION
ACTIVITIES, THE CONTRACTOR SHALL CONTACT
THE U.P.S.O. TO LOCATE ALL UNDERGROUND
UTILITIES. 1-800-662-7962

REFERRAL FORM
MONTGOMERY COUNTY PLANNING BOARD

Referral Number _____
assigned by the MCPB upon
acceptance of referral for review

This Referral must be received SEVEN CALENDAR DAYS prior to the MCPB meeting date in order for it to be placed on the agenda.

TO: Montgomery County Planning Board,
Old County Courthouse,
PO Box 1500, Fonda, New York 12068
Phone: 518-853-8334
Fax: 518-853-8336

FROM: Municipal Board: Town of Amsterdam
Planning Board
Referring Officer: secretary
Mail original resolution to Town of Amsterdam
283 Manny's Corner Road
Amsterdam, NY 12010

1. Applicant Daniel & Dana Cullen 2. Site Address: 139 Manny's Corner Rd Amsterdam
3. Tax Map Number(s): 40.2-2, 40.2-4, 40.2-1.2 4. Acres: 86.6
5. Is the site currently serviced by public water? ☐ Yes ☒ No
6. On-site waste water treatment is currently provided by: ☐ Public Sewer or ☐ Septic System
7. Current Zoning: R-1 8. Current Land Use: vacant
9. Project Description: Community Solar wants to construct a 5 mega watt
community solar facility

10. MCPB Jurisdiction:

- ☐ Text Adoption or Amendment ☐ Site is located within 500' of: _____
☐ a municipal boundary.
☐ a State or County thruway/highway/roadway
☐ an existing or proposed State or County park/recreation area
☐ an existing or proposed County-owned stream or drainage channel
☐ a State or County-owned parcel on which a public building or institution is situated
☐ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. PUBLIC HEARING: Date Nov 4, 2020 Time: 6:55 pm Location: Town of Amsterdam
Town Hall 283 Manny's
Rd, Amsterdam NY
Referred Action(s)
If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or ☐ Amendment Referring Board:
☐ Comprehensive Plan ☐ Local Law ☐ Zoning Ordinance ☐ Other _____

13. ☐ Zone Change Referring Board:
Proposed Zone District: _____ Number of Acres: _____

Purpose of the Zone Change: _____

14. ☒ Site Plan ☐ Project Site Review Referring Board: Planning Board

Proposed Improvements: _____

Proposed Use: 5 mega watt community solar farm

Will the proposed project require a variance? ☐ Yes ☒ No Type: ☐ Area ☐ Use

Specify: _____

Is a State or County DOT work permit needed? If Yes : ☐ State or ☐ County ☒ No

Specify: _____

This side to be completed by Montgomery County Planning.

REFERRAL FORM
MONTGOMERY COUNTY PLANNING BOARD

TO: _____

Receipt of 239-m referral is acknowledged on _____. Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on _____ and makes the following recommendation.

- ☐ Approves
- ☐ Approves (with Modification)
- ☐ Disapproves:
- ☐ No significant County-wide or inter-community input
- ☐ Not subject to Planning Board review
- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

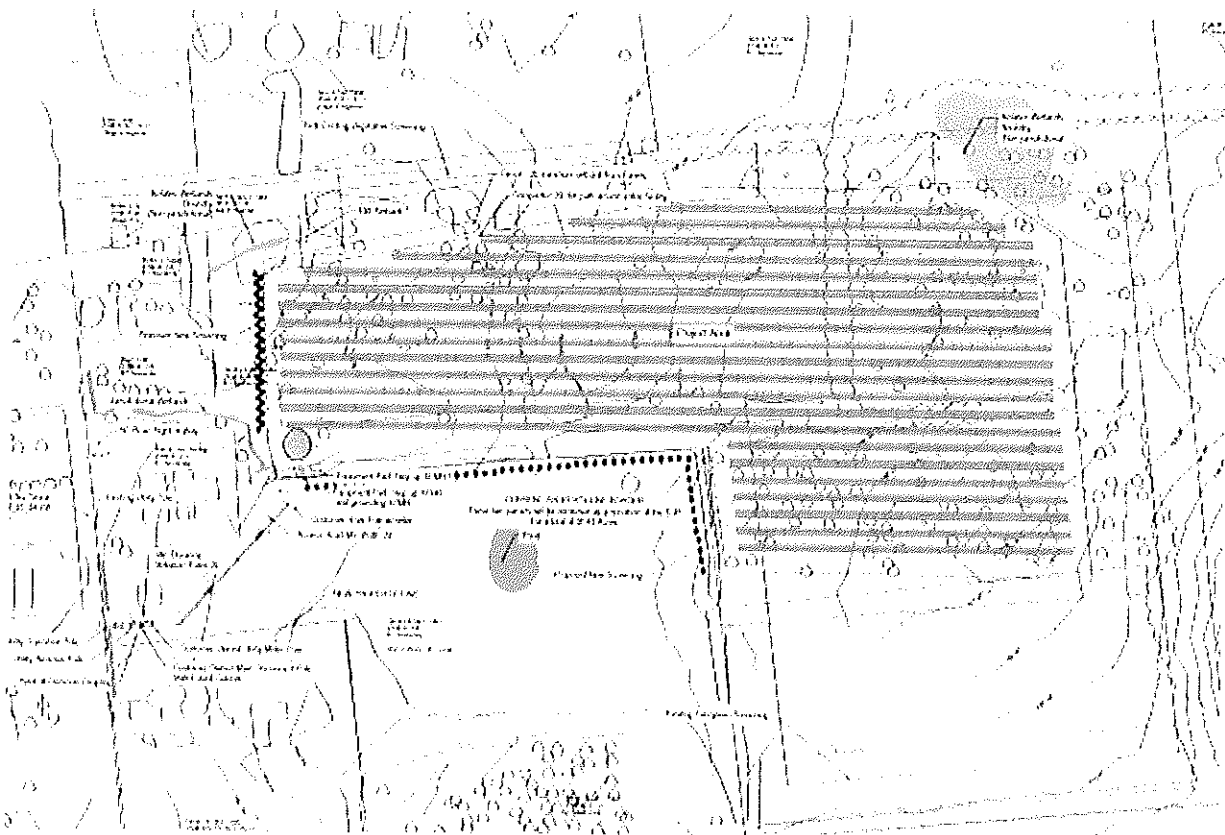
Date

Kenneth F. Rose, Director
Montgomery County Dept. of Economic
Development and Planning

Special Use Permit Application

Manny's Corners Solar

Amsterdam, NY



Applicant:

Community Power Group, LLC
5636 Connecticut Ave #42729
Washington, DC 20015

| Description | Page |
|---|-------------|
| Section A - Project Overview | 3 |
| A.1 – General Overview | 3 |
| A.2 – Site Plan | 4 |
| A.2.1 – Zoning Standards | 4 |
| A.3 – Interconnection | 5 |
| Section B - The Principal Areas of Concern for Site Plan Review | 5 |
| Section C - Standards Applicable to All Special Use Permits | 6 |
| Section D – Decommissioning Plan | 8 |
| Section E – Tree Removal and Screening | 8 |
| Section F – Visual Analysis | 11 |
| Section G – Glare Study | 15 |
| Section H – Noise Study | 16 |
| Section I – Environmental Assessment Information | 17 |
| I.1 – Summary of SEQR determinations | 17 |
| I.2 – US Fish and Wildlife | 19 |
| I.3 – Division of Fish and Wildlife, NY Natural Heritage Program | 19 |
| I.4 – NYS Historic Preservation | 19 |
| I.5 – NYSDEC Wetlands | 19 |
| I.6 – USACE Wetlands | 19 |
| Attachments | 20 |
| Attachment I – SUP Application Form | 21 |
| Attachment II – Landlord Authorization | 22 |
| Attachment III – SEQR Long Form | 23 |
| Attachment IV – Letter from US Fish & Wildlife | 24 |
| Attachment V – Letter from the Division of Fish and Wildlife, NY Natural Heritage Program | 25 |
| Attachment VI – Letter from the NYS Historic Preservation Office | 26 |
| Attachment VII – Letter from the NYSDEC Wetlands | 27 |
| Attachment VIII – Landscape Plan | 28 |
| Attachment IX – Decommissioning Plan | 29 |
| Attachment X – Glare Study | 35 |
| Attachment XI – Three Line Diagram | 41 |

Manny's Corners Solar - SUP Application

| | |
|---|----|
| Attachment XII – General Site Plans | 42 |
| Attachment XIII – Site Plan with Property Lines | 43 |
| Attachment XIV – Property Evaluation Study | 44 |

CPG represents that all other documents not included in this package, e.g. the Drainage / Soil Plan, Grading Plan and other will be prepared and submitted in connection with building permit application.

Section A - Project Overview

A.1 – General Overview

The Community Power Group, LLC ("CPG") is developing a 5MW community solar farm located on 139 Manny Corners Road in the Town of Amsterdam ("Town").



General Information:

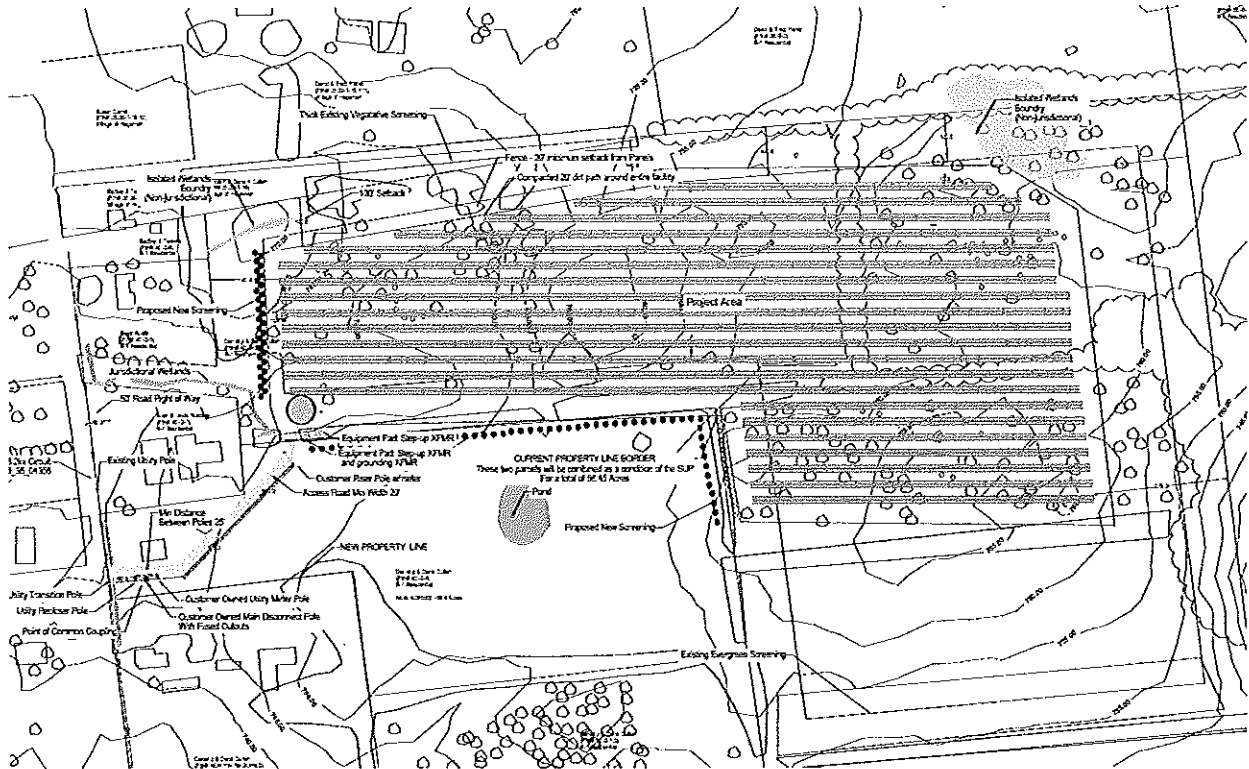
- Parcel Address: 139 Manny Corners Road, Amsterdam, New York 12010
- Montgomery County Parcel ID: 40.-2-2 (56.94 acres after parcel combination of 44.94 acres from PIN 40.-2-2 and 12.02 acres from PIN 40.-2-4, see lot combination survey in the Special Use Permit Plan set)
- Solar Project Size: up to 5 MWs AC (~25-acre facility or 43 % of the lot)
- Solar Project Coordinates: 42.963681, -74.142018

Manny's Corners Solar - SUP Application

- Parcel District: Residential 1 (R-1)

A.2 – Site Plan

See Special Use Permit Plans for further details

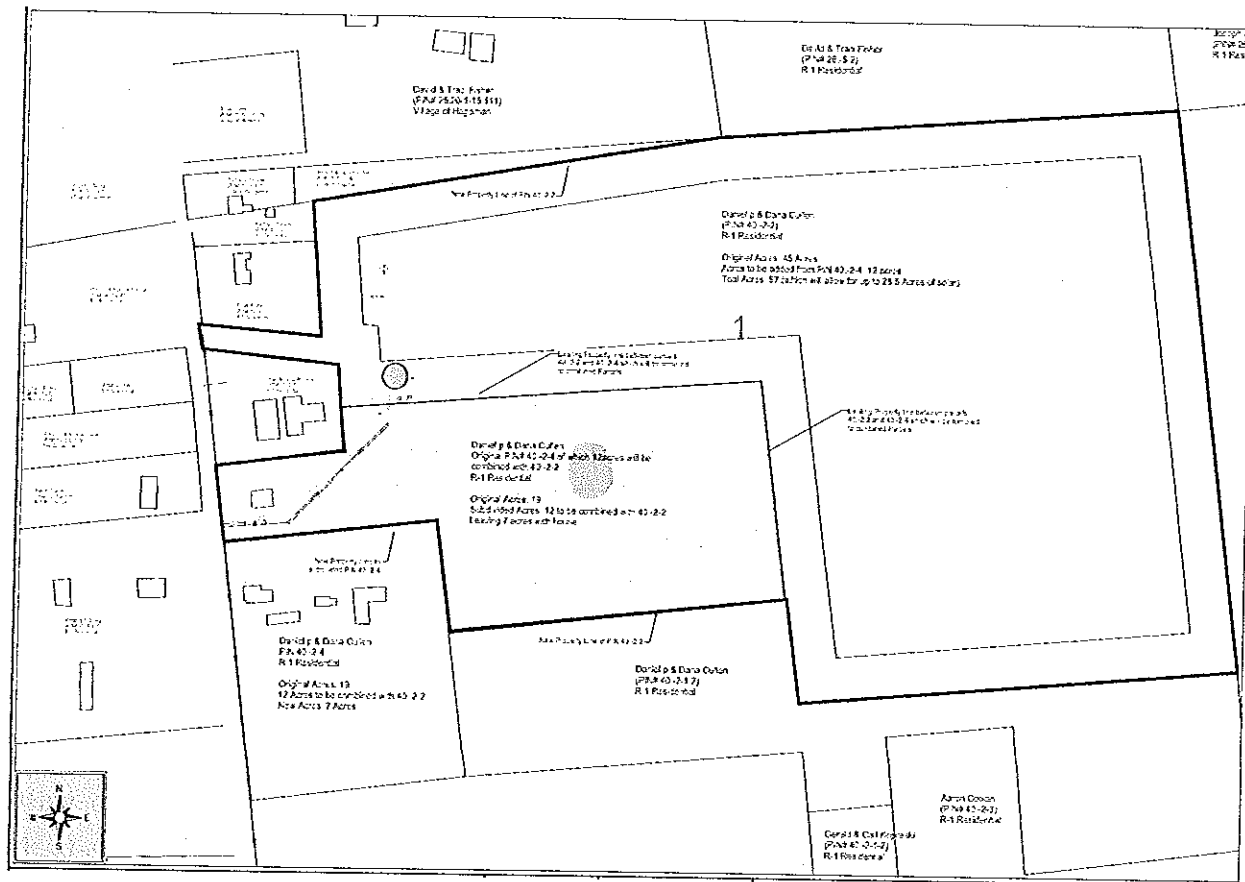


A.2.1 – Zoning Standards

Article VIII-35-2: **Utility-Scale Solar Systems Review** provides that ground-mounted solar systems are allowed subject to Site Plan Review and Special Use Permit issuance in Residential 1 district (R-1). The allowed maximum lot area coverage is 50% (e.g., 50-acre maximum solar system size on a 100-acre parcel). The project hereby submitted covers approximately 43% of the proposed parcel, fulfilling the lot coverage requirement. The required setbacks are 100 feet from any external property line which is satisfied by the site plan. Screening from residential neighbors and roadways is required which will be provided. Manny's Corners project is in full compliance with these requirements.

Article VIII-35-2 Utility-Scale Solar Systems also provides that the minimum lot size for a solar array must be 50 acres in R-1. Accordingly, CPG is proposing to combined Parcel ID # 40.-2-2 (44.94 acres) with a portion of parcel 40.-2-4. Parcel 40.-2-4, which is 19.02 acres, will be subdivided with 12 acres being combined with 40.-2-2 leaving 7 acres for Parcel 40.-2-4. As a result PIN 40.-2-2 will have a combined total acres of 56.94 which will meet the 50 acre requirement. The following provides a survey of the combined lots:

Manny's Corners Solar - SUP Application



A.3 – Interconnection

CPG has filed for an interconnection agreement with National Grid. The Study is in the CESIR review process and the results of the study are expected to be received in January of 2021.

Section B - The Principal Areas of Concern for Site Plan Review

A. *The balancing of landowners' right to use their land with the corresponding rights of abutting and neighboring landowners to live without undue disturbances.*

- a. CPG values the opinions and rights of adjacent landowners. The noise created by the inverters and transformers at the solar facility is similar to the noise made by electrical equipment on existing utility lines and infrastructure along Manny Corners Road. CPG has designed the facility to keep any equipment that makes noise from being less than 400ft from any residence, and as a result there will be no audible noise from the solar facility at any residence. Additionally, CPG has consulted with the neighbors and has proposed a robust landscaping plan that includes adding evergreen trees along the eastern property line of the project. These new trees will be in addition to the existing vegetation that is currently

Manny's Corners Solar - SUP Application

present between the solar facility and then neighbors. CPG has provided special considerations for those neighbors closer to the facility, by providing an additional fifty feet of setbacks along the eastern edge of the project. The plans provide for more than 400ft between any noise making equipment and a residence. There will be no permanent lighting on site.

B. The convenience and safety of vehicular and pedestrian movement within the site, and in relation to adjacent areas or roads.

a. The interior circulation system is adequate to provide safe accessibility to all required off-street parking and to provide for the convenience and safety of vehicular, pedestrian, and bicycle movement within the site and in relation to adjacent areas or roads. Interior access roads consist of a ~20' wide compacted dirt road. One turnaround area is provided within the interior to the site.

C. The adequacy of waste disposal methods and protection from pollution of surface or groundwater.

a. During construction there will be adequate construction and human waste collection and removal systems in place. There are no polluting elements to the solar facility and accordingly during the operating period of the project there will be pollution to the surface or groundwater from the project.

D. The protection of historic and natural environmental features on the site under review and in adjacent areas.

a. Correspondence from SHPO states SHPO reviewed the project and concluded there will be no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Register of Historic Places.

Section C - Standards Applicable to All Special Use Permits

A. The proposed development is compatible with nearby properties and will not discourage the appropriate development and use of adjacent properties or impair their value.

a. Numerous studies have shown that properly screened solar installations with appropriate setbacks do not have an impact on market prices of properties near or adjacent to a solar farm (see Attached II - Valuation Study). Additionally, solar farms do not impact neighboring farmland or commercial activity.

- B. *Traffic generated by the proposed development can be adequately and safely served by the existing and proposed roads and will not cause undue congestion or create a traffic hazard.*
 - a. The project will not affect traffic flow as it will garner virtually no additional traffic during operation. There are usually two yearly visits for basic maintenance augmented by periodic visits to address any potential issues as they arise. Those maintenance visits will be performed by individuals that will generally have a small truck for transportation. There will be no permanent on-site employees.
- C. *The proposed development will not adversely affect community character or appearance.*
 - a. CPG has conducted a visual analysis with photos taken from adjacent roadways and parcels. Based on the results of the visual analysis the solar facility will not have visual impacts to residents on adjacent properties. CPG has also designed a landscape plan to screen the solar facility from adjacent residential uses. The landscape design will transition from small, to medium to large landscape species.
- D. *The proposed development is appropriately located and can be adequately served by necessary community facilities, including police, fire and emergency vehicles.*
 - a. Interior access roads consist of compacted dirt roads.
- E. *Operation of any Special Permit use shall be no more objectionable to nearby properties by reason of dust, odor, noise, fumes, vibration, excessive lighting, or water pollution than would be the operation of any permitted use.*
 - a. The proposed solar generation facility will not create any fumes, dust, odor, excessive lighting, vibration or water pollution. Noise created by solar generation facilities is typically generated by inverters, in the form of faint humming not audible beyond 100 feet. Interior lighting of the site is limited to low level on demand and motion detected lighting in the transformer area.
- F. *The proposed use complies with the goals and objectives of the Comprehensive Plan.*

Manny's Corners Solar - SUP Application

- a. A solar facility promotes sustainable use of energy resources and a safe environment. It will benefit both the local community and the town.

Section D – Decommissioning Plan

The facility will use solar photovoltaic technology and a single axis tracking racking system. The project will cover approximately 25 acres. As noted in the decommissioning report (see Attachment IX), the estimated cost of decommissioning the system is \$144,250. These amounts do not include the salvage value of the components.

Section E – Tree Removal and Screening

The site is screened from neighbors and public roadways on the perimeter. During the construction process, CPG anticipates removing approximately 400 trees with a base diameter in excess of 6 inches and planting approximately 85 new evergreen trees. Please see Landscape Plan in Attachment VIII for detailed information on the trees that will be planted for screening purposes.

As a part of the construction process, CPG anticipates removing approximately 400 trees with a base diameter in excess of 6 inches. To calculate the estimated tonnage of trees to be removed we walked the field and randomly sampled tree diameter. Given this is an overgrown field, we noted that there were few full-grown trees and that the majority of trees had a diameter of approximately 12 inches and only a few trees with a diameter of close to 24 inches. To determine an estimate of the tonnage of trees to be removed, we used an average tree diameter of 16 inches, a height of 56 feet, and an estimated weight of 1.5 tons (see the chart below). Based on the calculations noted above, there would be approximately 600 tons of "full tree green weight" removed from the site (400 trees x 1.5 average tons per tree). This amount is well below the maximum 1,000 tons as noted in the NYS Environmental Assessment. The following are pictures of the sites, a chart of estimated tree weight, and a depiction of the area of trees to be removed.

