

**TOWN OF HERNDON, VIRGINIA  
ARCHITECTURAL REVIEW BOARD  
WORK SESSION AGENDA  
MARCH 6, 2019  
HERNDON COUNCIL CHAMBERS BUILDING  
765 LYNN STREET  
7:30 P.M.**

**CALL TO ORDER**

1. Determination of Quorum

**PUBLIC HEARINGS**

2. **APPLICATION FOR A WALL OR WINDOW SIGN, ARB #19-02**, to consider an application to install new illuminated business signage on an exterior wall of the office building located at 510 Spring Street, Herndon, Virginia, and further identified as Fairfax County Tax Map 0162-02-156J. Owner: Crilley Warehouse, LLC. Applicant: Anthony Bashorun, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
3. **APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-03**, to consider an application to attach a new canopy with new address numbering attached to the canopy structure over the existing front entrance to the office building located at 12801 Worldgate Drive, Herndon, Virginia, and further identified as Fairfax County Tax Map 0164-02-0024A. Owner: Worldgate Dulles, LLC. Applicant: William H. Wilmer, Moore & Associates, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
4. **APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-04**, to consider an application to attach a new canopy with new address numbering attached to the canopy structure over the front entrance to the office building located at 12825 Worldgate Drive, Herndon, Virginia, and further identified as Fairfax County Tax Map 0164-02-0024A. Owner: Worldgate Dulles, LLC. Applicant: William H. Wilmer, Moore & Associates, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
5. **APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-05**, to consider an application to attach a new canopy with new address numbering attached to the canopy structure over the front entrance to the office building located at 12901 Worldgate Drive, Herndon, Virginia, and further identified as Fairfax County Tax Map 0164-02-0028B. Owner: Worldgate Dulles, LLC. Applicant: William H. Wilmer, Moore & Associates, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***



6. **APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-06**, to consider an application to attach a new canopy with new address numbering attached to the canopy structure over the front entrance to the office building located at 12851 Worldgate Drive, Herndon, Virginia, and further identified as Fairfax County Tax Map 0164-02-0028B. Owner: Worldgate Dulles, LLC. Applicant: William H. Wilmer, Moore & Associates, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
7. **APPLICATION FOR A WALL OR WINDOW SIGN, ARB #19-07**, to consider an application to remove an existing business sign and install a new illuminated business sign on an exterior wall of the commercial building located at 533 Herndon Parkway, Herndon, Virginia, and further identified as Fairfax County Tax Map 0164-10-0004. Owner: CMP I Herndon Owner, LLC. Applicant: Dan Norwood, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
8. **APPLICATION FOR A FREESTANDING SIGN, ARB #19-08**, to consider an application to install a new illuminated monument sign on the commercial property located at 533 Herndon Parkway, Herndon, Virginia, and further identified as Fairfax County Tax Map 0164-10-0004. Owner: CMP I Herndon Owner, LLC. Applicant: Dan Norwood, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
9. **APPLICATION FOR ALTERATIONS TO AN EXISTING STRUCTURE, ARB #19-09**, to consider an application to remove an existing porte cochere and building a new entry storefront façade, install new exterior materials, install new exterior doors and repaint the commercial building located at 533 Herndon Parkway, Herndon, Virginia, and further identified as Fairfax County Tax Map 0164-10-0004. Owner: CMP I Herndon Owner, LLC. Applicant: Dan Norwood, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
10. **APPLICATION FOR A WALL OR WINDOW SIGN, ARB #19-10**, to consider an application to install a new illuminated business signs on an exterior wall of the commercial building located at 1228 Elden Street, Herndon, Virginia, and further identified as Fairfax County Tax Map 0161-02-0015E. Owner: Elden, LLC, c/o David Germakian. Applicant: Justin Yoon, Agent. ***Public hearing rescheduled from February 20, 2019, due to inclement weather.***
11. **APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-11**, to consider an application to replace a fabric covered awning with a new awning structure and new fabric covering on the office building addressed at 140-A Laurel Way within the multi-family residential property located at 120 Laurel Way, Herndon, Virginia, and further identified as Fairfax County Tax Map 0171-02-0005C. Owner: Stuart Woods Project, LLC, c/o Lindsay Gilbert. Applicant: Matt Higgins/Kathy Baker, Agent(s).

12. **APPLICATION FOR NEW CONSTRUCTION, ARB #19-12**, to consider an application to construct a new equipment shelter to screen a proposed emergency backup power generator at a Town-owned water tank site located at 624 Alabama Drive, Herndon, Virginia, and further identified as Fairfax County Tax Map 0162-02-0148. Owner: Town of Herndon, Virginia. Applicant: James Relihan, Agent.
13. **APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-13**, to consider an application to replace and install new rooftop telecommunication antennas and associated equipment with three (3) screened enclosures on the commercial office building located at 505 Huntmar Park Drive, Herndon, Virginia, and further identified as Fairfax County Tax Map 0162-02-0156D. Owner: Brit-Herndon Square LLC, c/o: Jeffrey Lee Conen. Applicant: Shannon West, Agent.
14. **APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-14**, to consider an application to replace and install new telecommunication antennas and associated equipment on the Town-owned water tank located at 806 3<sup>rd</sup> Street, Herndon, Virginia, and further identified as Fairfax County Tax Map 0104-02-0045A. Owner: Town of Herndon, Virginia. Applicant: Aimee Clark, Agent.

#### **COMMENTS**

15. Comments from the Staff Members
16. Comments from the Board Members

#### **ADJOURNMENT**



## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR A WALL OR WINDOW SIGN, ARB #19-02.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider installation of new illuminated business signage on an exterior wall of the office building located at 510 Spring Street, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                                                     |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | Anthony Bashorun, Agent                                                                                                                                                             |
| Owners:            | Crilley Warehouse, LLC                                                                                                                                                              |
| Use:               | Commercial Office                                                                                                                                                                   |
| Location:          | 510 Spring Street, Suite 200                                                                                                                                                        |
| Tax Map Reference: | 0162-02-156J                                                                                                                                                                        |
| Zoning of Site:    | O & LI, Office and Light Industrial                                                                                                                                                 |
| Adjacent Zoning:   | North: O & LI, Office and Light Industrial<br>South: O & LI, Office and Light Industrial<br>East: O & LI, Office and Light Industrial<br>West: R-10, Residential Single Family - 10 |

#### Description:

This application proposes replacement of an existing sign, previously approved through ARB #07-30, with new tenant signage for *Tyto Athene* (formerly *Blackbox Network Services*) using the tenant's business name, lettering, logo, and colors. The sign will be constructed of 3/16" thick internally (LED) illuminated acrylic faced channel letters, 1" black trim caps, and 5" deep black aluminum returns flush-mounted to the brick masonry façade. The business name will be colored in blue with a green tint (PMS 548C) that will illuminate in white light at night, and

the business logo will be colored in a light blue (PMS 801C). The overall wall sign size will be roughly 14.6' X 4.9'. Using appropriate sign area calculations found in the Town's Zoning Ordinance, the wall sign will encompass 56.2 square feet on the facade (Attachment #2, #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-02 with the following conditions:

1. The proposed signage shall be installed in substantial conformance with the application and supporting materials as submitted December 19, 2018.

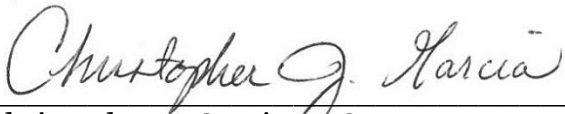
### **Staff Analysis:**

1. The proposed sign complies with the Town's Zoning Ordinance Section 78-141.4 - Sign standards for Commercial Districts, Table 78-141(a). Based on this ordinance section, the tenant would be authorized 1 square foot of sign area for each linear foot of frontage, 58.6 square feet in this case. As noted in the project description, the applicant is proposing approximately 56.2 square feet of sign area for its wall sign and thus meets the referenced section of the zoning ordinance, as well as the general sign standards applicable to all zoning districts.
2. The proposed sign complies with the applicable design criteria within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. Staff concludes that the proposed project will not detract from the exterior features of the building and will maintain the visual appeal of this commercial property with updated corporate signage on the building.

### **Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing Conditions
5. Sign Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**

A handwritten signature in black ink that reads "Christopher J. Garcia". The signature is written in a cursive style with a large, looping "C" and a distinct "G".

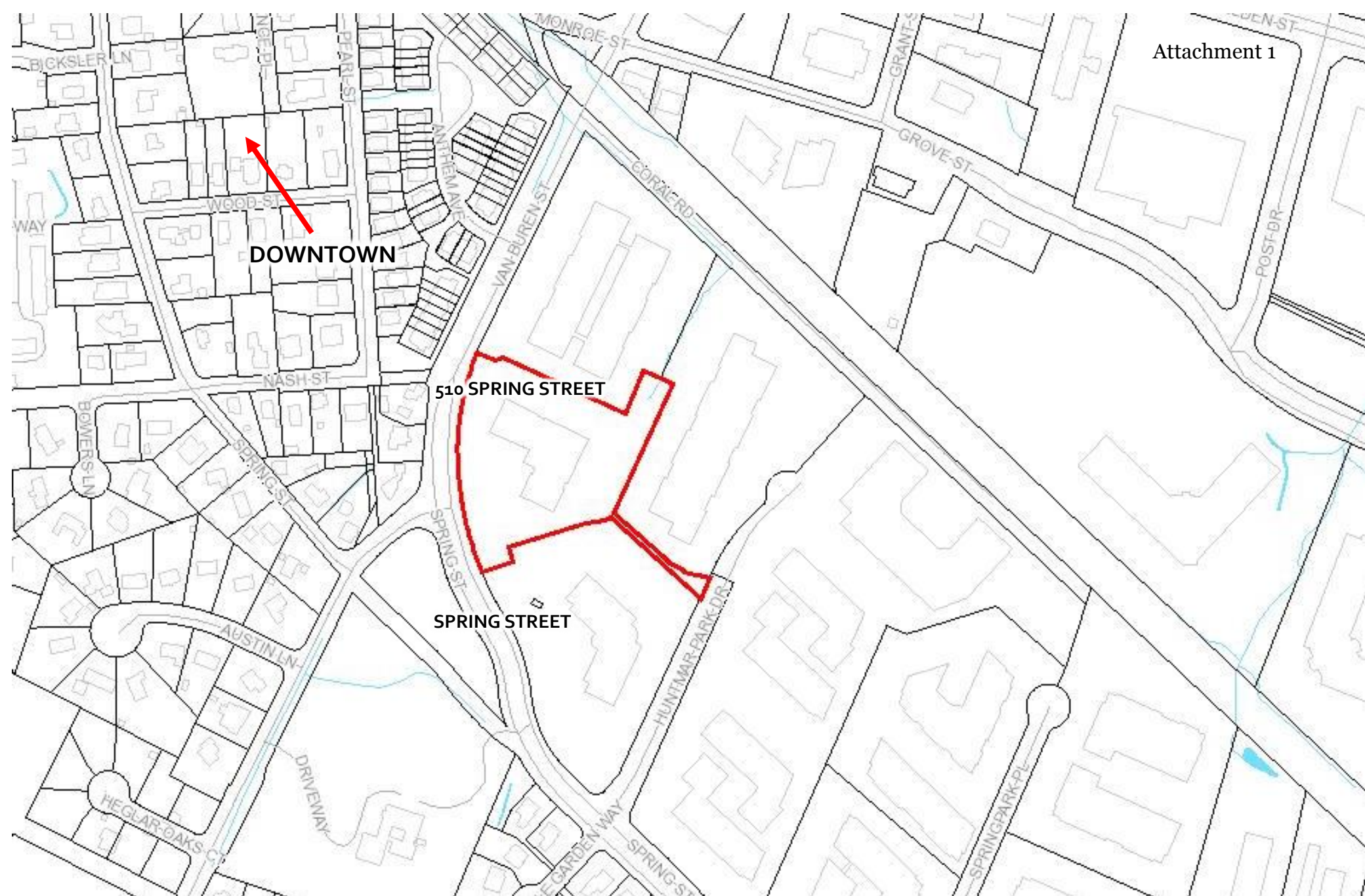
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Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator

A handwritten signature in blue ink that reads "Bryce A. Perry". The signature is written in a cursive style with a large, looping "B" and a distinct "P".

---

Bryce A. Perry  
Deputy Director of Community Development



## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





**Tyto Athene  
510 Spring Street  
Herndon, VA 20170**

**Proposed sign:**

**Exterior channel letters with LED illumination  
Text to match PMS 548C during day and illuminate white at night  
Logo (spear & owl) to match PMS 801C day and night  
Flush mount to facade**

**Materials for exterior channel letter sign:**

**Aluminum letters  
3/16" Acrylic face  
3M Vinyl for faces, PMS 548C and 801C  
LED illumination  
LED lead wire ("Whip")  
Black 1" Trimcap**











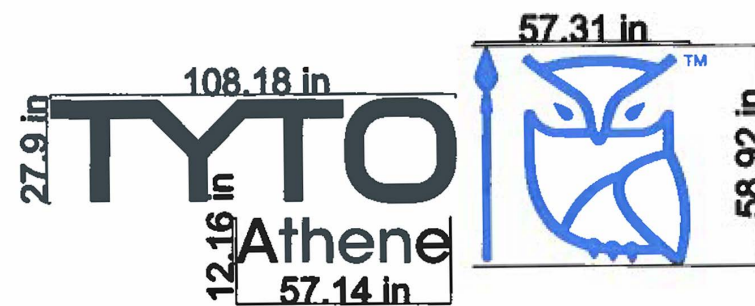






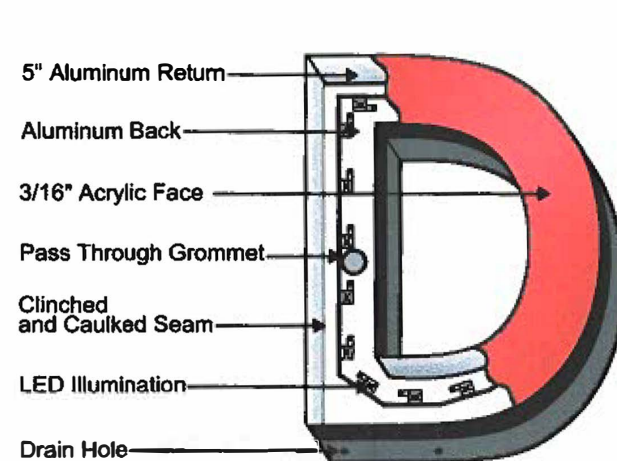


Tyto Athene  
510 Spring Street Suite 200  
Herndon, VA 20170

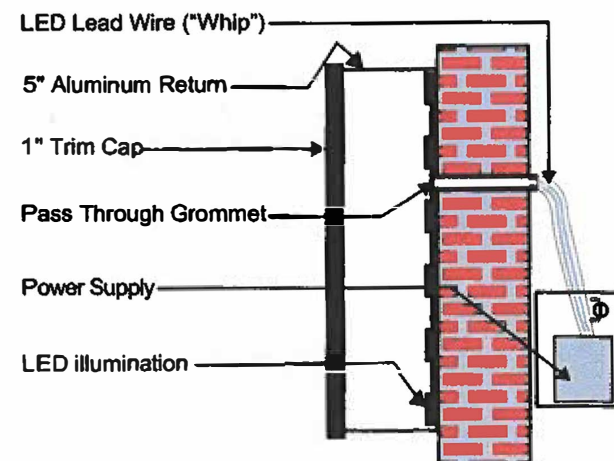


Front lit channel letters  
flush mount to building facade  
black trim and returns  
"Tyto Athene" PMS 548, perforated vinyl face  
(will appear true to color during the day and shine white at night)  
Owl and spear: PMS 801C

## Front Lit Channel Letters



**FRONT VIEW**



**SIDE VIEW FLUSH MOUNT**

Scale 1:5

Tyto Athene  
510 Spring Street Suite 200  
Herndon, VA 20170

Proposed sign





## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

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### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)



## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR ALTERATIONS TO AN EXISTING STRUCTURE, ARB #19-03.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider the addition of a new canopy on an existing office building. The proposed metal canopy is located at the front entrance of 12801 Worldgate Drive, Herndon (Attachment #1). The building's numerical address would be incorporated into the design of the canopy.

#### Location Factors:

|                    |                                                                                                                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | William H. Wilmer, Moore & Associates, Agent                                                                                                                                                 |
| Owners:            | Worldgate Dulles, LLC                                                                                                                                                                        |
| Use:               | Commercial Office                                                                                                                                                                            |
| Location:          | 12801 Worldgate Drive                                                                                                                                                                        |
| Tax Map Reference: | 0164-02-0024A                                                                                                                                                                                |
| Zoning of Site:    | PD-W, Planned Development - Worldgate                                                                                                                                                        |
| Adjacent Zoning:   | North: PD-W, Planned Development - Worldgate<br>South: VA Route 267 Right-of-Way<br>East: PD-TOC, Planned Development – Transit Oriented Core<br>West: PD-W, Planned Development – Worldgate |

#### Description:

This application proposes to attach a new overhead canopy structure at the entrance to one of the buildings within the Worldgate Metro Plaza development.



The proposed addition consists of a canopy that extends approximately 6'-7" from the recessed entry and spans 23'-6" across the facade at a height of approximately 12'-11" above the first-floor finish grade. The canopy will be approximately 13" deep and be constructed of aluminum with a polyurethane finish color to match the existing storefront framing and curtain wall that extends vertically to the 8<sup>th</sup> floor of the office building. In addition, the applicant proposes to remove existing building address numbers and add new building address numbers made of 12" tall black painted aluminum numbers pin-mounted to the fascia of the canopy. The address is considered signage and will cover an area of approximately 2.92 square feet (Attachment #2, #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-03 with the following conditions:

1. The proposed building canopy and address numbering shall be installed in substantial conformance with the application and supporting materials as submitted December 17, 2018.

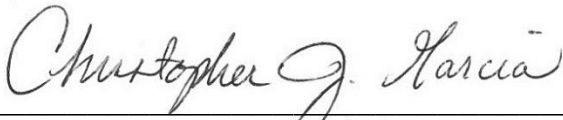
### **Staff Analysis:**

1. The canopy is being proposed to add an architectural element that more clearly announces the entrance to the building for pedestrians and vehicular traffic on and near the site. The numerical address will replace existing numbers and is designed to make the building address more visible to the passerby. The new address will occupy only 2.92 square feet of the total amount of allowable wall sign area permitted on the ground floor of buildings in this zoning district. Staff finds that the proposed alterations are in keeping with the Town's Zoning Ordinance, Section 78-141.5 - Sign standards for properties in the Worldgate District (PD-W).
2. The proposed alteration complies with all the applicable design criteria for this commercial office property within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. The proposed materials and color scheme will be in keeping with the building's existing architectural features while achieving the visual effect intended by the applicant. Staff concludes that the proposed project will improve the visual appeal of this commercial property by more clearly emphasizing the main entrance to this building in a manner that is compatible with the existing architectural design.

**Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Plan and Site Photos of Existing Conditions
5. Proposed Canopy Plan, Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



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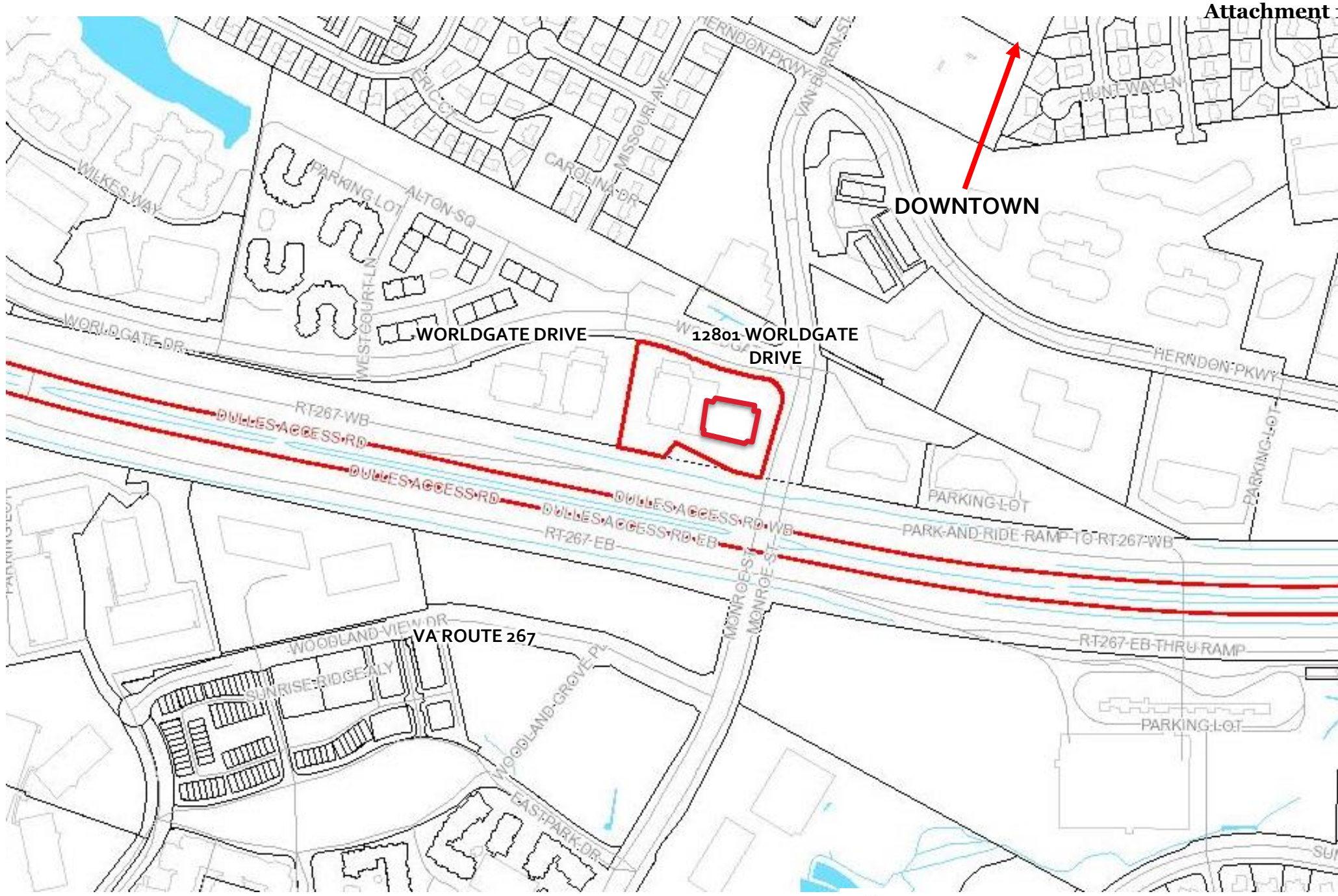
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



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Elizabeth M. Gilleran, AICP  
Director of Community Development





## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of Community Development  
Image source: Fairfax County Property Tax Map Viewer



WORLDGATE  
DRIVE

12801 Worldgate Dr

12801 WORLDGATE  
DRIVE

VA ROUTE 267

Google Earth

©2018 Google

100 ft

## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





Moore & Associates  
12901 Worldgate Drive  
Suite 550  
Herndon, VA 20170

12/17/2018

Town of Herndon  
Architectural Review Board  
Attn. Christopher J. Garcia  
777 Lynn Street  
Herndon, VA 20170

Dear Mr. Garcia,

Please accept our ARB submission for the addition of a canopy at the entry to our building at 12801 Worldgate Drive in Herndon, VA. As you know we are in the process of making a number of improvements to the four buildings at 12901, 12851, 12825 and 12801 Worldgate Drive, collectively known as Worldgate Metro Plaza. As we have owned the property over the last year, one of the issues that has become apparent is that the recessed building entries are not as obvious as they should be to visitors. This is especially apparent in the two entries (12901 and 12801) which face the Toll Road. As we have toured other buildings in Herndon, we have found that a majority of them have canopies over the entrances making it very obvious how the buildings are accessed. We are proposing to add simple entrance canopies that protrude three feet proud of the building façades. The material will be grey aluminum to match the existing storefront/curtain wall that extends from the sidewalk up through the building to the 8<sup>th</sup> floor. The details have been kept to a minimum to match the simple details of the existing building. The address of each building will be installed on the face of the canopy in black to contrast with the façade and make it easily identifiable.

Thank you for your consideration. I can be reached by phone or email, at the number and address listed below, should you have any questions or require any clarification.

Sincerely,  
William H. Wilmer

Senior Vice President  
Moore & Associates, Inc.  
443-994-9565

[WilmerW@MooreAssociates.com](mailto:WilmerW@MooreAssociates.com)











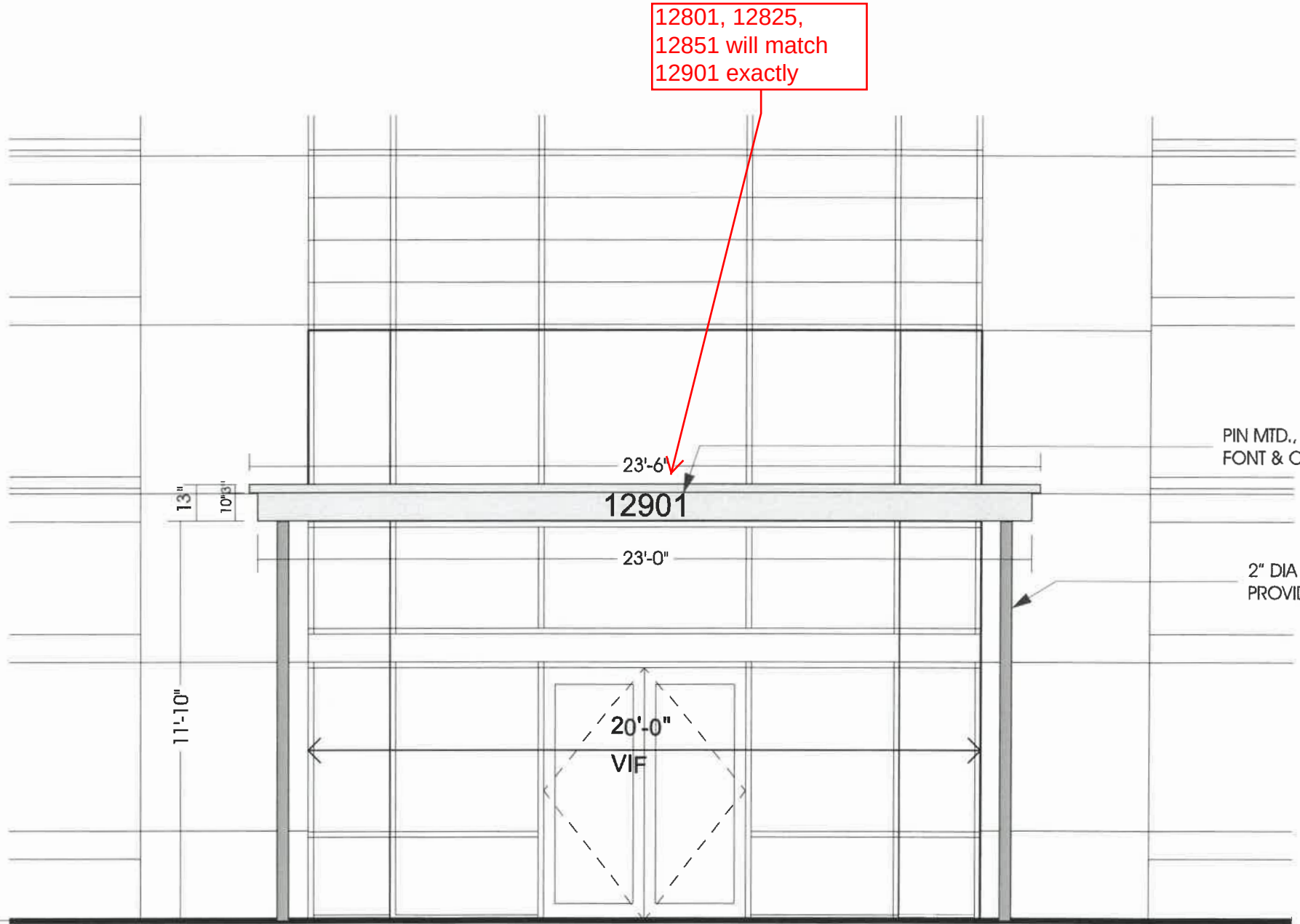
Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**

Ultimate Design Wind Speed 115 mph  
Nominal Design Wind Speed 89.1 mph  
Risk Cat. II  
(3-Sec Peak Gust MPH\*)  
Wind Importance Factor I= 1  
Wind Exposure C  
Gust Factor 0.85

**Snow Loads**

Ground Snow Load Pg= 25 psf  
Snow Exposure Factor Ce= 1.0  
Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with  
applicable provisions of the ASCE 7-10



ENTRANCE ELEVATION 1/4"=1'

QTY (1) CANOPY

13" TALL X 23' WIDE X 8' DEEP  
ALUMINUM CANOPY W/ INTERNAL ALUM. FRAME  
PTD. W/ POLYURETHANE (COLOR TBD)

TOP OF CANOPY SLOPED FOR DRAINAGE  
TO 2" DIA OPENINGS FOR FUTURE DOWNSPOUTS



**MURDOCH  
ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 578-8215

*Jere Murdoch* 11/6/2018

Jere Murdoch, PE  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020

Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**  
Ultimate Design Wind Speed 115 mph  
Nominal Design Wind Speed 89.1 mph  
Risk Cat. II  
(3-Sec Peak Gust MPH\*)  
Wind Importance Factor I= 1  
Wind Exposure C  
Gust Factor 0.85

**Snow Loads**  
Ground Snow Load Pg= 25 psf  
Snow Exposure Factor Ce= 1.0  
Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10

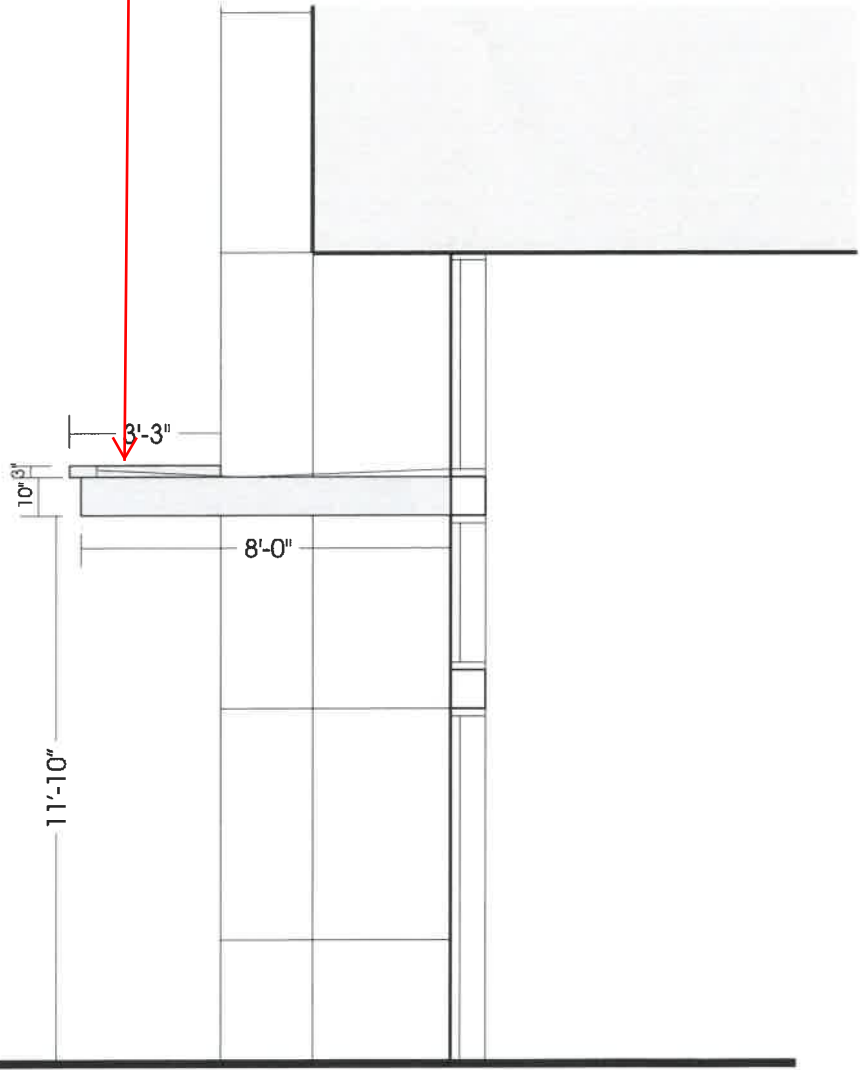
CANOPY

Roof shall be aluminum - cannot be seen from the ground

Roof shall be aluminum - cannot be seen from the office space above due to set-back window sills at curtain wall.



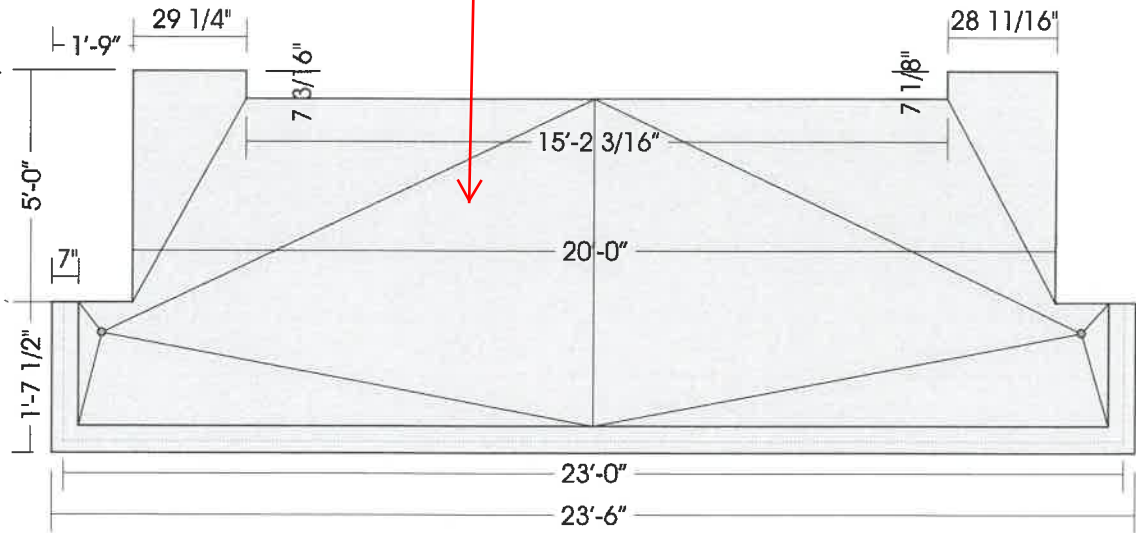
**MURDOCH ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS  
2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 970-8215  
*Jere Murdoch* 11/6/2018  
**Jere Murdoch, PE**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020



EXTERIOR — BUILDING LOBBY

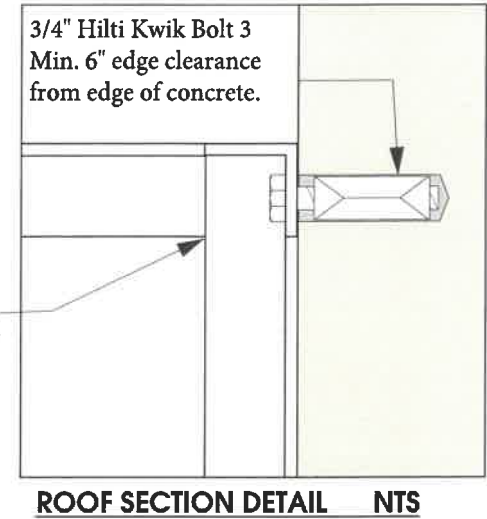
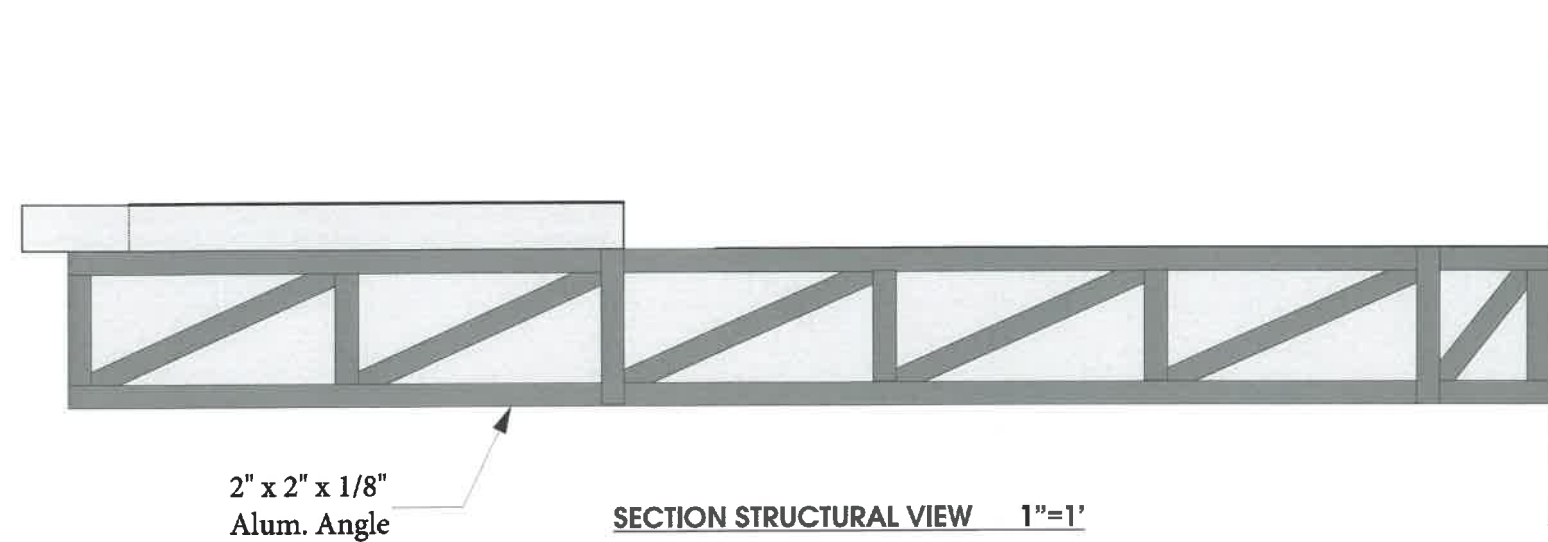
**ENTRANCE SECTION 1/4"=1'**

EXTERIOR — BUILDING LOBBY



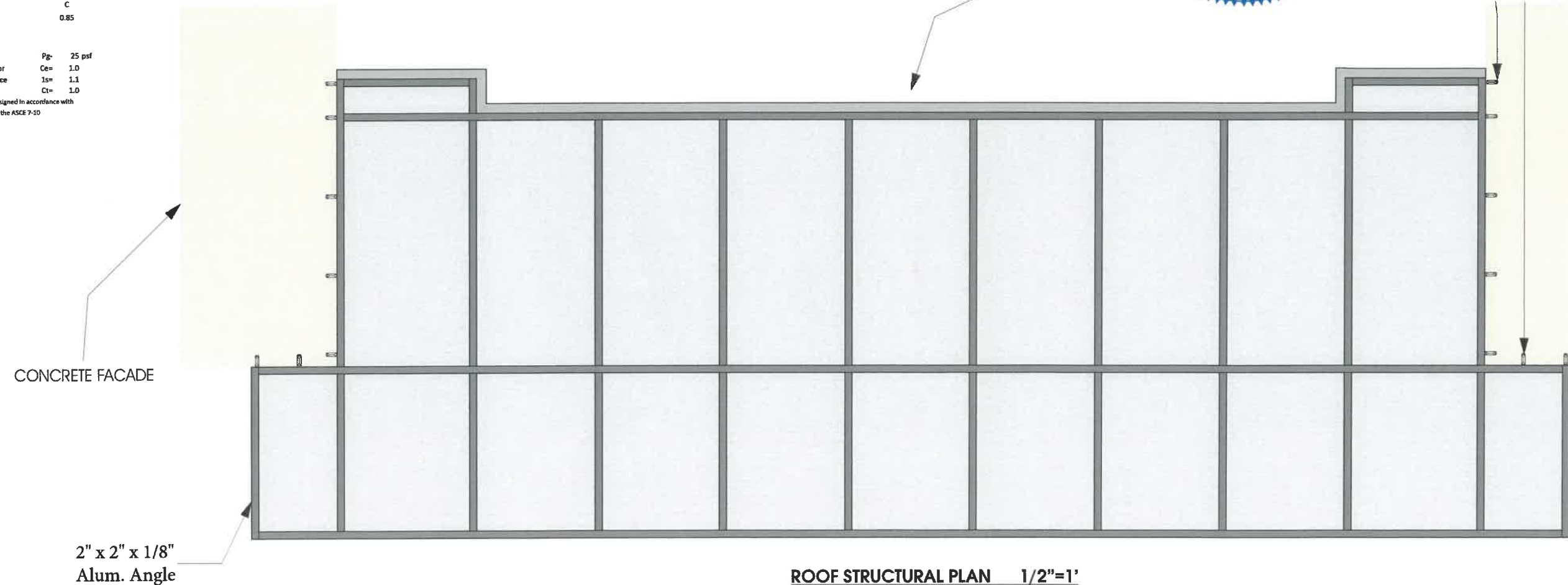
**ENTRANCE ROOF PLAN 1/4"=1'**





**MURDOCH ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS  
2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 870-8215  
*Jere Murdoch*  
**JERE K. MURDOCH**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020  
11/6/2018  
COMMONWEALTH OF VIRGINIA  
PROFESSIONAL ENGINEER  
Lic. No. 50214

Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments  
**Wind Loads**  
Ultimate Design Wind Speed 115 mph  
Nominal Design Wind Speed 89.1 mph  
Risk Cat. II  
(3-Sec Peak Gust MPH\*)  
Wind Importance Factor I= 1  
Wind Exposure C  
Gust Factor 0.85  
**Snow Loads**  
Ground Snow Load Pg= 25 psf  
Snow Exposure Factor Ce= 1.0  
Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10





GENERAL:

1. ALL MATERIALS AND WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL BUILDING CODE (IBC).
2. CONSTRUCTION METHODS AND PROJECT SAFETY: DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES, OR SEQUENCE OF CONSTRUCTION. TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. THE EOR WILL NOT ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES THAT ARE FOUND. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
4. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND FIELD INSPECTOR. THE ENGINEER SHALL PROVIDE A SOLUTION PRIOR TO PROCEEDING WITH ANY WORK AFFECTED BY THE CONFLICT OR OMISSION.
5. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, CONSTRUCT IN ACCORDANCE WITH THE STEEL CONSTRUCTION MANUAL, 14TH EDITION OR 2010 ALUMINUM DESIGN MANUAL.
6. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR IS TO APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
7. ANY CHANGE TO THE DESIGN AS SHOWN ON THE DRAWINGS REQUIRES PRIOR WRITTEN APPROVAL FROM DESIGN ENGINEER OF RECORD BEFORE CONSTRUCTION.
8. WORK PERFORMED IN CONFLICT WITH THE STRUCTURAL DRAWINGS OR APPLICABLE BUILDING CODE REQUIREMENTS SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
9. VERIFICATION: VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. NOTIFY THE EOR IMMEDIATELY OF ANY DISCREPANCIES.

STEEL

1. STEEL SHAPES SHALL CONFORM TO THE FOLLOWING:

|                 |                 |                |
|-----------------|-----------------|----------------|
| ROUND HSS       | ASTM A500, GR B | Fy=42 KSI MIN. |
| SQUARE/RECT HSS | ASTM A500, GR B | Fy=46 KSI MIN. |
| THREADED ROD    | ASTM A36        | Fy=46 KSI MIN. |
| STEEL PLATE     | ASTM A36        | Fy=36 KSI MIN. |
| STD. PIPE       | ASTM A53, GR B  | Fy=35 KSI MIN. |
2. BOLTS SHALL CONFORM TO ASTM A307 UNO.
3. BOLTS AND THREADED ROD SHALL BE HOT-DIP GALVANIZED PER ASTM F2329 UNO.
4. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 UNO.
5. NUTS SHALL CONFORM TO ASTM A563.
6. WASHERS SHALL CONFORM TO ASTM F444.
7. STEEL HARDWARE SHALL BE HOT-DIP GALVANIZED PER ASTM A153 UNO
8. WELDING:
  - a. WELD STRUCTURAL STEEL IN COMPLIANCE WITH ANSI/AWS D1.1 AND AISC SPECIFICATION, CHAPTER J. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY. WELDING SHALL BE DONE BY ELECTRIC ARC PROCESS USING LOW-HYDROGEN ELECTRODES WITH SPECIFIED TENSILE STRENGTH NOT LESS THAN 70 KSI UNLESS NOTED OTHERWISE.
  - b. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH ACTIVE STATUS AT TIME OF WELDING
  - c. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELDS PER AISC SPECIFICATION, SECTION J2, TABLE J2.4
  - d. BASE PLATES SHALL BE WELDED ON TOP AND BOTTOM WITH CONTINUOUS WELDS OF AT LEAST 1/4" (IF PLATE IS CUT TO FIT TUBE INTO PLATE)

ALUMINUM

1. FABRICATE AND ERECT ALUMINUM IN COMPLIANCE WITH THE ALUMINUM ASSOCIATION (AA) 2010 ALUMINUM DESIGN MANUAL (ADM) 1, THE SPECIFICATIONS FOR ALUMINUM SHEET METAL WORK (ASM35), AND IBC CHAPTER 20.
2. PIPE AND TUBE SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=15 KSI MIN, Ftyw=15 KSI MIN.
3. STD STRUCTURAL PROFILES SHALL BE 6061-T6 PER B308 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
4. SHEET AND PLATE SHALL BE 6061-T6 PER ASTM B209 WITH Ftu=42 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
5. EXTRUSIONS SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
6. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH CURRENT STATUS AT TIME OF WELDING
7. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELD PER ADM. ALL ALUMINUM WELDED JOINTS SHALL HAVE WELD SIZES OF AT LEAST 1/8"
8. FILLET WELDS SHALL NOT EXCEED THINNESS MEMBER WALL THICKNESS JOINED.
9. ALUMINUM WELD FILLER SHALL BE 5356 ALLOY
10. WELDING PROCESS GMAW OR GTAW SHALL BE IN ACCORDANCE WITH AWS D1.2
11. ALUMINUM CHANNEL LETTERS SHALL BE CONSTRUCTED OF 0.090" RETURNS AND 0.125" BACKS MINIMUM, UNLESS A LARGER SIZE IS INDICATED ON DRAWINGS. THIS NOTE SHALL SUPERCEDE DRAWING DETAILS
12. PROVIDE NEOPRENE GASKET BETWEEN DISSIMILAR METALS TO PREVENT GALVANIC CORROSION
13. ALUMINUM DIRECTLY EMBEDDED INTO CONCRETE SHALL BE CAPPED AT BOTTOM AND COATED WITH BITUMINOUS COATING OR POLYURETHANE WHERE IN CONTACT WITH CONCRETE.
14. FASTENERS BETWEEN DISSIMILAR METALS SHALL BE STAINLESS STEEL 316.

CONCRETE & REINFORCEMENT

1. MINIMUM 28-DAY COMPRESSIVE STRENGTH (fc') SHALL BE 3,000 PSI. THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.45 BY WEIGHT. A MINIMUM OF 5-3/4 BAGS OF CEMENT SHALL BE USED PER CUBIC YARD WITH A SLUMP OF 4" +/- 1.
2. REINFORCEMENT TO BE ASTM A615 GR 60, Fy=60 KSI UNO
3. CALCIUM CHLORIDE OR ADDED CHLORIDE IS NOT PERMITTED
4. VIBRATION: ALL REINFORCED CONCRETE SHALL BE CONSOLIDATED WITH MECHANICAL VIBRATORS.
5. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-11
6. PROVIDE A MINIMUM OF 2-1/2" COVER OF ALL EMBEDDED STEEL REBAR AND A MINIMUM OF 6 INCHES OF COVER FOR DIRECT BURIED PIPE OR TUBE MEMBERS.

FOUNDATIONS

1. CONCRETE POURED INTO CONSTRAINED EARTH EXCAVATIONS MUST CURE UNDER PROPER CONDITIONS FOR A MINIMUM OF 7 DAYS PRIOR TO SIGN BOX INSTALLATION. (EXCEPTION: IF THE OVERALL HEIGHT OF THE SIGN IS LESS THAN 20 FEET AND THE SIGN IS ADEQUATELY BRACED AGAINST WIND LOADS FOR A MINIMUM OF 4 DAYS, THE BOX MAY BE INSTALLED THE SAME DAY AS THE FOOTING IS POURED)
2. FOOTINGS MUST BE POURED AGAINST UNDISTURBED EARTH. SOIL BACKFILL IS UNACCEPTABLE. WHEN A SONOTUBE IS USED AS THE FORM, 3/4" BLUESTONE OR CONCRETE SHALL BE USED TO BACKFILL THE SPACE BETWEEN THE SONOTUBE AND UNDISTURBED EARTH.
3. COLD WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS OR LOW TEMPERATURES. DO NOT POUR CONCRETE DURING OR WHEN FREEZING TEMPERATURES ARE ANTICIPATED WITHIN 3 DAYS OF POUR.

SCOPE OF WORK

1. LIMITS OF LIABILITY TO EXTEND ONLY TO THE QUANTITY INDICATED. ATTEMPTS IN PART OR IN WHOLE TO INSTALL GREATER QUANTITIES THAN THOSE SPECIFIED WITHOUT CONSULTING MURDOCH ENGINEERING SHALL VOID ALL PROFESSIONAL LIABILITY AND COVERAGE.

SHEET INDEX

S.1 NOTES & ELEVATION

Designed Per IBC 2012 VA Edition

With Applicable Herndon Amendments

Wind Loads

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
| Normal Design Wind Speed   | 89.1 mph |
| Risk Cat.                  | II       |
| (3-Sec Peak Gust MPH*)     |          |
| Wind Importance Factor     | I= 1     |
| Wind Exposure              | C        |
| Gust Factor                | 0.85     |

Snow Loads

|                      |                      |
|----------------------|----------------------|
| Ground Snow Load     | Pg= 25 psf           |
| Snow Exposure Factor | Ce= 1.0              |
| Snow Load Importance | I <sub>s</sub> = 1.1 |
| Thermal Factor       | C <sub>t</sub> = 1.0 |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

**MURDOCH**  
**ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

[murdochengineering.com](http://murdochengineering.com)  
(973) 810-4202  
73 Paterson St. 2nd Floor  
New Brunswick, NJ 08901

PREPARED FOR:

Jack Stone Signs

Isometric View  
Awning Frame

12901 Worldgate Dr.  
Herndon, VA

PROJECT TITLE:

PROJECT #:

| No: | Issue/Revision:   | Date:   |
|-----|-------------------|---------|
| —   | Initial Submittal | 11-6-18 |
| 1   |                   |         |
| 2   |                   |         |
| 3   |                   |         |
| 4   |                   |         |

**MURDOCH**  
**ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 970-8215

*Jere Murdoch* 11/6/2018

**Jere Murdoch, PE**  
Professional Engineer  
NJ PE Lic. #402050214  
Exp. 4/30/2020

DATE SIGNED:

ENGINEER:

DWG TITLE:

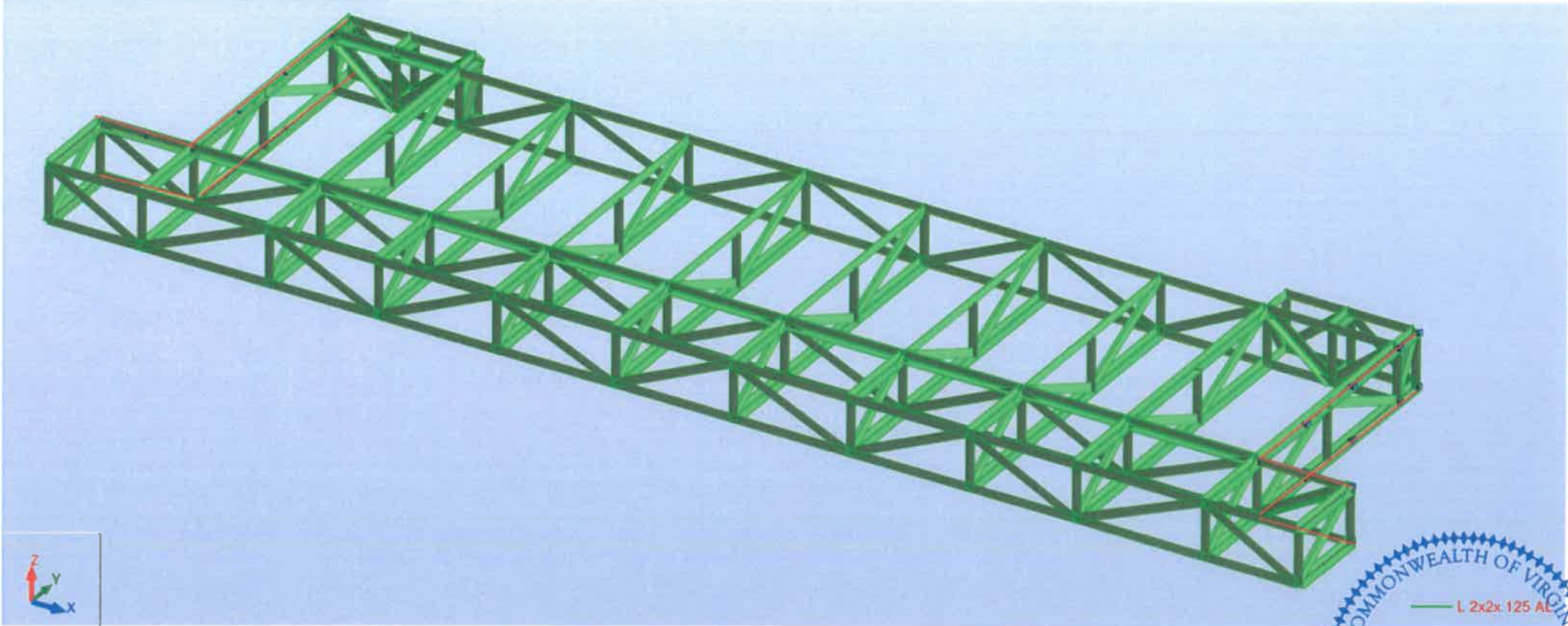
NOTES & ELEVATION

SHEET:

I.1

SIZE:

B



Engineers Frame Note:  
-Entire frame made of 2" x 2" x 1/8"  
Aluminum Angle. Frame sections  
where fasteners will be installed  
need to be 2" x 2" x 1/4" Aluminum  
Angle.

The designs, details and specifications contained in this drawing are confidential. The recipients of this drawing hereby acknowledge and agree that it is the sole property of Murdoch Engineering and that they shall neither use nor reveal any of the designs, details and specifications contained in this drawing, outside of the contractual agreement expressed written permission from Murdoch Engineering.

Deviations from this drawing shall not be made without consulting Murdoch Engineering. In case of incongruities between drawings, specifications, and details included in contract documents, Murdoch Engineering shall decide which indication must be followed and their decision shall be final.

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Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
| Nominal Design Wind Speed  | 89.1 mph |
| Risk Cat.                  | II       |
| (3-Sec Peak Gust MPH*)     |          |
| Wind Importance Factor     | I= 1     |
| Wind Exposure              | C        |
| Gust Factor                | 0.85     |

**Snow Loads**

|                      |            |
|----------------------|------------|
| Ground Snow Load     | Pg= 25 psf |
| Snow Exposure Factor | Ce= 1.0    |
| Snow Load Importance | Is= 1.1    |
| Thermal Factor       | Ct= 1.0    |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

CANOPY

12801, 12825,  
12851 and 21901  
will match exactly

Canopy facia and  
soffit color shall  
match existing grey  
storefront/curtain  
wall - see provided  
material sample



ENTRANCE RENDER    NTS

COMMONWEALTH OF VIRGINIA

JERE K. MURDOCH  
Lic. No. 50214

PROFESSIONAL ENGINEER

**MURDOCH  
ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 570-8215

*Jere Murdoch* 11/6/2018

**Jere Murdoch, PE**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020

## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

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### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)





## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR ALTERATIONS TO AN EXISTING STRUCTURE, ARB #19-04.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider the addition of a new canopy on an existing office building. The proposed metal canopy is located at the front entrance of 12825 Worldgate Drive, Herndon (Attachment #1). The building's numerical address would be incorporated into the design of the canopy.

#### Location Factors:

|                    |                                                                                                                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | William H. Wilmer, Moore & Associates, Agent                                                                                                                                                 |
| Owners:            | Worldgate Dulles, LLC                                                                                                                                                                        |
| Use:               | Commercial Office                                                                                                                                                                            |
| Location:          | 12825 Worldgate Drive                                                                                                                                                                        |
| Tax Map Reference: | 0164-02-0024A                                                                                                                                                                                |
| Zoning of Site:    | PD-W, Planned Development - Worldgate                                                                                                                                                        |
| Adjacent Zoning:   | North: PD-W, Planned Development - Worldgate<br>South: VA Route 267 Right-of-Way<br>East: PD-TOC, Planned Development – Transit Oriented Core<br>West: PD-W, Planned Development – Worldgate |

#### Description:

This application proposes to attach a new overhead canopy structure at the entrance to one of the buildings within the Worldgate Metro Plaza development.

The proposed addition consists of a canopy that extends approximately 6'-7" from the recessed entry and spans 23'-6" across the facade at a height of approximately 12'-11" above the first-floor finish grade. The canopy will be approximately 13" deep and be constructed of aluminum with a polyurethane finish color to match the existing storefront framing and curtain wall that extends vertically to the 8<sup>th</sup> floor of the office building. In addition, the applicant proposes to remove existing building address numbers and add new building address numbers made of 12" tall black painted aluminum numbers pin-mounted to the fascia of the canopy. The address is considered signage and will cover an area of approximately 2.92 square feet (Attachment #2, #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-04 with the following conditions:

1. The proposed building canopy and address numbering shall be installed in substantial conformance with the application and supporting materials as submitted December 17, 2018.

### **Staff Analysis:**

1. The canopy is being proposed to add an architectural element that more clearly announces the entrance to the building for pedestrians and vehicular traffic on and near the site. The numerical address will replace existing numbers and is designed to make the building address more visible to the passerby. The new address will occupy only 2.92 square feet of the total amount of allowable wall sign area permitted on the ground floor of buildings in this zoning district. Staff finds that the proposed alterations are in keeping with the Town's Zoning Ordinance, Section 78-141.5 - Sign standards for properties in the Worldgate District (PD-W).
2. The proposed alteration complies with all the applicable design criteria for this commercial office property within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. The proposed materials and color scheme will be in keeping with the building's existing architectural features while achieving the visual effect intended by the applicant. Staff concludes that the proposed project will improve the visual appeal of this commercial property by more clearly emphasizing the main entrance to this building in a manner that is compatible with the existing architectural design.



**Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Plan and Site Photos of Existing Conditions
5. Proposed Canopy Plan, Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



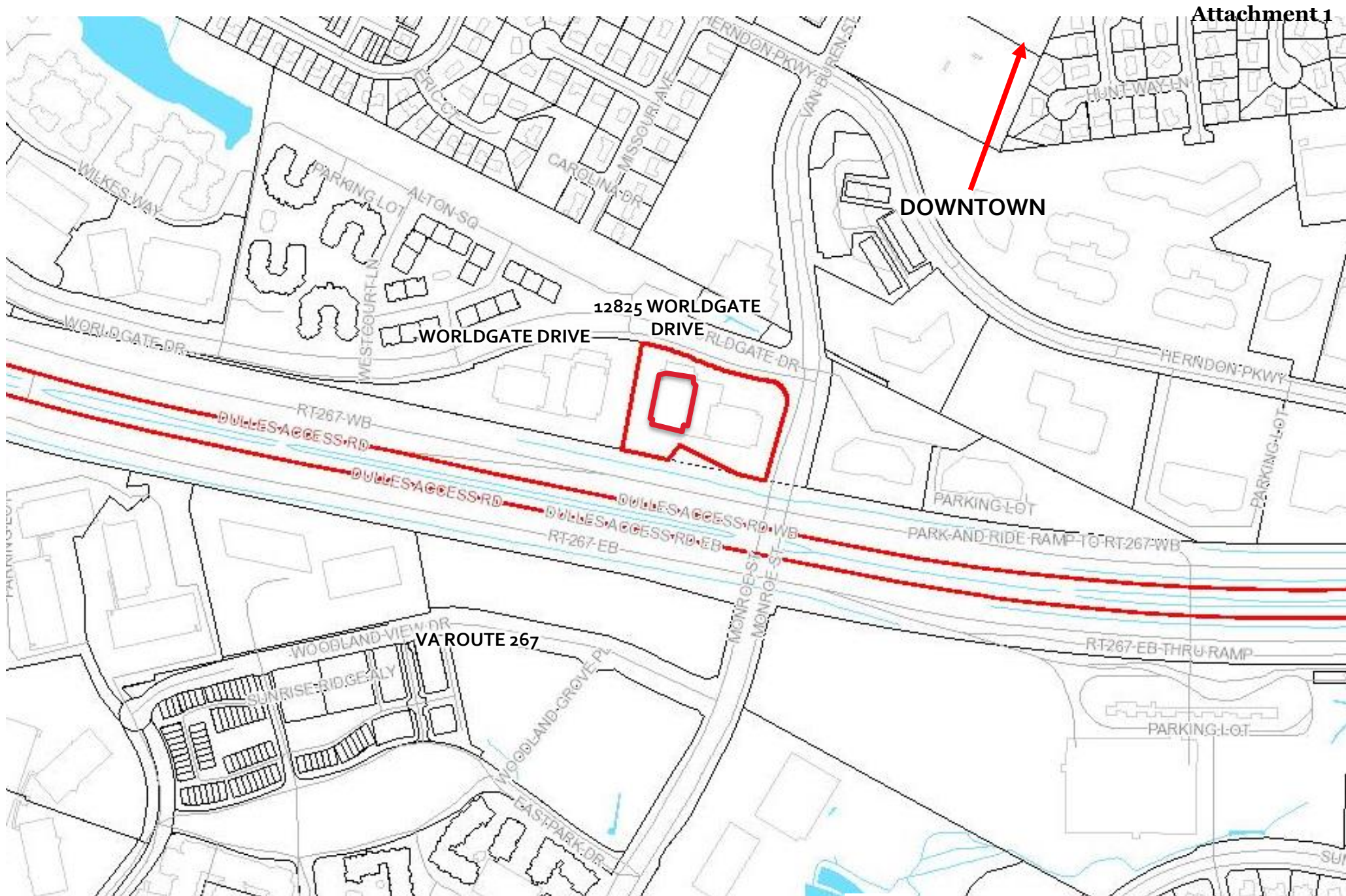
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Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



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Elizabeth M. Gilleran, AICP  
Director of Community Development

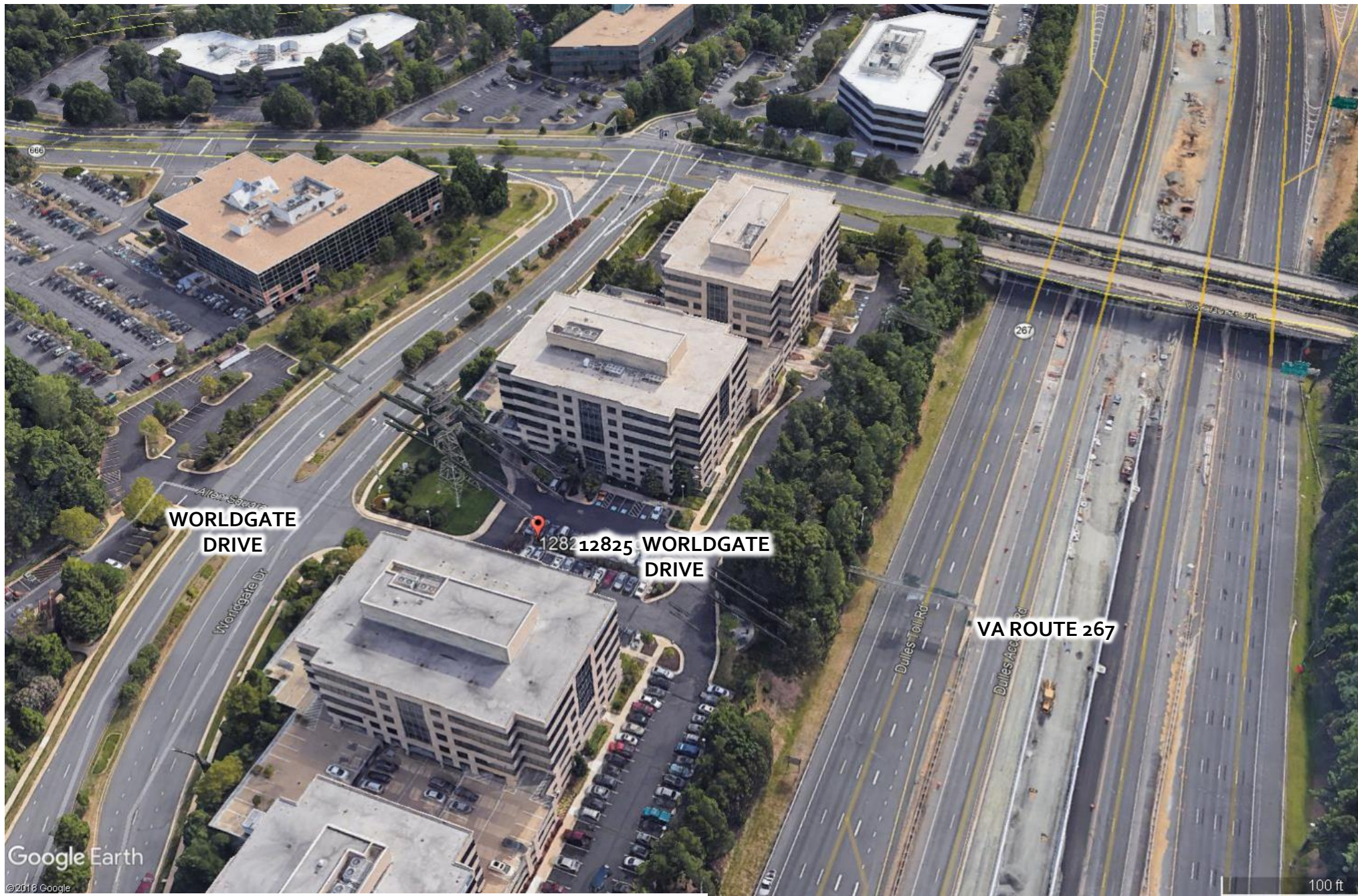


## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





Moore & Associates  
12901 Worldgate Drive  
Suite 550  
Herndon, VA 20170

12/17/2018

Town of Herndon  
Architectural Review Board  
Attn. Christopher J. Garcia  
777 Lynn Street  
Herndon, VA 20170

Dear Mr. Garcia,

Please accept our ARB submission for the addition of a canopy at the entry to our building at 12825 Worldgate Drive in Herndon, VA. As you know we are in the process of making a number of improvements to the four buildings at 12901, 12851, 12825 and 12801 Worldgate Drive, collectively known as Worldgate Metro Plaza. As we have owned the property over the last year, one of the issues that has become apparent is that the recessed building entries are not as obvious as they should be to visitors. This is especially apparent in the two entries (12901 and 12801) which face the Toll Road. As we have toured other buildings in Herndon, we have found that a majority of them have canopies over the entrances making it very obvious how the buildings are accessed. We are proposing to add simple entrance canopies that protrude three feet proud of the building façades. The material will be grey aluminum to match the existing storefront/curtain wall that extends from the sidewalk up through the building to the 8<sup>th</sup> floor. The details have been kept to a minimum to match the simple details of the existing building. The address of each building will be installed on the face of the canopy in black to contrast with the façade and make it easily identifiable.

Thank you for your consideration. I can be reached by phone or email, at the number and address listed below, should you have any questions or require any clarification.

Sincerely,  
William H. Wilmer

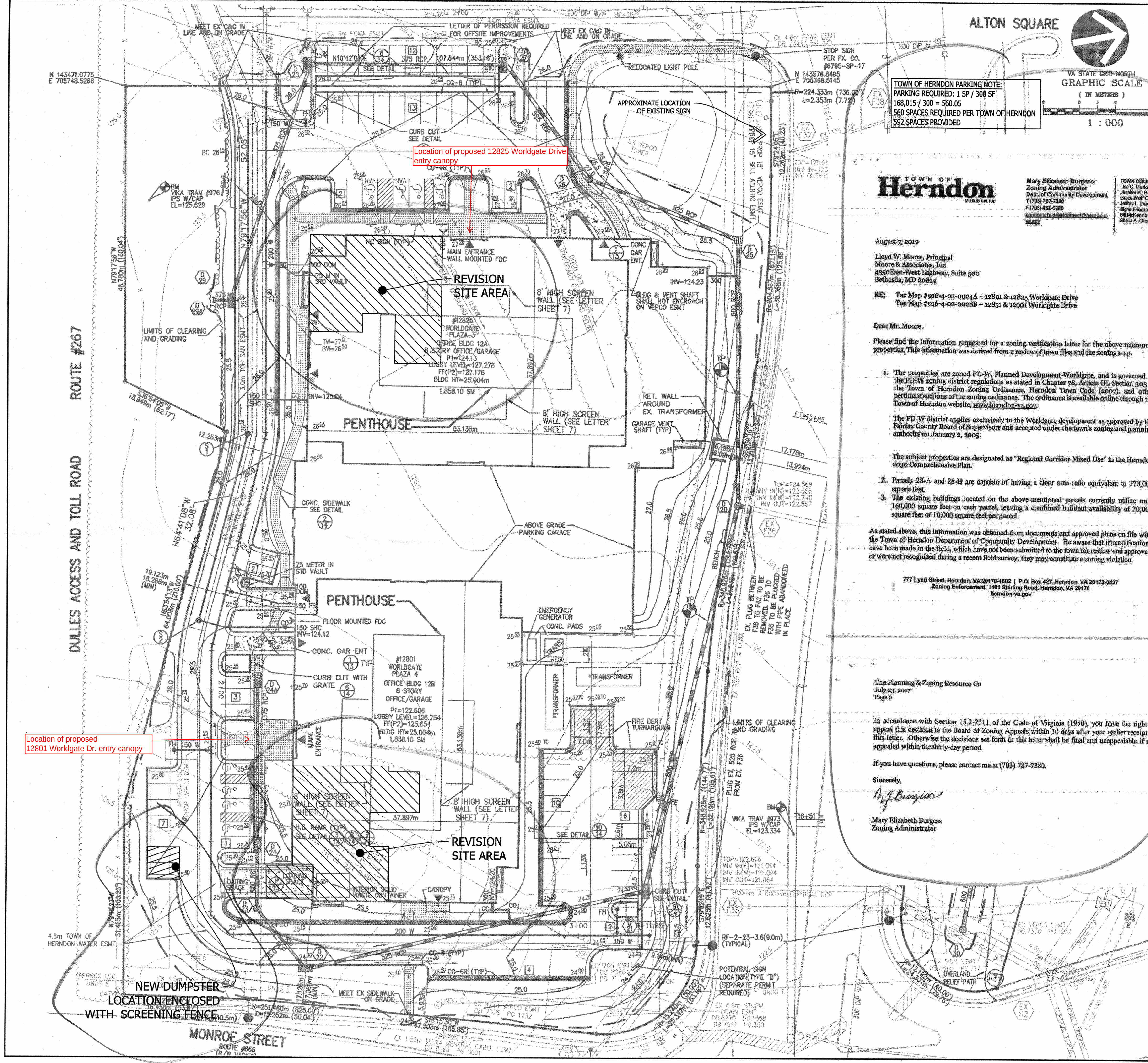
Senior Vice President  
Moore & Associates, Inc.  
443-994-9565

[WilmerW@MooreAssociates.com](mailto:WilmerW@MooreAssociates.com)

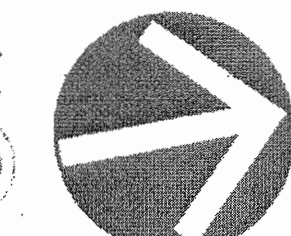








ALTON SQUARE



VA STATE GRID NORTH  
GRAPHIC SCALE  
( IN METERS )  
1 : 000

TOWN OF HERNDON PARKING NOTE:  
PARKING REQUIRED: 1 SP / 300 SF  
168,015 / 300 = 560.05  
560 SPACES REQUIRED PER TOWN OF HERNDON  
592 SPACES PROVIDED

TOWN OF  
**Herndon**  
VIRGINIA

Mary Elizabeth Burgess  
Zoning Administrator  
Dept. of Community Development  
777 Lynn Street  
Herndon, VA 20170  
703.787.7380  
mary.burgess@herndonva.gov

TOWN COUNCIL  
Lisa C. Merkel, Mayor  
Jennifer K. Baker, Vice Mayor  
Gabe Wolf, Councilmember  
Jillie L. Davidson  
Steve Friedrichs  
Bill McNamee  
Shale A. Olen

August 7, 2017

Lloyd W. Moore, Principal  
Moore & Associates, Inc.  
4950 East-West Highway, Suite 300  
Bethesda, MD 20814

RE: Tax Map #016-4-02-0024A - 12801 & 12825 Worldgate Drive  
Tax Map #016-4-02-0028B - 12851 & 12901 Worldgate Drive

Dear Mr. Moore,

Please find the information requested for a zoning verification letter for the above referenced properties. This information was derived from a review of town files and the zoning map.

1. The properties are zoned PD-W, Planned Development-Worldgate, and is governed by the PD-W zoning district regulations as stated in Chapter 78, Article III, Section 303 of the Town of Herndon Zoning Ordinance, Herndon Town Code (2007), and other pertinent sections of the zoning ordinance. The ordinance is available online through the Town of Herndon website, [www.herndonva.gov](http://www.herndonva.gov).

The PD-W district applies exclusively to the Worldgate development as approved by the Fairfax County Board of Supervisors and accepted under the town's zoning and planning authority on January 2, 2005.

The subject properties are designated as "Regional Corridor Mixed Use" in the Herndon 2030 Comprehensive Plan.

2. Parcels 28-A and 28-B are capable of having a floor area ratio equivalent to 170,000 square feet.  
3. The existing buildings located on the above-mentioned parcels currently utilize only 160,000 square feet on each parcel, leaving a combined buildout availability of 20,000 square feet or 10,000 square feet per parcel.

As stated above, this information was obtained from documents and approved plans on file with the Town of Herndon Department of Community Development. Be aware that if modifications have been made in the field, which have not been submitted to the town for review and approval, or were not recognized during a recent field survey, they may constitute a zoning violation.

777 Lynn Street, Herndon, VA 20170-4602 | P.O. Box 427, Herndon, VA 20172-0427  
Zoning Enforcement: 1481 Sterling Road, Herndon, VA 20170  
[herndonva.gov](http://herndonva.gov)

The Planning & Zoning Resource Co  
July 23, 2017  
Page 2

In accordance with Section 15.2-2311 of the Code of Virginia (1950), you have the right to appeal this decision to the Board of Zoning Appeals within 30 days after your earlier receipt of this letter. Otherwise the decisions set forth in this letter shall be final and unappealable if not appealed within the thirty-day period.

If you have questions, please contact me at (703) 787-7380.

Sincerely,

Mary Elizabeth Burgess  
Zoning Administrator

OVERALL F.A.R. TABULATIONS

|                                        |                                                            |
|----------------------------------------|------------------------------------------------------------|
| GROSS SITE AREA:                       | 94.12 Ac                                                   |
| ROW DEDICATION:                        | 14.38 Ac                                                   |
| NET SITE AREA:                         | 79.76 Ac                                                   |
| ZONING CATEGORY:                       | PDC                                                        |
| OVERALL F.A.R. CALCULATIONS:           | $160,000 + 8,015 = 168,015$<br>$160,000 + 7,762 = 167,762$ |
| PROPOSED OFFICE BLDG. #12 (6795-SP-18) | 160,000 GFA                                                |
| EXISTING OFFICE BLDG. #11 (6795-SP-17) | 180,000 GFA                                                |
| EX OFFICE BLDG. #1 (6795-SP-01)        | 173,837 GFA                                                |
| EX OFFICE BLDG. #2 (6795-SP-07)        | 174,708 GFA                                                |
| EX OFFICE BLDG. #3 (6795-SP-15)        | 187,507 GFA                                                |
| EX OFFICE BLDG. #4 (6795-SP-16)        | 210,000 GFA                                                |
| FUTURE BLDG'S 5 & 6 (6795-SP-19)       | 420,000 GFA                                                |
| TOTAL OFFICE PROVIDED (0.357 F.A.R.)   | 1,468,052 GFA                                              |
| TOTAL OFFICE ALLOWED (0.388 F.A.R.)    | 1,583,216 GFA                                              |
| OTHER USES:                            |                                                            |
| EX HOTEL 1 (6795-SP-05)                | 198,945 GFA                                                |
| EX MIXED USE BLDG (FDPA 88-D-006-6)    | 262,927 GFA                                                |
| TOTAL OTHER USES                       | 461,872 GFA                                                |
|                                        | 0.112 F.A.R.                                               |

RESIDENTIAL BLDGS:

|                                              |              |
|----------------------------------------------|--------------|
| APARTMENTS PHASE 1 & 2 (508 DU) (6795-SP-11) | 558,764 GFA  |
| APARTMENT PHASE 3 (320 DU) (6795-SP-14)      | 266,022 GFA  |
| TOTAL RESIDENTIAL                            | 824,786 GFA  |
|                                              | 0.201 F.A.R. |

DENSITY:

|  |           |
|--|-----------|
|  | 8.9 DU/Ac |
|--|-----------|

F.A.R. SUMMARY:

|                                                  |               |
|--------------------------------------------------|---------------|
| EXISTING OFFICE INCLUDING THIS PLAN (6795-SP-18) | 1,046,052 GFA |
| FUTURE OFFICE                                    | 420,000 GFA   |
| OTHER USES                                       | 461,872 GFA   |
| RESIDENTIAL                                      | 824,786 GFA   |
| TOTAL G.F.A. PROVIDED                            | 2,752,710 GFA |
| TOTAL F.A.R. PROVIDED                            | 0.671 F.A.R.  |
| ALLOWABLE F.A.R.                                 | 0.70 F.A.R.   |
| ALLOWABLE G.F.A.                                 | 2,869,674 GFA |

PARKING:

|                                              |                      |
|----------------------------------------------|----------------------|
| REQUIRED (2.6 x 160) = 416                   | *SEE NOTE THIS SHEET |
| TOTAL REQUIRED: 416 SPACES                   |                      |
| TOTAL PROVIDED: 592 SPACES (INCLUDING 13 HC) |                      |
|                                              | 592                  |

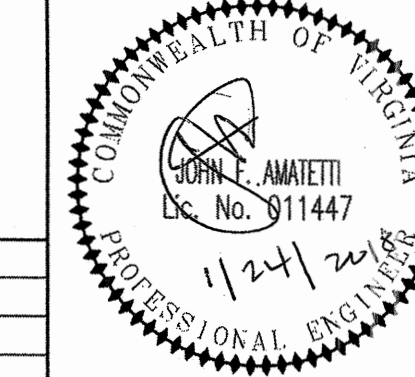
NOTES:

- ENTRANCES OF WORLDGATE DRIVE STA. 13+36.581 AND 15+14.583 ARE EXISTING AND WERE CONSTRUCTED WITH WORLDGATE DRIVE STA. 21+00 TO STA. 54+35 (FX. CO. PLAN NO. 6795-SP-06). SEE SHEETS 7 & 8 OF THE 6795-SP-06 PLANS FOR SIGHT DISTANCE PROFILES. SIGHT DISTANCE EASEMENTS ARE RECORDED IN DEED BOOK 7324 AT PAGE 325 (SEE SHEETS 37 & 38B).
- SOLID WASTE STORED IN CONTAINERS (8CY.) LOCATED INSIDE EACH BLDG. AT LOADING DOCK WEST BLDG. + IN STORAGE ROOM EAST BLDG. WITH PICKUP TWICE WEEKLY.
- EXISTING EASEMENTS TO BE VACATED WHERE APPLICABLE (SEE SHEET 2)
- SEE SITE PLAN NOTES & LEGEND ON SHEET 14.

LEGEND:

TP TEST PIT

\*CONCRETE PAD FOR FUTURE  
TENANT EQUIPMENT



| DATE                      | DESCRIPTION |
|---------------------------|-------------|
| 2/18/99                   | F.M. RESUB  |
| REV JAN. 26 1999          |             |
| ADDRESS HERNDON           |             |
| COMMENTS: 2-19-99         |             |
| RAISE SANITARY            |             |
| 4-26-99                   |             |
| TOH INSERTS 5-14-99       |             |
| REV. 1/22/2018            |             |
| DATE: SEPT, 1998          |             |
| DES. PR                   | DWN. DH     |
| SCALE: N/A                |             |
| PROJECT/FILE NO. WV5540AV |             |
| SHEET NO. 3 OF 40         |             |

WORLDGATE LAND BAY M  
OFFICE BUILDING 12  
DRAVESVILLE DISTRICT  
HERNDON, VIRGINIA

SITE PLAN

|                           |         |
|---------------------------|---------|
| F.M. RESUB                | 2/18/99 |
| REV JAN. 26 1999          |         |
| ADDRESS HERNDON           |         |
| COMMENTS: 2-19-99         |         |
| RAISE SANITARY            |         |
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| REV. 1/22/2018            |         |
| DATE: SEPT, 1998          |         |
| DES. PR                   | DWN. DH |
| SCALE: N/A                |         |
| PROJECT/FILE NO. WV5540AV |         |
| SHEET NO. 3 OF 40         |         |

VIRGINIA  
VIRGINIA LLC  
8180 GREENSBORO DRIVE, SUITE 200  
(703) 442-7800 FAX (703) 781-2787  
WWW.VIKACOM

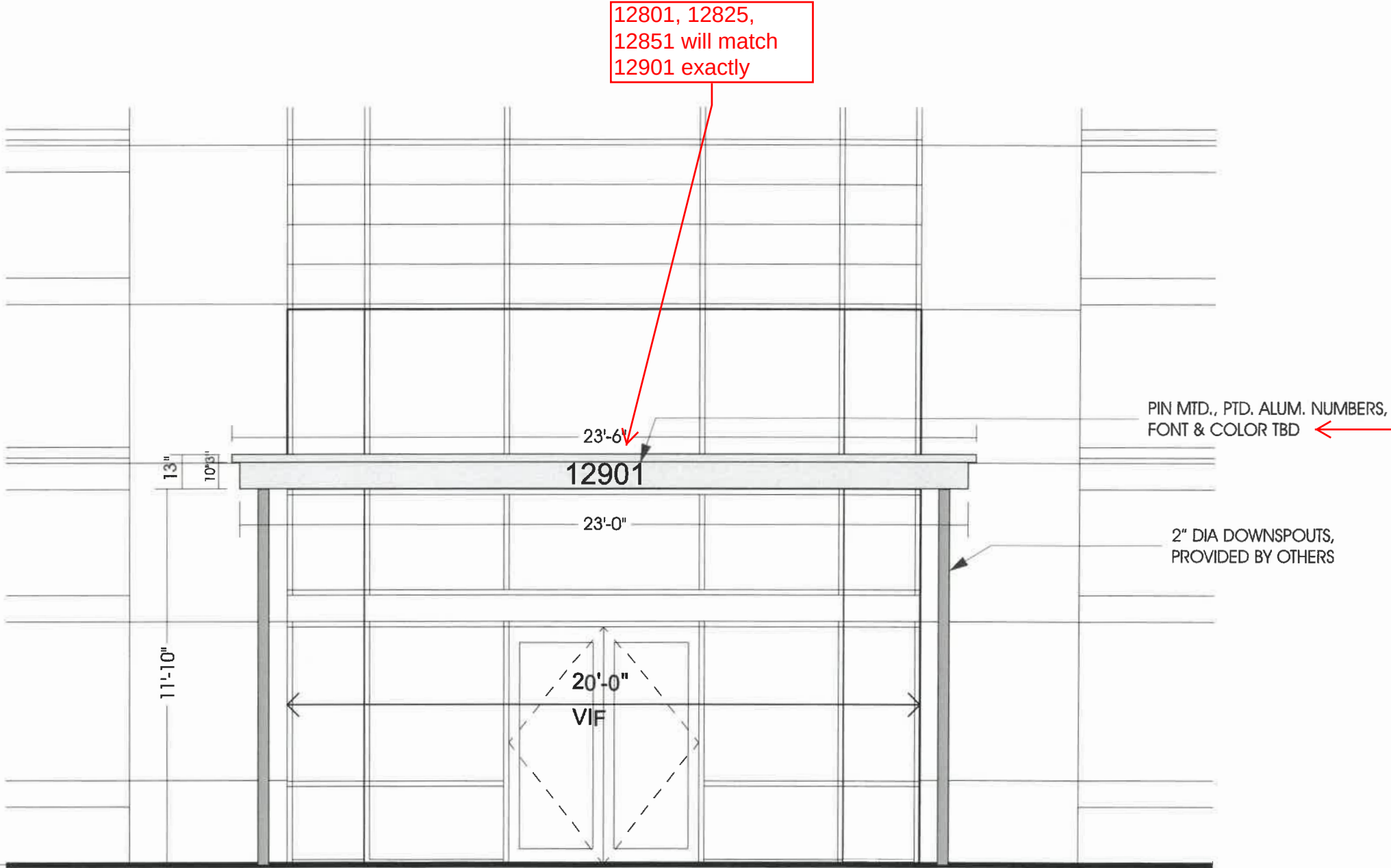
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ 3D LASER SCANNING



Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**  
Ultimate Design Wind Speed 115 mph  
Nominal Design Wind Speed 89.1 mph  
Risk Cat. II  
(3-Sec Peak Gust MPH\*)  
Wind Importance Factor I= 1  
Wind Exposure C  
Gust Factor 0.85

**Snow Loads**  
Ground Snow Load Pg= 25 psf  
Snow Exposure Factor Ce= 1.0  
Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10



ENTRANCE ELEVATION 1/4"=1'

QTY (1) CANOPY

13" TALL X 23' WIDE X 8' DEEP  
ALUMINUM CANOPY W/ INTERNAL ALUM. FRAME  
PTD. W/ POLYURETHANE (COLOR TBD)

TOP OF CANOPY SLOPED FOR DRAINAGE  
TO 2" DIA OPENINGS FOR FUTURE DOWNSPOUTS



**MURDOCH ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 578-8215

*Jere Murdoch* 11/6/2018  
**Jere Murdoch, PE**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020



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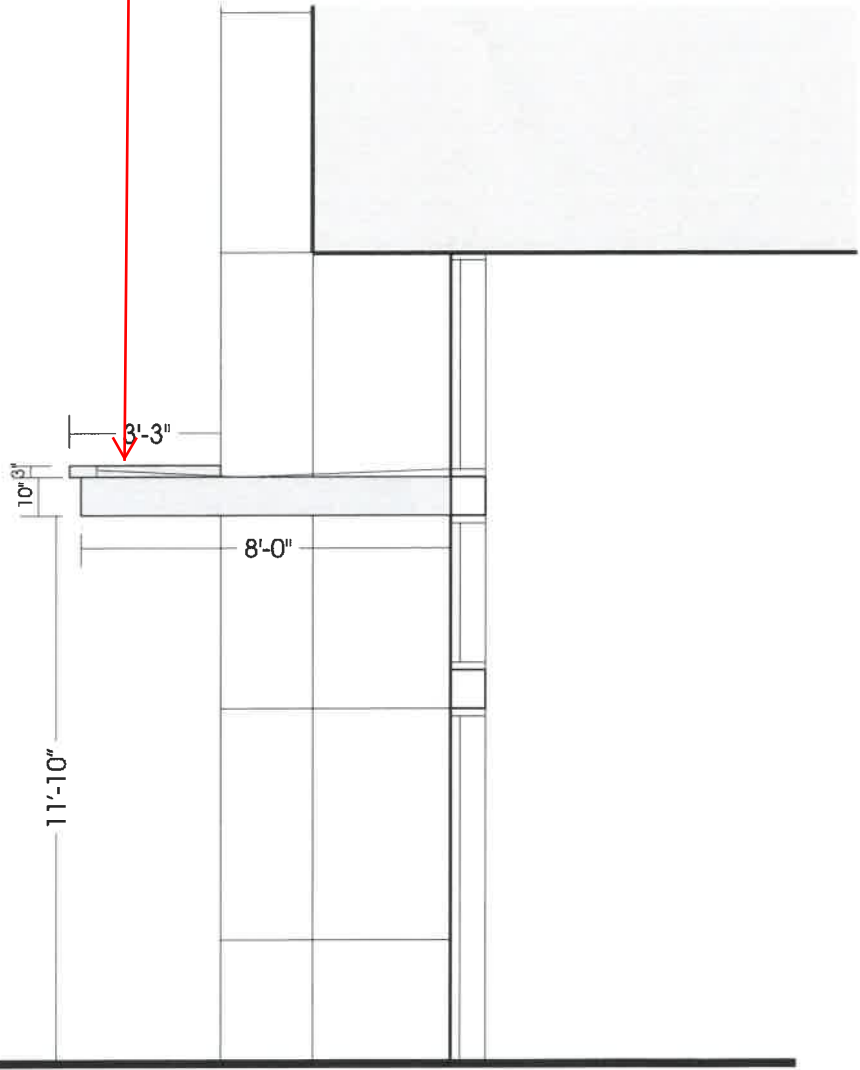
CANOPY

Roof shall be aluminum - cannot be seen from the ground

Roof shall be aluminum - cannot be seen from the office space above due to set-back window sills at curtain wall.