Estimated Tree Weights (per Dave Polak of Forestry Sciences Laboratory, U.S. Forest Service):

Manny's Corners Solar - SUP Application

| DBH Class Inches | Total Tree Height - Feet | | | | | | | |
|------------------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 6 | 220 | 269 | 318 | 369 | 420 | 472 | 524 | 576 |
| 8 | 425 | 519 | 615 | 712 | 811 | 910 | 1011 | 1112 |
| 10 | 708 | 865 | 1025 | 1187 | 1351 | 1516 | 1684 | 1853 |
| 12 | 1074 | 1312 | 1554 | 1800 | 2049 | 2300 | 2554 | 2811 |
| 14 | 1528 | 1866 | 2211 | 2561 | 2914 | 3272 | 3634 | 3998 |
| 16 | 2073 | 2533 | 3000 | 3474 | 3955 | 4440 | 4930 | 5425 |
| 18 | 2713 | 3315 | 3927 | 4548 | 5176 | 5812 | 6453 | 7101 |
| 20 | 3452 | 4218 | 4996 | 5786 | 6586 | 7394 | 8210 | 9034 |
| 22 | 4292 | 5244 | 6212 | 7194 | 8188 | 9193 | 10208 | 11233 |
| 24 | 5236 | 6398 | 7579 | 8777 | 9990 | 11216 | 12454 | 13704 |
| 26 | 6288 | 7682 | 9101 | 10539 | 11995 | 13467 | 14954 | 16455 |
| 28 | 7448 | 9100 | 10780 | 12484 | 14209 | 15953 | 17714 | 19492 |
| 30 | 8720 | 10655 | 12621 | 14616 | 16635 | 18677 | 20740 | 22820 |

Pictures of Trees on Site:





Section F – Visual Analysis

The Amsterdam Solar Project is a proposed 5 MWac commercial solar facility on Manny's Corner Road in an R-1 zone. As part of the Special Use Permit process for the project, several photographs were taken from key viewpoints surrounding the site to determine the expected visual impact of the site on the surrounding community. A viewshed model was also generated for the site to further consider the effects of topography on the expected visual impact of the project. Based on the photographs taken from key viewpoints and the viewshed model generated for the project, the project will have very limited visual impact on the surrounding community.

Key Viewpoint Photography

The following pictures were collected from the viewpoint of nearby residential homes and community buildings towards the project site. Figure 1 shows the locations where photographs were taken from the subject buildings towards the direction of the project site to illustrate expected viewing opportunities of the proposed facility. These viewpoints were selected because they are located near residential buildings that are close to the project site, and are located along public rights-of-way.

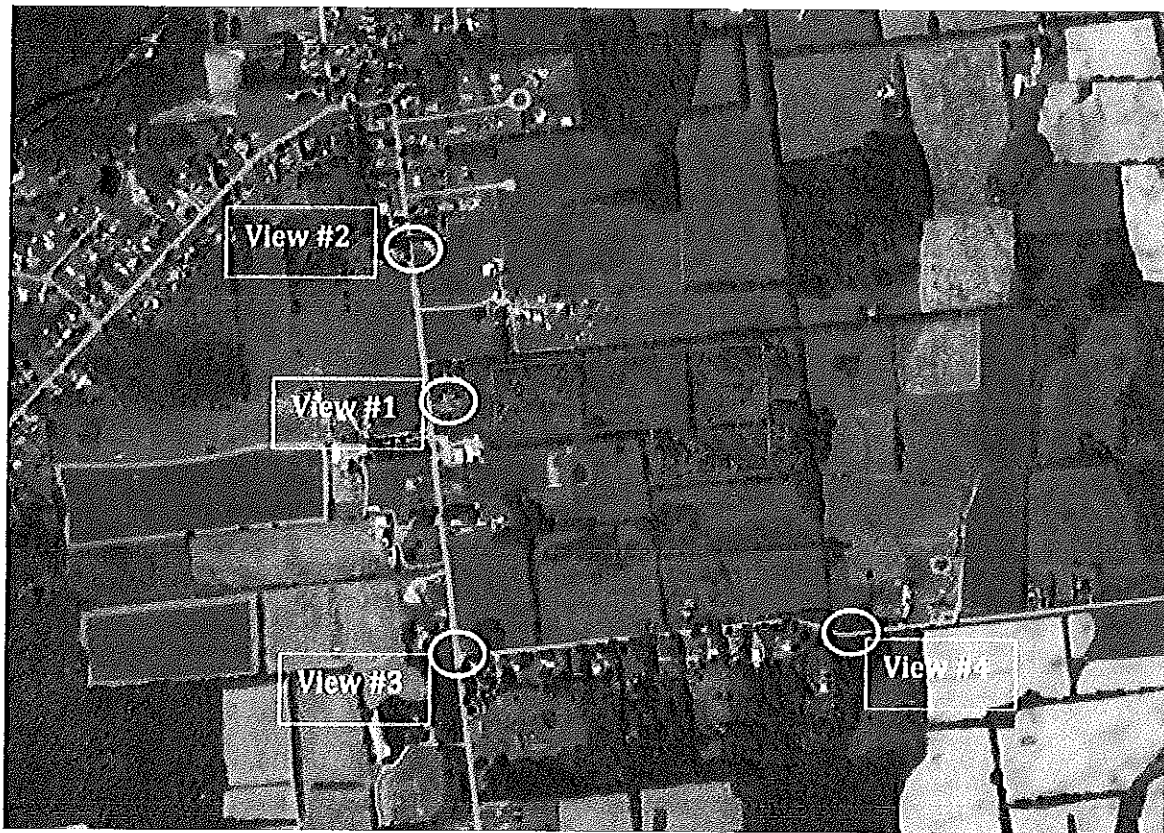
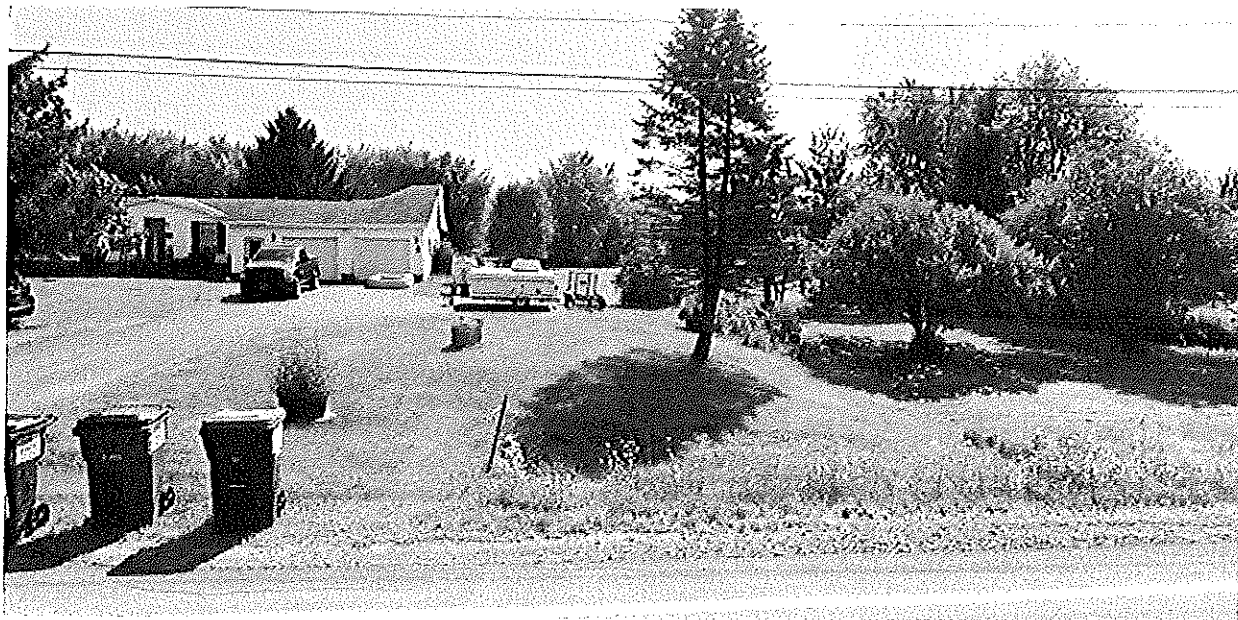


Figure 1. Viewpoints selected for photography of proposed project site

View #1



Manny's Corners Solar - SUP Application

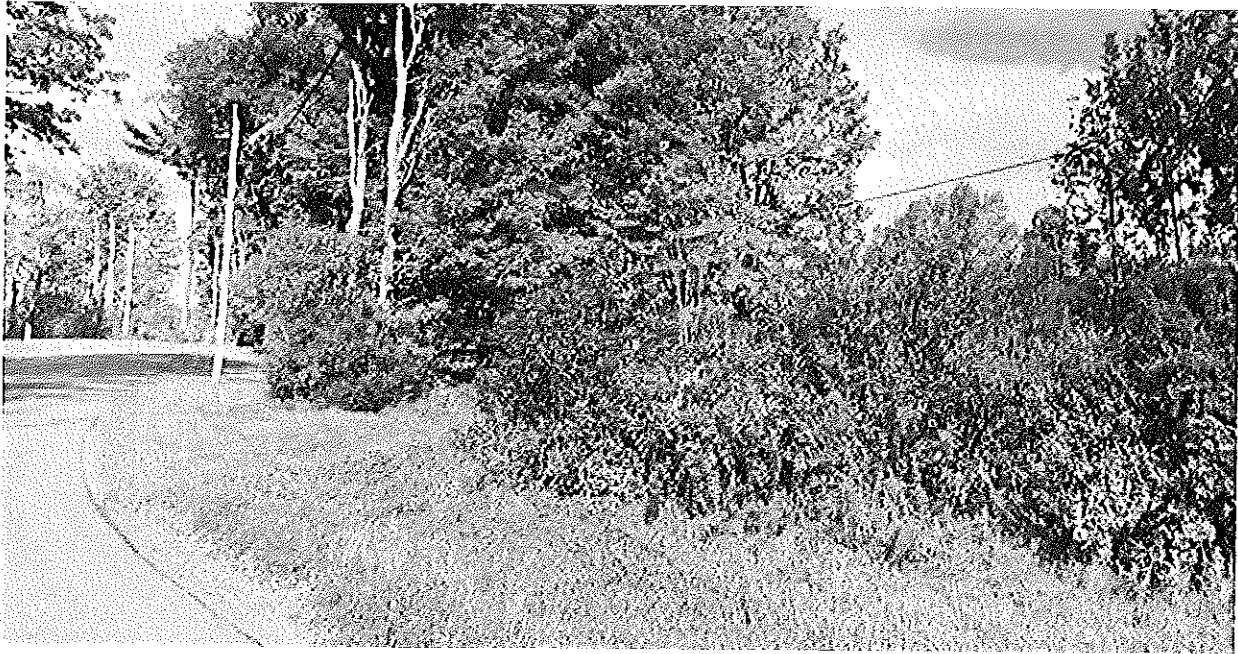
View #2



View #3



View #4



Each photograph was taken in the direction of the proposed project site, and in each case any potential viewing of the site was blocked by existing vegetation.

Viewshed Model of the Proposed Solar Facility

A half-mile viewshed model was generated for the proposed project site using the Viewshed tool (Ready to Use) within the ArcGIS Pro 2.6.2 software. Shown in Figure 2, the areas of expected positive viewing (shown in the color Orange) only take into account ground topography, and do not consider existing structures or vegetation.



Figure 2. Half-mile viewshed of proposed project based on topography

Though a significant portion of the half-mile radius out from the proposed project would potentially have a positive view of the project based on topography, there is significant vegetation in the area that would prevent almost all potential viewing on the ground. Figure 3 shows the half-mile viewshed with an overlay of existing vegetation and wooded areas to consider the effect of vegetation on any expected areas that could view the project.



Figure 3. Half Mile Viewshed with Existing Homes and Vegetation

The only properties that may potentially view the site based on existing vegetation and topography are the three properties to the west of the project along Manny's Corner Road. The center property of the three is owned by the same owner as the parcel selected for the solar facility. Vegetative screening will be installed to the west of the project so that the other two property owners have a buffer between their property and the solar project.

Conclusion

Based on the photographs taken from nearby viewpoints of the project site as well as the viewshed model with vegetation, it is expected that no surrounding property will be visually impacted by the proposed solar facility based on the expected vegetative screening.

Section G – Glare Study

CPG prepared a glare study to assess potential effects of glare on motorists travelling northbound and southbound on Manny Corners Rd. To assess these potential glare effects, CPG

Manny's Corners Solar - SUP Application

utilized a glare modeling tool developed by the US Department of Energy for the Federal Aviation Administration (FAA) to protect aviation sensitive receptors called ForgeSolar. The analysis results identified the potential for glare to a driver in their peripheral vision when heading along Manny Corners Rd at sunrise during the months of April through September. However, for the most part drivers are watching the road and not looking 75-90 degrees from the vehicle where the glare occurs. Please see the full glare study as Attachment X

Section H – Noise Study

1. Impacts of Noise During Construction

The EPA document "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety" requires that noise levels not exceed those listed in the Table below, except for construction or demolition activities for which the maximum allowable noise level is ninety decibels (90 dB) during the daytime.

| Maximum Allowable Noise | | |
|-------------------------|-------------------------|-------------|
| | Commercial / Industrial | Residential |
| Indoor | - | 45 |
| Outdoor | 70 | 55 |

Source: Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, EPA

Maximum noise is expected to be produced during times when the pile driver is used to drive piles into the ground for the PV module racking supports. The closest off-site residential property is more than 100 feet from where the pile driver will be used and beyond a forest buffer. Sound levels from construction activities are not anticipated to be higher than usual in this setting.

Using the inverse square law for calculating noise levels at varying distances, the maximum allowable construction noise level allowance of 90 dB will be achieved at 70 feet from the pile driver. Additional equipment with noise levels less than the pile driver will also be used during construction, but at distances generally no closer than the pile driver to nearby residences. Construction noise impacts will be minimized and mitigated by requiring that all equipment be maintained in good operating condition and that all motors and engines be muffled according to manufacturer's specifications.

2. Impacts of Noise During Operation

Most ongoing noise generated from the electrical equipment at the Project will be from the transformers and inverters at each pad. Subject to final design, the inverters specified for this

Manny's Corners Solar - SUP Application

plant are Power Electronics Central Inverters. Applying the inverse square law of sound attenuation, the expected total sound level at 100 feet from the inverters is less than 46 dBA. Note that this value only applies during daytime operation, as the inverter enters standby mode during nighttime hours.

Typical transformers utilized for solar plants will be compliant with National Electrical Manufacturers Association (NEMA) TR-1 standards for audible sound levels, measured in accordance with American National Standards Institute/Institute of Electrical and Electronics Engineers (ANSI/IEEE) C57.12 standards. Table 2 of the NEMA TR-1 standard, "Audible Sound Levels for Liquid-Immersed Network Transformers and Step-Voltage Regulators", defines average sound level decibels based on the equivalent two-winding kVA rating of the component. Components for this plant will be rated somewhere between 1000-2500 kVA, and hence have an average unshielded sound decibel level of 58 to 62 dBA, as measured at five feet per IEEE C57.12 standards. Using the inverse square law of sound attenuation, the expected total sound level at 100 feet from the unit will be approximately 36 dBA.

Based on this analysis, the Project anticipates a low level of noise outside of the perimeter fence. Noise reduction occurs at 6 dB per double the distance. The nearest residence will be more than 100 feet from the closest inverter pad and the dB levels at this location will be well below the 65/55 dB levels identified. Effort will be taken to locate inverters as close to the interior of the solar array or away from nearby residences as is feasible. This will allow the panels themselves to provide shielding and further mitigate equipment noise.

Section I – Environmental Assessment Information

I.1 – Summary of SEQR determinations

CPG used the New York Environmental Resource Mapping tool available online at <https://gisservices.dec.ny.gov/eafmapper/> to generate an Environmental Assessment Form long (also referred as "SEQR form"). Below is the summary of the findings. Please see the full form as Attachment III.

| SEQR Long Form | | | |
|-------------------|---|--------|---|
| Subject | Question | Answer | SEQR Call-out Notes |
| Coastal Resources | Within a Coastal Area or Designated Inland Waterway? | No | |
| Coastal Resources | Within a community with a Local Waterfront Revitalization Program | No | |
| Land Use Plans | Is the site within a special regional planning district | Yes | Mohawk Valley Doesn't look to be an issue |

Manny's Corners Solar - SUP Application

| | | | | |
|-----------------------|---|-----|---------------------------------|--|
| | | | Heritage Corridor | but will be tracked |
| Environmental Hazards | Within 2000' of a NYSDEC Site Remediation database? | No | | |
| Geology | Within an area with unique geological features | No | | |
| Wetlands | Does any portion of the site have wetlands or other waterbodies? | Yes | | Delineation complete, no permits from DEC required, submitted for review to ACOE |
| Wetlands | Do neighboring parcels have wetlands or other waterbodies? | Yes | Class C Stream & Federal Waters | |
| Wetlands | Are any of the wetlands regulated by a federal, state, or local agency? | Yes | | |
| Wetlands | Are any of the wetlands listed as a NYS quality-impaired waterbody? | No | | |
| Floodplains | Is the project site in a floodway? | No | | |
| Floodplains | 100 year? | No | | |
| Floodplains | 500 year? | No | | |
| Aquifer | Is site located on or adjacent to a primary, principal, or sole source aquifer? | No | | |
| Species | Does the site contain a significant natural community? | No | | |
| Species | Does the site contain state / federally regulated threatened or endangered species? | No | | |
| Species | Does the site contain a plant or animal classified as Rare by NYS | No | | |
| Agricultural | Is the site in a designated agricultural district? | No | | |
| Natural Landmark | Is the site on or contiguous to a National Natural Landmark? | No | | |
| Critical Environment | Is the site listed in the Critical Environment Area? | No | | |
| SHPO | Is the project site adjacent to or on any archaeological sensitive areas? | No | | |

Manny's Corners Solar - SUP Application

I.2 – US Fish and Wildlife

The US Fish and Wildlife Service of the US Department of the Interior provided that there are no critical habitats within our project area under this Office's jurisdiction. Please see the letter from the US Fish and Wildlife Service as Attachment IV

I.3 – Division of Fish and Wildlife, NY Natural Heritage Program

The Division of Fish and Wildlife, NY Natural Heritage Program has no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity. Please see the letter from the Division of Fish and Wildlife as Attachment V

I.4 – NYS Historic Preservation

The Division of Historic Preservation of the NYS Historic Preservation Office determined that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project. Please see the letter from SHPO as Attachment VI

I.5 – NYSDEC Wetlands

We prepared and submitted a delineation of wetlands on site to the New York State Department of Environmental Conservation (NYSDEC) and they determined that no permits from their Department will be required. Please see the letter from NYSDEC as Attachment VII

I.6 – USACE Wetlands

SEQR identified federal wetlands on site. We have delineated those wetlands and are not developing on or within close proximity to them. We are working on obtaining a letter of determination from the U.S. Army Corps of Engineers (USACE) that no permit will be required.

Attachments

Attachment I – SUP Application Form

2/10/2011

Application #: _____

Date: _____

**Town of Amsterdam
Planning Board
Application to the Planning Board**

A completed Application must be filed at least fourteen (14) days prior to the meeting at which it is to be considered by the Planning Board, including all applicable attached information.

Applicant: Daniel & Dana Cullen Applicant's Representative: Community Power Group, LLC
(must be property owner) (if applicable)
Address: 139 Mannys Corners Road Address: 5636 Connecticut Ave, #42729
Amsterdam, NY 12010 Washington DC, 20015
Phone: (518) 469-1937 Phone: (617) 365-3232


Professional Advisor: _____ Other: _____
(i.e. Engineer, Architect, Surveyor, etc.) (if appropriate, please specify)
Address: _____ Address: _____
Phone: () _____ Phone: () _____

Property Location
Address: 139 Mannys Corners Road, Amsterdam, NY 12010
General Location: Montgomery County
Zoning District: Residential 1 (R-1)
Tax Parcel ID # (SBL) 40.-2-2, 40.-2-4 & 40.-2-1.2

Type of Application (please check appropriate box(s)):

- ☐ Subdivision
☐ Site Plan
☒ Special Use Permit
☐ Planned Unit Development Review (formal action required by Town Board)

Attached please find Appendix A-SEQR compliance, and Appendix B-Ag. Data Statement compliance. Compliance with these items is required under the applicable NYS Laws, a brief explanation is included in the appendices to assist the applicant. For specifics on submission/application requirements, procedures, time frames, etc., the applicant should refer to the applicable Town regulations (Zoning, Subdivision, etc.) and/or NYS law (SEQR, Ag. & Markets, General Municipal, etc.).

See Attachment II
Applicant _____ Date _____ Applicant's Representative  Date 10-27-20

Application #: _____
Date: _____

For Office Use Only

Application Fee: \$ _____

Engineering Fees: \$ _____ Description: _____

Other Fees: \$ _____ Description: _____

Total Amount Received: \$ _____

Check # (s)/Date: _____

Received By: _____

Total Amount Returned (engineering fees): \$ _____ Description: _____

For Planning Board Use Only

The Planning Board held a Public Hearing on _____ (day) of _____ (date),
_____ (year) in consideration of this application.

The application is hereby:

- ☐ approved
- ☐ approved with modifications
- ☐ disapproved

Modifications and comments: _____

Chairman, Town of Amsterdam Planning Board

Date

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. 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.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

| | | | |
|---|---------------------|---|--|
| Part 1 - Project and Sponsor Information | | | |
| Name of Action or Project: 5 MW Community Solar Project | | | |
| Project Location (describe, and attach a location map): 139 Mannys Corners Road, Amsterdam, NY 12010 | | | |
| Brief Description of Proposed Action: The project is proposed as a 5 MW ac community solar garden and will generate enough power for approximately 800 homes. It will be located on approximately 25 of 88.6 acres of land and will be consistent with the planning, zoning, building, as well as land use regulations. | | | |
| Name of Applicant or Sponsor: Community Power Group, LLC | | Telephone: 617-365-3232 | 202-884-6427 |
| Address: 5636 Connecticut Ave, #42729 | | E-Mail: alex@communitypowergroup.com | |
| City/PO: Washington | State: DC | Zip Code: 20015 | |
| 1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2. | | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> |
| 2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: NY SERDA | | NO <input type="checkbox"/> | YES <input checked="" type="checkbox"/> |
| 3.a. Total acreage of the site of the proposed action? | | 425 acres | |
| b. Total acreage to be physically disturbed? | | _____ acres | |
| c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? | | 88.60 acres | |
| 4. Check all land uses that occur on, adjoining and near the proposed action. <input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban), R-1 <input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Parkland | | | |

| | | | |
|--|---|--|---------------------------------|
| 5. Is the proposed action, a. A permitted use under the zoning regulations? | NO <input type="checkbox"/> | YES <input checked="" type="checkbox"/> | N/A <input type="checkbox"/> |
| b. Consistent with the adopted comprehensive plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Is the proposed action consistent with the predominant character of the existing built or natural landscape? | NO <input type="checkbox"/> | YES <input checked="" type="checkbox"/> | |
| 7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____ | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| 8. a. Will the proposed action result in a substantial increase in traffic above present levels? | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| b. Are public transportation service(s) available at or near the site of the proposed action? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____ | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| 10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____ | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| 11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| 12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places? | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| b. Is the proposed action located in an archeological sensitive area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency? | NO <input type="checkbox"/> | YES <input checked="" type="checkbox"/> | |
| b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <input type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input checked="" type="checkbox"/> Agricultural/grasslands <input type="checkbox"/> Early mid-successional <input type="checkbox"/> Wetland <input type="checkbox"/> Urban <input type="checkbox"/> Suburban | | | |
| 15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| 16. Is the project site located in the 100 year flood plain? | NO <input checked="" type="checkbox"/> | YES <input type="checkbox"/> | |
| 17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES If Yes, briefly describe: <u>Stormwater will not be significantly altered by development</u> | NO <input type="checkbox"/> | YES <input type="checkbox"/> | |

| | | |
|---|--|---------------------------------|
| 18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____ | NO <input checked="checked" type="checkbox"/> | YES <input type="checkbox"/> |
| 19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____ | NO <input checked="checked" type="checkbox"/> | YES <input type="checkbox"/> |
| 20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____ | NO <input checked="checked" type="checkbox"/> | YES <input type="checkbox"/> |
| <p>I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</p> <p>Applicant/sponsor name: <u>Community Pass Group, LLC</u> Date: <u>10/27/20</u></p> <p>Signature: _____</p> | | |

PRINT FORM

Agency Use Only (If applicable)

Project:

Date:

Short Environmental Assessment Form

Part 2 - Impact Assessment

Part 2 is to be completed by the Lead Agency.

Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

| | No, or small impact may occur | Moderate to large impact may occur |
|--|---|--|
| 1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Will the proposed action result in a change in the use or intensity of use of land? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Will the proposed action impair the character or quality of the existing community? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Will the proposed action impact existing: | <input type="checkbox"/> | <input type="checkbox"/> |
| a. public / private water supplies? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. public / private wastewater treatment utilities? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems? | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Will the proposed action create a hazard to environmental resources or human health? | <input type="checkbox"/> | <input type="checkbox"/> |

PRINT FORM

Project:

Date:

Short Environmental Assessment Form

Part 3 Determination of Significance

For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

| | |
|--|--|
| <input type="checkbox"/> | Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required. |
| <input type="checkbox"/> | Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts. |
| Name of Lead Agency | Date |
| Print or Type Name of Responsible Officer in Lead Agency | Title of Responsible Officer |
| Signature of Responsible Officer in Lead Agency | Signature of Preparer (if different from Responsible Officer) |

PRINT FORM

Appendix B - Ag Data Statement

MONTGOMERY COUNTY AGRICULTURAL DATA STATEMENT

Agricultural District Number: _____

Date Of Statement Completion: _____

Date of Referral to Montgomery County Planning Board: _____

Date of Submission to Ag & Farmland Protection Board: _____

Do Not Write Above This Line

APPLICANT: Daniel J Dana Cullen APPLICANT'S AGENT: Community Power Group, LLC

ADDRESS: 139 Mannys Corners Rd ADDRESS: 5636 Connecticut Ave, #42729
Amsterdam, NY 12010 Washington DC, 20015

PHONE NO.: 518-469-1737 PHONE NO.: 617-365-3232

LOCATION OF PROPOSED PROJECT:

TAX MAP NUMBER: 40.-2-2, 40.-2-4 & 40.-2-1.2

TOWN: Amsterdam, NY ROAD: 139 Mannys Corners Road

Description of Proposed Project: The project is proposed as a 5 Mwac community solar garden and will generate enough power for approximately 800 homes. It will be located on approximately 25 of 88.6 acres of land and will be consistent with the planning, zoning, building and land use requirements.

List all farm operations which are within an Agricultural District and are located within 500 feet of the boundary of the property which proposes a project, ("FARM OPERATION" means the land used in agricultural production, farm buildings, equipment and farm residential buildings.)

NAME: _____

NAME: _____

ADDRESS: _____

ADDRESS: _____

Tax Map No. _____

Tax Map No. _____

NAME: _____

NAME: _____

ADDRESS: _____

ADDRESS: _____

Tax Map No. _____

Tax Map No. _____

(For additional information, please use back of this sheet)

Attachment II – Landlord Authorization

LESSOR'S AUTHORIZATION TO PERMIT

February 29th, 2020

To Whom It May Concern

Community Power Group, LLC. and its employees and affiliates are hereby authorized to act as our agent for submission of applications and related plans and documents, and to appear before boards and other officials, with respect to obtaining approvals for solar installations to be constructed on my property located at 139 Manny Corners Road, Amsterdam, NY, 12010 Parcel Number 40.-2-2 and 40.-2-4.

Sincerely,

By: Daniel P Cullen

Name: Daniel P Cullen

Its: owner

By: Dana K Cullen

Name: Dana K. Cullen

Its: owner

Attachment III – SEQR Long Form

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 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

| | | |
|---|---|------------------------|
| Name of Action or Project: Community Power Group, LLC - 139 Mannys Corners Road Solar Farm | | |
| Project Location (describe, and attach a general location map): 139 Mannys Corners Road, Amsterdam, New York 12010 (Montgomery County PIN: 40.-2-4) | | |
| Brief Description of Proposed Action (include purpose or need): The purpose of the proposed project is the installation of a 5 MW ground-mounted solar facility located on Mannys Corners Road in the town of Amsterdam, New York. The proposed site is composed of one parcel that is 88.6 acres and can be identified by tax map ID: 40.-2-4. | | |
| Name of Applicant/Sponsor: Community Power Group, LLC | Telephone: 202-844-6423 | |
| | E-Mail: mborkowski@communitypowergroup.com | |
| Address: 5636 Connecticut Ave, #42729 | | |
| City/PO: Washington | State: DC | Zip Code: 20015 |
| Project Contact (if not same as sponsor; give name and title/role): | Telephone: | |
| | E-Mail: | |
| Address: | | |
| City/PO: | State: | Zip Code: |
| Property Owner (if not same as sponsor): Daniel P Cullen & Dana K Cullen | Telephone: 518-843-6073 | |
| | E-Mail: rccustomsdc00@outlook.com | |
| Address: 139 Mannys Corners Road | | |
| City/PO: Amsterdam | State: New York | Zip Code: 12010 |

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 Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees | | |
| b. City, Town or Village <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Planning Board or Commission | Town of Amsterdam Planning Board Special Use Permit & Site Plan Review | |
| c. City, Town or <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Village Zoning Board of Appeals | | |
| d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Montgomery County Planning Board | |
| f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | NYS DEC & SHPO | SHPO no effect letter received on 1/31/20, DEC no effect letter received on 9/9/20 |
| h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | US Army Corp of Engineers | November 2020 |
| i. Coastal Resources. | | |
| i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| iii. Is the project site within a Coastal Erosion Hazard Area? | | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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):

NYS Heritage Areas: Mohawk Valley Heritage Corridor

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. <u>Zoning</u> | |
| a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| R-1 Residence District _____ | |
| b. Is the use permitted or allowed by a special or conditional use permit? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| c. Is a zoning change requested as part of the proposed action? If Yes, | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| i. What is the proposed new zoning for the site? _____ | |
| C.4. <u>Existing community services</u> | |
| a. In what school district is the project site located? Greater Amsterdam School District _____ | |
| b. What police or other public protection forces serve the project site? Montgomery County Sheriff, New York State Police _____ | |
| c. Which fire protection and emergency medical services serve the project site? Hagaman Fire Department _____ | |
| d. What parks serve the project site? None. _____ | |

D. Project Details

| | |
|--|------------|
| D.1. <u>Proposed and Potential Development</u> | |
| a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? _____ | |
| b. a. Total acreage of the site of the proposed action? | 88,6 acres |
| b. Total acreage to be physically disturbed? | 1,8 acres |
| c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? | 26 acres |
| c. Is the proposed action an expansion of an existing project or use? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes, | |
| i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) _____ | |
| ii. Is a cluster/conservation layout proposed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| i. If No, anticipated period of construction: _____ 3 months | |
| ii. If Yes: | |
| • Total number of phases anticipated _____ | |
| • Anticipated commencement date of phase 1 (including demolition) _____ month _____ year | |
| • Anticipated completion date of final phase _____ month _____ year | |
| • Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____ _____ _____ | |

| | | | | |
|--|-------------------|-------------------|---------------------|---------------------------------------|
| f. Does the project include new residential uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | |
| If Yes, show numbers of units proposed. | | | | |
| | <u>One Family</u> | <u>Two Family</u> | <u>Three Family</u> | <u>Multiple Family (four or more)</u> |
| Initial Phase | _____ | _____ | _____ | _____ |
| At completion | _____ | _____ | _____ | _____ |
| of all phases | _____ | _____ | _____ | _____ |

| | |
|---|--|
| g. Does the proposed action include new non-residential construction (including expansions)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| If Yes, | |
| i. Total number of structures _____ 2 (solar farm inverters and transformer stations; also X solar panels that are 6,9'x3,5') | |
| ii. Dimensions (in feet) of largest proposed structure: _____ 9' height; _____ 9' width; and _____ 36' length | |
| iii. Approximate extent of building space to be heated or cooled: _____ N/A 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes, | |
| i. Purpose of the impoundment: _____ | |
| ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____ | |
| iii. If other than water, identify the type of impounded/contained liquids and their source. _____ | |
| iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres | |
| v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length | |
| vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____ | |

D.2. Project Operations:

| | |
|---|--|
| a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) | |
| If Yes: | |
| i. What is the purpose of the excavation or dredging? _____ | |
| ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? | |
| <ul style="list-style-type: none"> • 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: _____ 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: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☒ No
- Is the project site in the existing district? ☐ Yes ☒ No
- Is expansion of the district needed? ☐ Yes ☒ No
- Do existing lines serve the project site? ☐ Yes ☒ No

iii. Will line extension within an existing district be necessary to supply the project?

☐ Yes ☒ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site?

☐ Yes ☒ No

If Yes:

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

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

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

d. Will the proposed action generate liquid wastes?

☐ Yes ☒ No

If Yes:

i. Total anticipated liquid waste generation per day: _____ 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): _____

iii. Will the proposed action use any existing public wastewater treatment facilities?

☐ Yes ☒ No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- 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

| | |
|--|--|
| <ul style="list-style-type: none"> • Do existing sewer lines serve the project site? _____ • Will a line extension within an existing district be necessary to serve the project? _____ <p>If Yes:</p> <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>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): _____</p> | |
| <p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____</p> | |
| <p>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? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p style="padding-left: 40px;">_____ Square feet or _____ acres (impervious surface)</p> <p style="padding-left: 40px;">_____ Square feet or _____ acres (parcel size)</p> <p>ii. Describe types of new point sources. _____</p> <p>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)? _____</p> <p style="padding-left: 20px;">• If to surface waters, identify receiving water bodies or wetlands: _____</p> <p style="padding-left: 20px;">• Will stormwater runoff flow to adjacent properties? _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>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? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____</p> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <p>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? _____</p> <p>If Yes:</p> <p>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) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

| | |
|---|--|
| <p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p> | |
| <p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____</p> <p>iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | |
| <p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____</p> <p>iii. Will the proposed action require a new, or an upgrade, to an existing substation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | |
| <p>l. Hours of operation. Answer all items which apply.</p> <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 7 am - 9 pm • Saturday: _____ 8 am - 6 pm • Sunday: _____ • Holidays: _____ | <p>ii. During Operations: A technician will visit the site approximately once per month for maintenance</p> <ul style="list-style-type: none"> • Monday - Friday: _____ 24 hours (unmanned) • Saturday: _____ 24 hours (unmanned) • Sunday: _____ 24 hours (unmanned) • Holidays: _____ 24 hours (unmanned) |

| | |
|---|--|
| <p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>During construction, sound level will be above ambient noise levels. During operation, the sound level will not exceed ambient noise levels.</p> | |
| <p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe: _____</p> | |
| <p>n. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: _____</p> | |
| <p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe: _____</p> | |
| <p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p> | |
| <p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s): _____</p> | |
| <p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> | |
| <p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tbd tons per _____ 3 months (unit of time) • Operation : _____ 0 tons per _____ year (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: Waste (wooden pallets, cardboard) will be recycled to the maximum extent practicable • Operation: N/A <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: Local licensed waste recycler • Operation: N/A | |

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: _____

b. Land uses and covertypes on the project site.

| Land use or Covertype | Current Acreage | Acreage After Project Completion | Change (Acres +/-) |
|--|--------------------|-------------------------------------|-----------------------|
| • Roads, buildings, and other paved or impervious surfaces | 0 | 0,03 | 0,03 |
| • Forested | 30 | 20 | 10 |
| • Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural) | 58,6 | 58,6 | 0 |
| • Agricultural (includes active orchards, field, greenhouse etc.) | 0 | 0 | 0 |
| • Surface water features (lakes, ponds, streams, rivers, etc.) | 0 | 0 | 0 |
| • Wetlands (freshwater or tidal) | 0 | 0 | 0 |
| • Non-vegetated (bare rock, earth or fill) | 0 | 0 | 0 |
| • Other Describe: _____ | | | |

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☒ No
i. If Yes: explain: _____

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

e. Does the project site contain an existing dam? ☐ Yes ☒ No
If Yes:
i. Dimensions of the dam and impoundment:
• Dam height: _____ feet
• Dam length: _____ feet
• Surface area: _____ acres
• Volume impounded: _____ gallons OR acre-feet
ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection: _____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☒ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☒ No
• If yes, cite sources/documentation: _____
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: _____

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

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☒ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: _____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☒ No
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? _____ 1.6-3.3 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:

| | |
|----------------------------|--------|
| Wassaic silt loam (WaB) | 33 % |
| Angola silt loam (AnB) | 28.1 % |
| Farmington silt loam (FaB) | 14.8 % |

d. What is the average depth to the water table on the project site? Average: _____ 3.3 feet

e. Drainage status of project site soils: ☒ Well Drained: _____ 14.8 % of site
☒ Moderately Well Drained: _____ 33 % of site
☒ Poorly Drained _____ 28.1 % of site

f. Approximate proportion of proposed action site with slopes: ☒ 0-10%: _____ 100 % of site
☐ 10-15%: _____ % 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 876-140 | Classification C |
| • Lakes or Ponds: | Name _____ | Classification _____ |
| • Wetlands: | Name Federal Waters, Federal Waters, Federal Waters | Approximate Size _____ |
| • 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: _____

| | |
|--|--|
| <p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <p>Species common to Town of Amsterdam _____</p> <p>_____</p> | |
| <p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p>ii. Source(s) of description or evaluation: _____</p> <p>iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Species and listing (endangered or threatened): _____</p> <p>_____</p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Species and listing: _____</p> <p>_____</p> | |
| <p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p> | |
| <p>E.3. <u>Designated Public Resources On or Near Project Site</u></p> | |
| <p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p> | |
| <p>b. Are agricultural lands consisting of highly productive soils present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>i. If Yes: acreage(s) on project site? The land is considered Prime Farmland and would be highly productive if properly drained _____</p> <p>ii. Source(s) of soil rating(s): NRCS soil survey _____</p> | |
| <p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p>ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p> | |
| <p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. CEA name: _____</p> <p>ii. Basis for designation: _____</p> <p>iii. Designating agency and date: _____</p> | |

| | |
|---|--|
| 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Describe possible resource(s): _____ ii. Basis for identification: _____ | |
| h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Identify resource: _____ ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____ iii. Distance between project and resource: _____ miles. | |
| i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| If Yes: <ul style="list-style-type: none"> i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <input type="checkbox"/> Yes <input type="checkbox"/> 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

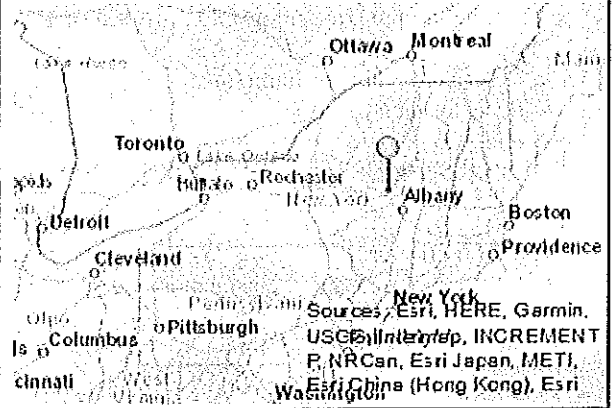
I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Community Power Group, Michael Borkowski Date 10/23/20

Signature  Title President



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



| | |
|--|---|
| B.1.i [Coastal or Waterfront Area] | No |
| B.1.ii [Local Waterfront Revitalization Area] | No |
| C.2.b. [Special Planning District] | Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook. |
| C.2.b. [Special Planning District - Name] | NYS Heritage Areas: Mohawk Valley Heritage Corridor |
| E.1.h [DEC Spills or Remediation Site - Potential Contamination History] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Listed] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.1.h.iii [Within 2,000' of DEC Remediation Site] | No |
| E.2.g [Unique Geologic Features] | No |
| E.2.h.i [Surface Water Features] | Yes |
| E.2.h.ii [Surface Water Features] | Yes |
| E.2.h.iii [Surface Water Features] | Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook. |
| E.2.h.iv [Surface Water Features - Stream Name] | 876-140 |
| E.2.h.iv [Surface Water Features - Stream Classification] | C |
| E.2.h.iv [Surface Water Features - Wetlands Name] | Federal Waters |
| E.2.h.v [Impaired Water Bodies] | No |
| E.2.i. [Floodway] | No |
| E.2.j. [100 Year Floodplain] | No |

| | |
|--|--|
| E.2.k. [500 Year Floodplain] | No |
| E.2.l. [Aquifers] | No |
| E.2.n. [Natural Communities] | No |
| E.2.o. [Endangered or Threatened Species] | No |
| E.2.p. [Rare Plants or Animals] | No |
| E.3.a. [Agricultural District] | No |
| E.3.c. [National Natural Landmark] | No |
| E.3.d [Critical Environmental Area] | No |
| E.3.e. [National or State Register of Historic Places or State Eligible Sites] | Digital mapping data are not available or are incomplete. Refer to EAF Workbook. |
| E.3.f. [Archeological Sites] | No |
| E.3.i. [Designated River Corridor] | No |

Attachment IV – Letter from US Fish & Wildlife



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

May 08, 2020

Consultation Code: 05E1NY00-2020-SLI-2845

Event Code: 05E1NY00-2020-E-08490

Project Name: Manny Corners-Amsterdam

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (<http://www.fws.gov/windenergy/>)

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2020-SLI-2845

Event Code: 05E1NY00-2020-E-08490

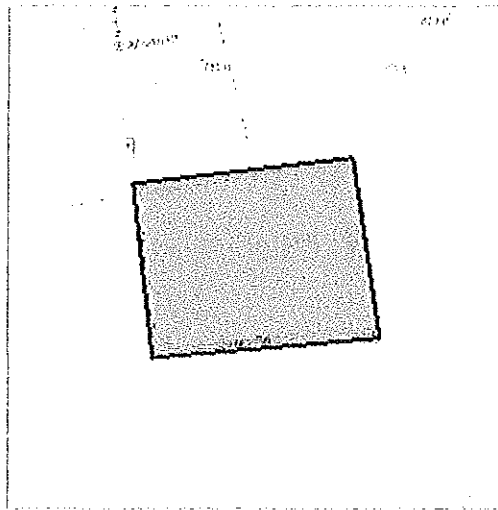
Project Name: Manny Corners-Amsterdam

Project Type: SPECIAL USE PERMIT

Project Description: This project is a community solar project in Manny Corners, Amsterdam.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/42.96271167852163N74.14300454506349W>



Counties: Montgomery, NY

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

**Attachment V – Letter from the Division of Fish and
Wildlife, NY Natural Heritage Program**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

February 2, 2020

Nick Mento
Community Power Group, LLC
4849 Rugby Avenue, Suite 1000
Bethesda, MD 20814

Re: Amsterdam Solar I
County: Montgomery Town/City: Amsterdam

Dear Mr. Mento:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 4 Office, Division of Environmental Permits, at dep.r4@dec.ny.gov.

Sincerely,

Andrea Chaloux

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program

Attachment VI – Letter from the NYS Historic
Preservation Office



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

January 31, 2020

Nick Mento
Project Manager
Community Power Group
4849 Rugby Avenue
Suite 1000
Bethesda, MD 20814

Re: SEQRA
Mannys Corners Solar Facility
Mannys Corners Road, Amsterdam, NY
20PR00474

Dear Nick Mento:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Daniel Mackay".

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

Attachment VII – Letter from the NYSDEC Wetlands

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 4
1130 North Westcott Road, Schenectady, NY 12306-2014
P: (518) 357-2069 | F: (518) 357-2460
www.dec.ny.gov

September 9, 2020

Olena Botshten
Community Power Group
(via email obotshteyn@communitypowergroup.com)

RE: JURISDICTIONAL INQUIRY RESPONSE
Solar Array
139 Mannys Corners Rd
Town of Amsterdam, Montgomery County

Dear Olena:

Thank you for contacting the Department with regard to a proposed solar farm at 139 Mannys Corners Road in Amsterdam. Based on the project information which you provided and the resources identified, no permits from this Department will be required.