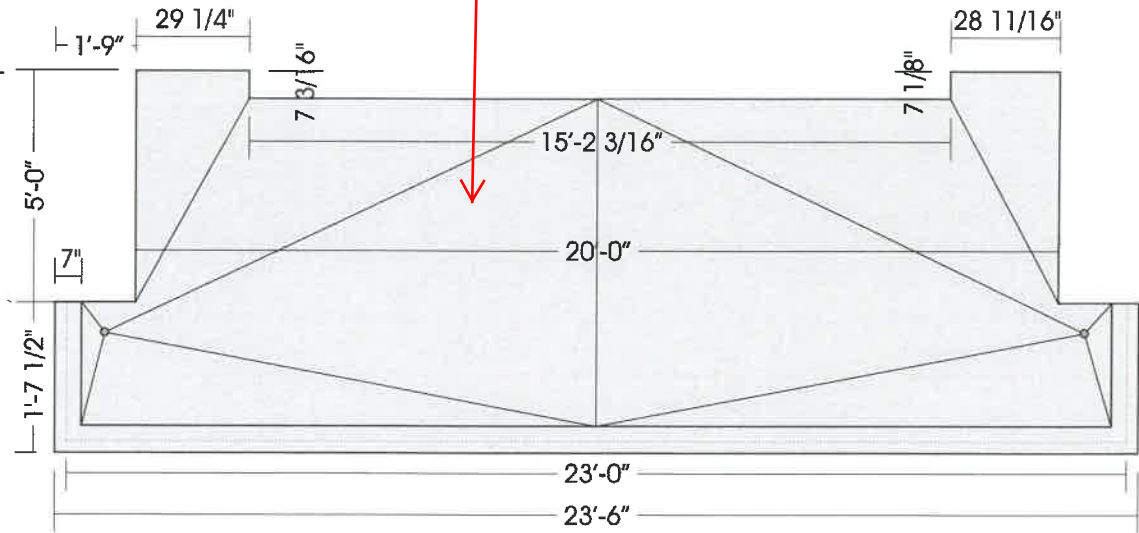
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EXTERIOR — BUILDING LOBBY

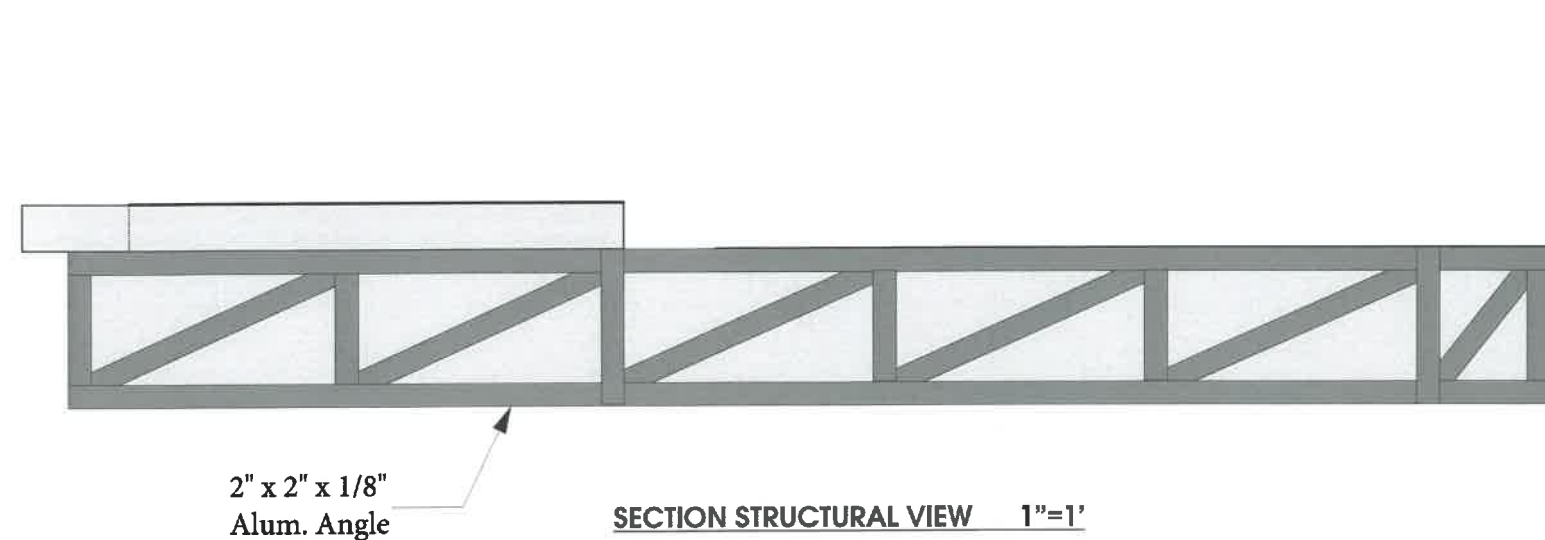
**ENTRANCE SECTION 1/4"=1'**

EXTERIOR — BUILDING LOBBY

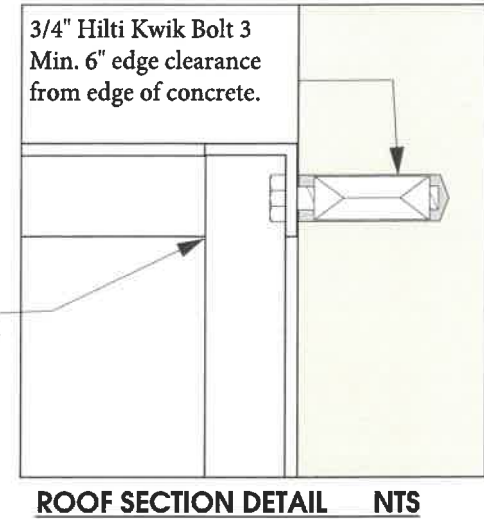


**ENTRANCE ROOF PLAN 1/4"=1'**

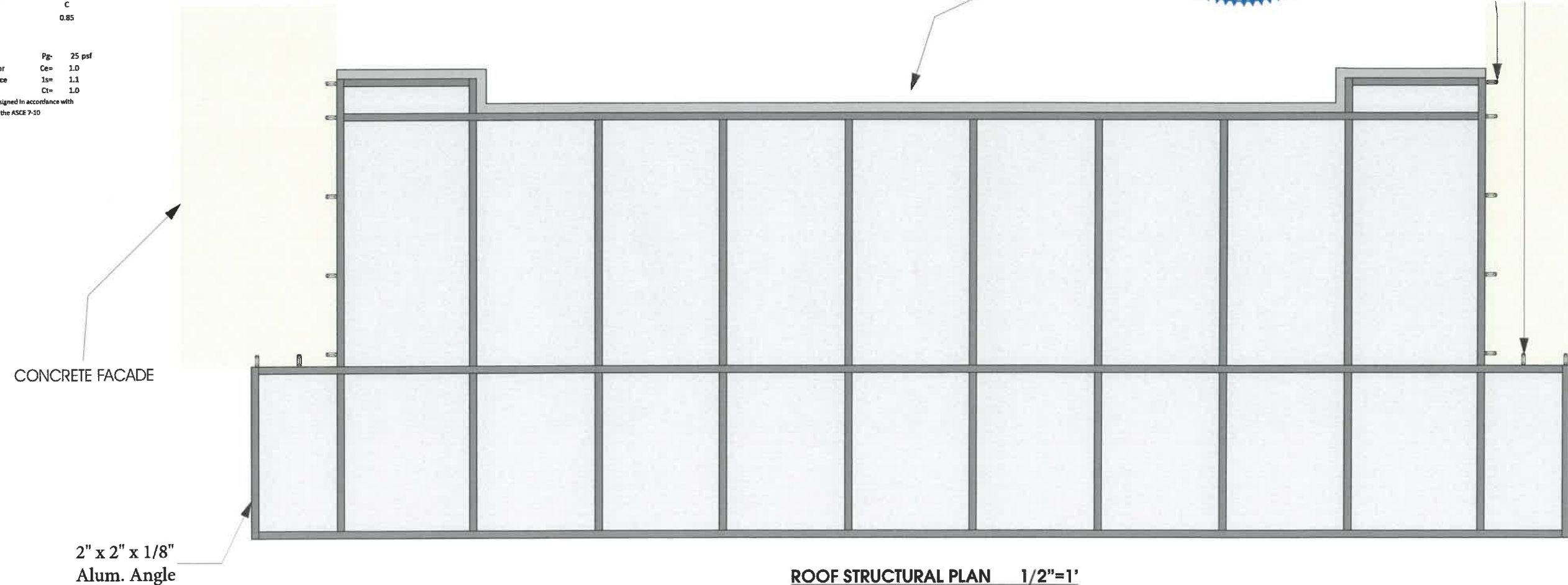




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Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10



3/4" Hilti Kwik Bolt 3 Min. 6" edge clearance from edge of concrete. Fasteners to be in top and bottom frame section. Frame section at connection point to be 2 x 2 x 1/4" alum angle. (10) Ten top (10) ten bottom (20) twenty per side.

CONCRETE FACADE  
Verify Columns are solid concrete before install. If field conditions vary call Murdoch Engineering for Fastener Change



GENERAL:

1. ALL MATERIALS AND WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL BUILDING CODE (IBC).
2. CONSTRUCTION METHODS AND PROJECT SAFETY: DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES, OR SEQUENCE OF CONSTRUCTION. TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. THE EOR WILL NOT ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES THAT ARE FOUND. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
4. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND FIELD INSPECTOR. THE ENGINEER SHALL PROVIDE A SOLUTION PRIOR TO PROCEEDING WITH ANY WORK AFFECTED BY THE CONFLICT OR OMISSION.
5. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, CONSTRUCT IN ACCORDANCE WITH THE STEEL CONSTRUCTION MANUAL, 14TH EDITION OR 2010 ALUMINUM DESIGN MANUAL.
6. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR IS TO APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
7. ANY CHANGE TO THE DESIGN AS SHOWN ON THE DRAWINGS REQUIRES PRIOR WRITTEN APPROVAL FROM DESIGN ENGINEER OF RECORD BEFORE CONSTRUCTION.
8. WORK PERFORMED IN CONFLICT WITH THE STRUCTURAL DRAWINGS OR APPLICABLE BUILDING CODE REQUIREMENTS SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
9. VERIFICATION: VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. NOTIFY THE EOR IMMEDIATELY OF ANY DISCREPANCIES.

STEEL

1. STEEL SHAPES SHALL CONFORM TO THE FOLLOWING:

|                 |                 |                |
|-----------------|-----------------|----------------|
| ROUND HSS       | ASTM A500, GR B | Fy=42 KSI MIN. |
| SQUARE/RECT HSS | ASTM A500, GR B | Fy=46 KSI MIN. |
| THREADED ROD    | ASTM A36        | Fy=46 KSI MIN. |
| STEEL PLATE     | ASTM A36        | Fy=36 KSI MIN. |
| STD. PIPE       | ASTM A53, GR B  | Fy=35 KSI MIN. |
2. BOLTS SHALL CONFORM TO ASTM A307 UNO.
3. BOLTS AND THREADED ROD SHALL BE HOT-DIP GALVANIZED PER ASTM F2329 UNO.
4. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 UNO.
5. NUTS SHALL CONFORM TO ASTM A563.
6. WASHERS SHALL CONFORM TO ASTM F444.
7. STEEL HARDWARE SHALL BE HOT-DIP GALVANIZED PER ASTM A153 UNO
8. WELDING:
  - a. WELD STRUCTURAL STEEL IN COMPLIANCE WITH ANSI/AWS D1.1 AND AISC SPECIFICATION, CHAPTER J. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY. WELDING SHALL BE DONE BY ELECTRIC ARC PROCESS USING LOW-HYDROGEN ELECTRODES WITH SPECIFIED TENSILE STRENGTH NOT LESS THAN 70 KSI UNLESS NOTED OTHERWISE.
  - b. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH ACTIVE STATUS AT TIME OF WELDING
  - c. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELDS PER AISC SPECIFICATION, SECTION J2, TABLE J2.4
  - d. BASE PLATES SHALL BE WELDED ON TOP AND BOTTOM WITH CONTINUOUS WELDS OF AT LEAST 1/4" (IF PLATE IS CUT TO FIT TUBE INTO PLATE)

ALUMINUM

1. FABRICATE AND ERECT ALUMINUM IN COMPLIANCE WITH THE ALUMINUM ASSOCIATION (AA) 2010 ALUMINUM DESIGN MANUAL (ADM) 1, THE SPECIFICATIONS FOR ALUMINUM SHEET METAL WORK (ASM35), AND IBC CHAPTER 20.
2. PIPE AND TUBE SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=15 KSI MIN, Ftyw=15 KSI MIN.
3. STD STRUCTURAL PROFILES SHALL BE 6061-T6 PER B308 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
4. SHEET AND PLATE SHALL BE 6061-T6 PER ASTM B209 WITH Ftu=42 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
5. EXTRUSIONS SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
6. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH CURRENT STATUS AT TIME OF WELDING
7. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELD PER ADM. ALL ALUMINUM WELDED JOINTS SHALL HAVE WELD SIZES OF AT LEAST 1/8"
8. FILLET WELDS SHALL NOT EXCEED THINNESS MEMBER WALL THICKNESS JOINED.
9. ALUMINUM WELD FILLER SHALL BE 5356 ALLOY
10. WELDING PROCESS GMAW OR GTAW SHALL BE IN ACCORDANCE WITH AWS D1.2
11. ALUMINUM CHANNEL LETTERS SHALL BE CONSTRUCTED OF 0.090" RETURNS AND 0.125" BACKS MINIMUM, UNLESS A LARGER SIZE IS INDICATED ON DRAWINGS. THIS NOTE SHALL SUPERCEDE DRAWING DETAILS
12. PROVIDE NEOPRENE GASKET BETWEEN DISSIMILAR METALS TO PREVENT GALVANIC CORROSION
13. ALUMINUM DIRECTLY EMBEDDED INTO CONCRETE SHALL BE CAPPED AT BOTTOM AND COATED WITH BITUMINOUS COATING OR POLYURETHANE WHERE IN CONTACT WITH CONCRETE.
14. FASTENERS BETWEEN DISSIMILAR METALS SHALL BE STAINLESS STEEL 316.

CONCRETE & REINFORCEMENT

1. MINIMUM 28-DAY COMPRESSIVE STRENGTH (fc') SHALL BE 3,000 PSI. THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.45 BY WEIGHT. A MINIMUM OF 5-3/4 BAGS OF CEMENT SHALL BE USED PER CUBIC YARD WITH A SLUMP OF 4" +/- 1.
2. REINFORCEMENT TO BE ASTM A615 GR 60, Fy=60 KSI UNO
3. CALCIUM CHLORIDE OR ADDED CHLORIDE IS NOT PERMITTED
4. VIBRATION: ALL REINFORCED CONCRETE SHALL BE CONSOLIDATED WITH MECHANICAL VIBRATORS.
5. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-11
6. PROVIDE A MINIMUM OF 2-1/2" COVER OF ALL EMBEDDED STEEL REBAR AND A MINIMUM OF 6 INCHES OF COVER FOR DIRECT BURIED PIPE OR TUBE MEMBERS.

FOUNDATIONS

1. CONCRETE POURED INTO CONSTRAINED EARTH EXCAVATIONS MUST CURE UNDER PROPER CONDITIONS FOR A MINIMUM OF 7 DAYS PRIOR TO SIGN BOX INSTALLATION. (EXCEPTION: IF THE OVERALL HEIGHT OF THE SIGN IS LESS THAN 20 FEET AND THE SIGN IS ADEQUATELY BRACED AGAINST WIND LOADS FOR A MINIMUM OF 4 DAYS, THE BOX MAY BE INSTALLED THE SAME DAY AS THE FOOTING IS POURED)
2. FOOTINGS MUST BE POURED AGAINST UNDISTURBED EARTH. SOIL BACKFILL IS UNACCEPTABLE. WHEN A SONOTUBE IS USED AS THE FORM, 3/4" BLUESTONE OR CONCRETE SHALL BE USED TO BACKFILL THE SPACE BETWEEN THE SONOTUBE AND UNDISTURBED EARTH.
3. COLD WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS OR LOW TEMPERATURES. DO NOT POUR CONCRETE DURING OR WHEN FREEZING TEMPERATURES ARE ANTICIPATED WITHIN 3 DAYS OF POUR.

SCOPE OF WORK

1. LIMITS OF LIABILITY TO EXTEND ONLY TO THE QUANTITY INDICATED. ATTEMPTS IN PART OR IN WHOLE TO INSTALL GREATER QUANTITIES THAN THOSE SPECIFIED WITHOUT CONSULTING MURDOCH ENGINEERING SHALL VOID ALL PROFESSIONAL LIABILITY AND COVERAGE.

SHEET INDEX

S.1 NOTES & ELEVATION

Designed Per IBC 2012 VA Edition

With Applicable Herndon Amendments

Wind Loads

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
| Normal Design Wind Speed   | 89.1 mph |
| Risk Cat.                  | II       |
| (3-Sec Peak Gust MPH*)     |          |
| Wind Importance Factor     | I= 1     |
| Wind Exposure              | C        |
| Gust Factor                | 0.85     |

Snow Loads

|                      |                      |
|----------------------|----------------------|
| Ground Snow Load     | Pg= 25 psf           |
| Snow Exposure Factor | Ce= 1.0              |
| Snow Load Importance | I <sub>s</sub> = 1.1 |
| Thermal Factor       | C <sub>t</sub> = 1.0 |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

**MURDOCH**  
**ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

[murdochengineering.com](http://murdochengineering.com)  
(973) 810-4202  
73 Paterson St. 2nd Floor  
New Brunswick, NJ 08901

PREPARED FOR:

Jack Stone Signs

Isometric View  
Awning Frame

12901 Worldgate Dr.  
Herndon, VA

PROJECT TITLE:

PROJECT #:

| No: | Issue/Revision:   | Date:   |
|-----|-------------------|---------|
| —   | Initial Submittal | 11-6-18 |
| 1   |                   |         |
| 2   |                   |         |
| 3   |                   |         |
| 4   |                   |         |

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2 HUMMINGBIRD CT.  
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*Jere Murdoch* 11/6/2018

**Jere Murdoch, PE**  
Professional Engineer  
NJ PE Lic. #402050214  
Exp. 4/30/2020

DATE SIGNED:

ENGINEER:

DWG TITLE:

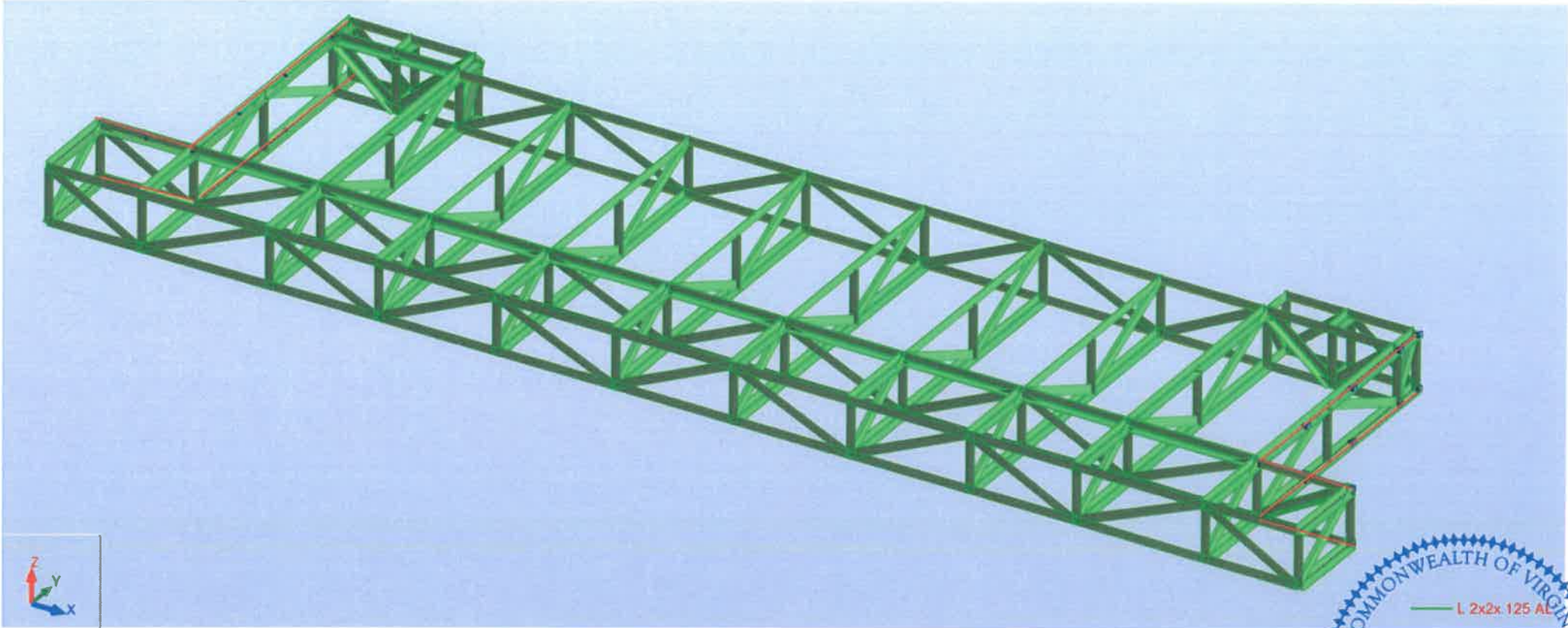
NOTES & ELEVATION

SHEET:

I.1

SIZE:

B



Engineers Frame Note:  
-Entire frame made of 2" x 2" x 1/8"  
Aluminum Angle. Frame sections  
where fasteners will be installed  
need to be 2" x 2" x 1/4" Aluminum  
Angle.

The designs, details and specifications contained in this drawing are confidential. The recipients of this drawing hereby acknowledge and agree that it is the sole property of Murdoch Engineering and that they shall neither use nor reveal any of the designs, details and specifications contained in this drawing, outside of the contractual agreement expressed written permission from Murdoch Engineering.

Deviations from this drawing shall not be made without consulting Murdoch Engineering. In case of incongruities between drawings, specifications, and details included in contract documents, Murdoch Engineering shall decide which indication must be followed and their decision shall be final.

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With Applicable Herndon Amendments

**Wind Loads**

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
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**Snow Loads**

|                      |            |
|----------------------|------------|
| Ground Snow Load     | Pg= 25 psf |
| Snow Exposure Factor | Ce= 1.0    |
| Snow Load Importance | Is= 1.1    |
| Thermal Factor       | Ct= 1.0    |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

CANOPY

12801, 12825,  
12851 and 21901  
will match exactly

Canopy fascia and  
soffit color shall  
match existing grey  
storefront/curtain  
wall - see provided  
material sample



ENTRANCE RENDER    NTS

COMMONWEALTH OF VIRGINIA

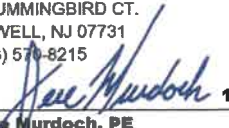
JERE K. MURDOCH  
Lic. No. 50214

PROFESSIONAL ENGINEER

MURDOCH  
ENGINEERING

SIGN STRUCTURE PROFESSIONALS

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 11/6/2018

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Exp. 4/30/2020



## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

---

### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)





## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR ALTERATIONS TO AN EXISTING STRUCTURE, ARB #19-05.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider the addition of a new canopy on an existing office building. The proposed metal canopy is located at the front entrance of 12901 Worldgate Drive, Herndon (Attachment #1). The building's numerical address would be incorporated into the design of the canopy.

#### Location Factors:

|                    |                                                                                                                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | William H. Wilmer, Moore & Associates, Agent                                                                                                                                                 |
| Owners:            | Worldgate Dulles, LLC                                                                                                                                                                        |
| Use:               | Commercial Office                                                                                                                                                                            |
| Location:          | 12901 Worldgate Drive                                                                                                                                                                        |
| Tax Map Reference: | 0164-02-0028B                                                                                                                                                                                |
| Zoning of Site:    | PD-W, Planned Development - Worldgate                                                                                                                                                        |
| Adjacent Zoning:   | North: PD-W, Planned Development - Worldgate<br>South: VA Route 267 Right-of-Way<br>East: PD-TOC, Planned Development – Transit Oriented Core<br>West: PD-W, Planned Development – Worldgate |

#### Description:

This application proposes to attach a new overhead canopy structure at the entrance to one of the buildings within the Worldgate Metro Plaza development.



The proposed addition consists of a canopy that extends approximately 6'-7" from the recessed entry and spans 23'-6" across the facade at a height of approximately 12'-11" above the first-floor finish grade. The canopy will be approximately 13" deep and be constructed of aluminum with a polyurethane finish color to match the existing storefront framing and curtain wall that extends vertically to the 8<sup>th</sup> floor of the office building. In addition, the applicant proposes to remove existing building address numbers and add new building address numbers made of 12" tall black painted aluminum numbers pin-mounted to the fascia of the canopy. The address is considered signage and will cover an area of approximately 2.92 square feet (Attachment #2, #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-05 with the following conditions:

1. The proposed building canopy and address numbering shall be installed in substantial conformance with the application and supporting materials as submitted December 17, 2018.

### **Staff Analysis:**

1. The canopy is being proposed to add an architectural element that more clearly announces the entrance to the building for pedestrians and vehicular traffic on and near the site. The numerical address will replace existing numbers and is designed to make the building address more visible to the passerby. The new address will occupy only 2.92 square feet of the total amount of allowable wall sign area permitted on the ground floor of buildings in this zoning district. Staff finds that the proposed alterations are in keeping with the Town's Zoning Ordinance, Section 78-141.5 - Sign standards for properties in the Worldgate District (PD-W).
2. The proposed alteration complies with all the applicable design criteria for this commercial office property within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. The proposed materials and color scheme will be in keeping with the building's existing architectural features while achieving the visual effect intended by the applicant. Staff concludes that the proposed project will improve the visual appeal of this commercial property by more clearly emphasizing the main entrance to this building in a manner that is compatible with the existing architectural design.

**Attachments:**

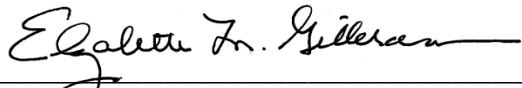
1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Plan and Site Photos of Existing Conditions
5. Proposed Canopy Plan, Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



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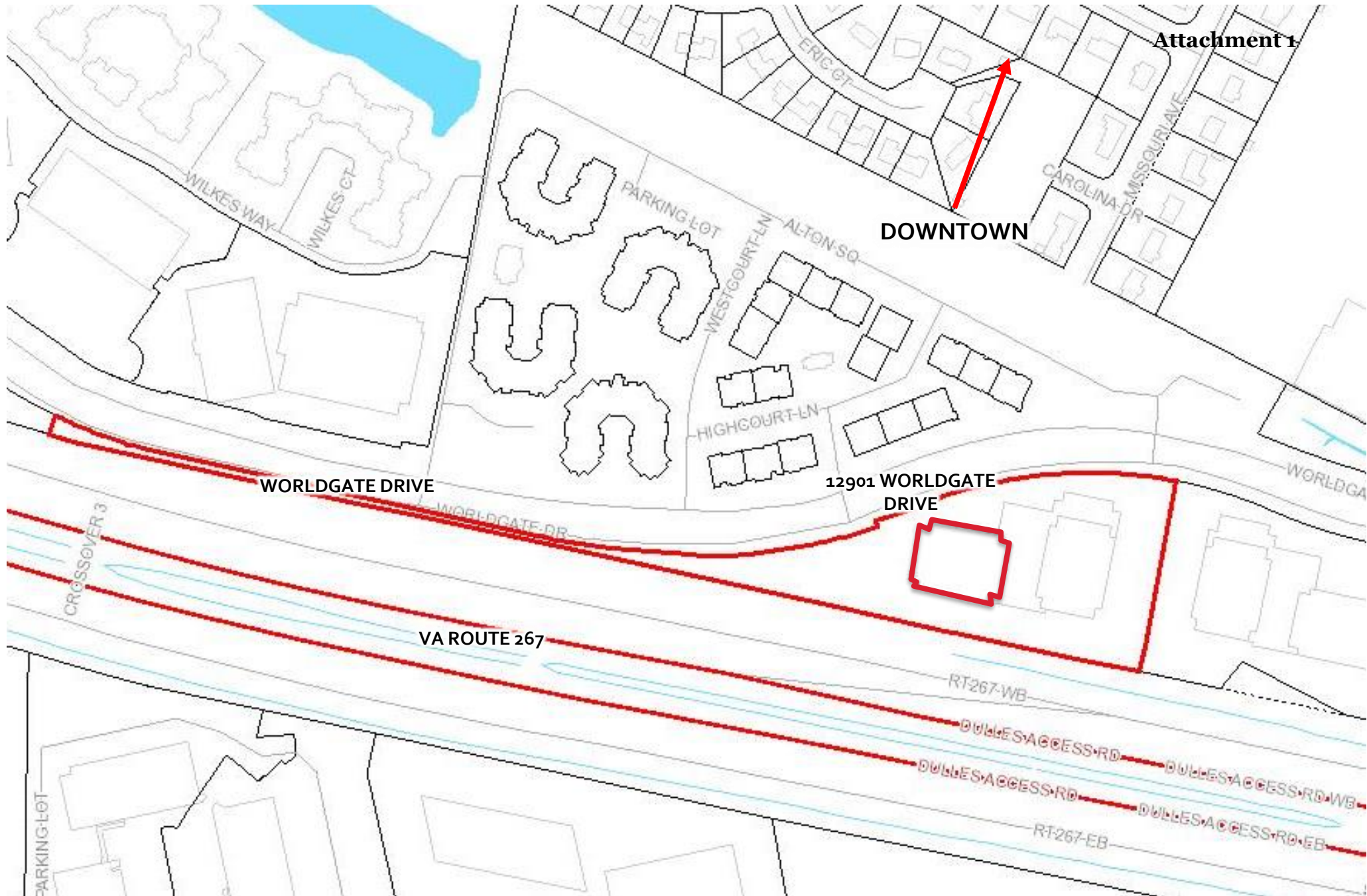
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



---

Elizabeth M. Gilleran, AICP  
Director of Community Development





## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





Moore & Associates  
12901 Worldgate Drive  
Suite 550  
Herndon, VA 20170

12/17/2018

Town of Herndon  
Architectural Review Board  
Attn. Christopher J. Garcia  
777 Lynn Street  
Herndon, VA 20170

Dear Mr. Garcia,

Please accept our ARB submission for the addition of a canopy at the entry to our building at 12901 Worldgate Drive in Herndon, VA. As you know we are in the process of making a number of improvements to the four buildings at 12901, 12851, 12825 and 12801 Worldgate Drive, collectively known as Worldgate Metro Plaza. As we have owned the property over the last year, one of the issues that has become apparent is that the recessed building entries are not as obvious as they should be to visitors. This is especially apparent in the two entries (12901 and 12801) which face the Toll Road. As we have toured other buildings in Herndon, we have found that a majority of them have canopies over the entrances making it very obvious how the buildings are accessed. We are proposing to add simple entrance canopies that protrude three feet proud of the building façades. The material will be grey aluminum to match the existing storefront/curtain wall that extends from the sidewalk up through the building to the 8<sup>th</sup> floor. The details have been kept to a minimum to match the simple details of the existing building. The address of each building will be installed on the face of the canopy in black to contrast with the façade and make it easily identifiable.

Thank you for your consideration. I can be reached by phone or email, at the number and address listed below, should you have any questions or require any clarification.

Sincerely,  
William H. Wilmer

Senior Vice President  
Moore & Associates, Inc.  
443-994-9565

[WilmerW@MooreAssociates.com](mailto:WilmerW@MooreAssociates.com)



OVERALL F.A.R. TABULATIONS

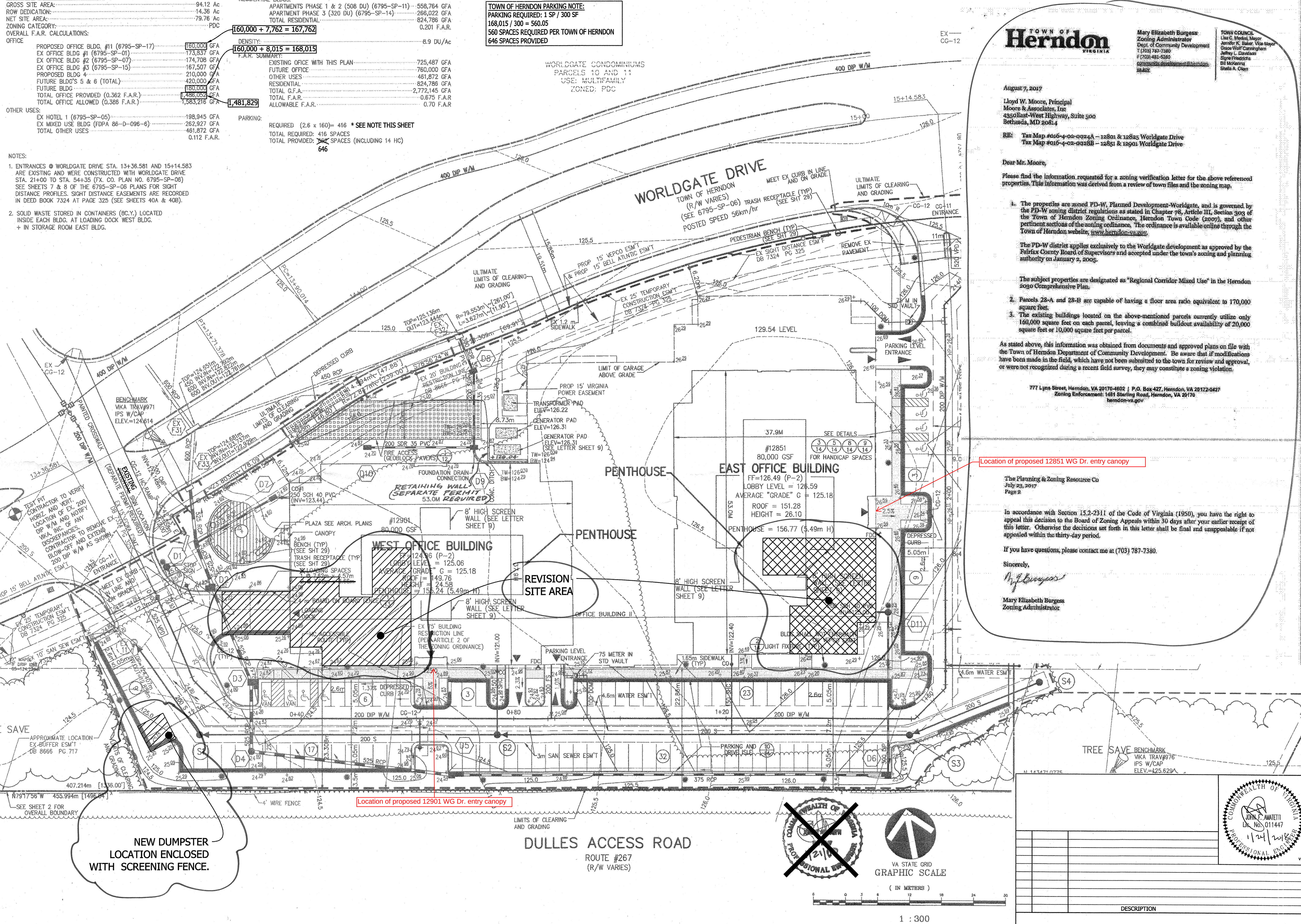
|                                        |               |
|----------------------------------------|---------------|
| GROSS SITE AREA:                       | 94.12 Ac      |
| ROW DEDICATION:                        | 14.36 Ac      |
| NET SITE AREA:                         | 79.76 Ac      |
| ZONING CATEGORY:                       | PDC           |
| OVERALL F.A.R. CALCULATIONS:           |               |
| OFFICE                                 |               |
| PROPOSED OFFICE BLDG. #11 (6795-SP-17) | 160,000 GFA   |
| EX OFFICE BLDG. #1 (6795-SP-01)        | 173,537 GFA   |
| EX OFFICE BLDG. #2 (6795-SP-07)        | 174,708 GFA   |
| EX OFFICE BLDG. #3 (6795-SP-15)        | 167,507 GFA   |
| PROPOSED BLDG. 4                       | 210,000 GFA   |
| FUTURE BLDG'S 5 & 6 (TOTAL)            | 420,000 GFA   |
| FUTURE BLDG.                           | 160,000 GFA   |
| TOTAL OFFICE PROVIDED (0.362 F.A.R.)   | 1,488,052 GFA |
| TOTAL OFFICE ALLOWED (0.386 F.A.R.)    | 1,583,216 GFA |
| OTHER USES:                            |               |
| EX HOTEL 1 (6795-SP-05)                | 198,945 GFA   |
| EX MIXED USE BLDG (FDPA 86-D-096-6)    | 262,927 GFA   |
| TOTAL OTHER USES                       | 461,872 GFA   |
|                                        | 0.112 F.A.R.  |

|                                              |               |
|----------------------------------------------|---------------|
| RESIDENTIAL BLDGS:                           |               |
| APARTMENTS PHASE 1 & 2 (508 DU) (6795-SP-11) | 558,764 GFA   |
| APARTMENT PHASE 3 (320 DU) (6795-SP-14)      | 288,022 GFA   |
| TOTAL RESIDENTIAL                            | 824,786 GFA   |
|                                              | 0.201 F.A.R.  |
| DENSITY:                                     | 8.9 DU/AC     |
| F.A.R. SUMMARY:                              |               |
| EXISTING OFFICE WITH THIS PLAN               | 725,487 GFA   |
| FUTURE OFFICE                                | 760,000 GFA   |
| OTHER USES                                   | 461,872 GFA   |
| RESIDENTIAL                                  | 824,786 GFA   |
| TOTAL G.F.A.                                 | 2,772,145 GFA |
| TOTAL F.A.R.                                 | 0.875 F.A.R.  |
| ALLOWABLE F.A.R.                             | 0.70 F.A.R.   |

TOWN OF HERNDON PARKING NOTE:  
PARKING REQUIRED: 1 SP / 300 SF  
168,015 / 300 = 560.05  
560 SPACES REQUIRED PER TOWN OF HERNDON  
646 SPACES PROVIDED

NOTES:

- ENTRANCES @ WORLDGATE DRIVE STA. 13+36.581 AND 15+14.583 ARE EXISTING AND WERE CONSTRUCTED WITH WORLDGATE DRIVE STA. 21+00 TO STA. 54+35 (EX. CO. PLAN NO. 6795-SP-06) SEE SHEETS 7 & 8 OF THE 6795-SP-06 PLANS FOR SIGHT DISTANCE PROFILES. SIGHT DISTANCE EASEMENTS ARE RECORDED IN DEED BOOK 7324 AT PAGE 325 (SEE SHEETS 40A & 40B).
- SOLID WASTE STORED IN CONTAINERS (B.C.Y.) LOCATED INSIDE EACH BLDG. AT LOADING DOCK WEST BLDG. + IN STORAGE ROOM EAST BLDG.



TOWN OF  
**Herndon**  
VIRGINIA

Mary Elizabeth Burgess  
Zoning Administrator  
Dept. of Community Development  
1 (703) 787-7380  
F (703) 481-5280  
communitydevelopment@herndon-va.gov

TOWN COUNCIL  
Lisa C. Menkel, Mayor  
Jennifer K. Baker, Vice Mayor  
Grace Wolf Cunningham  
Jeffrey L. Davidson  
Sara Riedinger  
Bill McGinnis  
Shelia A. Olen

August 7, 2017

Lloyd W. Moore, Principal  
Moore & Associates, Inc.  
4350 East-West Highway, Suite 500  
Bethesda, MD 20814

RE: Tax Map #016-4-02-0024A - 12801 and 12805 Worldgate Drive  
Tax Map #016-4-02-0024B - 12851 and 12901 Worldgate Drive

Dear Mr. Moore,

Please find the information requested for a zoning verification letter for the above referenced properties. This information was derived from a review of town files and the zoning map.

- The properties are zoned PD-W, Planned Development-Worldgate, and is governed by the PD-W zoning district regulations as stated in Chapter 78, Article III, Section 303 of the Town of Herndon Zoning Ordinance, Herndon Town Code (2007), and other pertinent sections of the zoning ordinance. The ordinance is available online through the Town of Herndon website, [www.herndon-va.gov](http://www.herndon-va.gov).

The PD-W district applies exclusively to the Worldgate development as approved by the Fairfax County Board of Supervisors and accepted under the town's zoning and planning authority on January 2, 2005.

The subject properties are designated as "Regional Corridor Mixed Use" in the Herndon 2030 Comprehensive Plan.

- Parcels 28-A and 28-B are capable of having a floor area ratio equivalent to 170,000 square feet.
- The existing buildings located on the above-mentioned parcels currently utilize only 160,000 square feet on each parcel, leaving a combined buildout availability of 20,000 square feet or 10,000 square feet per parcel.

As stated above, this information was obtained from documents and approved plans on file with the Town of Herndon Department of Community Development. Be aware that if modifications have been made in the field, which have not been submitted to the town for review and approval, or were not recognized during a recent field survey, they may constitute a zoning violation.

777 Lynx Street, Herndon, VA 20170-4602 | P.O. Box 427, Herndon, VA 20172-0427  
Zoning Enforcement: 1481 Sterling Road, Herndon, VA 20170  
[herndon-va.gov](http://herndon-va.gov)

The Planning & Zoning Resource Co  
July 23, 2017  
Page 2

In accordance with Section 15.2-2311 of the Code of Virginia (1950), you have the right to appeal this decision to the Board of Zoning Appeals within 30 days after your earlier receipt of this letter. Otherwise the decisions set forth in this letter shall be final and unappealable if not appealed within the thirty-day period.

If you have questions, please contact me at (703) 787-7380.

Sincerely,

*M. Burgess*

Mary Elizabeth Burgess  
Zoning Administrator

WORLDGATE LAND BAY L  
OFFICE BUILDING 11 (E & W)  
DRAVESVILLE DISTRICT  
HERNDON, VIRGINIA

SITE PLAN

|                            |
|----------------------------|
| 1ST SUB 3-24-98            |
| RESUBMIT F.M               |
| 7-21-98                    |
| ARCH/FDPA                  |
| COORD. 7-31-98             |
| ADD CI 9-3-98              |
| 1/21/2000 REVISE           |
| CROSSWALKS, ADD            |
| GEN. PAD, ADD SCREEN       |
| WALLS TO ROOF              |
| 1/22/2018 - UPDATE PARKING |

|                  |              |
|------------------|--------------|
| DATE:            | AUGUST, 1998 |
| DES.             | PR DWN. DH   |
| SCALE:           | N/A          |
| PROJECT/FILE NO. | VV5540AV     |
| SHEET NO.        | 3 OF 40      |



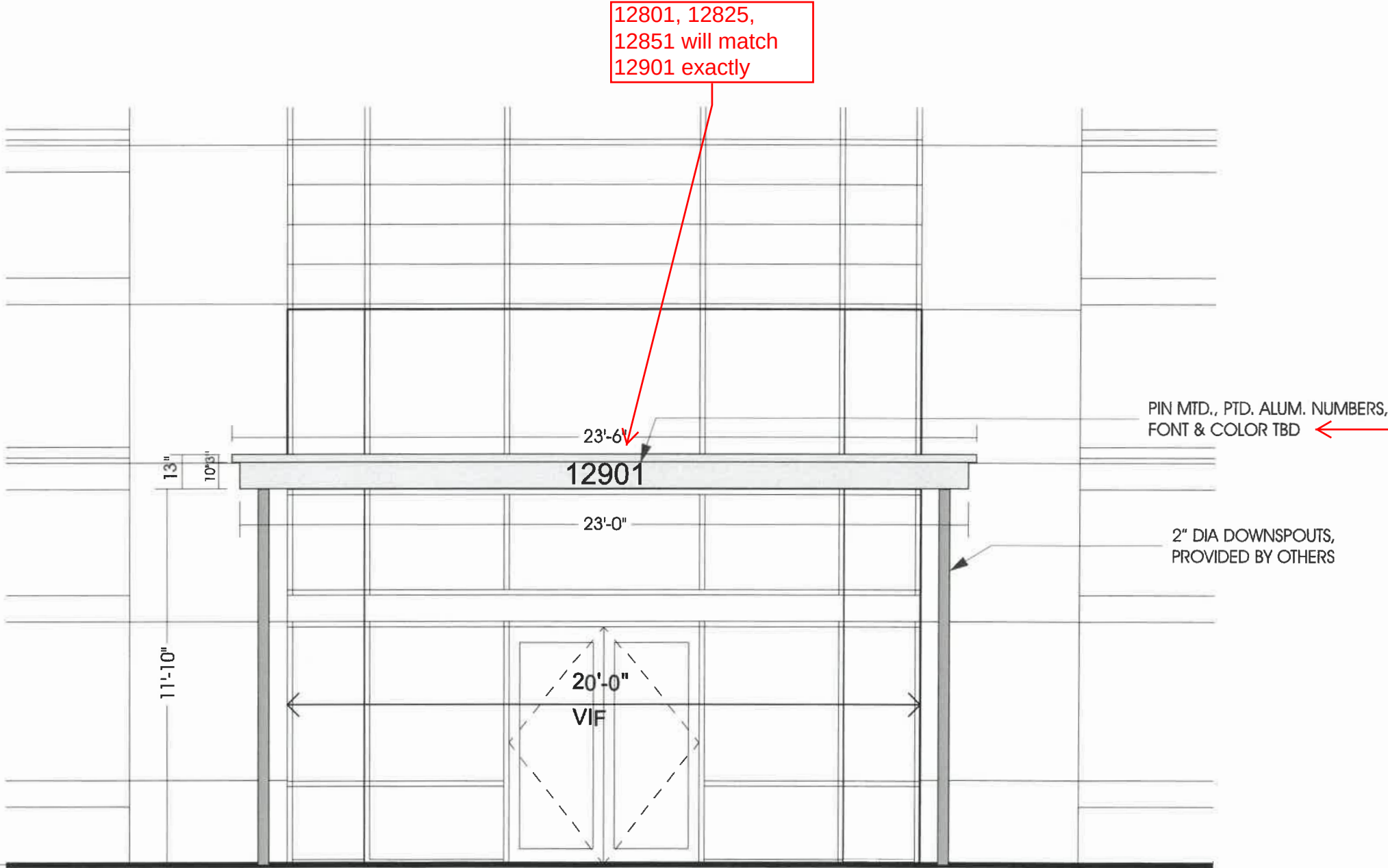




Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**  
Ultimate Design Wind Speed 115 mph  
Nominal Design Wind Speed 89.1 mph  
Risk Cat. II  
(3-Sec Peak Gust MPH\*)  
Wind Importance Factor I= 1  
Wind Exposure C  
Gust Factor 0.85

**Snow Loads**  
Ground Snow Load Pg= 25 psf  
Snow Exposure Factor Ce= 1.0  
Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10



ENTRANCE ELEVATION 1/4"=1'

QTY (1) CANOPY

13" TALL X 23' WIDE X 8' DEEP  
ALUMINUM CANOPY W/ INTERNAL ALUM. FRAME  
PTD. W/ POLYURETHANE (COLOR TBD)

TOP OF CANOPY SLOPED FOR DRAINAGE  
TO 2" DIA OPENINGS FOR FUTURE DOWNSPOUTS

COMMONWEALTH OF VIRGINIA

JERE K. MURDOCH  
Lic. No. 50214

PROFESSIONAL ENGINEER

MURDOCH  
ENGINEERING

SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 578-8215

Jere Murdoch, PE  
Professional Engineer  
VA P.E. Lic. #402050214  
Exp. 4/30/2020

11/6/2018



Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
| Nominal Design Wind Speed  | 89.1 mph |
| Risk Cat.                  | II       |
| (3-Sec Peak Gust MPH*)     |          |
| Wind Importance Factor     | I= 1     |
| Wind Exposure              | C        |
| Gust Factor                | 0.85     |

**Snow Loads**

|                      |                      |
|----------------------|----------------------|
| Ground Snow Load     | Pg= 25 psf           |
| Snow Exposure Factor | Ce= 1.0              |
| Snow Load Importance | I <sub>s</sub> = 1.1 |
| Thermal Factor       | C <sub>t</sub> = 1.0 |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

CANOPY

Roof shall be  
aluminum - cannot  
bee seen from the  
ground

Roof shall be  
aluminum - cannot  
be seen from the  
office space above  
due to set-back  
window sills at  
curtain wall.



**MURDOCH  
ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 970-8215

*Jere Murdoch* 11/6/2018  
**Jere Murdoch, PE**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020

EXTERIOR

BUILDING LOBBY

ENTRANCE SECTION 1/4"=1'

EXTERIOR — BUILDING LOBBY

ENTRANCE ROOF PLAN 1/4"=1'

**JackStoneSigns** JACKSTONESIGNS.COM  
3131 Pennsy Drive, Landover, MD 20785 / phone (301) 322-3323 / fax (301) 322-8407

CUSTOMER Worldgate  
ADDRESS 12901 Worldgate Dr.  
CITY Herndon  
STATE VA  
FILE NAME Worldgate\_VA (Canopy)

DWG. NO. 7651  
SCALE Noted  
DATE 10/03/18  
DESIGNER KK  
CONTACT Todd Stone

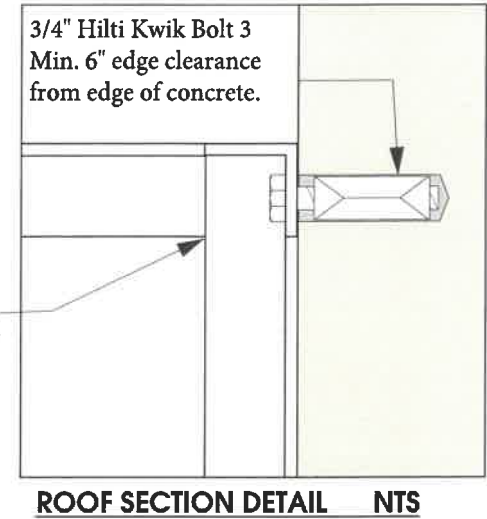
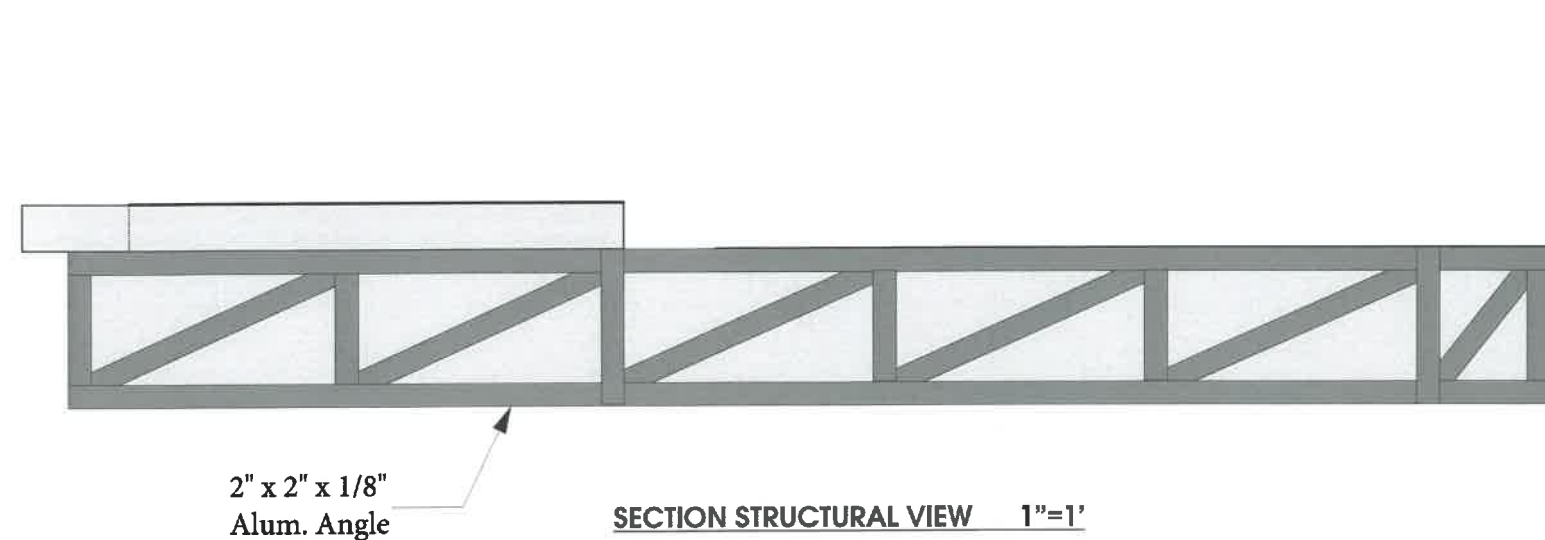
REVISIONS

Notice: This drawing is an original design created by Jack Stone Sign Company, and is submitted for use in conjunction with this project only. This drawing cannot be duplicated, altered, or exhibited in any fashion without authorization from Jack Stone Sign Company. This drawing remains the property of Jack Stone Sign Company and any unauthorized use or exhibition will result in a design fee.  
**REQUIRED ELECTRICAL SERVICE TO SIGN LOCATION IS TO BE PROVIDED BY OTHERS**

CUSTOMER APPROVAL (PLEASE PRINT FULL NAME)

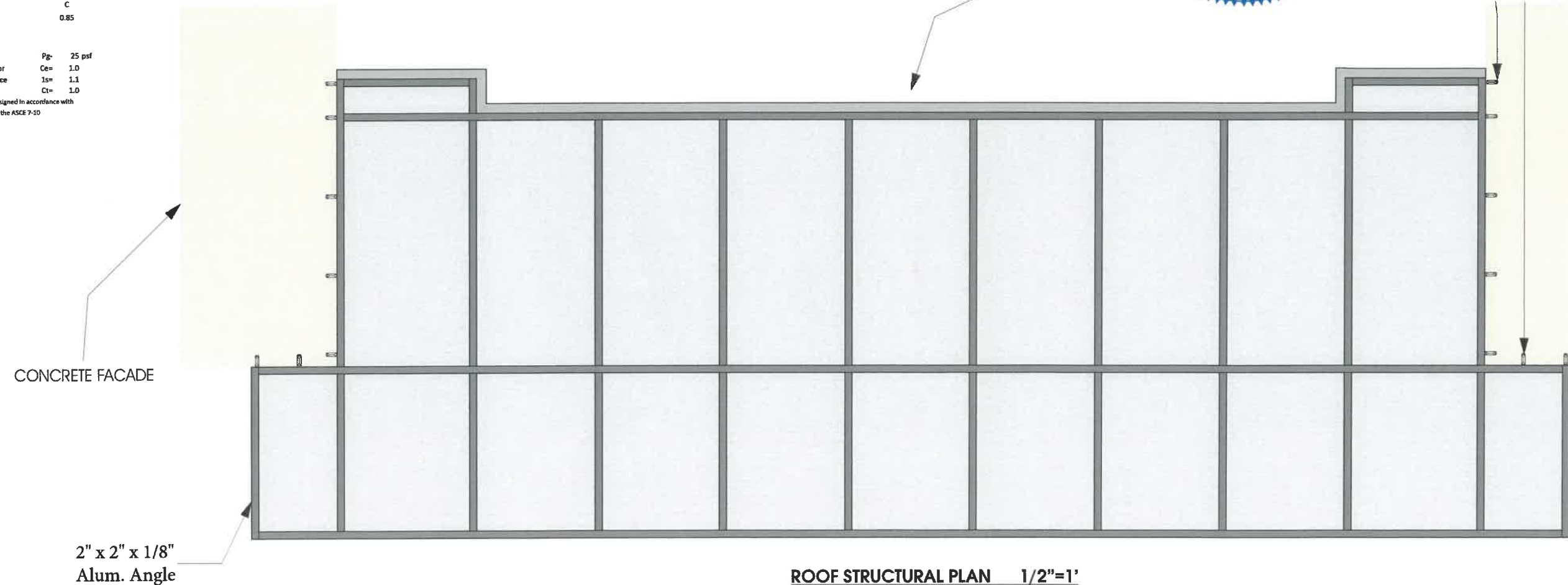
SIGNATURE AND DATE





**MURDOCH ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS  
2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 970-8215  
*Jere Murdoch*  
**JERE K. MURDOCH**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020  
11/6/2018  
COMMONWEALTH OF VIRGINIA  
PROFESSIONAL ENGINEER  
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Designed Per IBC 2012 VA Edition  
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Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10



3/4" Hilti Kwik Bolt 3 Min. 6" edge clearance from edge of concrete. Fasteners to be in top and bottom frame section. Frame section at connection point to be 2 x 2 x 1/4" alum angle. (10) Ten top (10) ten bottom (20) twenty per side.

CONCRETE FACADE  
Verify Columns are solid concrete before install. If field conditions vary call Murdoch Engineering for Fastener Change



GENERAL:

1. ALL MATERIALS AND WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL BUILDING CODE (IBC).
2. CONSTRUCTION METHODS AND PROJECT SAFETY: DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES, OR SEQUENCE OF CONSTRUCTION. TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. THE EOR WILL NOT ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES THAT ARE FOUND. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
4. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND FIELD INSPECTOR. THE ENGINEER SHALL PROVIDE A SOLUTION PRIOR TO PROCEEDING WITH ANY WORK AFFECTED BY THE CONFLICT OR OMISSION.
5. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, CONSTRUCT IN ACCORDANCE WITH THE STEEL CONSTRUCTION MANUAL, 14TH EDITION OR 2010 ALUMINUM DESIGN MANUAL.
6. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR IS TO APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
7. ANY CHANGE TO THE DESIGN AS SHOWN ON THE DRAWINGS REQUIRES PRIOR WRITTEN APPROVAL FROM DESIGN ENGINEER OF RECORD BEFORE CONSTRUCTION.
8. WORK PERFORMED IN CONFLICT WITH THE STRUCTURAL DRAWINGS OR APPLICABLE BUILDING CODE REQUIREMENTS SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
9. VERIFICATION: VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. NOTIFY THE EOR IMMEDIATELY OF ANY DISCREPANCIES.

STEEL

1. STEEL SHAPES SHALL CONFORM TO THE FOLLOWING:

|                 |                 |                |
|-----------------|-----------------|----------------|
| ROUND HSS       | ASTM A500, GR B | Fy=42 KSI MIN. |
| SQUARE/RECT HSS | ASTM A500, GR B | Fy=46 KSI MIN. |
| THREADED ROD    | ASTM A36        | Fy=46 KSI MIN. |
| STEEL PLATE     | ASTM A36        | Fy=36 KSI MIN. |
| STD. PIPE       | ASTM A53, GR B  | Fy=35 KSI MIN. |
2. BOLTS SHALL CONFORM TO ASTM A307 UNO.
3. BOLTS AND THREADED ROD SHALL BE HOT-DIP GALVANIZED PER ASTM F2329 UNO.
4. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 UNO.
5. NUTS SHALL CONFORM TO ASTM A563.
6. WASHERS SHALL CONFORM TO ASTM F444.
7. STEEL HARDWARE SHALL BE HOT-DIP GALVANIZED PER ASTM A153 UNO
8. WELDING:
  - a. WELD STRUCTURAL STEEL IN COMPLIANCE WITH ANSI/AWS D1.1 AND AISC SPECIFICATION, CHAPTER J. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY. WELDING SHALL BE DONE BY ELECTRIC ARC PROCESS USING LOW-HYDROGEN ELECTRODES WITH SPECIFIED TENSILE STRENGTH NOT LESS THAN 70 KSI UNLESS NOTED OTHERWISE.
  - b. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH ACTIVE STATUS AT TIME OF WELDING
  - c. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELDS PER AISC SPECIFICATION, SECTION J2, TABLE J2.4
  - d. BASE PLATES SHALL BE WELDED ON TOP AND BOTTOM WITH CONTINUOUS WELDS OF AT LEAST 1/4" (IF PLATE IS CUT TO FIT TUBE INTO PLATE)

ALUMINUM

1. FABRICATE AND ERECT ALUMINUM IN COMPLIANCE WITH THE ALUMINUM ASSOCIATION (AA) 2010 ALUMINUM DESIGN MANUAL (ADM) 1, THE SPECIFICATIONS FOR ALUMINUM SHEET METAL WORK (ASM35), AND IBC CHAPTER 20.
2. PIPE AND TUBE SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=15 KSI MIN, Ftyw=15 KSI MIN.
3. STD STRUCTURAL PROFILES SHALL BE 6061-T6 PER B308 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
4. SHEET AND PLATE SHALL BE 6061-T6 PER ASTM B209 WITH Ftu=42 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
5. EXTRUSIONS SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
6. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH CURRENT STATUS AT TIME OF WELDING
7. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELD PER ADM. ALL ALUMINUM WELDED JOINTS SHALL HAVE WELD SIZES OF AT LEAST 1/8"
8. FILLET WELDS SHALL NOT EXCEED THINNESS MEMBER WALL THICKNESS JOINED.
9. ALUMINUM WELD FILLER SHALL BE 5356 ALLOY
10. WELDING PROCESS GMAW OR GTAW SHALL BE IN ACCORDANCE WITH AWS D1.2
11. ALUMINUM CHANNEL LETTERS SHALL BE CONSTRUCTED OF 0.090" RETURNS AND 0.125" BACKS MINIMUM, UNLESS A LARGER SIZE IS INDICATED ON DRAWINGS. THIS NOTE SHALL SUPERCEDE DRAWING DETAILS
12. PROVIDE NEOPRENE GASKET BETWEEN DISSIMILAR METALS TO PREVENT GALVANIC CORROSION
13. ALUMINUM DIRECTLY EMBEDDED INTO CONCRETE SHALL BE CAPPED AT BOTTOM AND COATED WITH BITUMINOUS COATING OR POLYURETHANE WHERE IN CONTACT WITH CONCRETE.
14. FASTENERS BETWEEN DISSIMILAR METALS SHALL BE STAINLESS STEEL 316.

CONCRETE & REINFORCEMENT

1. MINIMUM 28-DAY COMPRESSIVE STRENGTH (fc') SHALL BE 3,000 PSI. THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.45 BY WEIGHT. A MINIMUM OF 5-3/4 BAGS OF CEMENT SHALL BE USED PER CUBIC YARD WITH A SLUMP OF 4" +/- 1.
2. REINFORCEMENT TO BE ASTM A615 GR 60, Fy=60 KSI UNO
3. CALCIUM CHLORIDE OR ADDED CHLORIDE IS NOT PERMITTED
4. VIBRATION: ALL REINFORCED CONCRETE SHALL BE CONSOLIDATED WITH MECHANICAL VIBRATORS.
5. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-11
6. PROVIDE A MINIMUM OF 2-1/2" COVER OF ALL EMBEDDED STEEL REBAR AND A MINIMUM OF 6 INCHES OF COVER FOR DIRECT BURIED PIPE OR TUBE MEMBERS.

FOUNDATIONS

1. CONCRETE POURED INTO CONSTRAINED EARTH EXCAVATIONS MUST CURE UNDER PROPER CONDITIONS FOR A MINIMUM OF 7 DAYS PRIOR TO SIGN BOX INSTALLATION. (EXCEPTION: IF THE OVERALL HEIGHT OF THE SIGN IS LESS THAN 20 FEET AND THE SIGN IS ADEQUATELY BRACED AGAINST WIND LOADS FOR A MINIMUM OF 4 DAYS, THE BOX MAY BE INSTALLED THE SAME DAY AS THE FOOTING IS POURED)
2. FOOTINGS MUST BE POURED AGAINST UNDISTURBED EARTH. SOIL BACKFILL IS UNACCEPTABLE. WHEN A SONOTUBE IS USED AS THE FORM, 3/4" BLUESTONE OR CONCRETE SHALL BE USED TO BACKFILL THE SPACE BETWEEN THE SONOTUBE AND UNDISTURBED EARTH.
3. COLD WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS OR LOW TEMPERATURES. DO NOT POUR CONCRETE DURING OR WHEN FREEZING TEMPERATURES ARE ANTICIPATED WITHIN 3 DAYS OF POUR.

SCOPE OF WORK

1. LIMITS OF LIABILITY TO EXTEND ONLY TO THE QUANTITY INDICATED. ATTEMPTS IN PART OR IN WHOLE TO INSTALL GREATER QUANTITIES THAN THOSE SPECIFIED WITHOUT CONSULTING MURDOCH ENGINEERING SHALL VOID ALL PROFESSIONAL LIABILITY AND COVERAGE.

SHEET INDEX

S.1 NOTES & ELEVATION

Designed Per IBC 2012 VA Edition

With Applicable Herndon Amendments

Wind Loads

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
| Normal Design Wind Speed   | 89.1 mph |
| Risk Cat.                  | II       |
| (3-Sec Peak Gust MPH*)     |          |
| Wind Importance Factor     | I= 1     |
| Wind Exposure              | C        |
| Gust Factor                | 0.85     |

Snow Loads

|                      |                      |
|----------------------|----------------------|
| Ground Snow Load     | Pg= 25 psf           |
| Snow Exposure Factor | Ce= 1.0              |
| Snow Load Importance | I <sub>s</sub> = 1.1 |
| Thermal Factor       | C <sub>t</sub> = 1.0 |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

**MURDOCH**  
**ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

murdochengineering.com  
(973) 810-4202  
73 Paterson St. 2nd Floor  
New Brunswick, NJ 08901

PREPARED FOR:

Jack Stone Signs

Isometric View  
Awning Frame

12901 Worldgate Dr.  
Herndon, VA

PROJECT TITLE:

PROJECT #:

| No: | Issue/Revision:   | Date:   |
|-----|-------------------|---------|
| —   | Initial Submittal | 11-6-18 |
| 1   |                   |         |
| 2   |                   |         |
| 3   |                   |         |
| 4   |                   |         |

**MURDOCH**  
**ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 970-8215

*Jere Murdoch* 11/6/2018

**Jere Murdoch, PE**  
Professional Engineer  
NJ PE Lic. #402050214  
Exp. 4/30/2020

DATE SIGNED:

ENGINEER:

DWG TITLE:

NOTES & ELEVATION

SHEET:

I.1

SIZE:

B

Engineers Frame Note:

-Entire frame made of 2" x 2" x 1/8"  
Aluminum Angle. Frame sections  
where fasteners will be installed  
need to be 2" x 2" x 1/4" Aluminum  
Angle.

The designs, details and specifications contained in this drawing are confidential. The recipients of this drawing hereby acknowledge and agree that it is the sole property of Murdoch Engineering and that they shall neither use nor reveal any of the designs, details and specifications contained in this drawing, outside of the contractual agreement expressed written permission from Murdoch Engineering.

Deviations from this drawing shall not be made without consulting Murdoch Engineering. In case of incongruities between drawings, specifications, and details included in contract documents, Murdoch Engineering shall decide which indication must be followed and their decision shall be final.

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All rights reserved.



Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
| Nominal Design Wind Speed  | 89.1 mph |
| Risk Cat.                  | II       |
| (3-Sec Peak Gust MPH*)     |          |
| Wind Importance Factor     | I= 1     |
| Wind Exposure              | C        |
| Gust Factor                | 0.85     |

**Snow Loads**

|                      |            |
|----------------------|------------|
| Ground Snow Load     | Pg= 25 psf |
| Snow Exposure Factor | Ce= 1.0    |
| Snow Load Importance | Is= 1.1    |
| Thermal Factor       | Ct= 1.0    |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

CANOPY

12801, 12825,  
12851 and 21901  
will match exactly

Canopy fascia and  
soffit color shall  
match existing grey  
storefront/curtain  
wall - see provided  
material sample



ENTRANCE RENDER    NTS

COMMONWEALTH OF VIRGINIA

JERE K. MURDOCH

Lic. No. 50214

PROFESSIONAL ENGINEER

MURDOCH

ENGINEERING

SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.

HOWELL, NJ 07731

(973) 570-8215

11/6/2018

Jere Murdoch, PE

Professional Engineer

VA PE Lic. #402050214

Exp. 4/30/2020



## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

---

### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)





## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR ALTERATIONS TO AN EXISTING STRUCTURE, ARB #19-06.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider the addition of a new canopy on an existing office building. The proposed metal canopy is located at the front entrance of 12851 Worldgate Drive, Herndon (Attachment #1). The building's numerical address would be incorporated into the design of the canopy.

#### Location Factors:

|                    |                                                                                                                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | William H. Wilmer, Moore & Associates, Agent                                                                                                                                                 |
| Owners:            | Worldgate Dulles, LLC                                                                                                                                                                        |
| Use:               | Commercial Office                                                                                                                                                                            |
| Location:          | 12851 Worldgate Drive                                                                                                                                                                        |
| Tax Map Reference: | 0164-02-0028B                                                                                                                                                                                |
| Zoning of Site:    | PD-W, Planned Development - Worldgate                                                                                                                                                        |
| Adjacent Zoning:   | North: PD-W, Planned Development - Worldgate<br>South: VA Route 267 Right-of-Way<br>East: PD-TOC, Planned Development – Transit Oriented Core<br>West: PD-W, Planned Development – Worldgate |

#### Description:

This application proposes to attach a new overhead canopy structure at the entrance to one of the buildings within the Worldgate Metro Plaza development.



The proposed addition consists of a canopy that extends approximately 6'-7" from the recessed entry and spans 23'-6" across the facade at a height of approximately 12'-11" above the first-floor finish grade. The canopy will be approximately 13" deep and be constructed of aluminum with a polyurethane finish color to match the existing storefront framing and curtain wall that extends vertically to the 8<sup>th</sup> floor of the office building. In addition, the applicant proposes to remove existing building address numbers and add new building address numbers made of 12" tall black painted aluminum numbers pin-mounted to the fascia of the canopy. The address is considered signage and will cover an area of approximately 2.92 square feet (Attachment #2, #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-06 with the following conditions:

1. The proposed building canopy and address numbering shall be installed in substantial conformance with the application and supporting materials as submitted January 14, 2019.

### **Staff Analysis:**

1. The canopy is being proposed to add an architectural element that more clearly announces the entrance to the building for pedestrians and vehicular traffic on and near the site. The numerical address will replace existing numbers and is designed to make the building address more visible to the passerby. The new address will occupy only 2.92 square feet of the total amount of allowable wall sign area permitted on the ground floor of buildings in this zoning district. Staff finds that the proposed alterations are in keeping with the Town's Zoning Ordinance, Section 78-141.5 - Sign standards for properties in the Worldgate District (PD-W).
2. The proposed alteration complies with all the applicable design criteria for this commercial office property within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. The proposed materials and color scheme will be in keeping with the building's existing architectural features while achieving the visual effect intended by the applicant. Staff concludes that the proposed project will improve the visual appeal of this commercial property by more clearly emphasizing the main entrance to this building in a manner that is compatible with the existing architectural design.



**Attachments:**

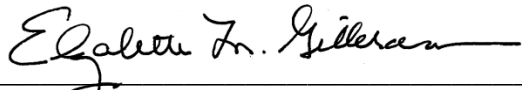
1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Plan and Site Photos of Existing Conditions
5. Proposed Canopy Plan, Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



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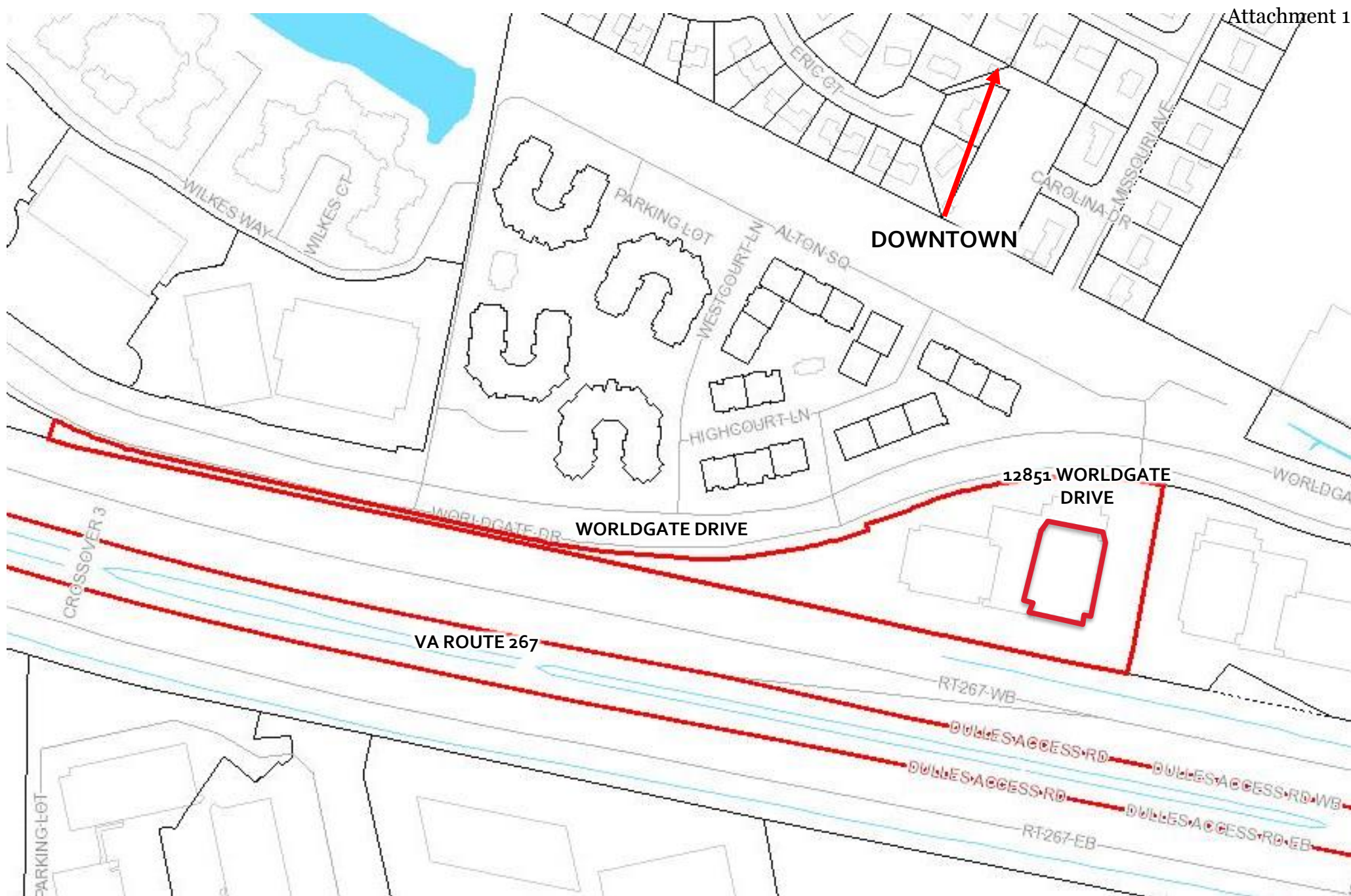
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



---

Elizabeth M. Gilleran, AICP  
Director of Community Development



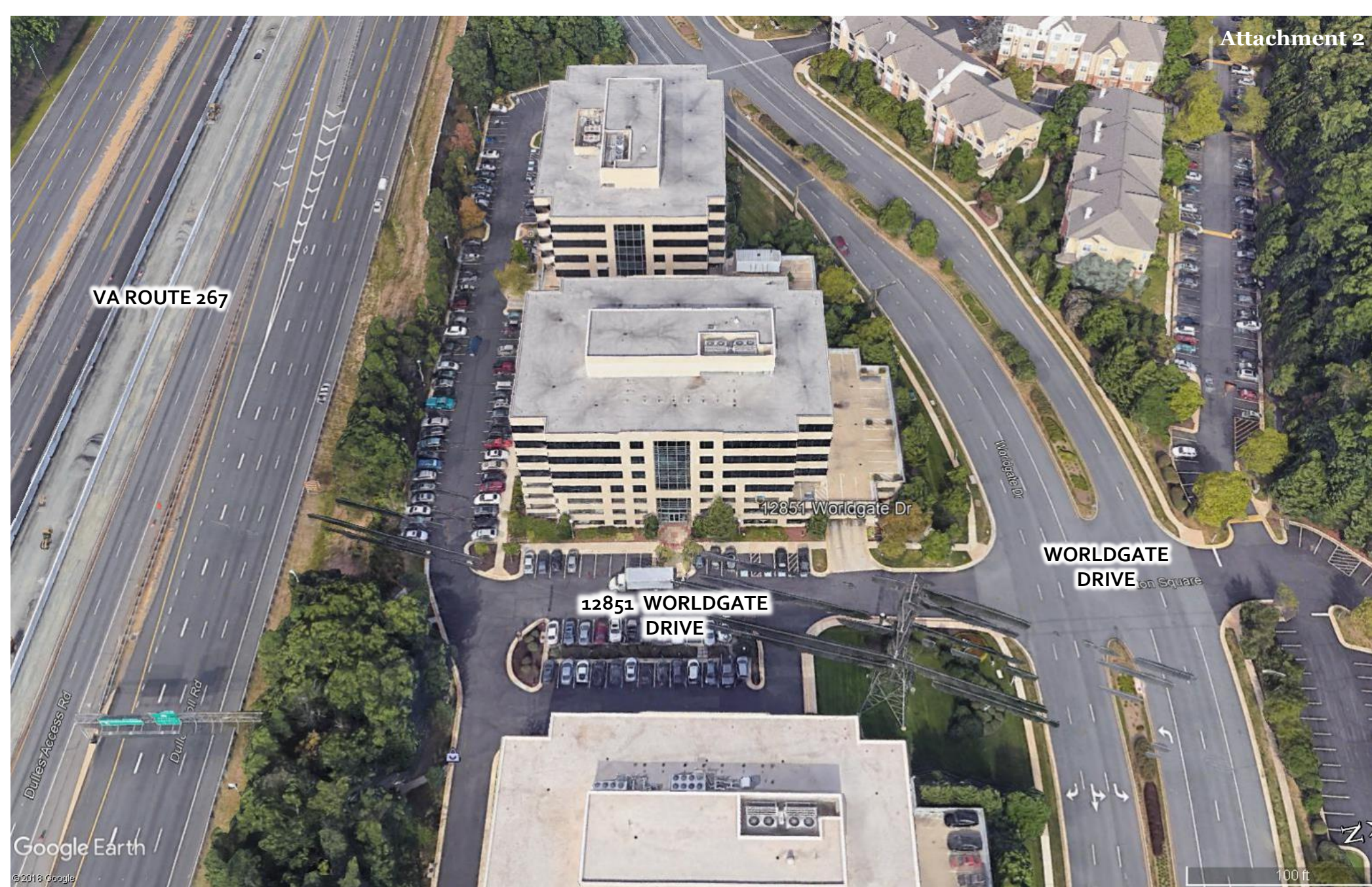


## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





Moore & Associates  
12901 Worldgate Drive  
Suite 550  
Herndon, VA 20170

01/14/2019

Town of Herndon  
Architectural Review Board  
Attn. Christopher J. Garcia  
777 Lynn Street  
Herndon, VA 20170

Dear Mr. Garcia,

Please accept our ARB submission for the addition of a canopy at the entry to our building at 12851 Worldgate Drive in Herndon, VA. As you know we are in the process of making a number of improvements to the four buildings at 12901, 12851, 12825 and 12801 Worldgate Drive, collectively known as Worldgate Metro Plaza. As we have owned the property over the last year, one of the issues that has become apparent is that the recessed building entries are not as obvious as they should be to visitors. This is especially apparent in the two entries (12901 and 12801) which face the Toll Road. As we have toured other buildings in Herndon, we have found that a majority of them have canopies over the entrances making it very obvious how the buildings are accessed. We are proposing to add simple entrance canopies that protrude three feet proud of the building façades. The material will be grey aluminum to match the existing storefront/curtain wall that extends from the sidewalk up through the building to the 8<sup>th</sup> floor. The details have been kept to a minimum to match the simple details of the existing building. The address of each building will be installed on the face of the canopy in black to contrast with the façade and make it easily identifiable.

Thank you for your consideration. I can be reached by phone or email, at the number and address listed below, should you have any questions or require any clarification.

Sincerely,  
William H. Wilmer

Senior Vice President  
Moore & Associates, Inc.  
443-994-9565

[WilmerW@MooreAssociates.com](mailto:WilmerW@MooreAssociates.com)



## OVERALL F.A.R. TABULATIONS

|                              |          |
|------------------------------|----------|
| GROSS SITE AREA:             | 94.12 Ac |
| ROW DEDICATION:              | 14.36 Ac |
| NET SITE AREA:               | 79.76 Ac |
| ZONING CATEGORY:             | PDC      |
| OVERALL F.A.R. CALCULATIONS: |          |
| OFFICE                       |          |

|                                        |               |
|----------------------------------------|---------------|
| PROPOSED OFFICE BLDG. #11 (6795-SP-17) | 160,000 GFA   |
| EX OFFICE BLDG. #1 (6795-SP-01)        | 173,537 GFA   |
| EX OFFICE BLDG. #2 (6795-SP-07)        | 174,708 GFA   |
| EX OFFICE BLDG. #3 (6795-SP-15)        | 167,507 GFA   |
| PROPOSED BLDG. #4                      | 210,000 GFA   |
| FUTURE BLDG'S 5 & 6 (TOTAL)            | 420,000 GFA   |
| FUTURE BLDG.                           | 160,000 GFA   |
| TOTAL OFFICE PROVIDED (0.362 F.A.R.)   | 1,488,052 GFA |
| TOTAL OFFICE ALLOWED (0.386 F.A.R.)    | 1,583,216 GFA |

|                                     |              |
|-------------------------------------|--------------|
| OTHER USES:                         |              |
| EX HOTEL 1 (6795-SP-05)             | 198,945 GFA  |
| EX MIXED USE BLDG (FDPA 86-D-096-6) | 262,927 GFA  |
| TOTAL OTHER USES                    | 461,872 GFA  |
|                                     | 0.112 F.A.R. |

## NOTES:

1. ENTRANCES @ WORLDGATE DRIVE STA. 13+36.581 AND 15+14.583 ARE EXISTING AND WERE CONSTRUCTED WITH WORLDGATE DRIVE STA. 21+00 TO STA. 54+35 (EX. CO. PLAN NO. 6795-SP-06) SEE SHEETS 7 & 8 OF THE 6795-SP-06 PLANS FOR SIGHT DISTANCE PROFILES. SIGHT DISTANCE EASEMENTS ARE RECORDED IN DEED BOOK 7324 AT PAGE 325 (SEE SHEETS 40A & 40B).

2. SOLID WASTE STORED IN CONTAINERS (B.C.Y.) LOCATED INSIDE EACH BLDG. AT LOADING DOCK WEST BLDG. + IN STORAGE ROOM EAST BLDG.

## RESIDENTIAL BLDGS:

|                                              |              |
|----------------------------------------------|--------------|
| APARTMENTS PHASE 1 & 2 (508 DU) (6795-SP-11) | 558,764 GFA  |
| APARTMENT PHASE 3 (320 DU) (6795-SP-14)      | 288,022 GFA  |
| TOTAL RESIDENTIAL                            | 824,786 GFA  |
|                                              | 0.201 F.A.R. |

$$160,000 + 7,762 = 167,762$$

$$160,000 + 8,015 = 168,015$$

## F.A.R. SUMMARY:

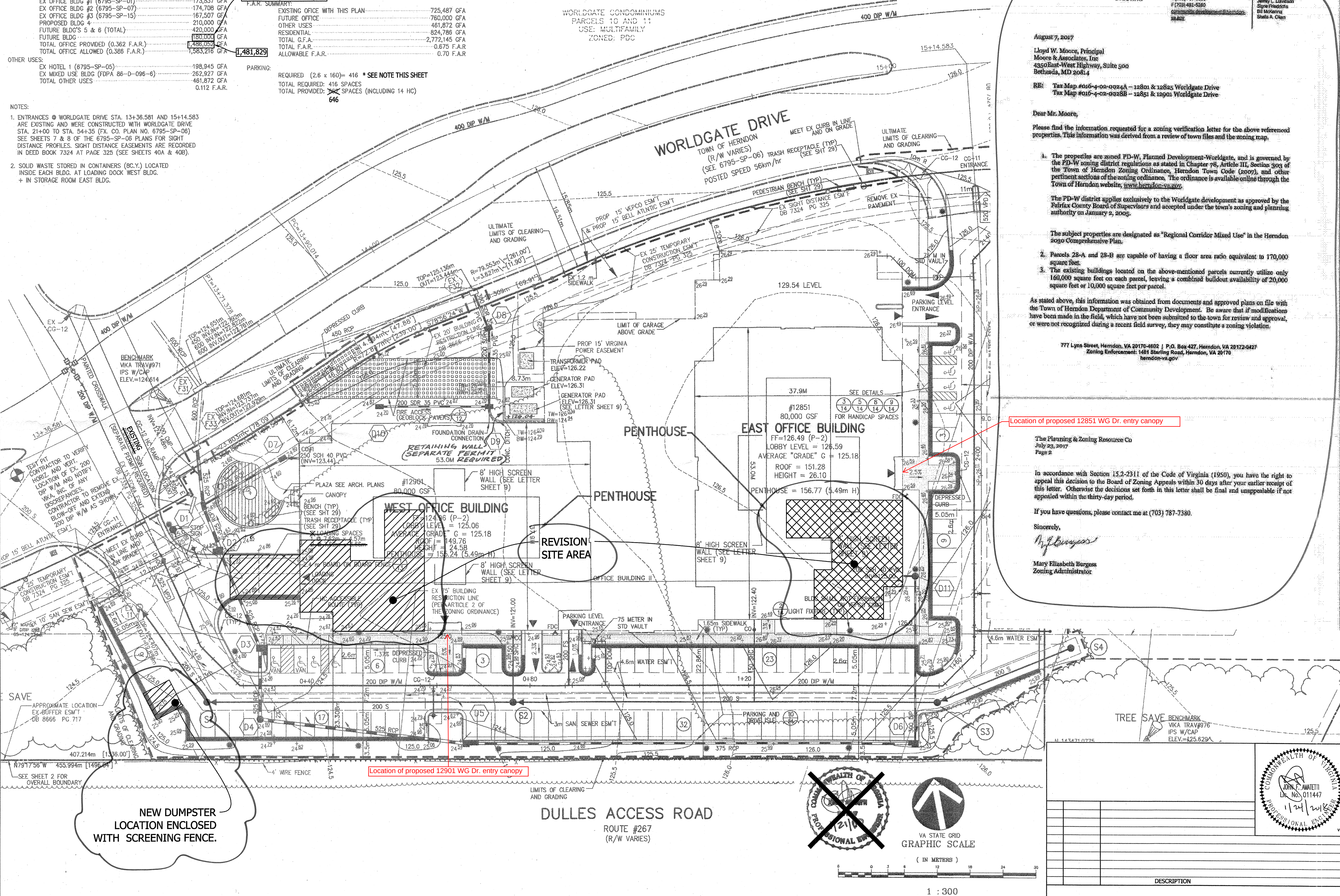
|                                |               |
|--------------------------------|---------------|
| EXISTING OFFICE WITH THIS PLAN | 725,487 GFA   |
| FUTURE OFFICE                  | 760,000 GFA   |
| OTHER USES                     | 461,872 GFA   |
| RESIDENTIAL                    | 824,786 GFA   |
| TOTAL G.F.A.                   | 2,772,145 GFA |
| TOTAL F.A.R.                   | 0.875 F.A.R.  |
| ALLOWABLE F.A.R.               | 0.70 F.A.R.   |

## PARKING:

|                                                  |  |
|--------------------------------------------------|--|
| REQUIRED (2.6 x 160) = 416 * SEE NOTE THIS SHEET |  |
| TOTAL REQUIRED: 416 SPACES                       |  |
| TOTAL PROVIDED: 646 SPACES (INCLUDING 14 HC)     |  |
| 646                                              |  |

## TOWN OF HERNDON PARKING NOTE:

PARKING REQUIRED: 1 SP / 300 SF  
168,015 / 300 = 560.05  
560 SPACES REQUIRED PER TOWN OF HERNDON  
646 SPACES PROVIDED



TOWN OF  
**Herndon**  
VIRGINIA

Mary Elizabeth Burgess  
Zoning Administrator  
Dept. of Community Development  
1 (703) 787-7380  
F (703) 481-5280  
communitydevelopment@herndon-va.gov

TOWN COUNCIL  
Lisa C. Menkel, Mayor  
Jennifer K. Baker, Vice Mayor  
Grace Wolf Cunningham  
Jeffrey L. Davidson  
Sara Riedinger  
Bill McGinnis  
Shelia A. Olen

August 7, 2017

Lloyd W. Moore, Principal  
Moore & Associates, Inc.  
4350 East-West Highway, Suite 500  
Bethesda, MD 20814

RE: Tax Map #016-4-02-0024A - 12851 and 12855 Worldgate Drive  
Tax Map #016-4-02-0024B - 12851 and 12901 Worldgate Drive

Dear Mr. Moore,

Please find the information requested for a zoning verification letter for the above referenced properties. This information was derived from a review of town files and the zoning map.

1. The properties are zoned PD-W, Planned Development-Worldgate, and is governed by the PD-W zoning district regulations as stated in Chapter 78, Article III, Section 303 of the Town of Herndon Zoning Ordinance, Herndon Town Code (2007), and other pertinent sections of the zoning ordinance. The ordinance is available online through the Town of Herndon website, [www.herndon-va.gov](http://www.herndon-va.gov).

The PD-W district applies exclusively to the Worldgate development as approved by the Fairfax County Board of Supervisors and accepted under the town's zoning and planning authority on January 2, 2005.

The subject properties are designated as "Regional Corridor Mixed Use" in the Herndon 2030 Comprehensive Plan.

2. Parcels 28-A and 28-B are capable of having a floor area ratio equivalent to 170,000 square feet.  
3. The existing buildings located on the above-mentioned parcels currently utilize only 160,000 square feet on each parcel, leaving a combined buildout availability of 20,000 square feet or 10,000 square feet per parcel.

As stated above, this information was obtained from documents and approved plans on file with the Town of Herndon Department of Community Development. Be aware that if modifications have been made in the field, which have not been submitted to the town for review and approval, or were not recognized during a recent field survey, they may constitute a zoning violation.

777 Lynx Street, Herndon, VA 20170-4602 | P.O. Box 427, Herndon, VA 20172-0427  
Zoning Enforcement: 1481 Sterling Road, Herndon, VA 20170  
[herndon-va.gov](http://herndon-va.gov)

The Planning & Zoning Resource Co  
July 23, 2017  
Page 2

In accordance with Section 15.2-2311 of the Code of Virginia (1950), you have the right to appeal this decision to the Board of Zoning Appeals within 30 days after your earlier receipt of this letter. Otherwise the decisions set forth in this letter shall be final and unappealable if not appealed within the thirty-day period.

If you have questions, please contact me at (703) 787-7380.