Federal Wetlands:

It appears that a federally-regulated waterbody is located on the subject property. Work within certain wetlands and other waters of the United States may require a permit from the U.S. Army Corps of Engineers (USACE). For more information on Water Quality Certifications, please refer to the following website link: <http://www.dec.ny.gov/permits/6546.html>.

You should contact the USACE to determine whether your project requires an approval from their office. You can reach Brad Sherwood of the USACE at brad.sherwood@usace.army.mil.

Stormwater State Pollutant Discharge Eliminations System (SPDES) Permit For Construction Activities:

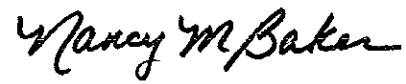
Any project which results in a disturbance of one acre or more of land, must be in compliance with the State Pollutant Discharge Elimination System (SPDES) Phase II regulations for Stormwater Discharges Associated with Construction Activities. Information regarding the SPDES General Permit for Stormwater Discharges can be found on the Department's website at <http://www.dec.ny.gov/chemical/8468.html>.



Department of
Environmental
Conservation

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Nancy M. Baker". The signature is written in a cursive, flowing style.

Nancy M. Baker
Regional Permit Administrator

Attachment VIII – Landscape Plan

See X11

Attachment X – Glare Study

Mannys Corners Community Solar
Glare Study

October 2020

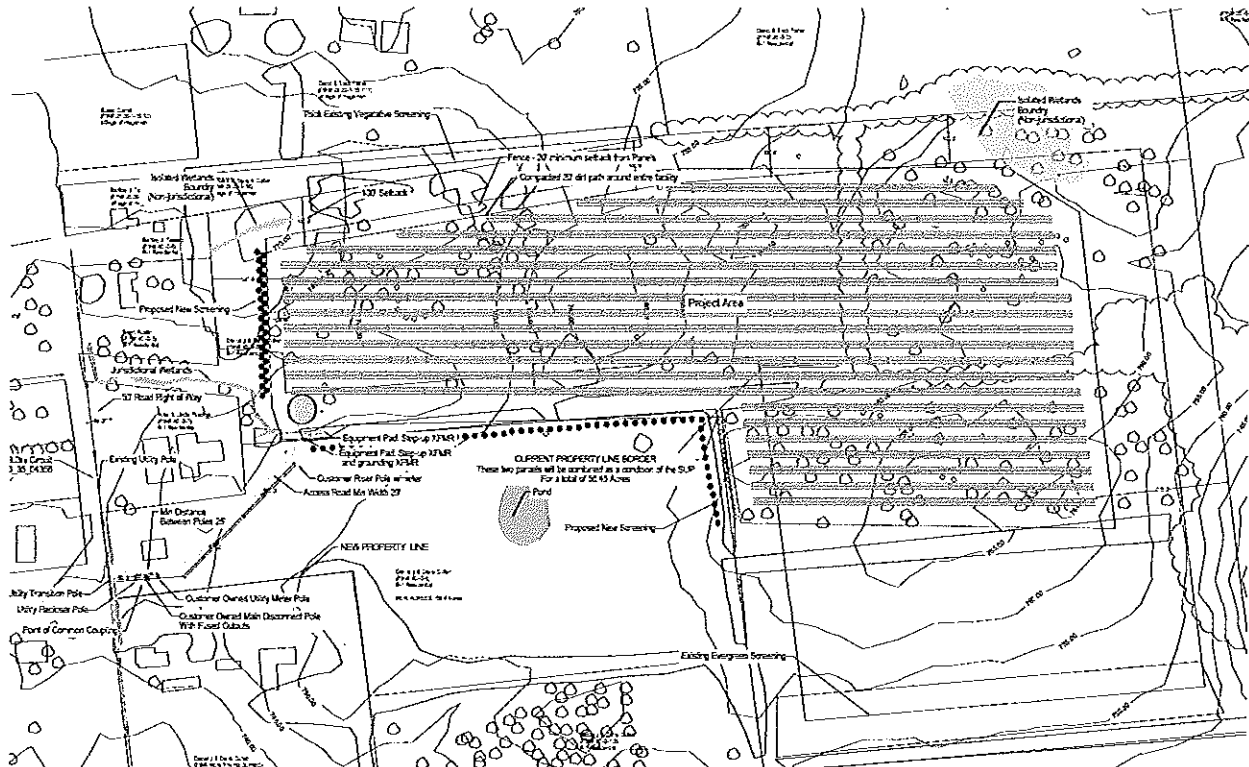
Prepared For:
Town of Amsterdam, NY



Manny's Corners Solar - SUP Application

1. Executive Summary

Community Power Group ("CPG") is developing a 5.0 MW solar photovoltaic project (the "Project") located at 139 Mannys Corners, Amsterdam NY 12010. The Project is located on vacant land (see Figure below) with agricultural and forested lands in all directions and only a few residential homes in the immediate vicinity. The project consists of a solar array with a nameplate capacity of 5.0 MW.



CPG has been asked to prepare a glare study to assess potential effects of glare on motorists travelling northbound and southbound on Manny Corners Road. To assess these potential glare effects, CPG utilized a glare modeling tool developed by the US Department of Energy for the Federal Aviation Administration (FAA) to protect aviation sensitive receptors called ForgeSolar. For this project, we have used the tool to assess sensitive areas along those roads using both the point receptor modelling (that looks at specific points along each road) as well as route receptor modeling which shows a continuum along the entire route. The receptor(s) assumed is a driver in a tractor trailer with a viewing position 10 feet above the roadway and assumes NO screening or vegetation.

For our assessment we plotted a route assuming two-way traffic on Manny's Corners Road and identified three receptor points. The analysis results identified the potential for glare to a driver

in their peripheral vision when going southbound on Manny's Corners Road at sunrise in the months of April and September. However, for the most part drivers are watching the road and not looking 75-90 degrees from the vehicle where the glare occurs. Glare can continue to occur to the side of the vehicle for approximately 1/4 of a mile. Assuming a vehicle traveling at 65 miles per hour, the duration of the glare event to the side of the vehicle would be approximately 13 seconds. It would be possible to see this glare during a 20-minute window around 6:00am in mid-April and the end of September on Manny's Corners Road.

This Technical Memorandum further describes the project, methodology, results, and mitigation.

2. Solar Glare Policy

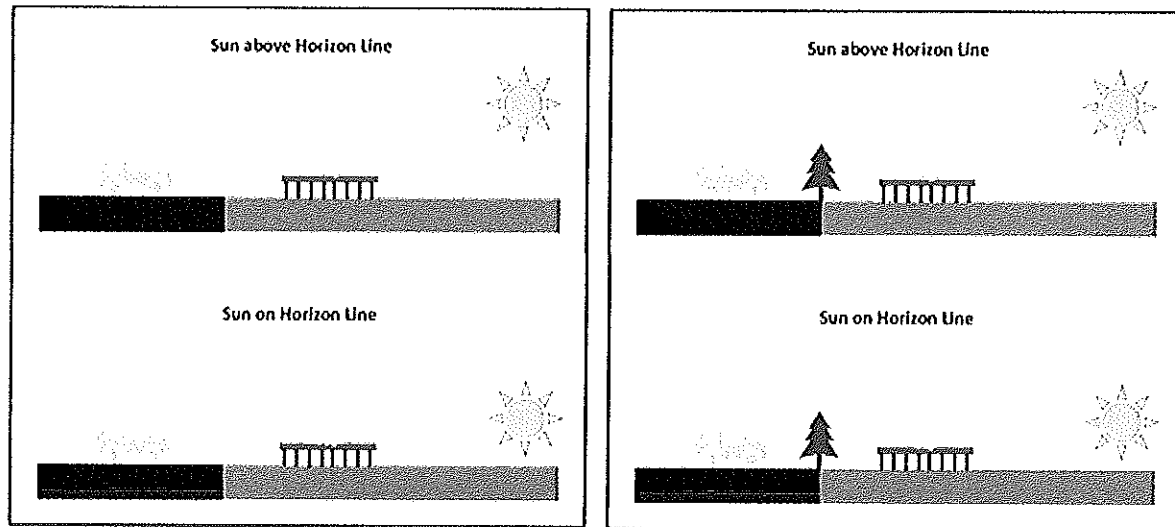
On October 23, 2013, the Federal Aviation Administration (FAA) published "Interim Policy, FAA Review of Solar Energy System Projects on Federally-Obligated Airport" in the Federal Register. The Policy sets forth methods for assessing glare and the standards for determining impact for projects proposed on airport property. It also requires the use of glare modeling to assess glare and directs project proposers to the Solar Glare Hazard Analysis Tool (SGHAT) which was developed by the US Department of Energy at the request of the FAA. The US Department of Defense has also adopted SGHAT and the associated requirements to analyze glare under Instruction (DODI) 4165.57. Given the critical safety issues associated with aviation, the model produces a credible result that is being used to evaluate other glare sensitive receptors such as specific road routes relating to vehicular traffic or the glare at specific vantage points. The tool takes topography and the height of the panels and the observation points into account. However, the tool does not have the ability to take into account existing or proposed vegetation. In our analysis we will provide an assessment of any proposed impacts from glare as well as methods to mitigate such glare through the use of vegetative screening.

3. Glare Methodology and Standard of Impact

Determination of glare occurrence from a solar PV project requires knowledge of the sun position, observer location, and the characteristics of the solar panels (e.g. tilt, orientation, location, extent, etc.). Vector algebra is then used to determine if glare is visible from the prescribed observation points. Figure 2 provides a simple representation of how the sun can produce glare on an air traffic control tower for a specific time and location. As the sun moves, the incidence of glare ends. The angle of the light source from the sun must be equal to the angle of the reflection on a receptor. Therefore, when receptors are close to the ground (like house or cars), the reflection is only possible when the sun is also close to the ground (i.e., near

Manny's Corners Solar - SUP Application

sunrise or sunset). As the sun moves, the incidence of glare ends. Once areas of potential glare are determined, appropriate vegetative screening can be utilized to mitigate any potential negative impacts.



The SGHAT model is a credible tool for predicting glare based on the characteristics of the project and the identified receptor. It produces results that identify three categories of glare: green (low potential for an after-image), yellow (potential for an after-image), and red (retinal burn). These categories are utilized for strict FAA Policy relating to air traffic controllers and avionic pilots. For non-aviation receptors, like a car, truck or house the results are simply used to determine if glare is predicted or not.

4. SGHAT Model Setup for Proposed Project

Regardless of the receptor to be analyzed, the model set-up entails locating the solar project, inputting its design characteristics, and identifying sensitive receptors for analysis. The position and movement of the sun throughout the year is built into the modeling program. For this solar project, the PV project polygon tool was used to draw the footprint of the solar array on SGHAT's interactive google map. The specific array attributes including a fixed panel system, 25° tilt angle and a 180° azimuth were input as was the average panel height of 5.25 feet (panel mid-height) above ground level (agl), and a panel surface with no anti-reflective coating as a baseline. As the area of interest are segments of highway on either side of the project site with relative straight paths of highway and flatness, we used the "route receptor tool" for this analysis. The observer route was set at 10 feet above ground level for trucks on the road (since cars are lower, they would be impacted less). The Figure below shows the location of the route relative to the project.



The glare analysis button was activated and the model evaluated glare from various sun angles at 1- minute intervals throughout the year to predict if glare could be observed by the sensitive receptors.

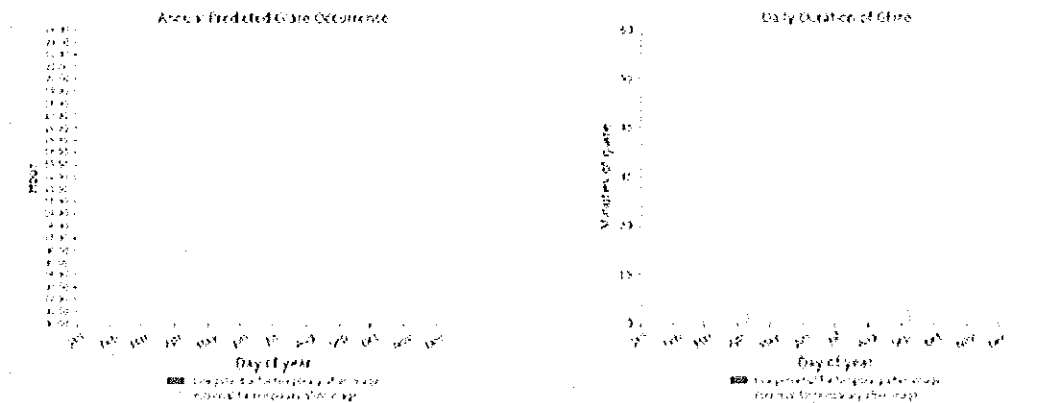
5. Glare Model Results

Point receptors: The model indicated the potential for glare on point receptors at two specific times. On Point Receptor 1, which is located on the northeast corner of the parcel the model predicts the potential for glare as the sun rises for vehicles heading north at approximately 6am to 6:10am in the months of April and September as follows:

Point Receptor: OP 1

177 minutes of yellow glare

0 minutes of green glare

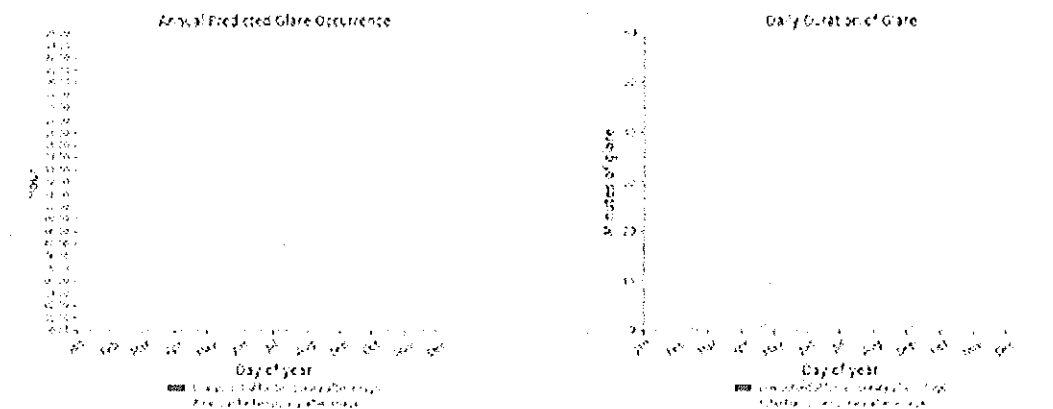


On Point Receptor 2, which is located to the south of the Point Receptor 1, the model predicts the potential for glare as the sun rises for vehicles heading north at approximately 6am to 6:20am in the months of April and September as follows:

Point Receptor: OP 2

698 minutes of yellow glare

0 minutes of green glare



There is no glare detected from Point Receptor 3.

Attachment XI – Three Line Diagram

~~See #11~~



labot@epc.com



and date of each attraction, and a description of the attraction.

© 2018 Lippincott Williams & Wilkins

**COMMUNITY POWER
GROUP**

5539 CONNECTICUT AVE, #42720
WASHINGTON DC 20015

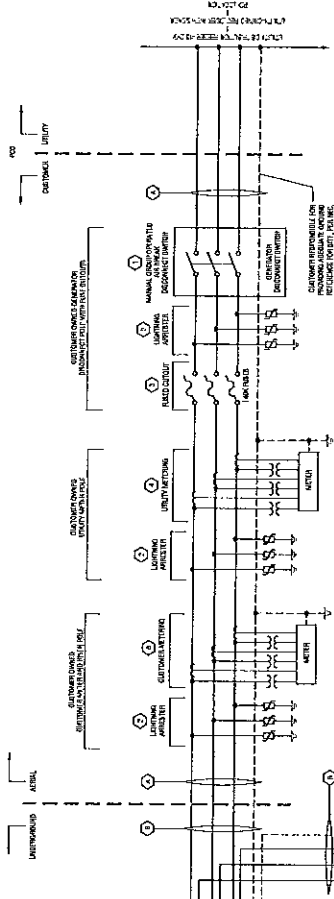
**5.0 MW
MANNY CORNERS**
MANNY CORNERS RD
AMSTERDAM, NY 12010

| | | |
|----------------|----|------|
| SP | IN | DATE |
| REVISIONS | | |
| PROJECT NUMBER | | |
| 2201740 | | |
| UNLESS OF | | |
| APP | | |
| REVISION TO | | |
| Q40 | | |
| DATE | | |
| JUN 2020 | | |
| SUBMISSION | | |
| DATE | | |

THREE LINE DIAGRAM

Learning Objectives

E101



| CITE SUMMARY | | TOTAL | ARRAY A | ARRAY B |
|--------------------------|--------|-------|---------|---------|
| AC PLANT PMS PRODUCTIONS | 8.00 | 8.00 | 7.00 | 1.00 |
| DC PLANT PMS PRODUCTIONS | 3.00 | 3.00 | 3.00 | 0.00 |
| DCAD PMS PRODUCTIONS | 1.00 | 1.00 | 1.00 | 0.00 |
| POVERTY CITY | 40 | 20 | 20 | 0.00 |
| MODULAR UNIT | 11,126 | 8,840 | 8,840 | 0.00 |
| WATER PMS DUBUNT | 300 | 125 | 125 | 0.00 |
| MODULO SITE RENTAL | 300 | 300 | 300 | 0.00 |

[illegible][illegible]

| AG TURK AND CONSULT JOHNSON | | | | |
|-----------------------------|-----|--|------|-------|
| LINE# | QTY | COMMODITY AND/OR SERVICE | UNIT | PRICE |
| A | 800 | CD # 454000 INTRADAY RPTG - # 454000 - 1 YEAR | - | - |
| B | 32 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| C | 10 | 7.5750 CD # 45400000 - 1 # 45400000 - 1 YEAR | 2000 | 910 |
| D | 100 | 2.0000 CD # 45400000 - 1 # 45400000 - 1 YEAR | 1000 | 110 |
| E | 750 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| F | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| G | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| H | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| I | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| J | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| K | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| L | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| M | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| N | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| O | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| P | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| Q | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| R | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| S | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| T | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| U | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| V | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| W | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| X | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| Y | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| Z | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AA | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AB | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AC | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AD | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AE | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AF | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AG | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AH | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AI | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AJ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AK | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AL | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AM | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AN | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AO | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AP | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AQ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AR | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AS | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AT | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AU | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AV | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AW | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AX | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AY | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| AZ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BA | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BB | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BC | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BD | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BE | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BF | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BG | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BH | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BI | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BJ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BK | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BL | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BM | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BN | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BO | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BP | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BQ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BR | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BS | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BT | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BU | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BV | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BW | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BX | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BY | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| BZ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CA | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CB | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CC | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CD | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CE | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CF | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CG | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CH | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CI | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CJ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CK | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CL | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CM | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CN | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CO | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CP | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CQ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CR | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CS | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CT | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CU | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CV | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CW | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CX | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CY | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| CZ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DA | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DB | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DC | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DD | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DE | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DF | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DG | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DH | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DI | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DJ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DK | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DL | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DM | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DN | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DO | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DP | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DQ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DR | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DS | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DT | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DU | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DV | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DW | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DX | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DY | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| DZ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EA | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EB | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EC | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| ED | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EE | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EF | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EG | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EH | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EI | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EJ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EK | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EL | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EM | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EN | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EO | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EP | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EQ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| ER | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| ES | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| ET | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EU | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EV | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EW | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EX | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EY | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| EZ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FA | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FB | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FC | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FD | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FE | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FF | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FG | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FH | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FI | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FJ | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FK | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FL | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FM | 10 | CD # 45400000 INTRADAY RPTG # 45400000 - 1 YEAR | 1000 | 110 |
| FN | | | | |

WIRE AND CONDUIT SCHEDULE NOTES:

1. **USE OF COMPARTMENTALIZATION SHALL BE PERMITTED FOR USE WITH ALL ALUMINUM CONDUCTORS. CONDUCTORS SHALL BE REPEATEDLY TESTED FOR CORROSION RESISTANCE TO MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA) STANDARD FOR ALUMINUM CONDUCTORS.**
2. **PERFORMANCE CRITERIA SHALL BE BASED ON THE FOLLOWING FACTORS: (1) CORROSION RESISTANCE TO MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA) STANDARD FOR ALUMINUM CONDUCTORS; (2) CONDUCTORS 4 AWG AND LARGER SHALL BE TESTED IN ALL TEMPERATURES.**
3. **ALL FINISHES SHALL BE BASED ON THE FOLLOWING FACTORS: (1) CORROSION RESISTANCE TO MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA) STANDARD FOR ALUMINUM CONDUCTORS; (2) CONDUCTORS 4 AWG AND LARGER SHALL BE TESTED IN ALL TEMPERATURES.**
4. **ALL FINISHES SHALL BE BASED ON THE FOLLOWING FACTORS: (1) CORROSION RESISTANCE TO MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA) STANDARD FOR ALUMINUM CONDUCTORS; (2) CONDUCTORS 4 AWG AND LARGER SHALL BE TESTED IN ALL TEMPERATURES.**
5. **ALL FINISHES SHALL BE BASED ON THE FOLLOWING FACTORS: (1) CORROSION RESISTANCE TO MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL MANUFACTURING ASSOCIATION (NEMA) STANDARD FOR ALUMINUM CONDUCTORS; (2) CONDUCTORS 4 AWG AND LARGER SHALL BE TESTED IN ALL TEMPERATURES.**

LINETYPE LEGEND:

| DATE | NEW EQUIPMENT | DISBURSED |
|----------|---------------|-----------|
| 10/1/00 | | |
| 10/2/00 | | |
| 10/3/00 | | |
| 10/4/00 | | |
| 10/5/00 | | |
| 10/6/00 | | |
| 10/7/00 | | |
| 10/8/00 | | |
| 10/9/00 | | |
| 10/10/00 | | |
| 10/11/00 | | |
| 10/12/00 | | |
| 10/13/00 | | |
| 10/14/00 | | |
| 10/15/00 | | |
| 10/16/00 | | |
| 10/17/00 | | |
| 10/18/00 | | |
| 10/19/00 | | |
| 10/20/00 | | |
| 10/21/00 | | |
| 10/22/00 | | |
| 10/23/00 | | |
| 10/24/00 | | |
| 10/25/00 | | |
| 10/26/00 | | |
| 10/27/00 | | |
| 10/28/00 | | |
| 10/29/00 | | |
| 10/30/00 | | |
| 10/31/00 | | |

GENERAL NOTES:

1. "UTILITY SHALL MEAN NATIONAL GRID."
2. MAINTAIN THE INTEGRITY OF ALL INFEEDS/EXCHANGERS CONSULT TO ENSTO, ENSTO, AND INVERTER EXCHANGERS AND BE DEALING WITH MEASUREMENTS DURING THE
3. COMPLIANCE WITH IEC 61010

ELECTRIC KEY NOTES:

- [illegible]



300 State Street, Suite 201
Rochester, NY 14614
585-454-0110
shelton.com



It is a violation of New York Education Law Article 140 §2d.7208, for any person, without selling under the direction of a licensed architect, professional engineer, or land surveyor, to offer or sell them in any way, if such person purporting to be an architect, engineer, or land surveyor is misrepresenting himself as such, or if he is not a duly licensed architect, engineer, or land surveyor and yet attempts to have them bear their name and notation "authorized by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2011 Kaplan Associates

**COMMUNITY POWER
GROUP**

3600 CONNECTICUT AVE., #42
WASHINGTON DC 20015

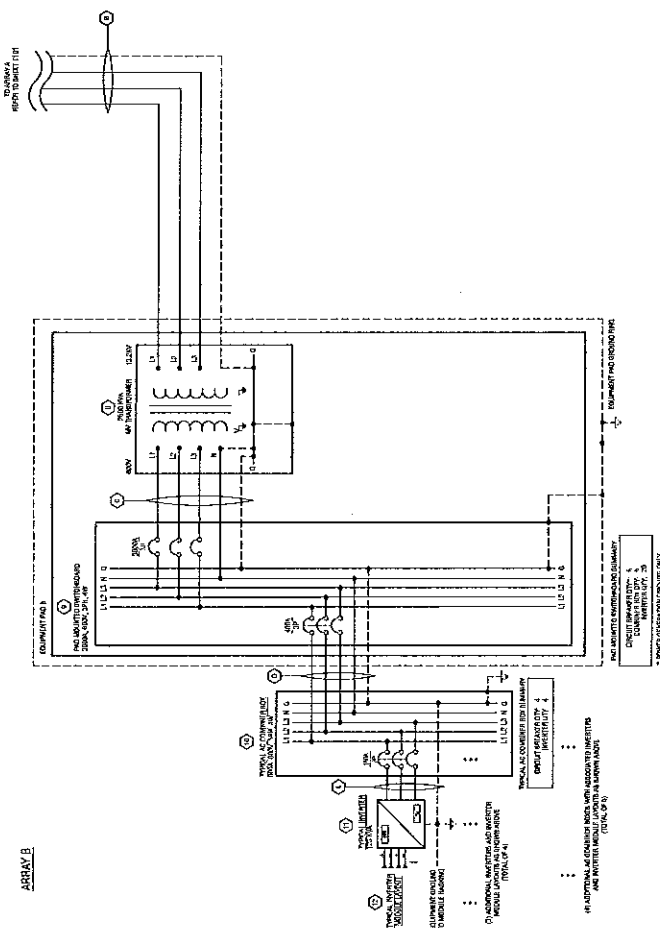
5.0 MW
MANNY CORNERS
MANNY CORNERS RD
AMSTERDAM, NY 12010

[illegible]

THREE LINE DIAGRAM

E102

RESEARCH DESIGN

[illegible]

| UTILITY | | INWATER PROTECTION REQUIREMENTS | | | | BIOASSAY CLASSIFICATION | |
|----------|--------------------|---------------------------------|----|------|------|-------------------------|-----|
| ROUTE | INWATER PROTECTION | VOLUME | KZ | % WA | DTH | CLASS | SM |
| Site-1 | INWATER PROTECTION | - | - | % WA | 0.1% | 1 | 1 |
| Site-2 | INWATER PROTECTION | - | - | % WA | 0.1% | 2 | 2 |
| Site-3 | INWATER PROTECTION | - | - | % WA | 0.1% | 3 | 3 |
| Site-4 | INWATER PROTECTION | - | - | % WA | 0.1% | 4 | 4 |
| Site-5 | INWATER PROTECTION | - | - | % WA | 0.1% | 5 | 5 |
| Site-6 | INWATER PROTECTION | - | - | % WA | 0.1% | 6 | 6 |
| Site-7 | INWATER PROTECTION | - | - | % WA | 0.1% | 7 | 7 |
| Site-8 | INWATER PROTECTION | - | - | % WA | 0.1% | 8 | 8 |
| Site-9 | INWATER PROTECTION | - | - | % WA | 0.1% | 9 | 9 |
| Site-10 | INWATER PROTECTION | - | - | % WA | 0.1% | 10 | 10 |
| Site-11 | INWATER PROTECTION | - | - | % WA | 0.1% | 11 | 11 |
| Site-12 | INWATER PROTECTION | - | - | % WA | 0.1% | 12 | 12 |
| Site-13 | INWATER PROTECTION | - | - | % WA | 0.1% | 13 | 13 |
| Site-14 | INWATER PROTECTION | - | - | % WA | 0.1% | 14 | 14 |
| Site-15 | INWATER PROTECTION | - | - | % WA | 0.1% | 15 | 15 |
| Site-16 | INWATER PROTECTION | - | - | % WA | 0.1% | 16 | 16 |
| Site-17 | INWATER PROTECTION | - | - | % WA | 0.1% | 17 | 17 |
| Site-18 | INWATER PROTECTION | - | - | % WA | 0.1% | 18 | 18 |
| Site-19 | INWATER PROTECTION | - | - | % WA | 0.1% | 19 | 19 |
| Site-20 | INWATER PROTECTION | - | - | % WA | 0.1% | 20 | 20 |
| Site-21 | INWATER PROTECTION | - | - | % WA | 0.1% | 21 | 21 |
| Site-22 | INWATER PROTECTION | - | - | % WA | 0.1% | 22 | 22 |
| Site-23 | INWATER PROTECTION | - | - | % WA | 0.1% | 23 | 23 |
| Site-24 | INWATER PROTECTION | - | - | % WA | 0.1% | 24 | 24 |
| Site-25 | INWATER PROTECTION | - | - | % WA | 0.1% | 25 | 25 |
| Site-26 | INWATER PROTECTION | - | - | % WA | 0.1% | 26 | 26 |
| Site-27 | INWATER PROTECTION | - | - | % WA | 0.1% | 27 | 27 |
| Site-28 | INWATER PROTECTION | - | - | % WA | 0.1% | 28 | 28 |
| Site-29 | INWATER PROTECTION | - | - | % WA | 0.1% | 29 | 29 |
| Site-30 | INWATER PROTECTION | - | - | % WA | 0.1% | 30 | 30 |
| Site-31 | INWATER PROTECTION | - | - | % WA | 0.1% | 31 | 31 |
| Site-32 | INWATER PROTECTION | - | - | % WA | 0.1% | 32 | 32 |
| Site-33 | INWATER PROTECTION | - | - | % WA | 0.1% | 33 | 33 |
| Site-34 | INWATER PROTECTION | - | - | % WA | 0.1% | 34 | 34 |
| Site-35 | INWATER PROTECTION | - | - | % WA | 0.1% | 35 | 35 |
| Site-36 | INWATER PROTECTION | - | - | % WA | 0.1% | 36 | 36 |
| Site-37 | INWATER PROTECTION | - | - | % WA | 0.1% | 37 | 37 |
| Site-38 | INWATER PROTECTION | - | - | % WA | 0.1% | 38 | 38 |
| Site-39 | INWATER PROTECTION | - | - | % WA | 0.1% | 39 | 39 |
| Site-40 | INWATER PROTECTION | - | - | % WA | 0.1% | 40 | 40 |
| Site-41 | INWATER PROTECTION | - | - | % WA | 0.1% | 41 | 41 |
| Site-42 | INWATER PROTECTION | - | - | % WA | 0.1% | 42 | 42 |
| Site-43 | INWATER PROTECTION | - | - | % WA | 0.1% | 43 | 43 |
| Site-44 | INWATER PROTECTION | - | - | % WA | 0.1% | 44 | 44 |
| Site-45 | INWATER PROTECTION | - | - | % WA | 0.1% | 45 | 45 |
| Site-46 | INWATER PROTECTION | - | - | % WA | 0.1% | 46 | 46 |
| Site-47 | INWATER PROTECTION | - | - | % WA | 0.1% | 47 | 47 |
| Site-48 | INWATER PROTECTION | - | - | % WA | 0.1% | 48 | 48 |
| Site-49 | INWATER PROTECTION | - | - | % WA | 0.1% | 49 | 49 |
| Site-50 | INWATER PROTECTION | - | - | % WA | 0.1% | 50 | 50 |
| Site-51 | INWATER PROTECTION | - | - | % WA | 0.1% | 51 | 51 |
| Site-52 | INWATER PROTECTION | - | - | % WA | 0.1% | 52 | 52 |
| Site-53 | INWATER PROTECTION | - | - | % WA | 0.1% | 53 | 53 |
| Site-54 | INWATER PROTECTION | - | - | % WA | 0.1% | 54 | 54 |
| Site-55 | INWATER PROTECTION | - | - | % WA | 0.1% | 55 | 55 |
| Site-56 | INWATER PROTECTION | - | - | % WA | 0.1% | 56 | 56 |
| Site-57 | INWATER PROTECTION | - | - | % WA | 0.1% | 57 | 57 |
| Site-58 | INWATER PROTECTION | - | - | % WA | 0.1% | 58 | 58 |
| Site-59 | INWATER PROTECTION | - | - | % WA | 0.1% | 59 | 59 |
| Site-60 | INWATER PROTECTION | - | - | % WA | 0.1% | 60 | 60 |
| Site-61 | INWATER PROTECTION | - | - | % WA | 0.1% | 61 | 61 |
| Site-62 | INWATER PROTECTION | - | - | % WA | 0.1% | 62 | 62 |
| Site-63 | INWATER PROTECTION | - | - | % WA | 0.1% | 63 | 63 |
| Site-64 | INWATER PROTECTION | - | - | % WA | 0.1% | 64 | 64 |
| Site-65 | INWATER PROTECTION | - | - | % WA | 0.1% | 65 | 65 |
| Site-66 | INWATER PROTECTION | - | - | % WA | 0.1% | 66 | 66 |
| Site-67 | INWATER PROTECTION | - | - | % WA | 0.1% | 67 | 67 |
| Site-68 | INWATER PROTECTION | - | - | % WA | 0.1% | 68 | 68 |
| Site-69 | INWATER PROTECTION | - | - | % WA | 0.1% | 69 | 69 |
| Site-70 | INWATER PROTECTION | - | - | % WA | 0.1% | 70 | 70 |
| Site-71 | INWATER PROTECTION | - | - | % WA | 0.1% | 71 | 71 |
| Site-72 | INWATER PROTECTION | - | - | % WA | 0.1% | 72 | 72 |
| Site-73 | INWATER PROTECTION | - | - | % WA | 0.1% | 73 | 73 |
| Site-74 | INWATER PROTECTION | - | - | % WA | 0.1% | 74 | 74 |
| Site-75 | INWATER PROTECTION | - | - | % WA | 0.1% | 75 | 75 |
| Site-76 | INWATER PROTECTION | - | - | % WA | 0.1% | 76 | 76 |
| Site-77 | INWATER PROTECTION | - | - | % WA | 0.1% | 77 | 77 |
| Site-78 | INWATER PROTECTION | - | - | % WA | 0.1% | 78 | 78 |
| Site-79 | INWATER PROTECTION | - | - | % WA | 0.1% | 79 | 79 |
| Site-80 | INWATER PROTECTION | - | - | % WA | 0.1% | 80 | 80 |
| Site-81 | INWATER PROTECTION | - | - | % WA | 0.1% | 81 | 81 |
| Site-82 | INWATER PROTECTION | - | - | % WA | 0.1% | 82 | 82 |
| Site-83 | INWATER PROTECTION | - | - | % WA | 0.1% | 83 | 83 |
| Site-84 | INWATER PROTECTION | - | - | % WA | 0.1% | 84 | 84 |
| Site-85 | INWATER PROTECTION | - | - | % WA | 0.1% | 85 | 85 |
| Site-86 | INWATER PROTECTION | - | - | % WA | 0.1% | 86 | 86 |
| Site-87 | INWATER PROTECTION | - | - | % WA | 0.1% | 87 | 87 |
| Site-88 | INWATER PROTECTION | - | - | % WA | 0.1% | 88 | 88 |
| Site-89 | INWATER PROTECTION | - | - | % WA | 0.1% | 89 | 89 |
| Site-90 | INWATER PROTECTION | - | - | % WA | 0.1% | 90 | 90 |
| Site-91 | INWATER PROTECTION | - | - | % WA | 0.1% | 91 | 91 |
| Site-92 | INWATER PROTECTION | - | - | % WA | 0.1% | 92 | 92 |
| Site-93 | INWATER PROTECTION | - | - | % WA | 0.1% | 93 | 93 |
| Site-94 | INWATER PROTECTION | - | - | % WA | 0.1% | 94 | 94 |
| Site-95 | INWATER PROTECTION | - | - | % WA | 0.1% | 95 | 95 |
| Site-96 | INWATER PROTECTION | - | - | % WA | 0.1% | 96 | 96 |
| Site-97 | INWATER PROTECTION | - | - | % WA | 0.1% | 97 | 97 |
| Site-98 | INWATER PROTECTION | - | - | % WA | 0.1% | 98 | 98 |
| Site-99 | INWATER PROTECTION | - | - | % WA | 0.1% | 99 | 99 |
| Site-100 | INWATER PROTECTION | - | - | % WA | 0.1% | 100 | 100 |

| EQUIPMENT SCHEDULE | | | |
|--------------------|-----------------|--------------|--------|
| QUANTITY | DESCRIPTION | MANUFACTURER | PN |
| 17.00 | SOLAR KIOSK | CHANGKONG | 3800 |
| 1 | PC MONITOR | BAIJIAN | 850000 |
| 40 | 40 CHANNEL RFE | TNS | 770 |
| 2 | 40 CHANNEL RFE | TNS | 780 |
| 7 | 333-M* UPS/REAR | TNS | 770 |

[illegible]

WIRE AND CONDUIT SCHEDULE NOTES:

- [illegible]

INETYPE LEGEND:

| NEW EQUIPMENT | GRAND TOTAL |
|---------------|-------------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |
| 7 | 7 |
| 8 | 8 |
| 9 | 9 |
| 10 | 10 |
| 11 | 11 |
| 12 | 12 |
| 13 | 13 |
| 14 | 14 |
| 15 | 15 |
| 16 | 16 |
| 17 | 17 |
| 18 | 18 |
| 19 | 19 |
| 20 | 20 |
| 21 | 21 |
| 22 | 22 |
| 23 | 23 |
| 24 | 24 |
| 25 | 25 |
| 26 | 26 |
| 27 | 27 |
| 28 | 28 |
| 29 | 29 |
| 30 | 30 |
| 31 | 31 |
| 32 | 32 |
| 33 | 33 |
| 34 | 34 |
| 35 | 35 |
| 36 | 36 |
| 37 | 37 |
| 38 | 38 |
| 39 | 39 |
| 40 | 40 |
| 41 | 41 |
| 42 | 42 |
| 43 | 43 |
| 44 | 44 |
| 45 | 45 |
| 46 | 46 |
| 47 | 47 |
| 48 | 48 |
| 49 | 49 |
| 50 | 50 |
| 51 | 51 |
| 52 | 52 |
| 53 | 53 |
| 54 | 54 |
| 55 | 55 |
| 56 | 56 |
| 57 | 57 |
| 58 | 58 |
| 59 | 59 |
| 60 | 60 |
| 61 | 61 |
| 62 | 62 |
| 63 | 63 |
| 64 | 64 |
| 65 | 65 |
| 66 | 66 |
| 67 | 67 |
| 68 | 68 |
| 69 | 69 |
| 70 | 70 |
| 71 | 71 |
| 72 | 72 |
| 73 | 73 |
| 74 | 74 |
| 75 | 75 |
| 76 | 76 |
| 77 | 77 |
| 78 | 78 |
| 79 | 79 |
| 80 | 80 |
| 81 | 81 |
| 82 | 82 |
| 83 | 83 |
| 84 | 84 |
| 85 | 85 |
| 86 | 86 |
| 87 | 87 |
| 88 | 88 |
| 89 | 89 |
| 90 | 90 |
| 91 | 91 |
| 92 | 92 |
| 93 | 93 |
| 94 | 94 |
| 95 | 95 |
| 96 | 96 |
| 97 | 97 |
| 98 | 98 |
| 99 | 99 |
| 100 | 100 |

GENERAL NOTES:

1. **"TUTUUP" SHALL MEAN NATIONAL GRID**
2. **MAINTAIN THE INTEGRITY OF ALL NINE-4 INCLOSURES, COMBUST TO FERTILE PANELS AND INVERTED EXCEL DOWNS AND AS DEPICTED WITH WEATHERPROOF GABLE THIS.**

ELECTRIC KEY NOTES:

- [illegible]

Attachment XII – General Site Plans

Attachment IX – Decommissioning Plan

Mannys Corners Community Solar
Decommissioning Plan

October 2020

Prepared For:
Town of Amsterdam, NY



Manny's Corners Solar - SUP Application

1. Executive summary

The 139 Mannys Corners Solar Farm is proposed to be a 5 Megawatt (MW) solar energy conversion system located at 139 Mannys Corners Road, Amsterdam NY 12010. The facility will use solar photovoltaic technology and a single axis tracking racking system. The project will cover approximately 25 acres. As noted in this report the estimated cost of decommissioning the system is \$144,250. These amounts do not include the salvage value of the components, which has been provided in a separate document.

2. Project information

| | |
|------------------------|--|
| Solar Project Address: | 139 Mannys Corners Road, Amsterdam, New York 12010 |
| Parcel ID: | 40.-2-4 |
| Solar Project Size: | up to 5 MWs AC (less than 25 acre facility) |
| Solar Project Type: | Community Solar |
| Land Agreement: | Solar Lease Agreement with Daniel and Dana Cullen |

3. Decommissioning of the Solar Facility

At the time of decommissioning, the installed components will be removed, reused, disposed of, and recycled, where possible. The Facility Site will be restored to a state similar to its pre-construction condition. All removal of equipment will be done in accordance with any applicable regulations and manufacturer recommendations. All applicable permits will be acquired.

3.1 Equipment Dismantling and Removal

Generally, the decommissioning of a Solar Facility proceeds in the reverse order of the installation.

1. The Solar Facility shall be disconnected from the utility power grid.
2. PV modules shall be disconnected, collected, and disposed at an approved solar module recycler or reused / resold on the market. Although the PV modules will not be cutting edge technology at the time of decommissioning, they are estimated to still produce 80% of the original electricity output at year 25 and retain value for many years.

3. All aboveground and underground electrical interconnection and distribution cables shall be removed and disposed off-site by an approved facility.
4. Galvanized steel PV module support and racking system support posts shall be removed and disposed off-site by an approved facility.
5. Electrical and electronic devices, including transformers and inverters shall be removed and disposed off-site by an approved facility.
6. Concrete foundations shall be removed and disposed off-site by an approved facility.
7. Fencing shall be removed and will be disposed off-site by an approved facility.

3.2 Environmental Effects

Decommissioning activities, particularly the removal of project components could result in environmental effects similar to those of the construction phase. Mitigation measures similar to those employed during the construction phase of the Solar Facility will be implemented. These will remain in place until the site is stabilized in order to mitigate erosion and silt/sediment runoff and any impacts on the significant natural features or water bodies located adjacent to the Facility Site.

Road traffic will temporarily increase due to the movement of decommissioning crews and equipment. There may be an increase in particulate matter (dust) in adjacent areas during the decommissioning phase. Decommissioning activities may lead to temporary elevated noise levels from heavy machinery and an increase in trips to the project location. Work will be undertaken during daylight hours and conform to any applicable restrictions.

3.3 Site Restoration

Through the decommissioning phase, the Facility Site will be restored to a state similar to its pre-construction condition. All project components will be removed. Rehabilitated lands may be seeded with a low-growing species such as clover to help stabilize soil conditions, enhance soil structure, and increase soil fertility.

3.4 Managing Materials and Waste

During the decommissioning phase a variety of excess materials and wastes will be generated. Most of the materials used in a Solar Facility are reusable or recyclable and some equipment may have manufacturer take-back and recycling requirements.

Manny's Corners Solar - SUP Application

Any remaining materials will be removed and disposed of off-site at an appropriate facility. CPG will establish policies and procedures to maximize recycling and reuse and will work with manufacturers, local subcontractors, and waste firms to segregate material to be disposed of, recycled, or reused.

CPG will be responsible for the logistics of collecting and recycling the PV modules and to minimize the potential for modules to be discarded in the municipal waste stream.

3.5 Decommissioning During Construction or Abandonment Before Maturity

In case of abandonment of the Solar Facility during construction or before its 25 year maturity, the same decommissioning procedures as for decommissioning after ceasing operation will be undertaken and the same decommissioning and restoration program will be honored, in as far as construction proceeded before abandonment. The Solar Facility will be dismantled, materials removed and disposed, the soil that was removed will be graded and the site restored to a state similar to its pre-construction condition.

3.6 Decommissioning Notification

Decommissioning activities may require the notification of stakeholders given the nature of the works at the Facility Site. The local municipality in particular will be notified prior to commencement of any decommissioning activities. Six months prior to decommissioning, CPG will update their list of stakeholders and notify appropriate municipalities of decommissioning activities.