Sincerely,

*M. Burgess*

Mary Elizabeth Burgess  
Zoning Administrator

WORLDGATE LAND BAY L  
OFFICE BUILDING 11 (E & W)  
DRAVESVILLE DISTRICT  
HERNDON, VIRGINIA

SITE PLAN

|                            |
|----------------------------|
| 1ST SUB 3-24-98            |
| RESUBMIT F.M               |
| 7-21-98                    |
| ARCH/FDPA                  |
| COORD. 7-31-98             |
| ADD CI 9-3-98              |
| 1/21/2000 REVISE           |
| CROSSWALKS, ADD            |
| GEN. PAD, ADD SCREEN       |
| WALLS TO ROOF              |
| 1/22/2018 - UPDATE PARKING |

|                           |
|---------------------------|
| DATE: AUGUST, 1998        |
| DES. PR DWN. DH           |
| SCALE: N/A                |
| PROJECT/FILE NO. VV5540AV |
| SHEET NO. 3 OF 40         |





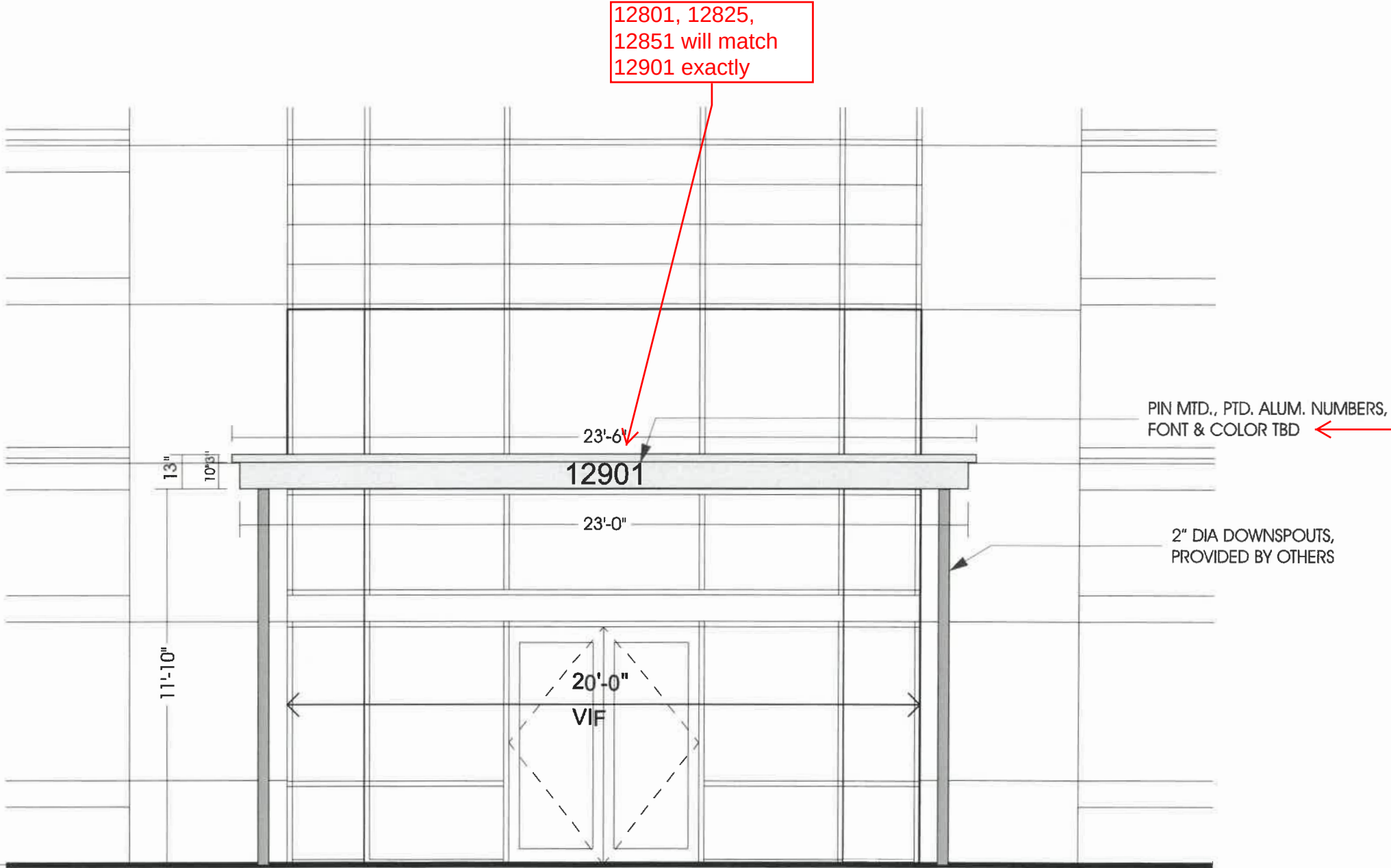


CANOPY

Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**  
Ultimate Design Wind Speed 115 mph  
Nominal Design Wind Speed 89.1 mph  
Risk Cat. II  
(3-Sec Peak Gust MPH\*)  
Wind Importance Factor I= 1  
Wind Exposure C  
Gust Factor 0.85

**Snow Loads**  
Ground Snow Load Pg= 25 psf  
Snow Exposure Factor Ce= 1.0  
Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10



ENTRANCE ELEVATION 1/4"=1'

QTY (1) CANOPY

13" TALL X 23' WIDE X 8' DEEP  
ALUMINUM CANOPY W/ INTERNAL ALUM. FRAME  
PTD. W/ POLYURETHANE (COLOR TBD)

TOP OF CANOPY SLOPED FOR DRAINAGE  
TO 2" DIA OPENINGS FOR FUTURE DOWNSPOUTS



**MURDOCH ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 578-8215

*Jere Murdoch* 11/6/2018  
**Jere Murdoch, PE**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020



Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**  
Ultimate Design Wind Speed 115 mph  
Nominal Design Wind Speed 89.1 mph  
Risk Cat. II  
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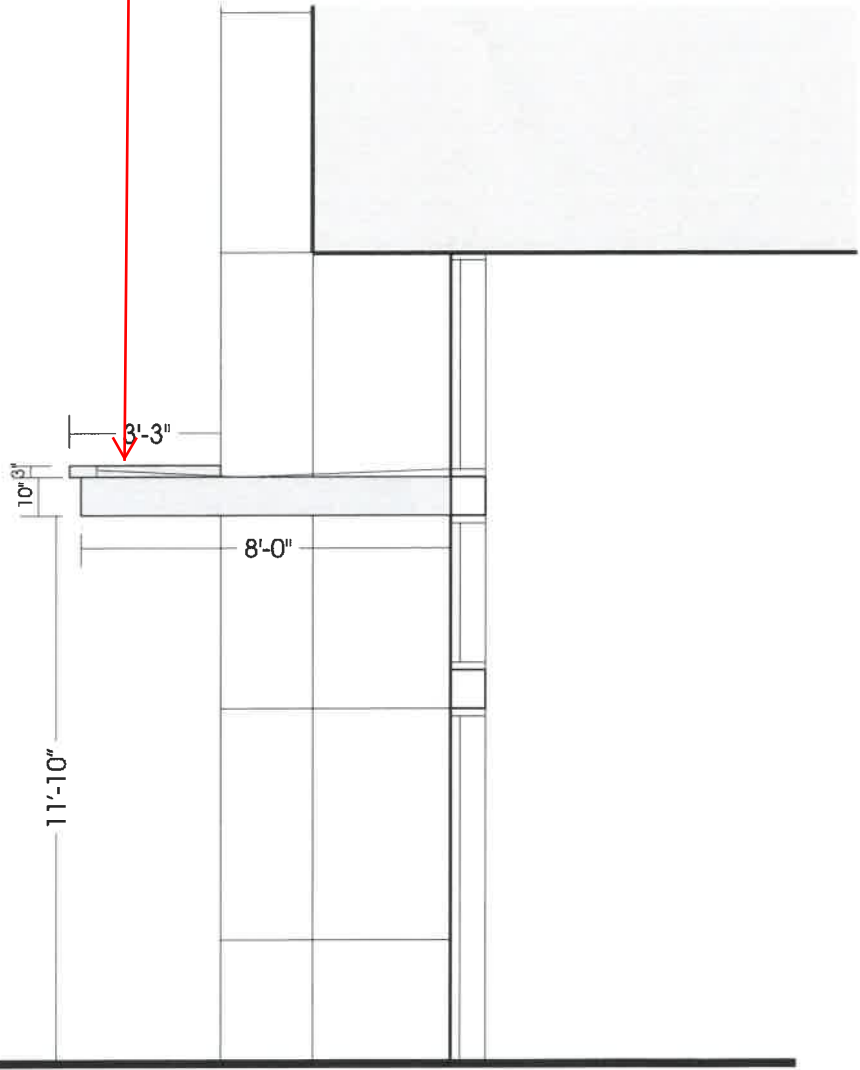
CANOPY

Roof shall be aluminum - cannot be seen from the ground

Roof shall be aluminum - cannot be seen from the office space above due to set-back window sills at curtain wall.

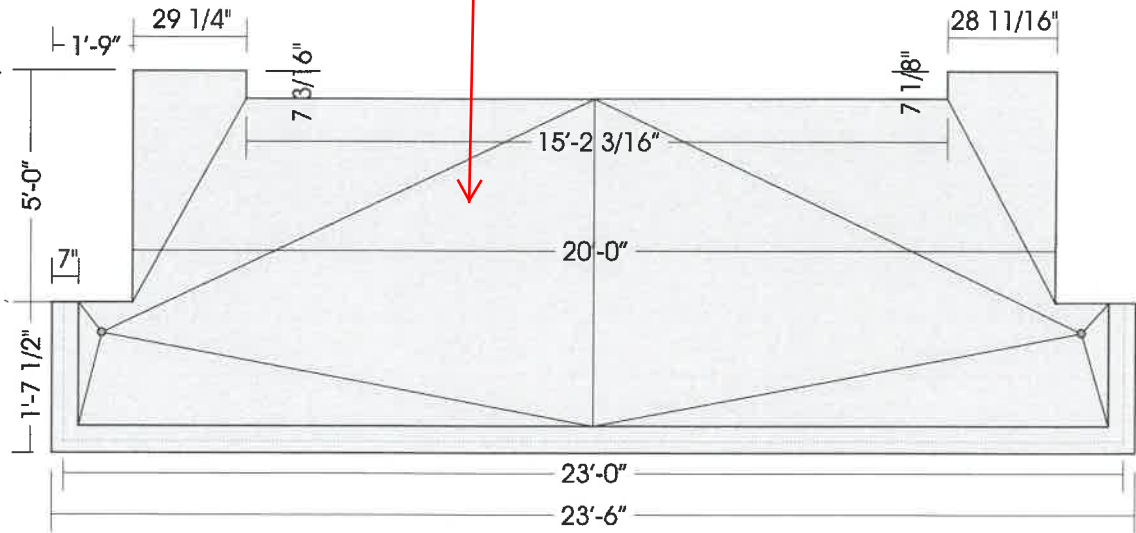


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SIGN STRUCTURE PROFESSIONALS  
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*Jere Murdoch* 11/6/2018  
**Jere Murdoch, PE**  
Professional Engineer  
VA PE Lic. #402050214  
Exp. 4/30/2020



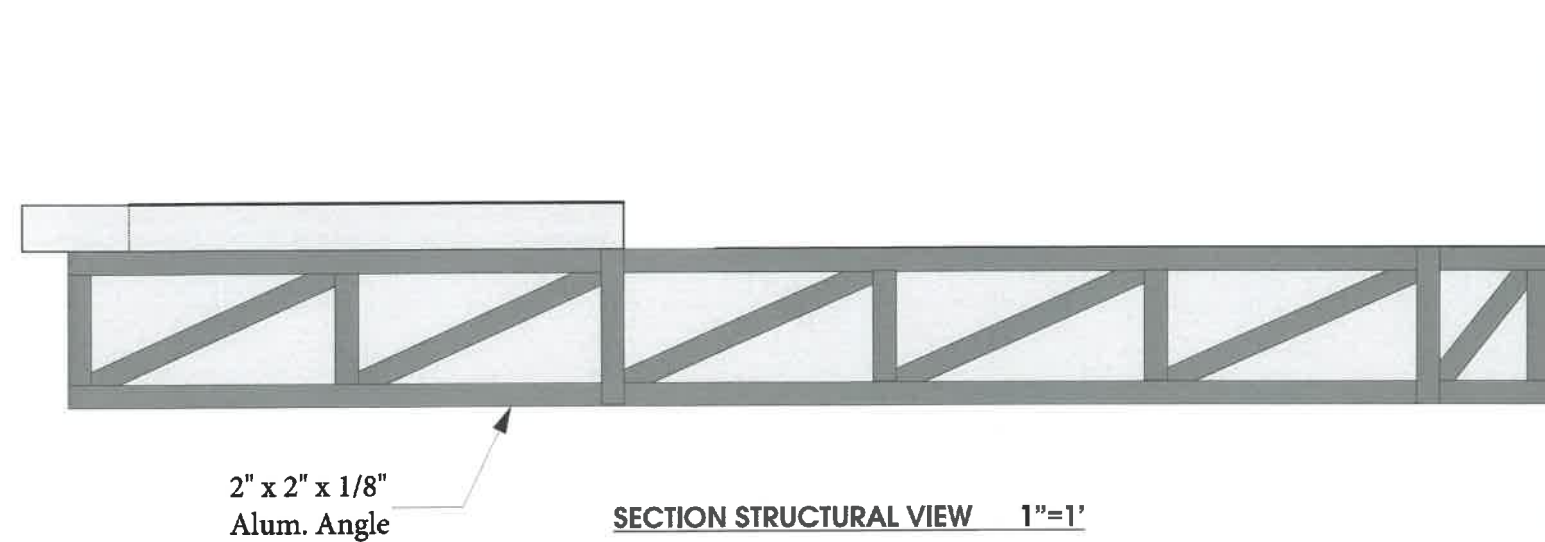
EXTERIOR — BUILDING LOBBY  
**ENTRANCE SECTION 1/4"=1'**

EXTERIOR — BUILDING LOBBY

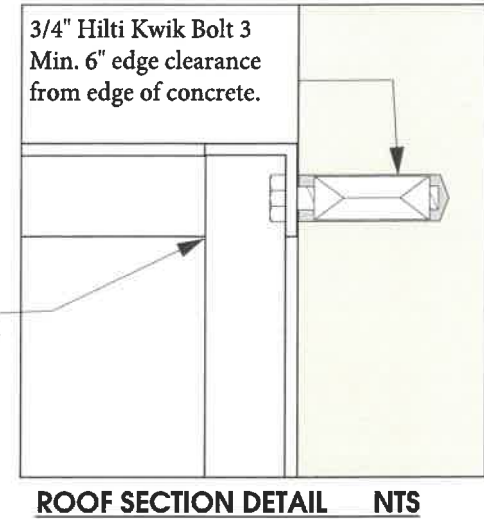


**ENTRANCE ROOF PLAN 1/4"=1'**

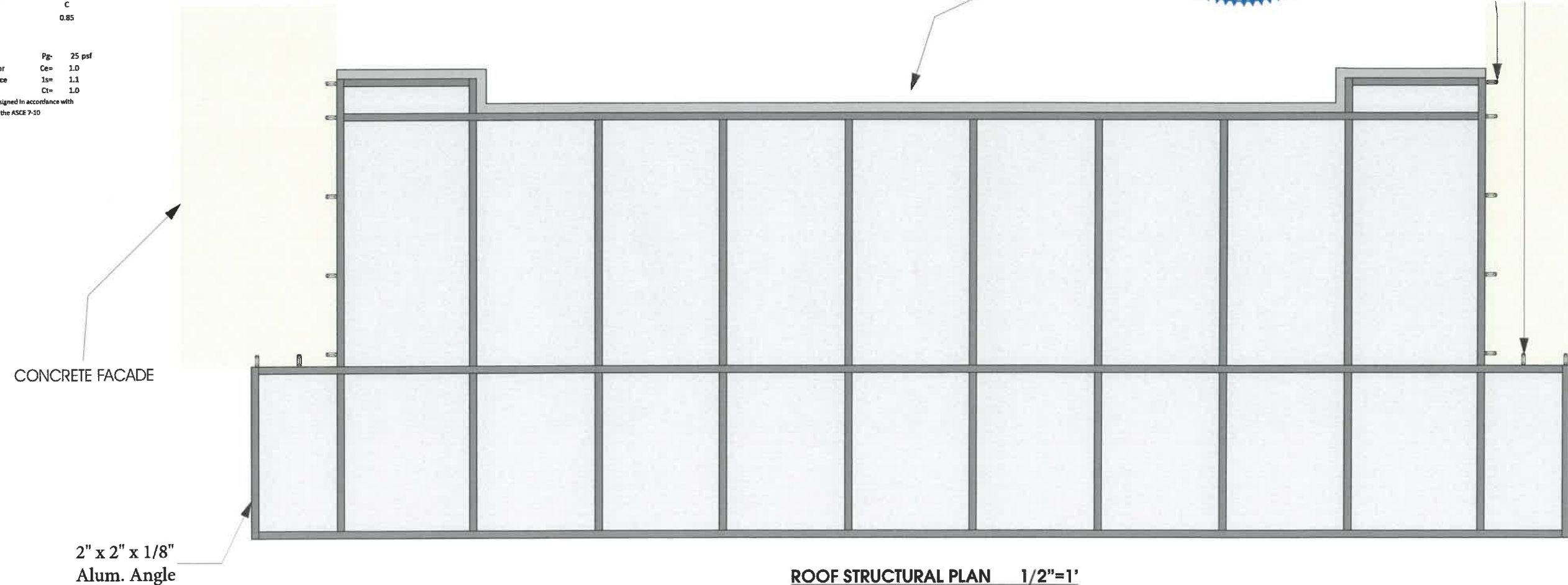




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Exp. 4/30/2020



Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments  
**Wind Loads**  
Ultimate Design Wind Speed 115 mph  
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Snow Load Importance Is= 1.1  
Thermal Factor Ct= 1.0  
Exterior components designed in accordance with applicable provisions of the ASCE 7-10





GENERAL:

1. ALL MATERIALS AND WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE INTERNATIONAL BUILDING CODE (IBC).
2. CONSTRUCTION METHODS AND PROJECT SAFETY: DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES, OR SEQUENCE OF CONSTRUCTION. TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. THE EOR WILL NOT ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES THAT ARE FOUND. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
4. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND FIELD INSPECTOR. THE ENGINEER SHALL PROVIDE A SOLUTION PRIOR TO PROCEEDING WITH ANY WORK AFFECTED BY THE CONFLICT OR OMISSION.
5. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, CONSTRUCT IN ACCORDANCE WITH THE STEEL CONSTRUCTION MANUAL, 14TH EDITION OR 2010 ALUMINUM DESIGN MANUAL.
6. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR IS TO APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
7. ANY CHANGE TO THE DESIGN AS SHOWN ON THE DRAWINGS REQUIRES PRIOR WRITTEN APPROVAL FROM DESIGN ENGINEER OF RECORD BEFORE CONSTRUCTION.
8. WORK PERFORMED IN CONFLICT WITH THE STRUCTURAL DRAWINGS OR APPLICABLE BUILDING CODE REQUIREMENTS SHALL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
9. VERIFICATION: VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK. NOTIFY THE EOR IMMEDIATELY OF ANY DISCREPANCIES.

STEEL

1. STEEL SHAPES SHALL CONFORM TO THE FOLLOWING:

|                 |                 |                |
|-----------------|-----------------|----------------|
| ROUND HSS       | ASTM A500, GR B | Fy=42 KSI MIN. |
| SQUARE/RECT HSS | ASTM A500, GR B | Fy=46 KSI MIN. |
| THREADED ROD    | ASTM A36        | Fy=46 KSI MIN. |
| STEEL PLATE     | ASTM A36        | Fy=36 KSI MIN. |
| STD. PIPE       | ASTM A53, GR B  | Fy=35 KSI MIN. |
2. BOLTS SHALL CONFORM TO ASTM A307 UNO.
3. BOLTS AND THREADED ROD SHALL BE HOT-DIP GALVANIZED PER ASTM F2329 UNO.
4. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 UNO.
5. NUTS SHALL CONFORM TO ASTM A563.
6. WASHERS SHALL CONFORM TO ASTM F444.
7. STEEL HARDWARE SHALL BE HOT-DIP GALVANIZED PER ASTM A153 UNO
8. WELDING:
  - a. WELD STRUCTURAL STEEL IN COMPLIANCE WITH ANSI/AWS D1.1 AND AISC SPECIFICATION, CHAPTER J. WELDERS SHALL BE CERTIFIED AS REQUIRED BY GOVERNING CODE AUTHORITY. WELDING SHALL BE DONE BY ELECTRIC ARC PROCESS USING LOW-HYDROGEN ELECTRODES WITH SPECIFIED TENSILE STRENGTH NOT LESS THAN 70 KSI UNLESS NOTED OTHERWISE.
  - b. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH ACTIVE STATUS AT TIME OF WELDING
  - c. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELDS PER AISC SPECIFICATION, SECTION J2, TABLE J2.4
  - d. BASE PLATES SHALL BE WELDED ON TOP AND BOTTOM WITH CONTINUOUS WELDS OF AT LEAST 1/4" (IF PLATE IS CUT TO FIT TUBE INTO PLATE)

ALUMINUM

1. FABRICATE AND ERECT ALUMINUM IN COMPLIANCE WITH THE ALUMINUM ASSOCIATION (AA) 2010 ALUMINUM DESIGN MANUAL (ADM) 1, THE SPECIFICATIONS FOR ALUMINUM SHEET METAL WORK (ASM35), AND IBC CHAPTER 20.
2. PIPE AND TUBE SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=15 KSI MIN, Ftyw=15 KSI MIN.
3. STD STRUCTURAL PROFILES SHALL BE 6061-T6 PER B308 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
4. SHEET AND PLATE SHALL BE 6061-T6 PER ASTM B209 WITH Ftu=42 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
5. EXTRUSIONS SHALL BE 6061-T6 PER ASTM B241 OR B429 WITH Ftu=38 KSI MIN, Fty=35 KSI MIN, Ftuw=24 KSI MIN, Ftyw=15 KSI MIN.
6. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY AN AWS OR ICC CERTIFIED WELDER WITH CURRENT STATUS AT TIME OF WELDING
7. UNLESS A LARGER WELD SIZE IS INDICATED, PROVIDE MINIMUM SIZE WELD PER ADM. ALL ALUMINUM WELDED JOINTS SHALL HAVE WELD SIZES OF AT LEAST 1/8"
8. FILLET WELDS SHALL NOT EXCEED THINNESS MEMBER WALL THICKNESS JOINED.
9. ALUMINUM WELD FILLER SHALL BE 5356 ALLOY
10. WELDING PROCESS GMAW OR GTAW SHALL BE IN ACCORDANCE WITH AWS D1.2
11. ALUMINUM CHANNEL LETTERS SHALL BE CONSTRUCTED OF 0.090" RETURNS AND 0.125" BACKS MINIMUM, UNLESS A LARGER SIZE IS INDICATED ON DRAWINGS. THIS NOTE SHALL SUPERCEDE DRAWING DETAILS
12. PROVIDE NEOPRENE GASKET BETWEEN DISSIMILAR METALS TO PREVENT GALVANIC CORROSION
13. ALUMINUM DIRECTLY EMBEDDED INTO CONCRETE SHALL BE CAPPED AT BOTTOM AND COATED WITH BITUMINOUS COATING OR POLYURETHANE WHERE IN CONTACT WITH CONCRETE.
14. FASTENERS BETWEEN DISSIMILAR METALS SHALL BE STAINLESS STEEL 316.

CONCRETE & REINFORCEMENT

1. MINIMUM 28-DAY COMPRESSIVE STRENGTH (fc') SHALL BE 3,000 PSI. THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.45 BY WEIGHT. A MINIMUM OF 5-3/4 BAGS OF CEMENT SHALL BE USED PER CUBIC YARD WITH A SLUMP OF 4" +/- 1.
2. REINFORCEMENT TO BE ASTM A615 GR 60, Fy=60 KSI UNO
3. CALCIUM CHLORIDE OR ADDED CHLORIDE IS NOT PERMITTED
4. VIBRATION: ALL REINFORCED CONCRETE SHALL BE CONSOLIDATED WITH MECHANICAL VIBRATORS.
5. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-11
6. PROVIDE A MINIMUM OF 2-1/2" COVER OF ALL EMBEDDED STEEL REBAR AND A MINIMUM OF 6 INCHES OF COVER FOR DIRECT BURIED PIPE OR TUBE MEMBERS.

FOUNDATIONS

1. CONCRETE POURED INTO CONSTRAINED EARTH EXCAVATIONS MUST CURE UNDER PROPER CONDITIONS FOR A MINIMUM OF 7 DAYS PRIOR TO SIGN BOX INSTALLATION. (EXCEPTION: IF THE OVERALL HEIGHT OF THE SIGN IS LESS THAN 20 FEET AND THE SIGN IS ADEQUATELY BRACED AGAINST WIND LOADS FOR A MINIMUM OF 4 DAYS, THE BOX MAY BE INSTALLED THE SAME DAY AS THE FOOTING IS POURED)
2. FOOTINGS MUST BE POURED AGAINST UNDISTURBED EARTH. SOIL BACKFILL IS UNACCEPTABLE. WHEN A SONOTUBE IS USED AS THE FORM, 3/4" BLUESTONE OR CONCRETE SHALL BE USED TO BACKFILL THE SPACE BETWEEN THE SONOTUBE AND UNDISTURBED EARTH.
3. COLD WEATHER PLACEMENT: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS OR LOW TEMPERATURES. DO NOT POUR CONCRETE DURING OR WHEN FREEZING TEMPERATURES ARE ANTICIPATED WITHIN 3 DAYS OF POUR.

SCOPE OF WORK

1. LIMITS OF LIABILITY TO EXTEND ONLY TO THE QUANTITY INDICATED. ATTEMPTS IN PART OR IN WHOLE TO INSTALL GREATER QUANTITIES THAN THOSE SPECIFIED WITHOUT CONSULTING MURDOCH ENGINEERING SHALL VOID ALL PROFESSIONAL LIABILITY AND COVERAGE.

SHEET INDEX

S.1 NOTES & ELEVATION

Designed Per IBC 2012 VA Edition

With Applicable Herndon Amendments

Wind Loads

|                            |          |
|----------------------------|----------|
| Ultimate Design Wind Speed | 115 mph  |
| Normal Design Wind Speed   | 89.1 mph |
| Risk Cat.                  | II       |
| (3-Sec Peak Gust MPH*)     |          |
| Wind Importance Factor     | I= 1     |
| Wind Exposure              | C        |
| Gust Factor                | 0.85     |

Snow Loads

|                      |                      |
|----------------------|----------------------|
| Ground Snow Load     | Pg= 25 psf           |
| Snow Exposure Factor | Ce= 1.0              |
| Snow Load Importance | I <sub>s</sub> = 1.1 |
| Thermal Factor       | C <sub>t</sub> = 1.0 |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

**MURDOCH**  
**ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

murdochengineering.com  
(973) 810-4202  
73 Paterson St. 2nd Floor  
New Brunswick, NJ 08901

PREPARED FOR:

Jack Stone Signs

Isometric View  
Awning Frame

12901 Worldgate Dr.  
Herndon, VA

PROJECT TITLE:

PROJECT #:

| No: | Issue/Revision:   | Date:   |
|-----|-------------------|---------|
| —   | Initial Submittal | 11-6-18 |
| 1   |                   |         |
| 2   |                   |         |
| 3   |                   |         |
| 4   |                   |         |

**MURDOCH**  
**ENGINEERING**  
SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.  
HOWELL, NJ 07731  
(973) 970-8215

*Jere Murdoch* 11/6/2018

**Jere Murdoch, PE**  
Professional Engineer  
NJ PE Lic. #402050214  
Exp. 4/30/2020

DATE SIGNED:

ENGINEER:

DWG TITLE:

NOTES & ELEVATION

SHEET:

I.1

SIZE:

B

Engineers Frame Note:

-Entire frame made of 2" x 2" x 1/8"  
Aluminum Angle. Frame sections  
where fasteners will be installed  
need to be 2" x 2" x 1/4" Aluminum  
Angle.

The designs, details and specifications contained in this drawing are confidential. The recipients of this drawing hereby acknowledge and agree that it is the sole property of Murdoch Engineering and that they shall neither use nor reveal any of the designs, details and specifications contained in this drawing, outside of the contractual agreement expressed written permission from Murdoch Engineering.

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Designed Per IBC 2012 VA Edition  
With Applicable Herndon Amendments

**Wind Loads**

|                            |          |
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| Ultimate Design Wind Speed | 115 mph  |
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| Gust Factor                | 0.85     |

**Snow Loads**

|                      |            |
|----------------------|------------|
| Ground Snow Load     | Pg= 25 psf |
| Snow Exposure Factor | Ce= 1.0    |
| Snow Load Importance | Is= 1.1    |
| Thermal Factor       | Ct= 1.0    |

Exterior components designed in accordance with applicable provisions of the ASCE 7-10

CANOPY

12801, 12825,  
12851 and 21901  
will match exactly

Canopy fascia and  
soffit color shall  
match existing grey  
storefront/curtain  
wall - see provided  
material sample



ENTRANCE RENDER    NTS

COMMONWEALTH OF VIRGINIA

JERE K. MURDOCH

Lic. No. 50214

PROFESSIONAL ENGINEER

MURDOCH

ENGINEERING

SIGN STRUCTURE PROFESSIONALS

2 HUMMINGBIRD CT.

HOWELL, NJ 07731

(973) 576-8215

11/6/2018

Jere Murdoch, PE

Professional Engineer

VA PE Lic. #402050214

Exp. 4/30/2020



## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

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### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)





## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR A WALL OR WINDOW SIGN, ARB #19-07.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider removal of an existing business sign and installation of a new illuminated business sign on an exterior wall of the commercial building located at 533 Herndon Parkway, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                                                          |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | Dan Norwood, Agent                                                                                                                                                                       |
| Owner:             | CMP I Herndon Owner, LLC                                                                                                                                                                 |
| Use:               | Commercial                                                                                                                                                                               |
| Location:          | 533 Herndon Parkway                                                                                                                                                                      |
| Tax Map Reference: | 0164-10-0004                                                                                                                                                                             |
| Zoning of Site:    | PD-TOC, Planned Development – Transit Oriented Core                                                                                                                                      |
| Adjacent Zoning:   | North: O & LI, Office and Light Industrial<br>South: VA Route 267 Right-of-Way<br>East: O & LI, Office and Light Industrial<br>West: PD-TOC, Planned Development – Transit Oriented Core |

#### Description:

This application proposes to remove existing business signage and install new business signage for the *Courtyard By Marriott* hotel using the corporate business name, lettering, and colors. The main sign letters (COURTYARD) will be 24" tall and constructed of 3/16" thick internally (LED) illuminated white acrylic faced channel letters, 1" dark gray (Pantone ® 426 gray) trim caps, and 4" - 5" deep dark



gray painted aluminum returns flush-mounted to a new painted wood substrate beneath a new faux wood metal panel cladding on this portion of the north façade near the main building entrance. The new faux wood panel is not a component of the wall sign but is a component of exterior alteration being proposed through ARB #19-09. The white acrylic faces will be covered by a dark gray (Pantone ® 426 gray) perforated film so the sign letters will appear dark gray during the day and illuminate white at night. The business name (*By Marriott*) letters will be 8 11/16" tall and will also be constructed of 3/16" thick internally (LED) illuminated white acrylic faced channel letters, 1" dark gray (Pantone ® 426 gray) trim caps, and 4" - 5" deep dark gray painted aluminum returns flush-mounted to the new faux wood metal panel cladding. These letters will appear white during the day and illuminate white at night. The overall wall sign area for all sign components will be 52.08 square feet, using the appropriate sign area calculations found in the Town's Zoning Ordinance, (Attachment #2, #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-07 with the following conditions:

1. The proposed signage shall be installed in substantial conformance with the application and supporting materials as submitted January 14, 2019.

### **Staff Analysis:**

1. The proposed sign complies with the Town's Zoning Ordinance Section 78-141.4 - Sign standards for Commercial Districts, Table 78-141(a). Based on this ordinance section, the business would be authorized 1 square foot of sign area for each linear foot of frontage, approximately 129.3 square feet in this case. As noted in the project description, the applicant is proposing approximately 52.08 square feet of sign area for its wall sign and thus meets the referenced dimensional standards of this section of the zoning ordinance, as well as the general sign standards applicable to all zoning districts.
2. The proposed signage complies with all the applicable design criteria for this commercial office property within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. Staff concludes that the proposed project will improve the visual appeal of this commercial structure with updated corporate signage on the building to coincide with proposed exterior alterations at the subject property, modernizing the exterior design of the building.



**Attachments:**

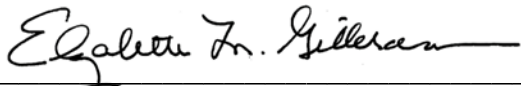
1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing Conditions
5. Sign Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



---

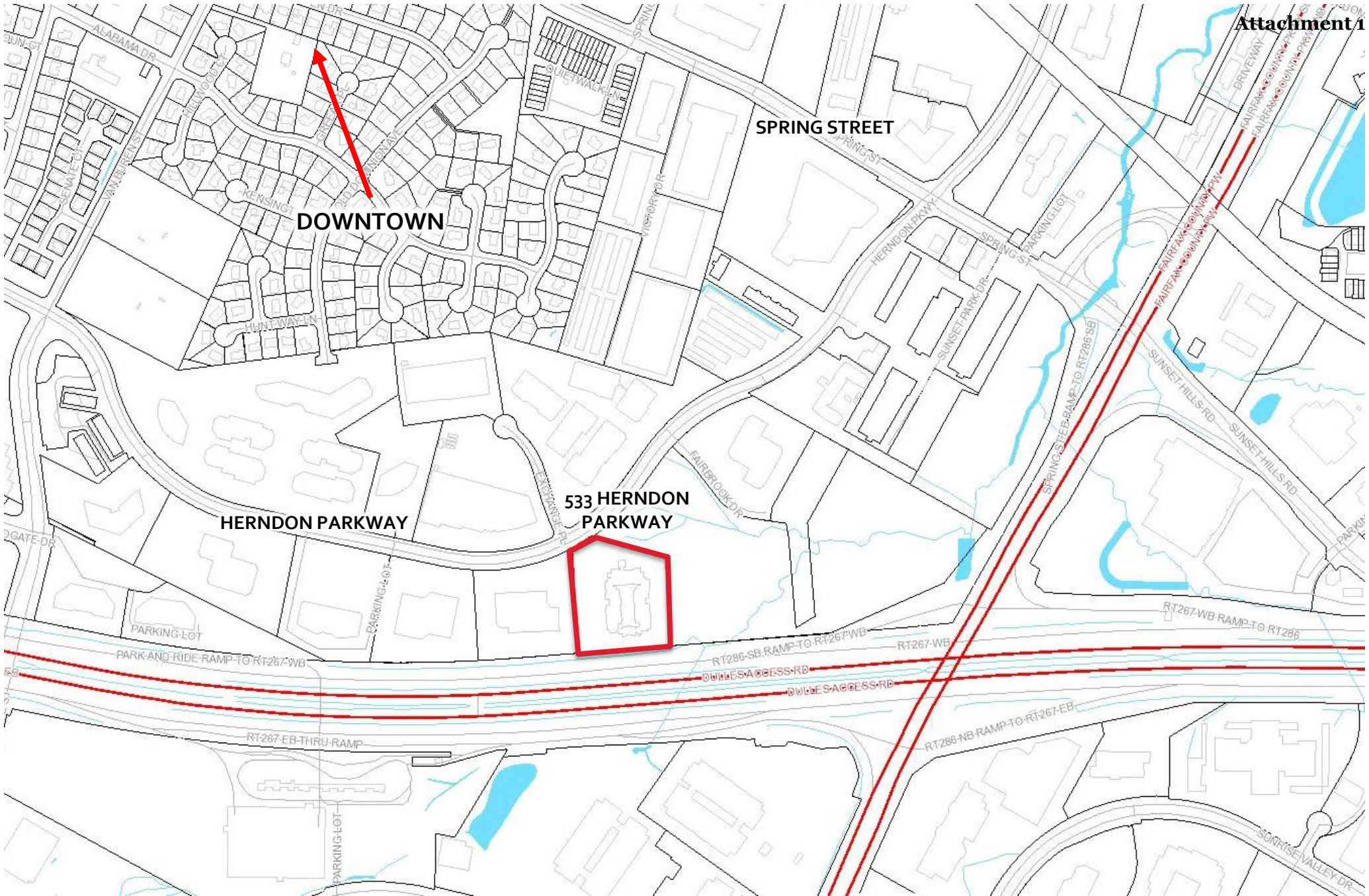
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



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Lisa M. Gilleran  
Director of Community Development





## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





# JEFFREY A. WILLIAMS ARCHITECT

January 11, 2019

Town of Herndon  
Department of Community Development  
777 Lynn Street  
Herndon, VA 20170

**RE: COURTYARD HERNDON  
EXTERIOR ALTERATION AND SIGNAGE REVIEW**

Dear Architectural Review Board:

The Courtyard at Herndon is an existing hotel in which we are proposing to do an exterior reimagining at the front entry. This includes removing the existing port cochere and building a new façade that has minimal impact to the existing building. The new façade finishes include EIFS, metal panels with a wood look and new storefront windows. We are also installing a new sign and painting the existing stucco building.

The façade at the two stair towers at the front of the building and the two side entries in the middle section of both the east and west elevations, are receiving the same metal panel cladding and EIFS surrounds as the front of the building. The two rear entry doors at the south of the building are receiving a smaller version of the metal panel and EIFS surrounds just at the entryways. The entire building is getting repainted, both on the exterior façade and the interior courtyard façades.

The existing monument sign located at the entry drive aisle at Herndon Parkway is being replaced as well.

The new building sign and the new monument sign are both internally lit. The building sign is 81SF and the monument sign is 30SF.

Please see the enclosed documents and the material list below for more information.

15200 52nd Avenue South, Suite 300, Seattle, Washington 98188  
Phone 206.766.8300



List of Materials Submitted:

|                                                       |                                                                           |
|-------------------------------------------------------|---------------------------------------------------------------------------|
| LB1 – Longboard Metal Panel                           | Finish: Light National Walnut                                             |
| EF1 – EIFS/Paint                                      | Finish: Paint to Match Sherwin Williams SW7004 Snowbound<br>Texture: Fine |
| EF2 – EIFS/Paint                                      | Finish: Paint to Match Benjamin Moore 1601 Hearthstone<br>Texture: Fine   |
| EF3 – EIFS/Paint                                      | Finish: Paint to Match Benjamin Moore 1603 Graphite<br>Texture: Fine      |
| PN1 – Paint for existing doors                        | Finish: SW6095 Toasty                                                     |
| MT4 – New Aluminum<br>Storefront to match<br>Existing | Finish: Kawneer Dark Bronze                                               |
| MT5 – Paint for Misc. Metals                          | Finish: SW6069 French Toast                                               |

Sincerely,

**JEFFREY A. WILLIAMS, ARCHITECT**



**Jeffrey A. Williams, AIA**

**Attachments:**

- (6) P200 Exterior Elevations
- (6) P201 Exterior Elevations – Courtyard
- (6) P202 Exterior Photos – Existing
- (6) P203 Exterior Photos – Existing Courtyard
- (6) P204 Signage Location Map
- (6) P205 Signage Elevation
- (1) Exterior Finish Samples Binder
- (6) Cut Sheets (light fixtures, aluminum storefront, Longboard metal panels)
- (1) Full Size P200 Exterior Elevations
- (1) Full Size P201 Exterior Elevations – Courtyard
- (1) CD with all information in electronic version



**ARB #19-07 EXTERIOR PHOTOGRAPHS OF FRONT ENTRY TO 533 HERNDON PARKWAY**



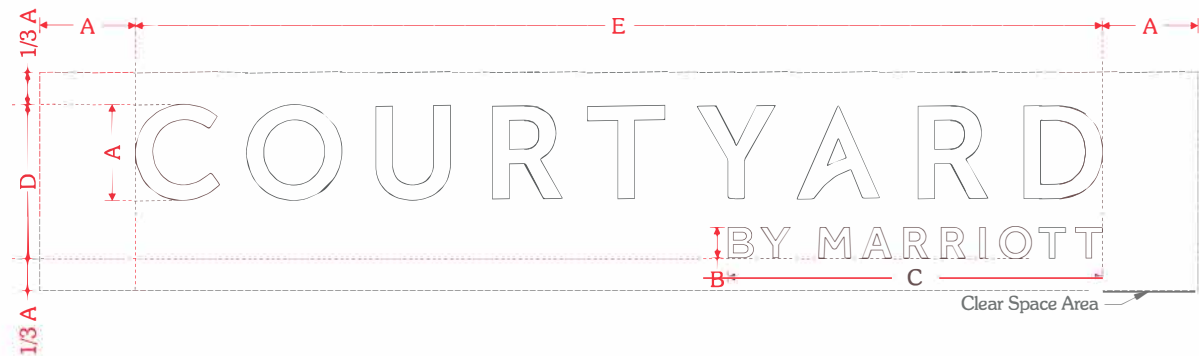


2 channel letters

CHANNEL LETTER SPECIFICATIONS

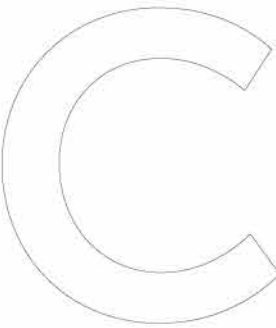
**Channel Letter Specifications:**  
*Construction:* .050" aluminum channel letter with .063" aluminum backs  
*Face Material:* 3/16" 7328 white acrylic  
*Trim Cap:* 1" paint to match Pantone® 426 C gray, satin finish  
*Illumination:* GE White LED's as required  
*Exterior Finish:* Paint to match Pantone® 426 C gray, satin finish  
*Interior Finish:* Paint reflective white

**Channel Letter Face Specifications:**  
*Face Material:* 3/16" 7328 white acrylic

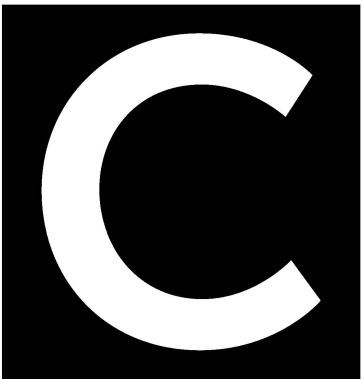


| Model # | A   | B        | C            | D           | E           |
|---------|-----|----------|--------------|-------------|-------------|
| C-24-CL | 24" | 8 11/16" | 8'-10 9/16"  | 3'-3 11/16" | 20'-2 9/16" |
| C-30-CL | 30" | 9 9/16"  | 9'-9 5/16"   | 4'-0 5/16"  | 25'-3 1/4"  |
| C-36-CL | 36" | 11 7/16" | 11'-8 3/4"   | 4'-9 15/16" | 30'-3 7/8"  |
| C-48-CL | 48" | 15 1/4"  | 15'-7 11/16" | 6'-5 1/4"   | 40'-5 3/16" |

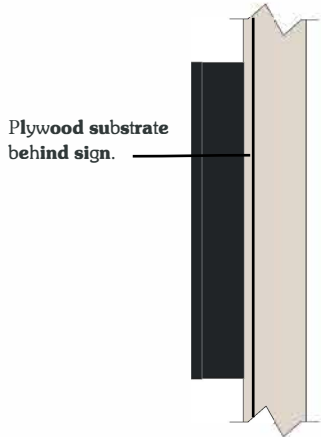
\* Letter height determined by the height of the letter "C".



Daytime Appearance



Nighttime Appearance



Side Profile

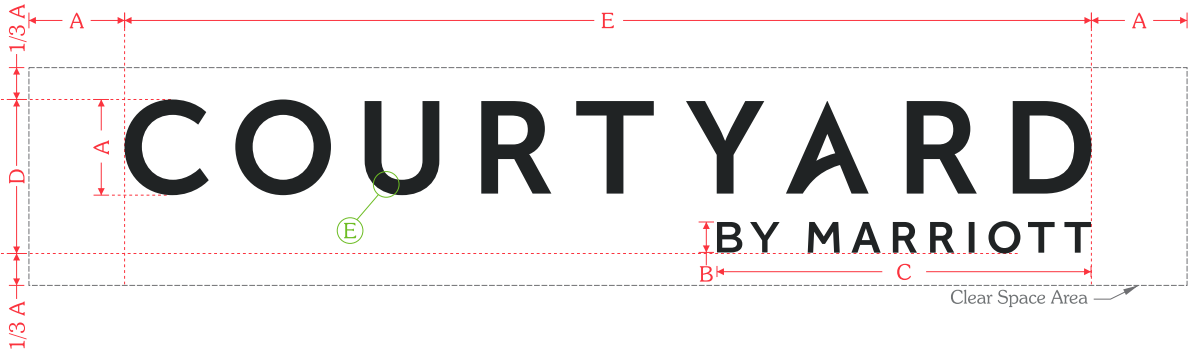
**For Dark Tone Building Backgrounds** | Letters to appear white during the day and illuminate white at night.



CHANNEL LETTER SPECIFICATIONS

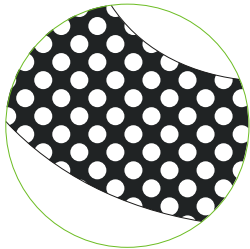
**Channel Letter Specifications:**  
*Construction:* .050" aluminum channel letter with .063" aluminum backs  
*Face Material:* 3/16" 2447 white acrylic  
*Trim Cap:* 1" paint to match Pantone® 426 C gray, satin finish  
*Illumination:* GE White LED's as required  
*Exterior Finish:* Paint Pantone® 426 C gray satin finish  
*Interior Finish:* Paint reflective white

**Channel Letter Face Specifications:**  
*Face Material:* 3/16" 2447 white acrylic  
*Decoration:* Digitally printed dual-color film to match Pantone® 426 C gray, applied to 1st surface



| Model # | A   | B        | C            | D           | E           |
|---------|-----|----------|--------------|-------------|-------------|
| C-24-CL | 24" | 8 11/16" | 8'-10 9/16"  | 3'-3 11/16" | 20'-2 9/16" |
| C-30-CL | 30" | 9 9/16"  | 9'-9 5/16"   | 4'-0 5/16"  | 25'-3 1/4"  |
| C-36-CL | 36" | 11 7/16" | 11'-8 3/4"   | 4'-9 15/16" | 30'-3 7/8"  |
| C-48-CL | 48" | 15 1/4"  | 15'-7 11/16" | 6'-5 1/4"   | 40'-5 3/16" |

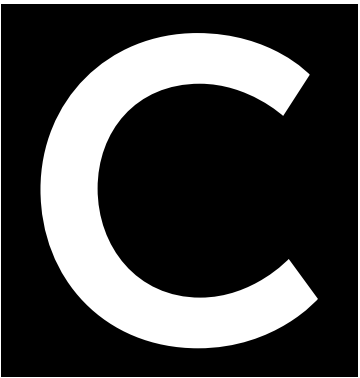
\* Letter height determined by the height of the letter "C".



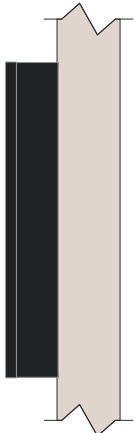
Detail E



Daytime Appearance



Nighttime Appearance



Side Profile

**For Light Tone Building Backgrounds** | Letters to appear gray during the day and illuminate white at night.



## MONUMENT SPECIFICATIONS

### Monument Specifications:

*Construction:* Aluminum angle frame with .125" aluminum shoe-box style faces

*Face Construction:* Routed aluminum with backer panel

*Retainer:* Bleed face

*Illumination:* GE White LED's

*Exterior Finish:* Paint Pantone® 426 C gray, satin finish, and Pantone® 877 C Silver, satin finish

*Interior Finish:* Paint reflective white

### Monument Face Specifications:

*Face Construction:* Routed aluminum with backer panel

*Face Decoration:* Paint Pantone® 426 C gray, satin finish

*Backer Panel:* .118" white solar grade polycarbonate

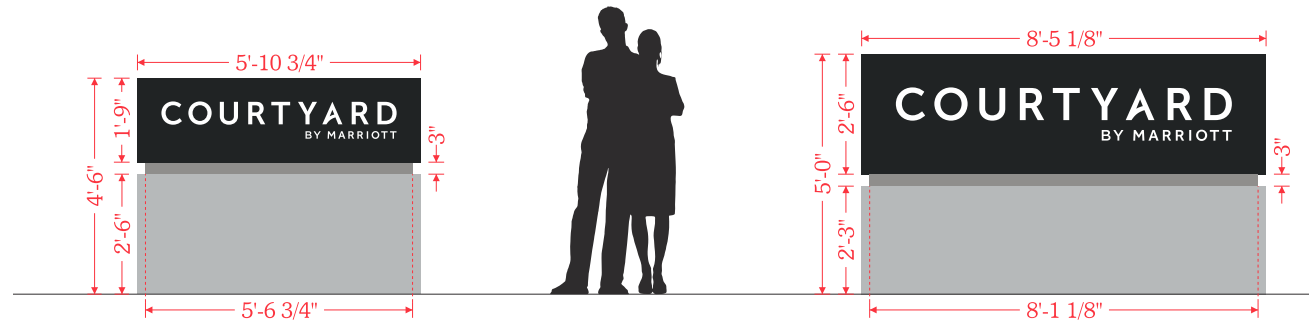
\* "Courtyard" and "Marriott" to appear white during the day and illuminate white at nighttime.

### Pole Cover Specifications:

\* Preferred method to have monument base match building hardscape (stone, brick, etc., provided by general contractor)

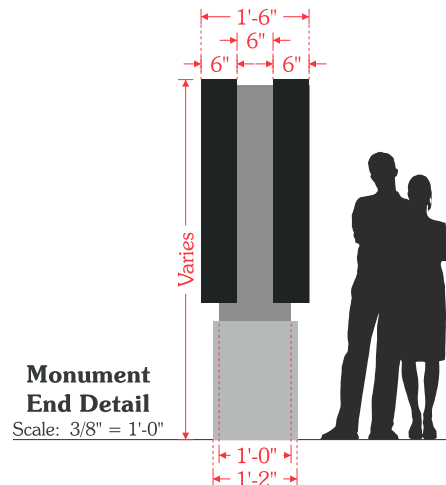
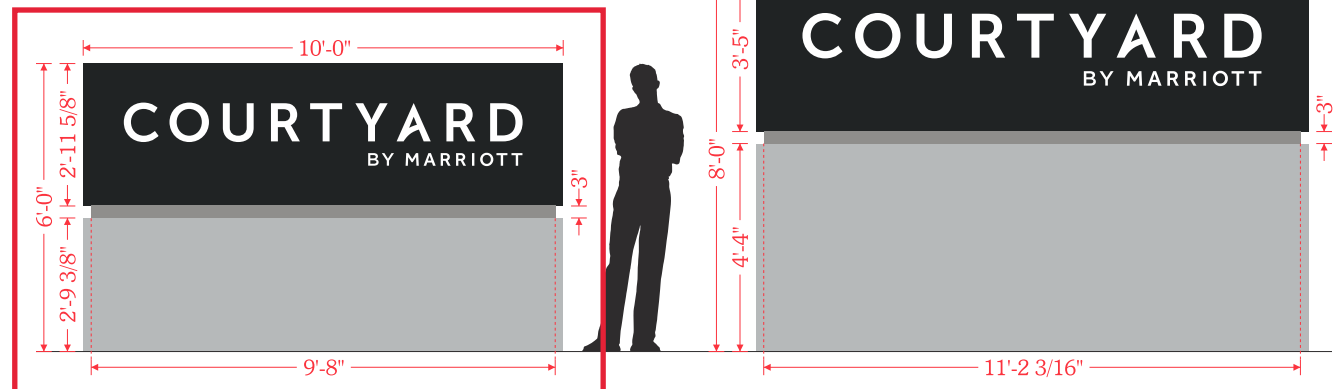
*Construction:* Aluminum angle frame with .080" aluminum skins

*Exterior Finish:* Paint Matthews 41342SP Brushed Aluminum, satin finish



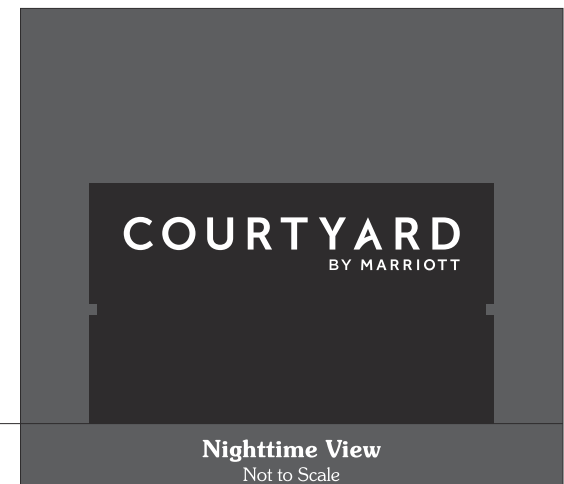
**Monument Elevations**

Scale: 1/4" = 1'-0"



**Monument End Detail**

Scale: 3/8" = 1'-0"

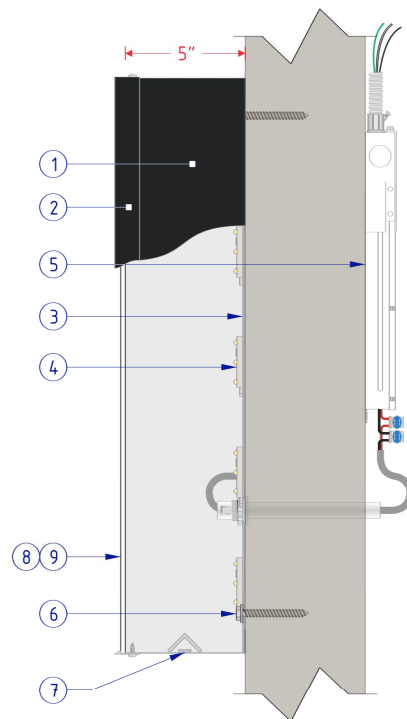


**Nighttime View**  
Not to Scale





GRAPHIC DETAIL  
SCALE: 1/2" = 1'-0"



LETTER PROFILE  
NOT TO SCALE

| COURTYARD REMOTE CHANNEL LETTERS WITH GRAY FACES SPECIFICATIONS |                                                             |
|-----------------------------------------------------------------|-------------------------------------------------------------|
| NO.                                                             | PART/DESCRIPTION                                            |
| 1                                                               | .050" X 5" PAINTED TO MATCH PMS 426 C GRAY ALUMINUM RETURNS |
| 2                                                               | 1" TRIM CAP PAINTED TO MATCH PMS 426 C GRAY                 |
| 3                                                               | .063" ALUMINUM BACK                                         |
| 4                                                               | GE 7100K WHITE LED'S AS REQUIRED                            |
| 5                                                               | REMOTE POWER SUPPLIES AS REQUIRED                           |
| 6                                                               | MOUNTING HARDWARE AS DETERMINED BY SITE CONDITIONS          |
| 7                                                               | DRAIN HOLES WITH LIGHT BAFFLES AS REQUIRED                  |
| 8                                                               | 3/16" 2447 WHITE ACRYLIC FACE                               |
| 9                                                               | DIGITALLY PRINTED PERFERATED FILM TO MATCH PMS 426 C GRAY   |

NOTES:

- CHANNEL LETTER INTERIORS TO BE PAINTED REFLECTIVE WHITE
- U.L. LISTED
- FOR USE ON LIGHT COLORED BUILDINGS
- ELECTRICAL: 1.10 AMPS / 120 VOLTS
- SQUARE FOOTAGE:  
BOXED: 66.38  
ACTUAL: 15.19

Customer:

**COURTYARD**

Date:

**11/20/17**

Prepared By:

**AP**

Note: Color output may not be exact when viewing or printing this drawing. All colors used are PMS or the closest CMYK equivalent. If these colors are incorrect, please provide the correct PMS match and a revision to this drawing will be made.

Item Number: COU-24RT2LGRYCL17-S

File Name:

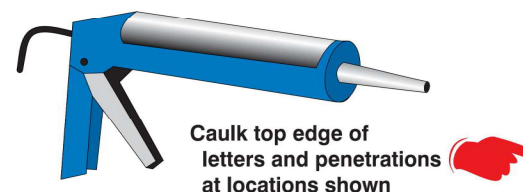
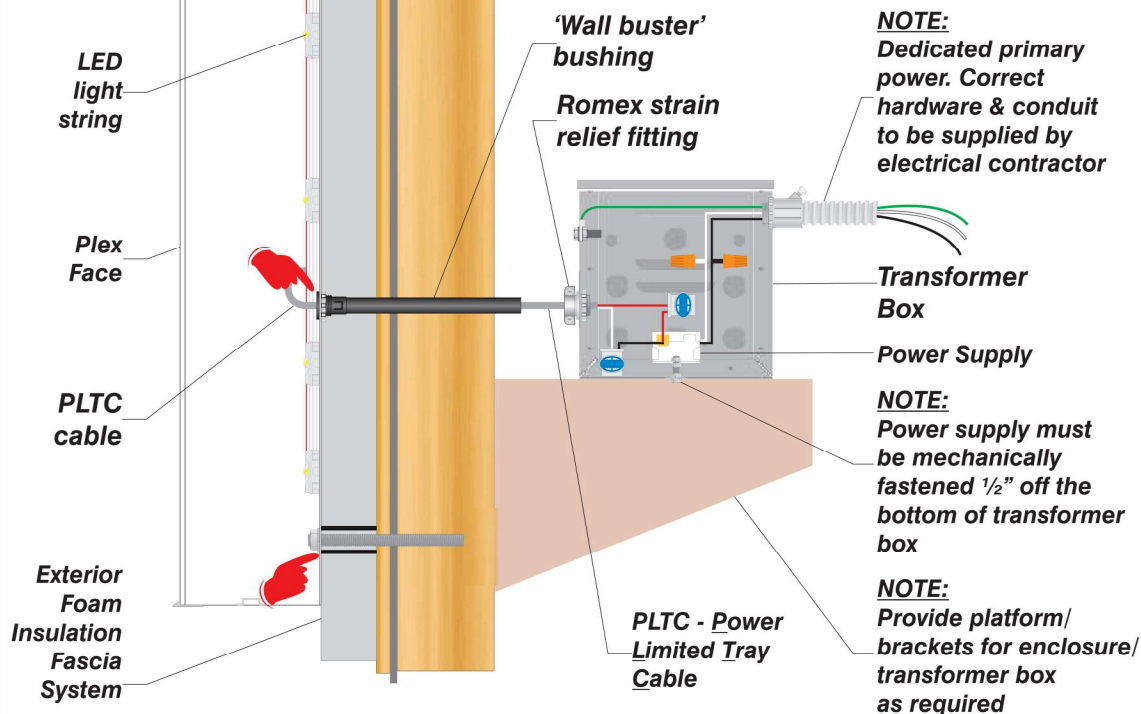
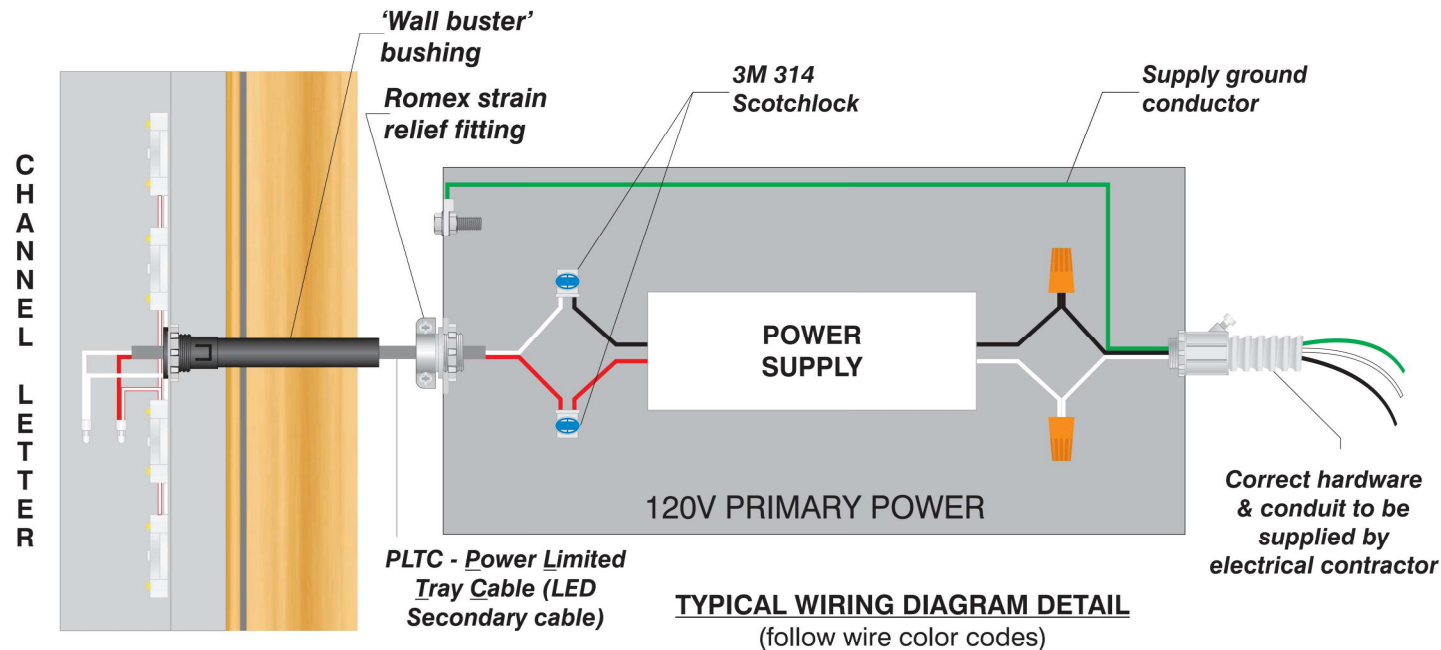
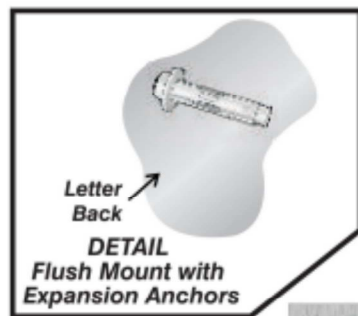
**COU REMOTE LED CHANNEL LETTERS - 24" GRAY OPTION**

Revision:

-

**persona**  
SIGNS | LIGHTING | IMAGE

DISTRIBUTED BY SIGN UP COMPANY  
700 21st Street Southwest  
PO Box 210  
Watertown, SD 57201-0210  
1.800.843.9888 • www.personasigns.com



**INSTALLER NOTE:**  
Provide as required-

- Bolts-Nuts
- Allthread-Lags
- Spacers-washers
- Silicone Sealant
- Mounting fasteners for site specific wall construction
- Materials required for mounting transformer to backside of wall behind display

**INSTALL DIAGRAM**  
Remote/LED  
Flush/EIFS Wall  
DRY/DAMP

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## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

---

### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)



## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR A FREESTANDING SIGN, ARB #19-08.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider installation of a new illuminated monument sign on the commercial property located at 533 Herndon Parkway, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                                                          |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | Dan Norwood, Agent                                                                                                                                                                       |
| Owner:             | CMP I Herndon Owner, LLC                                                                                                                                                                 |
| Use:               | Commercial                                                                                                                                                                               |
| Location:          | 533 Herndon Parkway                                                                                                                                                                      |
| Tax Map Reference: | 0164-10-0004                                                                                                                                                                             |
| Zoning of Site:    | PD-TOC, Planned Development – Transit Oriented Core                                                                                                                                      |
| Adjacent Zoning:   | North: O & LI, Office and Light Industrial<br>South: VA Route 267 Right-of-Way<br>East: O & LI, Office and Light Industrial<br>West: PD-TOC, Planned Development – Transit Oriented Core |

#### Description:

This application proposes to remove an existing monument sign and, in its place, install a new monument sign for the *Courtyard By Marriott* hotel using the corporate business name, lettering, and colors. The monument sign will have an overall length of 10', an overall height of 6' and will be 1'-6" wide. The base will be constructed of an aluminum angle frame faced with a brushed finished aluminum panels in a satin aluminum finish color. The upper shoebox style sign faces will be



constructed of aluminum frames clad with aluminum panels with routed sign letters. All the aluminum sign faces and components, including 5" returns and 1" trim caps, will be finished in a dark gray (Pantone ® 426 gray). The sign lettering (*Courtyard By Marriott*) will appear white during the day and at night using internal LED lights with 3/16" thick translucent white polycarbonate panels attached to the interior of the aluminum exterior faces. The overall wall sign area for each sign face will be 30 square feet, using the appropriate sign area calculations found in the Town's Zoning Ordinance, (Attachment #2, #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-08 with the following conditions:

1. The proposed signage shall be installed in substantial conformance with the application and supporting materials as submitted January 14, 2019.

### **Staff Analysis:**

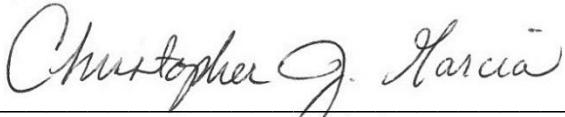
1. The proposed sign complies with the Town's Zoning Ordinance Section 78-141.4. - Sign standards for Commercial Districts, Table 78-141(a). Based on this ordinance section, the business would be authorized 1 square foot of sign area for each linear foot of frontage, approximately 129.3 square feet in this case. The applicant is proposing approximately 30 square feet of sign area for its monument sign and thus meets the referenced dimensional standards of this section of the zoning ordinance, as well as the general sign standards applicable to all zoning districts.
2. The proposed sign complies with the applicable design criteria for this commercial office property within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. Staff concludes that the proposed project will improve the visual appeal of this commercial property with an updated corporate freestanding sign to complement the proposed exterior building alterations and a wall sign being considered through ARB #19-07 and ARB #19-09.

### **Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing Conditions
5. Sign Elevation, Details and Product Information

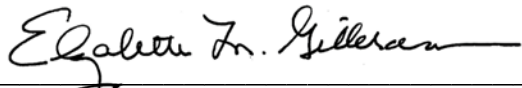
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



---

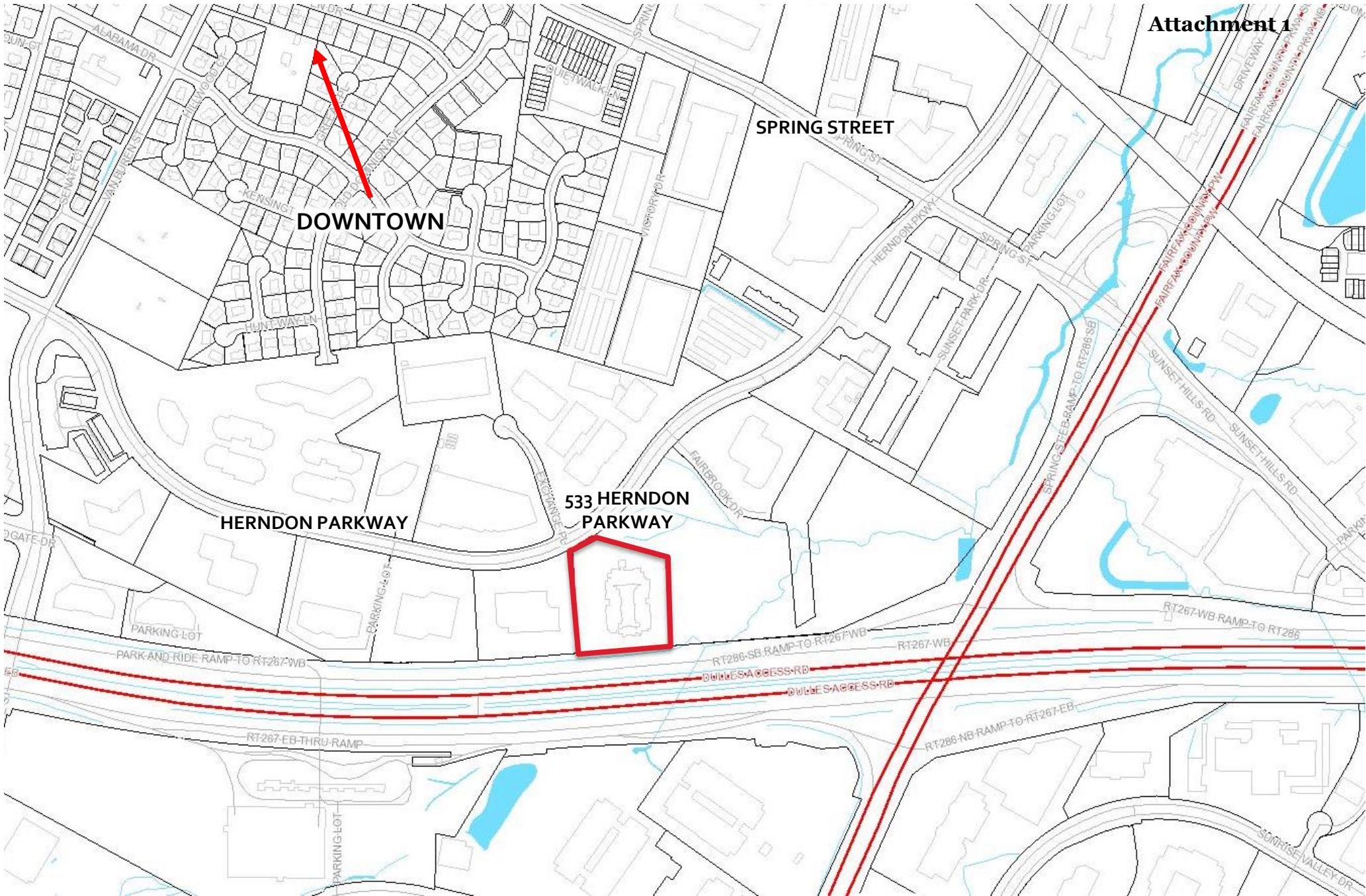
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



---

Lisa M. Gilleran  
Director of Community Development





## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





# JEFFREY A. WILLIAMS ARCHITECT

January 11, 2019

Town of Herndon  
Department of Community Development  
777 Lynn Street  
Herndon, VA 20170

**RE: COURTYARD HERNDON  
EXTERIOR ALTERATION AND SIGNAGE REVIEW**

Dear Architectural Review Board:

The Courtyard at Herndon is an existing hotel in which we are proposing to do an exterior reimagining at the front entry. This includes removing the existing port cochere and building a new façade that has minimal impact to the existing building. The new façade finishes include EIFS, metal panels with a wood look and new storefront windows. We are also installing a new sign and painting the existing stucco building.

The façade at the two stair towers at the front of the building and the two side entries in the middle section of both the east and west elevations, are receiving the same metal panel cladding and EIFS surrounds as the front of the building. The two rear entry doors at the south of the building are receiving a smaller version of the metal panel and EIFS surrounds just at the entryways. The entire building is getting repainted, both on the exterior façade and the interior courtyard façades.

The existing monument sign located at the entry drive aisle at Herndon Parkway is being replaced as well.

The new building sign and the new monument sign are both internally lit. The building sign is 81SF and the monument sign is 30SF.

Please see the enclosed documents and the material list below for more information.

15200 52nd Avenue South, Suite 300, Seattle, Washington 98188  
Phone 206.766.8300

List of Materials Submitted:

|                                                       |                                                                           |
|-------------------------------------------------------|---------------------------------------------------------------------------|
| LB1 – Longboard Metal Panel                           | Finish: Light National Walnut                                             |
| EF1 – EIFS/Paint                                      | Finish: Paint to Match Sherwin Williams SW7004 Snowbound<br>Texture: Fine |
| EF2 – EIFS/Paint                                      | Finish: Paint to Match Benjamin Moore 1601 Hearthstone<br>Texture: Fine   |
| EF3 – EIFS/Paint                                      | Finish: Paint to Match Benjamin Moore 1603 Graphite<br>Texture: Fine      |
| PN1 – Paint for existing doors                        | Finish: SW6095 Toasty                                                     |
| MT4 – New Aluminum<br>Storefront to match<br>Existing | Finish: Kawneer Dark Bronze                                               |
| MT5 – Paint for Misc. Metals                          | Finish: SW6069 French Toast                                               |

Sincerely,

**JEFFREY A. WILLIAMS, ARCHITECT**

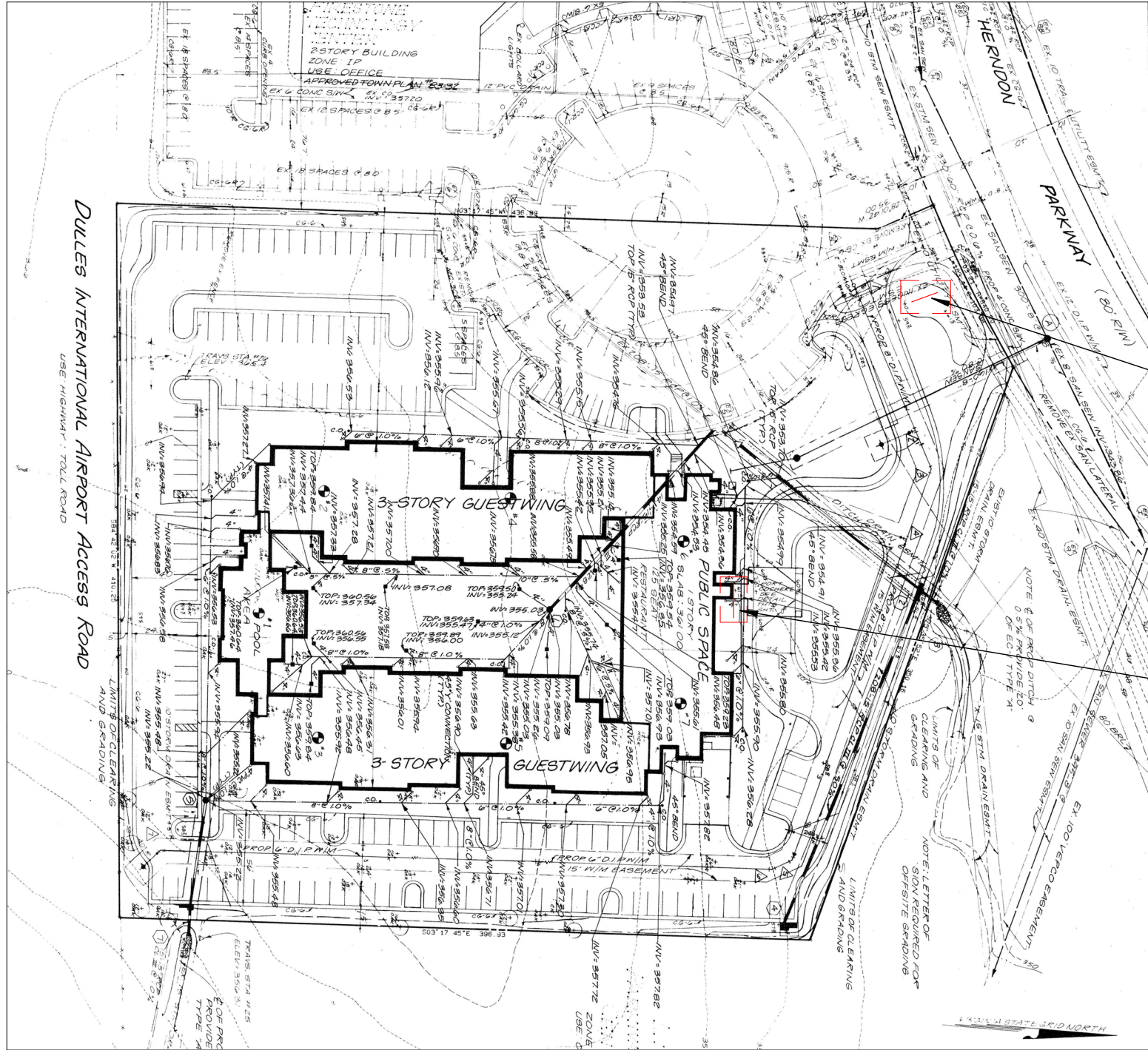


**Jeffrey A. Williams, AIA**

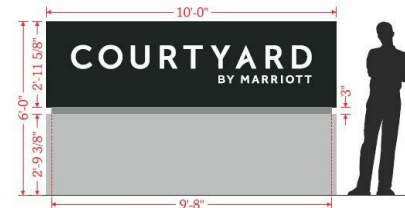
**Attachments:**

- (6) P200 Exterior Elevations
- (6) P201 Exterior Elevations – Courtyard
- (6) P202 Exterior Photos – Existing
- (6) P203 Exterior Photos – Existing Courtyard
- (6) P204 Signage Location Map
- (6) P205 Signage Elevation
- (1) Exterior Finish Samples Binder
- (6) Cut Sheets (light fixtures, aluminum storefront, Longboard metal panels)
- (1) Full Size P200 Exterior Elevations
- (1) Full Size P201 Exterior Elevations – Courtyard
- (1) CD with all information in electronic version

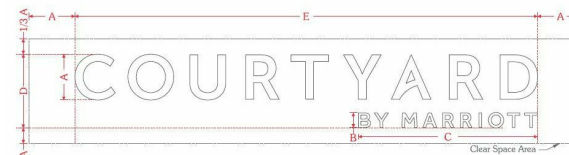




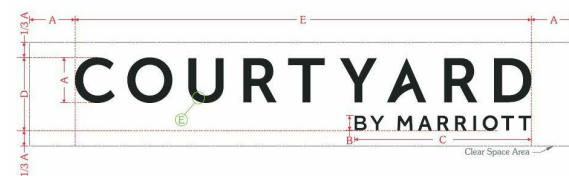
NEW MONUMENT SIGN (30 SF)



NEW BUILDING SIGN (81 SF)



DAYTIME APPEARANCE



NIGHTTIME APPEARANCE



LOCATION OF  
NEW MONUMENT  
SIGN

BASE TO BE EIFS TO  
MATCH BUILDING -  
FINISH BENJAMIN  
MOORE 1601  
HEARTHSTONE

EXISTING MONUMENT SIGN

# 2 channel letters

## CHANNEL LETTER SPECIFICATIONS

### Channel Letter Specifications:

*Construction:* .050" aluminum channel letter with .063" aluminum backs

*Face Material:* 3/16" 7328 white acrylic

*Trim Cap:* 1" paint to match Pantone® 426 C gray, satin finish

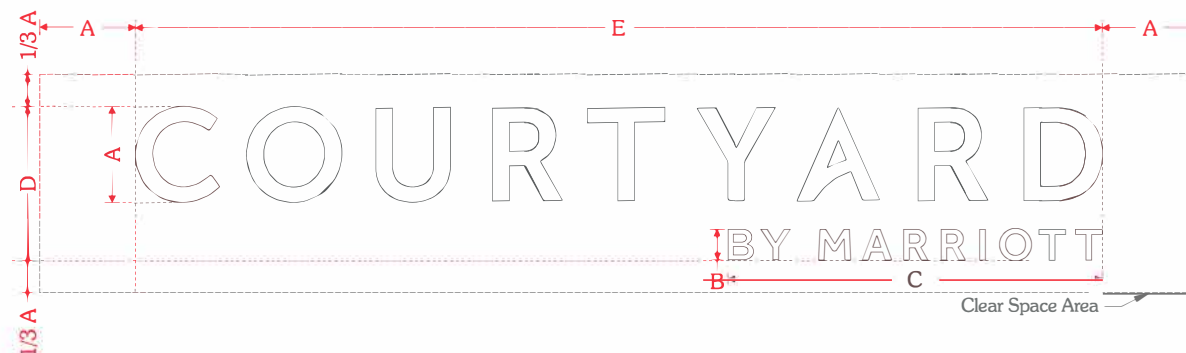
*Illumination:* GE White LED's as required

*Exterior Finish:* Paint to match Pantone® 426 C gray, satin finish

*Interior Finish:* Paint reflective white

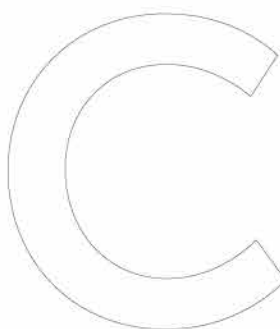
### Channel Letter Face Specifications:

*Face Material:* 3/16" 7328 white acrylic

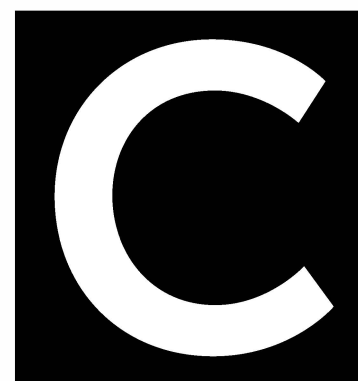


| Model #        | A   | B        | C            | D           | E           |
|----------------|-----|----------|--------------|-------------|-------------|
| <b>C-24-CL</b> | 24" | 8 11/16" | 8'-10 9/16"  | 3'-3 11/16" | 20'-2 9/16" |
| <b>C-30-CL</b> | 30" | 9 9/16"  | 9'-9 5/16"   | 4'-0 5/16"  | 25'-3 1/4"  |
| <b>C-36-CL</b> | 36" | 11 7/16" | 11'-8 3/4"   | 4'-9 15/16" | 30'-3 7/8"  |
| <b>C-48-CL</b> | 48" | 15 1/4"  | 15'-7 11/16" | 6'-5 1/4"   | 40'-5 3/16" |

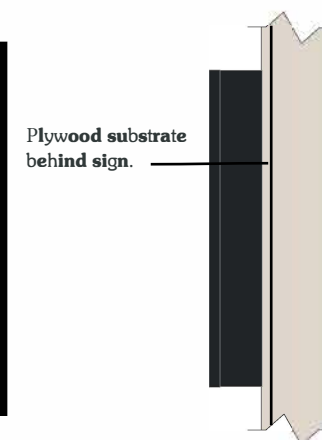
\* Letter height determined by the height of the letter "C".



Daytime Appearance



Nighttime Appearance



Side Profile

**For Dark Tone Building Backgrounds** | Letters to appear white during the day and illuminate white at night.

# COURTYARD



## MONUMENT SPECIFICATIONS

### Monument Specifications:

*Construction:* Aluminum angle frame with .125" aluminum shoe-box style faces

*Face Construction:* Routed aluminum with backer panel

*Retainer:* Bleed face

*Illumination:* GE White LED's

*Exterior Finish:* Paint Pantone® 426 C gray, satin finish, and Pantone® 877 C Silver, satin finish

*Interior Finish:* Paint reflective white

### Monument Face Specifications:

*Face Construction:* Routed aluminum with backer panel

*Face Decoration:* Paint Pantone® 426 C gray, satin finish

*Backer Panel:* .118" white solar grade polycarbonate

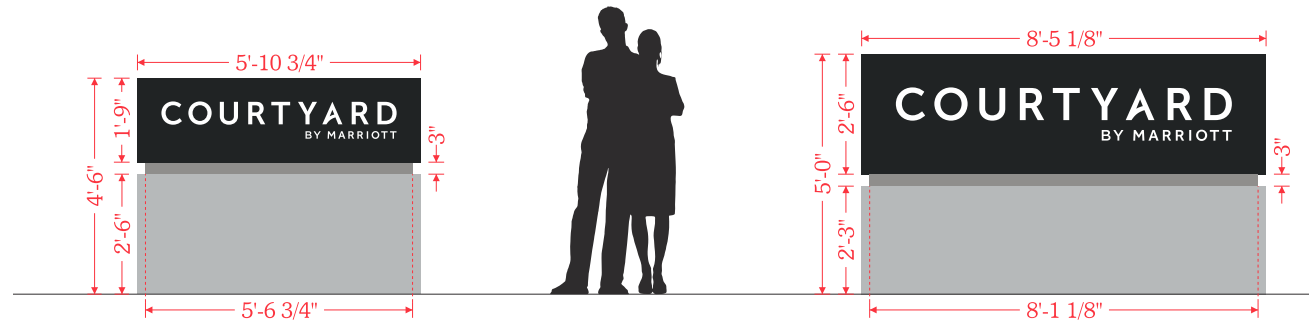
\* "Courtyard" and "Marriott" to appear white during the day and illuminate white at nighttime.

### Pole Cover Specifications:

\* Preferred method to have monument base match building hardscape (stone, brick, etc., provided by general contractor)

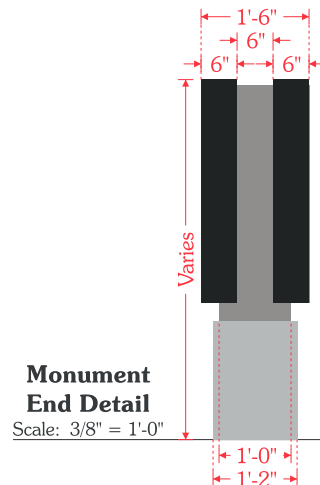
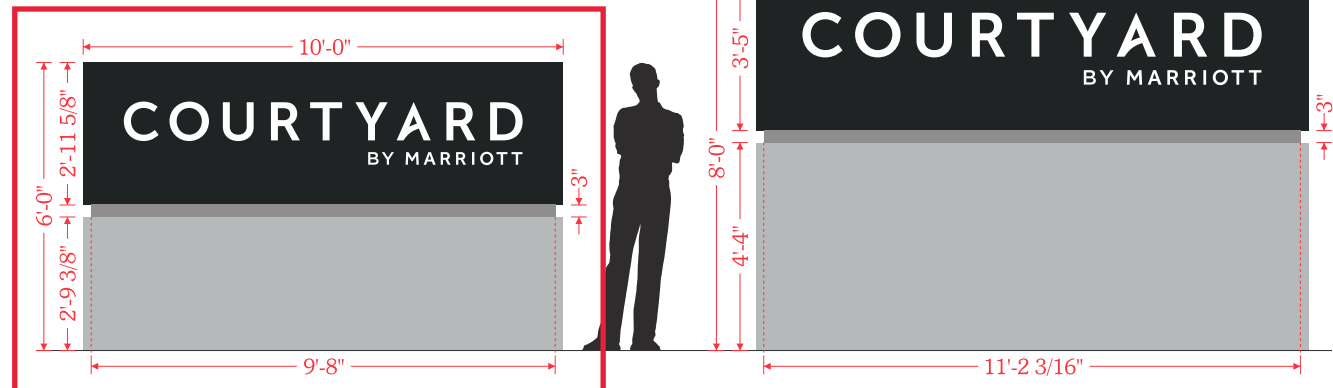
*Construction:* Aluminum angle frame with .080" aluminum skins

*Exterior Finish:* Paint Matthews 41342SP Brushed Aluminum, satin finish



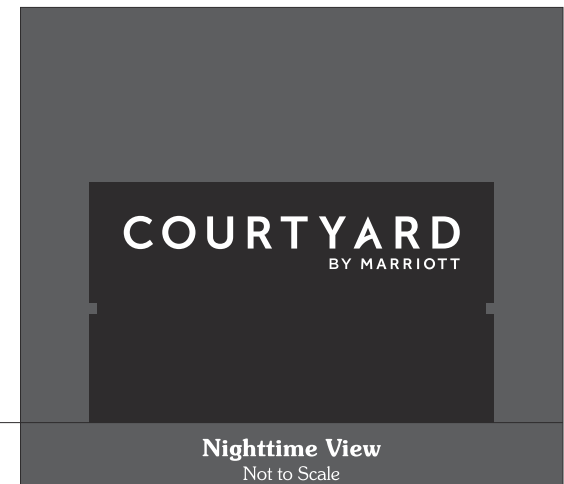
**Monument Elevations**

Scale: 1/4" = 1'-0"

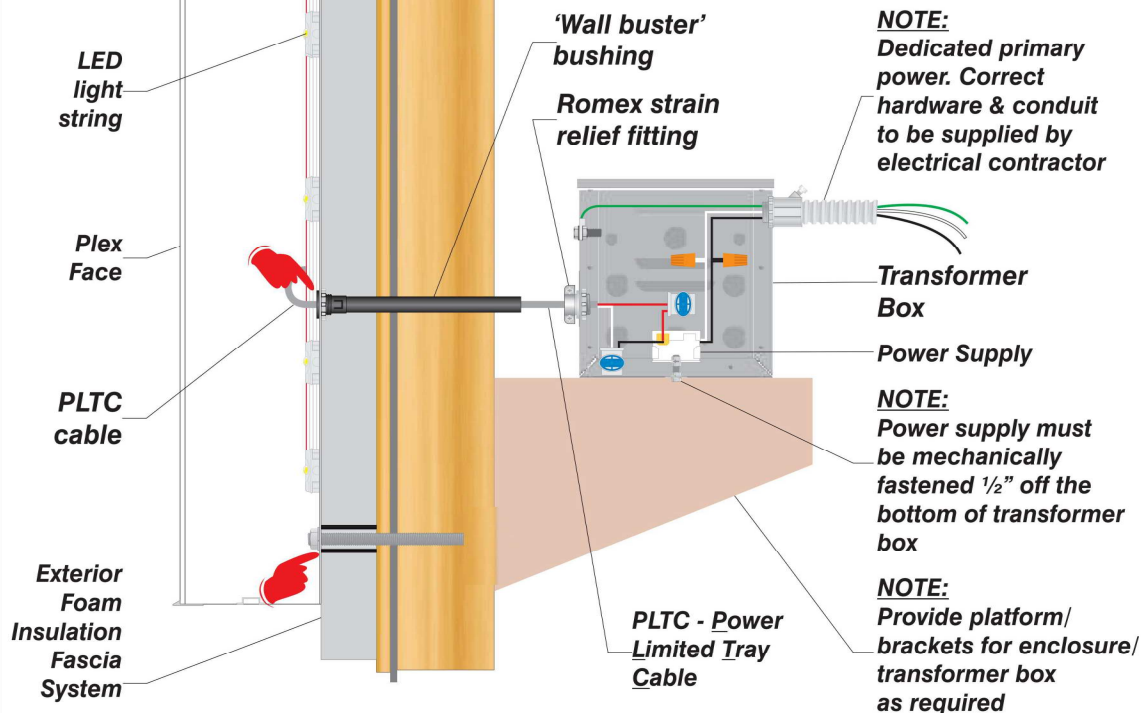
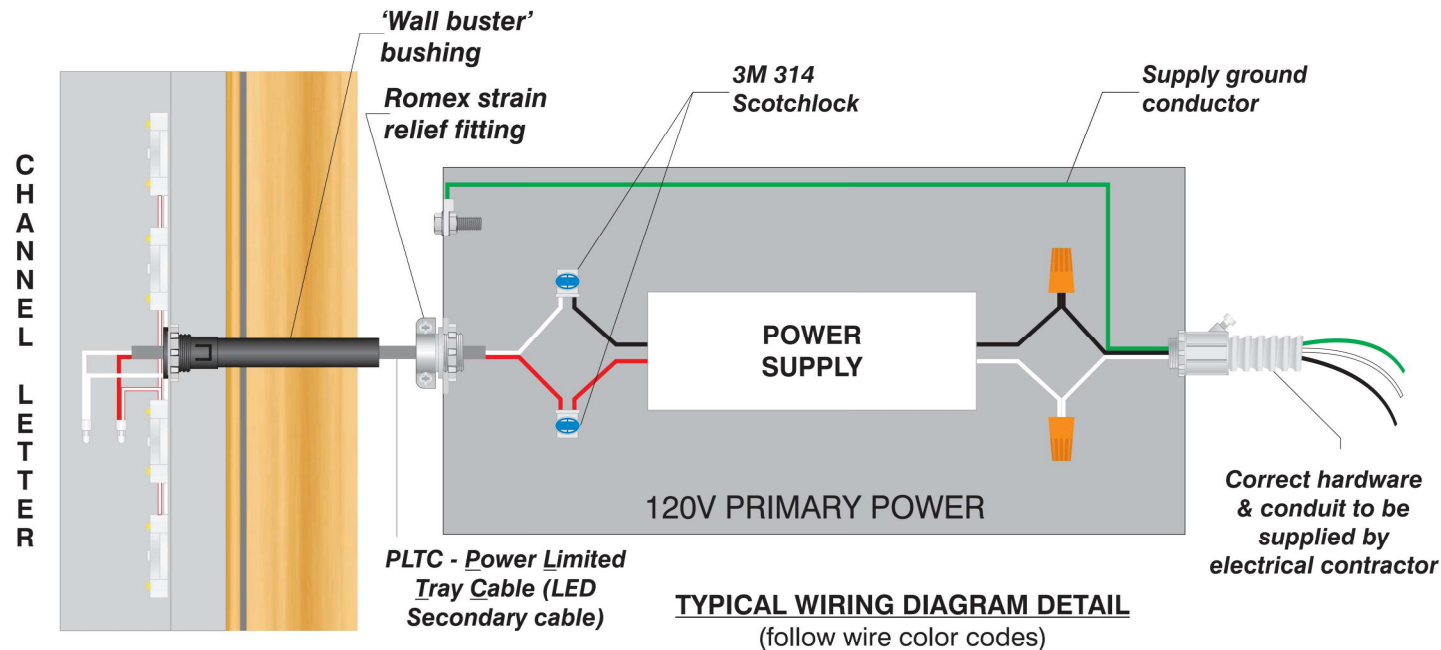
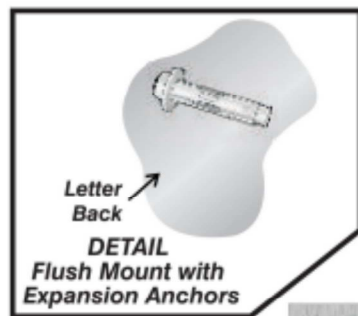


**Monument End Detail**

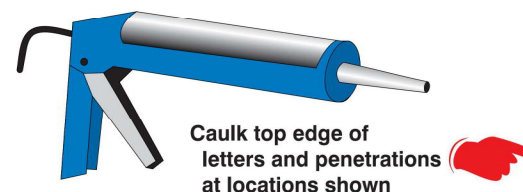
Scale: 3/8" = 1'-0"



**Nighttime View**  
Not to Scale



**NOTE:**  
Dedicated primary power. Correct hardware & conduit to be supplied by electrical contractor



**INSTALLER NOTE:**  
Provide as required-

- Bolts-Nuts
- Allthread-Lags
- Spacers-washers
- Silicone Sealant
- Mounting fasteners for site specific wall construction
- Materials required for mounting transformer to backside of wall behind display

**INSTALL DIAGRAM**  
Remote/LED  
Flush/EIFS Wall  
DRY/DAMP

**PERSONA**

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*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

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- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
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- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)



**Elizabeth M. Gilleran, AICP**  
Director of Community Development  
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F (703) 481-5280  
community.development@herndon-va.gov

**TOWN COUNCIL**  
Lisa C. Merkel, Mayor  
Sheila A. Olem, Vice Mayor  
Jennifer K. Baker  
Cesar del Aguila  
Pradip Dhakal  
Signe Friedrichs  
Bill McKenna

## MEMORANDUM

To: Chairman Walker and Members of the Architectural Review Board

From: Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator 

Date: February 15, 2019

Subject: ARB #19-09, 533 Herndon Parkway – Updated Submission Materials Staff Memo

---

Please consider the following memo as a report on the above referenced ARB case scheduled to be heard and considered on February 20, 2019.