4. Management of Excess Materials and Waste

| Material / Waste | Means of Managing Excess Materials and Waste |
|---|---|
| PV panels | If there is no possibility for reuse, the panels will either be returned to the manufacturer for appropriate disposal or will be transported to a recycling facility where the glass, metal and semiconductor materials will be separated and recycled. |
| Metal array mounting racks and steel supports | These materials will be disposed off-site at an approved facility. |

Manny's Corners Solar - SUP Application

| | |
|---|--|
| Transformers and substation components | The small amount of oil from the transformers will be removed on-site to reduce the potential for spills and will be transported to an approved facility for disposal. The substation transformer and step-up transformers in the inverter units will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices. |
| Inverters, fans, fixtures | The metal components of the inverters, fans and fixtures will be disposed of or recycled, where possible. Remaining components will be disposed of in accordance with the standards of the day. |
| Gravel (or other granular) | It is possible that the municipality may accept uncontaminated material without processing for use on local roads, however, for the purpose of this report it is assumed that the material will be removed from the project location by truck to a location where the aggregate can be processed for salvage. It will then be reused as fill for construction. It is not expected that any such material will be contaminated. |
| Geotextile fabric | It is assumed that during excavation of the aggregate, a large portion of the geotextile will be "picked up" and sorted out of the aggregate at the aggregate reprocessing site. Geotextile fabric that is remaining or large pieces that can be readily removed from the excavated aggregate will be disposed of off-site at an approved disposal facility. |
| Concrete inverter/transformer Foundations | Concrete foundations will be broken down and transported by certified and licensed contractors to a recycling or approved disposal facility. |
| Cables and wiring | The electrical line that connects the substation to the point of common coupling will be disconnected and disposed of at an approved facility. Support poles, if made of untreated wood, will be chipped for reuse. Associated electronic equipment (isolation switches, fuses, metering) will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices. |

Manny's Corners Solar - SUP Application

| | |
|---------|---|
| Fencing | Fencing will be removed and recycled at a metal recycling facility. |
| Debris | Any remaining debris on the site will be separated into recyclables/residual wastes and will be transported from the site and managed as appropriate. |

5. Costs of decommissioning

The costs below are the current estimated costs to decommission a 5 MWac Solar Facility, based on guidance from NYSERDA and estimates from the New York solar market. The salvage values of valuable recyclable materials (aluminum, steel, copper, etc) are not factored into the below costs. The scrap value will be determined on current market rates at the time of salvage.

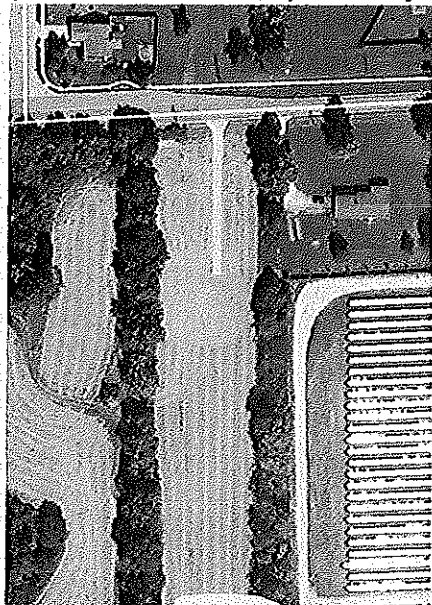
| Tasks | Estimated Cost (\$) |
|--------------------------------------|---------------------|
| Remove Panels | \$6,150 |
| Dismantle Racks | \$30,850 |
| Remove and Load Electrical Equipment | \$4,600 |
| Break up Concrete Pads | \$3,750 |
| Remove Racks | \$19,500 |
| Remove Cable | \$16,250 |
| Remove Ground Screws and Power Poles | \$34,600 |
| Remove Fence | \$12,300 |
| Grading | \$10,000 |
| Seed Disturbed Areas | \$650 |
| Truck to Recycling Center | \$5,600 |
| Total | \$144,250 |

Attachment XIII – Site Plan with Property Lines

See xiv

Attachment XIV – Property Evaluation Study

Dominion INDY III Solar Farm: Adjacent Property 9



Sept 2014



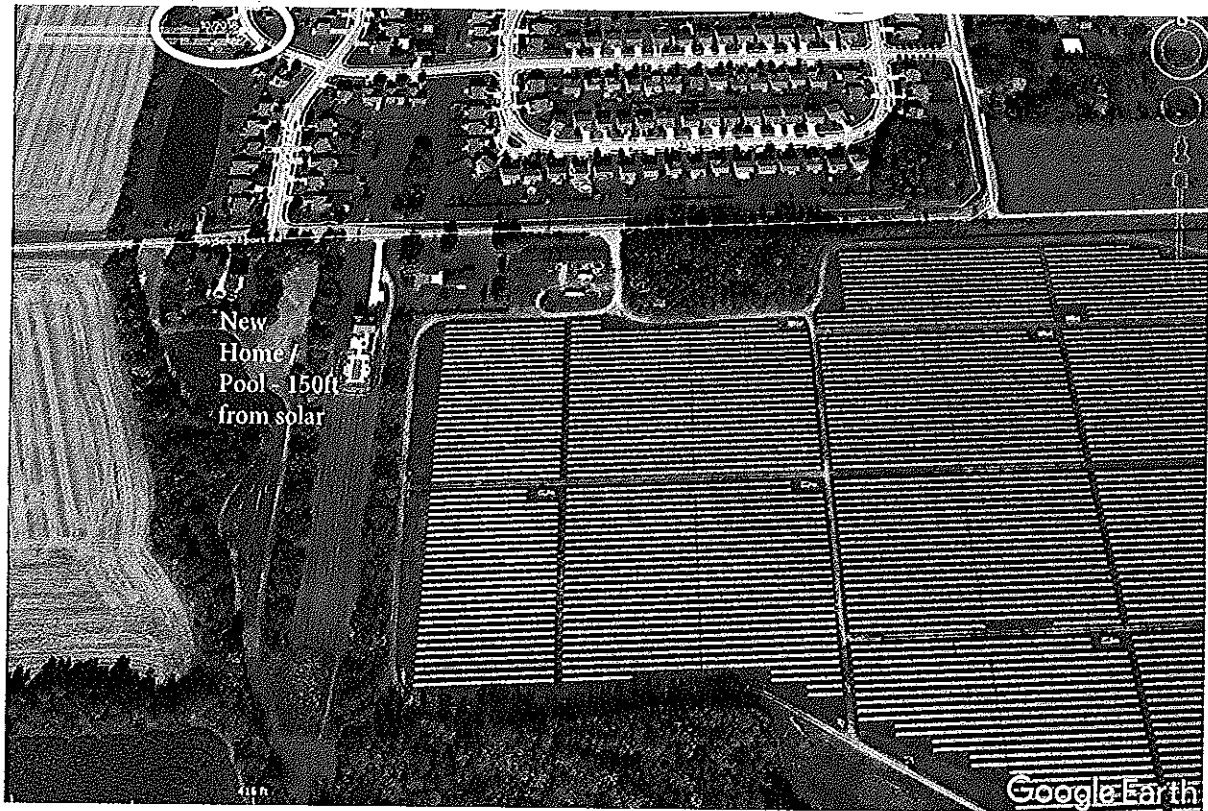
Oct 2016

Market Price Analysis
2012 - Pre-Solar Construction



Manny's Corners Solar - SUP Application

2016 - Post Construction - 8.6 MW / 134 Acres



Manny Corner's Community Solar Garden

139 Manny Corners Road, Amsterdam, NY 12010

Special Use Permit Plans

PREPARED FOR

REVISIONS:

DATE COMMENT

A 10/20/2020

REGIONAL MAP



VICINITY MAP



CONTACT INFORMATION

| | COMPANY | CONTACT | PHONE | ADDRESS |
|-------------------------|----------------------------|---------|--------------|---------|
| PROJECT OWNER/DEVELOPER | Community Power Group, LLC | | 202-844-6423 | 536 200 |
| EPC CONTRACTOR | TBD | TBD | TBD | TBD |
| CIVIL ENGINEER | | TBD | TBD | TBD |

PROJECT PARCEL NUMBER

40-2-1 40-2-2

Sheet List Table

| Sheet Number | Sheet Title |
|--------------|----------------------|
| T.100 | Cover |
| C.100 | Stamped Site Plan |
| C.200 | New Parcel Lines |
| C.300 | Site Plan - Topo |
| C.500 | Construction Details |
| C.501 | Construction Details |
| C.502 | Routing |
| C.600 | Landscape Details |

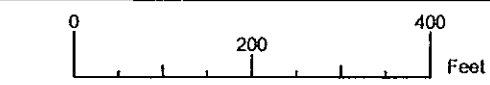
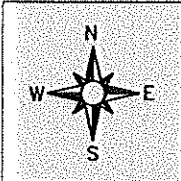
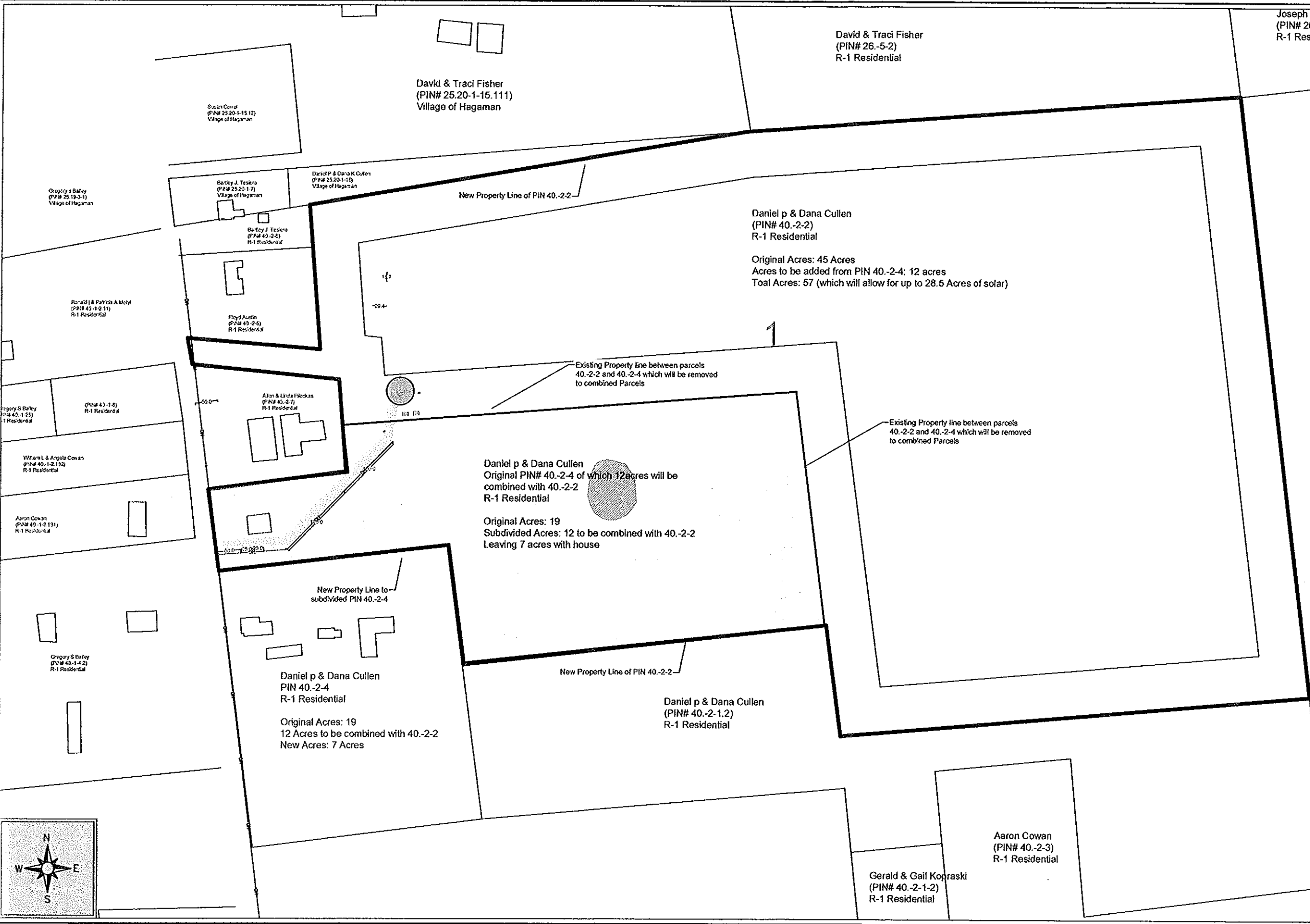
5MWac
Community Solar
Garden

Cover

ISSUED FOR SUBMISSION

DATE: 10/20/2020

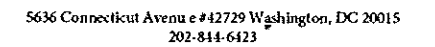
SHEET: T.100



| | | | |
|-----|-----|-----|-----|
| ### | ### | ### | ### |
| ### | ### | ### | ### |

| | | | | |
|-------------------|---|--------------|----------|--------------------------|
| Engineering Stamp | Company Contact Info | COMPANY LOGO | Customer | Sheet Name |
| | Company Name: Community Power Group Company Address: 5635 Connecticut Ave #42729 Washington, DC 20015 Company Phone: 202-844-8423 Company FAX: 202-844-8423 Company E-mail: mborhowski@communitypowergroup.com | | Project | C.200 - New Parcel Lines |
| | | | Location | Designed By |
| | | | | Project number |
| | | | | Sheet Title |
| | | | | Topo |
| | | | | Sheets |
| | | | | Issue |
| | | | | Sheet Number |

| | | | |
|-----------------------------------|-----------------------|--------------------------|---------------------|
| SITE LOCATION | | | |
| COPY SITE LOCATION FROM MAPS HERE | | | |
| GENERAL NOTES | | | |
| SHEET SUMMARY | | | |
| PROJECT INFORMATION | | | |
| Project Latitude | 42.964284 | Min. Ambient Temperature | 0°C |
| Project Longitude | -74.143552 | Max. Ambient Temperature | 40°C |
| Utility Name | National Grid | Meter Number | Open |
| NYISO | F | County | Montgomery |
| | | AHU | Town of Amsterdam |
| ARRAY INFORMATION | | | |
| ARRAY 1 | | | |
| Module Name | ### | Inverter | (40) SunGrow-125HIV |
| Tilt Angle 30 | No. of Modules 17,249 | DC String Length 28 | No. of Strings 616 |
| ARRAY 2 | | | |
| Module Name | | Inverter | |
| Tilt Angle | No. of Modules | DC String Length | No. of Strings |
| ARRAY 3 | | | |
| Module Name | | Inverter | |
| Tilt Angle | No. of Modules | DC String Length | No. of Strings |
| SCALE: | | | |



Manny Cornery's Community Solar Garden
5MWac


| PROJECT INFORMATION | | | |
|-------------------------|---------------|--------------------------|-------------------|
| Project Latitude | 42.964284 | Min. Ambient Temperature | 0c |
| Project Longitude | -74.143552 | Max. Ambient Temperature | 40c |
| Utility Name | National Grid | Meter Number | Unknown |
| Wind Exposure Category | | Wind Speed | 0 |
| Risk Category | | North Direction | 0.0 |
| Interconnection Voltage | 13.2kv | AHJ | Town of Amsterdam |


| | | | |
|----------------|--|-----------------------|----------------------|
| ARRAY 1 | | | |
| Module Name | | ### | |
| Inverter | | (40) SunGrow-125HV | |
| Tilt Angle 30 | | No. of Modules 17,248 | DC String Length 28 |
| | | No. of Strings 616 | |
| ARRAY 2 | | | |
| Module Name | | ### | |
| Inverter | | ### | |
| Tilt Angle ### | | No. of Modules ### | DC String Length ### |
| | | No. of Strings ### | |
| ARRAY 3 | | | |
| Module Name | | ### | |
| Inverter | | ### | |
| Tilt Angle ### | | No. of Modules ### | DC String Length ### |
| | | No. of Strings ### | |

SCALE

| | | | |
|--------------------|-------------|-------|--------------|
| Designed By ### | Sheet Title | | |
| Project number ### | Sheets | Issue | Sheet Number |



| Rev | Description | Date | Drawn By | Engineering Stamp | Company Contact Info | Customer | COMMUNITY POWER GROUP | Sheet Name SCALE | | | | |
|-----|-------------|------|----------|---|---|----------|--|---------------------|-----|-------------|-------|--------------|
| ### | ### | ### | ### |  | Company Name: COMMUNITY POWER GROUP | Project | MANNY CORNERS 5.0 MW | C-100 - Site Plan | | | | |
| ### | ### | ### | ### | | Company Address: 5636 Connecticut Ave, #42729 Washington DC, 20015 | | | | | | | |
| ### | ### | ### | ### | | Company Phone: | Location | MANNY CORNERS RD AMSTERDAM, NY 12010 | Designed By | ### | Sheet Title | | |
| ### | ### | ### | ### | | Company FAX: | | | Project number | ### | Sheets | Issue | Sheet Number |
| ### | ### | ### | ### | | Company E-mail: | | | | | | | |



300 State Street, Suite 201
Rochester, NY 14614
585-454-6110
labella@pc.com

Professional Engineer:

FE Seal:

DRAWING ISSUE

☐ Preliminary ☐ Construction
☐ Customer Approval ☐ As-built
☒ Permitting ☐ Other

REVISIONS

| Rev | By | App | Description | Date |
|-----|----|-----|-------------|------|
| | | | | |
| | | | | |
| | | | | |

Sheet Name:

AGRICULTURAL FENCE DETAIL

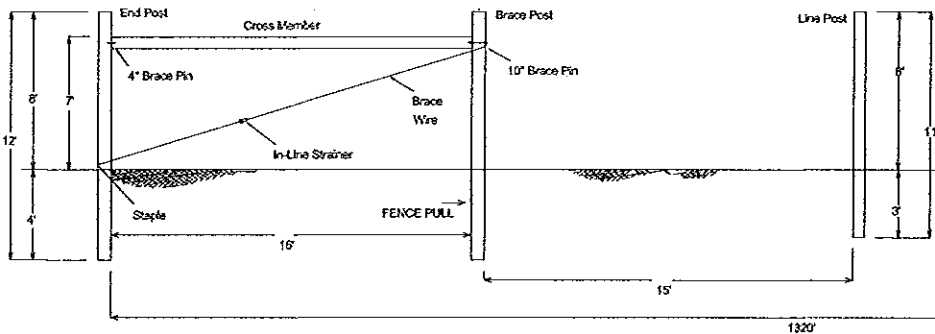
Scale:

Project ID: TBD

Sheet No:

C.500

End Brace



| End Brace Material Specifications | | |
|-----------------------------------|----------|---|
| Item | Quantity | Description |
| Brace Posts | 2 | 12" x 7" Pressure Treated Wood Posts |
| Cross Members | 1 | 15' x 6" Pressure Treated Wood Posts* |
| Brace Pins | 1 | 1/2" x 4" Galvanized Pin |
| Brace Pins | 2 | 1/2" x 10" Galvanized Pin |
| Brace Wire | 1 | Double Wrap 12 1/2 ga Class 3 High Tensile Wire |
| Wire Strainer | 1 | Ratchet Type In-Line Strainer |
| Staples | 2 | 1 3/4" Class 3 Double Barbed |

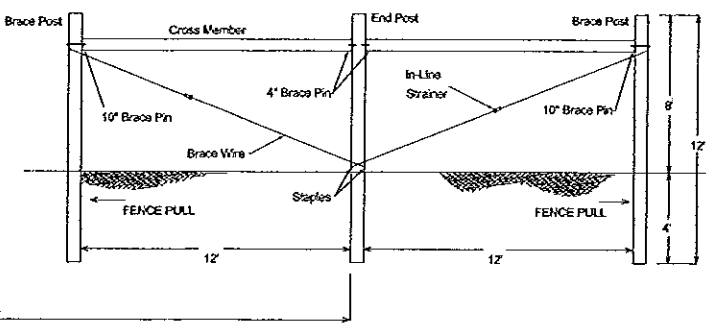
*2 3/8" Sch 40 Galvanized Pipe may also be used for Cross Members.

END BRACE CONSTRUCTION

1. DRIVE IN OR AUGER AND TAMP END POST TO DEPTH SHOWN IN DETAIL.
2. TIE OFF A GUIDE WIRE TO END POST AT GROUND LEVEL. PULL WIRE TO END POST OF NEXT BRACE AND TIE OFF AT GROUND LEVEL. SET ALL OTHER T-POSTS, LINE POSTS, BRACE POSTS AND END POSTS ALONG THIS GUIDE WIRE.
3. SET OTHER BRACE POST OF THE END BRACE AT A MINIMUM OF 15' FROM END POST.
4. TO ESTABLISH LOCATION OF CROSS MEMBER, MEASURE THE DISTANCE FROM THE BOTTOM OF FENCE FABRIC TO A POINT MIDWAY BETWEEN 2ND AND 3RD WIRE FROM THE TOP (APPROX. 67%). USING THIS MEASUREMENT, MARK THE INSIDE OF BOTH BRACE POSTS.
5. AT MARKINGS, DRILL A 1/2" HOLE 2" DEEP ON INSIDE OF END POST AND DRILL A 1/2" HOLE THROUGH THE OPPOSITE BRACE POST. SET 4" BRACE PIN IN END POST AND START 10" BRACE PIN IN BRACE POST.

6. DRILL PILOT HOLES IN ENDS OF CROSS MEMBER. SET ONE END OF CROSS MEMBER ON 4" PIN, THEN LIFT OPPOSITE END TO ALIGN WITH 10" PIN. USING A HAMMER, DRIVE THE 10" PIN INTO BRACE POST, LEAVING 1" EXPOSED FOR INSTALLATION OF BRACE WIRE.
7. DRIVE A BARBED STAPLE PARTIALLY IN AT GROUND LEVEL ON THE BACK SIDE OF END POST. HANG ANOTHER STAPLE OVER TOP LEG OF DRIVEN STAPLE TO PREVENT BRACE WIRE FROM BINDING AND BITING INTO END POST.
8. GUIDE BRACE WIRE THROUGH DRIVEN STAPLE AND UP AND OVER 10" BRACE PIN. BACK DOWN THROUGH STAPLE AND OVER 10" PIN AGAIN. THIS IS THE DOUBLE WRAP FOR THE BRACE WIRE. INSTALL WIRE STRAINER ON BRACE WIRE ON OPPOSITE SIDE OF BRACE WIRE UNTIL BRACE POST MOVES ABOUT 1/2" AWAY FROM SOIL.