The applicant has responded to each of the staff comments provided in the ARB #19-09 Staff Report, dated February 6, 2019. The applicant has submitted the following (Attachment 1):

1. A letter detailing submission updates and further describing how several design features are being updated or replaced; that were not clear in the original submission.
2. Updated exterior elevations.
3. Updated site lighting plan(s) that correlate new selected light poles, bollards and light fixtures to specific locations on the site and building.
4. Updated conceptual perspective renderings that further describe the intended treatments of the new and existing exterior facades and walls.
5. Additional materials/product information sheets.

Staff has reviewed the updated materials and offers the following comments:

1. The applicant has submitted updated site lighting information with locations specified. Based on staff evaluation of the site lighting plan and the submitted poles, bollards and fixtures, the selected lighting products will improve light fixture cut off over the existing site lighting features and will reduce light pollution/spillage with the more modern lighting design(s). Staff believes this proposed project will comply with the Town's Zoning Ordinance Section 78-130.9.
2. The updated applicant materials have more accurately specified the finish of the storefront and glazing system for the main entrance on the north elevation. The updated materials have noted that the new glass will match the existing glass scheduled to remain, which is transparent with no tint applied.



3. The applicant has clarified that the previously unidentified drawing feature on the roof of the north elevation is an existing chimney beyond the front façade wall plane.
4. The updated submission further describes the wall treatments of the dumpster enclosure, the dumpster enclosure gates and a mechanical yard screening gates. The existing enclosures will be painted similarly to the exterior building walls on the north and east elevations and the existing chain link gates will receive new gray slats to screen the dumpster and mechanical systems, as required by the Town's Zoning Ordinances

Based on the updated materials received, staff is recommending approval of ARB #19-09 with the following condition:

1. The proposed building and site alterations shall be installed and constructed in substantial conformance with the application and supporting materials as submitted January 14, 2019 and subsequent updates submitted on February 12, 2019.

Thank you.

Attachments:

1. Applicant Response Letter, Architectural Drawings [Elevations, Site Lighting Plan(s)], and Materials Information



February 8, 2019

Town of Herndon  
Department of Community Development  
777 Lynn Street  
Herndon, VA 20170

**RE: COURTYARD HERNDON  
EXTERIOR ALTERATION RESUBMITTAL RESPONSE**

Dear Architectural Review Board:

This letter is in response to the Staff Analysis comments provided on the ARB 19-09 Staff Report document for the Exterior Alteration to the existing Courtyard by Marriott at 533 Herndon Parkway. Please see the enclosed documents and responses below.

1. As noted, the application materials indicate that new exterior lighting is intended to be replaced however there is no specific location information provide or detailing of where lighting fixtures/features will be replaced on the building or on the site. While architectural drawings note that existing exterior can lights and egress lights are to remain, the submission materials contain exterior lighting fixtures that are wall and/or ceiling mounted with no information as to where these fixtures are to be installed. Further, the exterior pole lights and LED bollard lights have no location information provided. A site plan with this information should be provided. Staff will require review of this additional information related to site and exterior building lighting to ensure compliance with the Town's Zoning Ordinance Section 78-130.9. – Exterior lighting prior to Board action.

**Response: A site plan showing locations of the existing bollards, pole lights and wall sconce lights that are being replaced is included. The bollards (Z105 and Z106) are located throughout the site along the walkways. See P206 for locations. The pole lights (Z65) are only in the interior courtyard. The wall sconces (Z107) are on the interior courtyard patio. See P207 for locations. The new can lights (Z88) and strip lights (Z72) at the new front entry can be seen on Section 4/P208 and ceiling plans on 2/P208 and 3/P208. The new strip lights (Z72) at the stair towers can be seen on section 6/P208 and ceiling plan 5/P208.**

2. The applicant materials have specified a storefront and glazing system for the main entrance on the north elevation, however staff has questions regarding the glass color, tint or clarity in relation to existing glass on doors and windows scheduled to remain.

15200 52nd Avenue South, Suite 300, Seattle, Washington 98188  
Phone 206.766.8300



**Response:** The new glass will match the existing glass to remain. It is clear, transparent glazing with no tint. See window schedule on P208 and attached specification for Vitro Solarban60 Low-E glass.

3. The architectural rendering of the north elevation on Sheet P200 of the Submission (Attachment #5) shows what appears to be some sort of mechanical feature on the roof. Staff will require clarification of this drawing feature. Should the object in the drawing be a mechanical system component, this feature will be subject to the Town's Zoning Ordinance Section Sec. 78-114 – Screening.

**Response:** The projection seen on Sheet P200 rendering is the back side of the existing chimney, on the courtyard side of the lobby. This can be seen on 1/P201 North Courtyard Elevation -New. This feature is now called out on 1/P200 North Elevation – New. It will be painted EF1 as indicated on 1/P201.

4. The site photos show several other site features, such as a dumpster enclosure and mechanical enclosure, not shown in the architectural drawings. Staff will require more information as to how these features, and any others not pictured in the submission, will be modified to complement the proposed exterior alterations to the primary structure.

**Response:** The dumpster is located at the loading dock and is enclosed by screen walls. The North side is shown on 1/P200 North Elevation – New. The East side is shown on revised 2/P200 East Elevation – New. The existing chain link gate will receive new gray slats. The chain link mechanical screen on the South side of the building, which is called out on revised 3/P200 South Elevation – New, will also receive new gray slats. See revised P200 sheet, detail 8/P208 for photos of existing and cut sheet for slats.

5. The proposed exterior alterations generally comply with the applicable design criteria for this commercial office property within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attached #6).

**Response:** Noted.

6. Staff concludes that the proposed project will improve the visual appeal of this commercial property and will be complemented with updated corporate signage on site and the building through ARB #19-07 and ARB #19-08. Staff believes the proposed building and site improvements will effectively update and modernize, to a limited extent, a now dated and bland exterior design. However, prior Board action, the items related to potential zoning requirements and design questions need to be addressed by the applicant. In addition, Staff is recommending that additional information related to site features noted in this report be provided for the Board's consideration.

**Response:** Please see responses to comments above and all attachments that address the Staff comments.

In addition to the above comments, the following was requested by the ARB at the hearing on February 6.

7. Provide Exterior 3D images.

**Response: Please see new sheet P109 for images of the front entry and the rear access doors.**

8. Provide samples of EIFS draw downs with project colors.

**Response: Physical samples are included for EF1, EF2 and EF3.**

Thank you for your review and comments.

Sincerely,

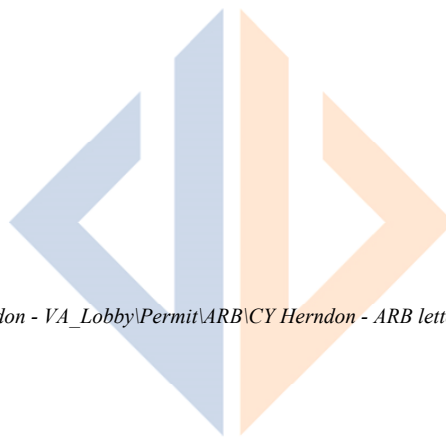
**JEFFREY A. WILLIAMS, ARCHITECT**



**Jeffrey A. Williams, AIA**

Attachments:

*V:\1736 - NorthStar\1736.09 CY - Herndon - VA\_Lobby\Permit\ARB\CY Herndon - ARB letter.doc*

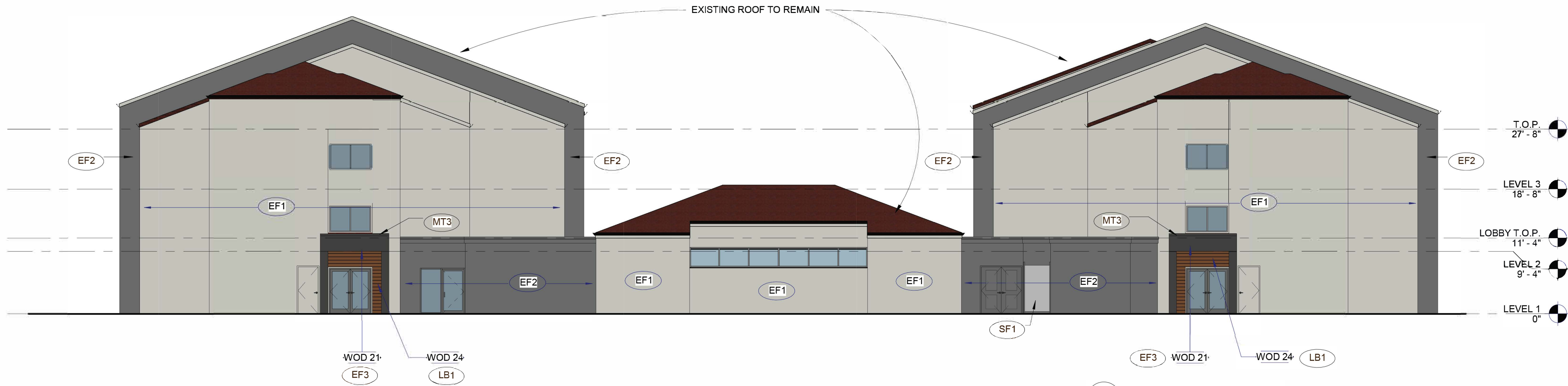




FILE NAME: C:\Users\langieb\Documents\CY Herndon\_Exterior Renovation\_Central\_2019\_angleb@johnsonbraund.com.rvt



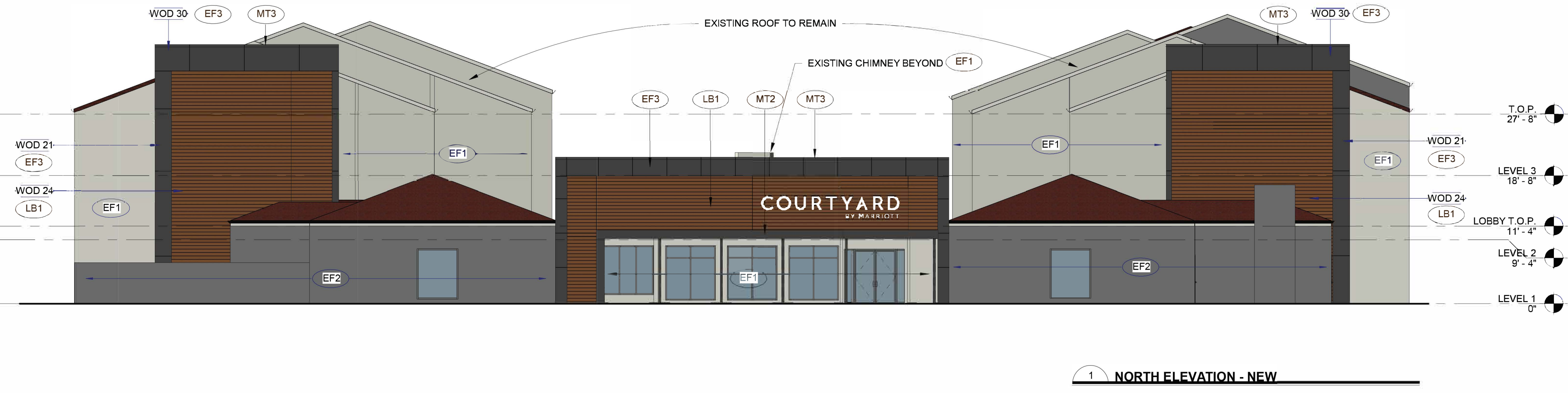
4 WEST ELEVATION - NEW



3 SOUTH ELEVATION - NEW



2 EAST ELEVATION - NEW



1 NORTH ELEVATION - NEW

#### EXTERIOR FINISH LEGEND

|     | DESCRIPTION                                                    |
|-----|----------------------------------------------------------------|
| EF1 | PAINT/EIFS<br>SW - 7004 "SNOWBOUND" - ACRYLIC FLAT             |
| EF2 | PAINT/EIFS<br>BENJAMIN MOORE 1601 "HEARTHSTONE" - ACRYLIC FLAT |
| EF3 | PAINT/EIFS<br>BENJAMIN MOORE 1603 "GRAPHITE" - ACRYLIC FLAT    |
| LB1 | LONGBOARD METAL PANEL<br>102600/101555 "LIGHT NATIONAL WALNUT" |
| MT1 | METAL<br>MATCH EF1                                             |
| MT2 | METAL<br>MATCH EF2                                             |
| MT3 | METAL<br>MATCH EF3                                             |
| MT4 | METAL<br>MATCH EXISTING STOREFRONT FINISH (DARK BRONZE)        |
| MT5 | METAL<br>MATCH LB1                                             |
| PN1 | PAINT<br>SW - 6085 "TOASTY"                                    |
| PN2 | PAINT, METALLIC<br>MATCH MT4                                   |
| PN3 | PAINT, INTUMESCENT<br>MATCH MT4                                |
| PN4 | PAINT<br>MATCH EF3                                             |
| SF1 | CHAIN LINK FENCE PLASTIC SLATS<br>COLOR GRAY                   |

#### GENERAL NOTES

1. NEW EIFS COLORS ARE INTEGRAL TO THE FINISH.
2. EXISTING EIFS COLORS ARE A PAINTED FINISH.
3. ALL LOUVERS, VENTS, GRILLES AND FLASHINGS ARE TO BE PAINTED TO MATCH EXISTING WALL COLOR U.O.N.
4. PAINT ALL ROOFTOP-MOUNTED PAINTABLE DEVICES TO MATCH BUILDING FIELD PAINT. DO NOT PAINT THE ROOFING MATERIAL.
5. MANUFACTURED MASONRY, STONE VENEER AND BRICK TO REMAIN AS-IS U.O.N., PROTECT DURING PAINTING AND CONSTRUCTION.
6. ALL EXISTING DOOR AND WINDOW TRIM TO REMAIN U.O.N.
7. ALL EXTERIOR CAN LIGHTS AND EGRESS LIGHTING TO REMAIN U.O.N.
8. ALL EXTERIOR DECORATIVE BOLLARDS AND HUMAN SCALE LIGHT POSTS TO BE REPLACED, SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
9. ALL EXTERIOR OUTLETS AND HOSE BIBS TO REMAIN U.O.N., PROTECT DURING PAINTING AND CONSTRUCTION.
10. PAINT SURFACES OF ACCESS DOORS TO MATCH ADJACENT SURFACES, ENSURE DOOR OPERATION IS MAINTAINED.
11. RE-INSTALL BUILDING ADDRESS NUMBERS AS REQUIRED BY AUTHORITY HAVING JURISDICTION.
12. PROVIDE CONTROL JOINTS IN NEW EIFS PER MANUFACTURER'S INSTRUCTIONS.

#### EXTERIOR KEYNOTES

- WOD 21 NEW EIFS WALL AND PARAPET OVER METAL STUDS, REVEALS AS SHOWN.
- WOD 24 INSTALL METAL PANEL SYSTEM PER PLANS AND ELEVATIONS. REFER TO DETAILS FOR MORE INFORMATION.
- WOD 25 AT EXISTING CANOPY, METAL PANEL TO SPAN IN FRONT OF EXISTING CANOPY, GUTTER AND DOWNSPOUT TO REMAIN.
- WOD 26 AT EXISTING LOUVERED VENT, PAINT TO MATCH ADJACENT METAL PANEL.
- WOD 28 NEW ENTRY CANOPY WITH BREAK METAL FASCIA, ROOF INSULATION TO SLOPE TO DRAIN.
- WOD 30 AT EXISTING STAIR, INSTALL NEW PARAPET AND OVERFRAMING, REMOVE EXISTING ROOFING AND SHEATHING, INSTALL OVERFRAMING, ROOF INSULATION TO SLOPE TO DRAIN. SEE STRUCTURAL FOR MORE INFORMATION.
- WOD 32 PAINT EXISTING STUCCO WALL PER ELEVATIONS. REPAIR, CLEAN AND PREP FOR NEW PAINT.
- WOD 36 NEW PARTIAL HEIGHT WOOD STUD EXTERIOR FURRED WALL. EIFS FINISH PER ELEVATIONS.

#### GRAPHIC SCALE



#### SYMBOL LEGEND

- ① DOOR TAG
- 11 WINDOW TAG
- ? FINISH TAG
- XXX-000 ACCESSORY TAG
- 11 WALL TAG
- ? KEYNOTE TAG
- ALTERNATE BID KEYNOTE TAG
- 1 REVISION TAG
- DEMOLISHED AREA/ITEM
- EXISTING AREA/ITEM
- NEW CONSTRUCTION
- 0' ELEVATION





|     | DESCRIPTION                                                    |
|-----|----------------------------------------------------------------|
| EF1 | PAINT/EFS<br>SW - 7004 "SNOWBOUND" - ACRYLIC FLAT              |
| EF2 | PAINT/EFS<br>BENJAMIN MOORE 1601 "HEARTHSTONE" - ACRYLIC FLAT  |
| EF3 | PAINT/EFS<br>BENJAMIN MOORE 1603 "GRAPHITE" - ACRYLIC FLAT     |
| LB1 | LONGBOARD METAL PANEL<br>102600/101555 "LIGHT NATIONAL WALNUT" |
| MT1 | METAL<br>MATCH EF1                                             |
| MT2 | METAL<br>MATCH EF2                                             |
| MT3 | METAL<br>MATCH EF3                                             |
| MT4 | METAL<br>MATCH EXISTING STOREFRONT FINISH (DARK BRONZE)        |
| MT5 | METAL<br>MATCH LB1                                             |
| PN1 | PAINT<br>SW - 6085 "TOASTY"                                    |
| PN2 | PAINT; METALLIC<br>MATCH MT4                                   |
| PN3 | PAINT; INTUMESCENT<br>MATCH MT4                                |
| PN4 | PAINT<br>MATCH EF3                                             |
| SF1 | CHAIN LINK FENCE PLASTIC SLATS<br>COLOR GRAY                   |

1. NEW EIFS COLORS ARE INTEGRAL TO THE FINISH.
2. EXISTING EIFS COLORS ARE A PAINTED FINISH.
3. ALL LOUVERS, VENTS, GRILLES AND FLASHINGS ARE TO BE PAINTED TO MATCH EXISTING WALL COLOR U.O.N.
4. PAINT ALL ROOFTOP-MOUNTED PAINTABLE DEVICES TO MATCH BUILDING FIELD PAINT. DO NOT PAINT THE ROOFING MATERIAL.
5. MANUFACTURED MASONRY, STONE VENEER AND BRICK TO REMAIN AS-IS U.O.N., PROTECT DURING PAINTING AND CONSTRUCTION.
6. ALL EXISTING DOOR AND WINDOW TRIM TO REMAIN U.O.N.
7. ALL EXTERIOR CAN LIGHTS AND EGRESS LIGHTING TO REMAIN U.O.N.
8. ALL EXTERIOR DECORATIVE BOLLARDS AND HUMAN SCALE LIGHT POSTS TO BE REFLAGED. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
9. ALL EXTERIOR OUTLETS AND HOSE BIBS TO REMAIN U.O.N., PROTECT DURING PAINTING AND CONSTRUCTION.
10. PAINT SURFACES OF ACCESS DOORS TO MATCH ADJACENT SURFACES, ENSURE DOOR OPERATION IS MAINTAINED.
11. RE-INSTALL BUILDING ADDRESS NUMBERS AS REQUIRED BY AUTHORITY HAVING JURISDICTION.
12. PROVIDE CONTROL JOINTS IN NEW EIFS PER MANUFACTURER'S INSTRUCTIONS.



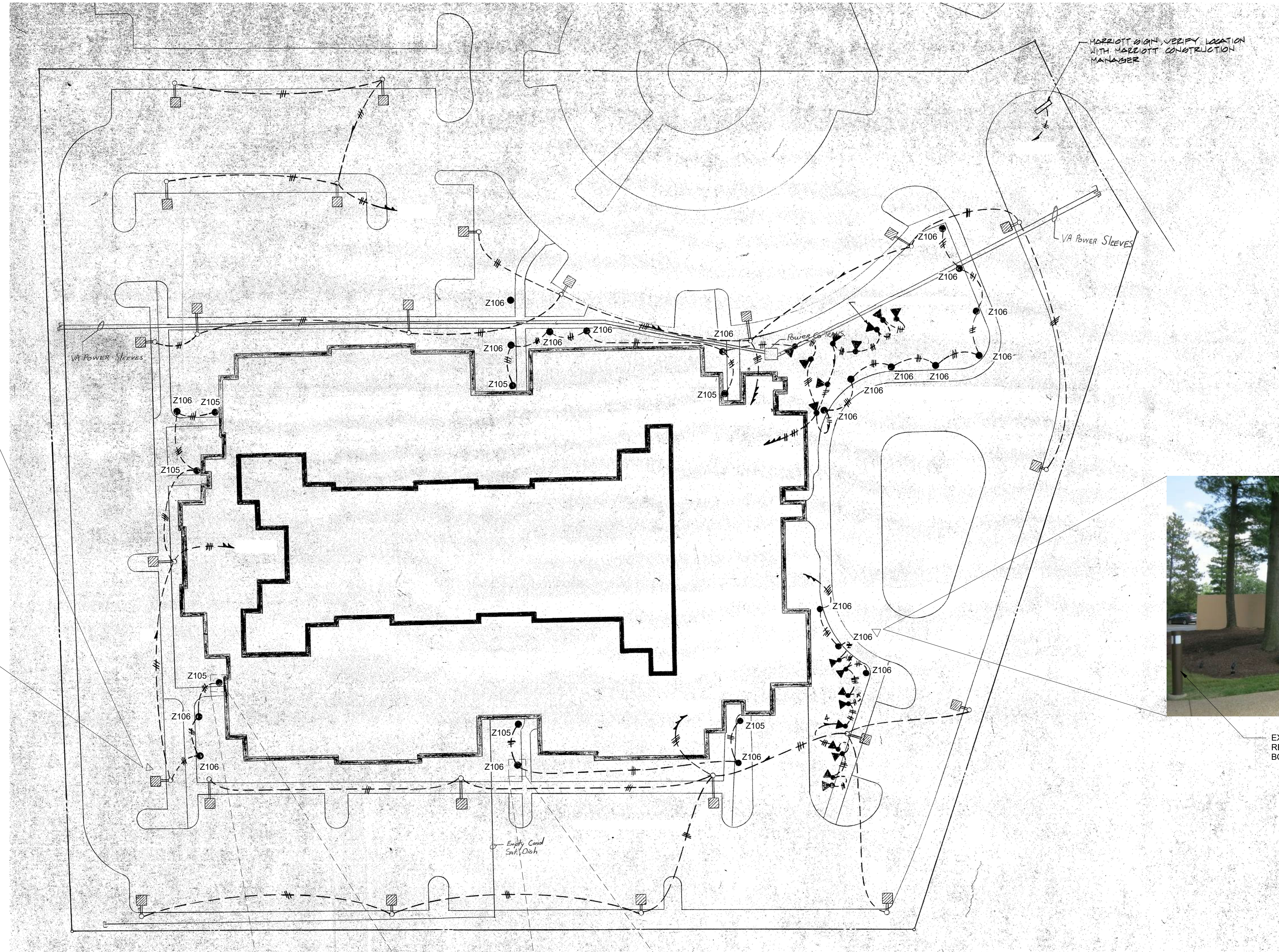
WOD 32 PAINT EXISTING STUCCO WALL PER ELEVATIONS  
REPAIR, CLEAN AND PREP FOR NEW PAINT.

|  |                           |
|--|---------------------------|
|  | DOOR TAG                  |
|  | WINDOW TAG                |
|  | FINISH TAG                |
|  | ACCESSORY TAG             |
|  | WALL TAG                  |
|  | KEYNOTE TAG               |
|  | ALTERNATE BID KEYNOTE TAG |
|  | REVISION TAG              |
|  | DEMOLISHED AREA/ITEM      |
|  | EXISTING AREA/ITEM        |
|  | NEW CONSTRUCTION          |
|  | ELEVATION                 |

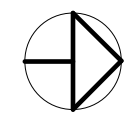




EXISTING SITE BOLLARDS TO  
BE REPLACED WITH NEW  
(Z105 OR Z106) BOLLARDS IN  
SAME LOCATION, TYP. \_\_\_\_\_



**1 EXTERIOR SITE LIGHTING**  
1" = 30'-0"

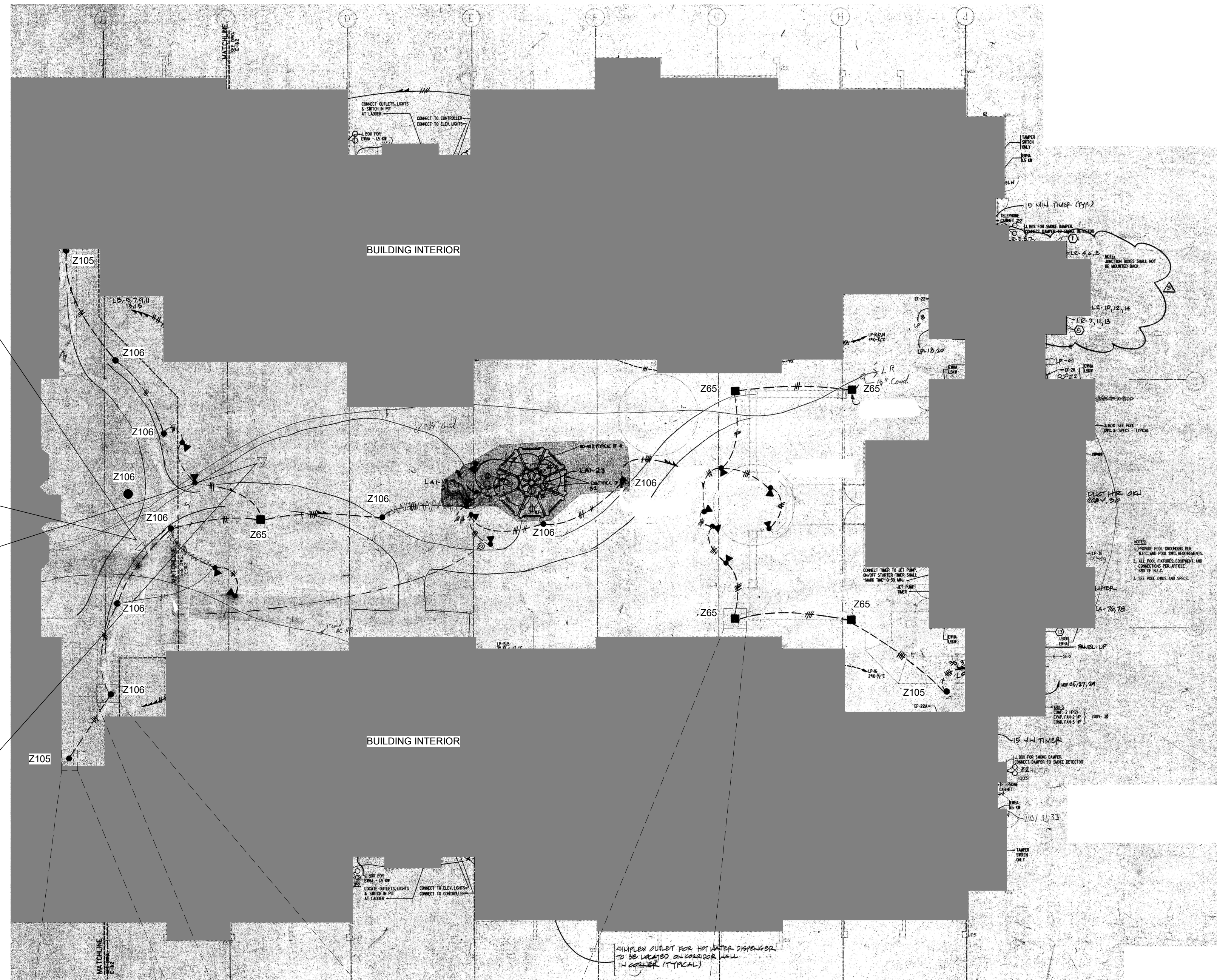
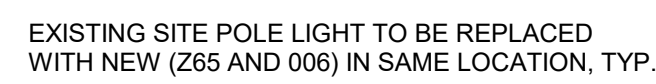
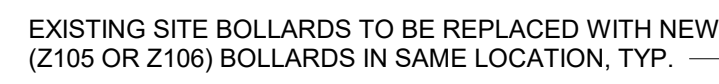


Z105 BOLLARD (TYP. OF 7 LOCATIONS)



Z106 BOLLARD (TYP. OF 21 LOCATIONS)



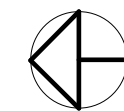


Z105 BOLLARD (TYP. OF 3 LOCATIONS)

Z106 BOLLARD (TYP. OF 9 LOCATIONS)

Z65/006 POLE LIGHT (TYP. OF 5 LOCATIONS)

**1 COURTYARD SITE LIGHTING**  
1/16" = 1'-0"



**COURTYARD BY MARRIOTT**  
**RENOVATION HERNDON, VA**  
COLONY CAPITAL

533 HERNDON PKWY  
HERNDON, VA 20170  
(703) 478-9400

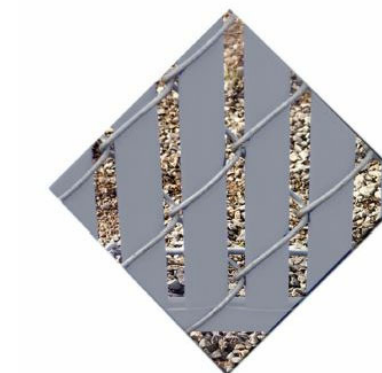
COURTYARD  
BY MARRIOTT

|             |         |
|-------------|---------|
| PROJECT #:  | 1736.09 |
| DRAWN BY:   | AB      |
| CHECKED BY: | EHT     |

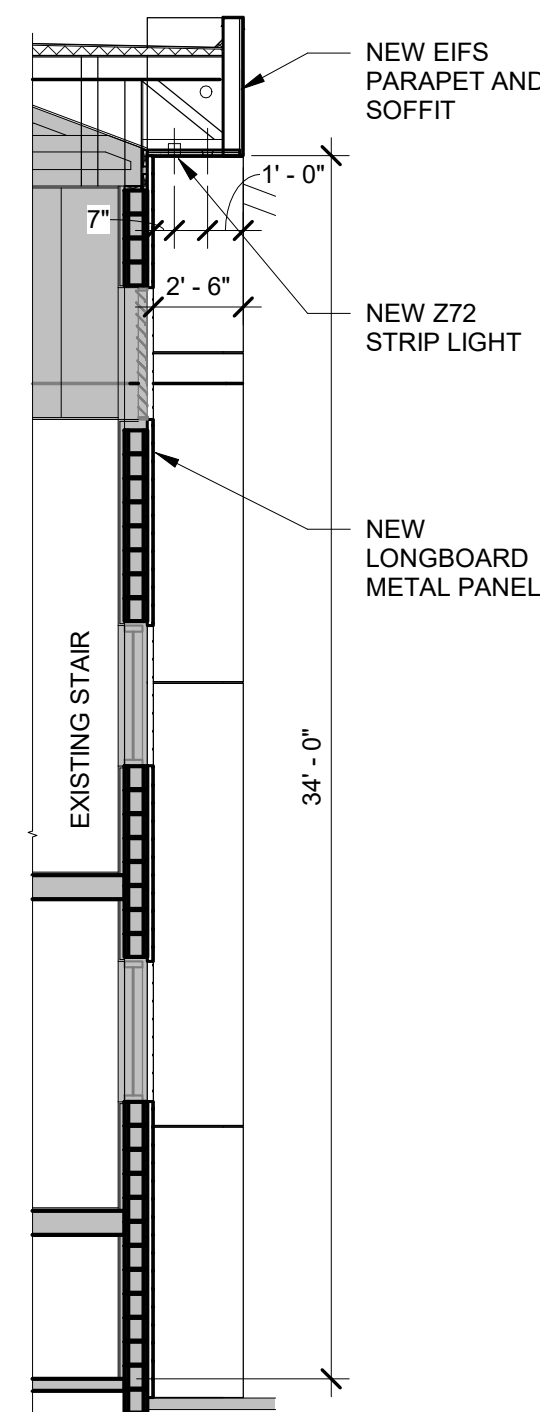
## COURTYARD SITE LIGHTING

# P207

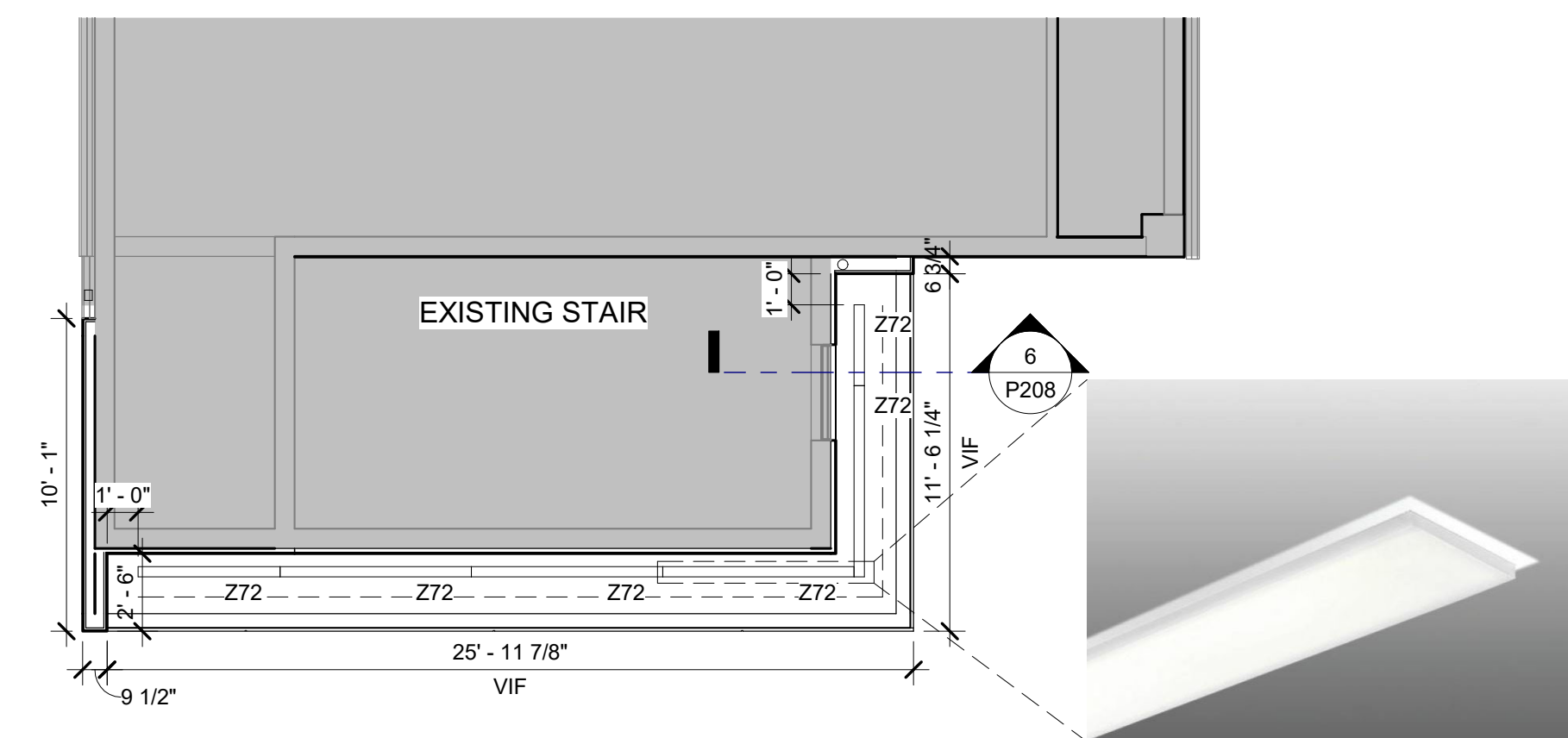




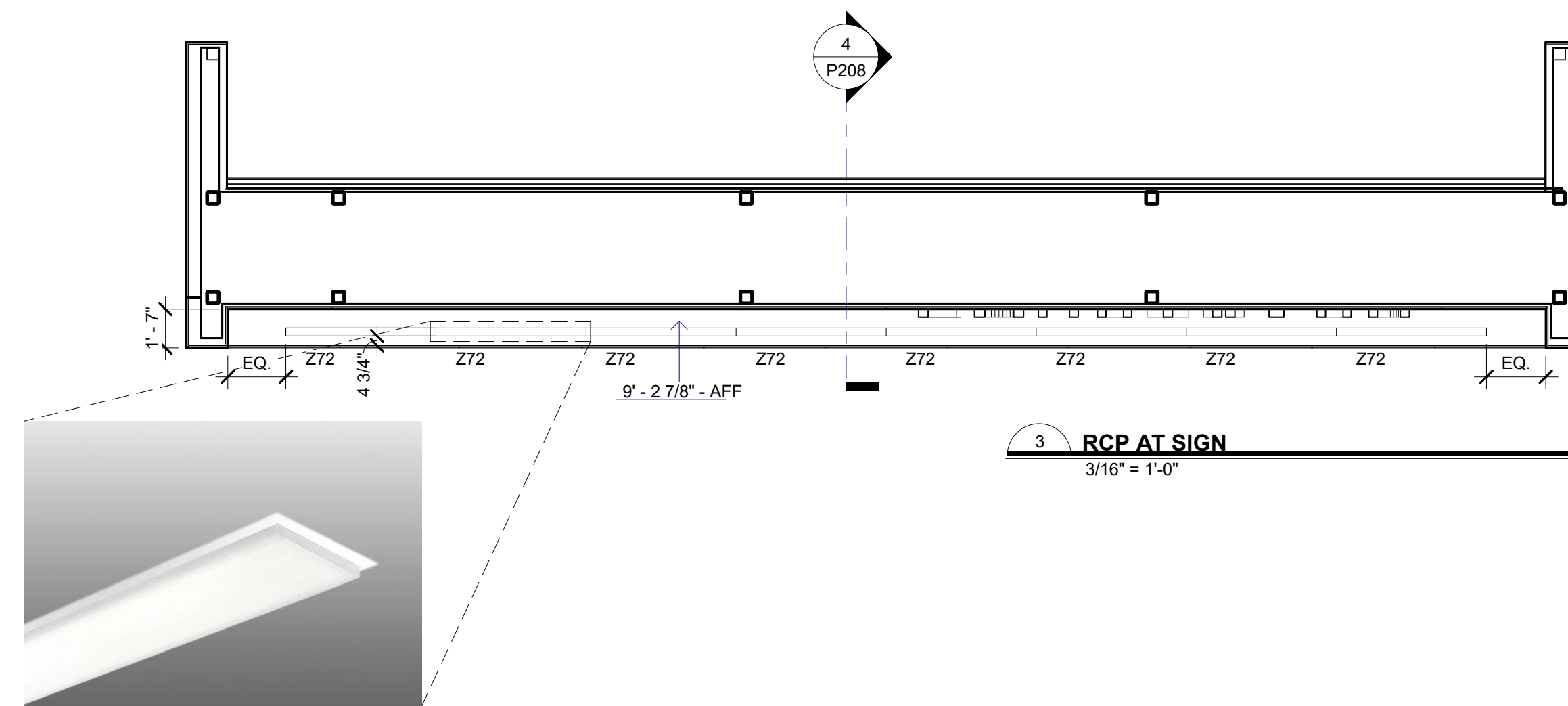
NEW GRAY PLASTIC  
CHAIN LINK FENCE SLAT:

$$1'' = 30'-0''$$
$$\frac{3}{8}'' = 1'-$$
$$3/16'' = 1'-0$$


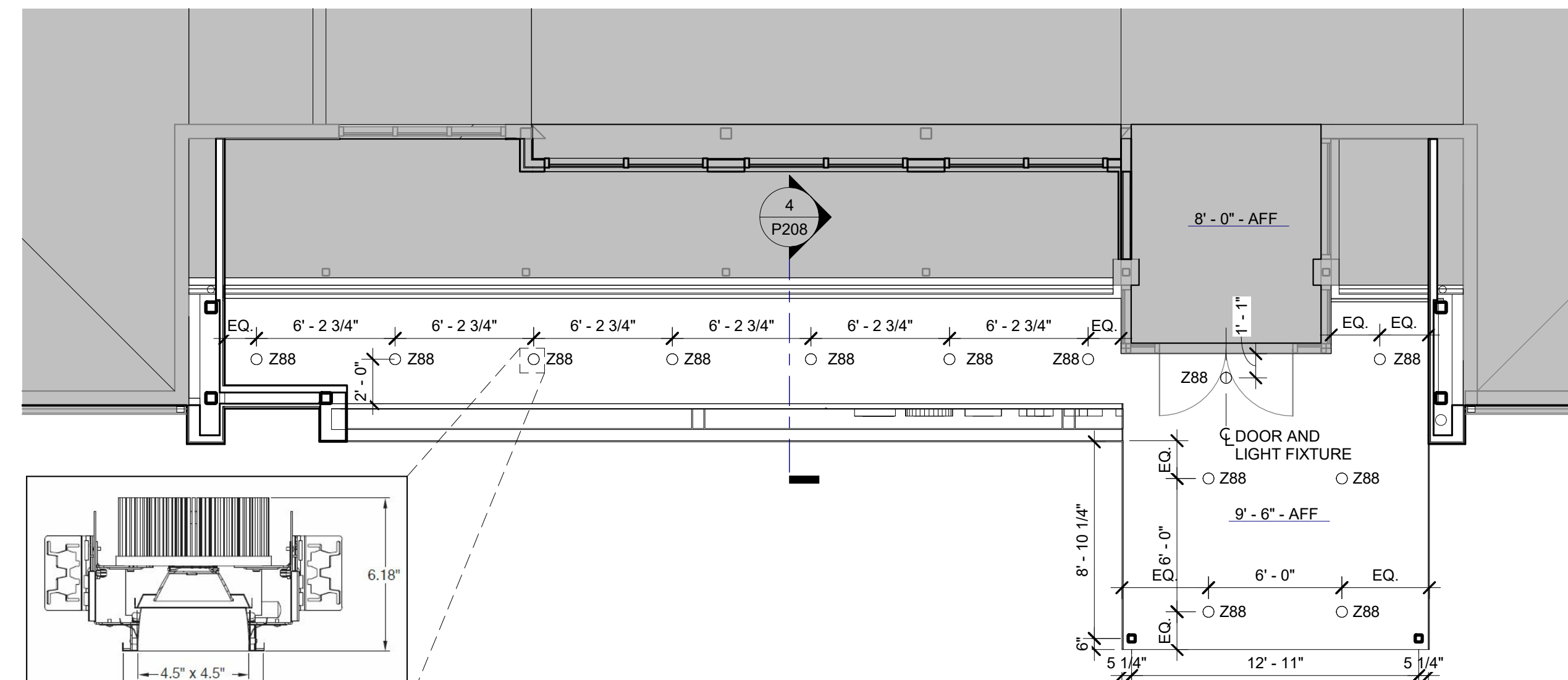
3/16" = 1'-0"



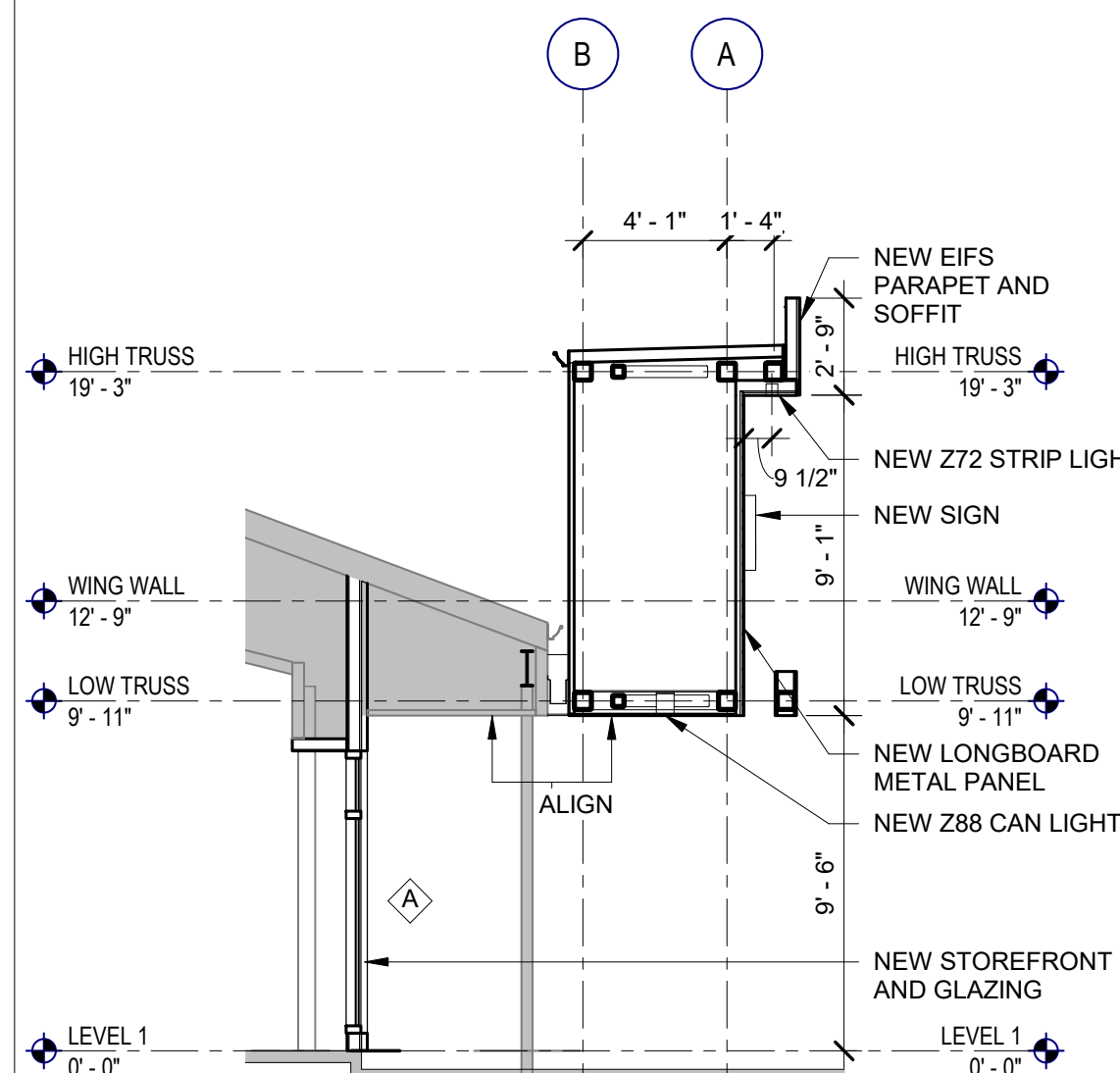
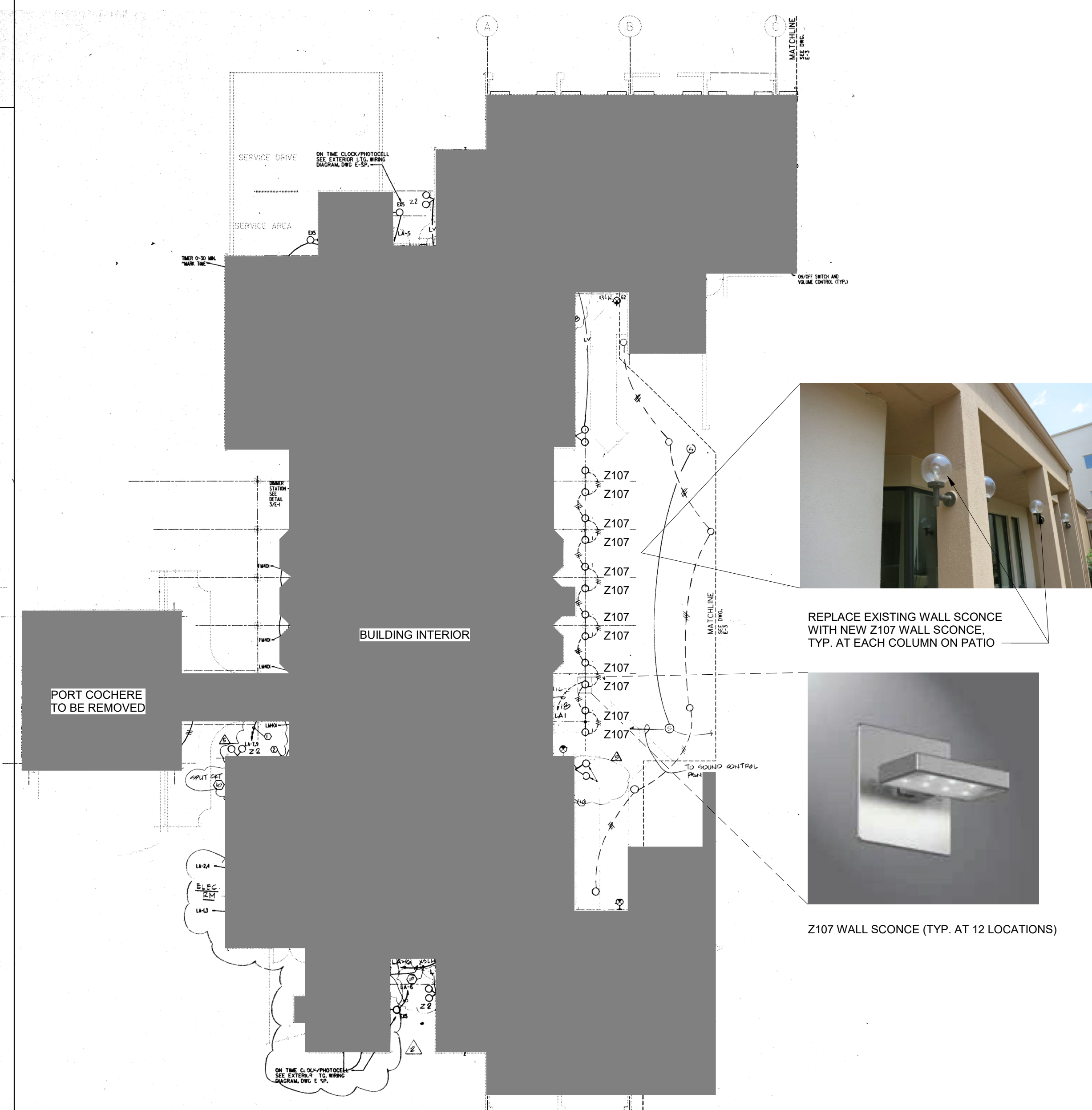
Z72 STRIP LIGHT (TYP. OF 6 LOCATION:  
AT EACH OF 2 STAIR TOWERS)

$$3/16'' = 1'-0''$$


Z107 STRIP LIGHT (TYP. OF 8 LOCATIONS)

$$3/16" = 1'0"$$


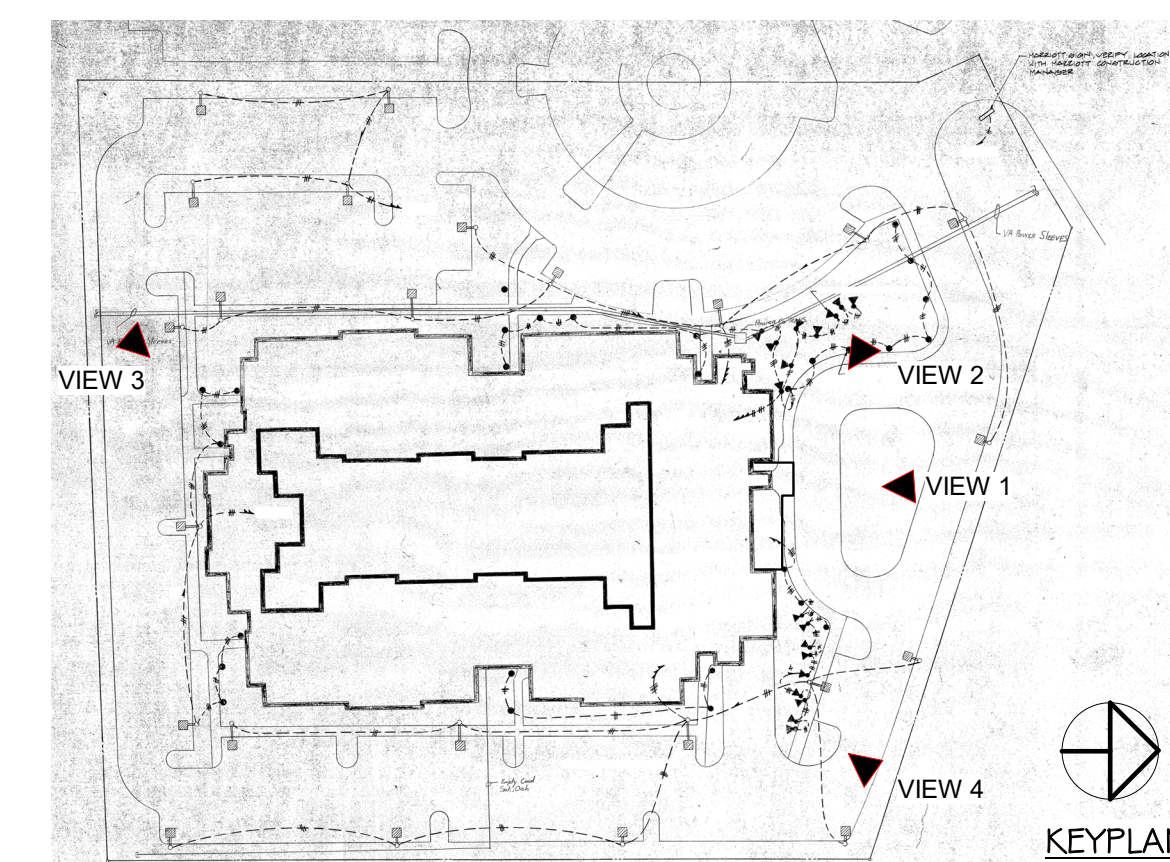
Z88 CAN LIGHT (TYP. OF 13 LOCATIONS)

$$\frac{3}{16}'' = 1'-0''$$
 $1/16'' = 1$ 

WITH NEW Z107 WALL SCONCE,  
TYP. AT EACH COLUMN ON PATIO

Z107 WALL SCENCE (TYP. AT 12 LOCATIONS)



[illegible]

ISSUE DATE: 02/08/2019

**COURTYARD BY MARRIOTT**  
**RENOVATION HERNDON, VA**

533 HERNDON PKWY  
HERNDON, VA 20170  
(703) 478-9400

**COURTYARD**  
BY MARRIOTT

|             |         |
|-------------|---------|
| PROJECT #:  | 1736.09 |
| DRAWN BY:   | SW      |
| CHECKED BY: | AB      |

EXTERIOR IMAGES

P209



# Product Data Sheet



## Aesthetic Description

*Solarban® 60* solar control, low-e glass by Vitro Architectural Glass (formerly PPG Glass) was engineered to control solar heat gain, which is essential to minimizing cooling costs. In a standard one-inch insulating glass unit (IGU), *Solarban® 60* glass offers an exterior appearance similar to clear, uncoated glass.

With a very good Solar Heat Gain Coefficient (SHGC) of 0.39, *Solarban® 60* glass blocks 66 percent of the total solar energy while allowing 70 percent of the visible light to pass through. This combination produces an excellent Light to Solar Gain (LSG) ratio of 1.79, along with exceptional insulating performance, as evidenced by its 0.29 winter nighttime U-value.

## Aesthetic Options

*Solarban® 60* glass can be coated on *Starphire®* glass and paired with *Starphire®* glass to produce an IGU with exceptional clarity and solar control characteristics. For even more color and performance options, it can be coated on the second (#2) surface of nearly all Vitro's wide range of tinted glasses. It can also be combined in an IGU with any Vitro tinted glass, *Solarcool®* reflective glass or *Vistacool®* subtly reflective, color-enhanced glass (see performance data on back page).

## Solarban® 60 Glass and Sustainable Design

An energy modeling study conducted by an independent energy design and consulting firm showed that architects and building owners can potentially save millions of dollars during a building's lifetime by specifying *Solarban® 60* glass instead of less advanced architectural glazings.

For instance, the study showed that, by substituting *Solarban® 60* glass in place of dual-pane tinted glass, the owners of a typical glass-walled, eight-story office building in Boston could lower their initial HVAC equipment costs by nearly \$350,000 while realizing annual energy savings of more than \$80,000. Corresponding carbon emissions from the same building were also reduced by more than 300 tons per year, eclipsing the total carbon emissions generated by 31,000 gallons of gasoline.

In addition to making products that support sustainable design, Vitro has pioneered innovative technologies that reduce energy consumption during the glass-making process. Vitro promotes environmentally responsible manufacturing by recovering and reusing virtually all of its glass manufacturing by-products and by shipping its materials on reusable steel racks. Vitro also facilitates regional sourcing through its nationwide network of certified glass fabricators and laminators.



**Prudential Center**

Location: Newark, NJ | Product: *Solarban® 60* Glass | Architect: Morris Adjmi Architects | Glass Contractor: Josloff Glass | Glass Fabricator: J.E. Berkowitz, LP



**Streeter Place**

Location: Chicago, IL | Product: *Solarban® 60* Glass | Architect: Solomon Cordwell Buenz and Associates | Owner/Developer: Golub and Company | Glass Fabricator: Northwestern Industries, Inc. | Glazing Contractor: Custom Windows and J&D Erectors





**Solarban® 60 Glass****Fabrication and Availability**

*Solarban® 60* glass is available exclusively through the *Vitro Certified™* Network. *Vitro Certified™* Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. *Solarban® 60* glass is manufactured using the sputter-coating process and is available for annealed, heat-strengthened and tempered applications.

**Additional Resources**

*Solarban® 60* glass is *Cradle to Cradle Certified™*. For more information or to obtain samples of any Vitro Glass product, call **1-855-VTRO-GLS (887-6457)** or visit **vitroglazings.com**.

Vitro Architectural Glass is the first U.S. float glass manufacturer to have its products recognized by the *Cradle to Cradle Certified™* program, and offers more C2C-certified architectural glasses than any other float glass manufacturer.

**Insulating Glass Unit Performance Comparisons | 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites**

| Outdoor Lite:<br>Coating if Any<br>(Surface) Glass | Glass Type<br>+<br>Indoor Lite:<br>Coating if Any<br>(Surface) Glass | Visible Light<br>Transmittance<br>(VLT) | Visible Light Reflectance |            | (BTU/hr·ft²·°F)<br>NFRC U-Value |                 | Solar Heat<br>Gain<br>Coefficient<br>(SHGC) | Light to Solar<br>Gain<br>(LSG) |
|----------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------|---------------------------|------------|---------------------------------|-----------------|---------------------------------------------|---------------------------------|
|                                                    |                                                                      |                                         | Exterior %                | Interior % | Winter<br>Nighttime             | Winter<br>Argon |                                             |                                 |

**Solarban® 60 Solar Control Low-E Glass**

|                                                               |    |    |    |      |      |      |      |
|---------------------------------------------------------------|----|----|----|------|------|------|------|
| <i>Solarban® 60</i> (2) Clear + Clear                         | 70 | 11 | 12 | 0.29 | 0.24 | 0.39 | 1.79 |
| <i>Solarban® 60</i> (2) <i>Starphire®</i> + <i>Starphire®</i> | 74 | 11 | 12 | 0.29 | 0.24 | 0.41 | 1.80 |
| <i>Solarban® 60</i> (2) <i>Solexia®</i> + Clear               | 61 | 9  | 12 | 0.29 | 0.24 | 0.32 | 1.91 |
| <i>Solarban® 60</i> (2) <i>Atlantica®</i> + Clear             | 53 | 8  | 11 | 0.29 | 0.24 | 0.27 | 1.96 |
| <i>Solarban® 60</i> (2) <i>Azurria®</i> + Clear               | 54 | 8  | 11 | 0.29 | 0.24 | 0.28 | 1.93 |
| <i>Solarban® 60</i> (2) <i>Solarblue®</i> + Clear             | 45 | 7  | 11 | 0.29 | 0.24 | 0.28 | 1.61 |
| <i>Solarban® 60</i> (2) <i>Pacifica®</i> + Clear              | 34 | 6  | 10 | 0.29 | 0.24 | 0.22 | 1.55 |
| <i>Solarban® 60</i> (2) <i>Solarbronze®</i> + Clear           | 42 | 7  | 11 | 0.29 | 0.24 | 0.28 | 1.50 |
| <i>Solarban® 60</i> (2) <i>Optigray®</i> + Clear              | 50 | 8  | 11 | 0.29 | 0.24 | 0.30 | 1.67 |
| <i>Solarban® 60</i> (2) <i>Solargray®</i> + Clear             | 35 | 6  | 10 | 0.29 | 0.24 | 0.25 | 1.40 |
| <i>Solexia®</i> + <i>Solarban® 60</i> (3) Clear               | 61 | 10 | 10 | 0.29 | 0.24 | 0.37 | 1.65 |
| <i>Atlantica®</i> + <i>Solarban® 60</i> (3) Clear             | 53 | 9  | 10 | 0.29 | 0.24 | 0.31 | 1.71 |
| <i>Azurria®</i> + <i>Solarban® 60</i> (3) Clear               | 54 | 9  | 10 | 0.29 | 0.24 | 0.31 | 1.74 |
| <i>Solarblue®</i> + <i>Solarban® 60</i> (3) Clear             | 45 | 7  | 9  | 0.29 | 0.24 | 0.33 | 1.36 |
| <i>Pacifica®</i> + <i>Solarban® 60</i> (3) Clear              | 34 | 6  | 9  | 0.29 | 0.24 | 0.25 | 1.36 |
| <i>Solarbronze®</i> + <i>Solarban® 60</i> (3) Clear           | 42 | 7  | 9  | 0.29 | 0.24 | 0.32 | 1.31 |
| <i>Optigray®</i> + <i>Solarban® 60</i> (3) Clear              | 50 | 8  | 9  | 0.29 | 0.24 | 0.35 | 1.43 |
| <i>Solargray®</i> + <i>Solarban® 60</i> (3) Clear             | 35 | 7  | 9  | 0.29 | 0.24 | 0.29 | 1.21 |
| GraylitE II + <i>Solarban® 60</i> (3) Clear                   | 7  | 4  | 8  | 0.29 | 0.24 | 0.13 | 0.54 |

**Vistacool® and Solarcool® with Solarban® 60 Solar Control Low-E (3)\***

|                                                                           |    |    |    |      |      |      |      |
|---------------------------------------------------------------------------|----|----|----|------|------|------|------|
| <i>Vistacool®</i> (2) <i>Azurria®</i> + <i>Solarban® 60</i> (3) Clear     | 42 | 20 | 24 | 0.29 | 0.24 | 0.26 | 1.62 |
| <i>Vistacool®</i> (2) <i>Pacifica®</i> + <i>Solarban® 60</i> (3) Clear    | 26 | 11 | 23 | 0.29 | 0.24 | 0.21 | 1.24 |
| <i>Solarcool®</i> (2) <i>Solexia®</i> + <i>Solarban® 60</i> (3) Clear     | 24 | 24 | 29 | 0.29 | 0.24 | 0.19 | 1.26 |
| <i>Solarcool®</i> (2) <i>Azurria®</i> + <i>Solarban® 60</i> (3) Clear     | 21 | 19 | 29 | 0.29 | 0.24 | 0.17 | 1.24 |
| <i>Solarcool®</i> (2) <i>Solarblue®</i> + <i>Solarban® 60</i> (3) Clear   | 17 | 14 | 29 | 0.29 | 0.24 | 0.18 | 0.94 |
| <i>Solarcool®</i> (2) <i>Pacifica®</i> + <i>Solarban® 60</i> (3) Clear    | 13 | 10 | 29 | 0.29 | 0.24 | 0.15 | 0.87 |
| <i>Solarcool®</i> (2) <i>Solarbronze®</i> + <i>Solarban® 60</i> (3) Clear | 17 | 14 | 29 | 0.29 | 0.24 | 0.18 | 0.94 |
| <i>Solarcool®</i> (2) <i>Solargray®</i> + <i>Solarban® 60</i> (3) Clear   | 14 | 11 | 29 | 0.29 | 0.24 | 0.17 | 0.82 |

\* Data based on using *Starphire®* glass for both interior and exterior lites.

All performance data calculated using LBNL Window 6.3 software, except European U-value, which is calculated using WinDat version 3.0.1 software. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit [www.ppgideascape.com](http://www.ppgideascape.com) or request our Architectural Glass Catalog.

For more information about *Solarban®* low-e glass and other *Cradle to Cradle Certified™* architectural glasses by Vitro Glass, visit **vitroglazings.com**, or call **1-855-VTRO-GLS (887-6457)**.





FREE PARCEL SHIPPING WITH MYLOWE'S. GET STARTED &gt;



Open until 9PM!  
 Rainier Lowe's ✓

Prices, promotions, styles, and availability may vary. Our local stores do not honor online pricing. Prices and availability of products and services are subject to change without notice. Errors will be corrected where discovered, and Lowe's reserves the right to revoke any stated offer and to correct any errors, inaccuracies or omissions including after an order has been submitted.

Item # 578584 Model #  
 11679GY

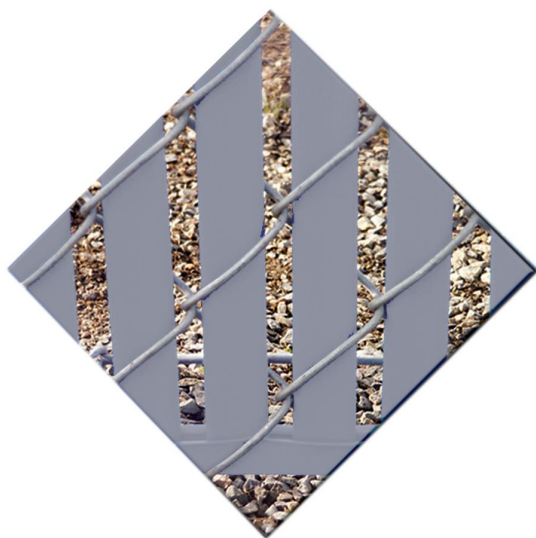
## 82-Pack Gray Chain-Link Fence Privacy Slats (Fits Common Fence Height: 8-ft; Actual: 0.09-ft x 7.71-ft)

No Reviews



Have an  
 opinion?  
 Help others  
 decide.  
[Write a  
 Review](#)

Community Q&A  
[View Now](#)



# \$167.84

- Patented locking channel provides a "snap in" locking effect for security and to deter...
- Slats are 3-1/2-in shorter than the overall height of the fence
- For use with 8-ft chain link fence

### Manufacturer Color/Finish



Gray



### Actual Length (Feet)

0.09



Feedback



**Ships to Store  
 FREE**



Ready for pickup:  
 Estimated by  
 02/19/2019



**Delivery**



Ready for  
 delivery:  
 Estimated on  
 02/19/2019



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Get 5% OFF\* EVERY DAY or 6 Months Special Financing\*\*

\* \*\*Offer subject to credit approval and cannot be combined with other credit offers.  
Minimum purchase required. Exclusions apply.

GET DETAILS

## Product Information

i

Description

- Patented locking channel provides a "snap in" locking effect for security and to deter vandalism
- Slats are 3-1/2-in shorter than the overall height of the fence
- For use with 8-ft chain link fence
- Bottom-lock design is reinforced for extra durability
- Order 1 bag per 10 linear feet of fence

📄

Specifications

|                           |                 |                                  |                  |
|---------------------------|-----------------|----------------------------------|------------------|
| Series Name               | N/A             | Coverage Area (Linear Foot)      | 10               |
| Actual Thickness (Inches) | 0.25            | Actual Height (Feet)             | 7.71             |
| Fits Fence Mesh Opening   | 2-in            | Visibility Blockage (Percentage) | 75               |
| Weight (lbs.)             | 17              | Fits Common Fence Height         | 8-ft             |
| UV Resistant              | ✓               | For Use With                     | Chain-link fence |
| Fade Resistant            | ✓               | Color/Finish Family              | Gray             |
| Manufacturer Color/Finish | Gray            | Primary Material                 | HDPE             |
| Package Quantity          | 82              | Type                             | Privacy slat     |
| Warranty                  | 12-year limited | Finish                           | Unfinished       |
| Actual Length (Feet)      | 0.09            |                                  |                  |

Feedback





## STAFF REPORT

### Architectural Review Board

February 6, 2019

#### Title:

APPLICATION FOR A WALL OR WINDOW SIGN, ARB #19-10.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider the installation of new illuminated business signs on an exterior wall of the commercial building located at 1228 Elden Street, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                               |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | Justin Yoon, Agent                                                                                                                                            |
| Owner:             | Elden, LLC, c/o David Germakian                                                                                                                               |
| Use:               | Retail                                                                                                                                                        |
| Location:          | 1228 Elden Street                                                                                                                                             |
| Tax Map Reference: | 0161-02-0015E                                                                                                                                                 |
| Zoning of Site:    | CS, Commercial Services                                                                                                                                       |
| Adjacent Zoning:   | North: CS, Commercial Services / RM, Residential Multi-family<br>South: CO, Commercial Office<br>East: CS, Commercial Services<br>West: CO, Commercial Office |

#### Description:

This application proposes to install new tenant signage for *H Mart* (formerly a *Giant* grocery store) using the tenant's business name, logo, lettering, and colors. The main sign letters (MART) will be constructed of 3/16" thick internally (LED) illuminated red acrylic faced channel letters, 1/2" clear trim caps, and 5" deep black painted aluminum returns flush-mounted to the brick masonry façade using steel rods passing through front façade wall. The business logo ('H') will also be



constructed of 3/16" thick internally (LED) illuminated red acrylic faced background, a 1/2" thick white push through 'H', 1/2" clear trim caps, and 5" deep black painted aluminum returns flush-mounted to the brick masonry façade using steel rods passing through front façade wall. The two remaining signs' letters will be constructed of 3/16" thick halo lit red acrylic faced channel letters, 1/2" clear trim caps, and 5" deep black painted aluminum returns mounted to the brick masonry façade using steel rods passing through front façade wall with 1" spacers. The overall wall sign area for all sign components will be roughly 178.8 square feet, using the appropriate sign area calculations found in the Town's Zoning Ordinance, (Attachment #2, #3, #4, and #5).

The new business is subject to a Master Sign Plan (MSP), MSP #18 Elden Street Market Place, for which the proposed sign components do not comply with the lettering height and sign placement standards.

There is a freestanding sign alteration submitted within this application, however a separate application is required for this sign. The Board will not be reviewing this sign as a part of this case.

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-10 with the following conditions:

1. The proposed signage shall be installed in substantial conformance with the application and supporting materials as submitted January 14, 2019 and updates received January 17, 2019.

### **Staff Analysis:**

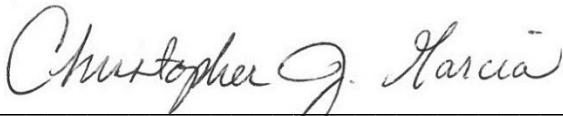
1. The proposed sign complies with the Town's Zoning Ordinance Section 78-141.4 - Sign standards for Commercial Districts, Table 78-141(a). Based on this ordinance section, the tenant would be authorized 1 square foot of sign area for each linear foot of frontage, approximately 293.7 square feet in this case. As noted in the project description, the applicant is proposing approximately 178.8 square feet of sign area for its wall sign and thus meets the referenced section of the zoning ordinance, as well as the general sign standards applicable to all zoning districts.
2. The proposed signage complies with the applicable design criteria within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. Staff concludes that the proposed signs will not detract from the building's exterior features and will maintain the visual appeal of this commercial property with updated corporate signage on the building for the new business.



**Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing Conditions
5. Sign Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



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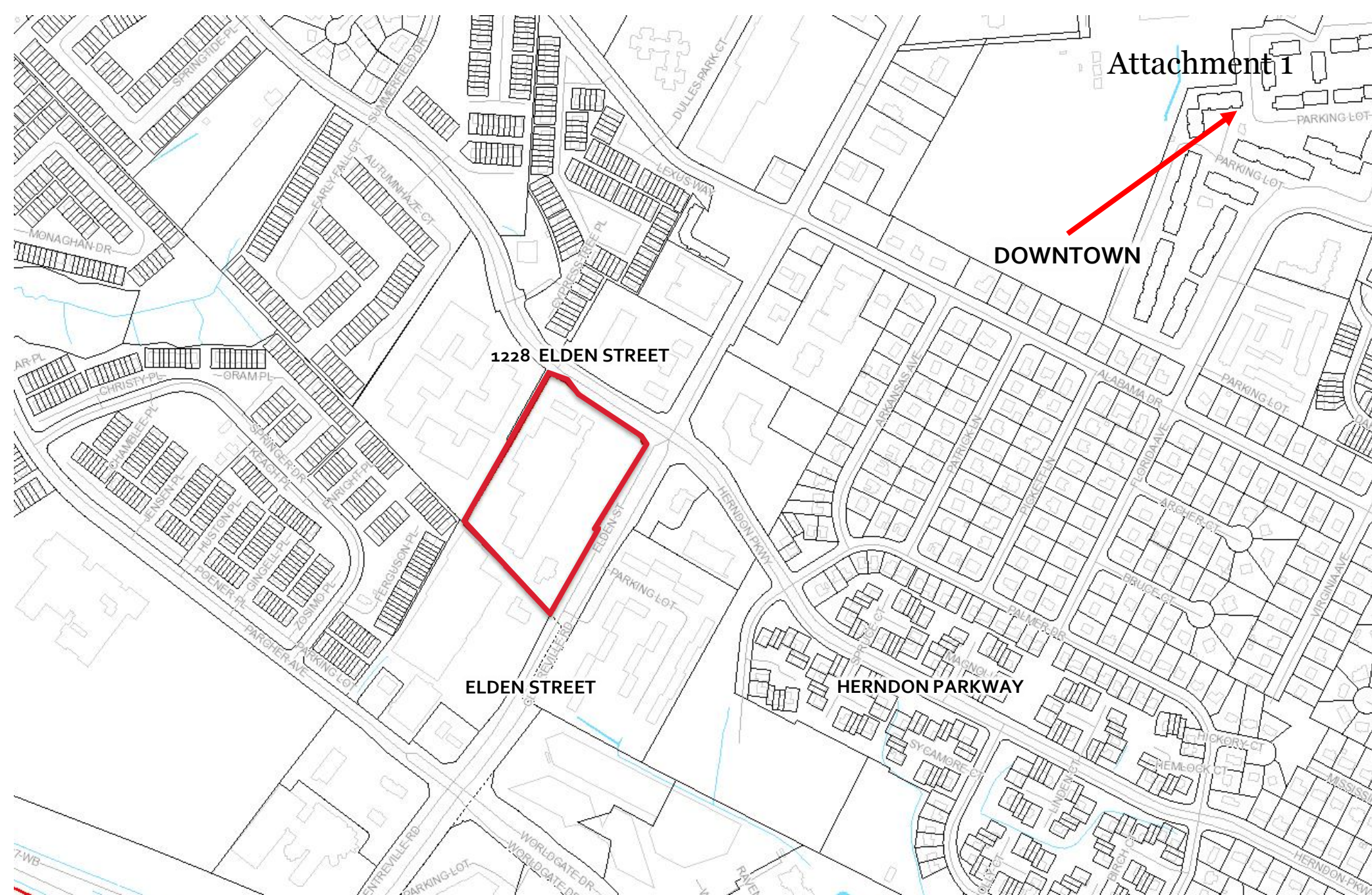
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



---

Bryce A. Perry  
Deputy Director of Community Development





## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map Viewer





## SITE LOCATION – AERIAL PHOTO

➤ Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





Re: Exterior Signage

Date: 01/14/2019

The letter is hereby made for a permit according to the following detail statement of the specifications herewith submitted for the erection of signs.

Type of sign: Channel letters on exterior facade

1. Wall sign:

- Material: acrylic face, aluminum returns
- Size: 4'-6"(H) x 20'-1"(W)
- How illuminated: LED illuminate

2. Wall sign:

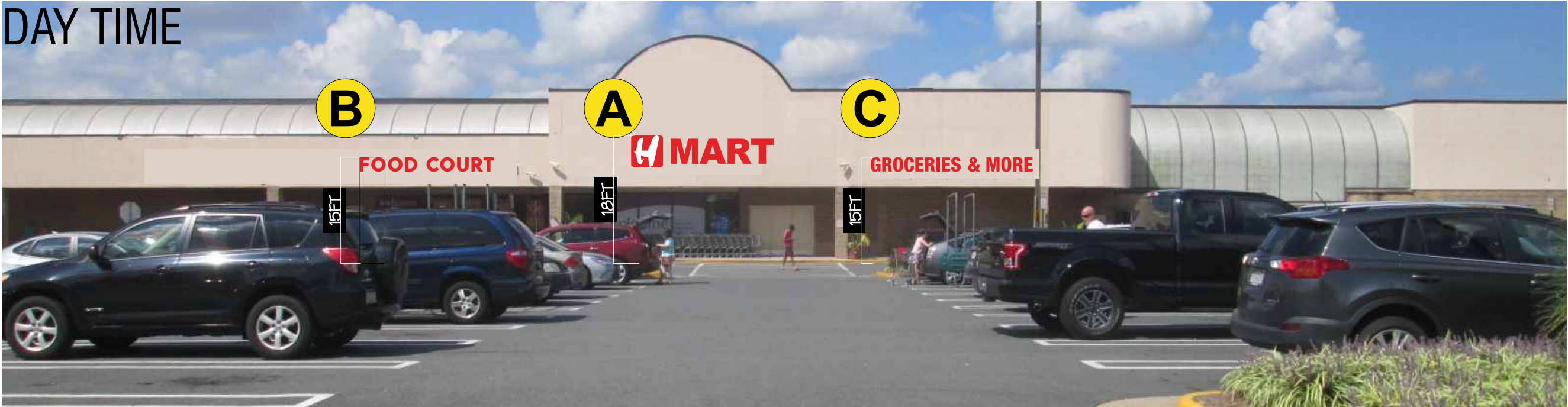
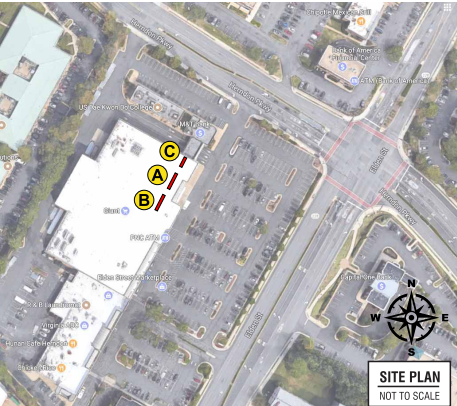
- Material: acrylic face, aluminum returns
- Size: 2'-0"(H) x 18'-7"(W)
- How illuminated: LED illuminate

3. Wall sign:

- Material: acrylic face, aluminum returns
- Size: 2'-0"(H) x 22'-8"(W)
- How illuminated: LED illuminate

All signs will be mounted using stainless steel rods penetrating wall to be fastened with washers and nuts.





Scale: 1/16" = 1'-0"

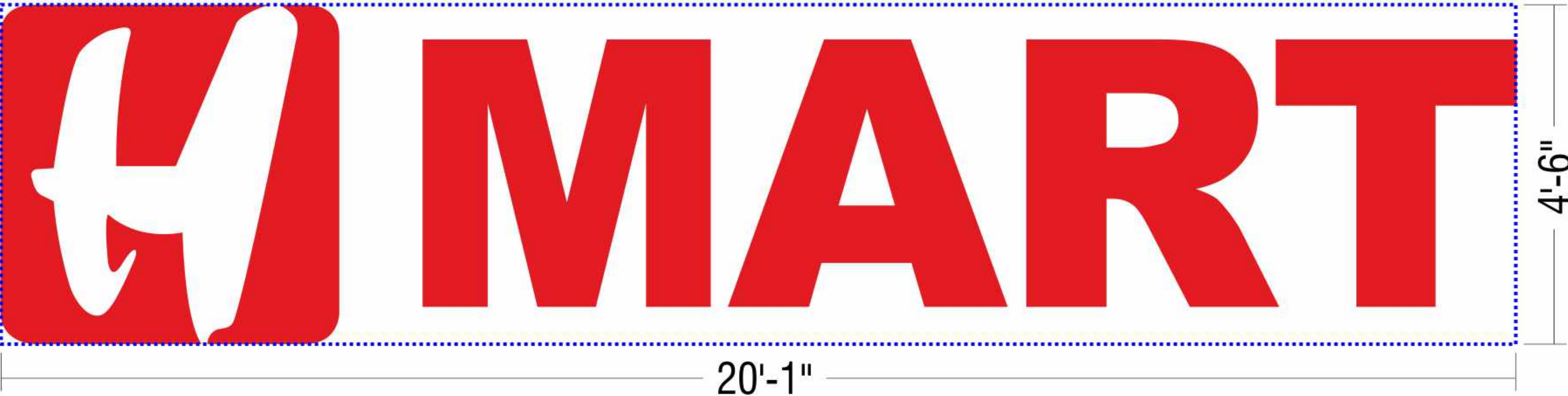


EXISTING PREMISES

|                                                                                                                                   |          |                          |                               |     |      |          |    |                                                                                                                                          |                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------|-------------------------------|-----|------|----------|----|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <br>Underwriters<br>Laboratories Inc.<br>LISTED | DATE     | PROJECT NAME / APPLICANT | OWNER(S) OF PREMISES          | NO. | DATE | REVISION | BY | <br>Best Sign Plan for Best Future<br>SIGN & AWNING | Drawn By: Chris Kim<br><br>270 North Street, Teterboro, NJ 07608<br>TEL: 201.440.1400 / FAX: 201.440.8803<br>E-mail: fesign@yahoo.com |
|                                                                                                                                   | 12/24/18 | H MART                   |                               |     |      |          |    |                                                                                                                                          |                                                                                                                                       |
|                                                                                                                                   | BLOCK#   | ADDRESS                  | BOROUGH OFFICIALS' SIGNATURES |     |      |          |    |                                                                                                                                          |                                                                                                                                       |
|                                                                                                                                   | LOT#     | CITY / STATE             |                               |     |      |          |    |                                                                                                                                          |                                                                                                                                       |
|                                                                                                                                   |          | 1228 ELDEN ST.           |                               |     |      |          |    |                                                                                                                                          |                                                                                                                                       |
|                                                                                                                                   |          | HERNDON, VA 20170        |                               |     |      |          |    |                                                                                                                                          |                                                                                                                                       |



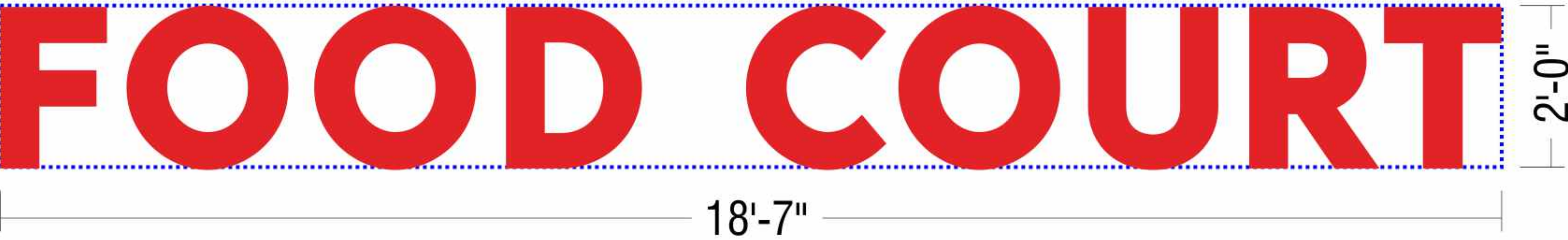
**A** CHANNEL LETTERS: 90.4 SQ.FT.