In-Line Brace

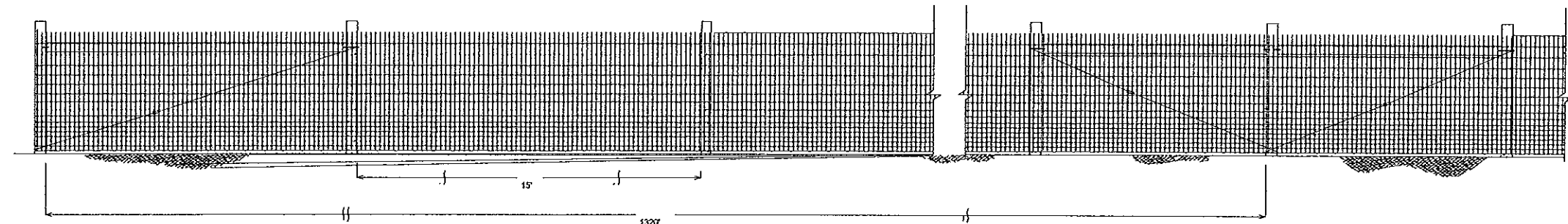


| Line Post Specifications | |
|--------------------------|-------------------------------------|
| Line Posts | 1" x 6" Pressure Treated Wood Posts |

LINE POST CONSTRUCTION

1. SET LINE POSTS ALONG GUIDE WIRE USING A 15' SPACING.
2. USE 15' POST SPACING AS A GUIDELINE. IN ROUGH TERRAIN A CLOSER POST SPACING WILL BE REQUIRED.
3. A LINE POST SHOULD BE PLACED ON TOP OF HPS AND IN BOTTOM OF ALL D.F.S.

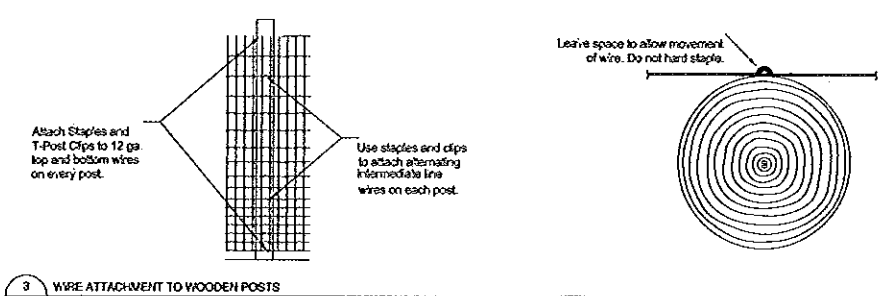
1 STAY-TUFF FENCE 1775-3 WOOD BRACE CONSTRUCTION
NOT TO SCALE



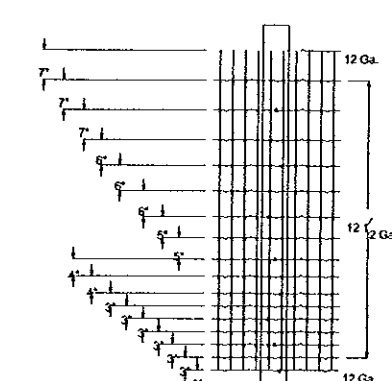
2 STAY-TUFF FENCE 1775-3 FIXED KNOT FENCE
NOT TO SCALE

GENERAL NOTES

1. ALL WOVEN WIRE FENCE FABRIC SHALL BE CONTINUOUS STAY FIXED KNOT JOINT STYLE FABRIC DESIGN NO. 1775-3 AND SHALL MEET OR EXCEED ASTM A 116 FOR NO. 12 1/2 GAUGE 175.
2. TOP AND BOTTOM LINE WIRES SHALL BE 12 GAUGE GRADE 175 AND INTERMEDIATE LINE WIRES SHALL BE 12 1/2 GAUGE GRADE 175. VERTICAL STAY WIRES SHALL BE 12 1/2 GAUGE GRADE 175. KNOT WIRES SHALL BE 15 GAUGE GRADE 60. ALL WIRES SHALL HAVE TYPE 2 CLASS 3 COATING.
3. VERTICAL STAY WIRES SHOULD BE SPACED EVERY 3' AND HORIZONTAL LINE WIRES SHOULD BE SPACED AS SHOWN IN DETAIL.
4. INSTALL 1775-6 FABRIC SO THAT 3"x3" OPENINGS ARE ON BOTTOM.
5. ATTACH FENCE FABRIC ON INSIDE OF BRACES AND POSTS. FABRIC SHALL BE ATTACHED TO END POSTS OF END BRACES AND IN-LINE BRACES BY WRAPPING AND TIEING WIRE WITH A HIGH TENSILE SLIP KNOT.
6. TENSION FABRIC BY PULLING TO CENTER OF PULL USING STRETCHER BARS AND STRETCHER BAR PULLERS. TENSION FABRIC UNTIL TENSION CRUMPS ARE FLATTENED 25 TO 50% FROM ORIGINAL HEIGHT. DO NOT OVER TENSION.
7. SPLICES IN FABRIC SHALL BE MADE WITH 12 1/2-16 GAUGE LONG CRAMP SLEEVES WITH STATED HOLDING STRENGTH OF 1500 LBS MINIMUM. SLEEVES SHOULD BE CRAMPED USING APPROVED CRAMP TOOL.
8. SLEEVES SHOULD BE CRAMPED WORKING FROM END CLOSEST TO THE KNOT OUTWARD AND COMPRESSED ALONG ENTIRE LENGTH OF SLEEVE.
9. FINISHED WIRE SPLICES SHALL NOT HAVE LOOSE WIRE TAILS EXTENDING MORE THAN 1/2" IN LENGTH.
10. FENCE SHALL GENERALLY FOLLOW THE CONTOUR OF THE GROUND. BOTTOM WIRE OF FENCE SHOULD BE NO MORE THAN 3" ABOVE GROUND LEVEL.
11. ATTACH FABRIC TO WOODEN POSTS USING 1 1/2" DOUBLE BARBED STAPLES. STAPLES SHALL BE MADE OF 8 GAUGE CLASS 3 GALVANIZED WIRE AND SHALL BE DOUBLE BARBED.
12. STAPLE 12 GAUGE TOP AND BOTTOM WIRES TO EVERY POST. STAPLE EVERY OTHER INTERMEDIATE LINE WIRE AND ALTERNATE LINE WIRES ON EACH POST AS SHOWN IN DETAIL. STAPLES SHALL BE DRIVEN INTO POSTS WITH THE TOP STAPLE LEG ANGLED TO THE RIGHT AS SHOWN. STAGGER STAPLES ACROSS WOODEN POSTS AS SHOWN IN DETAIL. STAPLES SHOULD NOT BE HARD DRIVEN AGAINST FENCE WIRE. LEAVE A 1/2" TO 3/4" GAP BETWEEN STAPLE AND FENCE WIRE TO ALLOW FOR WIRE MOVEMENT.
13. CONTRACTOR TO PROVIDE A 24" WIDE DOUBLE SWING GATE TO MATCH THE FENCE.



3 WIRE ATTACHMENT TO WOODEN POSTS
NOT TO SCALE



4 WIRE SPACING AND GAGES
NOT TO SCALE

| CULVERT DIAMETER (D) | LENGTH (L) | WIDTH (W) | STONE (S ₅₀) | PERFAP THICKNESS |
|----------------------|------------|-----------|--------------------------|------------------|
| 12" | 6' | 12" | 6" | 14" |
| 18" | 10' | 12" | 6" | 14" |
| 24" | 12' | 14" | 6" | 14" |
| 30" | 16' | 20" | 12" | 27" |
| 36" | 20' | 23" | 12" | 27" |



5636 Connecticut
Avenue #42729
Washington, DC 20015
202-844-6423

Array Information

| | PV Modules | Racking |
|------------------|-------------------|--------------------|
| Manufacturer | NEO Solar | Gamechange Racking |
| Model | D6M-B4A | 23-Degree MaxSpan |
| Dimensions | 77.0"x39.1"x1.57" | |
| Weight | 56.2 lbs | |
| Quantity | 5184 | 407 |
| Ground Clearance | | |

5184 modules at 330W

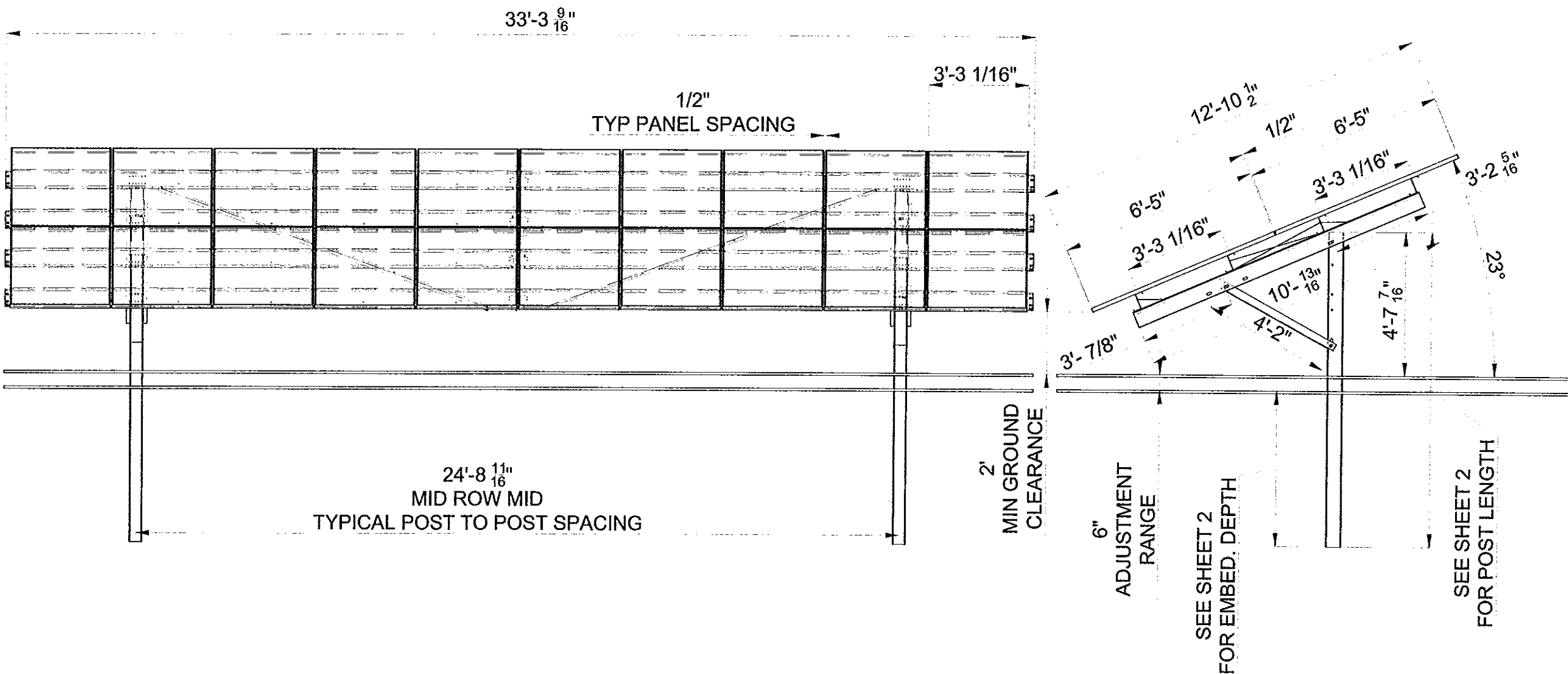
1.7107 MW

Design Information

| | |
|-----------------------------|------------------|
| Building Occupancy Category | I |
| Wind Exposure Category | C |
| Design Wind Speed | 115 mph ASCE7-10 |
| Design Snow Load | 10 psf |
| Area of Array | 5.46 acres |
| No. of rows | 17 |
| Distance to Saltwater | 0 miles |

GENERAL NOTES

- The layout shown herein is based on site layout geometry provided to GameChange Racking by the customer.
- Any changes to the site that may affect the solar PV arrays depicted herein shall be notified to GameChange Racking.
- GameChange Racking is a custom design layout for provided PV modules only. Refer to Array Information table.
- GameChange racking cannot be responsible for errors during installation caused by changes that impact the layout as shown



| Issue: | By: | Date: | Description: |
|--------|-----|------------|---------------|
| 1 | SA | 00-00-0000 | Sample Layout |

GAMECHANGE SOLAR

730 Fifth Avenue, 16th Floor
New York, NY 10019
Tel: 212-388-5160

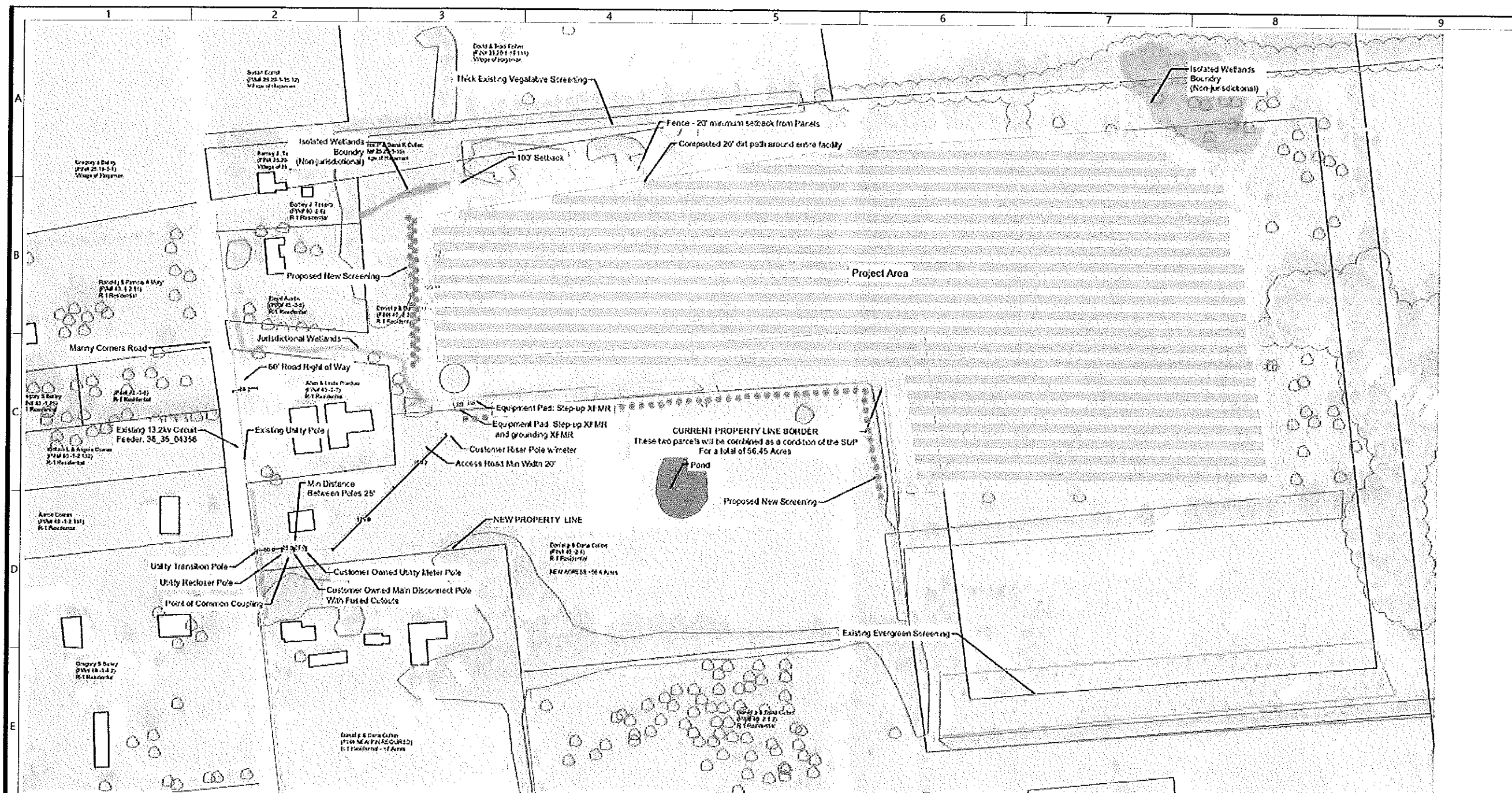
www.gamechangesolar.com



| | |
|-----------|--------|
| Customer: | Sample |
| Project: | Sample |
| Location: | Sample |

Assembly
Drawing

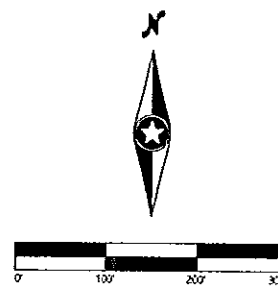
Sheet #:
C.502

KING, DOROTHY M. 19/2/2021
40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866,

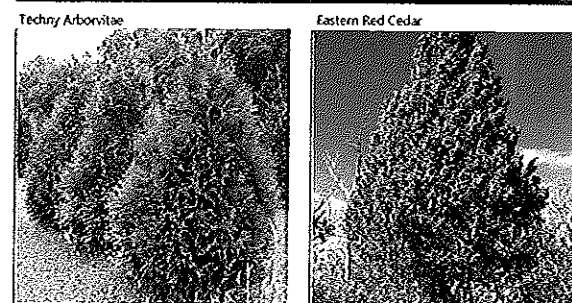
PREPARED FOR:

REVISIONS:

| # | DATE | COMMENT |
|---|----------|--------------------------------|
| A | 11/27/19 | ISSUED FOR REVIEW |
| B | 12/06/19 | ISSUED FOR REVIEW - REVISION 1 |
| C | 12/13/19 | ISSUED FOR REVIEW - REVISION 2 |



BUFFER PLANTING MATERIALS



LEGEND:

- PROPOSED SECURITY FENCE
- COMBINATION OF POLLINATOR MIX AND
LOW GROWTH GRASS MIX (192 AC)

BUFFER PLANTING SCHEDULE

| KEY | QTY. | COMMON/BOTANICAL NAME | SIZE | SPACING O.C. | MATURE HEIGHT |
|-----------------------|------|---|---------------|-----------------|---------------------|
| SMALL EVERGREEN TREES | | | | | |
| 000 | 85 | Techny Arborvitae / Thuja occidentalis 'Techny' | 3' - 4' HT BB | 8'-0" O.C. TYP. | H 12'-15' W 6'-8' |
| | | Eastern Red Cedar / Juniperus virginiana | 2'-3' HT BB | 8'-0" O.C. TYP. | H 12'-30' W 10'-15' |

NOTES: 1. QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.
2. B.B. SPECIFIES ROOT TYPE AS BALLED AND BURLAPPED.
3. H.T. SPECIFIES MINIMUM SPECIMEN HEIGHT UPON INSTALLATION.

**Manny Corners
Community Solar Garden**
Amsterdam, NY

Landscaping Site Plan

ISSUED FOR REVIEW

DATE: 10/23/2020

SHEET: C.600

POLLINATOR MIX

SEED MIX TO BE PROVIDED BY LANDSCAPE CONTRACTOR FOR REVIEW.

LOW GROWTH/LOW MAINTENANCE GRASS MIX

SEED MIX TO BE PROVIDED BY LANDSCAPE CONTRACTOR FOR REVIEW.

SEEDING NOTES

- NOTES:
- 1. SEEDING TO BE COMPLETED USING A DRILL SEED METHOD WHERE FEASIBLE. WHERE DRILL SEEDING IS NOT FEASIBLE THE APPLICATION OF SEED VIA ALTERNATE METHODS INCLUDING BUT NOT LIMITED TO, BROADCAST OR HYDROSEEDING.
 - 2. BROADCAST SEEDING SHALL BE COMPLETED IF AMBIENT SOIL TEMPERATURE IS CONSISTENTLY 60 DEGREES F OR LOWER.
 - 3. IF NOT FROST SEEDING, DRILLING SHOULD OCCUR BETWEEN APRIL 1ST AND JUNE 1ST.
 - 4. THE CONTRACTOR SHALL NOT TILL OR FERTILIZE THE FIELDS, IF THE GROUND NEEDS TO TO BE TILLED, CONTRACTOR SHALL USE A VERTICAL PLOW.



5636 Connecticut Avenue #42729
Washington, DC 20015
202-844-6423

| # | DATE | COMMENT |
|---|------------|---------|
| A | 12.20.2020 | |
| | | |
| | | |
| | | |

5MWac
Community Solar
Garden

Landscape Details

ISSUED FOR REVIEW

DATE:
SHEET: C.601

REFERRAL FORM

MONTGOMERY COUNTY PLANNING BOARD

Referral Number _____
assigned by the MCPB upon acceptance of
referral for review

This Referral must be received **SEVEN CALENDAR DAYS** prior to the MCPB meeting date in order for it to be placed on the agenda.

TO: Montgomery County Planning Board,
Old County Courthouse,
PO Box 1500, Fonda, New York 12068
Phone: 518-853-8334
Fax: 518-853-8336

FROM: Municipal Board: MOHAWK
Referring Officer: EDWARD BISHOP
Mail original resolution to: embishop616@yahoo.com

1. Applicant: _____ 2. Site Address: _____

3. Tax Map Number(s): _____ 4. Acres: _____

5. Is the site currently serviced by public water? ☐ Yes ☐ No

6. On-site waste water treatment is currently provided by: ☐ Public Sewer or ☐ Septic System

7. Current Zoning: _____ 8. Current Land Use: _____

9. Project Description: _____

10. MCPB Jurisdiction:

☒ Text Adoption or Amendment ☒ Site is located within 500' of: _____

- ☒ a municipal boundary.
- ☐ a State or County thruway/highway/roadway
- ☐ an existing or proposed State or County park/recreation area
- ☐ an existing or proposed County-owned stream or drainage channel
- ☐ a State or County-owned parcel on which a public building or institution is situated
- ☐ a farm operation within an Agricultural District (Incl. Ag data Statement) (does not apply to area variances)

11. PUBLIC HEARING: Date: 1/14/2021 Time: 7:10 Location: 2-4 PARK ST, FONDA NY

Referred Action(s)

If referring multiple, related actions, please identify the referring municipal board if different from above.