**D** FREE STANDING SIGN FACE CHANGE  
(DOUBLE SIDED)



**B** CHANNEL LETTERS: 37.2 SQ.FT.



**C** CHANNEL LETTERS: 45.3 SQ.FT.



|                                                                                                                                                  |                  |                                    |                               |     |      |          |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------|-------------------------------|-----|------|----------|----|
| <br>Underwriters<br>Laboratories Inc.<br><small>LISTED</small> | DATE<br>12/24/18 | PROJECT NAME / APPLICANT<br>H MART | OWNER(S) OF PREMISES          | NO. | DATE | REVISION | BY |
|                                                                                                                                                  | BLOCK#           | ADDRESS<br>1228 ELDEN ST.          | BOROUGH OFFICIALS' SIGNATURES |     |      |          |    |
|                                                                                                                                                  | LOT#             | CITY / STATE<br>HERNDON, VA 20170  |                               |     |      |          |    |
|                                                                                                                                                  |                  |                                    |                               |     |      |          |    |



Best Sign Plan for Best Future  
SIGN & AWNING

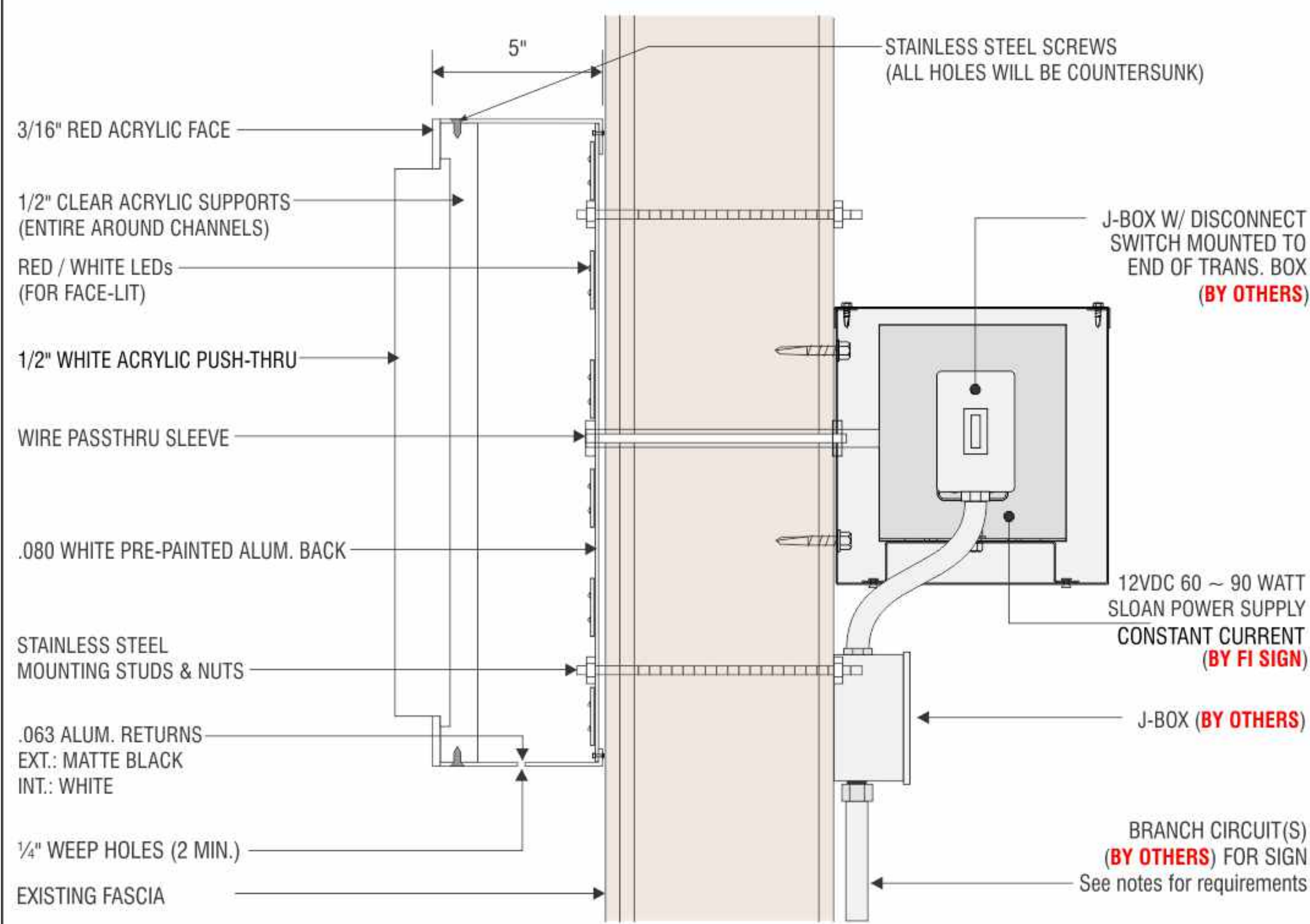
Drawn By: Chris Kim

270 North Street, Teterboro, NJ 07608  
TEL: 201.440.1400 / FAX: 201.440.8803  
E-mail: fesign@yahoo.com



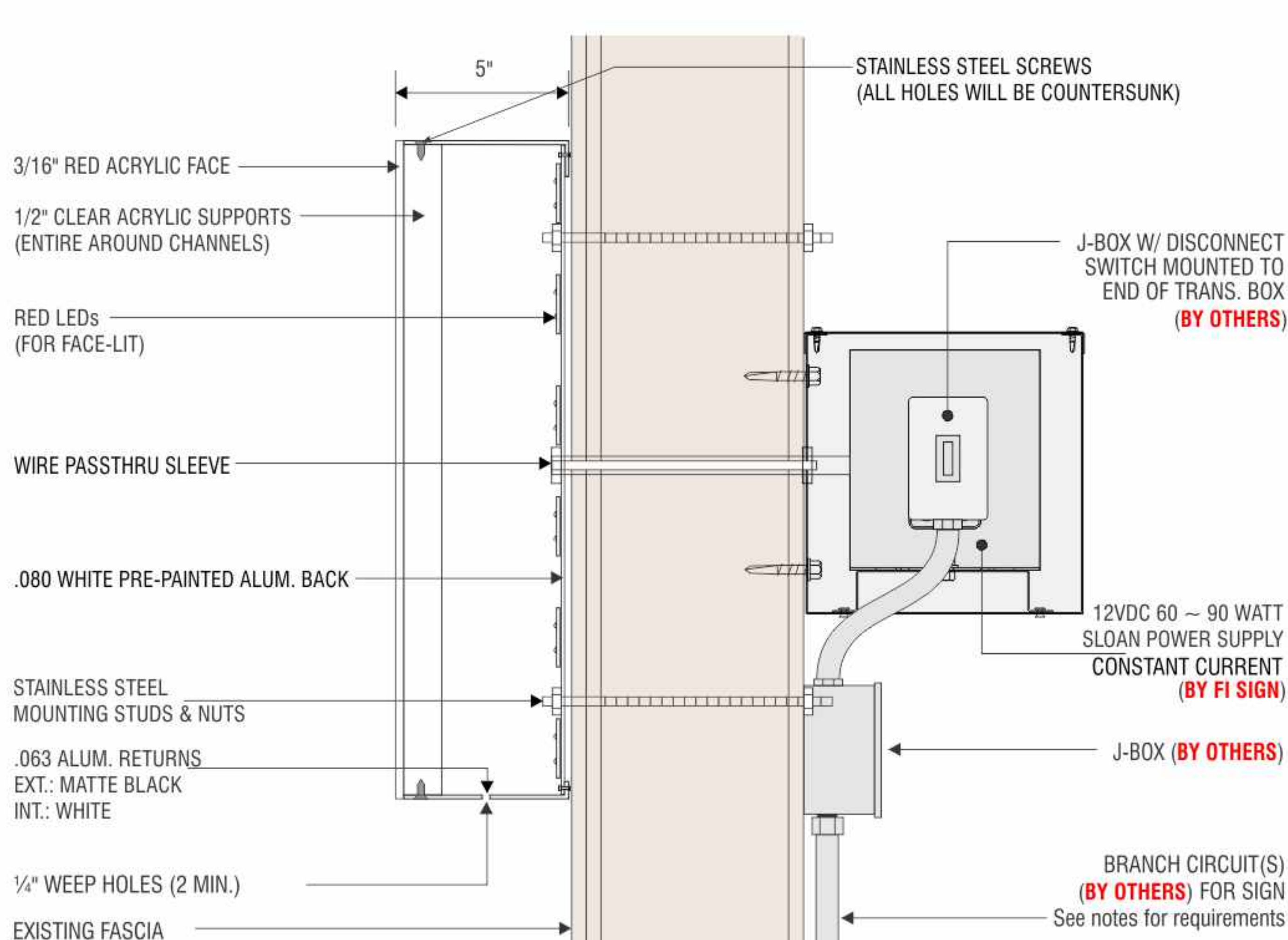
A LOGO

\*FRONT-LIT



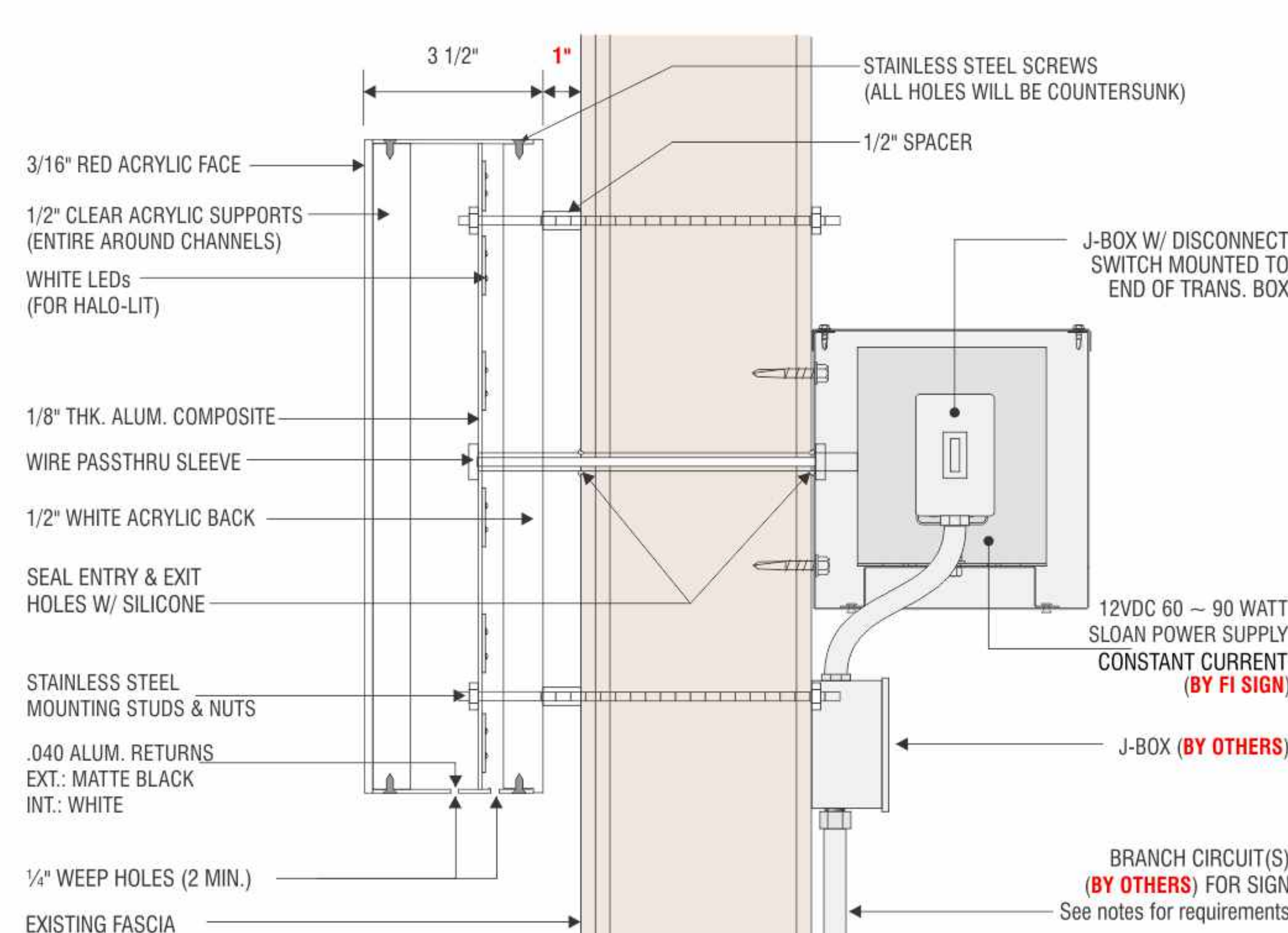
A LETTERS

\*FRONT-LIT



B C LETTERS

\*HALO-LIT



|                                                                                                                                                  |                  |                                    |                               |     |      |          |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------|-------------------------------|-----|------|----------|----|
| <br>Underwriters<br>Laboratories Inc.<br><small>LISTED</small> | DATE<br>12/24/18 | PROJECT NAME / APPLICANT<br>H MART | OWNER(S) OF PREMISES          | NO. | DATE | REVISION | BY |
|                                                                                                                                                  | BLOCK#           | ADDRESS<br>1228 ELDEN ST.          | BOROUGH OFFICIALS' SIGNATURES |     |      |          |    |
|                                                                                                                                                  | LOT#             | CITY / STATE<br>HERNDON, VA 20170  |                               |     |      |          |    |



Best Sign Plan for Best Future  
SIGN & AWNING

Drawn By: Chris Kim

270 North Street, Teterboro, NJ 07608  
TEL: 201.440.1400 / FAX: 201.440.8803  
E-mail: fesign@yahoo.com



## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

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### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)





## STAFF REPORT

### Architectural Review Board

March 6, 2019

#### Title:

APPLICATION FOR AN ALTERATION TO AN EXISTING STRUCTURE, ARB  
#19-11.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning  
Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider the replacement of a fabric covered awning with a new awning structure and new fabric covering on the office building addressed at 140-A Laurel Way within the multi-family residential property located at 120 Laurel Way, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | Matt Higgins/Kathy Baker, Agent(s)                                                                                                                                                                                        |
| Owners:            | Stuart Woods Project, LLC, c/o Lindsay Gilbert                                                                                                                                                                            |
| Use:               | Multi-family Residential                                                                                                                                                                                                  |
| Location:          | 140-A Laurel Way                                                                                                                                                                                                          |
| Tax Map Reference: | 0171-02-0005C                                                                                                                                                                                                             |
| Zoning of Site:    | RM, Residential Multi-family                                                                                                                                                                                              |
| Adjacent Zoning:   | North: Residential, Out of Town of Herndon corporate limits<br>South: CS, Commercial Services / CO, Commercial Office<br>East: Residential, Out of Town of Herndon corporate limits<br>West: RM, Residential Multi-family |



### **Description:**

This application proposes replacement of an existing barrel-shaped awning, with a new fabric covered awning structure in a quadrilateral section with the name of the apartment complex, *Stuart Wood Apartments* made of vinyl letters, to be heat transferred onto the horizontal face of the awning fabric. The new awning will span 17'-9" across the front (east-facing) façade of the apartment complex leasing/administrative office building, it will extend outward 5'-0" from its attachment to the façade, it will be 3'-5" tall at the façade plane and slope downward to a height of 1'-6" at the horizontal face that will receive the apartment name. The awning framing will be constructed of aluminum tubing.

The apartment name lettering and accents to be applied to the horizontal face of the awning will be approximately 1'-3" tall and 5'-0" long or approximately 6.25 square feet in surface area. The apartment name will be white as shown in the attachment(s) with a 1" orange border (PMS 7526C) around the horizontal facing edges of the awning, which will also be heat transferred onto the awning fabric (Attachment #2, #3, #4, and #5).

The new proposed awning fabric is manufactured by Sunbrella®. The applicant is proposing to change the awning fabric color from a, now fading, teal color to a Palm Green (PMS #4692), per the fabric/color sample specifications submitted (Attachment #5). However, the printed color of the awning fabric in Attachment #5 appears to be a dark brown versus the proposed Palm Green found with the materials sample.

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-11 with the following conditions:

1. The applicant shall clarify the proposed color of the selected awning fabric and explain the differences in the proposed fabric printed on the case attachment and the submitted material sample.
2. The proposed awning and applied apartment name shall be installed in substantial conformance with the application and supporting materials as submitted February 8, 2019.

### **Staff Analysis:**

1. The proposed sign lettering / copy complies with the Town's Zoning Ordinance Section 78-141.2 - Sign Standards for Multi-Family Residential Districts, Table 78-141.2. Based on this ordinance section, the tenant would be authorized 24 square feet of sign area for this street facing facade. As noted in the project description, the applicant is proposing approximately 6.25 square feet of sign area for its wall sign (on the awning) and thus meets the referenced section of



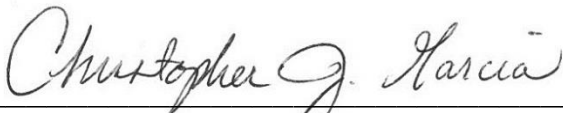
the zoning ordinance, as well as the general sign standards applicable to all zoning districts.

2. The proposed awning complies with the applicable design criteria within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. Staff concludes that the proposed project will not detract from the exterior features of the building and will maintain the visual appeal of this commercial building within a multi-family residential property with updated corporate signage on the building.

**Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing Conditions
5. Awning Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



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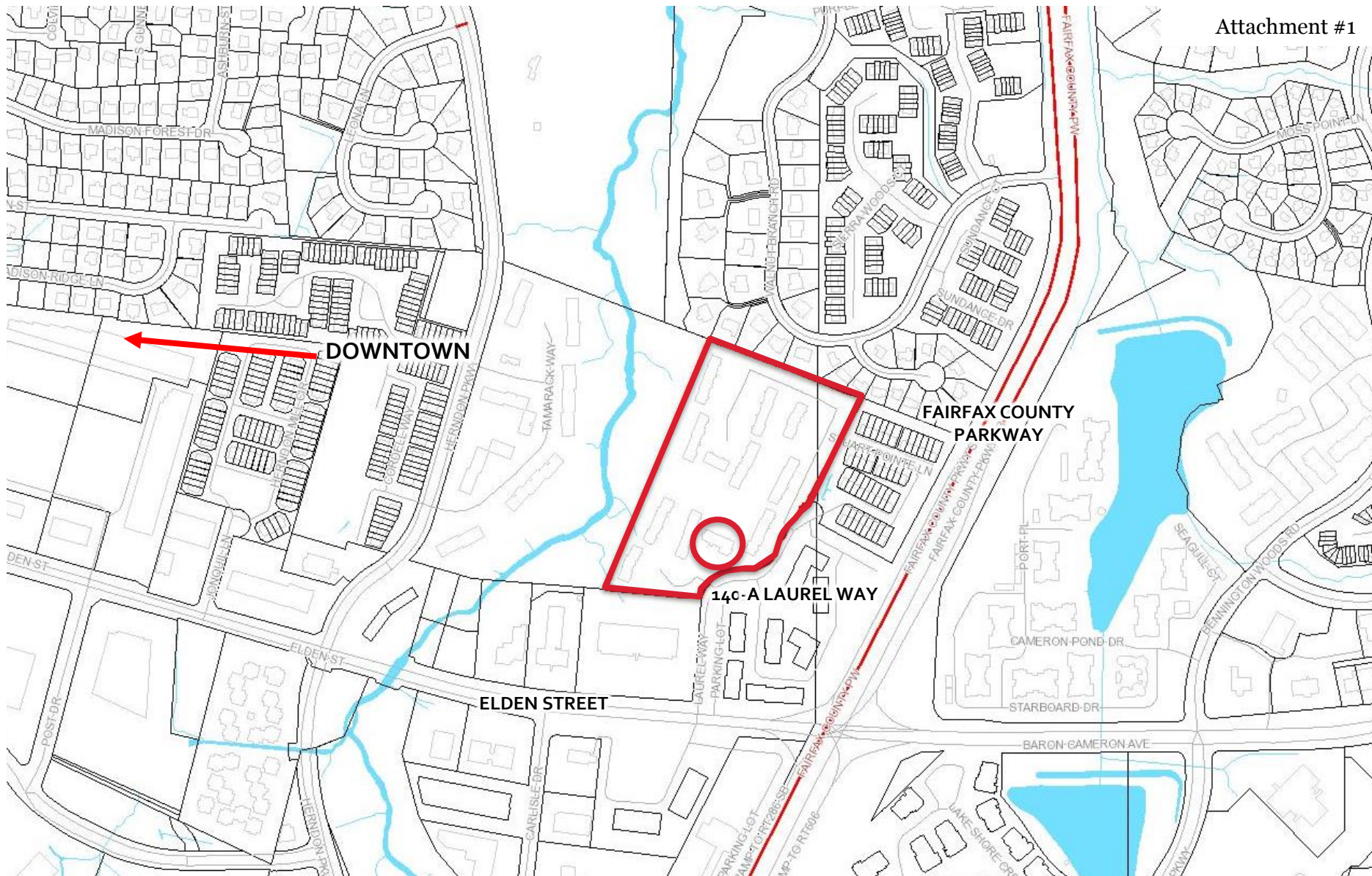
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



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Bryce A. Perry  
Deputy Director of Community Development





## SITE LOCATION - VICINITY MAP

Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map  
Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018



**A.J. DWOSKIN**  

---

**& ASSOCIATES, INC.**

Town of Herndon  
777 Lynn Street  
Herndon, VA 20170

Re:  
Stuart Woods Apartments  
140-A Laurel Way  
Herndon, VA 20170

To Whom It May Concern,

A.J. Dwoskin and Associates, Inc. approves Concept Unlimited to fabricate and install a new canopy to replace existing canopy per the attached drawing A12698.

Please let us know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lindsay C. Gilbert', with a stylized flourish at the end.

Lindsay C. Gilbert  
Marketing Director  
3201 Jermantown Road, Suite 700 | Fairfax, VA 22030-2879  
703-273-9320 | [Lindsay.Gilbert@dwoskin.com](mailto:Lindsay.Gilbert@dwoskin.com)



# From the desk of Kathy Baker

---

PO Box 156, Nokesville, VA 20182 | 703-753-4904 | katsigngirl@gmail.com

**02-07-19**

Town of Herndon

**Architectural Review Board**

777 Lynn Street

Herndon, VA 20170-4602

RE: Application for an Alteration to an Existing Structure

**Dear ARB Review:**

Please see the attached application for a replacement Awning at **STUART WOODS APARTMENTS**.

Located at: **140-A Laurel Way, Herndon, VA 20170**

I've attached the following:

- Application for an Alteration to an Existing Structure
- (6) 8½" x 11" Scaled Drawings of Proposed & Existing with Details
- (6) 11" x 17" of the same (not to scale)
- Check for Application Fee
- Color Samples of #7526C Orange Vinyl & Color Sample of #4692 Palm Sunbrella Mateial.
- Disk with Electronic Copy

I am submitting this before the Feb. 11<sup>th</sup> deadline for review on March 20, 2019.

Please let me know if you have any questions.

Sincerely,



**Kathy Baker**

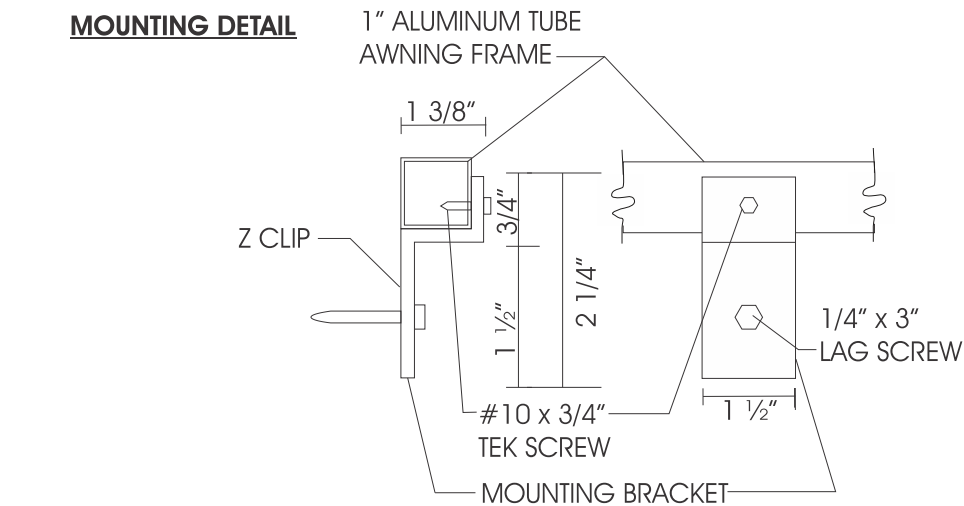




**EXISTING AWNING TO BE REMOVED & REPLACED WITH PROPOSED AWNING**



MOUNTING DETAIL



ACCEPTED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

GENERAL NOTES:

SUNBRELLA AWNING TO #4692 "PALM" GREEN. BORDER TO BE PMS #7526c ORANGE HEAT TRANSFERRED.

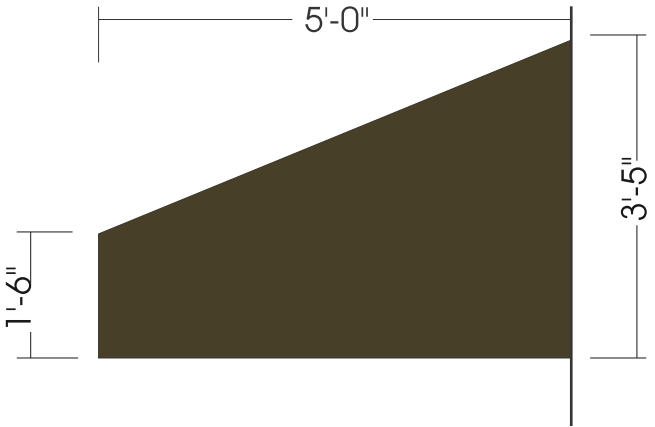
AWNING FRAME TO BE CONSTRUCTED FROM ALUMINUM TUBING.

COPY TO BE WHITE WITH SQUARES TO MATCH PMS #7526C ORANGE HEAT TRANSFERRED VINYL.

FRONT VIEW



SIDE VIEW





**ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW***Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

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**DIVISION 4. STANDARDS\*** \_\_\_\_\_**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_**Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)





## STAFF REPORT

### Architectural Review Board

March 6, 2019

#### Title:

APPLICATION FOR NEW CONSTRUCTION, ARB #19-12.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider construction of a new equipment shelter to screen a proposed emergency backup power generator at a Town-owned water tank site located at 624 Alabama Drive, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                                                        |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | James Relihan, Agent                                                                                                                                                                   |
| Owner:             | Town of Herndon, Virginia                                                                                                                                                              |
| Use:               | Municipal Water Tank                                                                                                                                                                   |
| Location:          | 624 Alabama Drive                                                                                                                                                                      |
| Tax Map Reference: | 0162-02-0148                                                                                                                                                                           |
| Zoning of Site:    | R-10, Residential Single Family - 10                                                                                                                                                   |
| Adjacent Zoning:   | North: R-10, Residential Single Family - 10<br>South: R-10, Residential Single Family - 10<br>East: R-10, Residential Single Family - 10<br>West: R-10, Residential Single Family - 10 |

#### Description:

This application proposes construction of a new 10' wide by 15' long by 8' high walled enclosure with a brick veneer cladding around a 3'-6" x 8' concrete slab. The proposed enclosure is designed to house a new 25 kW diesel emergency backup power generator to serve as backup power to telecommunications equipment (owned by T-Mobile Northeast, LLC) on the subject site. The new enclosure will not have a roof structure to allow for ventilation of the backup generator. The



exterior walls will be sheathed in a “Brick It” Real Thin Brick Veneer system to match an existing enclosure on site that was previously approved through ARB #12-21. The new enclosure will be placed approximately 7’-3” to the south of the existing enclosure. The north elevation, facing the existing bricked enclosure, will have a steel framed gate with dog-eared wood slats/pickets to complete the screening of this mechanical equipment and provide access to it. The enclosure will not have any opening, or penetrations to the walls as proposed (Attachments #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends a continuance to a date certain or withdrawal of the application due to requirement for a site plan revision for this structure based on determination by Town Staff.

### **Staff Analysis:**

1. In accordance with the Town’s Zoning Ordinance Section 78-155.6. – “Site plans, Subdivision Plans, Single Lot Development Plans and Building Location Surveys”, the proposed improvement will require a site plan revision. This property was the subject of an approved site plan, TP #R-13-04, which approved an existing enclosure currently on site, however, this approved site plan did not include the proposed enclosure. A revised site plan must be submitted and administratively approved by the Town.

Thus, this ARB case may not be considered by the Board until an approved site plan is submitted with the ARB application as required by Section 58-76 of the Town’s Code of Ordinances. Staff has no design issues with this proposed enclosure, however, the site plan revision requirement must be completed prior to ARB consideration of the application.

2. The proposed design of the enclosure complies with the Town’s Zoning Ordinance Section 78-114.2. - Screening standards.
3. The proposed enclosure complies with the applicable design criteria within the Town’s Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
4. Staff concludes that the proposed project will not detract from the site and will maintain the limited visual appeal of this quasi-industrial site by screening the proposed mechanical equipment from view of adjacent residential uses.

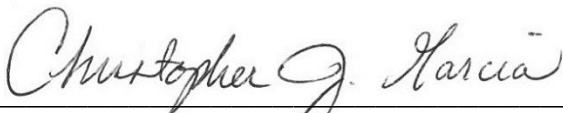
### **Attachments:**

1. Location Map



2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing Conditions
5. Enclosure Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



---

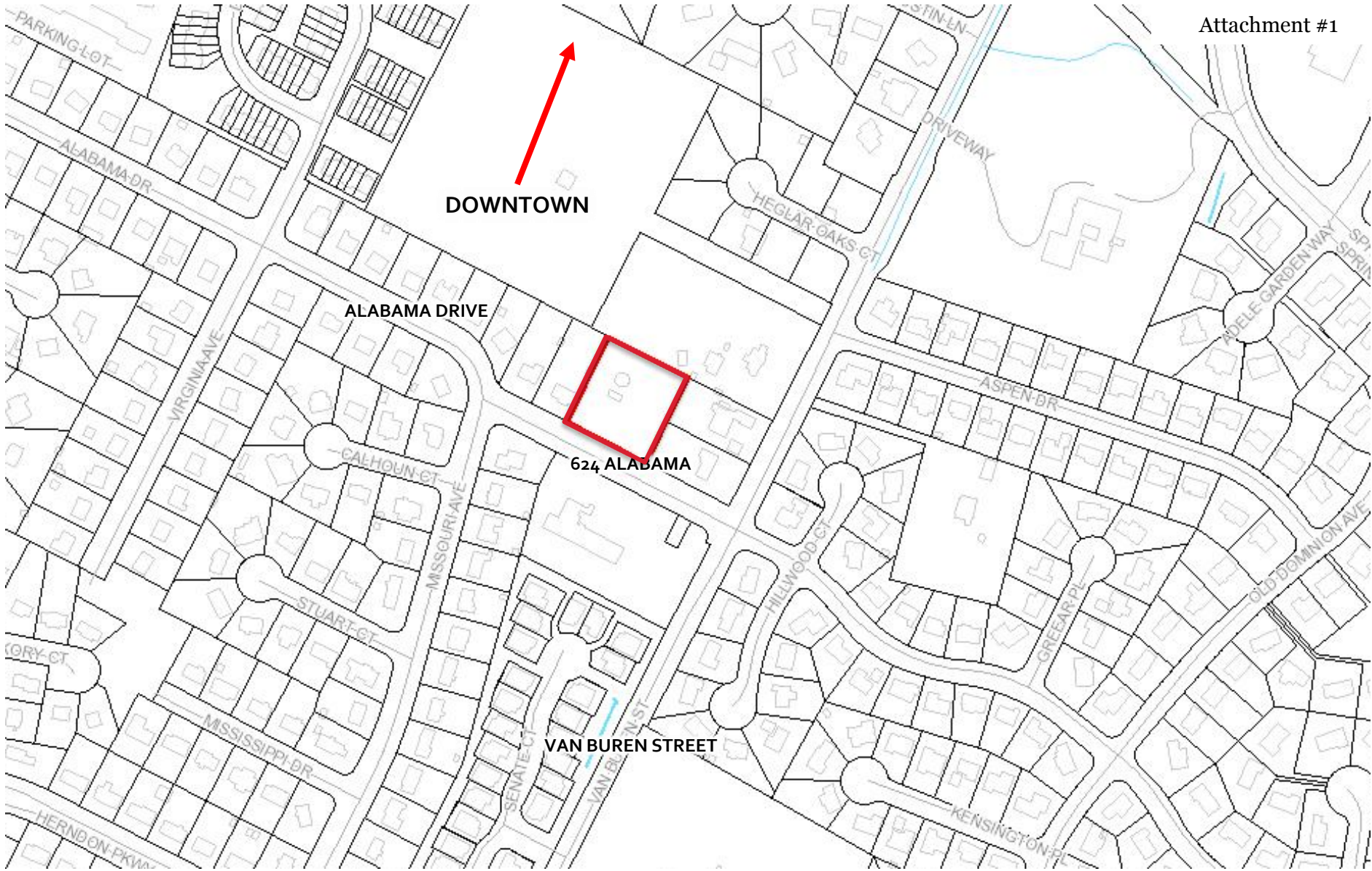
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



---

Bryce A. Perry  
Deputy Director of Community Development





## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map  
Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





12050 Baltimore Avenue  
Beltsville, Maryland 20705

**Date: 2/8/2019**

Town of Herndon  
Department of Community Development  
777 Lynn street  
Herndon, Virginia 20170-4602

Attn: Architectural Review Board

Re: Description of construction  
Site#: 624 Alabama Drive

To whom it may be concerned:

T-Mobile Northeast LLC currently leases space on the Herndon water tank grounds located at 624 Alabama Drive. T-Mobile has an existing enclosed brick equipment shelter and wishes to add another separate enclosure where a proposed 25KW CD Diesel emergency backup powered generator will be located.

The Proposed 10'x15'x8' enclosure will be constructed to match the existing exterior of the existing shelter utilizing "Brick It" Real Thin Brick Veneer or approved equal on three of the four walls. A wood slat gate will be placed at the end of the structure for access to the generator. The purpose of the enclosure is for aesthetic purposes only. There is no roof being proposed on this structure due to the exhaust system of the generator. The generator will be situated on a proposed 3'6"x8' concrete pad within the proposed stealth enclosure.

Below you will find a list of all documents being submitted along with this application:

- Completed application signed by the property owner.
- Check for application fee
- Six (6) sets of labeled color photographs of all sides of the existing structure, site and other structures located within the fenced compound
- One (1) full-size set 24"x36" of color elevation drawings of the proposed structure.
- Six (6) 11"x17" copies of the elevation drawings.
- Six (6) 11"x17" copies of the approved site Plan.
- One (1) electronic copy of the above information, to be submitted to the ARB separate from this packet.

Sincerely,

James Relihan  
Smartlink LLC on behalf of T-Mobile







7WAC315N – HERNDON WATER



**T-Mobile Equipment Shelter and Proposed Generator location**





7WAC315N – HERNDON WATER



**T-Mobile Equipment Shelter**





7WAC315N – HERNDON WATER



**T-Mobile Equipment Shelter**





7WAC315N – HERNDON WATER



**T-Mobile Equipment Shelter**



# T-Mobile

7WAC315N – HERNDON WATER



**AT&T Equipment Shelter**



# T-Mobile

7WAC315N – HERNDON WATER



AT&T Equipment Shelter



# T-Mobile

7WAC315N – HERNDON WATER



**AT&T Equipment Shelter**





7WAC315N – HERNDON WATER



**AT&T Equipment Shelter**





7WAC315N – HERNDON WATER



**Verizon Generator Stealth Enclosure**





7WAC315N – HERNDON WATER



**Verizon Generator Stealth Enclosure**





7WAC315N – HERNDON WATER



**Verizon Generator Stealth Enclosure**





7WAC315N – HERNDON WATER



**Verizon Generator Stealth Enclosure**





7WAC315N – HERNDON WATER



**Verizon Generator Stealth Enclosure**



# T-Mobile

7WAC315N – HERNDON WATER



**Verizon Equipment Shelter**





7WAC315N – HERNDON WATER



**Verizon Equipment Shelter**



# T-Mobile

7WAC315N – HERNDON WATER



Verizon Equipment Shelter





7WAC315N – HERNDON WATER



**Verizon Equipment Shelter**



# T-Mobile

7WAC315N – HERNDON WATER





# T-Mobile

7WAC315N – HERNDON WATER





# T-Mobile

7WAC315N – HERNDON WATER





# T-Mobile

7WAC315N – HERNDON WATER





# T-Mobile

7WAC315N – HERNDON WATER





# T-Mobile

7WAC315N – HERNDON WATER





# T-Mobile

7WAC315N – HERNDON WATER





| SHEET INDEX |                              |
|-------------|------------------------------|
| NO.         | DESCRIPTION                  |
| T1          | TITLE PAGE                   |
| C1          | PLAN VIEWS                   |
| C2          | GENERATOR DETAIL             |
| C3          | ELEVATION VIEW               |
| C4          | EAST ELEVATION               |
| C5          | SOUTH ELEVATION              |
| C6          | GENERATOR ENCLOSURE DETAIL   |
| C7          | GATE DETAIL                  |
| C8          | GENERATOR DIAGRAM            |
| C9          | PLUMBING & GROUNDING DETAILS |
| N1          | NOTES                        |
|             |                              |
|             |                              |
|             |                              |
|             |                              |
|             |                              |
|             |                              |

| DRIVING DIRECTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FROM BENSALEM PA:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DEPART BYBERRY RD TOWARD KNIGHTS RD., TURN LEFT ONTO KNIGHTS RD., TURN LEFT ONTO PA-132 / STREET RD., KEEP STRAIGHT ONTO STREET RD., TAKE RAMP RIGHT AND FOLLOW SIGNS FOR I-95 SOUTH, CONSTRUCTION: BETWEEN STREET RD/EXIT 37 AND ACADEMY RD/EXIT 32 – CONSTRUCTION WORK. TAKE RAMP RIGHT FOR I-495 SOUTH TOWARD BALTIMORE / PORT OF WILMINGTON, ENTERING DELAWARE, TAKE RAMP RIGHT FOR I-95 S / US-202 S TOWARD AIRPORT / NEW CASTLE / NEWPORT, PASS SUNOCO ON THE LEFT IN 7.0 MI, ENTERING MARYLAND, KEEP LEFT TO STAY ON I-95 S / I-95 EXPRESS TOLL LANES, PASS CHEVROLET ON THE LEFT IN 8.8 MI, TAKE RAMP RIGHT FOR I-495 WEST TOWARD SILVER SPRING, ROAD NAME CHANGES TO I-495 S / CAPITAL BELTWAY, ENTERING VIRGINIA, TAKE RAMP RIGHT FOR VA-267 W TOWARD DULLES AIRPORT / HERNDON / RESTON, TAKE RAMP RIGHT AND FOLLOW SIGNS FOR VA-286 NORTH, TAKE RAMP LEFT, TURN RIGHT ONTO SPRING ST., TURN LEFT ONTO HERNDON PKWY., TURN RIGHT ONTO VAN BUREN ST., TURN LEFT ONTO ALABAMA DR., ARRIVE AT 624 ALABAMA DRIVE, HERNDON, VA 20170. |

| LOCATION MAP |
|--------------|
|              |

| GENERAL NOTES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | CODE COMPLIANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.</li><li>FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.</li><li>FACILITY HAS NO PLUMBING OR REFRIGERANTS.</li><li>THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.</li><li>ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRH AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.</li><li>THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON STORMWATER DRAINAGE.</li><li>NO SANITARY SEWER, POTABLE WATER, OR TRASH DISPOSAL SERVICE IS REQUIRED</li><li>NO COMMERCIAL SIGNAGE IS PROPOSED</li></ul> | <p>ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED WITH ANY LOCAL AMENDMENTS BY THE LOCAL GOVERNING AUTHORITIES:</p> <ul style="list-style-type: none"><li>2015 INTERNATIONAL BUILDING CODE</li><li>2015 INTERNATIONAL FUEL GAS CODE</li><li>2014 NATIONAL ELECTRICAL CODE</li><li>2012 NATIONAL FIRE PROTECTION ASSOCIATION 101</li><li>2012 NATIONAL FIRE PROTECTION ASSOCIATION 1</li><li>LOCAL BUILDING CODES</li><li>CITY/COUNTY ORDINANCES</li><li>AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)</li><li>UNDERWRITERS LABORATORIES APPROVED ELECTRICAL PRODUCTS.</li><li>ANSI EIA/TIA 222 REV. G</li><li>TIA 607</li><li>INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS 81</li><li>IEEE C2 (LATEST EDITION)</li><li>TELCORDIA GR-1275</li><li>ANSI T1.311</li></ul> |

| PROJECT SITE INFORMATION                                                                                  |                                                    |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| SITE ID:                                                                                                  | 7WAC315N                                           |
| SITE NAME:                                                                                                | HERNDON WATER                                      |
| SITE ADDRESS:                                                                                             | 624 ALABAMA DRIVE<br>HERNDON, VA 20170             |
| JURISDICTION:                                                                                             | FAIRFAX COUNTY                                     |
| SITE COORDINATES:                                                                                         |                                                    |
| LATITUDE:                                                                                                 | N 38° 57' 40.9"                                    |
| LONGITUDE:                                                                                                | W 77° 23' 13.1"                                    |
| APPLICANT:                                                                                                | T-MOBILE<br>12920 SE 38TH ST<br>BELLEVUE, WA 98006 |
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| PROJECT TEAM INFORMATION |                                                                   |
|--------------------------|-------------------------------------------------------------------|
| CLIENT REPRESENTATIVE:   | SMARTLINK, LLC<br>4860 COX ROAD SUITE 269<br>GLEN ALLEN, VA 23060 |
| CLIENT REP. CONTACT:     | SHAWN SUTTON<br>(443) 676-9462                                    |
| ENGINEER:                | INFINIGY<br>1033 WATERVLJET SHAKER ROAD<br>ALBANY, NY 12205       |
| ENGINEER CONTACT:        | RYAN FINNERIN<br>(443) 799-5314                                   |

| SCOPE OF WORK                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>INSTALL 25KW DIESEL DC GENERATOR W/ 220 GALLON BELLY TANK</li><li>INSTALL 10'x15' ENCLOSURE FOR GENERATOR</li></ul>                                                                                                                              |
| <div><div></div><div>TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN VIRGINIA, CALL VIRGINIA 811<br/>TOLL FREE: 1-800-552-7001 OR<br/>www.va811.com<br/>VIRGINIA STATUTE<br/>REQUIRES MIN OF 2<br/>WORKING DAYS NOTICE<br/>BEFORE YOU EXCAVATE</div></div> |

INFINIGY

1033 WATERVLJET SHAKER RD  
ALBANY, NY 12205  
TEL (518) 690-0790  
FAX (518) 690-0793

T-Mobile



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| A   | ISSUED FOR REVIEW    | SL    | 10/04/18 |
| No. | Submittal / Revision | App'd | Date     |

Drawn: RCD  
Designed: MRL  
Checked: AJD

Project Number:  
499-033

Project Title:  
**7WAC315N**  
HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170



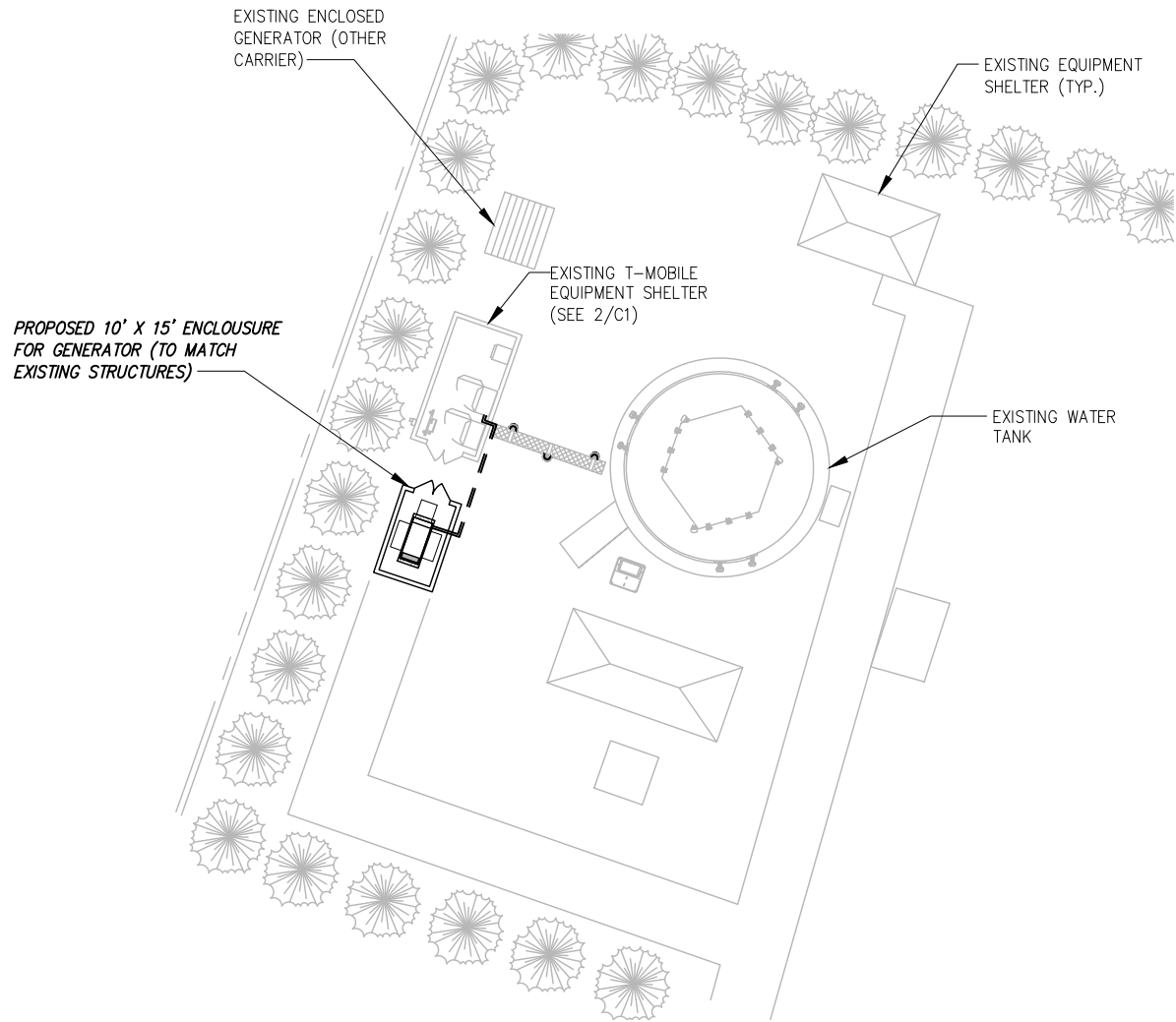
Drawing Title

**TITLE PAGE**

Drawing Number

**T1**

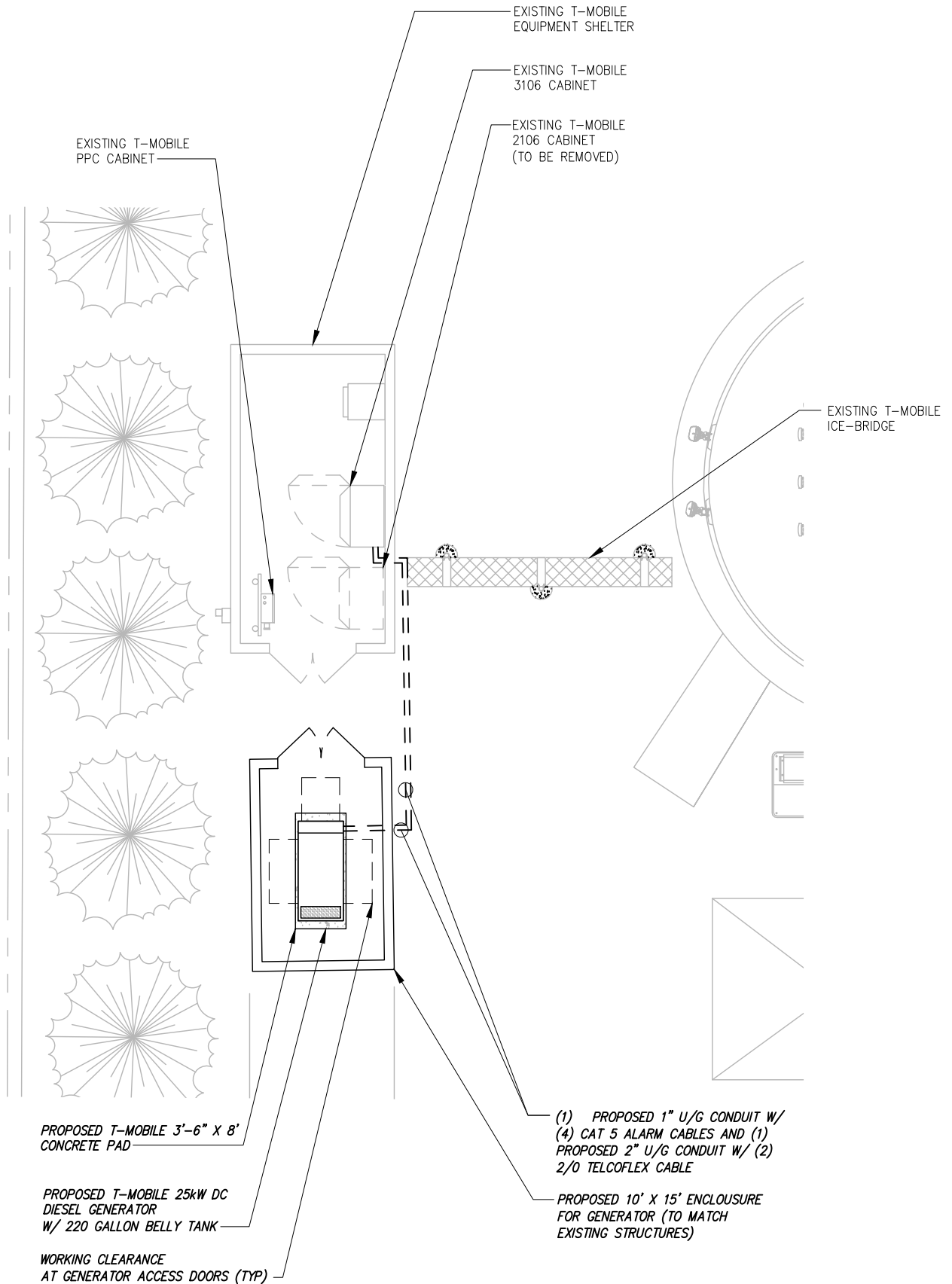
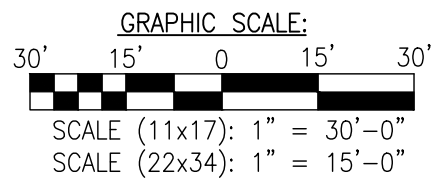




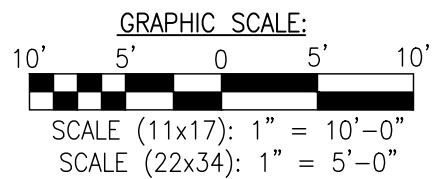
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1. A COMPLETE BOUNDARY SURVEY OF THE HOST PARCEL HAS NOT BEEN PERFORMED BY INFINIGY. BOUNDARY INFORMATION IF SHOWN WAS OBTAINED FROM INFORMATION PROVIDED BY OTHERS. PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
  2. BASEMAPPING INFORMATION BASED ON PROVIDED INFORMATION.
  3. CONTRACTOR TO FIELD VERIFY DIMENSIONS AS NECESSARY BEFORE CONSTRUCTION.
  4. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE SIGNS OF ADVERTISING.
  5. THE PROPOSED DEVELOPMENT IS UNMANNED AND THEREFORE DOES NOT REQUIRE A MEANS OF WATER SUPPLY OR SEWAGE DISPOSAL.
  6. NO LANDSCAPING WORK IS PROPOSED IN CONJUNCTION WITH THIS DEVELOPMENT OTHER THAN THAT WHICH IS SHOWN.
  7. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES.
  8. UTILITIES SHOWN ON PLAN ARE TAKEN FROM OWNERS RECORDS AND FIELD LOCATION OF VISIBLE SURFACE FEATURES. THE EXISTENCE, EXTENT AND EXACT HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES HAS NOT BEEN VERIFIED. ANY CONTRACTOR PERFORMING WORK ON THIS SITE MUST CONTACT MISS UTILITY AT LEAST 48 HOURS PRIOR TO COMMENCING WORK.



**1 SITE PLAN**  
C1 SCALE: AS NOTED



**2 ENLARGED SITE PLAN**  
C1 SCALE: AS NOTED



**INFINIGY**

1033 WATERLIET SHAKER RD  
ALBANY, NY 12205  
TEL (518) 690-0790  
FAX (518) 690-0793

**T-Mobile**

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Drawn: RCD  
Designed: MRL  
Checked: AJD

Project Number:  
499-033

Project Title:  
**7WAC315N**  
**HERNDON WATER**

624 ALABAMA DRIVE  
HERNDON, VA 20170

Prepared For:

**smartlink**

Drawing Title

**PLAN  
VIEWS**

Drawing Number

**C1**



TOP OF EXISTING ANTENNAS  
EL. 92'-0"± A.G.L.

TOP OF EXISTING WATER TANK  
EL. 82'-0"± A.G.L.

EXISTING T-MOBILE  
EQUIPMENT SHELTER  
(TYP.)

PROPOSED 10' X 15' X 8'  
ENCLOSURE FOR GENERATOR (TO  
MATCH EXISTING STRUCTURES)

TOP OF EXISTING T-MOBILE EQPT SHELTER  
12'-0"± A.G.L.

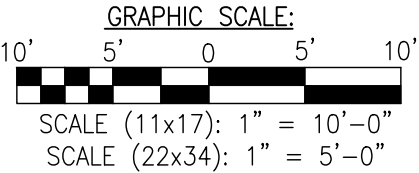
TOP PROPOSED GENERATOR ENCLOSURE  
EL. 8'-0"± A.G.L.

EXISTING T-MOBILE  
ICE BRIDGE

EXISTING WATER  
TANK

GRADE

1 SOUTH ELEVATION VIEW  
C2 SCALE: AS NOTED



INFINIGY8  
1033 WATERVLIET SHAKER RD  
ALBANY, NY 12205  
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T-Mobile

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7WAC315N  
HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170

Prepared For:



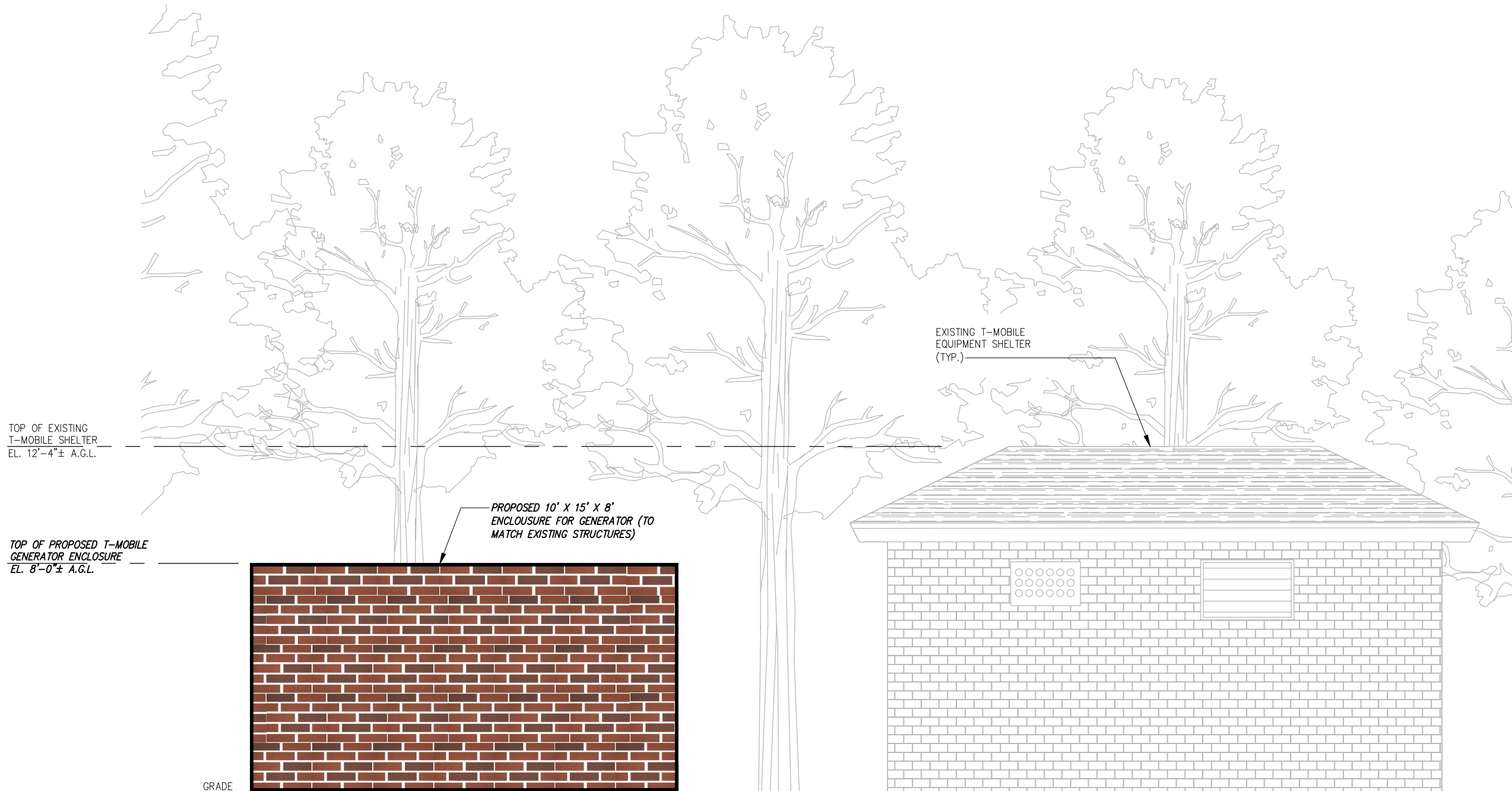
Drawing Title

ELEVATION  
VIEW

Drawing Number

C2





TOP OF EXISTING  
T-MOBILE SHELTER  
EL. 12'-4"± A.G.L.

TOP OF PROPOSED T-MOBILE  
GENERATOR ENCLOSURE  
EL. 8'-0"± A.G.L.

PROPOSED 10' X 15' X 8'  
ENCLOSURE FOR GENERATOR (TO  
MATCH EXISTING STRUCTURES)

EXISTING T-MOBILE  
EQUIPMENT SHELTER  
(TYP.)

GRADE

1 EAST ELEVATION  
C3 SCALE: AS NOTED

GRAPHIC SCALE:  
4' 2' 0 2' 4'  
SCALE (11x17): 1" = 4'-0"  
SCALE (22x34): 1" = 2'-0"

INFINIGY8  
1033 WATERLIET SHAKER RD  
ALBANY, NY 12205  
TEL (518) 690-0790  
FAX (518) 690-0793



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HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170

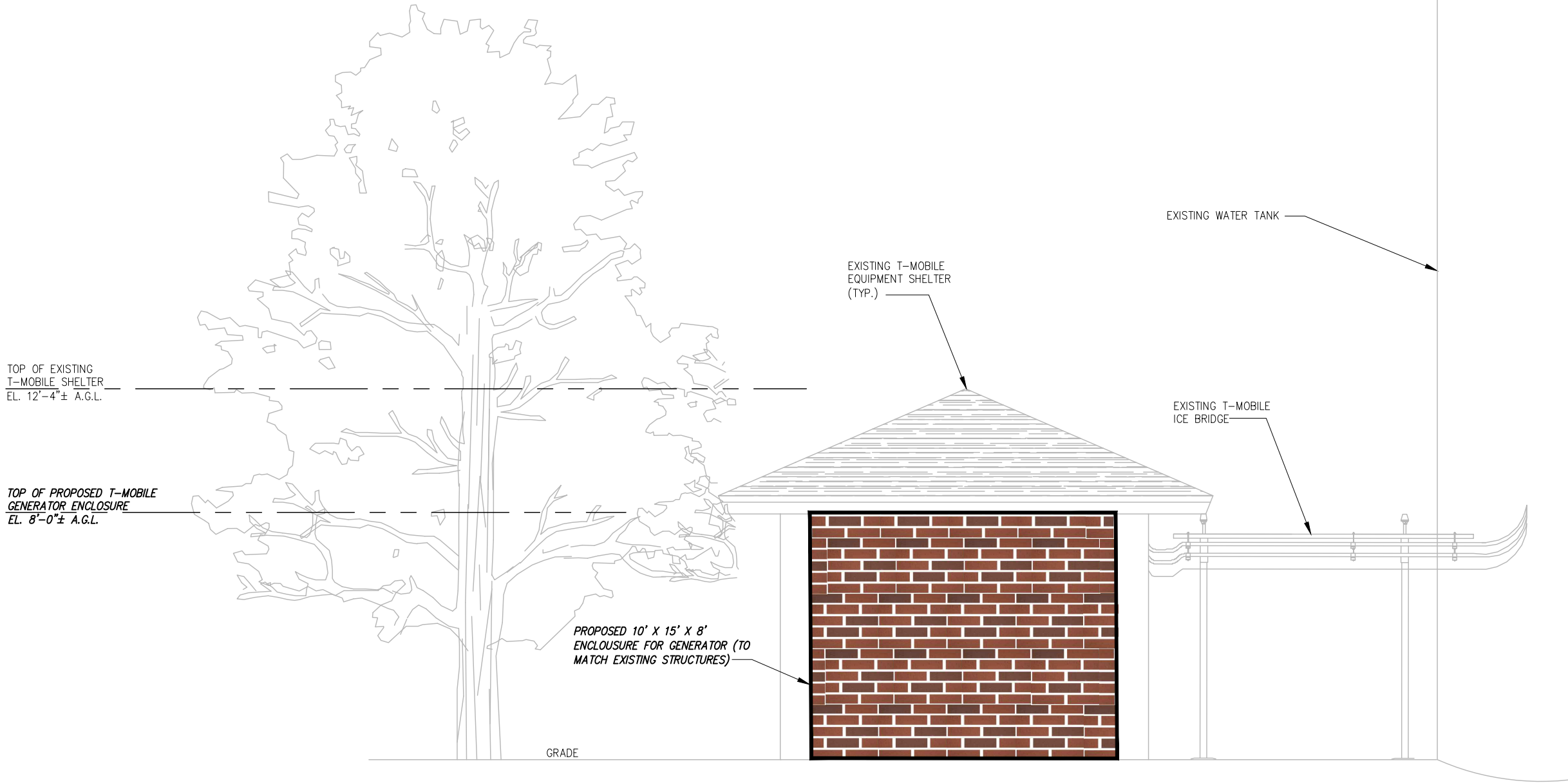
Prepared For:



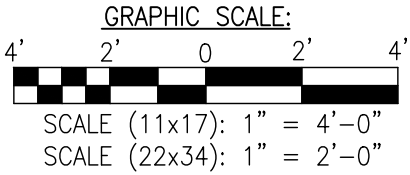
Drawing Title  
EAST  
ELEVATION

Drawing Number  
C3





1 SOUTH ELEVATION  
C4 SCALE: AS NOTED



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ALBANY, NY 12205  
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624 ALABAMA DRIVE  
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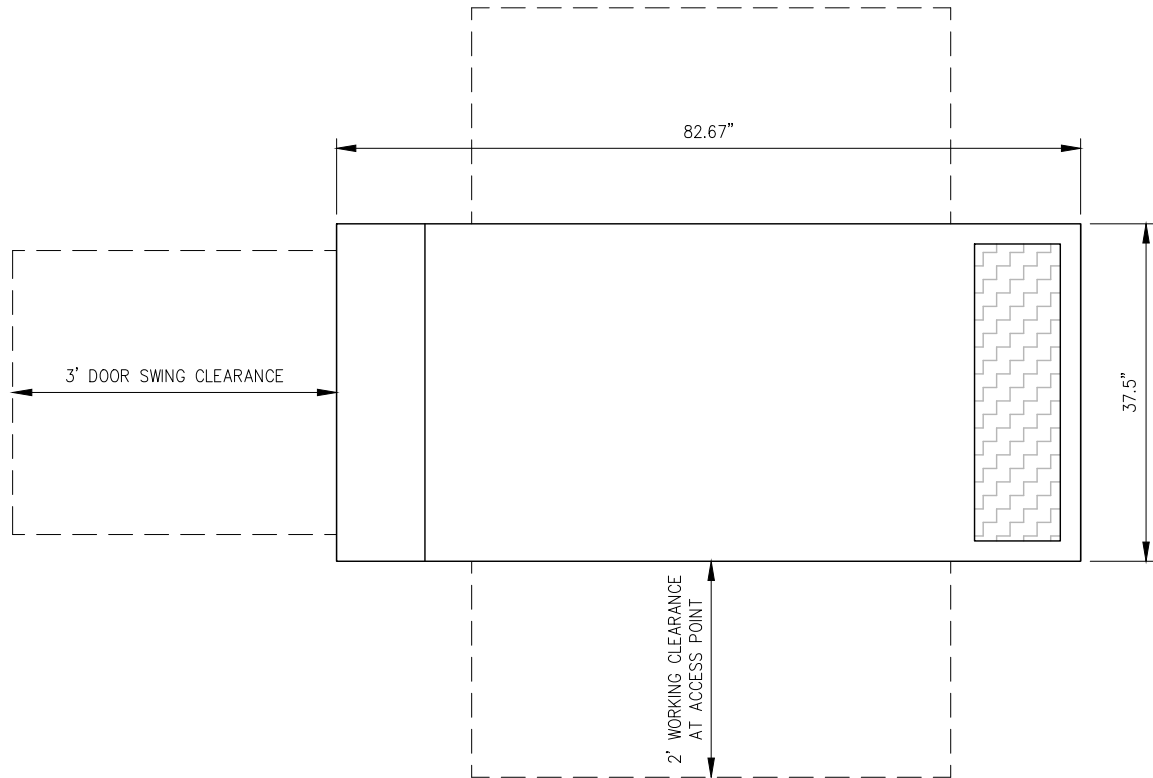
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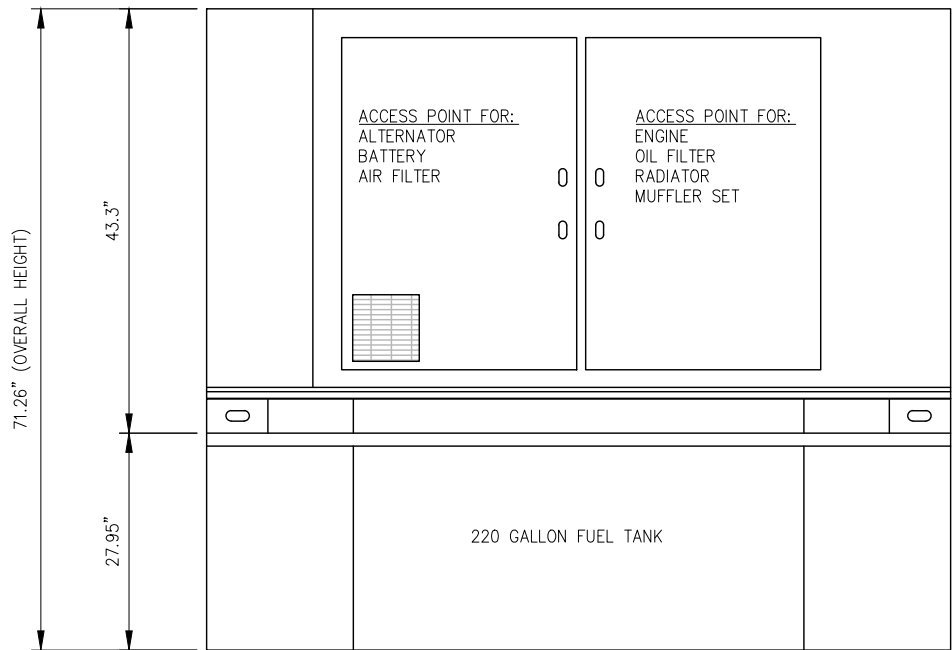
Drawing Title  
**SOUTH  
ELEVATION**

Drawing Number  
**C4**



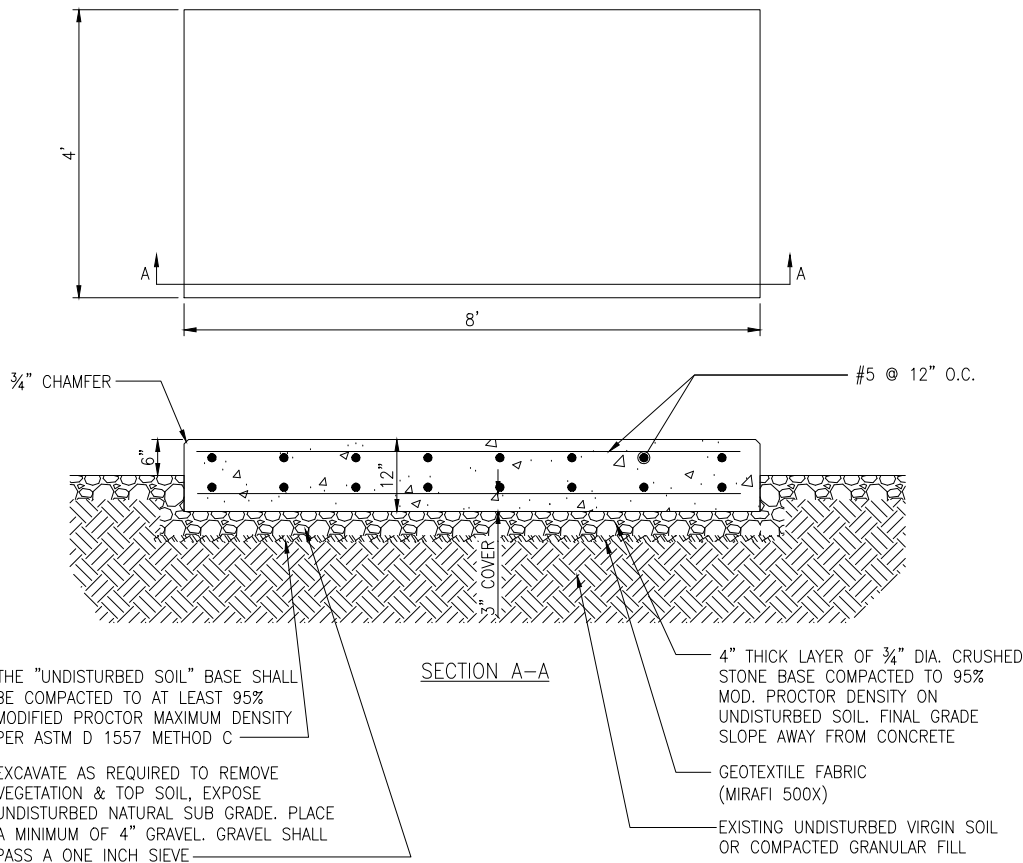
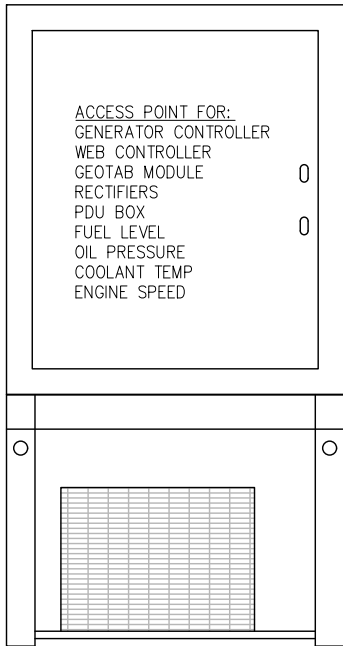


- HAZARD INFORMATION SIGNAGE NOTES:
1. GC TO AFFIX NFPA DIESEL FUEL 1-2-0 SIGN ON GENERATOR SIDE FACING MAIN COMPOUND ENTRY OR WHERE VISIBLE BY APPROACHING FIRE SAFETY SERVICE PERSONNEL.
  2. SIGN TO BE MIN. 10"x14" AND ADHESIVE BACKED VINYL LABEL.
  3. WHEN SIGN IS EXPOSED TO THE ELEMENTS, IT SHALL BE CHECKED ANNUALLY FOR LEGIBILITY.
  4. SIGN TO BE SAFETYSIGN.COM ITEM #M3348 OR EQUIVALENT.



DELTA 25kW DC DIESEL GENSET  
W/ 220 GALLON TANK AND INTEGRAL RECTIFIERS  
25kW @ 75% LOAD: 120HRS  
DC OUTPUT: 52VDC @ 100% LOAD  
WEIGHT: 2910LBs (W/O FUEL)  
UL RATING: UL2200/UL142  
ACOUSTIC RATING: <75dBA @ 23'

1 GENERATOR DETAIL  
C5 NOT TO SCALE



THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED TO AT LEAST 95% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C

EXCAVATE AS REQUIRED TO REMOVE VEGETATION & TOP SOIL, EXPOSE UNDISTURBED NATURAL SUB GRADE. PLACE A MINIMUM OF 4" GRAVEL. GRAVEL SHALL PASS A ONE INCH SIEVE

2 GENERATOR PAD DETAIL  
C5 SCALE: NOT TO SCALE

INFINIGY2  
1033 WATERVLIET SHAKER RD  
ALBANY, NY 12205  
TEL (518) 690-0790  
FAX (518) 690-0793

Mobile

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|---|-------------------|-----|----------|
| C | DESIGN REVISIONS  | RWF | 01/21/19 |
| B | DESIGN REVISIONS  | RWF | 11/26/18 |
| A | ISSUED FOR REVIEW | SL  | 10/04/18 |

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| No. | Submittal / Revision | App'd | Date |
|     |                      |       |      |

Drawn: RCD  
Designed: MRL  
Checked: AJP

Project Number: 499-033

Project Title: 7WAC315N  
HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170

Prepared For:

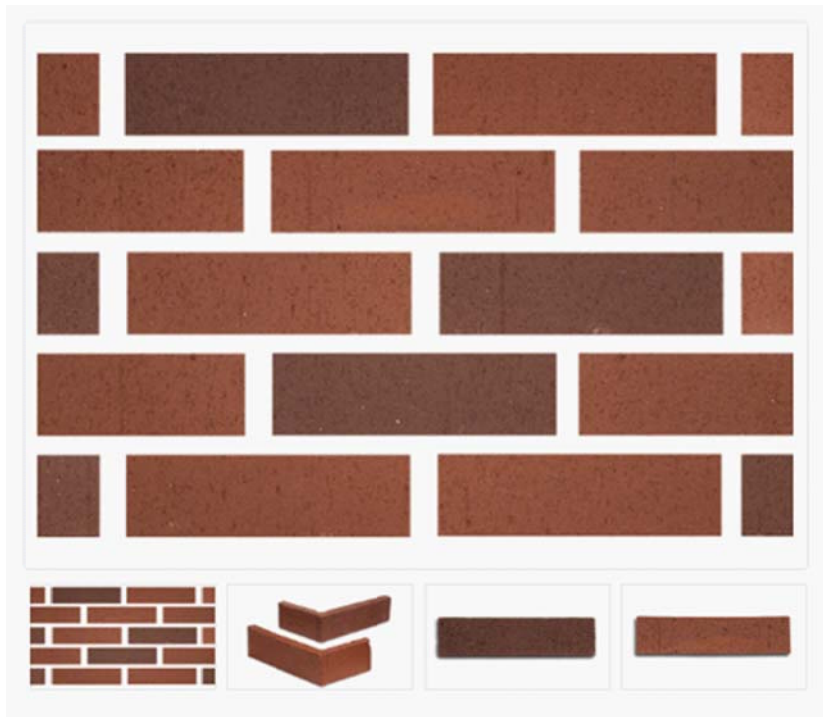
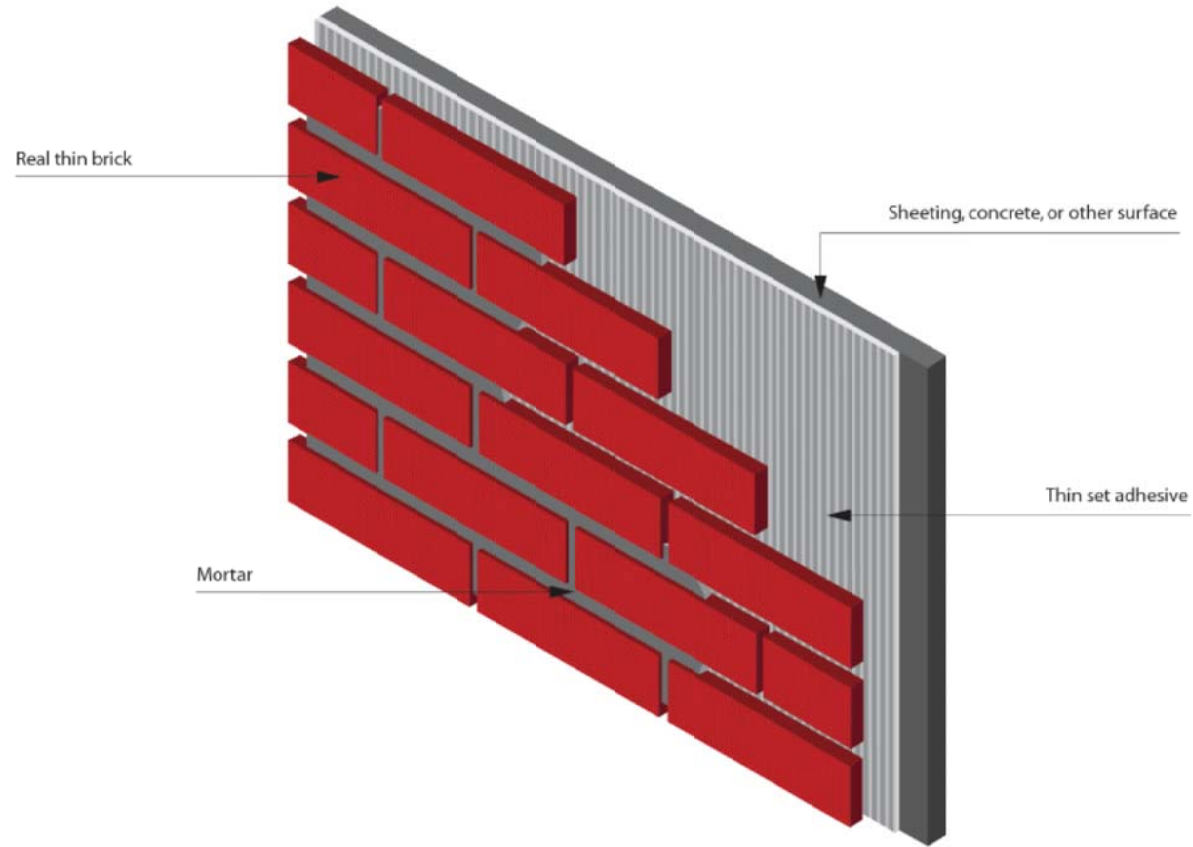
smartlink

Drawing Title  
GENERATOR  
DETAIL

Drawing Number  
C5



ENCLOSURE MANUFACTURER:  
• "BRICK IT" REAL THIN BRICK VENEER OR APPROVED EQUAL



1 GENERATOR ENCLOSURE EXTERIOR DETAIL  
C6 NOT TO SCALE

PROPOSED 8" CMU BLOCK WALL WITH  
ARCHITECTURAL FACE TO MATCH EXISTING  
BUILDING FACADE (WALL TO BE FILLED WITH  
CONCRETE TO BEARING HEIGHT)

W.7 WALL TIES EVERY OTHER COURSE

PROPOSED ARCHITECTURAL FACE  
(TYP.) (TO MATCH EXISTING  
BUILDING FACADE)

PROPOSED #5 REBAR @ 32" MIN.  
GROUT CORES WITH REBAR

DAMP PROOFING BELOW GRADE (TYP.)

THE "UNDISTURBED SOIL" BASE  
SHALL BE COMPACTED TO PASS  
AT LEAST 95% MODIFIED PROCTOR  
MAXIMUM DENSITY PER ASTM D  
1557 METHOD C

EXCAVATE AS REQUIRED TO  
REMOVE VEGETATION & TOP SOIL  
EXPOSE UNDISTURBED NATURAL  
SUB GRADE  
MINIMUM OF 4" GRAVEL SHALL  
PASS A 1" SIEVE

PROPOSED 3'-0"x1'-0" CONCRETE  
FOOTING WITH (3) #5 BARS  
CONTINUOUS ON CHAIRS

STONE BASE ON UNDISTURBED SOIL  
(FINAL GRADE SLOPE AWAY FROM  
CONCRETE)

GEOTEXTILE FABRIC  
(MIRAFI 500X OR  
APPROVED EQUAL)

2 CMU SCREENWALL DETAIL  
C6 NOT TO SCALE

INFINIGY8

1033 WATERLIET SHAKER RD  
ALBANY, NY 12205  
TEL: (518) 680-0790  
FAX: (518) 680-0793

T-Mobile

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Project Number:  
499-033

Project Title:  
7WAC315N  
HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170

Prepared For:

smartlink

Drawing Title  
GENERATOR  
ENCLOSURE  
DETAIL

Drawing Number

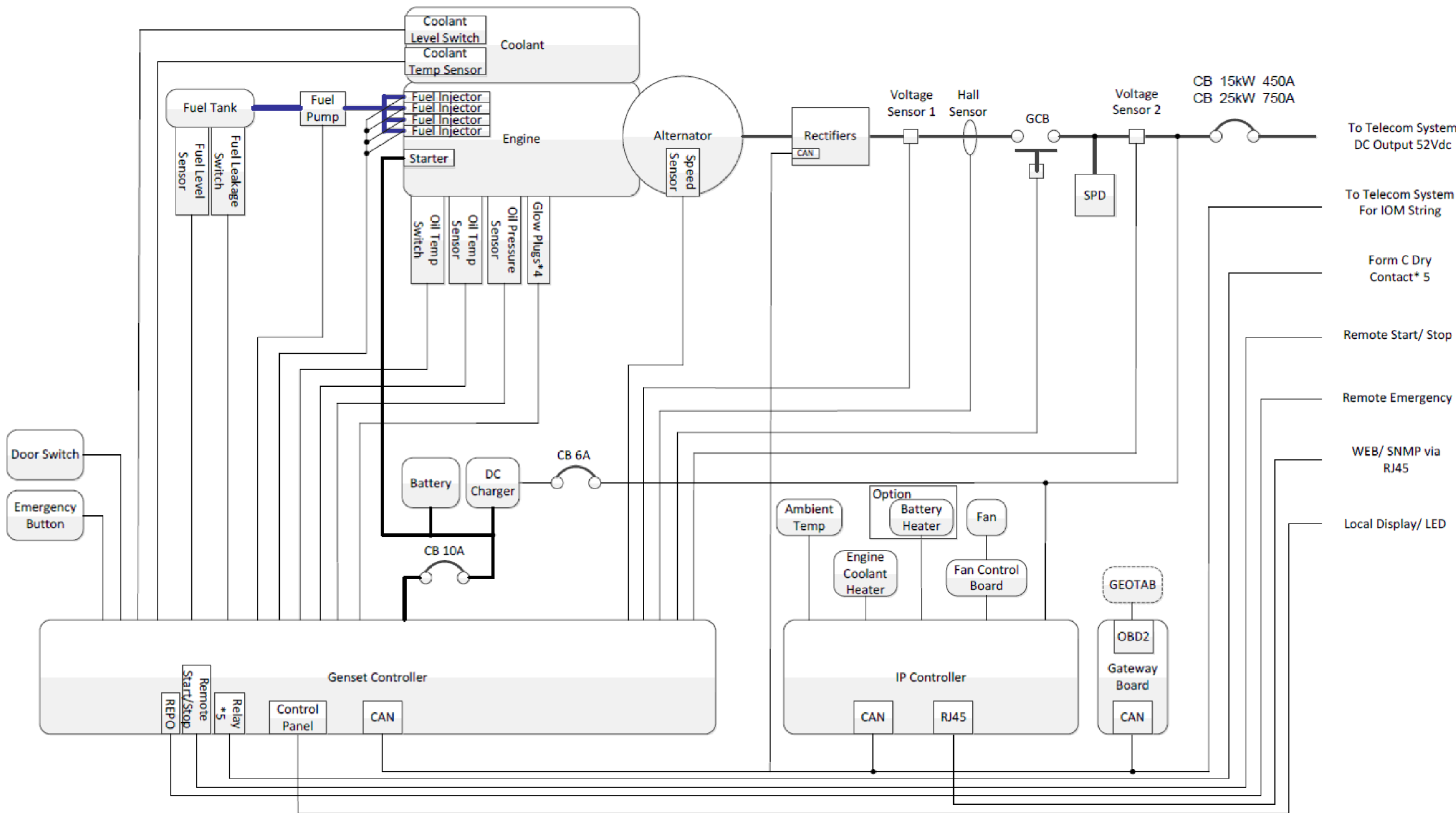
C6





## C7





1 GENERATOR BLOCK DIAGRAM  
C8 NOT TO SCALE

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Project Number: 499-033

Project Title:  
**7WAC315N**  
HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170

Prepared For:

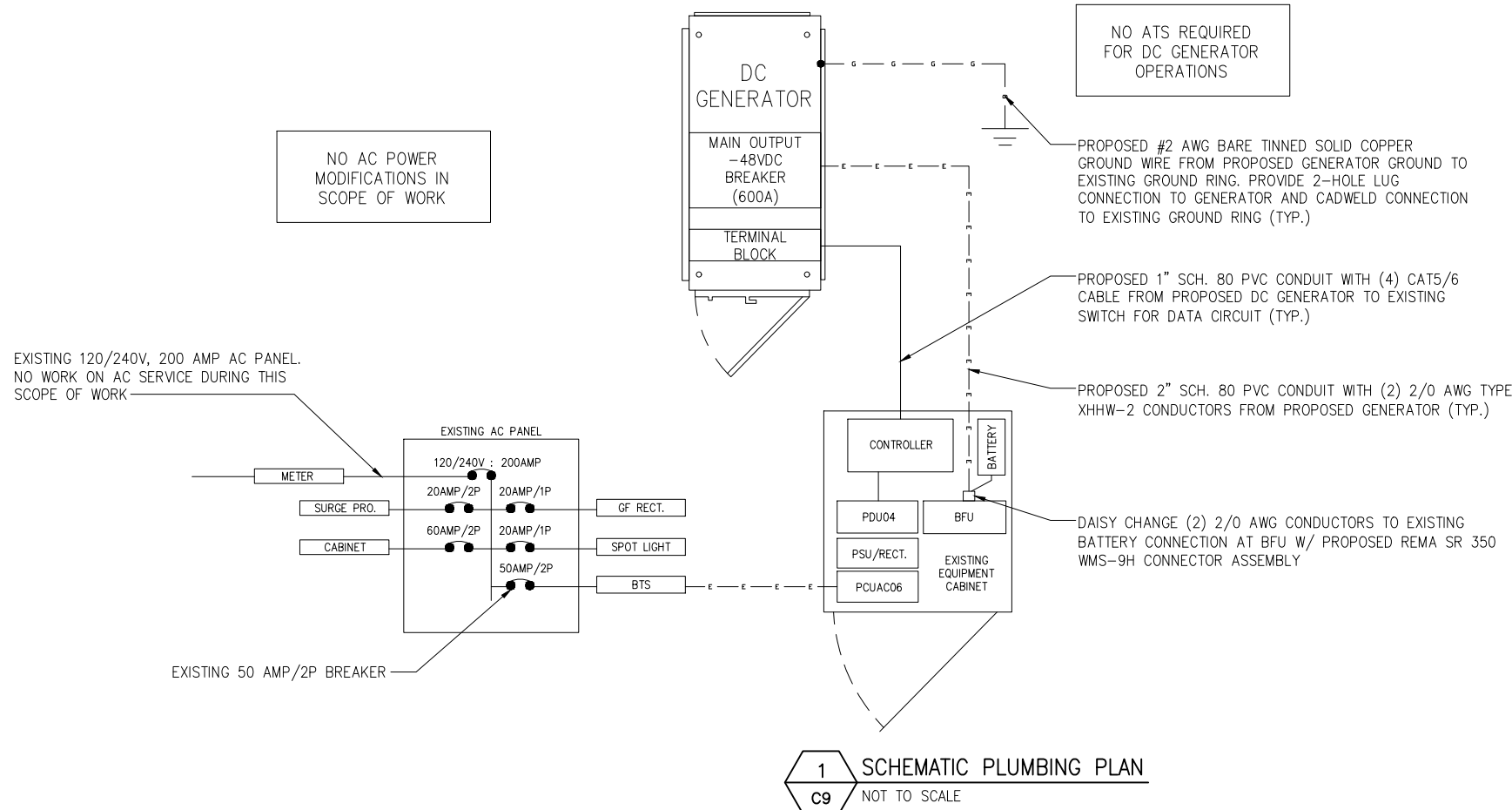


Drawing Title

**GENERATOR  
DIAGRAM**

Drawing Number

**C8**

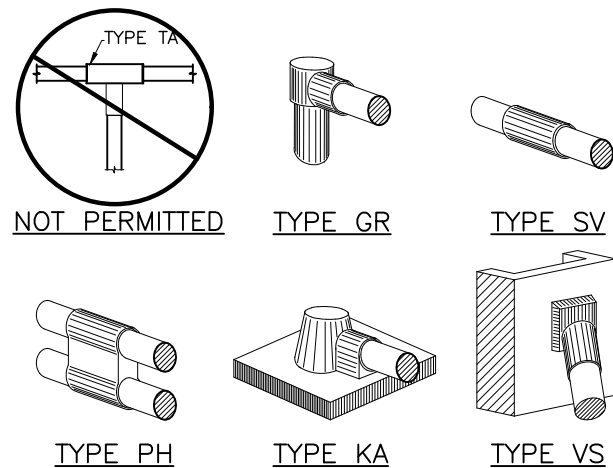


NOTE:  
NO EXOTHERMIC WELD ON ROOFTOPS

GROUNDING SYMBOLS

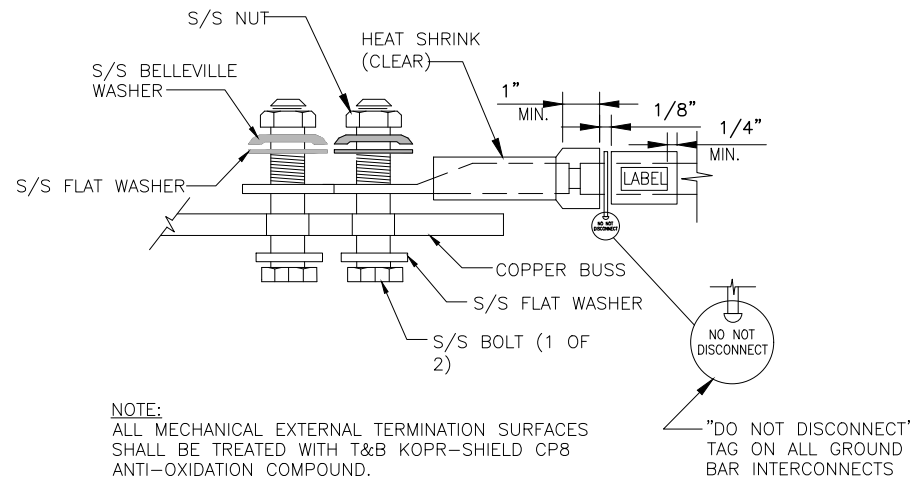
■ COMPRESSION TYPE CONNECTION

● EXOTHERMIC WELD TYPE CONNECTION



2 CADWELDS (TYPICAL)

C9 NOT TO SCALE



3 EQUIPMENT GROUND CONNECTION

C9 NOT TO SCALE

### GENERAL GROUNDING NOTES:

- BOND PPC AND EQUIPMENT ENCLOSURES TO BURIED GROUNDING CONDUCTOR. USE A NEMA DRILLED, TWO-HOLE CONNECTOR FOR BONDS TO EQUIPMENT ENCLOSURES; USE AN APPROVED CONDUIT CLAMP FOR CONNECTIONS TO SERVICE CONDUITS. EXOTHERMICALLY WELD CONNECTIONS TO GROUNDING CONDUCTOR.
- BOND ALL EXTERIOR CONDUITS, PIPES AND CYLINDRICAL METALLIC OBJECTS WITH A PENN-UNION GT SERIES CLAMP, BLACKBURN GUV SERIES CLAMP OR A BURNDY GAR 3900BU SERIES CLAMP ONLY. NO SUBSTITUTES ACCEPTED.
- AFTER INSTALLATION IS COMPLETED IN CONFORMANCE WITH THESE DRAWINGS AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL CONFIRM THE IMPEDANCE (GROUND RESISTANCE) TO EARTH AND BETWEEN GROUNDING CIRCUITS. THE GROUNDING SYSTEM IS EXPECTED TO PROVIDE FOR A MAXIMUM EARTH RESISTANCE OF 5 OHMS. THE CONTRACTOR SHALL NOTIFY T-MOBILE PRIOR TO ALL TESTING AND SHALL FURTHER NOTIFY T-MOBILE IN THE EVENT THE EARTH RESISTANCE IS GREATER THAN 5 OHMS.
- ALL GROUNDING INSTALLATION IS TO BE IN ACCORDANCE WITH THE T-MOBILE WIRELESS STANDARDS AND SUPPLEMENTS PROVIDED BY THE PROJECT MANAGER.
- ALL BENDS ON THE GROUND CONDUCTOR TO BE MADE WITH A MINIMUM 24" RADIUS.
- ALL GROUND LEADS MUST TERMINATE AT MGB, NOT HALO.
- MUST USE INSPECTION HOLE LUGS FOR GROUNDING.
- NO OVERLAPPING GROUND HARDWARE.
- WHERE MECHANICAL CONNECTIONS ARE USED (TWO HOLE OR CRIMP), APPLY A LIBERAL PROTECTIVE COATING OF A CONDUCTIVE ANTI-OXIDE COMPOUND ON ALL CONNECTORS SUCH AS NO-OX OR APPROVED EQUAL.

INFINIGY2

1033 WATERLIET SHAKER RD  
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7WAC315N  
HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170

Prepared For:

smartlink

Drawing Title  
PLUMBING & GROUNDING DETAILS

Drawing Number

C9



ELECTRICAL NOTES:

- WORK INCLUDED
1. INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, PLANT SERVICES AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE THE ELECTRICAL WORK SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
    - A. PREPARE AND SUBMIT SHOP DRAWINGS, DIAGRAMS AND ILLUSTRATIONS.
    - B. PROCURE ALL NECESSARY PERMITS AND APPROVALS AND PAY ALL REQUIRED FEES AND CHARGES IN CONNECTION WITH THE WORK OF THIS CONTRACT.
    - C. SUBMIT AS-BUILT DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTIONS AND MANUALS.
    - D. EXECUTE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING OF (E) OR NEWLY INSTALLED CONSTRUCTION REQUIRED FOR THE WORK OF THIS CONTRACT. FOR SLAB PENETRATIONS THROUGH POST TENSION SLABS, X-RAY EXACT AREA OF PENETRATION PRIOR TO PERFORMING WORK. COORDINATE ALL X-RAY WORK WITH BUILDING ENGINEER.
    - E. PROVIDE HANGERS, SUPPORTS, FOUNDATIONS, STRUCTURAL FRAMING SUPPORTS, AND BASES FOR CONDUIT AND EQUIPMENT PROVIDED OR INSTALLED UNDER THE WORK OF HIS CONTRACT. PROVIDE COUNTER FLASHING, SLEEVES AND SEALS FOR FLOOR AND WALL PENETRATIONS.
    - F. MAINTAIN ALL (E) ELECTRICAL SERVICES IN THE BUILDING AREAS NOT AFFECTED BY THE ALTERATION DURING THE PROGRESS OF THE WORK INCLUDING PROVIDING ALL TEMPORARY JUMPERS, CONDUITS, CAPS, PROTECTIVE DEVICES, CONNECTIONS AND EQUIPMENT REQUIRED. PROVIDE TEMPORARY LIGHT AND POWER FOR CONSTRUCTION PURPOSES.
  2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO CALL FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT. IT IS NOT THE INTENT TO GIVE EVERY DETAIL ON THE DRAWINGS AND IN THE SPECIFICATIONS. IF AN ITEM OF WORK IS INDICATED IN THE DRAWINGS, IT IS CONSIDERED SUFFICIENT FOR INCLUSION IN THE CONTRACT. FURNISH AND INSTALL ALL MATERIAL AND EQUIPMENT USUALLY FURNISHED OR NEEDED TO MAKE A COMPLETE INSTALLATION WHETHER OR NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.

- GENERAL REQUIREMENTS
1. PROVIDE ALL WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL AND STATE ELECTRICAL CODES.
  2. THE ELECTRICAL PLANS ARE DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING.
  3. LOAD CALCULATIONS ARE BASED ON (E) BUILDING INFORMATION/DRAWINGS PROVIDED TO ENGINEERING. CONTRACTOR IS TO VERIFY ALL (E) RATINGS AND LOADS PRIOR TO PURCHASING OF SPECIFIED EQUIPMENT FOR COMPLIANCE TO NEC. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES AND REQUEST FURTHER DIRECTION BY ENGINEER.
  4. (E) BUILDING EQUIPMENT IS NOTED ON THE DRAWINGS. NEW OR RELOCATED EQUIPMENT IS SHOWN WITH SOLID LINES. FUTURE EQUIPMENT (NOT IN THIS CONTRACT) IS DEPICTED WITH SHADED LINES. REQUEST CLARIFICATION OF DRAWINGS OR OF SPECIFICATIONS PRIOR TO PRICING OR INSTALLATION.
  5. GENERAL
    - A. AFTER CAREFULLY STUDYING THE DRAWINGS AND SPECIFICATIONS, AND BEFORE SUBMITTING THE PROPOSAL, MAKE A MANDATORY SITE VISIT TO ASCERTAIN CONDITIONS OF THE SITE, AND THE NATURE AND EXACT QUANTITY OF WORK TO BE PERFORMED. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO NOTIFY THE OWNER, IN WRITING, OF ANY DISCREPANCIES THAT MAY HAVE BEEN NOTED BETWEEN THE (E) CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS.
    - B. VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR CORRECTNESS OF SAME.
  6. QUALITY, WORKMANSHIP, MATERIALS AND SAFETY
    - A. PROVIDE NEW MATERIALS AND EQUIPMENT OF A DOMESTIC MANUFACTURER BY THOSE REGULARLY ENGAGED IN THE PRODUCTION AND MANUFACTURE OF SPECIFIED MATERIALS AND EQUIPMENT. WHERE UL, OR OTHER AGENCY, HAS ESTABLISHED STANDARDS FOR MATERIALS, PROVIDE MATERIALS WHICH ARE LISTED AND LABELED ACCORDINGLY. THE COMMERCIALLY STANDARD ITEMS OF EQUIPMENT AND THE SPECIFIC NAMES MENTIONED HEREIN ARE INTENDED FOR THE PROPER FUNCTIONING OF THE WORK.
    - B. WORK SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE REQUIRED FOR THE WORK. INSTALL MATERIALS AND EQUIPMENT TO PRESENT A NEAT APPEARANCE WHEN COMPLETED AND IN ACCORDANCE WITH THE APPROVED RECOMMENDATIONS OF THE MANUFACTURER AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
    - C. PROVIDE LABOR, MATERIALS, APPARATUS AND APPLIANCES ESSENTIAL TO THE FUNCTIONING OF THE SYSTEMS DESCRIBED OR INDICATED HEREIN, OR WHICH MAY BE REASONABLY IMPLIED AS ESSENTIAL WHENEVER MENTIONED IN THE CONTRACT DOCUMENT OR NOT.
    - D. MAKE WRITTEN REQUESTS FOR SUPPLEMENTARY INSTRUCTIONS TO ARCHITECT/ENGINEER IN CASE OF DOUBT AS TO WORK INTENDED OR IN EVENT OF NEED FOR EXPLANATION THEREOF.
    - E. PERFORMANCE AND MATERIAL REQUIREMENTS SCHEDULED OR SPECIFIED ARE MINIMUM STANDARD ACCEPTABLE. THE RIGHT TO JUDGE THE QUALITY OF EQUIPMENT THAT DEVIATES FROM THE CONTRACT DOCUMENT REMAINS SOLELY WITH ARCHITECT/ENGINEER. CONTRACT DOCUMENT OR NOT.
- GUARANTEE
1. GUARANTEE MATERIALS, PARTS AND LABOR FOR WORK FOR ONE YEAR FROM THE DATE OF ISSUANCE OF OCCUPANCY PERMIT. DURING THAT PERIOD, MAKE GOOD FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP WITH NO ADDITIONAL COMPENSATION AND AS DIRECTED BY ARCHITECT.

- CLEANING
1. REMOVE ALL CONSTRUCTION DEBRIS RESULTING FROM THE WORK.
  2. CLEAN EQUIPMENT AND SYSTEMS FOLLOWING THE COMPLETION OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER.
- COORDINATION AND SUPERVISION
1. CAREFULLY LAY OUT ALL WORK IN ADVANCE TO AVOID UNNECESSARY CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS, WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES. WHERE SUCH WORK IS NECESSARY, HOWEVER, PATCH AND REPAIR THE WORK IN AN APPROVED MANNER BY SKILLED MECHANICS AT NO ADDITIONAL COST TO THE OWNER. RENDER FULL COOPERATION TO OTHER TRADES WHERE WORK WILL BE INSTALLED IN CLOSE PROXIMITY TO WORK OF OTHER TRADES. ASSIST IN WORKING OUT SPACE CONDITIONS. IF WORK IS INSTALLED BEFORE COORDINATION WITH OTHER TRADES, OR CAUSES INTERFERENCE, MAKE CHANGES NECESSARY TO CORRECT CONDITIONS WITHOUT EXTRA CHARGE.

- SUBMITTALS
1. AS-BUILT DRAWINGS:
    - A. UPON COMPLETION OF THE WORK, FURNISH TO THE OWNER "AS-BUILT" DRAWINGS.
  2. SERVICE MANUALS:
    - A. UPON COMPLETION OF THE WORK, FULLY INSTRUCT T-MOBILE AS TO THE OPERATION AND MAINTENANCE OF ALL MATERIAL, EQUIPMENT AND SYSTEMS.
    - B. PROVIDE 3 COMPLETE BOUND SETS OF INSTRUCTIONS FOR OPERATING AND MAINTAINING ALL SYSTEMS AND EQUIPMENT.

- CUTTING AND PATCHING
1. PROVIDE ALL CUTTING, DRILLING, ROUGH AND FINISH PATCHING REQUIRED TO COMPLETE THE WORK.
  2. OBTAIN OWNER APPROVAL PRIOR TO CUTTING THROUGH FLOORS OR WALLS FOR PIPING OR CONDUIT.

- TESTS, INSPECTION AND APPROVAL
1. BEFORE ENERGIZING ANY ELECTRICAL INSTALLATION, INSPECT EACH UNIT IN DETAIL. TIGHTEN ALL BOLTS AND CONNECTIONS (TORQUE-TIGHTEN WHERE REQUIRED) AND DETERMINE THAT ALL COMPONENTS ARE ALIGNED, AND THE EQUIPMENT IS IN SAFE, OPERATIONAL CONDITION.
  2. PROVIDE THE COMPLETE ELECTRICAL SYSTEM FREE OF GROUND FAULTS AND SHORT CIRCUITS SUCH THAT THE SYSTEM WILL OPERATE SATISFACTORILY UNDER FULL LOAD CONDITIONS, WITHOUT EXCESSIVE HEATING AT ANY POINT IN THE SYSTEM.

- SPECIAL REQUIREMENTS
1. DO NOT LEAVE ANY WORK INCOMPLETE NOR ANY HAZARDOUS SITUATIONS CREATED WHICH WILL AFFECT THE LIFE OR SAFETY OF THE PUBLIC AND/OR BUILDING OCCUPANTS. DO NOT INTERFERE WITH OR CUTOFF ANY OF THE (E) SERVICES WITHOUT THE OWNER'S WRITTEN PERMISSION.
  2. WHEN NECESSARY TO TEMPORARILY DISCONNECT ANY (E) BUILDING UTILITIES AND SERVICE SYSTEMS, INCLUDING FEEDER OR BRANCH CIRCUITING SUPPLYING (E) FACILITIES, CONFER WITH THE OWNER AND ARRANGE THE PERIOD OF INTERRUPTION FOR A TIME MUTUALLY AGREED UPON.  
SHUTDOWN NOTE: SCHEDULE AND NOTIFY OWNER 48 HOURS PRIOR TO SHUTDOWN. ALL SHUTDOWN WORK TO BE SCHEDULED AT A TIME CONVENIENT TO OWNER.

- GROUNDING
1. ROUTE ALL GROUNDING CONDUCTORS AS SHOWN ON CONDUIT/GROUNDING RISER.
  2. ROUTE 500 KCMIL CU. THHN CONDUCTOR FROM THE MGB LOCATION TO BUILDING STEEL. VERIFY BUILDING STEEL IS EFFECTIVELY GROUNDED PER NEC TO THE MAIN SERVICE GROUNDING ELECTRODE CONDUCTOR (GEC).
  3. MAKE ALL GROUND CONNECTIONS FROM MGB TO ELECTRICAL EQUIPMENT WITH 2 HOLE, CRIMP TYPE, BURNDY COMPRESSION TERMINATIONS, SIZED AS REQUIRED.
  4. USE 1 HOLE, CRIMP TYPE, BURNDY COMPRESSIONS TERMINATIONS, SIZED AS REQUIRED, AT EQUIPMENT GROUND CONNECTIONS.
  5. HIRE AN INDEPENDENT LAB TO PERFORM THE SPECIFIED OHMS TESTING. PROVIDE 4 SETS OF THE CERTIFIED DOCUMENTS TO THE OWNER FOR VERIFICATION PRIOR TO THE PROJECT COMPLETION.

- RACEWAYS
1. ALL WIRING TO BE INSTALLED IN CONDUIT SYSTEMS IN ACCORDANCE WITH THE FOLLOWING:
    - A. EXTERIOR FEEDERS AND CONTROL, WHERE UNDERGROUND, TO BE IN SCH 40 PVC.
    - B. EXTERIOR, ABOVE GROUND POWER CONDUITS TO BE GALVANIZED RIGID STEEL (RGS).
    - C. ALL TELECOMMUNICATION CONDUITS, INTERIOR/EXTERIOR, TO BE EMT.
    - D. INSTALL PULL ROPES IN ALL NEW EMPTY CONDUITS INSTALLED ON THIS PROJECT.
    - E. ALL TELECOM CONDUITS AND PULL BOXES INSTALLED ON THIS PROJECT TO BE LABELED "T-MOBILE". OWNER WILL PROVIDE LABELS FOR CONTRACTOR TO INSTALL.
    - F. INTERIOR FEEDERS TO BE INSTALLED IN E.M.T. WITH STEEL COMPRESSION FITTINGS.
    - G. MINIMUM SIZE CONDUIT TO BE ¾" TRADE SIZE, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
    - H. FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT TO BE INSTALLED IN LIQUID-TIGHT FLEXIBLE METAL CONDUIT.
    - I. CONDUIT TO BE RUN CONCEALED IN CEILINGS, FINISHED AREAS OR DRYWALL PARTITIONS, UNLESS OTHERWISE NOTED.
    - J. THE ROUTING OF CONDUITS INDICATED ON THE DRAWINGS IS DIAGRAMMATIC. BEFORE INSTALLING ANY WORK, EXAMINE THE WORKING LAYOUTS AND SHOP DRAWINGS OF THE OTHER TRADES TO DETERMINE THE EXACT LOCATIONS AND CLEARANCES.
    - K. ALL EXTERIOR MOUNTING HARDWARE TO BE GALVANIZED STEEL. COORDINATE WITH BUILDING ENGINEER PRIOR TO ATTACHING TO BUILDING STRUCTURE.

- RACEWAYS CONT'D
- L. PENETRATIONS OF WALLS, FLOORS AND ROOFS, FOR THE PASSAGE OF ELECTRICAL RACEWAYS, TO BE PROPERLY SEALED AFTER INSTALLATION OF RACEWAYS SO AS TO MAINTAIN THE STRUCTURAL OR WATERPROOF INTEGRITY OF THE WALL, FLOOR OR ROOF SYSTEM TO BE PENETRATED. SEAL ALL CONDUIT PENETRATIONS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS OR SMOKE TIGHT CORRIDOR PARTITIONS TO MAINTAIN PROPER RATING OF WALL OR CEILING.
  - M. PROVIDE ALL CONDUIT ENDS WITH INSULATED METALLIC GROUNDING BUSHINGS.
  - N. CONDUIT TO BE SUPPORTED AT MAXIMUM DISTANCE OF 8'-0", OR AS REQUIRED BY NEC, IN HORIZONTAL AND VERTICAL DIRECTIONS.
  - O. PROVIDE STAINLESS STEEL BLANK COVER PLATES FOR ALL JUNCTION BOXES AND/OR OUTLET BOXES NOT USED IN EXPOSED AREAS. PROVIDE ALL OTHER UNUSED BOXES WITH STANDARD STEEL COVER PLATES.
  - P. WHERE APPLICABLE, PROVIDE ROOFTOP CONDUIT SUPPORT SYSTEM, CONFORMING TO ROOFTOP WARRANTY REQUIREMENTS, PER BUILDING.

- WIRES AND CABLES
1. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIER AND VENDOR FOR EXACT EQUIPMENT OVER-CURRENT PROTECTION VOLTAGE, WIRE SIZE AND PLUG CONFIGURATION, IF APPLICABLE, PRIOR TO BID.
  2. ALL EQUIPMENT/DEVICES TO BE PROVIDED WITH INSULATED GROUND CONDUCTOR.
  3. ALL WIRE AND CABLE TO BE 600VOLT, COPPER, WITH THWN/ THHN INSULATION, EXCEPT AS NOTED.
  4. WIRE FOR POWER AND LIGHTING WILL NOT BE LESS THAN NO. 12AWG. ALL WIRE NO. 8 AND LARGER TO BE STRANDED.
  5. CONTROL WIRING IS NOT TO BE LESS THAN NO. 14AWG, FLEXIBLE IN SINGLE CONDUCTORS OR MULTI-CONDUCTOR CABLES. CONTROL WIRING WILL CONSIST OF MULTI-CONDUCTOR CABLES WHEREVER POSSIBLE. CABLES TO BE PROVIDED WITH AN OVERALL FLAME-RETARDANT, EXTRUDED JACKET AND RATED FOR PLENUM USE. ALL CONTROL WIRE TO BE 600VOLT RATED.
  6. WIRE PREVIOUSLY PULLED INTO CONDUIT IS CONSIDERED USED AND IS NOT TO BE RE-PULLED.
  7. HOME RUNS AND BRANCH CIRCUIT WIRING FOR 20A, 120V CIRCUITS:

| LENGTH (FT.) | HOME RUN WIRE SIZE |
|--------------|--------------------|
| 0 TO 50      | NO. 12             |
| 51 TO 100    | NO. 10             |
| 101 TO 150   | NO. 8              |

8. VOLTAGE DROP IS NOT TO EXCEED 3%.

9. MAKE ALL CONNECTIONS WITH UL APPROVED, SOLDERLESS, PRESSURE TYPE INSULATED CONNECTORS: SCOTCHLOK OR AND APPROVED EQUAL.

- WIRING DEVICES
1. ALL RECEPTACLES INSTALLED IN THIS PROJECT TO BE GROUNDING TYPE, WITH GROUNDING PIN SLOT CONNECTED TO DEVICE GROUND SCREW FOR GROUND WIRE CONNECTION.
- DISCONNECT SWITCHES AND FUSES
1. DISCONNECT SWITCHES TO BE VOLTAGE-RATED TO SUIT THE CHARACTERISTICS OF THE SYSTEM FROM WHICH THEY ARE SUPPLIED.
  2. PROVIDE HEAVY-DUTY, METAL-ENCLOSED, EXTERNALLY-OPERATED DISCONNECT SWITCHES, FUSED OR UNFUSED, OF SUCH TYPE AND SIZE AS REQUIRED TO PROPERLY PROTECT OR DISCONNECT THE LOAD FOR WHICH THEY ARE INTENDED.
  3. PROVIDE NEMA 1 DISCONNECT SWITCHES FOR INTERIOR INSTALLATION, NEMA 3R FOR EXTERIOR INSTALLATION.
  4. DISCONNECT SWITCHES TO BE MANUFACTURED BY:
    - A. GENERAL ELECTRIC COMPANY
    - B. SQUARE-D
  5. PROVIDE RK-1 TYPE FUSES, UNLESS NOTED OTHERWISE.

- INSTALLATION
1. INSTALL DISCONNECT SWITCHES WHERE INDICATED ON DRAWINGS.
  2. INSTALL FUSES IN FUSIBLE DISCONNECT SWITCHES. FUSES MUST MATCH IN TYPE AND RATING.
  3. FUSES TO BE MOUNTED SO THAT THE LABELS SHOWING THEIR RATINGS CAN BE READ WITHOUT REQUIRING FUSE REMOVAL.
  4. FURNISH AND DEPOSIT SPARE FUSES AT THE JOB SITE AS FOLLOWS:
    - A. THREE SPARES FOR EACH TYPE AND SIZE, IN EXCESS OF 60A, USED FOR INITIAL FUSING.
    - B. TEN PERCENT SPARES FOR EACH TYPE AND SIZE, UP TO AND INCLUDING 60A, USED FOR INITIAL FUSING. IN NO CASE WILL LESS THAN THREE FUSES OF ONE PARTICULAR TYPE AND SIZE BE FURNISHED.

GENERAL NOTES:

- INTENT
1. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
  2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED, OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH.
  3. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
  4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
  5. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

- CONFLICTS
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATIONS OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
  2. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
  3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

- CONTRACTS AND WARRANTIES
1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.
  2. SEE MASTER CONTRACTION SERVICES AGREEMENT FOR ADDITIONAL DETAILS.

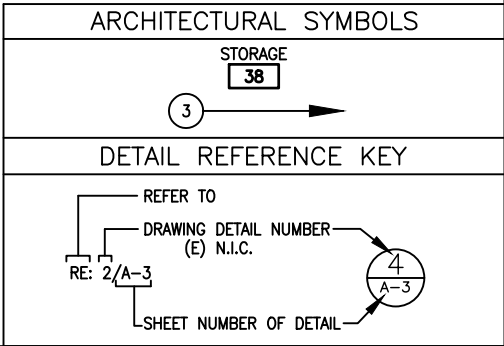
- STORAGE
1. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

- CLEANUP
1. THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK. THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY TO USE.
  2. EXTERIOR
    - A. VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
    - B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
    - C. IF NECESSARY, TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
  3. INTERIOR
    - A. VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS, FLOOR, AND CEILING.
    - B. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
    - C. REMOVE PAINT DROPPINGS, SPOTS, STAINS, AND DIRT FROM FINISHED SURFACES.

- CHANGE ORDER PROCEDURE:
1. REFER TO SECTION 17 OF SIGNED MCSA: SEE PROFESSIONAL SERVICE AGREEMENT FOR MCSA.

- RELATED DOCUMENTS AND COORDINATION
1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
- SHOP DRAWINGS
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
  2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

- PRODUCTS AND SUBSTITUTIONS
1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST, IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
  2. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER, SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.



- QUALITY ASSURANCE
1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE, BUT NOT BE LIMITED TO THE APPLICABLE CODES SET FORTH BY THE LOCAL GOVERNING BODY. SEE "CODE COMPLIANCE" T-1.
- ADMINISTRATION
1. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
  2. SUBMIT A BAR TYPE PROGRESS CHART, NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT THE SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
  3. PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE, BUT NOT LIMITED TO, THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
  4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
  5. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL WPCS SAFETY REQUIREMENTS IN THEIR AGREEMENT.
  6. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
  7. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
  8. NOTIFY THE OWNER/PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

- INSURANCE AND BONDS
1. CONTRACTOR, AT THEIR OWN EXPENSE, SHALL CARRY AND MAINTAIN, FOR THE DURATION OF THE PROJECT, ALL INSURANCE, AS REQUIRED AND LISTED, AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
  2. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
  3. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

| ABBREVIATIONS |                               |  |  |
|---------------|-------------------------------|--|--|
| ADJ           | ADJUSTABLE                    |  |  |
| AGL           | ABOVE GROUND LINE             |  |  |
| &             | AND                           |  |  |
| APPROX        | APPROXIMATE                   |  |  |
| ⊙             | AT                            |  |  |
| BTS           | BASE TRANSMISSION STATION     |  |  |
| CAB           | CABINET                       |  |  |
| CLG           | CEILING                       |  |  |
| CONC          | CONCRETE                      |  |  |
| CONT          | CONTINUOUS                    |  |  |
| DIA OR Ø      | DIAMETER                      |  |  |
| DWG           | DRAWING                       |  |  |
| EA            | EACH                          |  |  |
| ELEC          | ELECTRICAL                    |  |  |
| ELEV          | ELEVATION                     |  |  |
| EQ            | EQUAL                         |  |  |
| EQUIP         | EQUIPMENT                     |  |  |
| EGB           | EQUIPMENT GROUND BAR          |  |  |
| EXT           | EXTERIOR                      |  |  |
| FF            | FINISHED FLOOR                |  |  |
| GA            | GAUGE                         |  |  |
| GALV          | GALVANIZED                    |  |  |
| GC            | GENERAL CONTRACTOR            |  |  |
| GRND          | GROUND                        |  |  |
| LG            | LONG                          |  |  |
| MAX           | MAXIMUM                       |  |  |
| MECH          | MECHANICAL                    |  |  |
| MW            | MICROWAVE DISH                |  |  |
| MFR           | MANUFACTURER                  |  |  |
| MGB           | MASTER GROUND BAR             |  |  |
| MIN           | MINIMUM                       |  |  |
| MTL           | METAL                         |  |  |
| NIC           | NOT IN CONTRACT               |  |  |
| NTS           | NOT TO SCALE                  |  |  |
| OC            | ON CENTER                     |  |  |
| OPP           | OPPOSITE                      |  |  |
| PCS           | PERSONAL COMMUNICATION SYSTEM |  |  |
| PPC           | POWER PROTECTION CABINET      |  |  |
| SF            | SQUARE FOOT                   |  |  |
| SHT           | SHEET                         |  |  |
| SIM           | SIMILAR                       |  |  |
| SS            | STAINLESS STEEL               |  |  |
| STL           | STEEL                         |  |  |
| TOC           | TOP OF CONCRETE               |  |  |
| TOM           | TOP OF MASONRY                |  |  |
| TYP           | TYPICAL                       |  |  |
| VIF           | VERIFY IN FIELD               |  |  |
| UON           | UNLESS OTHERWISE NOTED        |  |  |
| WWF           | WELDED WIRE FABRIC            |  |  |
| W/            | WITH                          |  |  |

INFINIGY 8

1033 WATERVLIET SHAKER RD  
ALBANY, NY 12205  
TEL (518) 680-0790  
FAX (518) 680-0793

TF - Mobile-

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

|               |                      |       |          |
|---------------|----------------------|-------|----------|
| C             | DESIGN REVISIONS     | RWF   | 01/21/19 |
| B             | DESIGN REVISIONS     | RWF   | 11/26/18 |
| A             | ISSUED FOR REVIEW    | SL    | 10/04/18 |
| No.           | Submittal / Revision | App'd | Date     |
| Drawn: RCD    |                      |       |          |
| Designed: MRL |                      |       |          |
| Checked: AJP  |                      |       |          |

Project Number:  
499-033

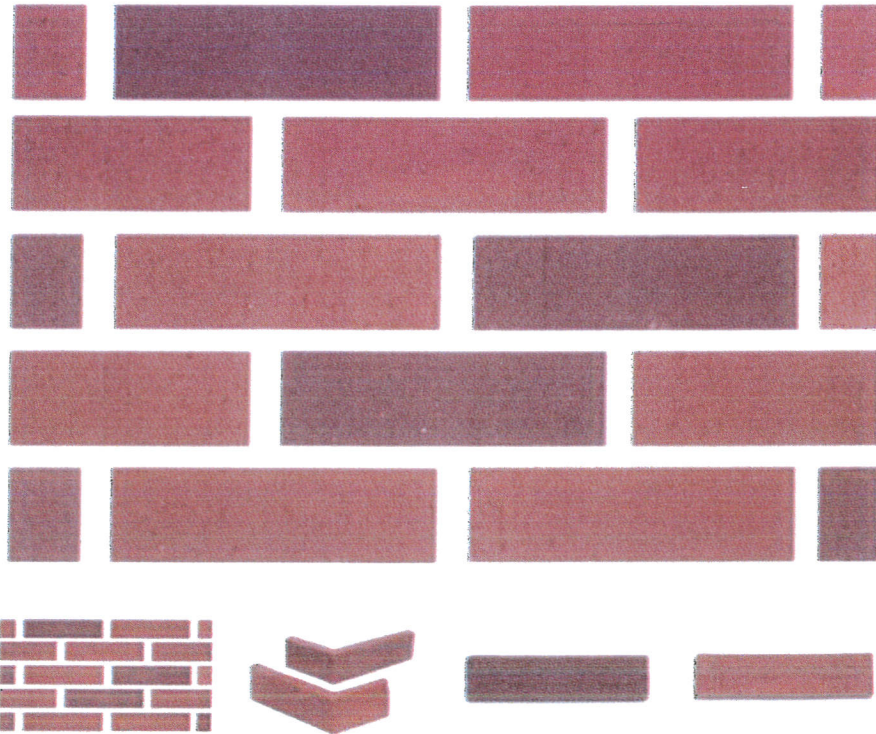
Project Title:  
7WAC315N  
HERNDON WATER

624 ALABAMA DRIVE  
HERNDON, VA 20170

Prepared For:  
smartlink

Drawing Title  
GENERAL NOTES

Drawing Number  
N1



## **OLD RED BLEND WIRECUT**



## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

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### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)



## STAFF REPORT

### Architectural Review Board

March 6, 2019

#### Title:

APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-13.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider replacement and installation of new rooftop telecommunication antennas and associated equipment with three (3) screened enclosures on the commercial office building located at 505 Huntmar Park Drive, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | Shannon West, Agent                                                                                                                                                            |
| Owner:             | Brit-Herndon Square LLC, c/o: Jeffrey Lee Conen                                                                                                                                |
| Use:               | Commercial / Office Building                                                                                                                                                   |
| Location:          | 505 Huntmar Park Drive                                                                                                                                                         |
| Tax Map Reference: | 0162-02-0156D                                                                                                                                                                  |
| Zoning of Site:    | O & LI, Office and Light Industrial                                                                                                                                            |
| Adjacent Zoning:   | North: O & LI, Office and Light Industrial<br>South: R-10, Residential Single Family<br>East: O & LI, Office and Light Industrial<br>West: O & LI, Office and Light Industrial |

#### Description:

The applicant proposes to install new telecommunications antennas and equipment with new enclosures to screen views of the new equipment. The proposal specifies removal of six (6) existing antennas and the installation of six (6) new antennas, as well as various communications and distribution boxes at (4) rooftop locations using a metal frame mounted on raised metal platforms. Each



platform and frame are to be enclosed with fiberglass reinforced plastic (FRP) panels painted to match the existing masonry (brick) façade color. Three of the enclosures will be 16'-7" X 19'-9", housing primarily antennas and the fourth enclosure will be 10' X 20', housing equipment and distribution boxes. Each equipment platform will not be visible from street level with the top of each enclosure having a height of approximately 9' above the top of the roof parapet wall. Three of the enclosures will be located on the south wing, of the building and one will be located on the north wing just east of a center point of the L-shaped building. The enclosures and structural support frames are sized/designed to accept additional antennas in the future (Attachment #3, #4, and #5).

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-13 with the following conditions:

1. The proposed enclosures are installed in substantial conformance with the application and supporting materials as submitted February 11, 2019.

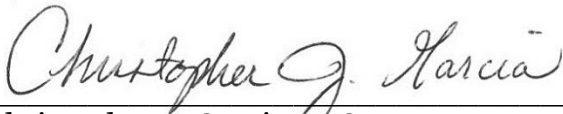
### **Staff Analysis:**

1. The proposed design of the enclosures complies with the Town's Zoning Ordinance Section 78-114.2. - Screening standards.
2. The proposed enclosures comply with the applicable design criteria within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).
3. The proposed installation clearly shows intent to visually screen the telecommunication equipment in a manner generally consistent with the building's façade design. While the enclosures will alter the roof line at two locations, the applicant has proposed a design is preferable to the less visually appealing exposed antennas.

### **Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing and Future Conditions
5. Enclosure Plan, Elevation, Details and Product Information
6. Town's Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**

A handwritten signature in black ink that reads "Christopher J. Garcia". The signature is written in a cursive style with a large, looping 'C' at the beginning.

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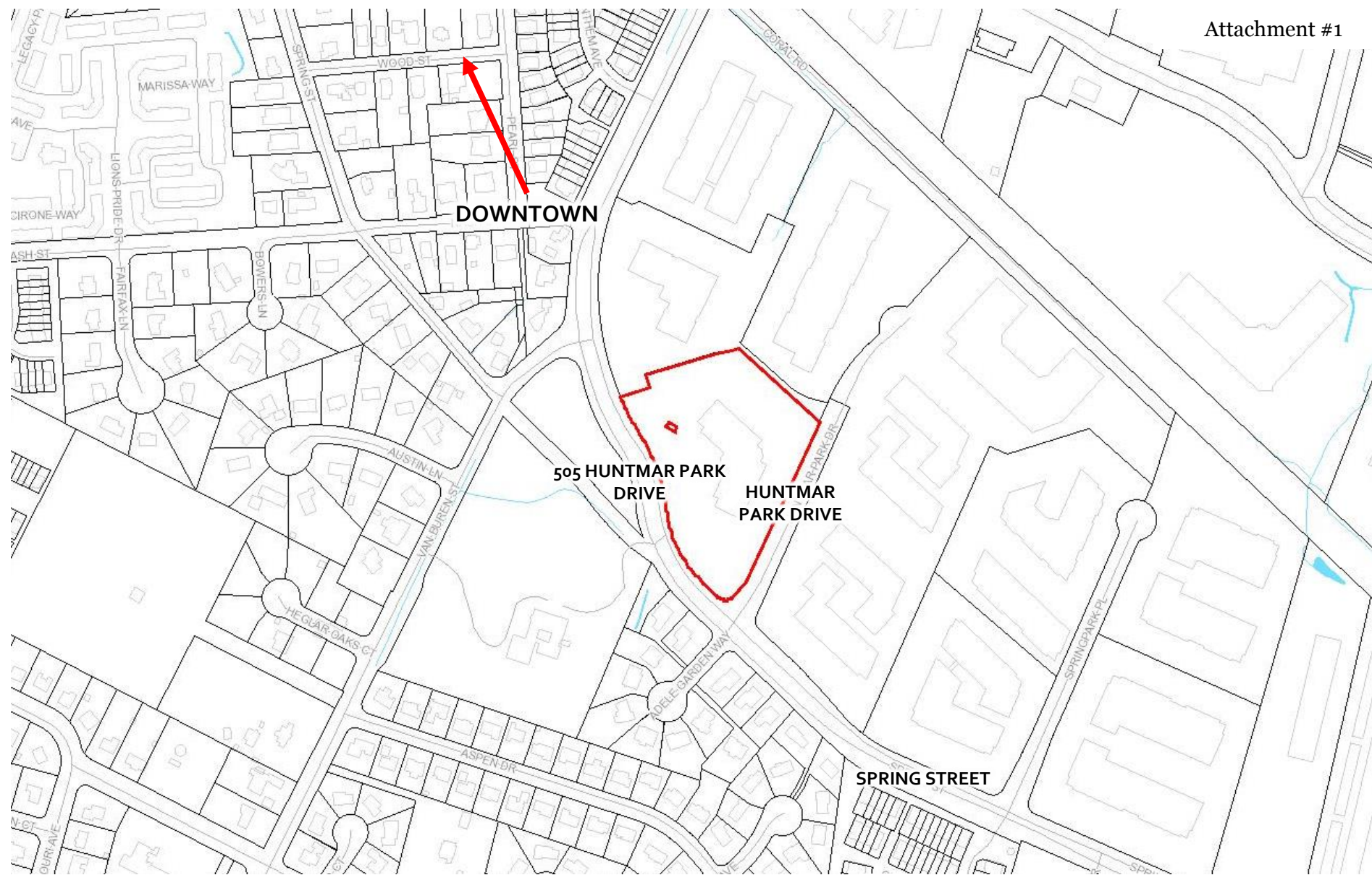
Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator

A handwritten signature in blue ink that reads "Bryce A. Perry". The signature is written in a cursive style with a large, looping 'B' at the beginning.

---

Bryce A. Perry  
Deputy Director of Community Development





## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map  
Viewer





## SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018





**Wireless Real Estate Solutions**



November 15, 2018

The Town of Herndon  
 Mark Holland  
 Herndon Municipal Center  
 777 Lynn Street, Second Floor  
 Herndon, VA 20170  
 (703) 787-7380

RE: Sprint Modifications to Existing Telecommunication Facility  
 Site# DC52XC007  
 Site Location: 505 Huntmar Park Drive

Mark:

Sprint is proposing to complete antenna modifications to the above referenced existing telecommunication facility. The proposed modifications will increase customer service area and speed. It is better suited to make modifications to this existing facility versus building a new telecommunication facility in the nearby area thus resulting in no impact in the area and complying with the spirit and intent of the Town's approvals and regulations.

Sprint's proposed work will be to remove 6 existing antennas and associated equipment and install 6 new antennas and associated equipment on an existing building

The following items are included for your review and approval:

- Building Permit Application
- (3) 11x17 Stamped & Sealed Construction Drawings
- (3) Stamped & Sealed Structural Reports

Should you have any questions, please feel free to contact me at 404-889-0359 or [shannonwest@willinconsultants.com](mailto:shannonwest@willinconsultants.com). Sprint and WCI appreciate the assistance that we have received, and we look forward to working with you to better serve the public in this area.

Thank you in advance for your consideration of this matter.

Sincerely,

*Shannon West*

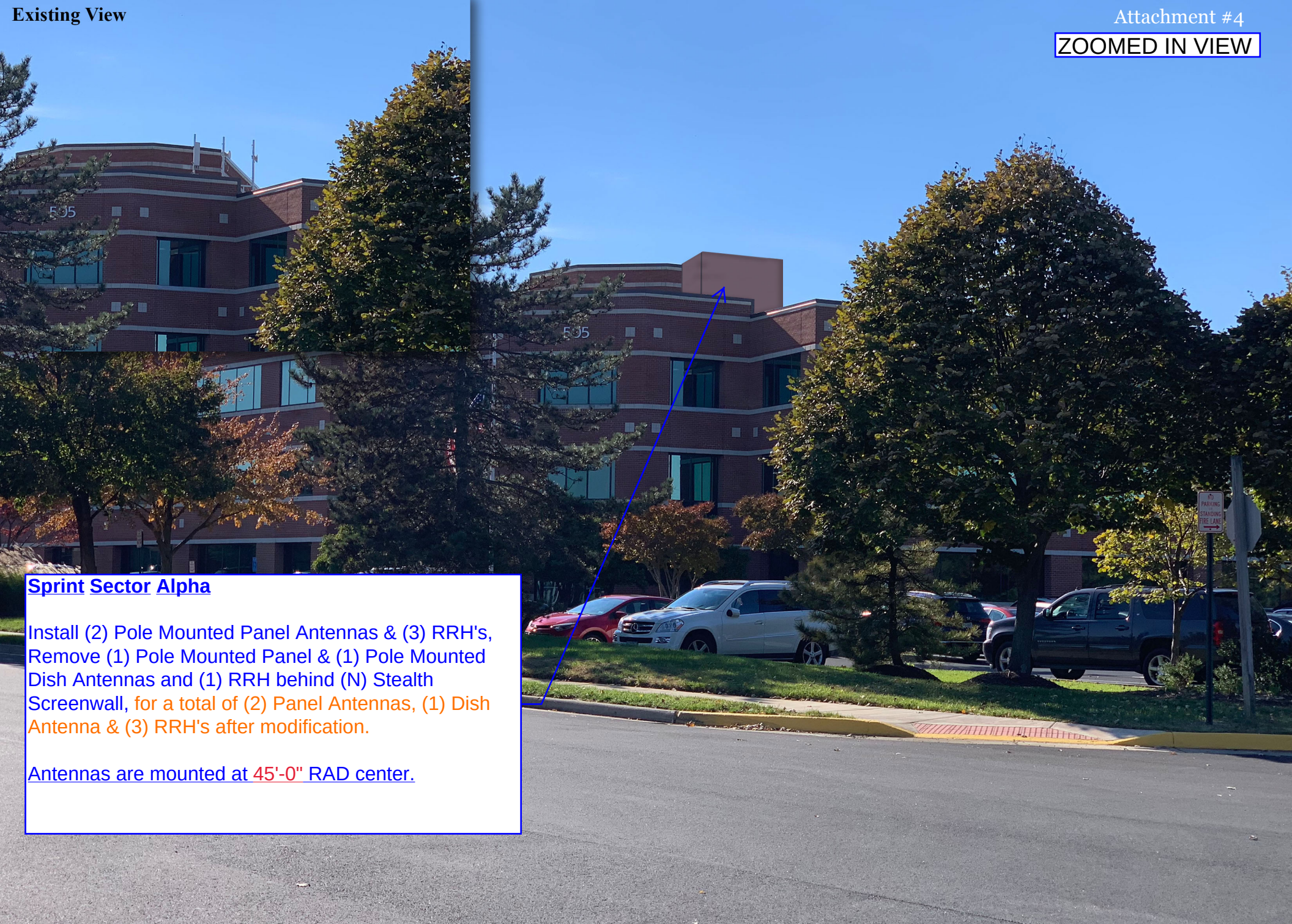


PO Box 132, Conyers, GA 30012 | 404 889 0359 direct | 866 240 0584 fax

[www.willinconsultants.com](http://www.willinconsultants.com)

Willin Consultants Inc. A Certified WBE Company





### Sprint Sector Alpha

Install (2) Pole Mounted Panel Antennas & (3) RRH's, Remove (1) Pole Mounted Panel & (1) Pole Mounted Dish Antennas and (1) RRH behind (N) Stealth Screenwall, for a total of (2) Panel Antennas, (1) Dish Antenna & (3) RRH's after modification.

Antennas are mounted at 45'-0" RAD center.



ZOOMED IN VIEW

**Sprint Sector Beta**

Install (2) Pole Mounted Panel Antennas & (3) RRH's on (N) Sled mount w/ (N) Stealth Screenwall, for a total of (2) Panel Antennas & (3) RRH's after modification.

Antennas are mounted at 45'-0" RAD center.





ZOOMED IN VIEW

Existing View

**Sprint Sector Gamma**

Install (2) Pole Mounted Panel Antennas & (3) RRH's on (N) Sled mount w/ (N) Stealth Screenwall, for a total of (2) Panel Antennas & (3) RRH's after modification.

Antennas are mounted at 45'-0" RAD center.



LANDLORD SIGNATURE/INITIALS: \_\_\_\_\_

DATE: \_\_\_\_\_



**SITE TYPE:** 36'-0" ± BUILDING HEIGHT

**DC DO MACRO 2018**  
**36'-0" ± BUILDING HEIGHT**

SHEET NUMBER: **T-1**

[illegible]

Y:\Drawings - 2018\Sprint\Willin\DC DD Macro 2018\DC52XC003\CD's - REV A- 2018-07-23\SP1.dwg  
FOR BC INTERNAL USE ONLY: 09-11-18 RDDKH 14:36:54

THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

**THE WORK:**  
SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF.

**PRECEDENCE:**  
SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE.

**SITE FAMILIARITY:**  
CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

**ON-SITE SUPERVISION:**  
THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

**DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE:**  
THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

- A. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- B. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- C. MARK THE FIELD SET OF DRAWINGS IN RED, DOCUMENTING ANY CHANGES FROM THE CONSTRUCTION DOCUMENTS.

**METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION:**  
CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN

- A. COAX COLOR CODING SWEEPS AND FIBER TESTING TS-0200 AND EL-0568
- B. CABLE LABELING EN-2012-00
- C. APPLICABLE INSTALLATION MOPS IDENTIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DRAWINGS.

CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT TO ENSURE IT IS PROTECTED AND HANDLED PROPERLY THROUGHOUT THE CONSTRUCTION DURATION.

CONTRACTOR RESPONSIBLE FOR RECEIPT OF SPRINT FURNISHED EQUIPMENT AT CELL SITE OR CONTRACTORS LOCATION. CONTRACTOR TO COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

SECTION 01 300 – CELL SITE CONSTRUCTION

**NOTICE TO PROCEED:**  
NO WORK SHALL COMMENCE PRIOR TO COMPANY’S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF WORK ORDER.

**SITE CLEANLINESS:**  
CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

SECTION 01 400 – SUBMITTALS & TESTS

**ALTERNATES:**  
AT THE COMPANY’S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINTS CONSTRUCTION MANAGER FOR APPROVAL. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED,

TESTS AND INSPECTIONS:

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
- B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
  - 1. COAX SWEEPS AND FIBER TESTS PER CURRENT VERSION OF TS-0200 ANTENNA LINE ACCEPTANCE STANDARDS.
  - 2. AGL, AZIMUTH AND DOWNTILT PROVIDE AN AUTOMATED REPORT UPLOADED TO SITERRA USING A COMMERCIAL MADE-FOR THE PURPOSE ELECTRONIC ANTENNA ALIGNMENT TOOL (AAT). INSTALLED AZIMUTH, CENTERLINE AND DOWNTILT MUST CONFORM WITH RF CONFIGURATION DATA
  - 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
  - 4. ALL TESTING REQUIRED BY APPLICABLE INSTALLATION MOPS.
- C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING;
  - 1. AZIMUTH, DOWNTILT, AGL FROM SUNSIGHT INSTRUMENTS – ANTENNALIGN ALIGNMENT TOOL (AAT)
  - 2. SWEEP AND FIBER TESTS
  - 3. SCALABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
  - 4. ALL AVAILABLE JURISDICTIONAL PERMIT AND OCCUPANCY INFORMATION
  - 5. PDF SCAN OF REDLINES PRODUCED IN FIELD
  - 6. A PDF SCAN OF REDLINE MARK-UPS SUITABLE FOR USE IN ELECTRONIC AS-BUILT DRAWING PRODUCTION
  - 7. LIEN WAIVERS
  - 8. FINAL PAYMENT APPLICATION
  - 9. REQUIRED FINAL CONSTRUCTION PHOTOS
  - 10. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
  - 11. APPLICABLE POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).
  - 12. CLOSEOUT PHOTOGRAPHS AND CLOSEOUT CHECKLIST: SPRINT WILL PROVIDE SEPARATE GUIDANCE

SECTION 11 700 – ANTENNA ASSEMBLY, REMOTE RADIO UNITS AND CABLE INSTALLATION

**SUMMARY:**  
THIS SECTION SPECIFIES INSTALLATION OF ANTENNAS, RRU’S, AND CABLE EQUIPMENT, INSTALLATION, AND TESTING OF COAXIAL FIBER CABLE.

**ANTENNAS AND RRU’S:**  
THE NUMBER AND TYPE OF ANTENNAS AND RRU’S TO BE INSTALLED IS DETAILED ON THE CONSTRUCTION DRAWINGS.

**HYBRID CABLE:**  
HYBRID CABLE WILL BE DC/FIBER AND FURNISHED FOR INSTALLATION AT EACH SITE. CABLE SHALL BE INSTALLED PER THE CONSTRUCTION DRAWINGS AND THE APPLICABLE MANUFACTURER’S REQUIREMENTS.

**JUMPERS AND CONNECTORS:**  
FURNISH AND INSTALL 1/2” COAX JUMPER CABLES BETWEEN THE RRU’S AND ANTENNAS. JUMPERS SHALL BE TYPE LDF 4, FLC 12-50, CR 540, OR FXL 540. SUPER-FLEX CABLES ARE NOT ACCEPTABLE. JUMPERS BETWEEN THE RRU’S AND ANTENNAS OR TOWER TOP AMPLIFIERS SHALL CONSIST OF 1/2 INCH FOAM DIELECTRIC, OUTDOOR RATED COAXIAL CABLE, MIN LENGTH FOR JUMPER SHALL BE 10”-0”.

REMOTE ELECTRICAL TILT (RET) CABLES:

**MISCELLANEOUS:**  
INSTALL SPLITTERS, COMBINERS, FILTERS PER RF DATA SHEET, FURNISHED BY SPRINT.

**ANTENNA INSTALLATION:**  
THE CONTRACTOR SHALL ASSEMBLE ALL ANTENNAS ONSITE IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED BY THE MANUFACTURER. ANTENNA HEIGHT, AZIMUTH, AND FEED ORIENTATION INFORMATION SHALL BE A DESIGNATED ON THE CONSTRUCTION DRAWINGS.

- A. THE CONTRACTOR SHALL POSITION THE ANTENNA ON TOWER PIPE MOUNTS SO THAT THE BOTTOM STRUT IS LEVEL. THE PIPE MOUNTS SHALL BE PLUMB TO WITHIN 1 DEGREE.
- B. ANTENNA MOUNTING REQUIREMENTS: PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE DRAWINGS.

HYBRID CABLE INSTALLATION:

- A. THE CONTRACTOR SHALL ROUTE, TEST, AND INSTALL ALL CABLES AS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATIONS.
- B. THE INSTALLED RADIUS OF THE CABLES SHALL NOT BE LESS THAN THE MANUFACTURER’S SPECIFICATIONS FOR BENDING RADII.
- C. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE CABLES DURING HANDLING AND INSTALLATION.
  - 1. FASTENING MAIN HYBRID CABLES: ALL CABLES SHALL BE INSTALLED INSIDE MONOPOLE WITH CABLE SUPPORT GRIPS AS REQUIRED BY THE MANUFACTURER.
  - 2. FASTENING INDIVIDUAL FIBER AND DC CABLES ABOVE BREAKOUT ENCLOSURE (MEDUSA), WITHIN THE MMBS CABINET AND ANY INTERMEDIATE DISTRIBUTION BOXES:
    - a. FIBER: SUPPORT FIBER BUNDLES USING ½” VELCRO STRAPS OF THE REQUIRED LENGTH @ 18” OC. STRAPS SHALL BE UV, OIL AND WATER RESISTANT AND SUITABLE FOR INDUSTRIAL INSTALLATIONS AS MANUFACTURED BY TEXTOL OR APPROVED EQUAL.
    - b. DC: SUPPORT DC BUNDLES WITH ZIP TIES OF THE ADEQUATE LENGTH. ZIP TIES TO BE UV STABILIZED, BLACK NYLON, WITH TENSILE STRENGTH AT 12,000 PSI AS MANUFACTURED BY NELCO PRODUCTS OR EQUAL.
  - 3. FASTENING JUMPERS: SECURE JUMPERS TO THE SIDE ARMS OR HEAD FRAMES USING STAINLESS STEEL TIE WRAPS OR STAINLESS STEEL BUTTERFLY CLIPS.
  - 4. CABLE INSTALLATION:
    - a. INSPECT CABLE PRIOR TO USE FOR SHIPPING DAMAGE, NOTIFY THE CONSTRUCTION MANAGER.
    - b. CABLE ROUTING: CABLE INSTALLATION SHALL BE PLANNED TO ENSURE THAT THE LINES WILL BE PROPERLY ROUTED IN THE CABLE ENVELOP AS INDICATED ON THE DRAWINGS. AVOID TWISTING AND CROSSEOVERS.
    - c. HOIST CABLE USING PROPER HOISTING GRIPS. DO NOT EXCEED MANUFACTURES RECOMMENDED MAXIMUM BEND RADIUS.

PLANS PREPARED FOR:



PLANS PREPARED BY:

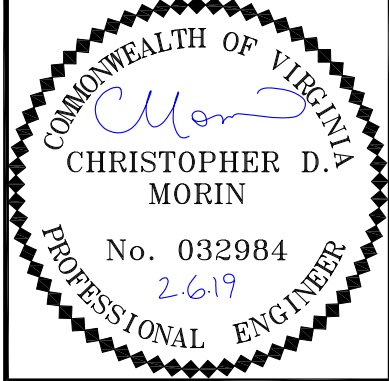


5661 COLUMBIA PIKE, SUITE 200  
FALLS CHURCH, VA 22041-2868  
TEL: (703) 671-6000  
FAX: (703) 671-6300

MLA PARTNER:



ENGINEERING LICENSE:



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| PRELIMINARY CD'S | 10/11/18 | MM | B   |
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| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |
|                  |          |    |     |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

SPRINT  
SPECIFICATIONS

SHEET NUMBER:

SP-1



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CONTINUE FROM SP-1

5. GROUNDING OF TRANSMISSION LINES: ALL TRANSMISSION LINES SHALL BE GROUNDED AS INDICATED ON DRAWINGS.
6. HYBRID CABLE COLOR CODING: ALL COLOR CODING SHALL BE AS REQUIRED IN CURRENT VERSION OF TS0200
7. HYBRID CABLE LABELING: INDIVIDUAL HYBRID AND DC BUNDLES SHALL BE LABELED ALPHA-NUMERICALLY ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1

WEATHERPROOFING EXTERIOR CONNECTORS AND HYBRID CABLE GROUND KITS:

- A. ALL FIBER & COAX CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED.
- B. WEATHERPROOFED USING ONE OF THE FOLLOWING METHODS. ALL INSTALLATIONS MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.

1. COLD SHRINK: ENCOMPASS CONNECTOR IN COLD SHRINK TUBING AND PROVIDE A DOUBLE WRAP OF 2" ELECTRICAL TAPE EXTENDING 2" BEYOND TUBING. PROVIDE 3M COLD SHRINK CXS SERIES OR EQUAL.

2. SELF-AMALGAMATING TAPE: CLEAN SURFACES. APPLY A DOUBLE WRAP OF SELF-AMALGAMATING TAPE 2" BEYOND CONNECTOR. APPLY A SECOND WRAP OF SELF-AMALGAMATING TAPE IN OPPOSITE DIRECTION. APPLY DOUBLE WRAP OF 2" WIDE ELECTRICAL TAPE EXTENDING 2" BEYOND THE SELF-AMALGAMATING TAPE.

3. 3M SLIM LOCK CLOSURE 716: SUBSTITUTIONS WILL NOT BE ALLOWED.

4. OPEN FLAME ON JOB SITE IS NOT ACCEPTABLE

SECTION 11 800 – INSTALLATION OF MULTIMODAL BASE STATIONS (MMBS) AND RELATED EQUIPMENT

- SUMMARY:
- A. THIS SECTION SPECIFIES MMBS CABINETS, POWER CABINETS, AND INTERNAL EQUIPMENT INCLUDING BY NOT LIMITED TO RECTIFIERS, POWER DISTRIBUTION UNITS, BASE BAND UNITS, SURGE ARRESTORS, BATTERIES, AND SIMILAR EQUIPMENT FURNISHED BY THE COMPANY FOR INSTALLATION BY THE CONTRACTOR (OFCI).
- B. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS MATERIALS AND PROVIDE ALL LABOR REQUIRED FOR INSTALLATION EQUIPMENT IN EXISTING CABINET OR NEW CABINET AS SHOWN ON DRAWINGS AND AS REQUIRE BY THE APPLICABLE INSTALLATION MOPS.
- C. COMPLY WITH MANUFACTURERS INSTALLATION AND START-UP REQUIREMENTS

DC CIRCUIT BREAKER LABELING

- A. NEW DC CIRCUIT IS REQUIRED IN MMBS CABINET SHALL BE CLEARLY IDENTIFIED AS TO RRU BEING SERVICED

SECTION 26 100 – BASIC ELECTRICAL REQUIREMENTS

- SUMMARY:
- THIS SECTION SPECIFIES BASIC ELECTRICAL REQUIREMENTS FOR SYSTEMS AND COMPONENTS.

QUALITY ASSURANCE:

- A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.
- B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.
- C. MATERIALS AND EQUIPMENT: ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

- A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.
- B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.
- C. MATERIALS AND EQUIPMENT: ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

- A. MANUFACTURED STRUCTURAL SUPPORT MATERIALS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:

1. ALLIED TUBE AND CONDUIT

2. B-LINE SYSTEM

3. SUNISTRUT DIVERSIFIED PRODUCTS

4. THOMAS & BETTS
- B. FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:

1. EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE.

2. POWER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.

3. FASTEN BY MEANS OF WOOD SCREWS ON WOOD.

4. TOGGLE BOLTS ON HOLLOW MASONRY UNITS.

5. CONCRETE INSERTS OR EXPANSION BOLTS ON CONCRETE OR SOLID MASONRY.

6. MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL.

7. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE SHALL NOT BE PERMITTED.

8. DO NOT WELD CONDUIT, PIPE STRAPS, OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES.

9. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.

SUPPORTING DEVICES:

- A. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC.
- B. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER TRADES.
- C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE STRUCTURE IN ACCORDANCE WITH THE FOLLOWING:
- D. ENSURE THAT THE LOAD APPLIED BY ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD.
- E. USE VIBRATION AND SHOCK-RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.

ELECTRICAL IDENTIFICATION:

- A. UPDATE AND PROVIDE TYPED CIRCUIT BREAKER SCHEDULES IN THE MOUNTING BRACKET, INSIDE DOORS OF AC PANEL BOARDS WITH ANY CHANGES MADE TO THE AC SYSTEM.
- B. BRANCH CIRCUITS FEEDING AVIATION OBSTRUCTION LIGHTING EQUIPMENT SHALL BE CLEARLY IDENTIFIED AS SUCH AT THE BRANCH CIRCUIT PANELBOARD.

SECTION 26 200 – ELECTRICAL MATERIALS AND EQUIPMENT

CONDUIT:

- A. RIGID GALVANIZED STEEL (RGS) CONDUIT SHALL BE USED FOR EXTERIOR LOCATIONS ABOVE GROUND AND IN UNFINISHED INTERIOR LOCATIONS AND FOR ENCASED RUNS IN CONCRETE. RIGID CONDUIT AND FITTINGS SHALL BE STEEL, COATED WITH ZINC EXTERIOR AND INTERIOR BY THE HOT DIP GALVANIZING PROCESS. CONDUIT SHALL BE PRODUCED TO ANSI SPECIFICATIONS C80.1, FEDERAL SPECIFICATION WW-C-581 AND SHALL BE LISTED WITH THE UNDERWRITERS' LABORATORIES. FITTINGS SHALL BE THREADED – SET SCREW OR COMPRESSION FITTINGS WILL NOT BE ACCEPTABLE. RGS CONDUITS SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND.
- B. UNDERGROUND CONDUIT IN CONCRETE SHALL BE POLYVINYLCHLORIDE (PVC) SUITABLE FOR DIRECT BURIAL AS APPLICABLE. JOINTS SHALL BE BELLED, AND FLUSH SOLVENT WELDED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE CARLON ELECTRICAL PRODUCTS OR APPROVED EQUAL.
- C. TRANSITIONS BETWEEN PVC AND RIGID (RGS) SHALL BE MADE WITH PVC COATED METALLIC LONG SWEEP RADIUS ELBOWS.
- D. EMT OR RIGID GALVANIZED STEEL CONDUIT MAY BE USED IN FINISHED SPACES CONCEALED IN WALLS AND CEILINGS. EMT SHALL BE MILD STEEL, ELECTRICALLY WELDED, ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED AND PRODUCED TO ANSI SPECIFICATION C80.3, FEDERAL SPECIFICATION WW-C-563, AND SHALL BE UL LISTED. EMT SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND, OR APPROVED EQUAL. FITTINGS SHALL BE METALLIC COMPRESSION. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE.

- E. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR FINAL CONNECTION TO EQUIPMENT. FITTINGS SHALL BE METALLIC GLAND TYPE COMPRESSION FITTINGS, MAINTAINING THE INTEGRITY OF CONDUIT SYSTEM. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL NOT EXCEED 6- FEET. LFMC SHALL BE PROTECTED AND SUPPORTED AS REQUIRE BY NEC. MANUFACTURERS OF FLEXIBLE CONDUITS SHALL BE CAROL, ANACONDA METAL HOSE OR UNIVERSAL METAL HOSE, OR APPROVED EQUAL.
- F. MINIMUM SIZE CONDUIT SHALL BE 3/4 INCH (21MM).

HUBS AND BOXES:

- A. AT ENTRANCES TO CABINETS OR OTHER EQUIPMENT NOT HAVING INTEGRAL THREADED HUBS PROVIDE METALLIC THREADED HUBS OF THE SIZE AND CONFIGURATION REQUIRED. HUB SHALL INCLUDE LOCKNUT AND NEOPRENE O-RING SEAL. PROVIDE IMPACT RESISTANT 105 DEGREE C PLASTIC BUSHINGS TO PROTECT CABLE INSULATION.
- B. CABLE TERMINATION FITTINGS FOR CONDUIT

1. CABLE TERMINATORS FOR RGS CONDUITS SHALL BE TYPE CRC BY O-Z/GEDNEY OR EQUAL BY ROX TEC.

2. CABLE TERMINATORS FOR LFMC SHALL BE ETCO – CL2075; OR MADE FOR THE PURPOSE PRODUCTS BY ROXTEC.
- C. EXTERIOR PULL BOXES AND PULL BOXES IN INTERIOR INDUSTRIAL AREAS SHALL BE PLATED CAST ALLOY, HEAVY DUTY, WEATHERPROOF, DUST PROOF, WITH GASKET, PLATED IRON ALLOY COVER AND STAINLESS STEEL COVER SCREWS, CROUSE-HINDS WAB SERIES OR EQUAL.
- D. CONDUIT OUTLET BODIES SHALL BE PLATED CAST ALLOY WITH SIMILAR GASKETED COVERS. OUTLET BODIES SHALL BE OF THE CONFIGURATION AND SIZE SUITABLE FOR THE APPLICATION. PROVIDE CROUSE-HINDS FORM 8 OR EQUAL.
- E. MANUFACTURER FOR BOXES AND COVERS SHALL BE HOFFMAN, SQUARE "d", CROUSE-HINDS, COOPER, ADALET, APPLETON, O-Z GEDNEY, RACO, OR APPROVED EQUAL.

SUPPLEMENTAL GROUNDING SYSTEM

- A. FURNISH AND INSTALL A SUPPLEMENTAL GROUNDING SYSTEM TO THE EXTENT INDICATED ON THE DRAWINGS. SUPPORT SYSTEM WITH NON-MAGNETIC STAINLESS STEEL CLIPS WITH RUBBER GROMMETS. GROUNDING CONNECTORS SHALL BE TINNED COPPER WIRE, SIZES AS INDICATED ON THE DRAWINGS. PROVIDE STRANDED OR SOLID BARE OR INSULATED CONDUCTORS EXCEPT AS OTHERWISE NOTED.
- B. SUPPLEMENTAL GROUNDING SYSTEM: ALL CONNECTIONS TO BE MADE WITH CAD WELDS, EXCEPT AT EQUIPMENT USE LUGS OR OTHER AVAILABLE GROUNDING MEANS AS REQUIRED BY MANUFACTURER; AT GROUND BARS USE TWO HOLE SPADES WITH NO OX.
- C. STOLEN GROUND-BARS: IN THE EVENT OF STOLEN GROUND BARS, CONTACT SPRINT CM FOR REPLACEMENT INSTRUCTION USING THREADED ROD KITS.

EXISTING STRUCTURE:

- A. EXISTING EXPOSED WIRING AND ALL EXPOSED OUTLETS, RECEPTACLES, SWITCHES, DEVICES, BOXES, AND OTHER EQUIPMENT THAT ARE NOT TO BE UTILIZED IN THE COMPLETED PROJECT SHALL BE REMOVED OR DE-ENERGIZED AND CAPPED IN THE WALL, CEILING, OR FLOOR SO THAT THEY ARE CONCEALED AND SAFE. WALL, CEILING, OR FLOOR SHALL BE PATCHED TO MATCH THE ADJACENT CONSTRUCTION.

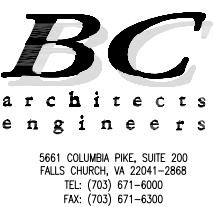
CONDUIT AND CONDUCTOR INSTALLATION:

- A. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- B. CONDUCTORS SHALL BE PULLED IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE.

PLANS PREPARED FOR:



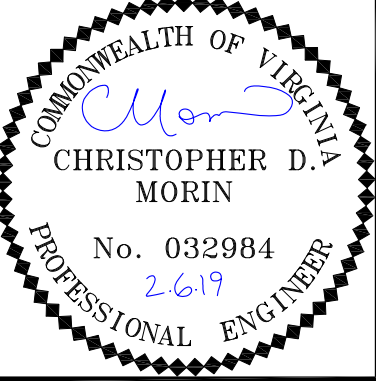
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| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |
|                  |          |    |     |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

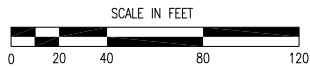
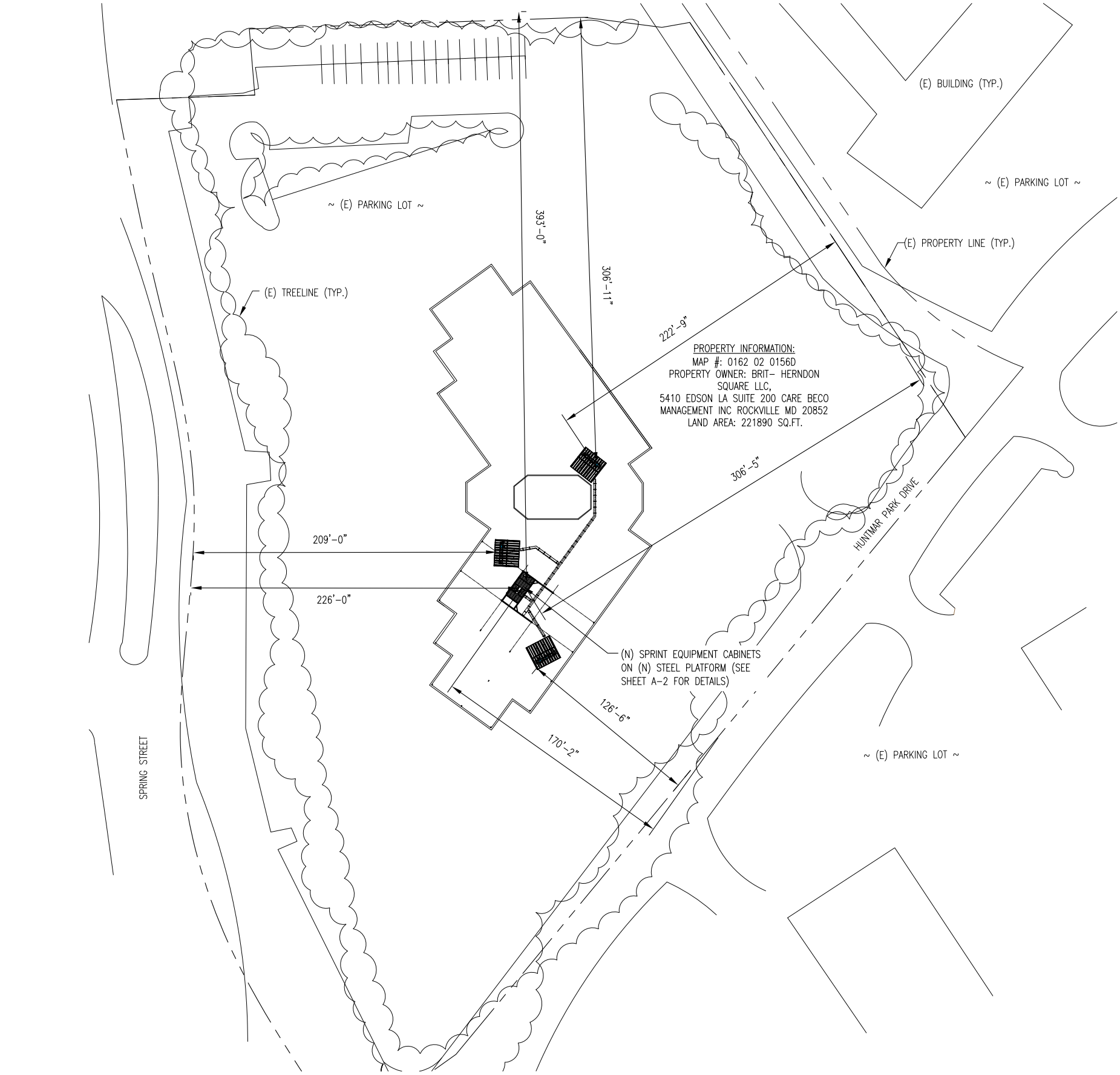
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SPECIFICATIONS

SHEET NUMBER:

SP-2

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SITE PLAN  
SCALE: 1"=40' (24x36)  
1"=80' (11x17)

1  
A-0



6409(A)

SITE PLAN NOTES

1. THERE ARE NO IMPROVEMENTS TO THE PUBLIC RIGHTS OF WAY.
2. THE PROPERTY IS SERVED BY PUBLIC WATER AND SEWER.
3. THERE ARE NO FLOODPLAINS ON THE PROPERTY.
4. THERE IS NO RPA ON THE PROPERTY.
5. THERE ARE NO GRAVES, OBJECTS OR STRUCTURES MARKING A PLACE OF BURIAL ON THE PROPERTY PER THE FAIRFAX COUNTY CEMETERY MAP.
6. THERE ARE NO KNOWN TRAILS ON TO THE SUBJECT PROPERTY.
7. THERE IS AN EXISTING STORM WATER MANAGEMENT FACILITY. THERE ARE NO PROPOSED STORM WATER MANAGEMENT FACILITIES FOR THIS PROJECT.
8. NO EXISTING TREES WILL BE REMOVED FOR CONSTRUCTION PURPOSES.
9. THERE ARE NO PROPOSED SIGNS FOR THIS PROJECT.
10. THERE ARE NO KNOWN UTILITY EASEMENTS ON THE SUBJECT PROPERTY.

ORDINANCE DATA

PARCEL DATA

MAP #: 0162 02 0156D  
PROPERTY OWNER: BRIT- HERNDON SQUARE LLC  
ZONING DESCRIPTION: O & LI (OFFICE&LIGHT INDUST DIST)  
DISTRICT NAME: DRANESVILLE TWN HRNDN TRANS DULLES RL W  
AREA OF PARENT PARCEL: 221.890 SF  
AREA OF DISTURBANCE: 0 SF  
AREA OF EXISTING STRUCTURES: 30416.89 SF  
AREA OF PROPOSED STRUCTURES: 0 SF

BUILDING DATA

MAXIMUM BUILDING HEIGHT: 40'  
YEAR BUILT: 1988  
TOTAL EXISTING GROSS BUILDING FLOOR AREA: 92,129 SF  
TOTAL PROPOSED SPRINT AREA: 0 SF  
TOTAL AREA: 92,129 SF  
MAXIMUM FLOOR AREA RATIO FOR PUBLIC USE: 0.25 (SECTION 5-107)  
TOTAL FLOOR AREA RATIO: 0.4

SETBACKS

FRONT: 320 FEET FROM THE CENTER LINE OF ANY STREET, OR 200 FEET FROM THE LOT LINE, WHICHEVER IS GREATER, UNLESS A LESSER DISTANCE IS APPROVED BY THE BOARD TO FACILITATE THE IMPLEMENTATION OF A PROPOSED MAJOR STREET IMPROVEMENT.  
SIDE: 200 FEET, UNLESS A LESSER DISTANCE IS APPROVED BY THE BOARD OF FACILITATE THE IMPLEMENTATION OF A PROPOSED MAJOR STREET IMPROVEMENT, EXCEPT NONE REQUIRED WHEN THE YARD ABUTS A RAILROAD RIGHT-OF-WAY.  
REAR: 200 FEET, UNLESS A LESSER DISTANCE IS APPROVED BY THE BOARD TO FACILITATE THE IMPLEMENTATION OF A PROPOSED MAJOR STREET IMPROVEMENT, EXCEPT NONE REQUIRED WHEN THE YARD ABUTS A RAILROAD RIGHT-OF-WAY.

NORTH PROPERTY LINE TO TELECOMMUNICATIONS ANTENNAS = 306'-11"  
EAST PROPERTY LINE TO TELECOMMUNICATIONS ANTENNAS = 222'-9"  
SOUTH PROPERTY LINE TO TELECOMMUNICATIONS ANTENNAS = 205'-10"  
WEST PROPERTY LINE TO TELECOMMUNICATIONS ANTENNAS = 209'-0"

NORTH PROPERTY LINE TO TELECOMMUNICATIONS EQUIPMENT = 393'-0"  
EAST PROPERTY LINE TO TELECOMMUNICATIONS EQUIPMENT = 206'-5"  
SOUTH PROPERTY LINE TO TELECOMMUNICATIONS EQUIPMENT = 126'-6"  
WEST PROPERTY LINE TO TELECOMMUNICATIONS EQUIPMENT = 170'-2"

PARKING TABULATION:

EXISTING PARKING LOTS: 1  
EXISTING PARKING SPACES: 300±  
PROPOSED PARKING SPACES: 0  
TOTAL PARKING SPACES: 300±  
NOTE: THE TELECOMMUNICATIONS FACILITY GENERATES APPROXIMATELY (1) TRIP PER MONTH PER CARRIER; NO DEDICATED PARKING IS REQUIRED.

FLOOD\_ZONE

MAP # 51059C0110E - SEPTEMBER 17, 2010  
THIS PROJECT IS NOT LOCATED IN A FLOOD PLAIN (ZONE X)

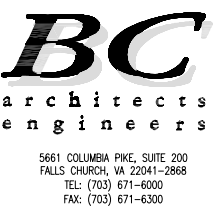
STRUCTURAL COMPONENTS ANALYSIS

REFER TO THE STRUCTURAL ANALYSIS REPORT  
THE EQUIPMENT, ANTENNAS, MOUNTING SYSTEMS AND ALL ASSOCIATED COMPONENTS HAVE BEEN ANALYZED IN ACCORDANCE WITH THE TIA-222-G STANDARD AND VIRGINIA USBC (2012 IBC) BASED UPON A WIND SPEED OF 115MPH, 3' SECOND GUST

PLANS PREPARED FOR:



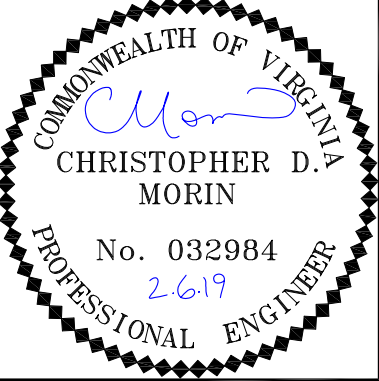
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SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

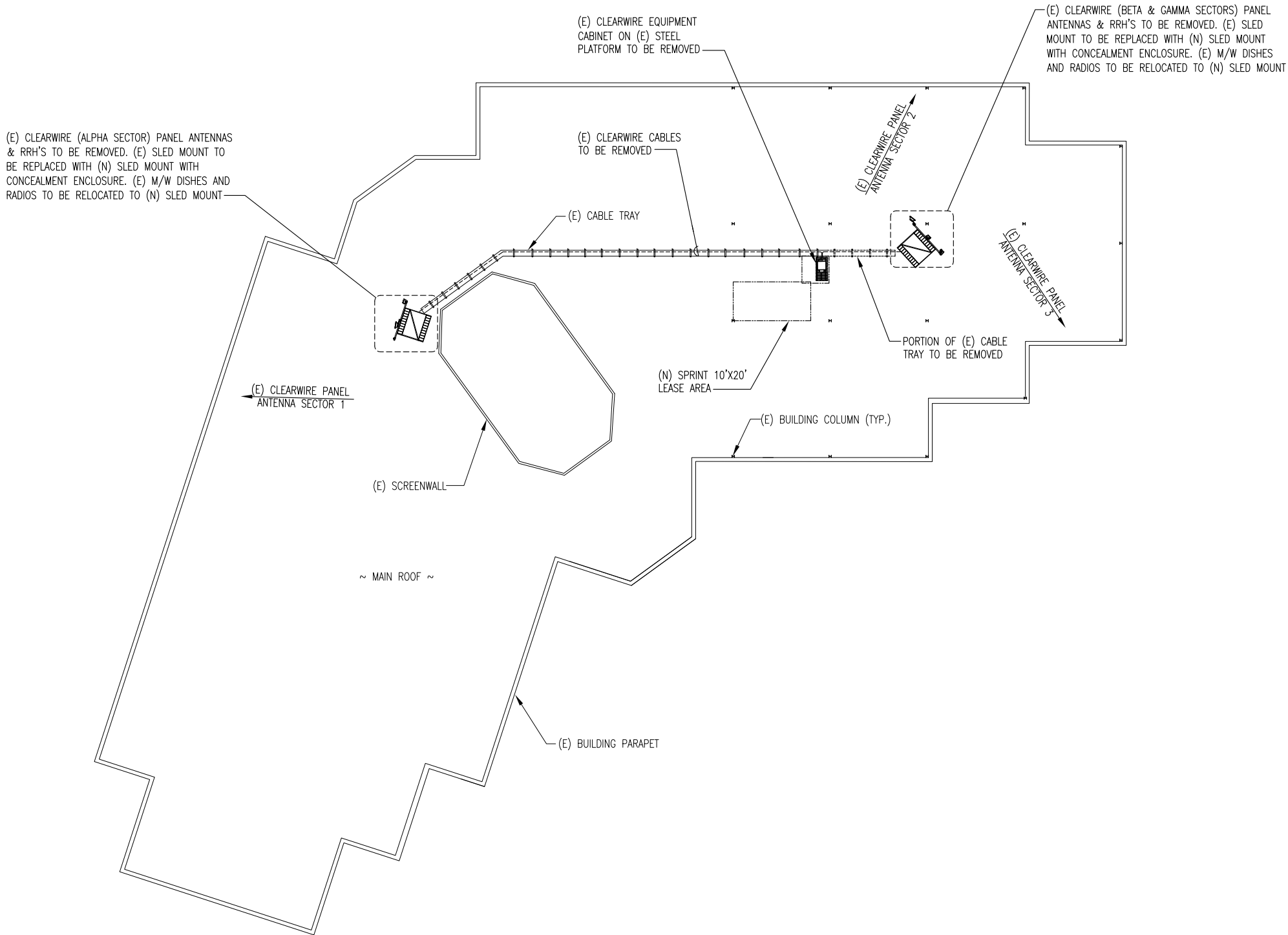
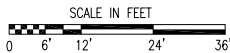
SITE PLAN

SHEET NUMBER:

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EXISTING ROOF PLAN  
SCALE: 1/16"=1' (24x36)  
1/32"=1' (11x17)

1  
A-1



PLANS PREPARED FOR:



6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:



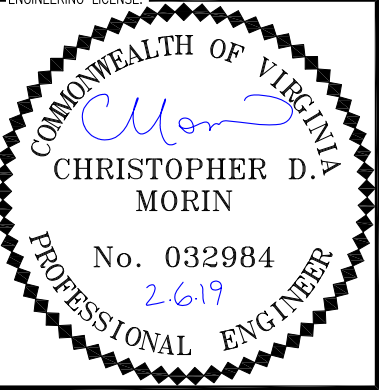
5661 COLUMBIA PIKE, SUITE 200  
FALLS CHURCH, VA 22041-2868  
TEL: (703) 671-6000  
FAX: (703) 671-6300

MLA PARTNER:



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|------------------|----------|----|-----|
| PRELIMINARY CD'S | 10/02/18 | RD | A   |
| PRELIMINARY CD'S | 10/11/18 | MM | B   |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

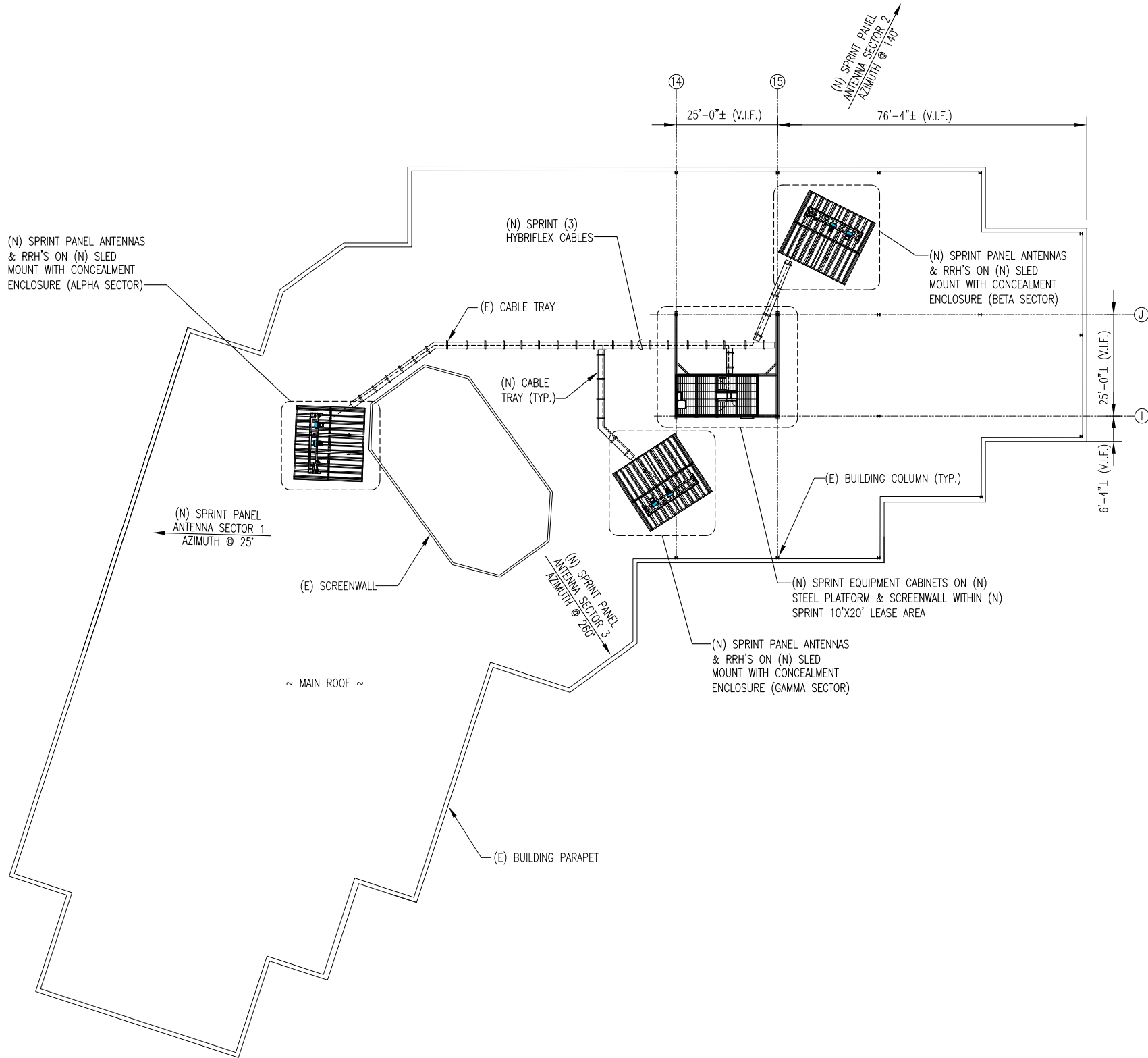
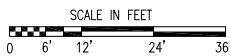
SHEET DESCRIPTION:

EXISTING ROOF  
PLAN

SHEET NUMBER:

A-1

FOR BC INTERNAL USE ONLY: 02-06-19 SIRA.J SALI 10:38:28 Y:/Drawings - 2018/Sprint/Willin/DC DD Macro 2018/DC52XC007/CD'S - REV 1 - 2019-01-22/A1A.dwg



PROPOSED ROOF PLAN  
SCALE: 1/16"=1' (24x36)  
1/32"=1' (11x17)

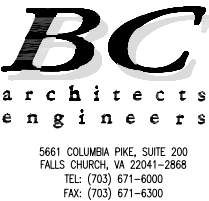
1  
A-1A



PLANS PREPARED FOR:



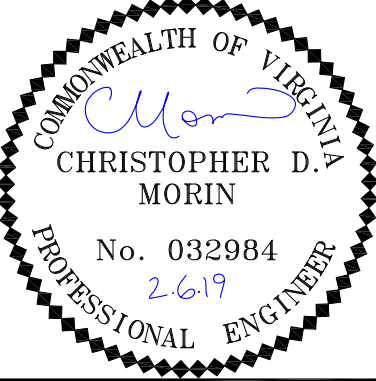
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|------------------|----------|----|-----|
| PRELIMINARY CD'S | 10/02/18 | RD | A   |
| PRELIMINARY CD'S | 10/11/18 | MM | B   |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

PROPOSED ROOF  
PLAN

SHEET NUMBER:

A-1A



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- NOTES:
1. REFER TO BUILDING STRUCTURAL P.E. LETTER PROVIDED BY BC ARCHITECTS ENGINEERS FOR STRUCTURAL INTEGRITY OF THE BUILDING.
  2. REFER TO ANTENNA MOUNT ANALYSIS PROVIDED BY STEALTH CONCEALMENT SOLUTIONS, INC. FOR COMPLIANCE WITH SPRINT STRUCTURAL BULLETIN.

- NOTES:
- BASE BUSBAR/HYBRIFLEX CABLE GROUNDING
1. G.C. SHALL ENSURE THAT GROUND LEADS ARE INSTALLED FROM THE BASE BUSBAR TO THE GROUND RING BUILDING MAIN GROUNDING/WATER INLET.
  2. G.C. SHALL PROVIDE A GROUND KIT FOR THE HYBRIFLEX CABLE.