12. ☐ Text Adoption or ☐ Amendment Referring Board: TOWN BOARD
☐ Comprehensive Plan ☒ Local Law ☐ Zoning Ordinance ☐ Other _____

13. ☐ Zone Change Referring Board: _____

Proposed Zone District: _____ Number of Acres: _____

Purpose of the Zone Change: _____

14. ☐ Site Plan ☐ Project Site Review Referring Board: _____

Proposed Improvements: _____

Proposed Use: _____

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

Specify: _____

Is a State or County DOT work permit needed? If Yes : ☐ State or ☐ County ☐ No

Specify: _____

15. ☐ Special Permit

Referring Board:

Section of local zoning code that requires a special permit for this use: _____

Will the proposed project require a variance? ☐ Yes ☐ No Type: ☐ Area ☐ Use

16. Variance

Referring Board:

☐ Area ☐ Use

Section(s) of local zoning code to which the variance is being sought: _____

Describe how the proposed project varies from the above code section: _____

SEQR Determination

Action:

Finding:

☐ Type I

☐ Positive Declaration – Draft EIS

☐ Type II

☐ Conditional Negative Declaration

☒ Unlisted Action

☒ Negative Declaration *PENDING*

☐ Exempt

☐ No Finding (Type II Only)

SEQR determination made by (Lead Agency): TOWN BOARD Date: 1/14/2021

REQUIRED MATERIAL

Send 3 copies of a "Full Statement of the Proposed Action" which includes:

All materials required by and submitted to the referring body as an application

- If submitting site plans, please submit only 1 large set of plans, and 12 11x17 packets.
- All material may be submitted digitally as well at <http://www.mcbdc.org/planning-services/montgomery-county-planning-board-referrals/>

This referral, as required by GML §239 l and m, includes complete information, and supporting materials to assist the Montgomery County Planning Board (MCPB) in its review. Recommendations by MCPB shall be made to the Referring Body within thirty days of receipt of the Full Statement.

EDWARD BISHOP, SUPERVISOR, 518 853 3031 EXT 6
Name, Title & Phone Number of Person Completing this Form

12
Transmittal Date

This side to be completed by Montgomery County Planning.

REFERRAL FORM

MONTGOMERY COUNTY PLANNING BOARD

TO: _____

Receipt of 239-m referral is acknowledged on _____. Please be advised that the Montgomery County Planning Board has reviewed the proposal stated on the opposite side of this form on _____ and makes the following recommendation.

- ☐ Approves

- ☐ Approves (with Modification)

- ☐ Disapproves:

- ☐ No significant County-wide or inter-community input

- ☐ Not subject to Planning Board review

- ☐ Took no action

Section 239-m of the General Municipal Law requires that within thirty days after final action by the municipality is taken; a report of the final action shall be filed with the County Planning Board.

Date

Kenneth F. Rose, Director
Montgomery County Dept. of Economic
Development and Planning

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. 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.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

| | | | |
|--|--------------|--------------------------------|--|
| Part 1 – Project and Sponsor Information | | | |
| Name of Action or Project: Adoption of Local Laws | | | |
| Project Location (describe, and attach a location map): Town of Mohawk | | | |
| Brief Description of Proposed Action: Adoption of Local Laws amending existing Solar Law, Site Plan Law, Subdivision Law, and Property Maintenance Law. Adoption of Local Law creating Battery Storage Law. | | | |
| Name of Applicant or Sponsor: Town of Mohawk | | Telephone: 518-853-3031 | |
| Address: 2-4 Park Street | | E-Mail: | |
| City/PO: Fonda | State: NY | Zip Code: 12068 | |
| 1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2. | | NO <input type="checkbox"/> | YES <input checked="" type="checkbox"/> |
| 2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: | | NO <input type="checkbox"/> | YES <input type="checkbox"/> |
| 3. a. Total acreage of the site of the proposed action? _____ acres b. Total acreage to be physically disturbed? _____ acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres | | | |
| 4. Check all land uses that occur on, are adjoining or near the proposed action: <input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential (suburban) <input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other(Specify): <input type="checkbox"/> Parkland | | | |

| | | | |
|--|--------------------------|--------------------------|--------------------------|
| 5. Is the proposed action, | NO | YES | N/A |
| a. A permitted use under the zoning regulations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Consistent with the adopted comprehensive plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Is the proposed action consistent with the predominant character of the existing built or natural landscape? | NO | YES | |
| | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? | NO | YES | |
| If Yes, identify: _____ | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8. a. Will the proposed action result in a substantial increase in traffic above present levels? | NO | YES | |
| b. Are public transportation services available at or near the site of the proposed action? | <input type="checkbox"/> | <input type="checkbox"/> | |
| c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 9. Does the proposed action meet or exceed the state energy code requirements? | NO | YES | |
| If the proposed action will exceed requirements, describe design features and technologies: _____ _____ | <input type="checkbox"/> | <input type="checkbox"/> | |
| 10. Will the proposed action connect to an existing public/private water supply? | NO | YES | |
| If No, describe method for providing potable water: _____ _____ | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11. Will the proposed action connect to existing wastewater utilities? | NO | YES | |
| If No, describe method for providing wastewater treatment: _____ _____ | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12. a. 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? | NO | YES | |
| b. 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? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency? | NO | YES | |
| b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? | <input type="checkbox"/> | <input type="checkbox"/> | |
| If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____ | | | |

| | | |
|--|--------------------------|--------------------------|
| 14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <input type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input type="checkbox"/> Agricultural/grasslands <input type="checkbox"/> Early mid-successional <input type="checkbox"/> Wetland <input type="checkbox"/> Urban <input type="checkbox"/> Suburban | | |
| 15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? | NO | YES |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Is the project site located in the 100-year flood plan? | NO | YES |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, | NO | YES |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Will storm water discharges flow to adjacent properties? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? | <input type="checkbox"/> | <input type="checkbox"/> |
| If Yes, briefly describe: _____ _____ | | |
| 18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment: _____ _____ | NO | YES |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____ _____ | NO | YES |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____ _____ | NO | YES |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor name: <u>Edward Bishop</u> Date: <u>12/30/20</u> Signature: <u><i>Edward W Bishop</i></u> Title: <u>Town Supervisor</u> | | |

Local law # 2021

SITE PLAN REVIEW

ARTICLE I - General Provisions

1. Enactment and authorization.
2. Title.
3. Purpose.
4. Planning Board authority to review site plans.
5. Interpretation and application.

ARTICLE II - Definitions

6. Definitions.

ARTICLE III - Applicability

7. Uses requiring site plan approval.

ARTICLE IV - Procedures

8. Compliance with standards and procedures.
9. Sketch plan.
10. Application for site plan approval.
11. Site plan submission requirements
12. Less intensive review.
13. Acceptance of site plan application.
14. Segmentation
15. Referrals to other agencies and boards.
16. Compliance with SEQR.
17. Public hearing on site plan.
18. Planning Board action on site plan.
19. Extension of time to render decision.

ARTICLE - V- Administration and Enforcement

20. Site plan compliance.
21. Code Enforcement Officer.
22. Amendments.
23. Penalties for Offenses.
24. Waivers.
25. Effective Date.

GENERAL REFERENCES

ARTICLE I General Provisions

1. Enactment and authorization.

The Town Board of the Town of Mohawk, Montgomery County, New York, does hereby ordain and enact the Town of Mohawk Site Plan Review Local Law pursuant to the authority and provisions of § 10 of the Municipal Home Rule Law and § 274-a of the Town Law.

2. Title.

This chapter shall be known as the "Town of Mohawk Site Plan Review Local Law."

3. Purpose.

A. Through site plan review, it is the intent of this chapter to promote the health, safety, and general welfare of the Town. A clean, wholesome, attractive environment is declared to be of importance to the health and safety of the inhabitants of the Town and, in addition, such an environment is deemed essential to the maintenance and continued development of the economy of the Town and the general welfare of its inhabitants.

B. It is further the intent of this chapter to ensure the optimum overall conservation, protection, preservation, development and use of the natural and man-related resources of the Town through review and approval of site plans.

4. Planning Board authority to review site plans.

The Planning Board is hereby authorized to review and approve, approve with modifications, or disapprove site plans for land uses within the Town as hereinafter designated pursuant to and in accordance with the standards and procedures set forth in this chapter.

5. Interpretation and application.

A. In their interpretation and application, the provisions of this chapter shall be held to be the minimum requirements. More stringent provisions may be required if it is demonstrated that different standards are necessary to promote the public health, safety and welfare.

B. Where the conditions imposed by any provisions of this chapter are either more restrictive or less restrictive than comparable conditions imposed by any other provisions of this chapter or of any other applicable law, ordinance, resolution, rule or regulation of any kind, the regulations which are more restrictive and impose higher standards or requirements shall govern.

ARTICLE II

Definitions

6. Definitions.

Unless otherwise expressly stated, the following terms shall, for the purpose of this chapter, have the meanings herein indicated:

ACCESSORY STRUCTURE- A structure, the use of which is customarily incidental and subordinate to the principal building, and is located on the same lot or premises as the principal building.

APPLICANT - The person(s), corporation, agency, or other legal entity responsible for submitting site plan applications for review by the Planning Board.

BUFFER AREA - An undeveloped part of a property or an entire property specifically intended to separate and thus minimize the effects of a land use activity on adjacent properties.

BUILDING - A structure designed to be used as a place of occupancy, business, storage, or shelter. The term "building" shall include the term "structure" as well as receiving and transmitting commercial, radio, television and other utility communication towers. Anything constructed or built, any edifice or building of any kind, which requires location on the ground or is attached to something having a location on the ground.

EASEMENT - The right to use the land of another, obtained through the purchase of the use rights from a landowner.

ENVIRONMENTAL ASSESSMENT FORM (EAF) - A form used to determine whether a project will have significant environmental impacts. Depending on the site's environmental features and the project's magnitude, either a short or long SEQR environmental assessment form will be completed.

ENVIRONMENTAL IMPACT STATEMENT (EIS) - A document prepared pursuant to SEQR, subsequent to a determination of potential adverse impacts that examines the existing and developed environment, and identifies and presents impacts, mitigation measures and alternatives.

GRADING - The leveling of land for site development purposes, including construction of roads, building construction, drainage areas, and parking.

LOT - A designated parcel, tract, or area of land established by a plat or otherwise as permitted by law and to be used, developed, or built upon as a unit.

OWNER/OPERATOR - Person, persons, corporation, etc., that owns and/or operates the business or facility.

PERSON - Any individual, group of individuals, partnership, firm, corporation, association, or other legal entity.

PHASED DEVELOPMENT - Development that occurs in defined stages.

ROAD - A public thoroughfare or right-of-way dedicated, deeded or condemned for use as such, which affords the principal means of access to abutting property.

ROAD, RIGHT-OF-WAY - An area defined by a boundary which provides for road construction, maintenance, improvement and/or widening.

SCREENING - Vegetation, fencing, or earthen materials used to block visibility toward and/or away from a site.

SETBACK - A minimum horizontal distance from a given point or line of reference, such as from a road edge or right-of-way, within which development is restricted.

SIGN - A name, identification, description, display or illustration, or any other visual display which is affixed to or painted or represented directly or indirectly upon a building, structure, or piece of land which directs attention to an object, product, place, activity, person, institution, organization or business. However, a sign shall not include any display of official court or public office notices nor any official traffic control devices nor shall it include the flag emblem or insignia of a nation, state, county, municipality, school, or religious group.

SITE PLAN - A rendering, drawing, or sketch prepared to specifications and containing necessary elements, as set forth in the applicable zoning ordinance or local law, which shows the arrangement, layout and design of the proposed use of a single parcel of land as shown on said plan.

SKETCH PLAN - Conceptual maps, renderings, and supportive data describing the project proposed by the applicant for initial review. May be used by the applicant as the basis for preparing the site plans for Planning Board review.

SKETCH PLAN CONFERENCE - Initial optional Planning Board review of the project proposal with the applicant. The sketch plan conference provides an opportunity for an applicant to learn from the Planning Board what the site plan submission requirements will be prior to submitting the site plan.

SPECIAL USE PERMIT- an authorization of a particular land use which is permitted in a zoning ordinance or local law, subject to requirements imposed by such zoning ordinance or local law to assure that the proposed use is in harmony with such zoning ordinance or local law and will not adversely affect the neighborhood if such requirements are met.

START OF CONSTRUCTION - The initiation of any physical alteration of the property, excluding planning and design, during any phase of a project and shall include land preparation, such as clearing, grading and filling; installation of roads, excavation for footings, foundations or the erection of temporary forms. Start of construction also includes any work for which a valid building permit is required.

STATE ENVIRONMENTAL QUALITY REVIEW (SEQR) - Review of an application according to the provisions of the State Environmental Quality Review Act, 6 NYCRR, Part 617 (Statutory Authority: Environmental Conservation Law, § 8-0113), which incorporates the consideration of environmental, social and economic factors into the planning, review and decision making processes of state, county and local government agencies.

ARTICLE III

Applicability

7. Uses requiring site plan approval.

A. Existing uses and structures. This chapter does not apply to uses and structures that are lawfully in existence as of the date this chapter becomes effective. Any use that would otherwise be subject to this chapter, which has been discontinued for a period of one year or more, shall be subject to review pursuant to the terms of this chapter before such use is resumed. Any use or structure shall be considered to be in existence, provided such use or structure has started construction prior to the effective date of this chapter and is fully constructed and completed within one year after the effective date of these regulations.

B. Uncertain applicability. Any person uncertain of the applicability of this chapter to a given land use activity may apply in writing to the Town of Mohawk Planning Board for a written jurisdictional determination.

ARTICLE IV

Procedures

8. Compliance with standards and procedures.

Any person, before undertaking any new land use activity at any location within the Town for which requires site plan approval, shall submit a site plan together with the appropriate supporting data to the Planning Board for review and approval in accordance with the standards and procedures set forth in this Local Law.

9. Sketch plan.

The applicant is strongly encouraged to meet with the Planning Board prior to submission of a site plan application. This informal meeting is suggested to prevent unnecessary expenses to the applicant. At the conference, the applicant shall provide either a verbal or written statement and rough sketch describing what is proposed together with a USGS topographic map showing the location of the building site and its relationship to the surrounding area. The Board will review the sketch plan and list all necessary information needed by the applicant to complete the site plan approval.

10. Application for site plan approval.

Each application for site plan approval shall be submitted to the Town Clerk 10 days prior to the Planning Board's regular scheduled meeting. The Town Clerk shall immediately notify the Planning Board that such application has been filed and the date thereof. Application shall include the application, signed by the current owner or representative thereof; seven copies of the site plan with the information outlined in Article IV, 11; an environmental assessment form, as required by the State Environmental Quality Review Act, and the appropriate fee.

11. Site plan submission requirements.

- A. All site plans shall be prepared by a registered architect, landscape architect, licensed land surveyor or professional engineer duly licensed by the State of New York, unless this requirement is waived by the Planning Board because of the simplicity of the proposal. Site plans shall be prepared at a scale of one inch equals 20 feet or less, on standard 24 inch by 36 inch sheets, with continuation on 8½ inch by 11 inch sheets as necessary for written information.
- B. Items required for submission include:
 - (1) Title of site plan, boundaries, location maps showing site's location in the Town, date, north arrow and scale of the plan.
 - (2) Name and address of the owner of record, developer, and seal of the engineer, architect, surveyor or landscape architect.
 - (3) Name and address of all owners of record of abutting parcels and those within 500 feet of the property line.
 - (4) All existing lot lines, easements and rights-of-way. Include areas in acres or square feet, abutting land uses, and the location and size of structures within 500 feet of the site.

(5) The location of existing and proposed personal wireless telecommunication facilities structures (plan and elevation of facility) and improvements, including roads, buildings, tower, guy wire anchors, parking and landscaping and will include grading plans for new facilities and roads.

(6) The applicant shall submit documentation on the intent and capacity of use as well as justification for the height of any tower or antenna and justification for any clearing required.

C. An environmental assessment form (either short or long form, depending upon the nature of the proposal) shall be submitted with the site plan to insure compliance with the New York State Environmental Quality Review Act (6 NYCRR 617), to identify the potential environmental, social, and economic impacts of the project.

D. Agriculture data statement. The applicant must submit an agricultural data statement (ADS) if the proposed project occurs on property within an agricultural district containing a farm operation or on property with boundaries within 500 feet of a farm operation located within an agricultural district.

12. Less intensive review.

The Planning Board may elect to conduct a less intensive review. The Planning Board must state its grounds for waiving certain submission requirements in writing and file such statement along with the site plan application and supporting documents.

13. Acceptance of site plan application.

The Planning Board shall, within 30 days of a site plan application being filed, begin the review process. If the application is inadequate or lacking information as outlined in Article IV then the Planning Board may, in writing, request further information from the applicant. The time period in which the Planning Board must make a recommendation may be extended by written consent of the applicant and the Planning Board.

14. Segmentation.

The site plan and associated maps shall include all proposed phases of development. Site plan approval shall be based on the total planned project in order to facilitate the assessment of all potential development impacts. The Planning Board shall consider applications incomplete where there is a reason to believe the application applies only to a segment of the total planned development. In such situations, the Board shall return such application to the applicant together with a letter stating the basis for its determination.

15. Referrals to other agencies and boards.

A. Coordinated review. The Planning Board may refer the site plan for review and comment to local and county officials or their designated consultants, and to representatives of federal, state, and county agencies, including but not limited to the Soil and Water Conservation Service, the New York State Department of Transportation, the State Department of Environmental Conservation, and the state or county Department of Health, whichever has jurisdiction.

B. Required referral:

(1) Whenever any site plan involves real property in an area described in § 239-m of the General Municipal Law, said site plan shall be referred to the Montgomery County Planning Board for their review and approval pursuant to § 239-m of the General Municipal Law.

(2) The concurring vote of a majority plus one of the Town Planning Board shall be necessary to override County Planning Board recommendations of approval with modifications or disapproval. In the event that the County Planning Board recommends modifications or disapproval of a referred matter and the Town Planning Board acts to the contrary, the Town Planning Board shall file a report of its action with the County Planning Board within seven days after final action.

16. Compliance with SEQR.

After the site plan has been accepted as complete, the applicant shall demonstrate compliance for any actions subject to SEQR prior to site plan approval. The Planning Board shall classify the application according to the New York State Environmental Quality Review Act, and review the environmental assessment form and decide:

A. If additional information is needed to render a determination of significance. The Planning Board will specify exactly what the applicant needs to supply; or

B. If the information is provided and the project is identified as having small to moderate impacts with little significance, then a negative declaration can be given; or

C. If an action has been identified as having a large and significant impact, then a positive declaration shall be determined and a full EIS will be provided.

17. Public hearing on site plan.

The Planning Board may, at its discretion, hold a public hearing on the application. Said hearing shall be held within 62 days of receipt of the accepted site plan application. The Planning Board shall mail notice of the public hearing to the applicant at least 10 days before the public hearing and shall give public notice of said hearing in a newspaper of general circulation in the Town at least five days prior to the date of the hearing. If the application requires a public hearing and

§ 239-m review by the Montgomery County Planning Board, then the Board shall mail notice of the public hearing to the County Planning Board 10 days prior to said public hearing.

18. Planning Board action on site plan.

A. The time limitations of this section shall not apply until the conclusion of the SEQR process as discussed in IV (16).

B. The Board shall make a decision on the application within 62 days after the public hearing. If no public hearing is held, a decision on the application shall be made within 62 days of the receipt of a complete site plan application, including receipt of any special use permit required. The time within which the Board must render a decision may be extended by mutual consent of the applicant and the Board. The Board shall render its decision to either approve, approve with modifications, or disapprove the site plan. The decision of the Board shall be filed in the office of the Town Clerk immediately and a copy mailed to the applicant.

(1) Approval. Upon approval of the site plan and payment by the applicant of all fees and reimbursable costs due to the Town, the Planning Board shall endorse its approval on a copy of the site plan and shall immediately file the site plan and a written statement of approval with the Town Clerk. A copy of the written statement of approval shall also be sent to the Building Inspector.

(2) Approval with modifications. The Planning Board may approve the site plan and require that specific modifications be made. A copy of the written statement of approval containing the modifications required by the Planning Board shall be mailed to the applicant by certified mail. Upon approval, and after payment by the applicant of all fees and reimbursable costs due to the Town, the Planning Board shall endorse its approval on a copy of the site plan and shall immediately file the site plan and a written statement of approval with modifications with the Town Clerk. A copy of the written statement of approval with modifications shall also be sent to the Building Inspector.

(3) Disapproval. Upon disapproval of the site plan, the decision of the Planning Board shall immediately be filed with the Town Clerk and a copy thereof mailed to the applicant by certified mail along with a letter stating the Planning Board's reasons for disapproval. A copy of the written statement of disapproval shall also be sent to the Building Inspector.

19. Extension of time to render decision.

The time period which the Planning Board must render its decision on the site plan may be extended by mutual consent of the applicant and the Planning Board. Failure of the Planning Board to act within the time specified or agreed upon between the applicant and the Planning Board shall constitute Planning Board approval of the site plan as submitted or last amended.

ARTICLE V

Administration and Enforcement

20. Site plan compliance.

No permit or certificate of occupancy shall be issued by the Code Enforcement Officer, except upon the authorization by and in conformity with an approved site plan where required.

22. Code Enforcement Officer.

A. The Town Board may alternatively appoint some other enforcement officer to conduct inspections and any other enforcement activities required by this chapter.

B. The Town Board may appoint a Code Enforcement Officer to carry out the duties assigned by this chapter. If appointed, the Code Enforcement Officer shall be responsible for the overall inspection of site improvements, including coordination with the Planning Board and other officials and agencies, as appropriate.

23. Amendments.

The Town Board may, on its own, on petition, or on recommendation of the Planning Board, after public notice and hearing, amend this chapter pursuant to all applicable requirements of law.

24. Penalties for offenses.

A. Any person, firm, or corporation who commits an offense against, disobeys, neglects, or refuses to comply with or resists the enforcement of any of the provisions of this Law shall, upon conviction, be deemed guilty of a violation, punishable by a fine of not more than 1% of total project cost, or by imprisonment not exceeding 20 days, or both such fine and imprisonment. Each week an offense is continued shall be deemed a separate violation of this chapter.

B. In addition to the penalties provided above, the Code Enforcement Officer, or Town Board, may also maintain an action or proceeding in the name of the Town in a court of competent jurisdiction to compel compliance with or to restrain by injunction the violation of this chapter.

25. Waivers.

The Planning Board may waive, subject to appropriate conditions, the provisions of any or all standards set forth if in the special circumstances of a particular application such standards are not in the interest of the public health, safety, and general welfare or strict adherence to such standards would cause unnecessary hardships for the applicant without achieving public benefit objectives. The Planning Board must state its reasons for granting any waivers in writing and file the same along with the site plan application and supporting documents.

26. Effective date.

This law shall take effect after its adoption upon filing with New York State.

FOR DISCUSSION