NOTE:

G.C. SHALL INSTALL NEW SECTOR GROUND BARS (TYP. ALL SECTORS)

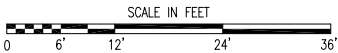
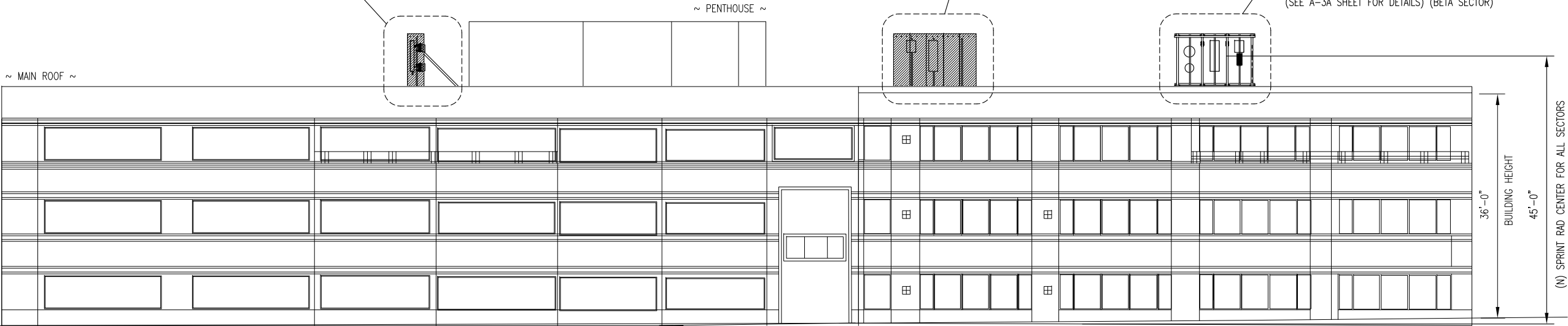
NOTE:

TOP OF MIMO ANTENNA TO MATCH WITH TOP OF 800/1900 ANTENNA

(N) SPRINT PANEL ANTENNAS & RRH'S ON (N) SLED MOUNT WITH CONCEALMENT ENCLOSURE (SEE A-3 SHEET FOR DETAILS) (ALPHA SECTOR)

(N) SPRINT PANEL ANTENNAS & RRH'S ON (N) SLED MOUNT WITH CONCEALMENT ENCLOSURE (SEE A-3A SHEET FOR DETAILS) (GAMMA SECTOR)

(N) SPRINT PANEL ANTENNAS & RRH'S ON (N) SLED MOUNT WITH CONCEALMENT ENCLOSURE (SEE A-3A SHEET FOR DETAILS) (BETA SECTOR)



BUILDING ELEVATION

SCALE: 3/32"=1' (24x36)  
3/64"=1' (11x17)

1  
A-1B

PLANS PREPARED FOR:



PLANS PREPARED BY:

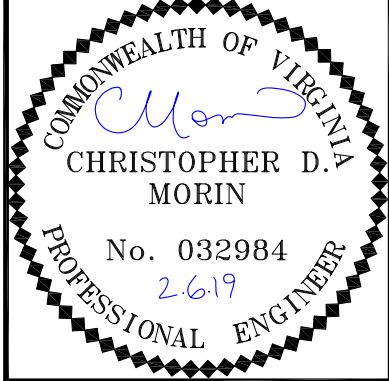


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|------------------|----------|----|-----|
| PRELIMINARY CD'S | 10/02/18 | RD | A   |
| PRELIMINARY CD'S | 10/11/18 | MM | B   |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | 0   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

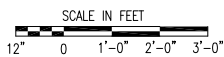
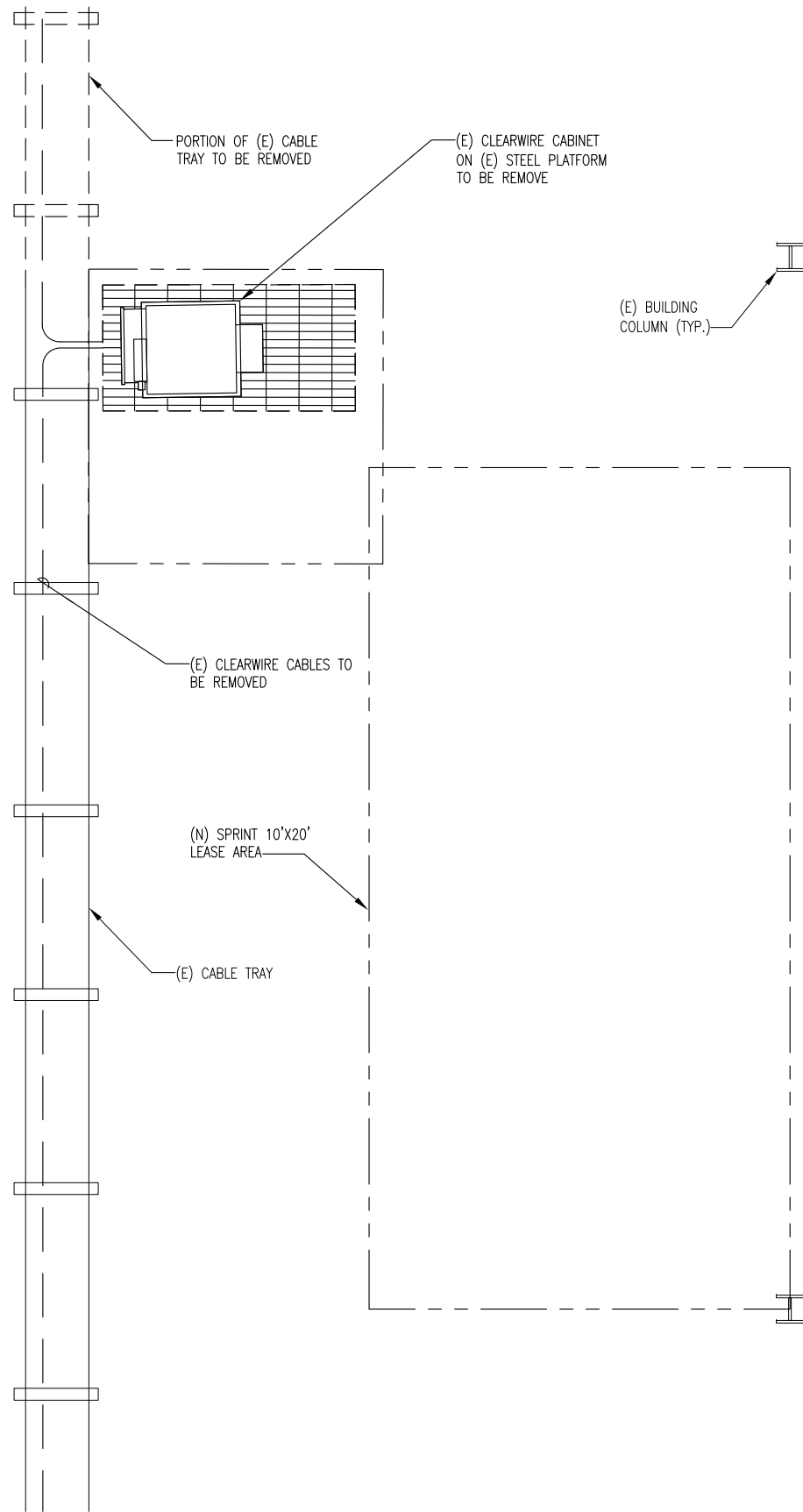
SHEET DESCRIPTION:

BUILDING  
ELEVATION

SHEET NUMBER:

A-1B

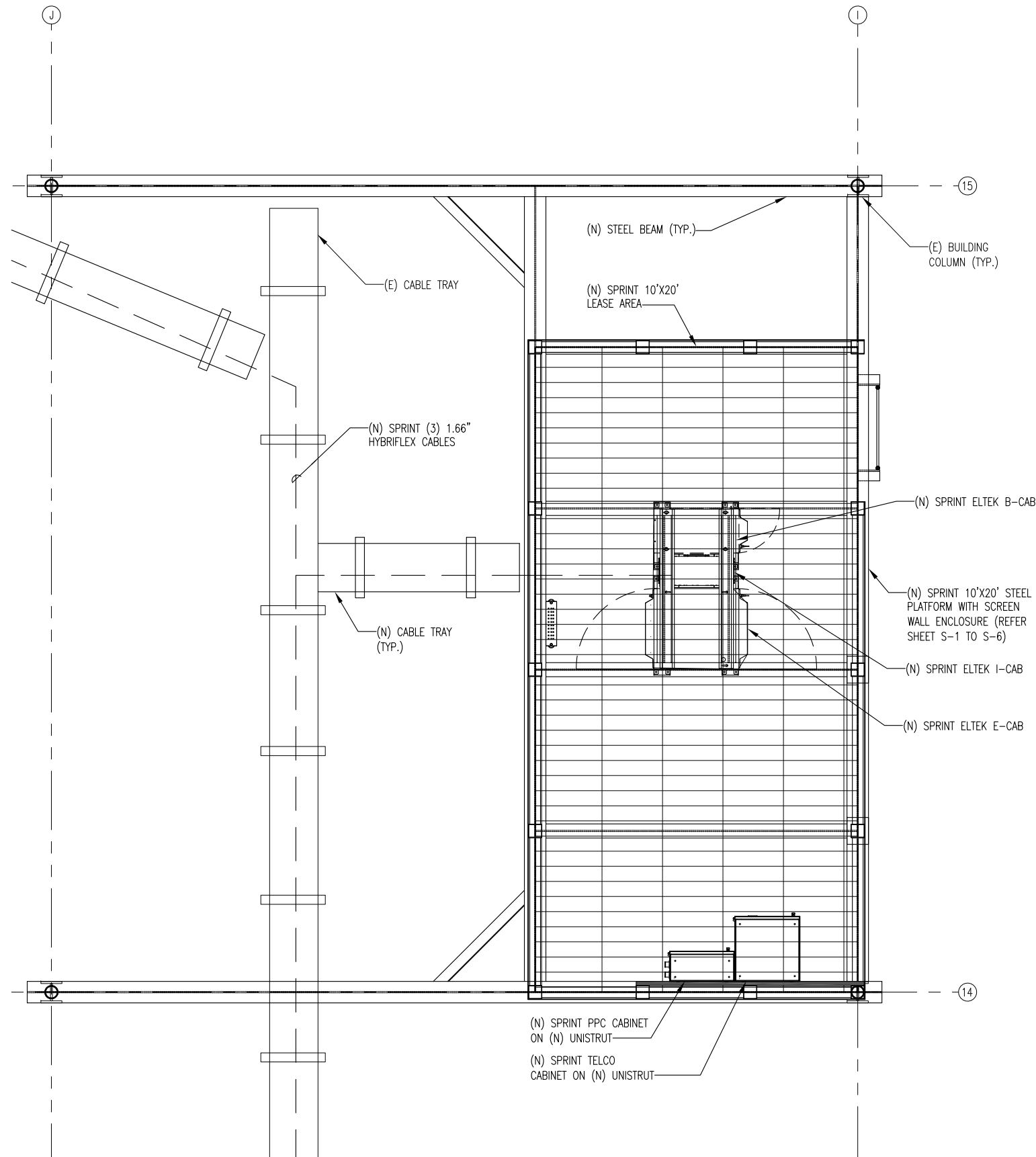
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EXISTING CABINET LAYOUT

SCALE: 1/2"=1' (24x36)  
1/4"=1' (11x17)

1  
A-2



PROPOSED CABINET LAYOUT

SCALE: 1/2"=1' (24x36)  
1/4"=1' (11x17)

2  
A-2



PLANS PREPARED FOR:



PLANS PREPARED BY:

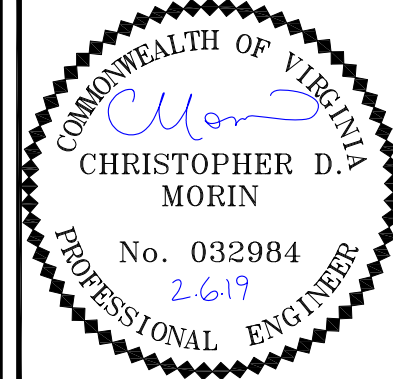


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|------------------|----------|----|-----|
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| PRELIMINARY CD'S | 10/11/18 | MM | B   |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

EQUIPMENT PLAN  
PHASES

SHEET NUMBER:

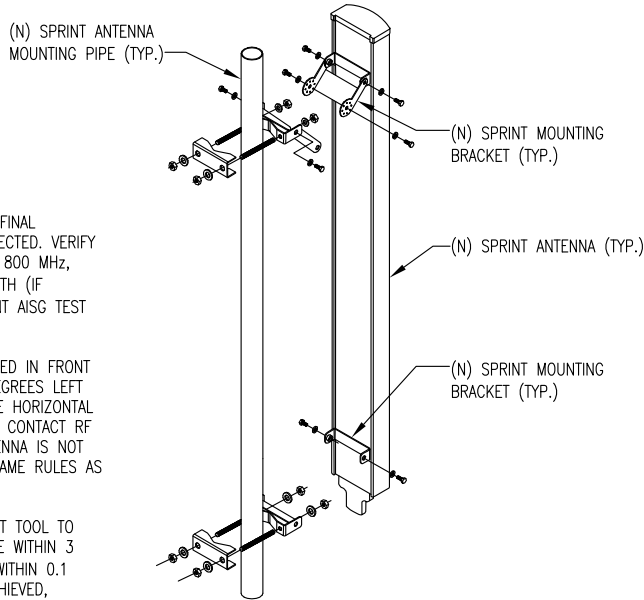
A-2



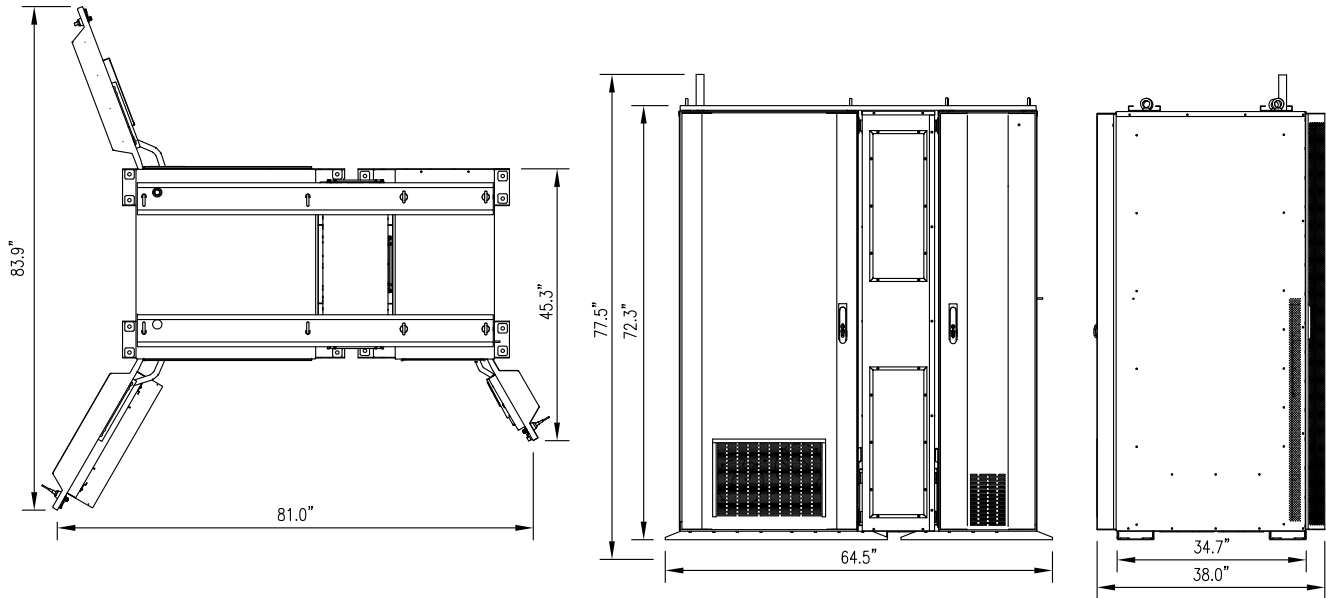
FOR BC INTERNAL USE ONLY: 02-05-19 SIRA.J SALLI 16/2313 Y:/Drawings - 2018/Sprint/Willin/.DC DD Macro 2018/DC52XC007/CD'S - REV 1 - 2019-01-22/ACA.dwg

NOTES:

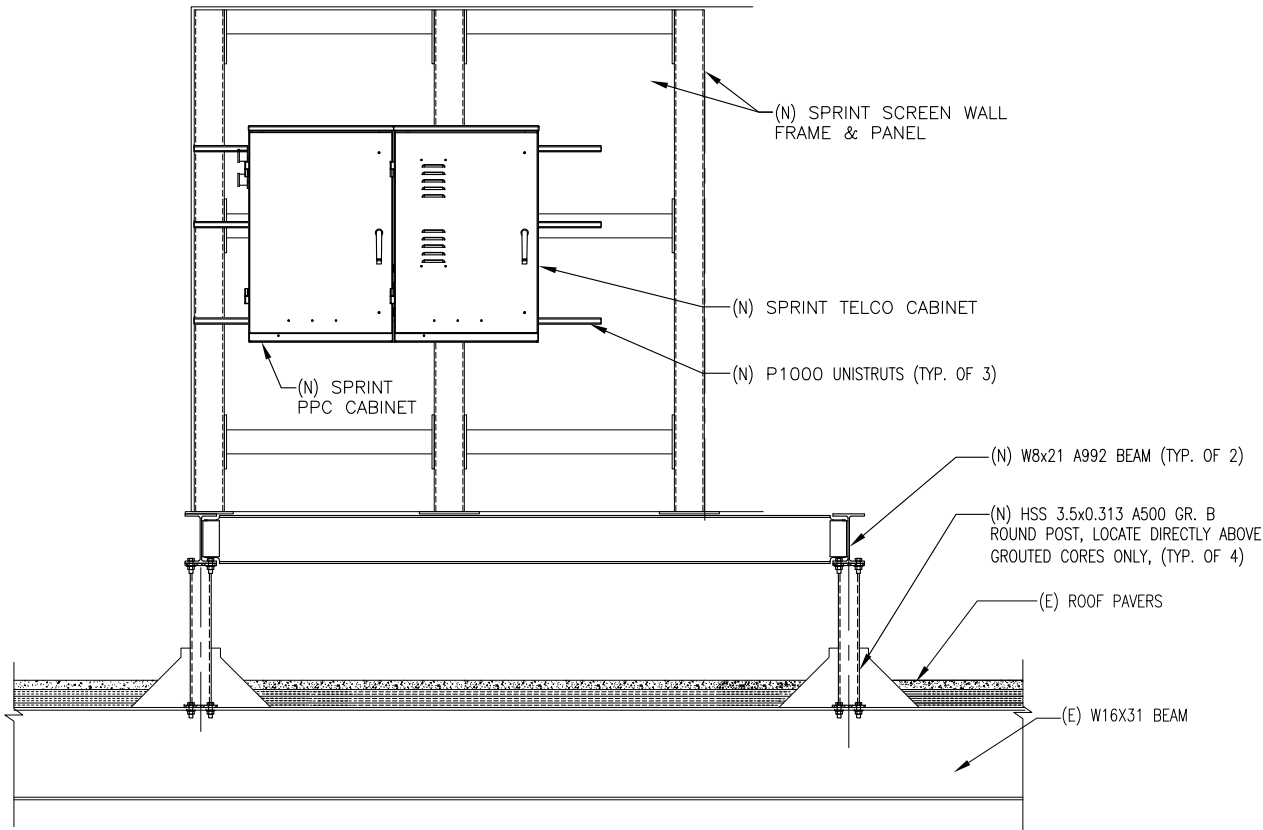
1. AISG TESTS TO VERIFY OPERATION IS TO BE PERFORMED AFTER FINAL INSTALLATION OF ANTENNAS AND AISG CABLES HAVE BEEN CONNECTED. VERIFY OPERATION OF ALL EXISTING SPRINT AISG EQUIPMENT INCLUDING 800 MHz, 1.9GHz AND 2.5GHz. TEST INCLUDED COMPLETE DOWNTILT, AZIMUTH (IF APPLICABLE) AND BEAMWIDTH SWINGS (IF APPLICABLE). DOCUMENT AISG TEST RESULTS IN COAX SWEEP TEST SPREADSHEET.
2. GENERAL CONTRACTOR MUST ENSURE THAT NO OBJECT IS LOCATED IN FRONT OF ANTENNA. THIS MEANS NO OBJECT IS TO BE LOCATED 45 DEGREES LEFT AND RIGHT OF FRONT OF ANTENNA OR 68.5 DEGREES FROM THE HORIZONTAL FROM TOP AND BOTTOM OF ANTENNA. IF THIS IS NOT POSSIBLE, CONTACT RF ENGINEER FRO FURTHER INSTRUCTION. IN ADDITION, 2.5GHz ANTENNA IS NOT TO BE PLACED IN FRONT OF ANY OTHER ANTENNA USING THE SAME RULES AS ABOVE. THIS INCLUDES SPRINT AND NON-SPRINT ANTENNAS.
3. GENERAL CONTRACTOR IS REQUIRED TO USE A DIGITAL ALIGNMENT TOOL TO SET AZIMUTH, ROLL AND DOWNTILT. AZIMUTH ACCURACY IS TO BE WITHIN 3 DEGREES. DOWNTILT AND ROLL (LEFT TO RIGHT TILT) IS TO BE WITHIN 0.1 DEGREES. IF FOR SOME REASON THIS ACCURACY CANNOT BE ACHIEVED, UPDATE AS-BUILT DRAWINGS AND EMAIL SPRINT RF ENGINEER WITH AS-BUILT SETTINGS. US 3Z RF ALIGNMENT TOOL OR EQUIVALENT TOOL.  
[HTTP://WWW.3ZTELECOM.COM/ANTENNA-ALIGNMENT-TOOL/](http://www.3ztelecom.com/antenna-alignment-tool/)



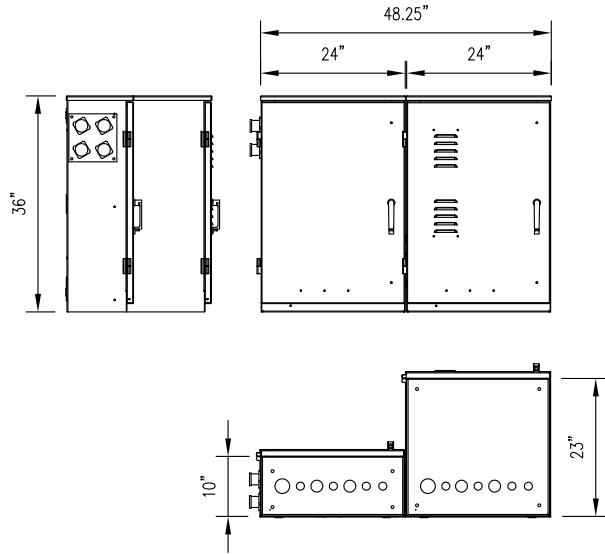
ANTENNA MOUNTING DETAIL 1  
SCALE: N.T.S. A-2A



(ELTEK) E,I & B-CAB EQUIPMENT CABINETS 2  
SCALE: N.T.S. A-2A



PPC & TELCO MOUNTING DETAIL 2  
SCALE: N.T.S. A-2A



ELTEK PPC & ELTEK TELCO  
PPC CAB. DIMENSIONS: 24.0" x 36.0" x 10.0"  
TELCO CAB. DIMENSIONS: 24.0" x 36.0" x 23.0"  
WEIGHT PPC CAB.: 80 LBS.  
WEIGHT TELCO CAB.: 50 LBS.  
VOLTAGE: 120/240Vac - 1 $\phi$  3W + PE  
CURRENT RATING: 200 AMP  
AIC RATING: >22kAIC

ELTEK PPC & TELCO CABINETS 4  
SCALE: N.T.S. A-2A

PLANS PREPARED FOR:



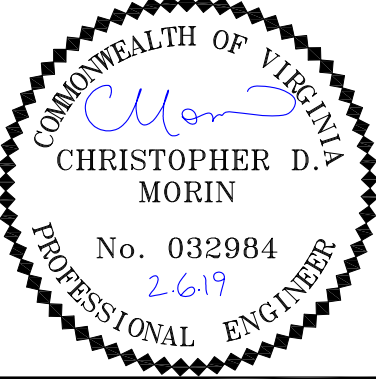
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|            | PRELIMINARY CD'S | 10/02/18 | RD | A   |
|            | PRELIMINARY CD'S | 10/11/18 | MM | B   |
|            | PRELIMINARY CD'S | 10/19/18 | ME | C   |
|            | FINAL CD'S       | 10/30/18 | RD | O   |
|            | LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

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HERNDON, VA 20170

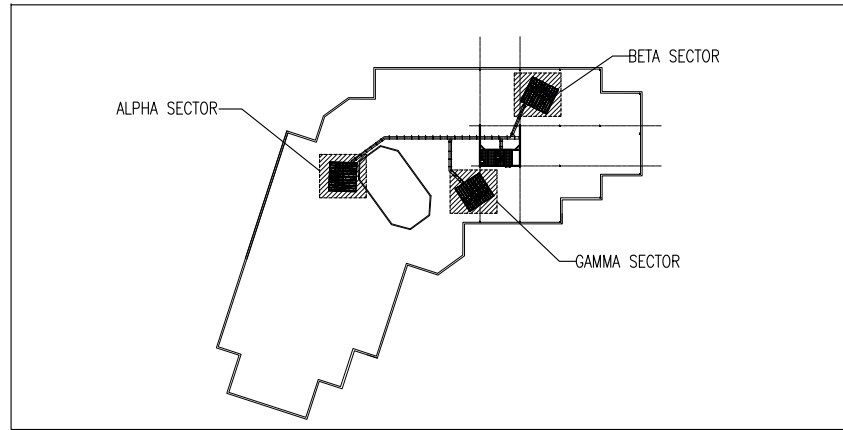
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DETAILS

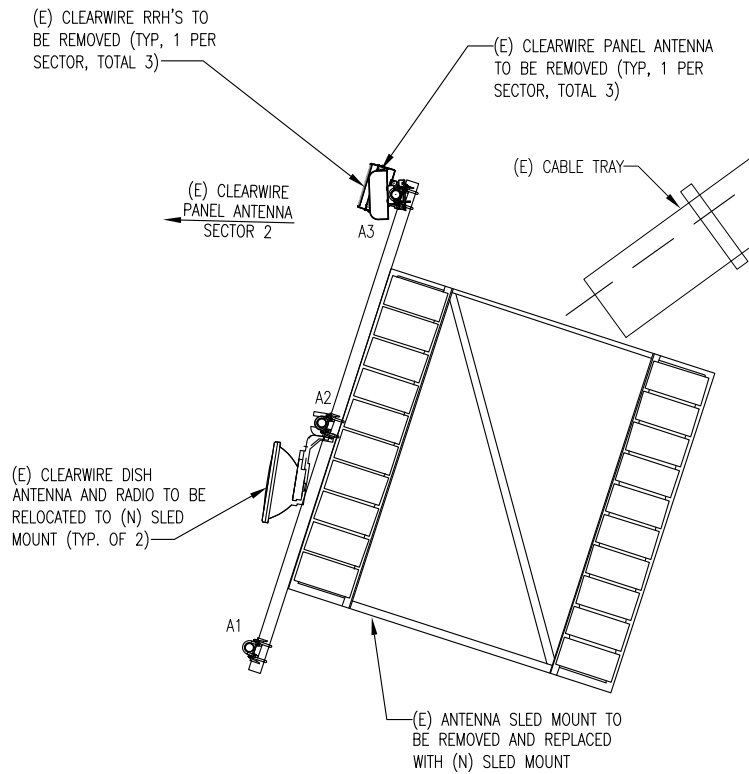
SHEET NUMBER:

A-2A

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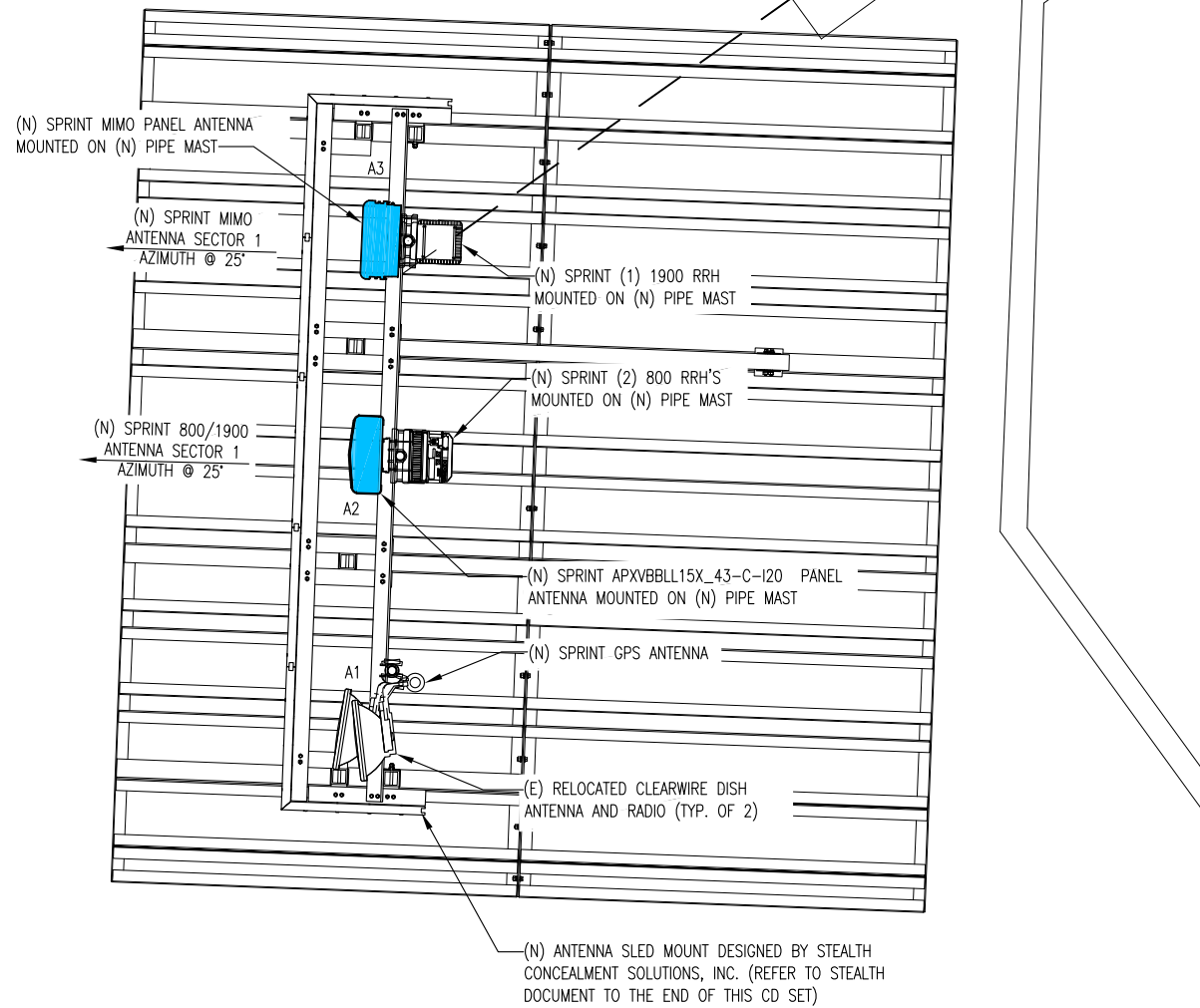
KEY PLAN



EXISTING ANTENNA PLAN (ALPHA SECTOR)

SCALE: 1/2"=1' (24x36)  
1/4"=1' (11x17)

1  
A-3



PROPOSED ANTENNA PLAN (FINAL) (ALPHA SECTOR)

SCALE: 1/2"=1' (24x36)  
1/4"=1' (11x17)

2  
A-3



PLANS PREPARED FOR:



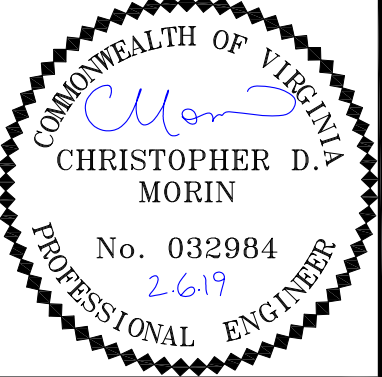
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| PRELIMINARY CD'S | 10/11/18 | MM | B   |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

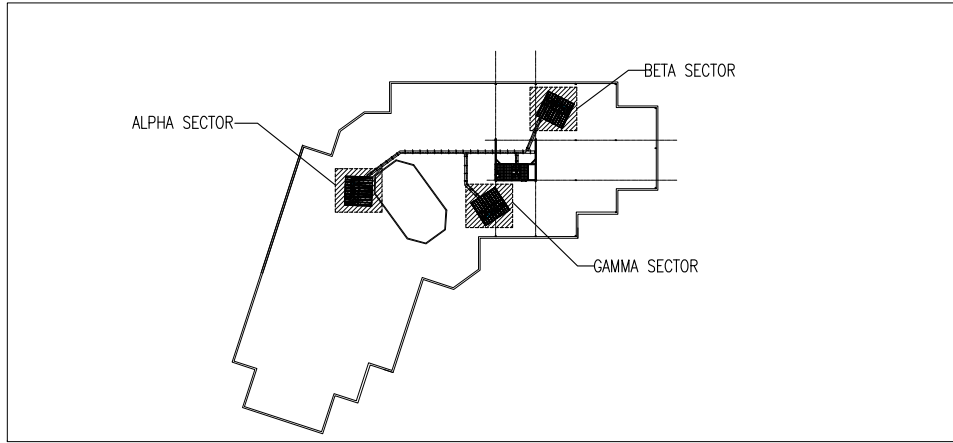
ANTENNA PLAN PHASES

SHEET NUMBER:

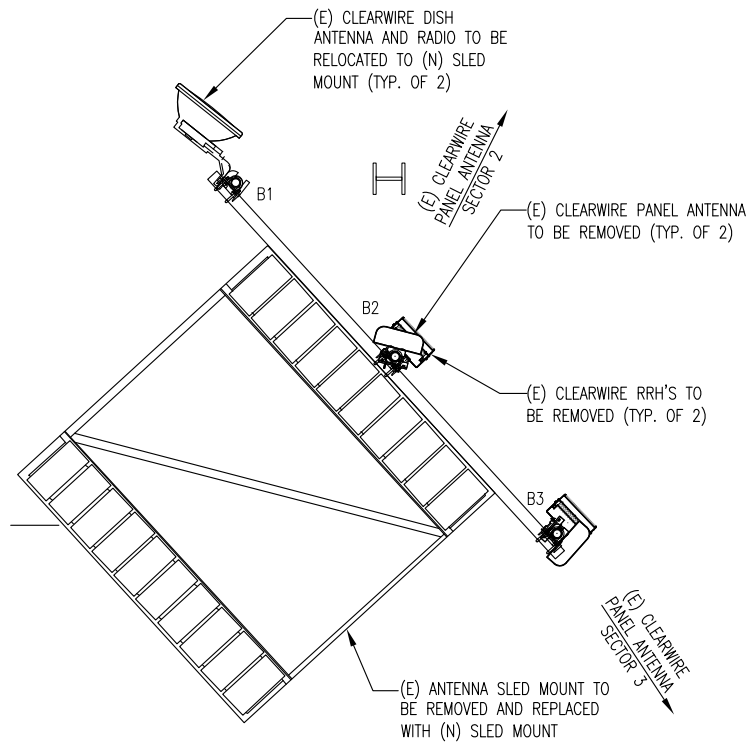
A-3



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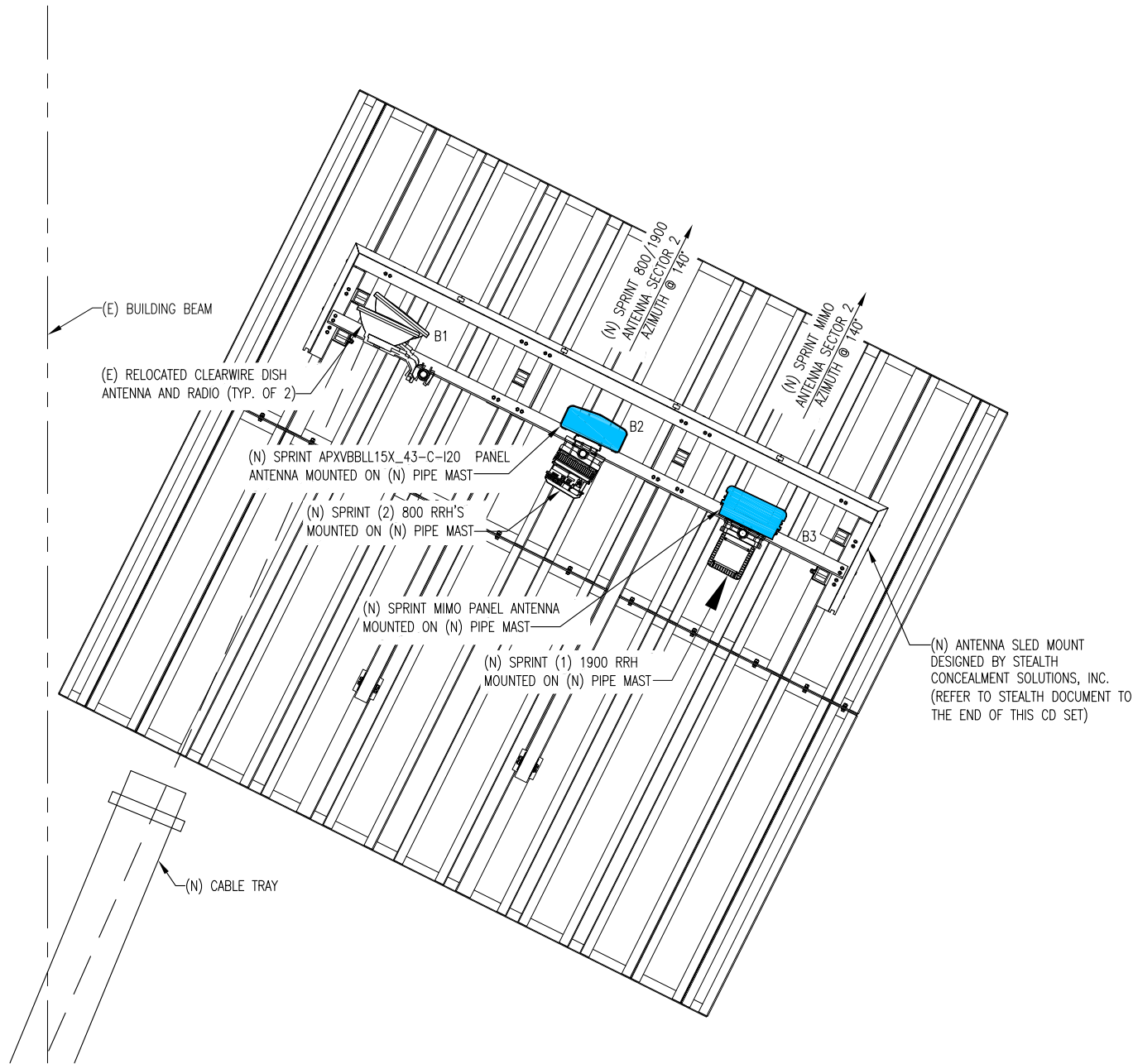
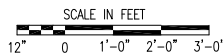


KEY PLAN



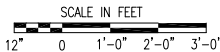
EXISTING ANTENNA PLAN  
(BETA & GAMMA SECTORS)

SCALE: 1/2"=1' (24x36)  
1/4"=1' (11x17)



PROPOSED ANTENNA PLAN (BETA SECTOR) (FINAL)

SCALE: 1/2"=1' (24x36)  
1/4"=1' (11x17)



PLANS PREPARED FOR:



PLANS PREPARED BY:

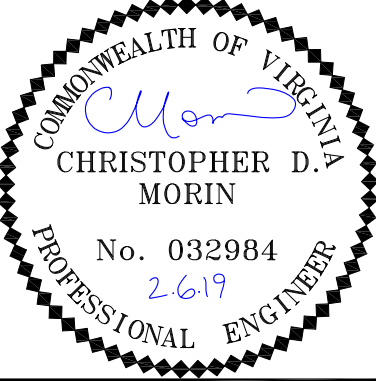


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|------------|------------------|----------|----|-----|
|            | PRELIMINARY CD'S | 10/02/18 | RD | A   |
|            | PRELIMINARY CD'S | 10/11/18 | MM | B   |
|            | PRELIMINARY CD'S | 10/19/18 | ME | C   |
|            | FINAL CD'S       | 10/30/18 | RD | O   |
|            | LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

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HERNDON, VA 20170

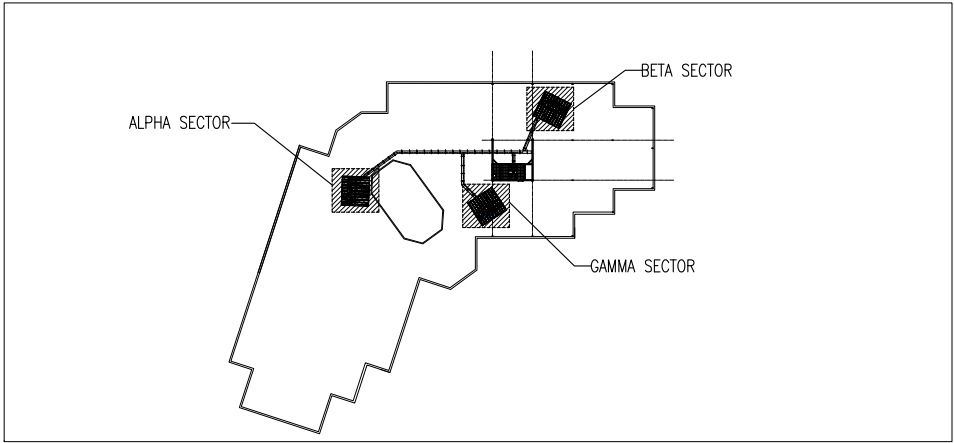
SHEET DESCRIPTION:

ANTENNA PLAN PHASES

SHEET NUMBER:

A-3A

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KEY PLAN

PROPOSED ANTENNA PLAN (GAMMA SECTOR) (FINAL)

SCALE: 1/2"=1' (24x36)  
1/4"=1' (11x17)

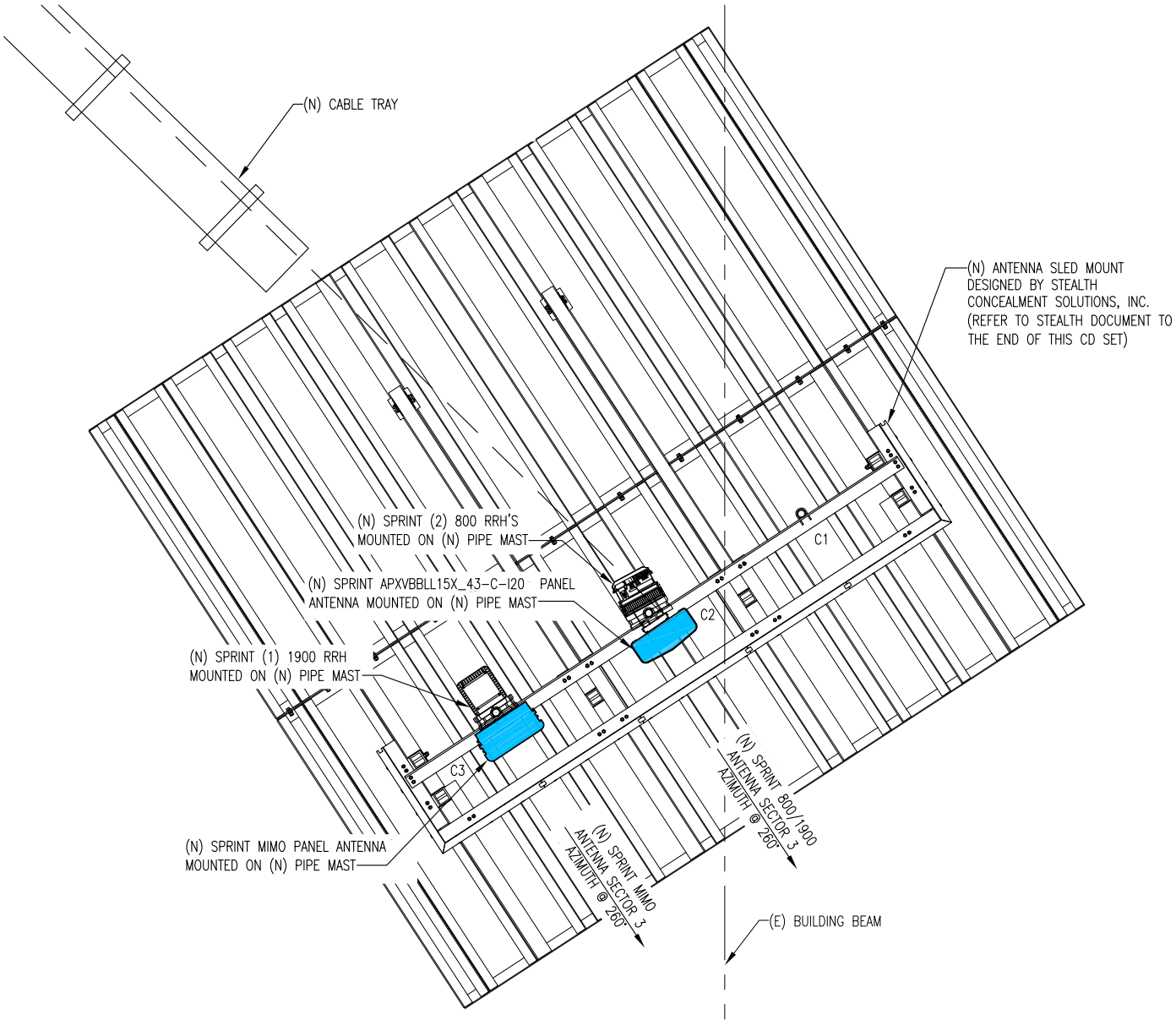
SCALE IN FEET

12" 0 1'-0" 2'-0" 3'-0"

1

A-3B

TRUE NORTH



| ANTENNA SCHEDULE |                  |          |         |              |                     |            |         |            |                                               |                               |              |                     |                  |
|------------------|------------------|----------|---------|--------------|---------------------|------------|---------|------------|-----------------------------------------------|-------------------------------|--------------|---------------------|------------------|
|                  | ANTENNA POSITION | STATUS   | CARRIER | MANUFACTURER | ANTENNA MODEL #     | TECHNOLOGY | AZIMUTH | RAD CENTER | RRH                                           | CABLES                        | CABLE LENGTH | FIBER JUMPER LENGTH | RF JUMPER LENGTH |
| ALPHA            | A2               | PROPOSED | SPRINT  | RFS          | APXVBLL15X_43-C-I20 | LTE        | 25°     | 45'        | (N) (2) RRH-2X50-800<br>(N) (1) RRH-4X45-1900 | (N) (1) 1.66" HYBRIFLEX CABLE | 185'         | 10'                 | 6'               |
|                  | A3               | PROPOSED | SPRINT  | NOKIA        | MAA-AAHC            | LTE        | 25°     | 45'        | -                                             |                               | 185'         | 10'                 | 6'               |
| BETA             | B2               | PROPOSED | SPRINT  | RFS          | APXVBLL15X_43-C-I20 | LTE        | 140°    | 45'        | (N) (2) RRH-2X50-800<br>(N) (1) RRH-4X45-1900 | (N) (1) 1.66" HYBRIFLEX CABLE | 84'          | 10'                 | 6'               |
|                  | B3               | PROPOSED | SPRINT  | NOKIA        | MAA-AAHC            | LTE        | 140°    | 45'        | -                                             |                               | 84'          | 10'                 | 6'               |
| GAMMA            | C2               | PROPOSED | SPRINT  | RFS          | APXVBLL15X_43-C-I20 | LTE        | 260°    | 45'        | (N) (2) RRH-2X50-800<br>(N) (1) RRH-4X45-1900 | (N) (1) 1.66" HYBRIFLEX CABLE | 132'         | 10'                 | 6'               |
|                  | C3               | PROPOSED | SPRINT  | NOKIA        | MAA-AAHC            | LTE        | 260°    | 45'        | -                                             |                               | 132'         | 10'                 | 6'               |

NOTE:  
(E) M/W DISH ANTENNAS NOT SHOWN FOR CLARITY

ANTENNA SCHEDULE

SCALE: N.T.S.

2

A-3B

PLANS PREPARED FOR:

Sprint

6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

BC

architects  
engineers

5661 COLUMBIA PIKE, SUITE 200  
FALLS CHURCH, VA 22041-2868  
TEL: (703) 671-6000  
FAX: (703) 671-6300

MLA PARTNER:

WILLIN

Consultants Inc.

906 N MAIN ST. NW  
CONYERS, GA 30094

ENGINEERING LICENSE:

COMMONWEALTH OF VIRGINIA

CHRISTOPHER D. MORIN

No. 032984  
2.6.19

PROFESSIONAL ENGINEER

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|------------------|----------|----|-----|--|
| DESCRIPTION      | DATE     | BY | REV |  |
| PRELIMINARY CD'S | 10/02/18 | RD | A   |  |
| PRELIMINARY CD'S | 10/11/18 | MM | B   |  |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |  |
| FINAL CD'S       | 10/30/18 | RD | O   |  |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |  |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

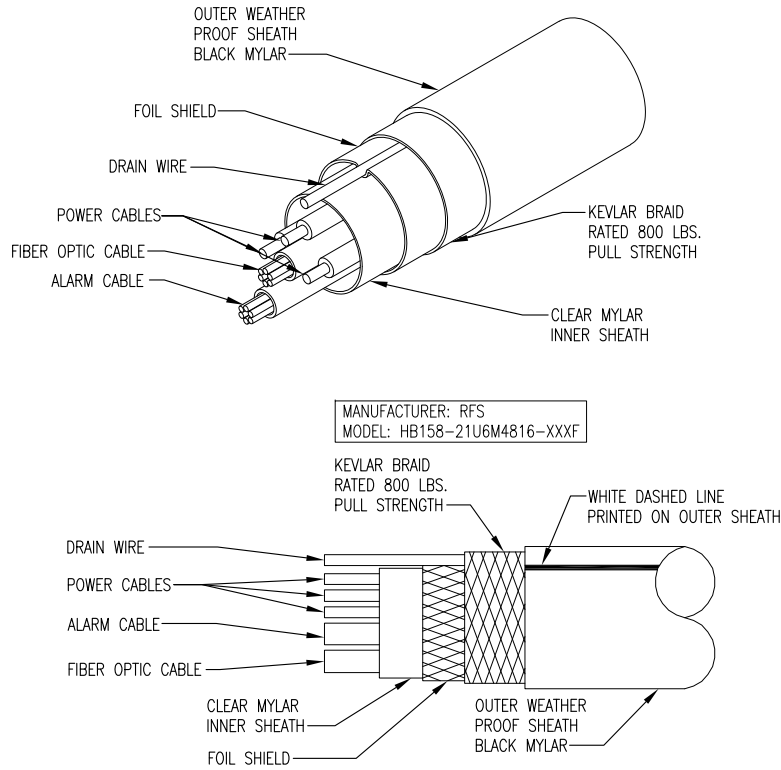
ANTENNA PLAN PHASES  
& ANTENNA SCHEDULE

SHEET NUMBER:

A-3B

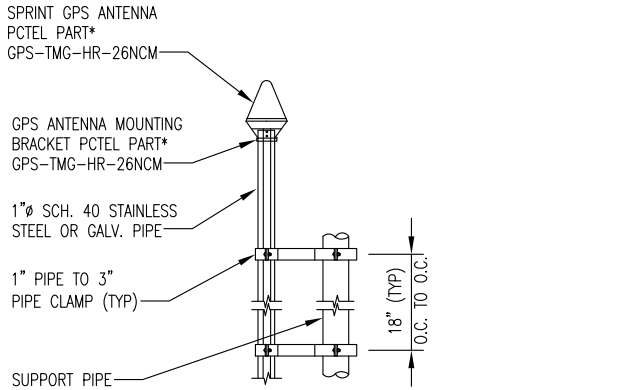


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- 3.6 WEATHERPROOFING CONNECTORS AND GROUND KITS:
- A. ALL CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED USING BUTYL RUBBER WEATHERPROOFING AND TAPE. THIS INSTALLATION MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION OR AS SHOWN ON THE CONSTRUCTION DRAWINGS (WHICHEVER IS GREATER). IF NO DIRECTION IS PROVIDED, WEATHERPROOFING MUST BE DONE PER THE FOLLOWING INSTRUCTIONS.
1. THE COAXIAL CABLE CONNECTION OR GROUND KIT CAN BE ENCOMPASSED INTO COLD SHRINK AND COMPLETELY WRAPPED WITH 2 INCH WIDE ELECTRICAL TAPE OVERLAPPING EACH ROW BY APPROXIMATELY 1/2" AND EXTENDING PAST THE CONNECTION BY TWO INCHES AS DISCUSSED BELOW; OR
  2. THE COAXIAL CABLE CONNECTION OR GROUND KIT CAN BE WRAPPED WITH LAYERS OF ELECTRICAL/BUTYL RUBBER/ELECTRICAL TAPE AS DISCUSSED BELOW; OR
  3. THE COAXIAL CABLE CONNECTION OR GROUND KIT CAN BE WRAPPED WITH TWO LAYERS OF 1.5 INCH WIDE SELF-AMALGAMATING TAPE COVERED WITH TWO LAYERS OF ELECTRICAL TAPE AS DISCUSSED BELOW.

HYBRIFLEX CABLE DETAIL 1 A-4  
SCALE: N.T.S.

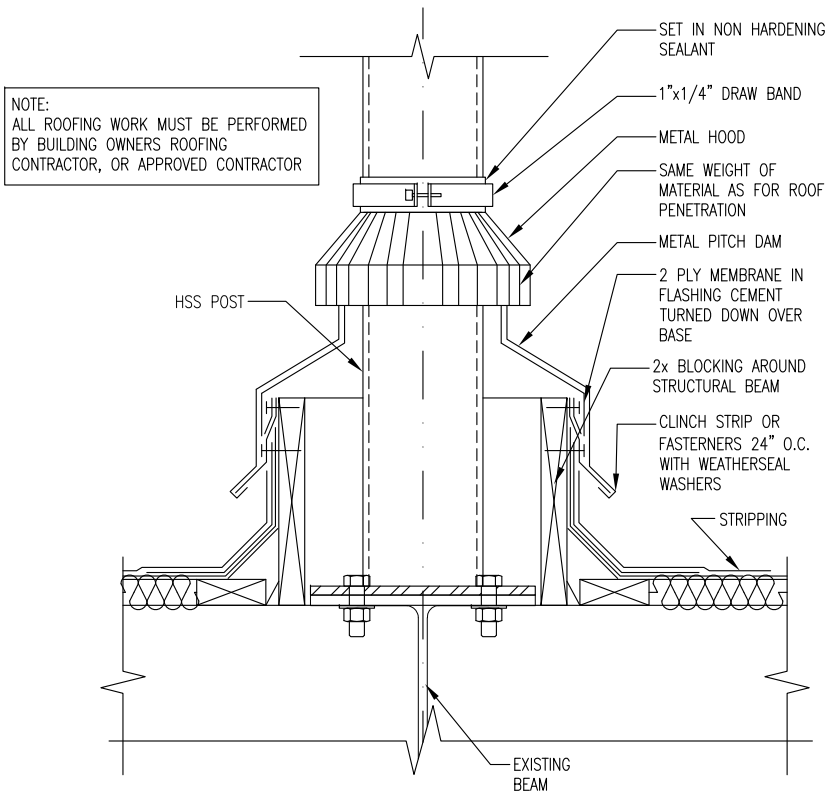


- NOTES:
1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
  2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/16" DIAMETER, SCH. 40, GALV. STEEL, OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MIN. OF 18 INCHES") USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBARRED AND SMOOTHED IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
  3. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.
  4. DO NOT SWEEP TEST GPS ANTENNA.

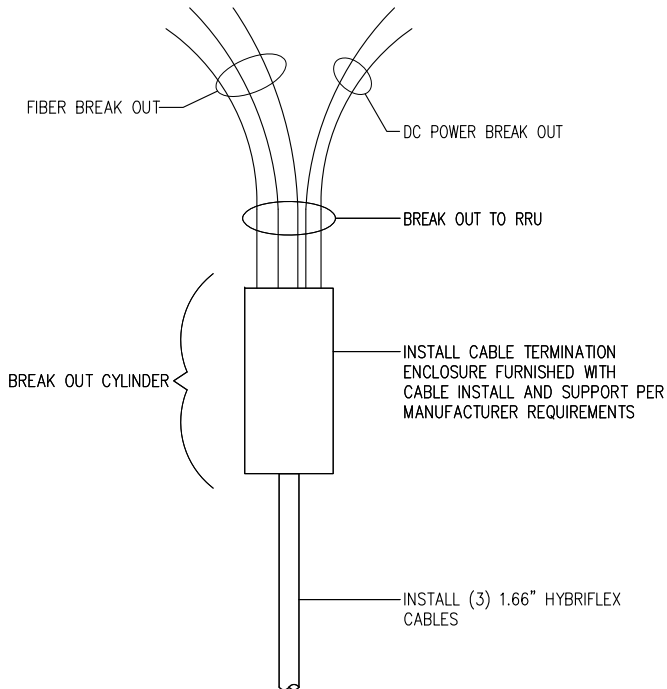
| MANUFACTURER | MODEL            | FREQUENCY        | WEIGHT  | DIMENSIONS    |
|--------------|------------------|------------------|---------|---------------|
| PCTEL        | GPS-TMG-HR-26NCM | 1575.45 ± 10 MHZ | 0.3 LBS | 5" H X 3.2" D |

| GAIN     | POLARIZATION | OPERATING DC VOLTAGE | RADOME COLOR |
|----------|--------------|----------------------|--------------|
| 3.5 dBic | RH CIRCULAR  | 3.3- 12.0 V          | WHITE        |

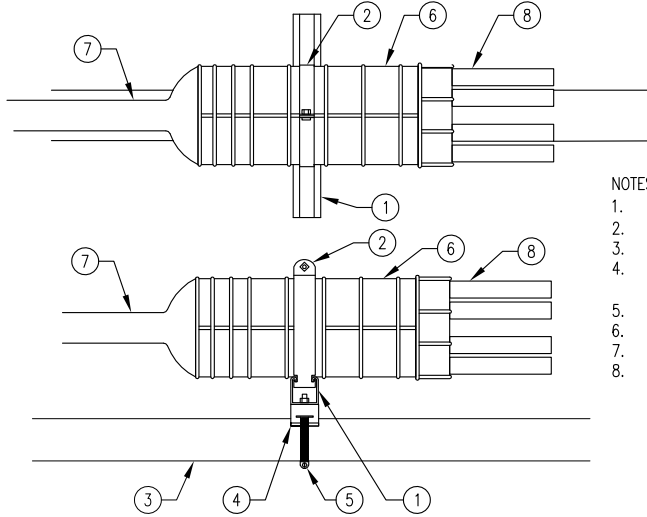
GPS ANTENNA 2 A-4  
SCALE: N.T.S.



TYP. FLASHING DETAIL 3 A-4  
SCALE: N.T.S.



HYBRID BREAKOUT DETAIL 4 A-4  
SCALE: N.T.S.



HYBRID BREAKOUT DETAIL 5 A-4  
SCALE: N.T.S.

PLANS PREPARED FOR:

**Sprint**

6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

**BC**  
architects  
engineers

5661 COLUMBIA PIKE, SUITE 200  
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FAX: (703) 671-6300

MLA PARTNER:

**WILLIN**  
Consultants Inc.

906 N MAIN ST. NW  
CONYERS, GA 30094

ENGINEERING LICENSE:

COMMONWEALTH OF VIRGINIA

CHRISTOPHER D. MORIN

No. 032984  
2.6.19

PROFESSIONAL ENGINEER

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|            | PRELIMINARY CD'S | 10/19/18 | ME | C   |
|            | FINAL CD'S       | 10/30/18 | RD | O   |
|            | LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

**HUNTMAR PARK**

SITE CASCADE:

**DC52XC007-B**

SITE ADDRESS:

**505 HUNTMAR PARK DR  
HERNDON, VA 20170**

SHEET DESCRIPTION:

**DETAILS**

SHEET NUMBER:

**A-4**

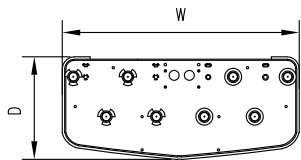
Y:\Drawings - 2018\Sprint\Willin\DC DD Macro 2018\DC52XC007\CD'S - REV A\A4A.dwg  
FOR BC INTERNAL USE ONLY: 10-02-18 RBDKH 15:56:19



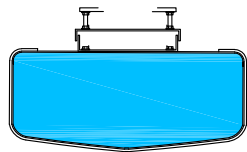
| MANUFACTURER | MODEL               | FREQUENCIES, MHZ |           |
|--------------|---------------------|------------------|-----------|
| RFS          | APXVBLL15X_43-C-120 | 694-960          | 1695-2690 |

| POLARIZATION | L, IN | W, IN | D, IN | WEIGHT, LB |
|--------------|-------|-------|-------|------------|
| DUAL         | 66.7  | 19.6  | 8.5   | 75         |

| GAIN dBi | MAX POWER INPUT PER PORT |
|----------|--------------------------|
| 19.3     | 300                      |



BOTTOM



TOP

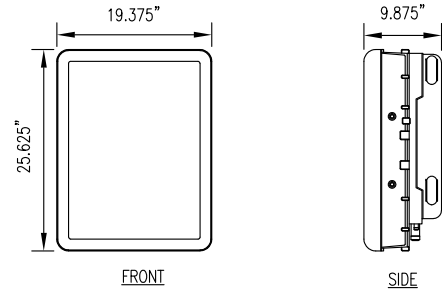
800/1900 ANTENNA SPECS

SCALE: N.T.S.

1  
A-4A

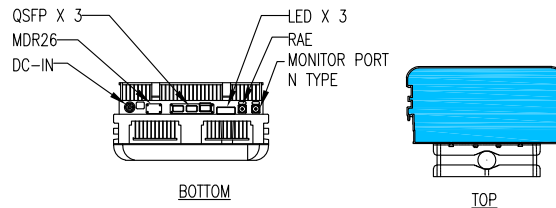
TD LTE 2.5G MIMO ADAPTIVE ANTENNA (MAA) -AAHC

| DESCRIPTION                    | 2.5G MAA -AAHC(64T64R)                              |
|--------------------------------|-----------------------------------------------------|
| OPERATING BAND                 | 2496 -2690 MHz (Band 41)                            |
| NUMBER OF CHANNELS             | 64                                                  |
| ANTENNA                        | DUAL POLARIZED<br>128 ANTENNA ELEMENTS              |
| OCCUPIED BANDWIDTH OBW         | 60MHZ (LTE 3X20MHZ, HW CAPABLE TO NR BY SW UPGRADE) |
| OUTPUT POWER                   | 1.875W PER ANTENNA                                  |
| VOLUME (L)                     | 80L                                                 |
| (HEIGHT X WIDTH X DEPTH)       | (H651MM X W501MM X D245MM)                          |
| WEIGHT (KG)                    | 47                                                  |
| MOUNTING                       | WALL OR POLE                                        |
| OPTICAL PORTS                  | 3X40G QSFP                                          |
| MAX POWER CONSUMPTION          | 1400W AT 75% DUTY CYCLE                             |
| OPERATIONAL TEMPERATURE        | -40°C TO 131°F<br>(-40°C TO 55°C)                   |
| SUPPLY VOLTAGE / VOLTAGE RANGE | -48V DC VOLTAGE (-40.5V~-57V)                       |
| INGRESS PROTECTION CLASS       | IP65 (OUTDOOR RATED)                                |



FRONT

SIDE



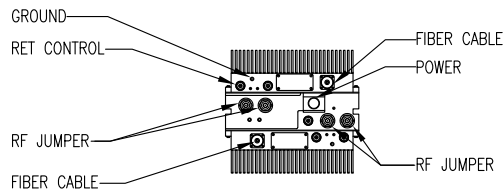
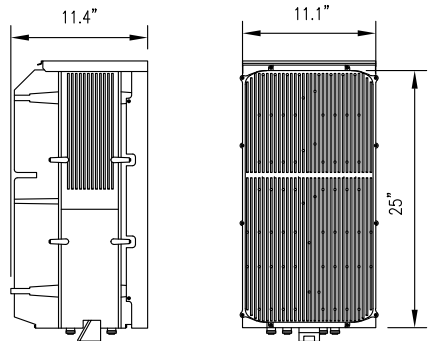
BOTTOM

TOP

mMIMO (MAA-AAHC) ANTENNA SPECS

SCALE: N.T.S.

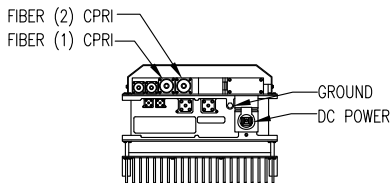
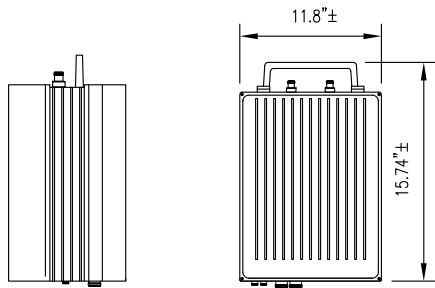
2  
A-4A



1900 RRH

SCALE: N.T.S.

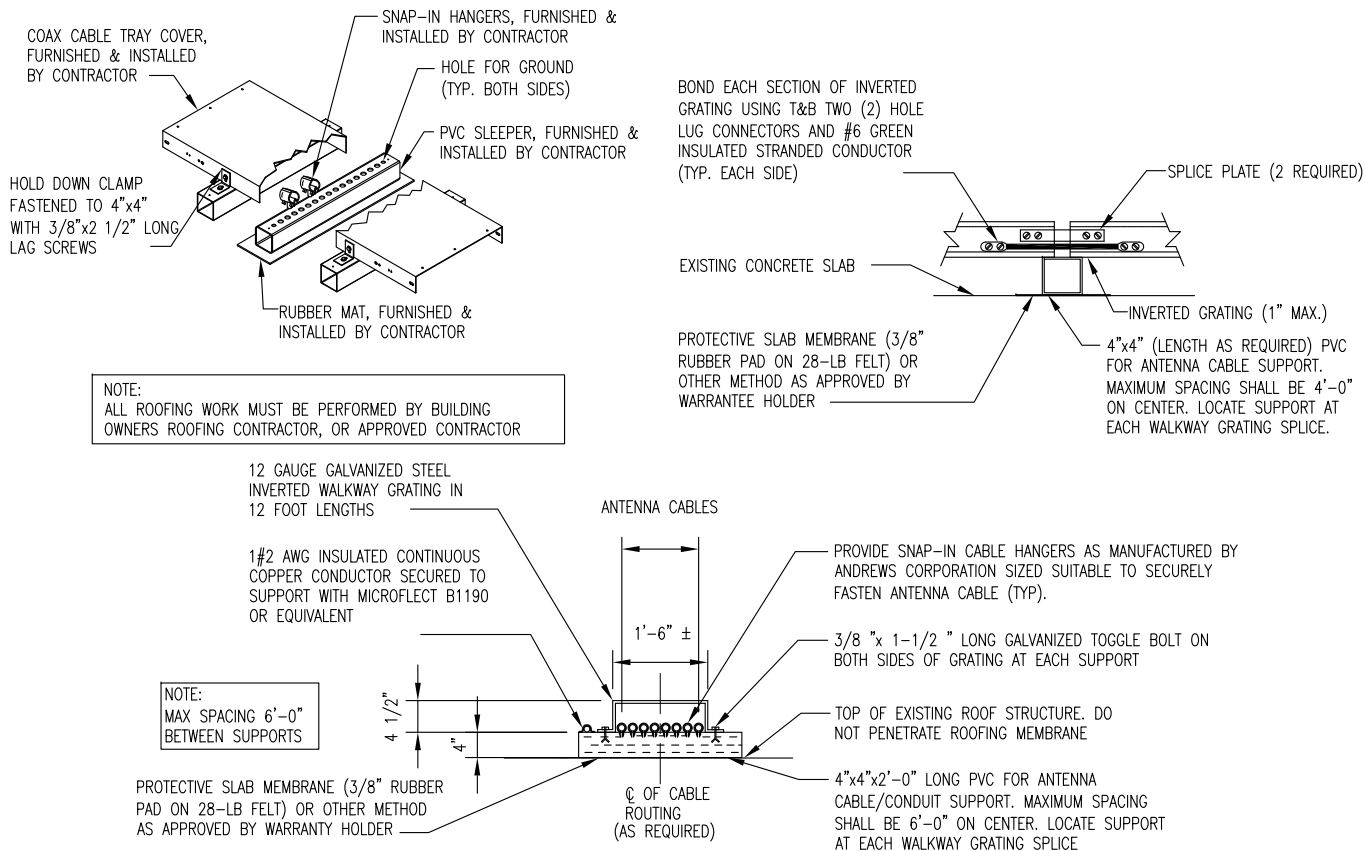
3  
A-4A



800 RRH

SCALE: N.T.S.

4  
A-4A



NOTE:  
ALL ROOFING WORK MUST BE PERFORMED BY BUILDING OWNERS ROOFING CONTRACTOR, OR APPROVED CONTRACTOR

NOTE:  
MAX SPACING 6'-0" BETWEEN SUPPORTS

CABLE TRAY DETAIL

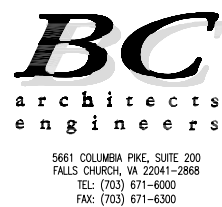
SCALE: N.T.S.

5  
A-4A

PLANS PREPARED FOR:



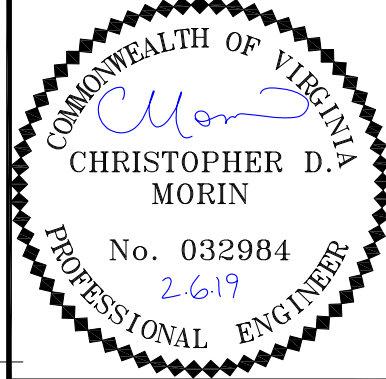
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|            | FINAL CD'S       | 10/30/18 | RD | O   |
|            | LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

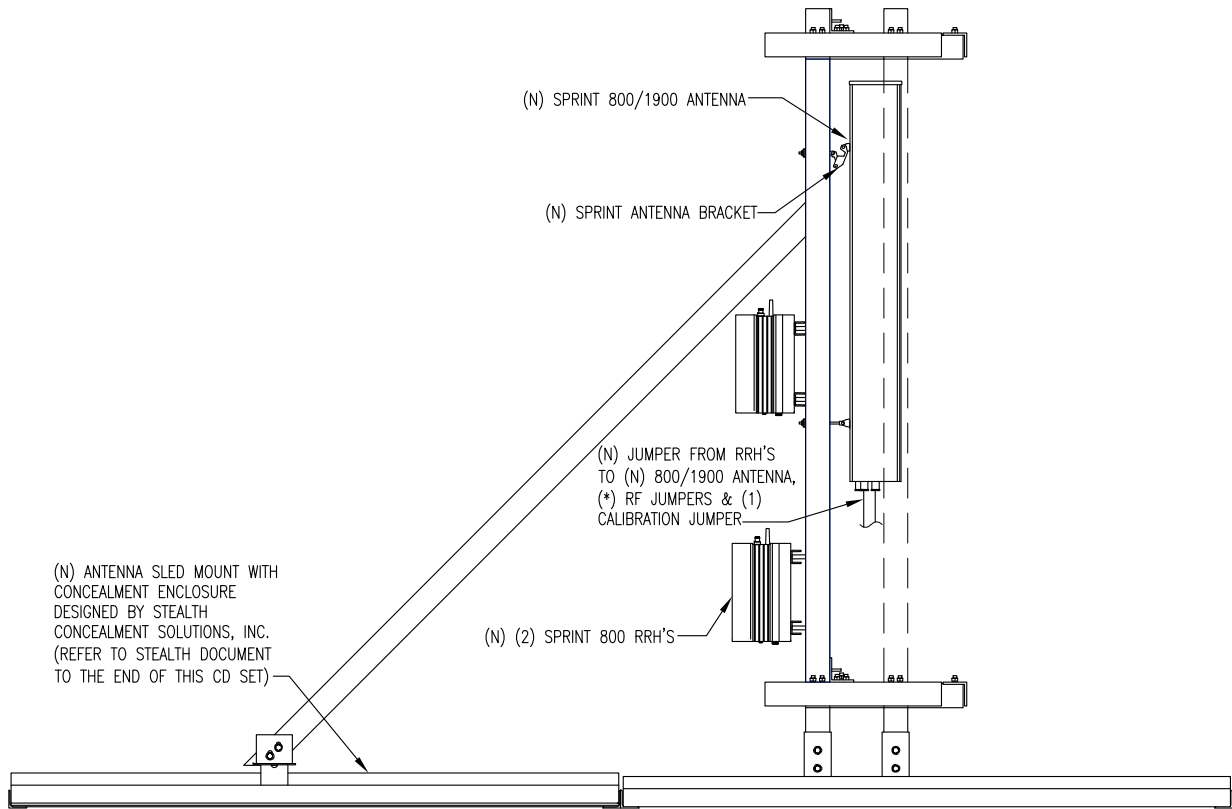
DETAILS

SHEET NUMBER:

A-4A



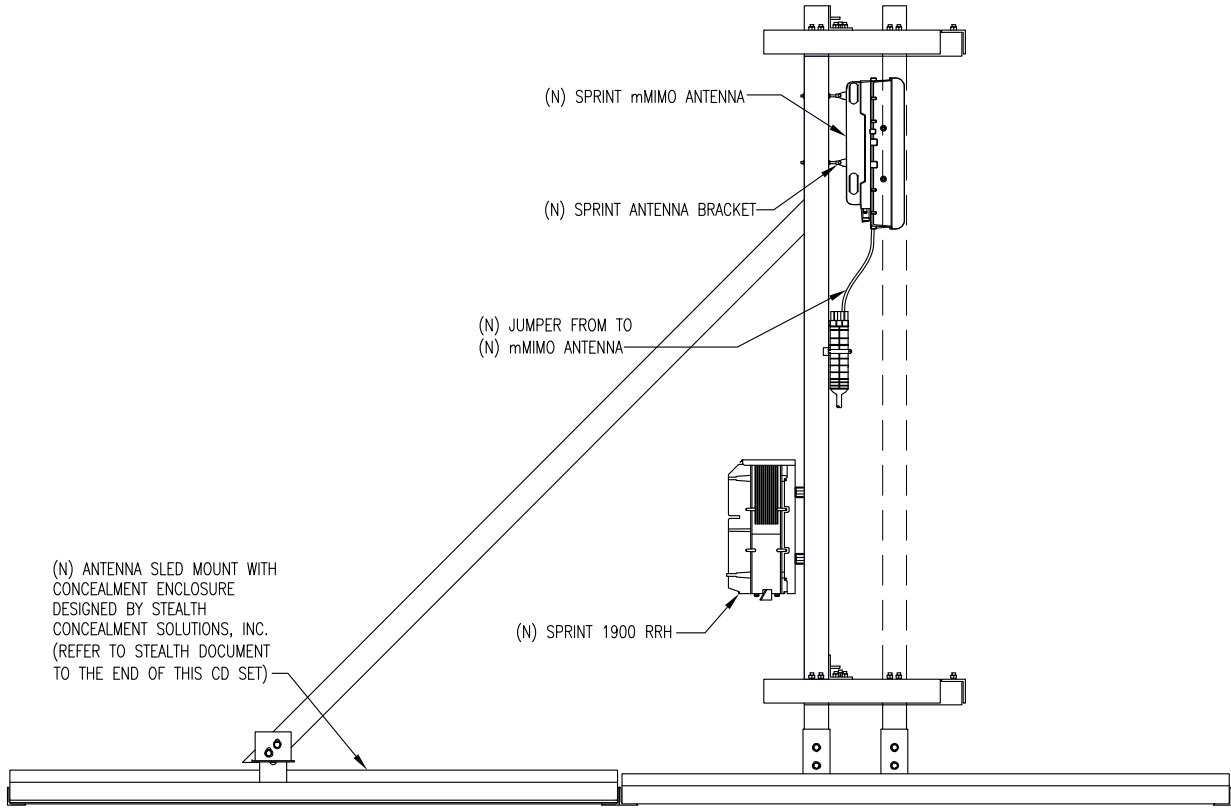
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800/1900 ANTENNA & 800 RRH'S DETAILS

SCALE: N.T.S.

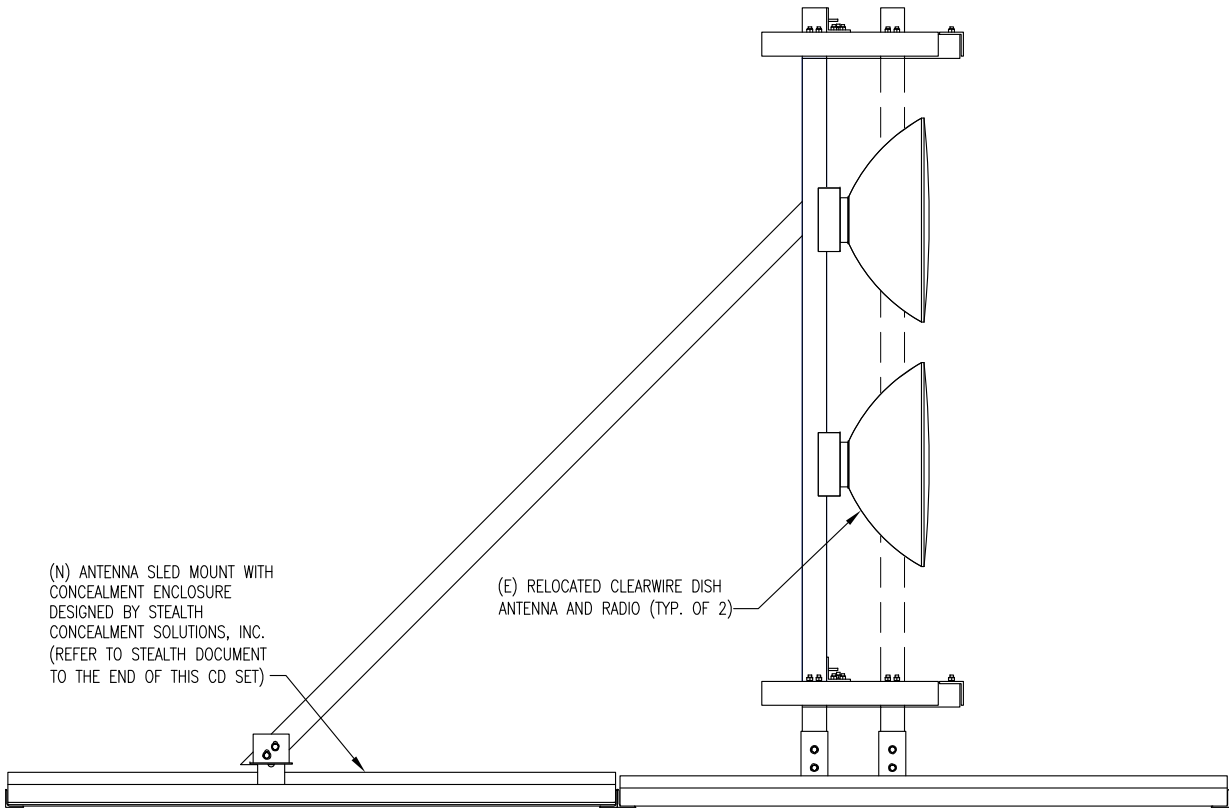
1  
A-5



mMIMO ANTENNA & 1900 RRH MOUNTING DETAIL

SCALE: N.T.S.

2  
A-5



CLEARWIRE DISH ANTENNA WITH RADIO MOUNTING DETAIL (ALPHA & BETA SECTORS)

SCALE: N.T.S.

3  
A-5

PLANS PREPARED FOR:



PLANS PREPARED BY:

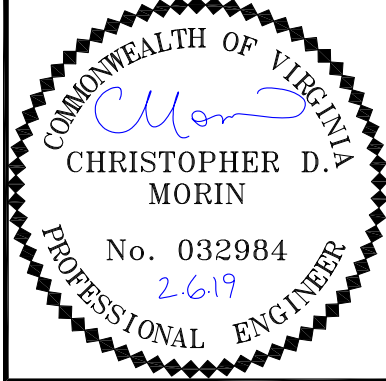


5661 COLUMBIA PIKE, SUITE 200  
FALLS CHURCH, VA 22041-2868  
TEL: (703) 671-6000  
FAX: (703) 671-6300

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SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

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HERNDON, VA 20170

SHEET DESCRIPTION:

ANTENNAS & RRH'S  
MOUNTING DETAILS

SHEET NUMBER:

A-5

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| Frequency/Radio | Indicator | ID     |
|-----------------|-----------|--------|
| 800 #1          | Yellow    | Green  |
| 800 #2          | Yellow    | Orange |
| 1900 #1         | Yellow    | Red    |
| 1900 #2         | Yellow    | Brown  |
| 1900 #3         | Yellow    | Blue   |
| 2500 #1         | Yellow    | White  |
| 2500 #2         | Yellow    | Purple |
| 2500 #3         | Yellow    | Gray   |

NOTE\*: ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) WRAPS OF TAPE.

NOTE\*: ALL COLOR BANDS INSTALLED AT THE TOWER TOP SHALL BE A MINIMUM OF 3" WIDE AND SHALL HAVE A MINIMUM OF 3/4" SPACING BETWEEN EACH COLOR.

NOTE\*: ALL COLOR BANDS INSTALLED AT OR NEAR THE GROUND MAY BE ONLY 3/4" WIDE. EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET 3" WIDE BANDS.

NOTE\*: EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH 3/4" COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.

NOTE\*: ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" BANDS ON EACH END OF THE BOTTOM JUMPER.

NOTE\*: ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.

NOTE\*: EACH COLOR BAND SHALL HAVE A MINIMUM OF (3) WRAPS AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.

NOTE\*: X-POLE ANTENNAS SHOULD USE "XX-1" FOR THE "+45" PORT, "XX-2" FOR THE "-45" PORT.

NOTE\*: COLOR BAND #4 REFERS TO THE FREQUENCY BAND: ORANCE=850, VIOLET=1900. USED ON JUMPERS ONLY.

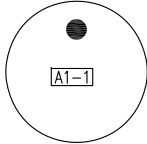
NOTE\*: RF FEEDLINE SHALL BE IDENTIFIED WITH A METAL TAG (STAINLESS OR BRASS) AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER.

NOTE\*: ANTENNAS MUST BE IDENTIFIED, USING THE SECTOR LETTER AND ANTENNA NUMBER, WITHA BLACK MARKER PRIOR TO INSTALLATION.

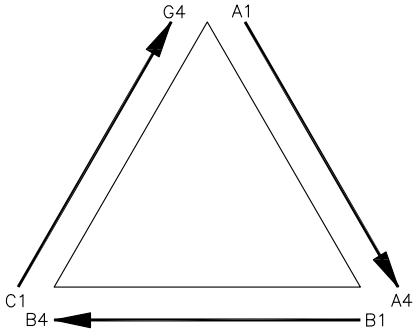
CABLE MARKING TAGS:

TO PROVIDE ADDITIONAL IDENTIFICATION RF CABLES SHALL BE IDENTIFIED WITH A METAL TAG MADE OF STAINLESS STEEL OR BRASS AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER. THE ID MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSIVE PROOF WIRE OR WAX STRING AROUND THE CABLE. THE TAG SHOULD BE LABELED AS SHOWN IN FIGURE 2.

FIGURE 2: TAG DETAIL EXAMPLE



| CABLE MARKING COLOR CONVENTION TABLE |     |                                                                                                                                                                                                    |
|--------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TAPE                                 | TAG | LOCATIONS                                                                                                                                                                                          |
| X                                    |     | EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.                                                                                                                                |
| X                                    |     | EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" SIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING. |
|                                      | X   | MARKING TAGS SHALL BE ATTACHED AT CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.                                                                                                                 |
| X                                    |     | ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF BOTTOM JUMPER.                                                                                              |



PLANS PREPARED FOR:

Sprint

6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

BC

architects  
engineers

5661 COLUMBIA PIKE, SUITE 200  
FALLS CHURCH, VA 22041-2868  
TEL: (703) 671-6000  
FAX: (703) 671-6300

MLA PARTNER:

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Consultants Inc.

906 N MAIN ST. NW  
CONYERS, GA 30094

ENGINEERING LICENSE:

COMMONWEALTH OF VIRGINIA

CHRISTOPHER D. MORIN

No. 032984  
2.6.19

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| LL & JX COMMENTS | 02/06/19 | MM | 1   |  |

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HUNTMAR PARK

SITE CASCADE:

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SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

CABLE MARKING COLOR  
CONVENTION TABLE

SHEET NUMBER:

A-6



Prepared By  
Mark Elliott

Creation Date  
June 4, 2018

Revision Number  
R-1

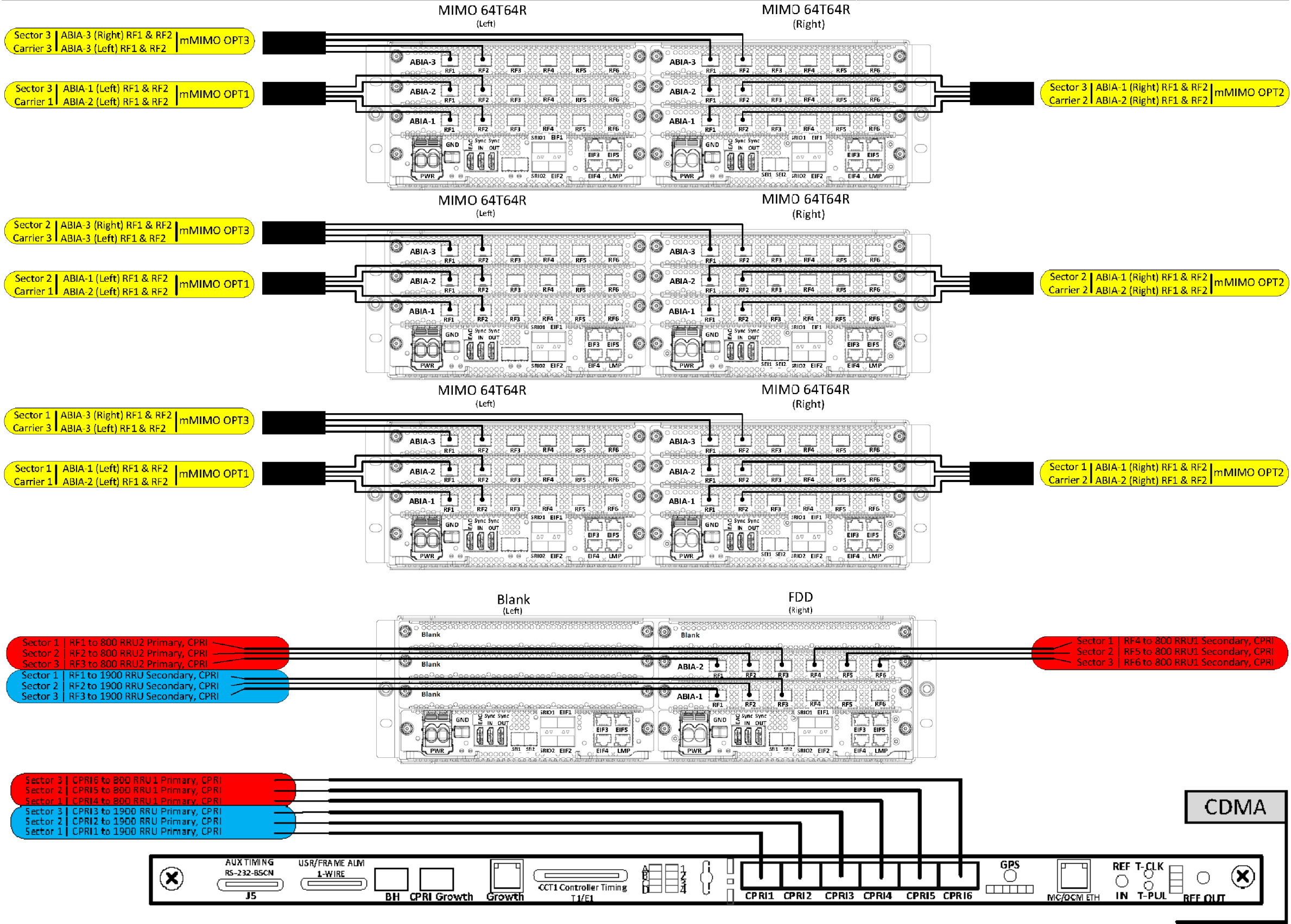
Approved By  
RAN Hardware & Antenna Teams

Approval Date  
DRAFT

ALU CDMA & Nokia FDD w mMIMO Fiber Connections

(Two 800, One 1900, & One mMIMO Radio per sector)

Sprint



PLANS PREPARED FOR:

Sprint

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OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

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architects  
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HERNDON, VA 20170

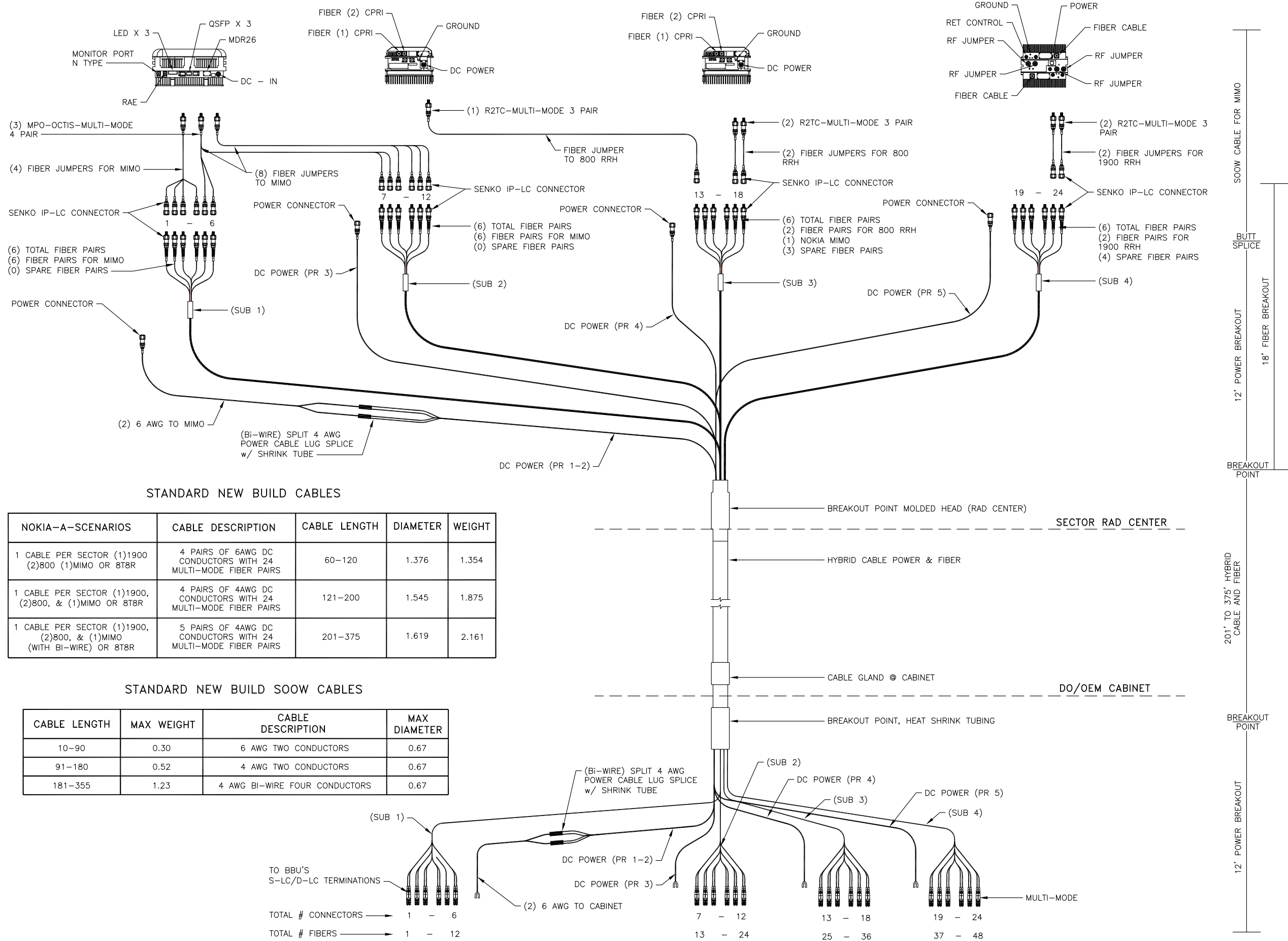
SHEET DESCRIPTION:

FIBER CONNECTION  
DETAILS

SHEET NUMBER:

A-7

Y:\Drawings - 2018\Sprint\Willin\DC DO Macro 2018\DC52XC07\CD'S - REV A\A8.dwg  
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STANDARD NEW BUILD CABLES

| NOKIA-A-SCENARIOS                                                    | CABLE DESCRIPTION                                            | CABLE LENGTH | DIAMETER | WEIGHT |
|----------------------------------------------------------------------|--------------------------------------------------------------|--------------|----------|--------|
| 1 CABLE PER SECTOR (1)1900 (2)800 (1)MIMO OR 8T8R                    | 4 PAIRS OF 6AWG DC CONDUCTORS WITH 24 MULTI-MODE FIBER PAIRS | 60-120       | 1.376    | 1.354  |
| 1 CABLE PER SECTOR (1)1900, (2)800, & (1)MIMO OR 8T8R                | 4 PAIRS OF 4AWG DC CONDUCTORS WITH 24 MULTI-MODE FIBER PAIRS | 121-200      | 1.545    | 1.875  |
| 1 CABLE PER SECTOR (1)1900, (2)800, & (1)MIMO (WITH BI-WIRE) OR 8T8R | 5 PAIRS OF 4AWG DC CONDUCTORS WITH 24 MULTI-MODE FIBER PAIRS | 201-375      | 1.619    | 2.161  |

STANDARD NEW BUILD SOOW CABLES

| CABLE LENGTH | MAX WEIGHT | CABLE DESCRIPTION             | MAX DIAMETER |
|--------------|------------|-------------------------------|--------------|
| 10-90        | 0.30       | 6 AWG TWO CONDUCTORS          | 0.67         |
| 91-180       | 0.52       | 4 AWG TWO CONDUCTORS          | 0.67         |
| 181-355      | 1.23       | 4 AWG BI-WIRE FOUR CONDUCTORS | 0.67         |

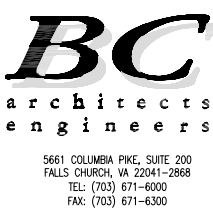
HYBRID CABLE DIAGRAM  
SCALE: N.T.S.

1  
A-8

PLANS PREPARED FOR:



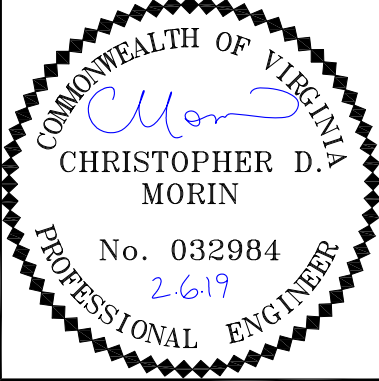
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| PRELIMINARY      | CD'S        | 10/19/18 | ME | C   |
| FINAL            | CD'S        | 10/30/18 | RD | O   |
| LL & JX COMMENTS |             | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

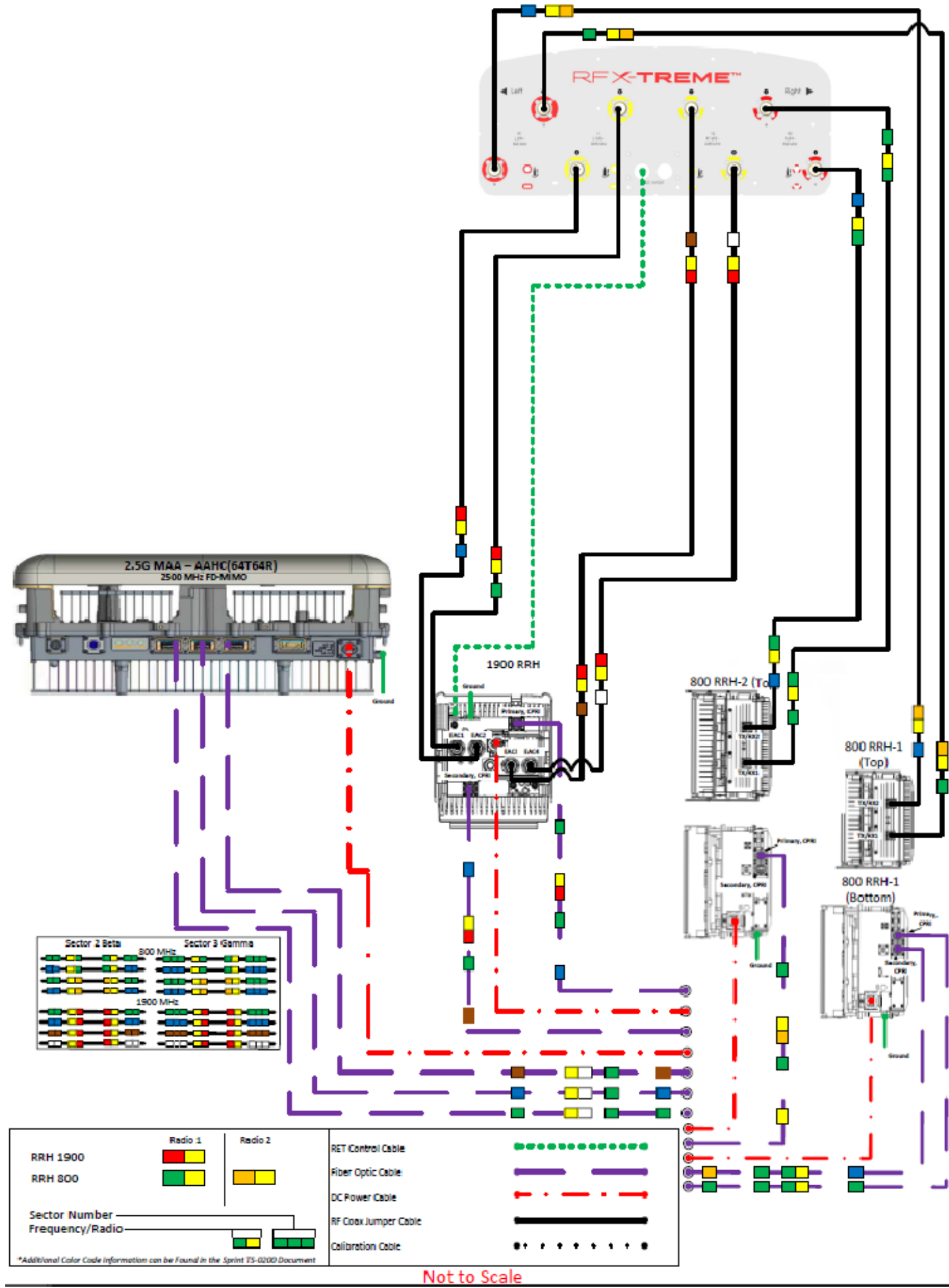
HYBRID CABLE  
DIAGRAM

SHEET NUMBER:

A-8



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PLUMBING DIAGRAM  
SCALE: N.T.S.

1  
A-9

PLANS PREPARED FOR:

**Sprint**  
6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

**BC**  
architects  
engineers  
5661 COLUMBIA PIKE, SUITE 200  
FALLS CHURCH, VA 22041-2868  
TEL: (703) 671-6000  
FAX: (703) 671-6300

MLA PARTNER:

**WILLIN**  
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906 N MAIN ST. NW  
CONYERS, GA 30094

ENGINEERING LICENSE:

COMMONWEALTH OF VIRGINIA  
*Mon*  
CHRISTOPHER D. MORIN  
No. 032984  
2.6.19  
PROFESSIONAL ENGINEER

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| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

**HUNTMAR PARK**

SITE CASCADE:

**DC52XC007-B**

SITE ADDRESS:

**505 HUNTMAR PARK DR  
HERNDON, VA 20170**

SHEET DESCRIPTION:

**PLUMBING  
DIAGRAM**

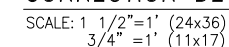
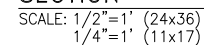
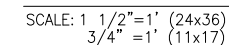
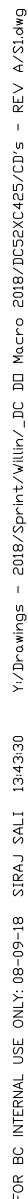
SHEET NUMBER:

**A-9**



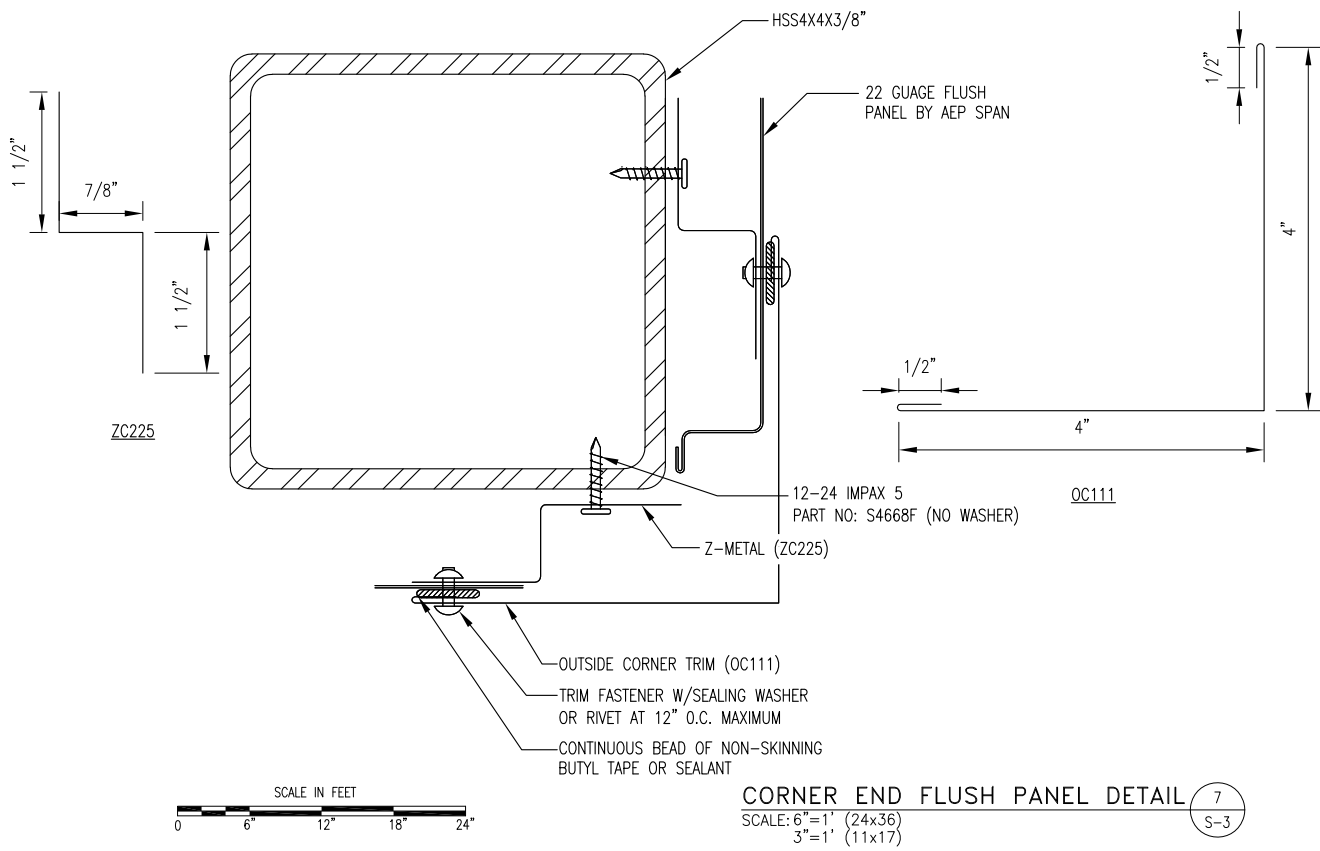
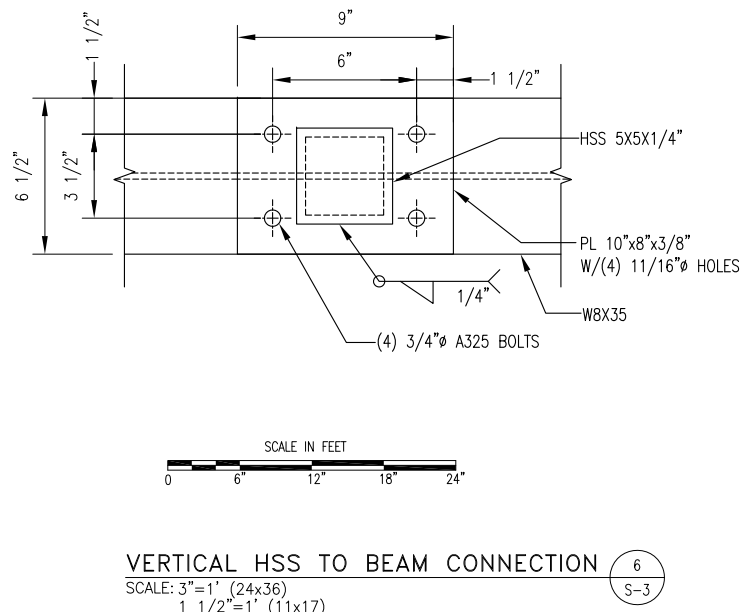
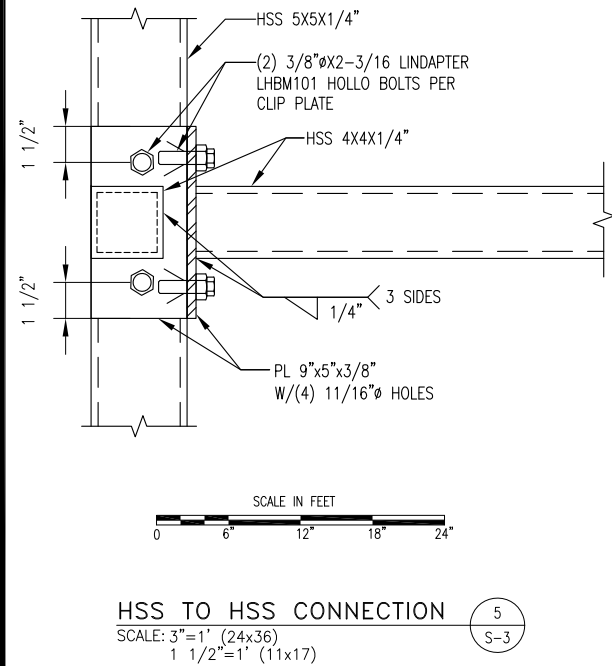
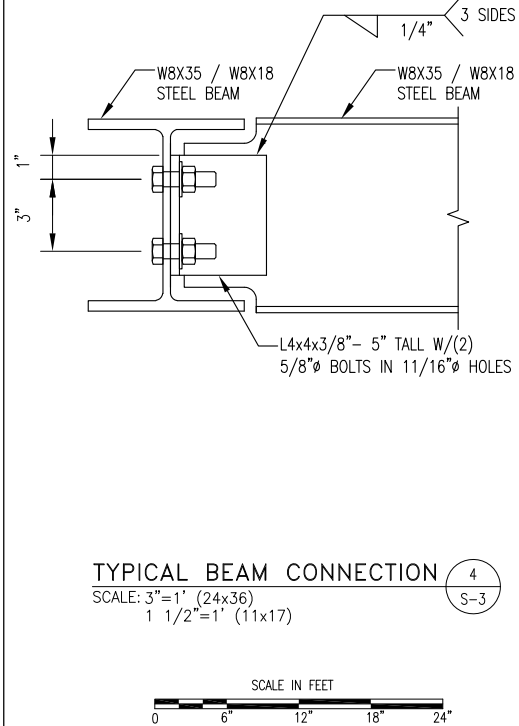
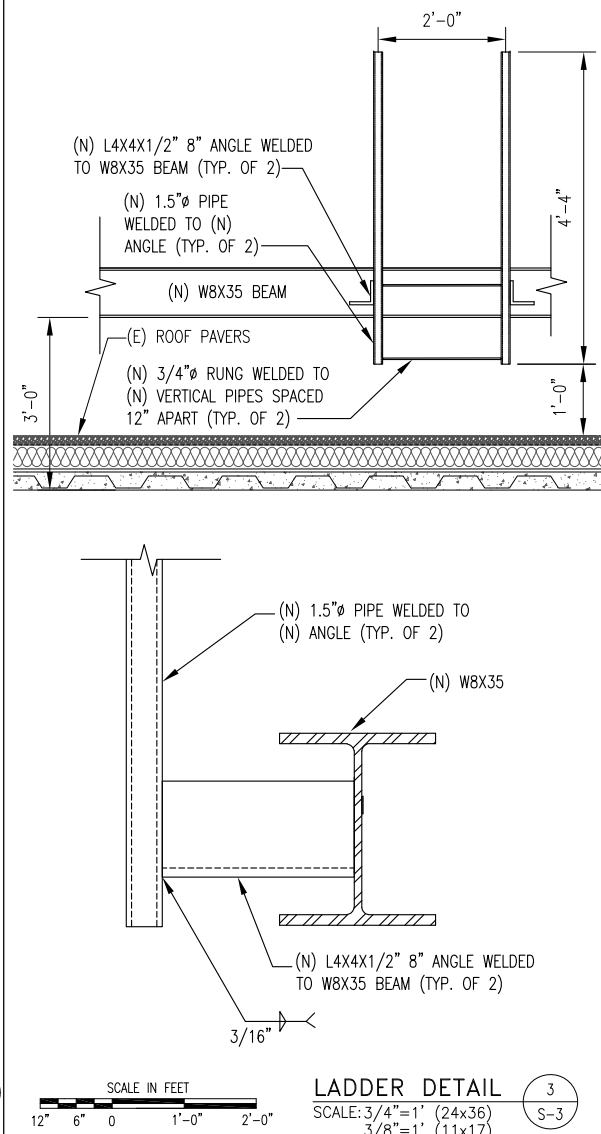
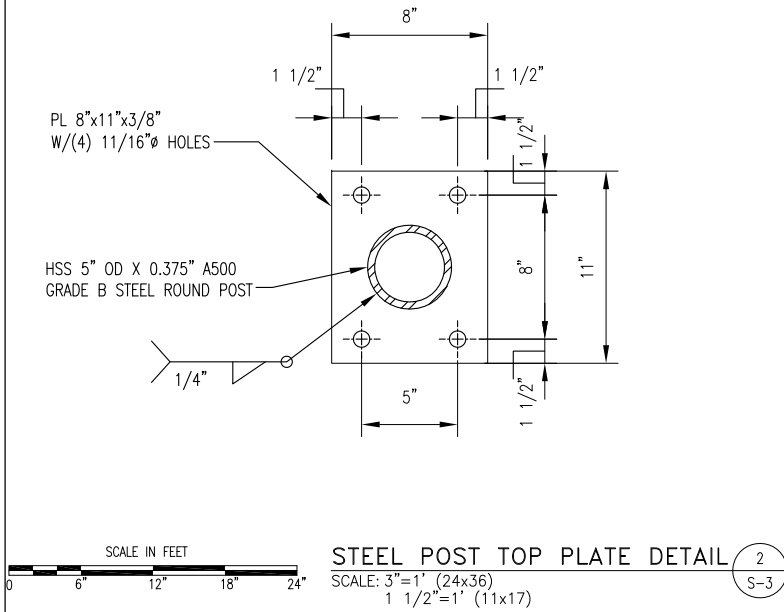
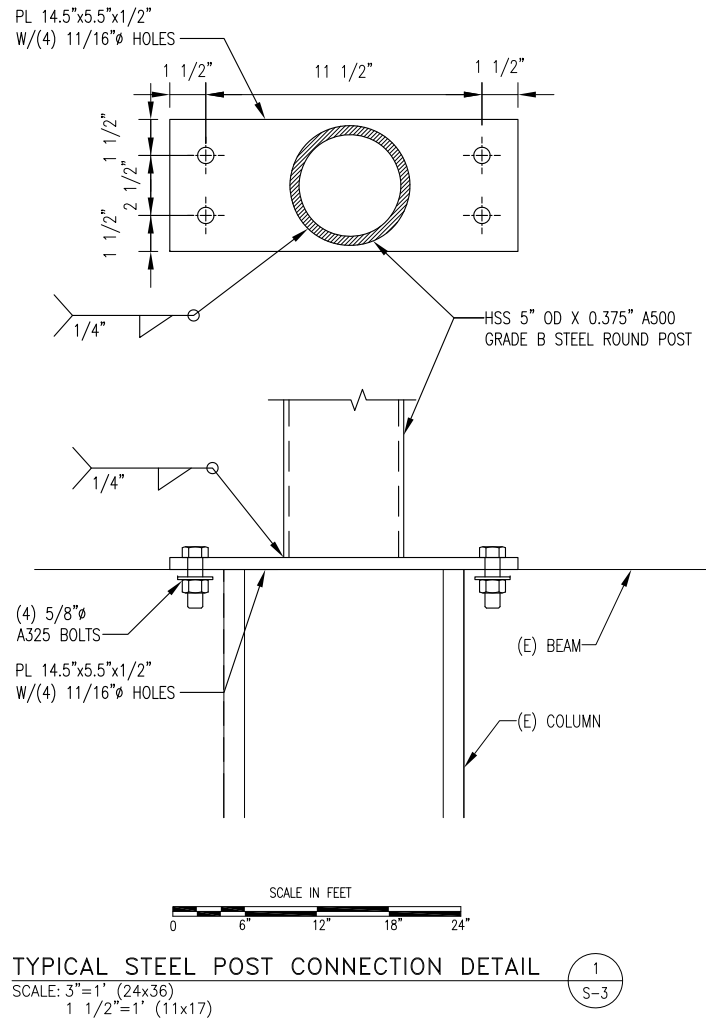
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**S-2**

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PLANS PREPARED FOR:

**Sprint**

6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

**BC**  
architects  
engineers

5661 COLUMBIA PIKE, SUITE 200  
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MLA PARTNER:

**WILLIN**  
Consultants Inc.

906 N MAIN ST. NW  
CONYERS, GA 30094

ENGINEERING LICENSE:

COMMONWEALTH OF VIRGINIA

CHRISTOPHER D. MORIN

No. 032984

2.6.19

PROFESSIONAL ENGINEER

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| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

**HUNTMAR PARK**

SITE CASCADE:

**DC52XC007-B**

SITE ADDRESS:

**505 HUNTMAR PARK DR  
HERNDON, VA 20170**

SHEET DESCRIPTION:

**STRUCTURAL  
DETAILS**

SHEET NUMBER:

**S-3**



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STRUCTURAL SPECIFICATIONS

PLATFORM FRAMING NOTES:

1. GRATED AREA LIVE LOAD = 60 P.S.F.
2. E-CAB EQUIPMENT CABINET = 1133 LBS.
3. I-CAB EQUIPMENT CABINET = 100 LBS.
4. E-CAB EQUIPMENT CABINET (FUTURE) = 1133 LBS.
5. B-CAB EQUIPMENT CABINET = 1486 LBS.
6. TELCO CABINET= 50 LBS.
7. PPC CABINET= 80 LBS.
8. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO STEEL FABRICATION.
9. GRATING SHALL BE GALVANIZED STEEL, 19-W-4 WITH 1-1/4"x1/8" BEARING BARS, RATED FOR 100 P.S.F. LOAD PRODUCING MAXIMUM DEFLECTION OF ¼" FOR 5 FEET SPAN. ANCHOR GRATING TO SUPPORTING STEEL BEAMS AT MAXIMUM 24" ON CENTER & MINIMUM 4 ANCHORS PER GRATING SECTION.

GENERAL NOTES

GENERAL:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT, THESE DRAWINGS & OTHER PROJECT DOCUMENTS, AND ALL OTHER APPLICABLE CODES & STANDARDS.
2. DESIGN AND IMPLEMENTATION OF ANY TEMPORARY SHORING REQUIRED, METHODS AND SEQUENCE OF CONSTRUCTION & ERECTION, ALL RIGGING, AND COMPLIANCE WITH SAFETY STANDARDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR DURATION OF CONSTRUCTION, UNTIL WORK IS COMPLETED AND ACCEPTED.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AS WELL AS EXISTING COMPONENTS PRIOR TO ANY DEMOLITION, FABRICATION AND/OR ERECTION OF ANY COMPONENTS, AND SHALL REPORT DISCREPANCIES ON PLANS TO THE ARCHITECT/ENGINEER FOR REVIEW AND CLARIFICATION AS SOON AS POSSIBLE.
4. CONTRACTOR SHALL VERIFY PLATFORM POSTS TO BE ANCHORED DIRECTLY ABOVE THE GROUTED AND REINFORCED CMU BEARING WALLS TO HOLLOW-CORE PLANKS, SEE ORIGINAL BUILDING PLANS.
5. CONTRACTOR SHALL PREPARE SHOP DRAWINGS WITH DIMENSIONS, AND SUBMIT FOR REVIEW AND APPROVAL PRIOR TO ANY FABRICATION. SHOP DRAWINGS SHALL ONLY BE REVIEWED FOR GENERAL CONFORMANCE AND CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND TO BUILD ACCORDING TO PLANS.

STEEL :

1. ALL STRUCTURAL STEEL SHALL BE DESIGNED, DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE REQUIREMENTS OF "AISC" SPECIFICATIONS.
2. ALL STRUCTURAL STEEL FOR BEAMS SHALL CONFORM TO ASTM A-992, FY=50 KSI. STEEL PIPES SHALL BE STANDARD SCHEDULE 40 AND SHALL CONFORM TO ASTM A-53. STEEL HSS & ROUND TUBING SECTIONS SHALL CONFORM TO ASTM A-500 GRADE B, FY=46 KSI. ALL OTHER STEEL SHALL CONFORM TO ASTM A-36, FY=36 KSI
3. ALL STEEL CONNECTIONS SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE REQUIREMENTS OF AISC MANUAL OF PRACTICE FOR STEEL CONSTRUCTION. CONNECTIONS SHALL BE DESIGNED FOR AT LEAST 60% OF THE MAXIMUM LOAD CARRYING CAPACITY OF BEAMS, UNDER UNIFORMLY DISTRIBUTED LOADS, AND FOR THE SPANS INDICATED. CONNECTIONS SHALL BE MADE USING ¾" DIAMETER HIGH STRENGTH BOLTS CONFORMING TO ASTM -325, EXCEPT AS NOTED ON DETAILS. SHOP CONNECTIONS MAY BE WELDED IN LIEU OF BOLTING.
4. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF "AWS" STANDARDS, USING E-70XX ELECTRODES. ALL WELDING SHALL BE DONE IN THE SHOP AND CONNECTION COMPONENTS SHALL BE PRE-ASSEMBLED AS MUCH AS POSSIBLE.
5. NO TORCH-CUTTING OF STEEL MEMBERS OR BURNING OF HOLES IN STEEL IS ALLOWED. ALL HOLES SHALL BE PRE-DRILLED IN SHOP TO 1/16" LARGER IN DIAMETER THAN BOLTS, OR AS SPECIFIED. CONTRACTOR SHALL COORDINATE ALL PRE-DRILLED HOLES LOCATIONS.

PLANS PREPARED FOR:



PLANS PREPARED BY:

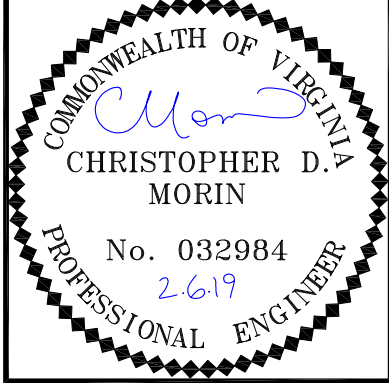


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| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |
|                  |          |    |     |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

STRUCTURAL  
NOTES

SHEET NUMBER:

S-4

\\10.27.189.8\BC Files\Drawings - 2018\Sprint\Willin\DC DO Macro 2018\DC52XC0413\CD'S - REV 1\SS.dwg  
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# Flush Panel



# Flush Panel

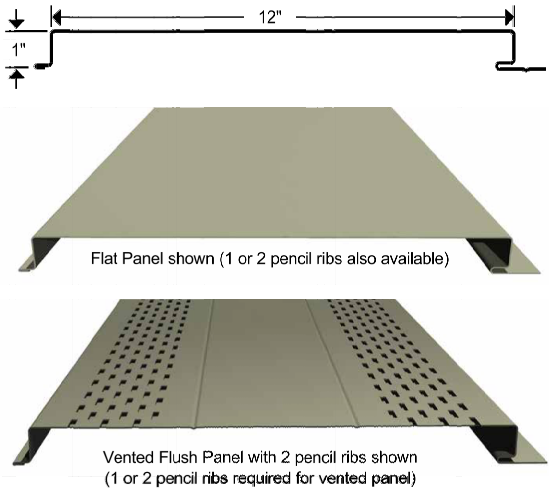


## CLEAN LINES FOR A DISTINCT DESIGN

Flush Panel is a low profile, concealed fastener panel ideal for wall, soffit, fascia, and mechanical screen applications. Available in both flat and vented panels, Flush Panel provides a distinct design for any project.

### Features and Benefits:

- Tested in accordance to ASTM E1592 and ASTM E283 & E331.
- Available in standard 24ga and 22ga.
- Select from a variety of standard and premium finishes. Refer to AEP Span Color Charts for full range of color options and paint systems.
- 30 year Limited Warranty, including Vented Flush Panels.
- Available in flat, vented, and 1 or 2 pencil ribs. Vented panels can be used for exterior screen applications.
- Venting available with no additional lead times.
- Optional venting provides 7.8% open area (11.3 in<sup>2</sup>/ft<sup>2</sup> panel).
- Panel design allows for horizontal and vertical wall application, 22ga or heavier is required. (Inquire for heavier gauges)
- Sealant is not factory applied.



| Properties |                           |             |               |                            |                          |                          |                          |                          | Standard Finishes |                                                |
|------------|---------------------------|-------------|---------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------|------------------------------------------------|
| Gauge      | Base Steel Thickness (in) | Yield (ksi) | Tensile (ksi) | Wt. (lbs/ft <sup>2</sup> ) | I+ (in <sup>4</sup> /ft) | S+ (in <sup>4</sup> /ft) | I- (in <sup>4</sup> /ft) | S- (in <sup>4</sup> /ft) | Metallic Coating  | Paint System                                   |
| 24         | 0.0232                    | 50          | 65            | 1.30                       | 0.0282                   | 0.0338                   | 0.0368                   | 0.0381                   | AZ50              | Cool Dura Tech™ 5000 (polyvinylidene fluoride) |
| 22         | 0.0294                    | 50          | 55            | 1.64                       | 0.0374                   | 0.0493                   | 0.0478                   | 0.0503                   | AZ50              | or Dura Tech™ mx (metallic polyvinylidene)     |

NOTES: The moments of inertia, I<sup>+</sup> and I<sup>-</sup>, presented for determining deflection are:  $(2I_{Effective} + I_{Gross})/3$

| Gauge | Span        | Cond.    | Allowable Inward Loads (lbs/ft <sup>2</sup> ) per Span (ft.-in.) |         |         |         |         |         |         |
|-------|-------------|----------|------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|
|       |             |          | 2' - 0"                                                          | 2' - 6" | 3' - 0" | 3' - 6" | 4' - 0" | 4' - 6" | 5' - 0" |
| 24    | Single Span | ASD, W/Q | 168                                                              | 108     | 75      | 55      | 42      | 33      | 27      |
|       |             | L/180    | -                                                                | -       | -       | -       | 38      | 27      | 20      |
|       | Double Span | ASD, W/Q | 159                                                              | 108     | 77      | 58      | 45      | 35      | 29      |
|       |             | L/180    | -                                                                | -       | -       | -       | -       | -       | -       |
|       | Triple Span | ASD, W/Q | 187                                                              | 129     | 93      | 70      | 55      | 44      | 35      |
|       |             | L/180    | -                                                                | -       | -       | -       | -       | -       | -       |
| 22    | Single Span | ASD, W/Q | 246                                                              | 157     | 109     | 80      | 62      | 49      | 39      |
|       |             | L/180    | -                                                                | -       | -       | 76      | 51      | 36      | 26      |
|       | Double Span | ASD, W/Q | 208                                                              | 141     | 101     | 76      | 59      | 47      | 38      |
|       |             | L/180    | -                                                                | -       | -       | -       | -       | -       | -       |
|       | Triple Span | ASD, W/Q | 244                                                              | 169     | 122     | 93      | 72      | 58      | 48      |
|       |             | L/180    | -                                                                | -       | -       | -       | -       | -       | -       |

| Gauge | Allowable Outward Loads (lbs/ft <sup>2</sup> ) per Span (ft.-in.) |         |         |         |         |         |         |
|-------|-------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|
|       | 2' - 0"                                                           | 2' - 6" | 3' - 0" | 3' - 6" | 4' - 0" | 4' - 6" | 5' - 0" |
| 24    | 66                                                                | 60      | 55      | 49      | 43      | 38      | 32      |
| 22    | 112                                                               | 101     | 89      | 78      | 67      | 55      | 44      |

|               |             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inward Loads  | Single Span |  | <b>NOTES:</b><br>The information in these tables applies to uniform loads only.<br>The upper values, ASD (W/Q) are based on allowable panel strength.<br>L/180 values based on allowable service load deflections.<br>Table values denoted by "-" indicate that capacities are limited by panel strength vs. deflection.<br>Values are based on AISI S100-07/S2-10.<br>Maximum allowable outward load capacities are shown and dependent upon fastener-to-substrate capacities.<br>Specifications subject to change without notice. |
|               | Double Span |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|               | Triple Span |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Outward Loads |             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

**Oil Canning :** All flat metal surfaces can display waviness commonly referred to as "oil canning". "Oil canning" is an inherent characteristic of steel products, not a defect, and therefore is not a cause for panel rejection.

800-733-4955

www.aepspan.com

800-733-4955

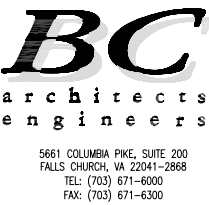
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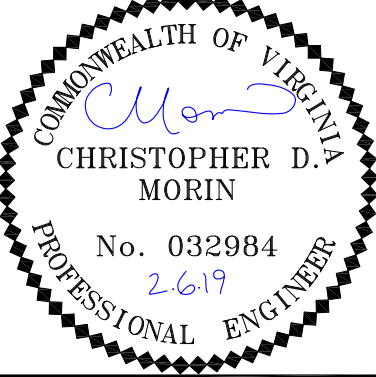
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| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

SHEET DESCRIPTION:

STRUCTURAL DETAILS

SHEET NUMBER:

S-5



## Hollo-Bolt Allowable Loading (LRFD &amp; ASD Methods)

Hollo-Bolt fasteners are designed for connecting structural steel to hollow structural section (HSS) steel members and other structural steel elements where access is difficult or restricted to one side only. Hollo-Bolt fasteners are intended for use with rectangular or square HSS members and are recognized for resisting static tension and shear loads in bearing-type connections. The fasteners are alternatives to bolts described in Section J3 of AISC 360, which is referred in Section 2205.1 of the 2009 International Building Code (IBC) for bearing-type connections.

The Hollo-Bolt fasteners may be used to resist wind loads, and seismic loads in Seismic Design Categories A, B and C.

Extract from ESR-3330

| Product Code | Bolt           | Max Clamping Range W | Outer Ply min t | Sleeve Length L | Height H | Collar Ø D | A/F     | Tightening Torque ft. lb | ALLOWABLE LOADING |           |             |           |
|--------------|----------------|----------------------|-----------------|-----------------|----------|------------|---------|--------------------------|-------------------|-----------|-------------|-----------|
|              |                |                      |                 |                 |          |            |         |                          | LRFD Method       |           | ASD Method  |           |
|              |                |                      |                 |                 |          |            |         |                          | Tensile lbs       | Shear lbs | Tensile lbs | Shear lbs |
| LHBM08#1     | 5/16" x 2"     | 1/8" - 7/8"          | -               | 13/16"          |          |            |         |                          |                   |           |             |           |
| LHBM08#2     | 5/16" x 23/4"  | 7/8" - 15/8"         | -               | 115/16"         | 3/16"    | 7/8"       | 3/4"    | 17                       | 3775              | 3215      | 899         | 1124      |
| LHBM08#3     | 5/16" x 39/16" | 15/8" - 23/8"        | -               | 211/16"         |          |            |         |                          |                   |           |             |           |
| LHBM10#1     | 3/8" x 23/16"  | 1/8" - 7/8"          | -               | 13/16"          |          |            |         |                          |                   |           |             |           |
| LHBM10#2     | 3/8" x 23/4"   | 7/8" - 15/8"         | -               | 17/8"           | 1/4"     | 11/8"      | 15/16"  | 33                       | 6160              | 5485      | 1910        | 2248      |
| LHBM10#3     | 3/8" x 39/16"  | 15/8" - 23/8"        | -               | 25/8"           |          |            |         |                          |                   |           |             |           |
| LHBM12#1     | 1/2" x 23/8"   | 1/8" - 1"            | -               | 13/8"           |          |            |         |                          |                   |           |             |           |
| LHBM12#2     | 1/2" x 35/32"  | 1" - 113/16"         | -               | 21/4"           | 1/4"     | 11/4"      | 13/16"  | 59                       | 8545              | 7485      | 2360        | 3372      |
| LHBM12#3     | 1/2" x 4"      | 113/16" - 23/4"      | -               | 31/8"           |          |            |         |                          |                   |           |             |           |
| LHBM16#1     | 5/8" x 3"      | 1/2" - 11/8"         | 5/16"           | 15/8"           |          |            |         |                          |                   |           |             |           |
| LHBM16#2     | 5/8" x 4"      | 11/8" - 2"           | 5/16"           | 21/2"           | 5/16"    | 11/2"      | 13/8"   | 140                      | 13915             | 6744      | 4720        | 6744      |
| LHBM16#3     | 5/8" x 43/4"   | 2" - 213/16"         | 5/16"           | 35/16"          |          |            |         |                          |                   |           |             |           |
| LHBM20#1     | 3/4" x 39/16"  | 1/2" - 15/16"        | 5/16"           | 115/16"         |          |            |         |                          |                   |           |             |           |
| LHBM20#2     | 3/4" x 43/4"   | 15/16" - 23/8"       | 5/16"           | 3"              | 3/8"     | 2"         | 113/16" | 221                      | 19985             | 8992      | 7868        | 8992      |
| LHBM20#3     | 3/4" x 57/8"   | 23/8" - 33/8"        | 5/16"           | 4"              |          |            |         |                          |                   |           |             |           |

- Sizes M16 (5/8") and M20 (3/4"), known as the Hollo-Bolt HCF, feature a patented High Clamping Force mechanism to produce three times more clamping force than the same sized product without the mechanism. The significance of clamping force and the superior performance of Lindapter's unique Hollo-Bolt HCF is illustrated on page 40.

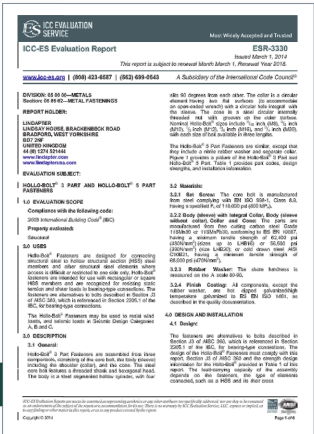
## Significance of ESR-3330

ICC-ES, a subsidiary of the International Code Council, is the United States' leading evaluation service for innovative building products and provides evidence that products meet the requirements of building codes and technical standards.

Building officials, architects, contractors, specifiers, designers and fabricators utilize ICC-ES Evaluation Report ESR-3330 to provide a basis for using or approving the Hollo-Bolt in construction projects under the International Building Code®.

ICC-ES President Shahin Moian explains why ICC-ES Evaluation Report ESR-3330 is so important: "Lindapter USA can now reference the evaluation report to assure building officials and the building industry that the product meets I-Code requirements," Moian said. "Building departments have a long history of using evaluation reports, and ICC-ES operates as a technical resource with the highest quality of product review for the building department."

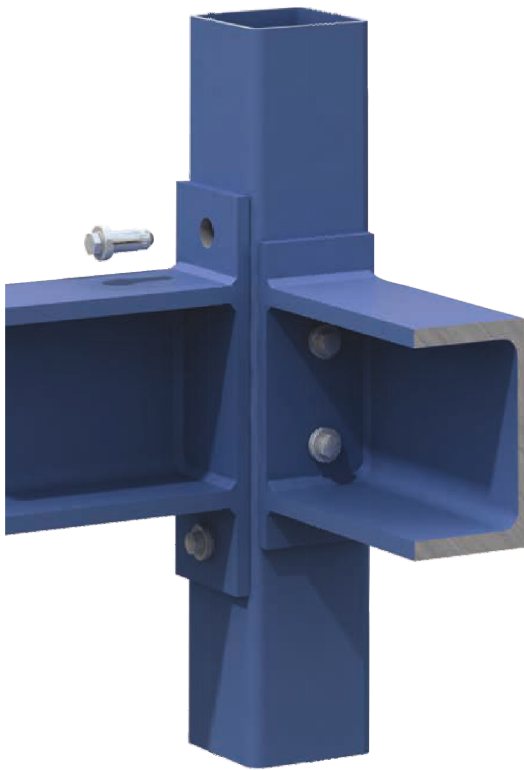
Download the report from the ICC-ES website: [www.icc-es.org/Reports/pdf\\_files/ESR-3330.pdf](http://www.icc-es.org/Reports/pdf_files/ESR-3330.pdf)



**lindapter**  
USA

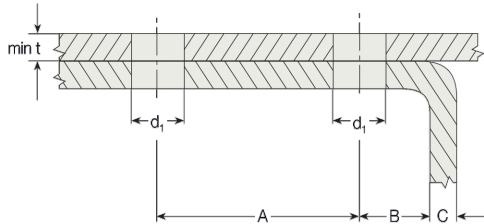
43

## Hollo-Bolt Hexagonal &amp; Countersunk (Bolt Head)



## Drilling &amp; Preparation

Ensure that holes are drilled in both the fixture and the section according to the drilling guidance below. Please note that clearance holes are slightly larger than standard bolt clearance holes to accommodate the sleeve and cone.



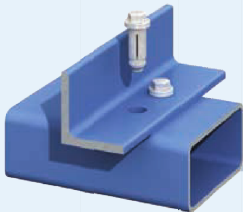
- Clearance holes can be drilled with a -0 / +1/16" tolerance.

| Hexagonal | Countersunk (Bolt Head) | Outer Ply min t | Clearance Hole Ø d1 | Hole Distances min A min B | Edge Distances B + C |
|-----------|-------------------------|-----------------|---------------------|----------------------------|----------------------|
| LHBM08    | LHBCSKM08               | -               | 9/16"               | 13/8" 1/2"                 | 11/16"               |
| LHBM10    | LHBCSKM10               | -               | 3/4"                | 19/16" 9/16"               | 7/8"                 |
| LHBM12    | LHBCSKM12               | -               | 13/16"              | 2" 3/4"                    | 1"                   |
| LHBM16    | LHBCSKM16               | 5/16"           | 11/16"              | 23/16" 13/16"              | 15/16"               |
| LHBM20    | -                       | 5/16"           | 15/16"              | 23/4" 1"                   | 15/16"               |

- Sizes M16 (5/8") and M20 (3/4") require the thickness of the outer ply (min t) to be at least 5/16". If necessary, spacer washers should be used beneath the collar to increase the thickness to 5/16".

## INSTALLATION

1. Align pre-drilled fixture and section and insert Hollo-Bolt®.
2. Grip the Hollo-Bolt collar with an open ended wrench.
3. Using a calibrated torque wrench, tighten the central bolt to the recommended torque®.



- a) Before tightening, ensure that the materials that are to be connected together are touching.  
b) Power tools, such as an impact wrench, may be used to speed up the tightening of the Hollo-Bolt. However, when using power tools, always complete the tightening process with a torque wrench to ensure the correct torque is applied to the Hollo-Bolt.

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USA

44

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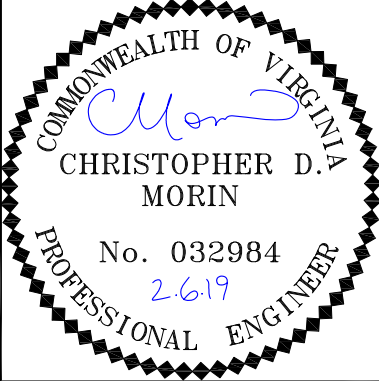
PLANS PREPARED BY:

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MLA PARTNER:

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SITE CASCADE:

**DC52XC007-B**

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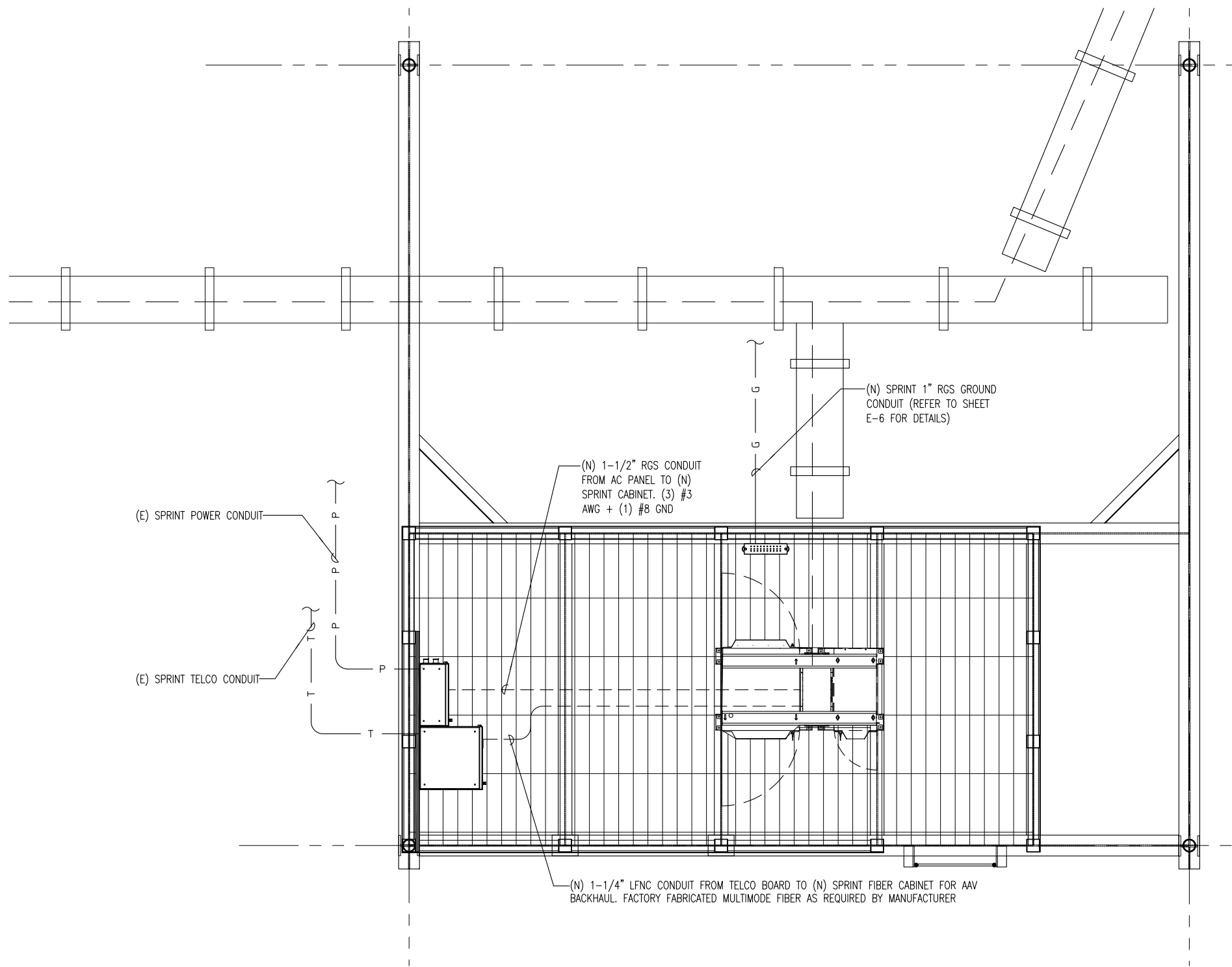
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**STRUCTURAL DETAILS**

SHEET NUMBER:

**S-6**

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ELECTRICAL/GROUNDING LEGEND

POWER CONDUIT

TELCO CONDUIT

GROUND CABLE RUN BELOW GRADE

5/8"øx8'-0" COPPER CLAD, STEEL GROUND ROD.

EXOTHERMIC CONNECTION OF GROUND CABLE TO GROUND ROD

SUBGRADE GROUNDING CABLE TO CABLE CONNECTION USING EXOTHERMIC PROCESS.

SPRINT GROUND ROD TEST WELL

- NOTES:
- G.C. SHALL PROVIDE PVC CAP ON ALL OPEN CONDUITS & PULLSTRINGS.
  - G.C. SHALL CONDUCT POST CONSTRUCTION RESISTANCE TESTING TO INSURE SYSTEM IS 5 OHMS OR LESS.

PLANS PREPARED FOR:

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OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

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SHEET DESCRIPTION:

ELECTRICAL CONDUIT ROUTING

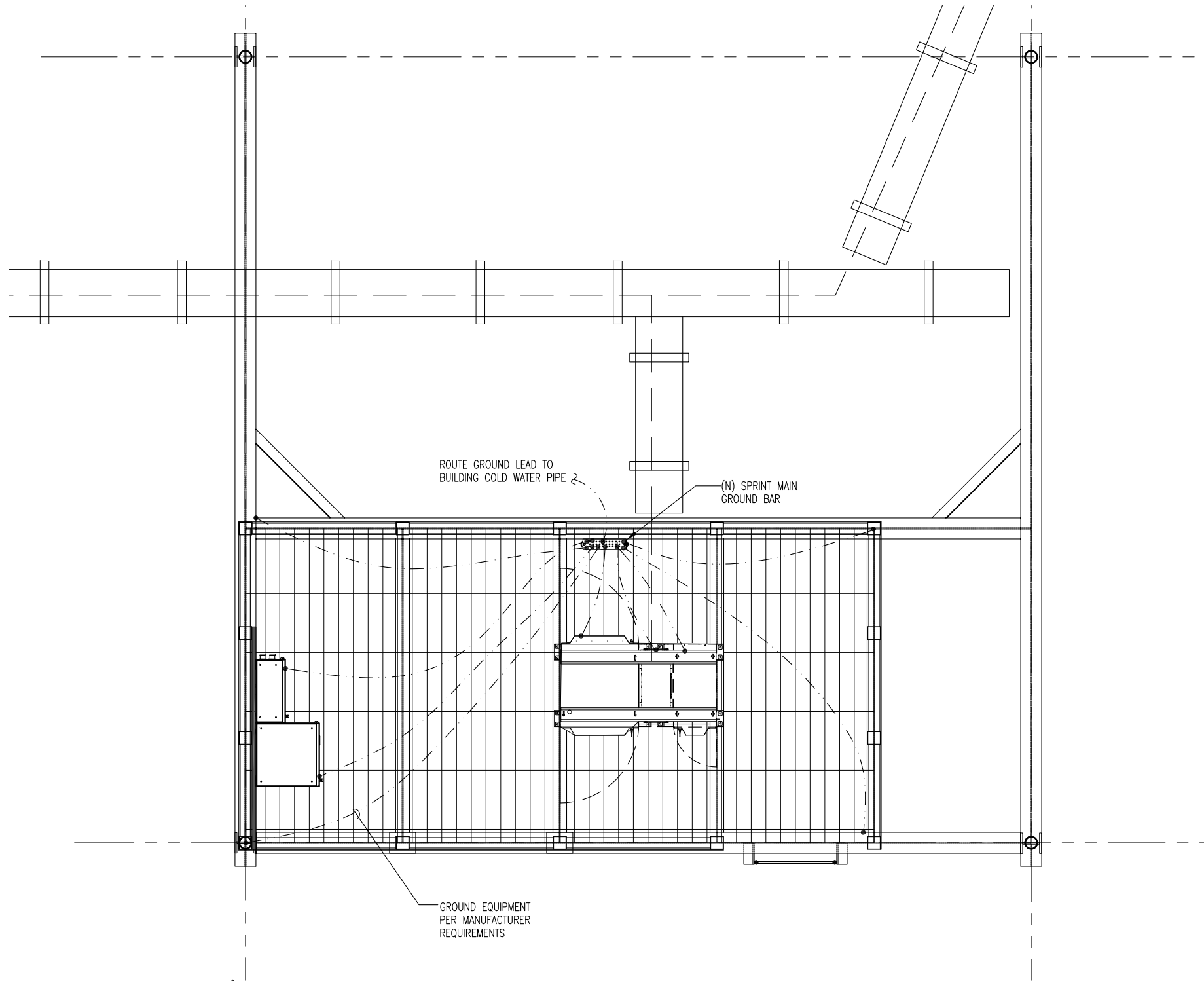
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E-1





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LEGEND:

- ▲ MECHANICAL CONNECTION
- ⊙ GROUND ROD
- EXOTHERMIC WELD
- GROUND CONDUCTOR

GROUNDING NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO COMPLETION.
2. GROUND CONDUCTOR BENDS SHALL NOT BE LESS THAN 8" RADIUS.
3. GROUND CONDUCTORS TO THE GROUND RING SHALL BE IN ¾" "LIQUID-TITE" FLEX DUCT AND SEALED AT EXIT W/ SILICONE CAULK.
4. ANTENNA INSTALLATION CONTRACTOR TO PROVIDE & INSTALL TOP, RF BUSBARS & BUSBAR BELOW CENTERLINE.

EQUIPMENT GROUNDING PLAN  
SCALE: N.T.S.

1  
E-2



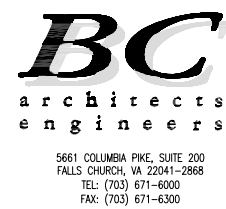
GROUNDING NOTES:

1. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH METRO MOD CELL SITE GROUNDING STANDARDS.
2. GROUND CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
3. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
4. ALL POWER AND GROUND CONNECTIONS TO BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY HARGER (OR APPROVED EQUAL) RATED FOR OPERATION AT NO LESS THAN 75°C OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
5. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
6. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
7. APPLY OXIDE INHIBITING COMPOUND TO ALL MECHANICAL GROUND CONNECTIONS.
8. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
9. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
10. CONTRACTOR SHALL CONDUCT ANTENNA, CABLE, AND LNA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.
11. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
12. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
13. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OFF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
14. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
15. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG SOLID COPPER FOR OUTDOOR BTS.
16. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
17. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
18. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED WITH STAINLESS STEEL HARDWARE TO THE BRIDGE AND THE TOWER GROUND BAR.
19. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
20. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
21. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
22. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

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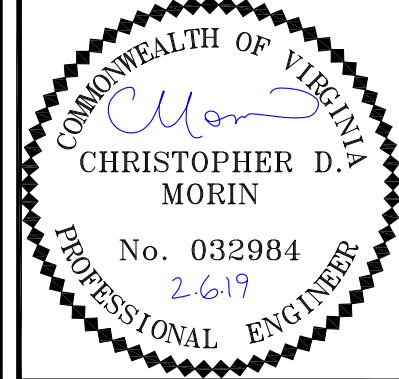
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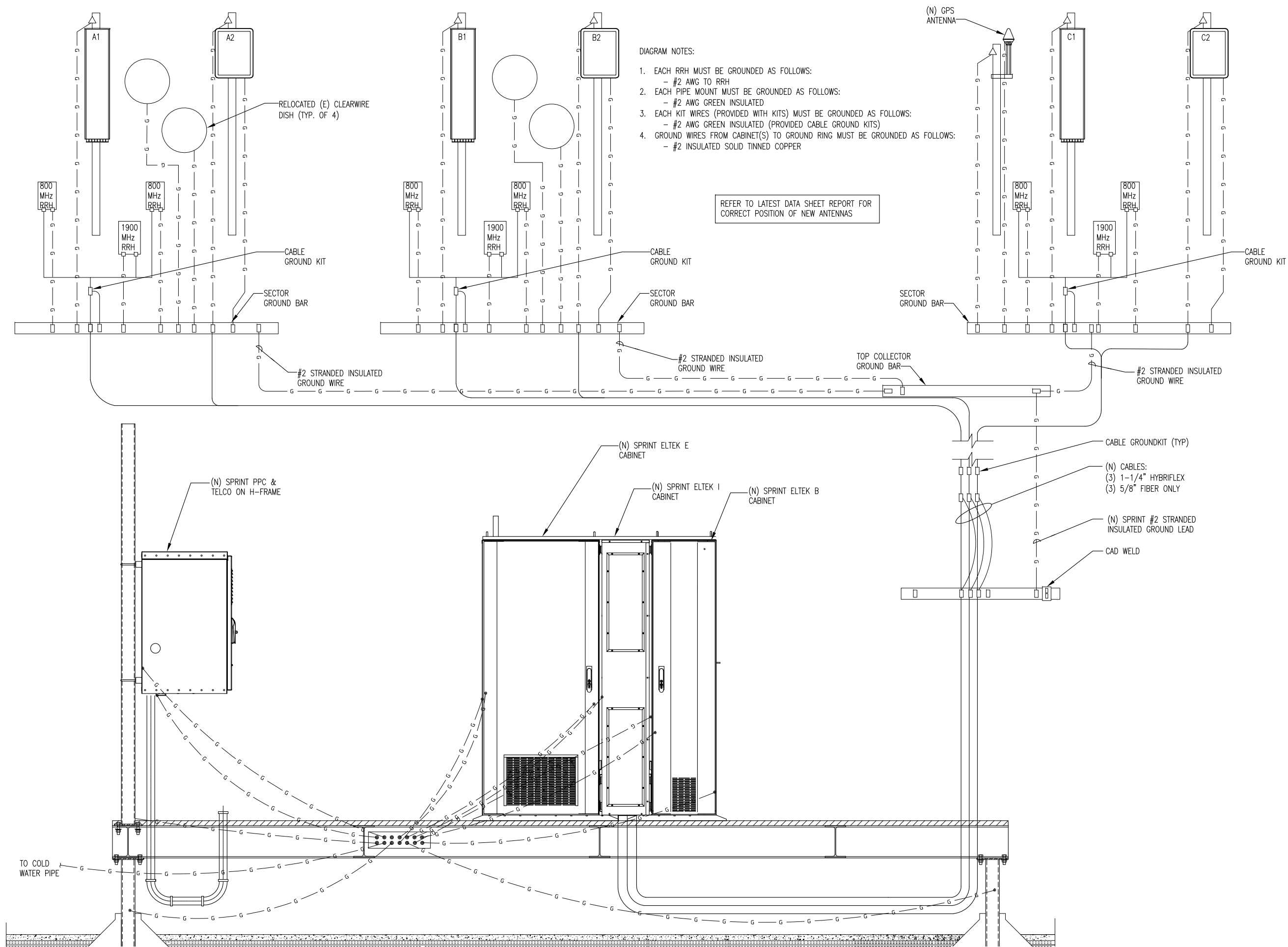
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EQUIPMENT  
GROUNDING PLAN

SHEET NUMBER:

E-2

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RISER GROUNDING DIAGRAM 1  
SCALE: N.T.S. E-3

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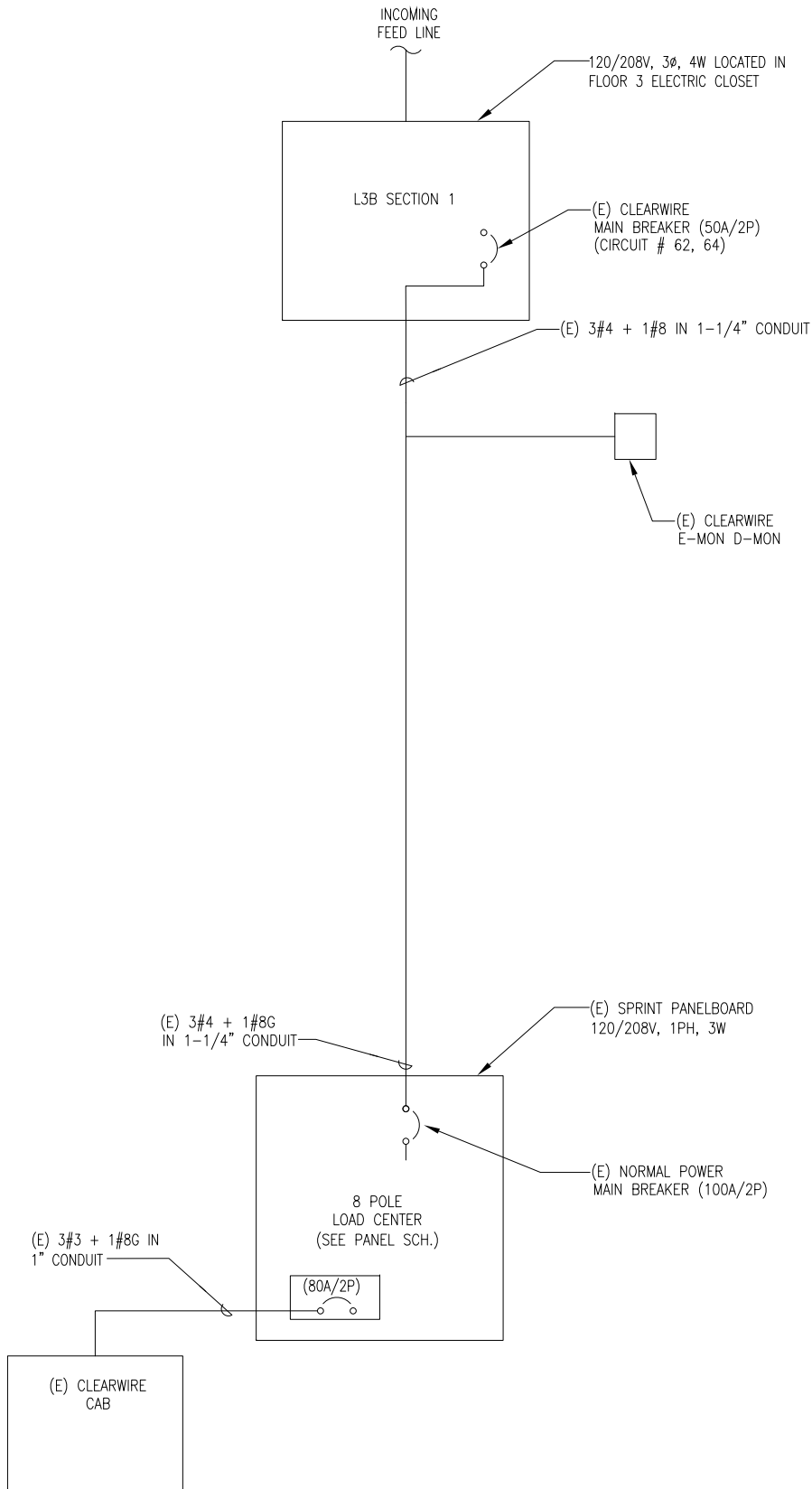
**RISER GROUNDING  
DIAGRAM**

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**E-3**



01-22-19 15:55:14 MENU 10.27.189.8/BC Files/Drawings - 2018/Sprint/Willin/\_DC DO Macro 2018/DC52XC007/CD'S - REV 1 - 2019-01-22/E4.dwg



EXISTING POWER ONE-LINE DIAGRAM 1 E-4  
SCALE: N.T.S

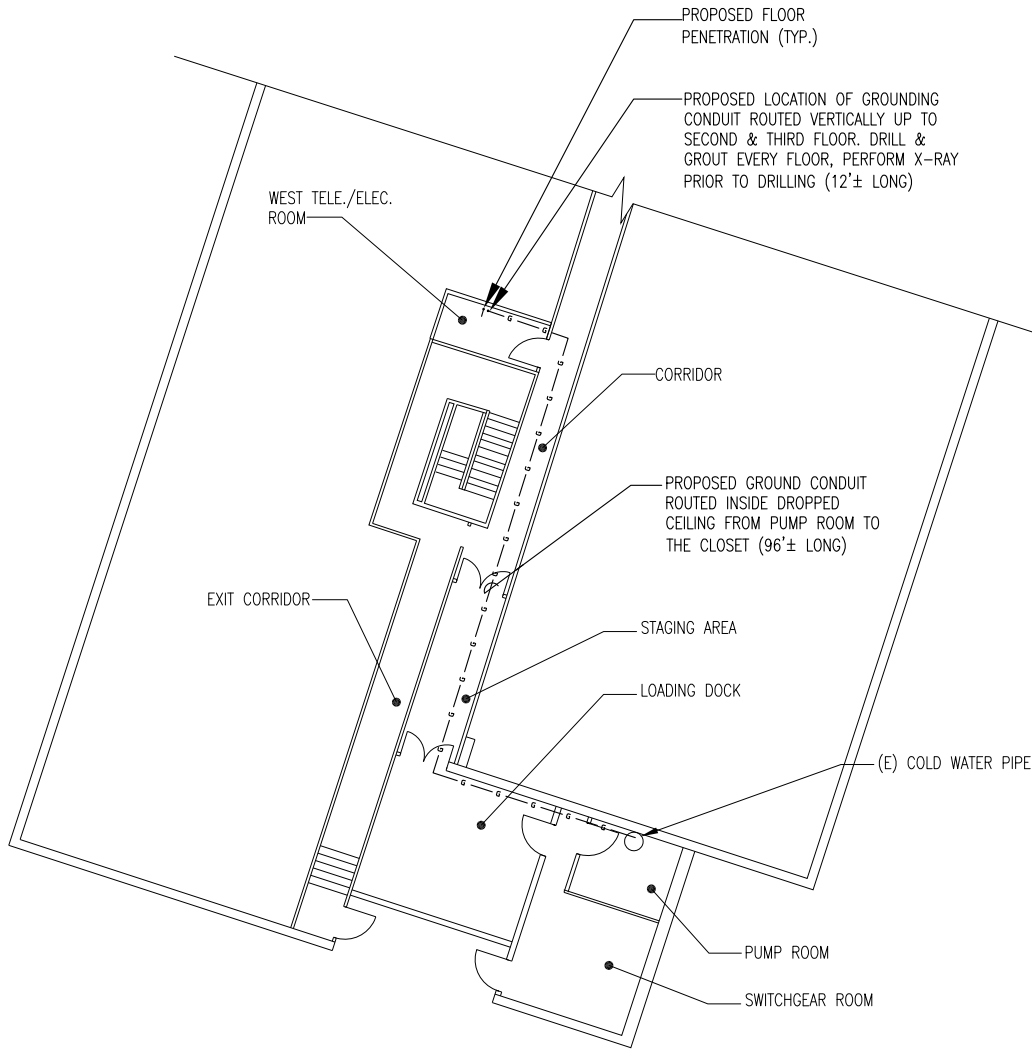
| 100 A MCB         |             |                |       |     | Voltage: 208 |         |         |      |     |                |       |             |               |  |
|-------------------|-------------|----------------|-------|-----|--------------|---------|---------|------|-----|----------------|-------|-------------|---------------|--|
| AC PANEL SCHEDULE |             |                |       |     | 1 ϕ 3 W      |         |         |      |     |                |       |             |               |  |
| Breaker Pos #     | Description | State (On/Off) | Use * | Amp | Load         | Phase A | Phase B | Load | Amp | State (On/Off) | Use * | Description | Breaker Pos # |  |
| 1                 | TWIST       | ON             | 2P    | 30  | 1664         | 7664    |         | 6000 | 100 | ON             | 2P    | CLEARWIRE   | 2             |  |
| 3                 |             |                |       |     | 1664         |         | 7664    | 6000 |     |                |       |             | 4             |  |
| 5                 | RECEPT      | ON             | 1P    | 20  | 180          | 180     |         |      | 30  | OFF            | 2P    | SPARE       | 6             |  |
| 7                 |             |                |       |     |              |         | 0       |      |     |                |       |             | 8             |  |
| Total (VA)        |             |                |       |     |              | 7844    | 7664    |      |     |                |       |             |               |  |

NO NEW LOADS ADDED

|                              |  |       |        |                            |  |
|------------------------------|--|-------|--------|----------------------------|--|
| CONNECTED LOAD (KVA):        |  | 15.51 |        |                            |  |
| DEMAND CALCULATIONS:         |  |       |        |                            |  |
| CONTINUOUS LOAD @ 125%       |  | 15.00 |        |                            |  |
| NON CONTINUOUS LOAD @ 100%   |  | 0.23  |        |                            |  |
| MECHANICAL LOADS @ 70%       |  | 0.00  |        |                            |  |
| EXISTING LOADS @ 125%        |  | 4.16  |        |                            |  |
| NEW LOADS BEING ADDED        |  | 0.00  |        |                            |  |
| TOTAL PANEL CAPACITY (KVA)   |  | 20.80 | 100.00 | TOTAL PANEL CAPACITY (A)   |  |
| TOTAL LOADING ON PANEL (KVA) |  | 19.39 | 80.77  | TOTAL LOADING ON PANEL (A) |  |
| TOTAL SPARE CAPACITY (KVA)   |  | 1.42  | 5.90   | TOTAL SPARE CAPACITY (A)   |  |

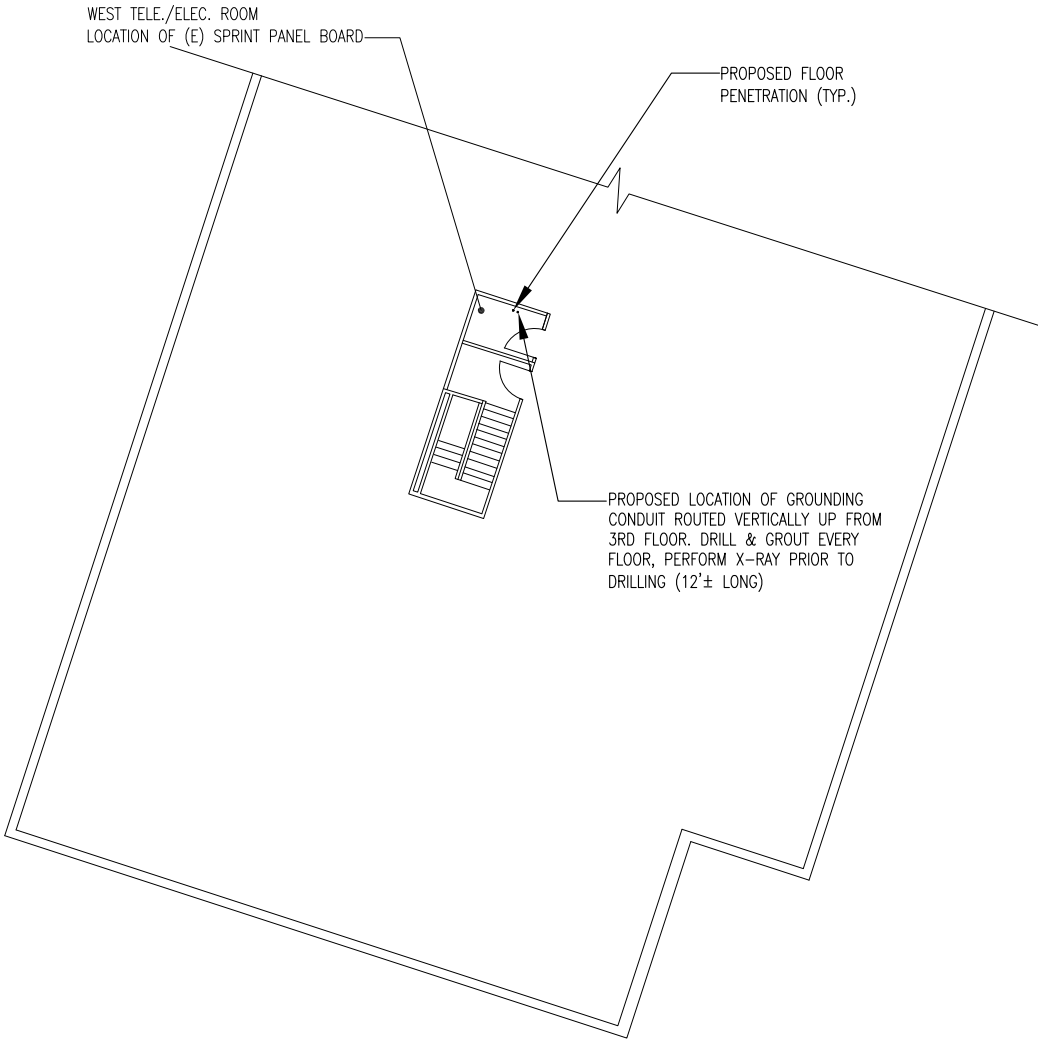
NOTE: PANEL BOARD IS NOT OVERLOADED.

EXISTING PANEL SCHEDULE 2 E-4  
SCALE: N.T.S



FIRST FLOOR UTILITY PLAN  
SCALE: 3/32"=1' (24x36)  
3/64"=1' (11x17)

1  
E-5



TYPICAL (THIRD) FLOOR UTILITY PLAN  
SCALE: 3/32"=1' (24x36)  
3/64"=1' (11x17)

2  
E-5



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**Sprint**

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OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

**BC**  
architects  
engineers

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SITE NAME:

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SITE CASCADE:

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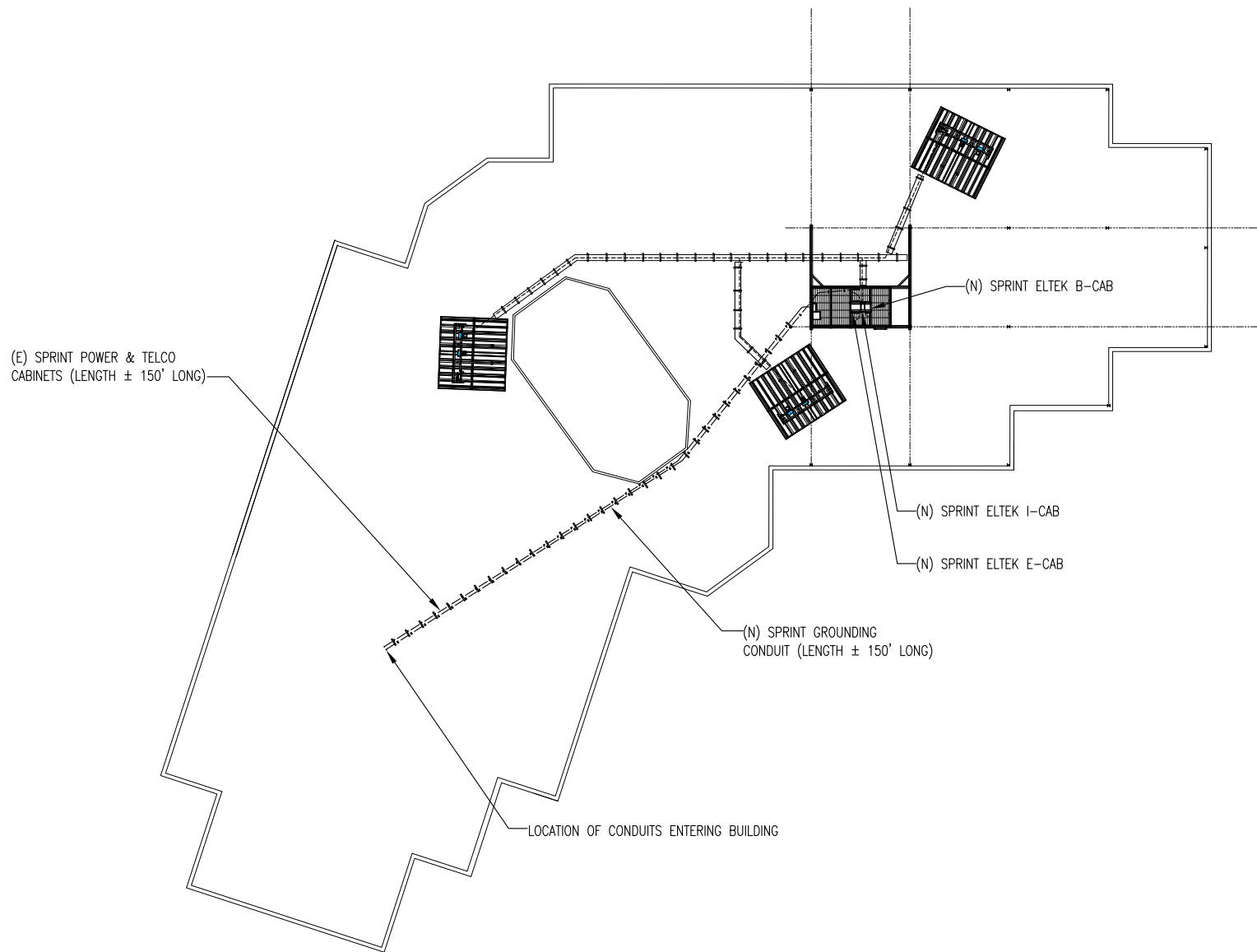
**EXISTING & PROPOSED  
UTILITY PLAN**

SHEET NUMBER:

**E-5**



FOR BC INTERNAL USE ONLY: 02-05-19 SIRA.J SALI 19:33:19 Y:\Drawings - 2018/Sprint/Willin/.DC DD Macro 2018/DC52XC007/CD'S - REV 1 - 2019-01-22/EC6.dwg



ROOF FLOOR UTILITY PLAN

SCALE: 1"=20' (24x36)  
1"=40' (11x17)

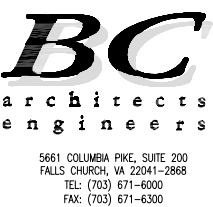
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E-6



PLANS PREPARED FOR:



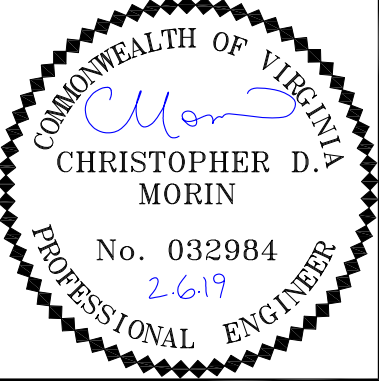
PLANS PREPARED BY:



MLA PARTNER:



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| DESCRIPTION      | DATE     | BY | REV |
|------------------|----------|----|-----|
| PRELIMINARY CD'S | 10/02/18 | RD | A   |
| PRELIMINARY CD'S | 10/11/18 | MM | B   |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | 0   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

HUNTMAR PARK

SITE CASCADE:

DC52XC007-B

SITE ADDRESS:

505 HUNTMAR PARK DR  
HERNDON, VA 20170

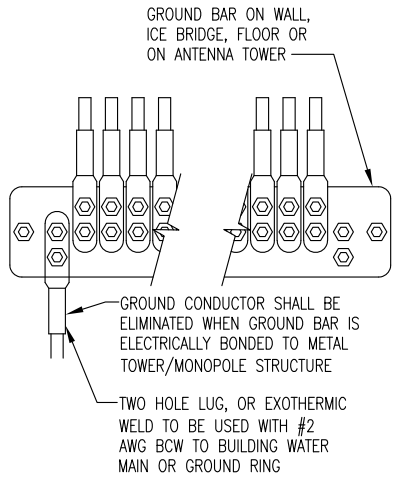
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PROPOSED UTILITY  
PLAN

SHEET NUMBER:

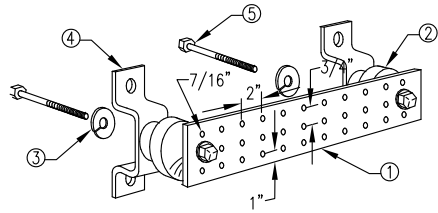
E-6

Y:\Drawings - 2018/Sprint/Willin/.DC DD Macro 2018/DC52XC007/CD'S - REV A/E7.dwg  
FOR BC INTERNAL USE ONLY: 10-03-18 RBDKH 18:11:16



GROUND WIRE INSTALLATION  
TO GROUND BAR  
SCALE: N.T.S.

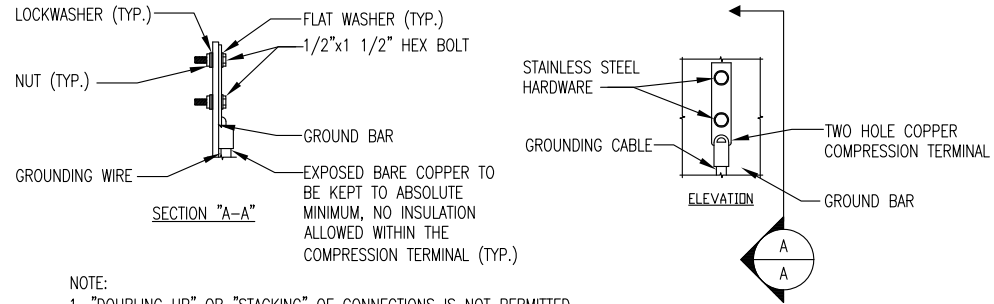
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E-7



- 1- GALVANIZED GROUND BAR, 1/4" X 4" X 20", NEWTON INSTRUMENT CO. CAT. NO. B-6142 OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION. (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)
- 2- INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4 OR EQUAL
- 3- 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUAL
- 4- WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR EQUAL
- 5- 5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1 OR EQUAL

GROUND BAR (GALVANIZED) DETAIL  
SCALE: N.T.S.

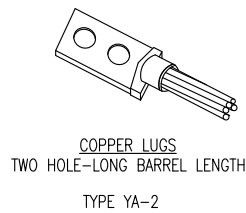
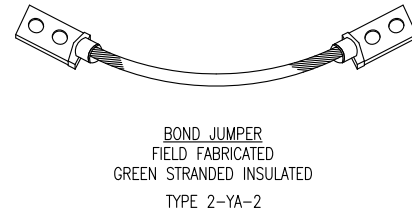
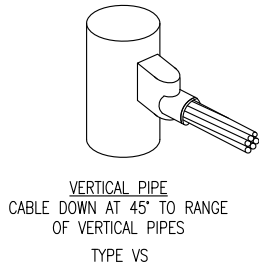
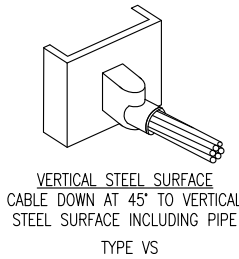
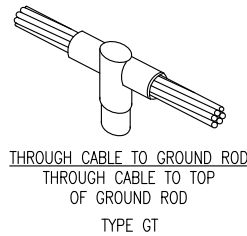
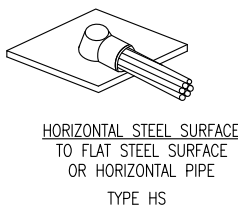
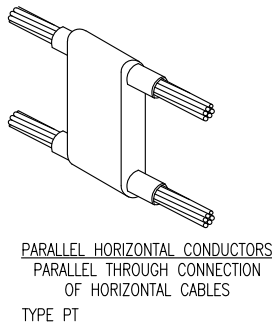
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E-7



- NOTE:
- "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.
  - OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS AND TO BE APPLIED PRIOR TO ADDING HARDWARE.

TYPICAL GROUND BAR CONNECTION DETAILS  
SCALE: N.T.S.

3  
E-7



TYP. CADWELD TYPES  
SCALE: N.T.S.

4  
E-7

PLANS PREPARED FOR:

**Sprint**

6580 SPRINT PARKWAY  
OVERLAND PARK, KANSAS 66251

PLANS PREPARED BY:

**BC**  
architects  
engineers

5661 COLUMBIA PIKE, SUITE 200  
FALLS CHURCH, VA 22041-2868  
TEL: (703) 671-6000  
FAX: (703) 671-6300

MLA PARTNER:

**WILLIN**  
Consultants Inc.

906 N MAIN ST. NW  
CONYERS, GA 30094

ENGINEERING LICENSE:

COMMONWEALTH OF VIRGINIA

*Mon*

CHRISTOPHER D. MORIN

No. 032984  
2.6.19

PROFESSIONAL ENGINEER

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| PRELIMINARY CD'S | 10/11/18 | MM | B   |
| PRELIMINARY CD'S | 10/19/18 | ME | C   |
| FINAL CD'S       | 10/30/18 | RD | O   |
| LL & JX COMMENTS | 02/06/19 | MM | 1   |

SITE NAME:

**HUNTMAR PARK**

SITE CASCADE:

**DC52XC007-B**

SITE ADDRESS:

**505 HUNTMAR PARK DR  
HERNDON, VA 20170**

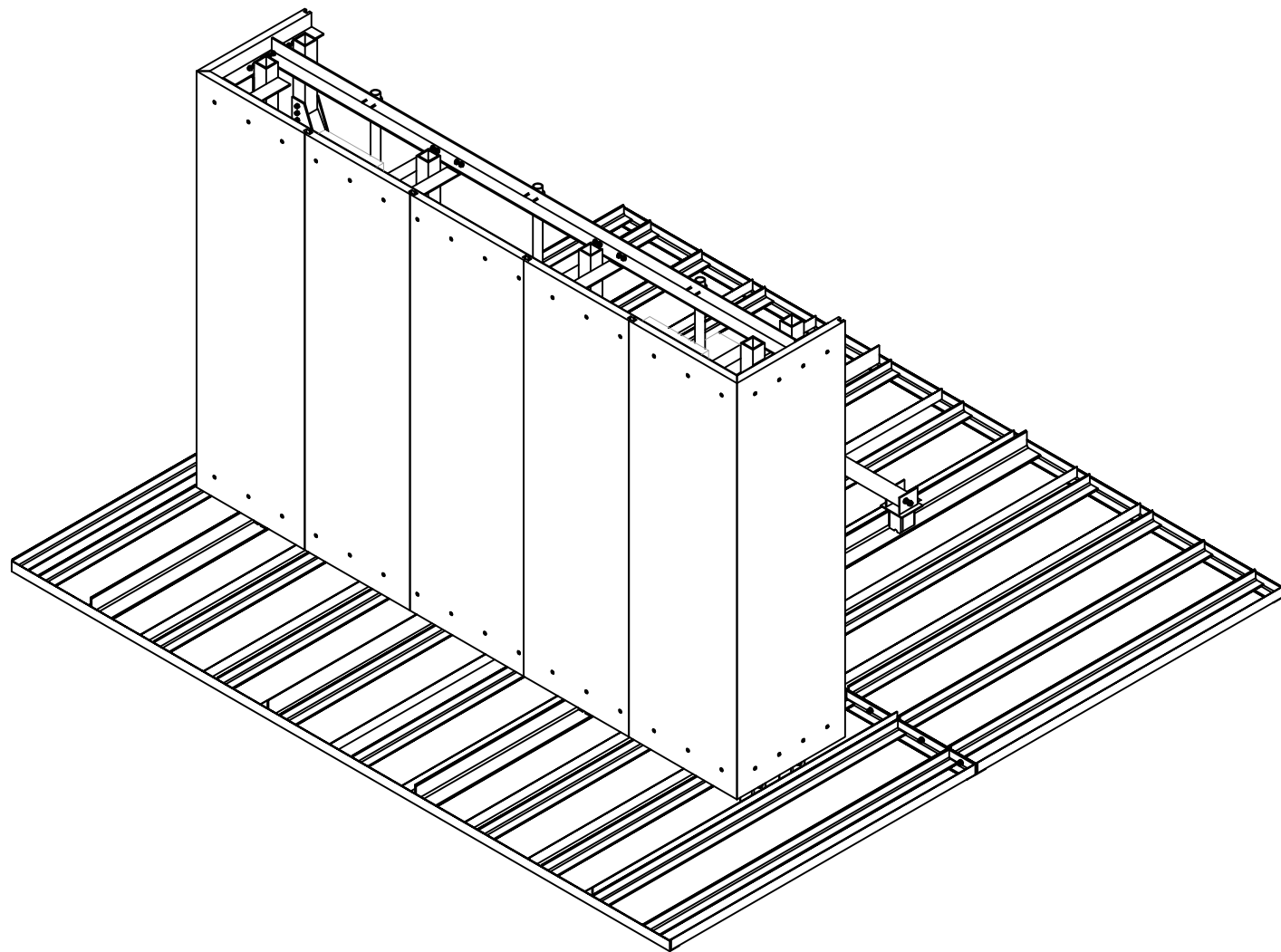
SHEET DESCRIPTION:

**ELECTRICAL  
DETAILS**

SHEET NUMBER:

**E-7**





7555-A PALMETTO COMMERCE PARKWAY  
NORTH CHARLESTON, SC 29420 USA  
P: (800)-755-0689 / F: (843)-207-0207  
WWW.STEALTHCONCEALMENT.COM  
PROJECT MANAGER: STEPHEN BALL ; 843-614-8981

FINAL ENGINEERING

BC ARCHITECTS ENGINEERS, PLC  
HUNTMAR PARK  
505 HUNTMAR PARK DR.  
HERNDON, VA 20170

STEALTH JOB #: SP19-00015W-17R0

DRAWING INDEX

- |       |                        |
|-------|------------------------|
| T1    | TITLE SHEET            |
| N1-N2 | NOTES & SPECIFICATIONS |
| S1-S3 | ASSEMBLY - ELEVATIONS  |

COMMONWEALTH OF VIRGINIA

PETROS EPSTRATIOS TSOUKALAS  
Lic. No. 0402 044884

PROFESSIONAL ENGINEER

PETROS E. TSOUKALAS  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE NO.: 0402044884

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856-797-0412

MASER PROJECT #: 19937005A

|          |          |
|----------|----------|
| T1       | REVISION |
|          | 0        |
| 02-07-19 |          |

GENERAL

1. THE TYPICAL NOTES SHALL APPLY FOR ALL CASES UNLESS OTHERWISE SPECIFICALLY DETAILED WITHIN THE DRAWINGS. SOME NOTES MAY NOT BE APPLICABLE IN PART OR IN WHOLE FOR EVERY PROJECT.
2. ANY ITEMS REFERENCED AS BEING ON "HOLD" ARE TO BE INCLUDED IN THE WORK AS SHOWN. HOWEVER, CONSTRUCTION OR FABRICATION IS NOT TO BEGIN UNTIL THE "HOLD" REFERENCE IS REMOVED.
3. DIMENSIONS CONTAINED WITHIN MUST BE FIELD VERIFIED AND CUSTOMER APPROVED PRIOR TO FABRICATION OF MATERIALS.
4. THE MODIFICATIONS DEPICTED IN THESE DRAWINGS ARE INTENDED TO PROVIDE STRUCTURAL SUPPORT FOR THE ADDITION OF THE ANTENNA SCREENING SYSTEMS OUTLINED WITHIN. THE EXISTING STRUCTURE OR BUILDING SHALL BE ANALYZED AND RETROFITTED AS REQUIRED, BY OTHERS, TO WITHSTAND THE LOADS IMPOSED BY THE NEW STEALTH® ENCLOSURE SHOWN ON THE DRAWINGS.
5. ANTENNA CONCEALMENT PRODUCTS SHALL BE INSTALLED BY A CONTRACTOR EXPERIENCED IN SIMILAR WORK. CARE SHALL BE TAKEN IN THE INSTALLATION OF ANY AND ALL MEMBERS IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS AND PROCEDURES. ALL APPLICABLE OSHA SAFETY GUIDELINES ARE TO BE FOLLOWED. STEALTH® IS NOT PROVIDING FIELD INSTALLATION SUPERVISION.
6. THESE DRAWINGS INDICATE THE MAJOR OPERATIONS TO BE PERFORMED, BUT DO NOT SHOW EVERY FIELD CONDITION THAT MAY BE ENCOUNTERED. THEREFORE, PRIOR TO BEGINNING OF WORK THE CONTRACTOR SHOULD SURVEY THE JOB SITE THOROUGHLY TO MINIMIZE FIELD PROBLEMS.
7. PROTECTION OF EXISTING STRUCTURES DURING THE COURSE OF THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
8. THE STRUCTURAL INTEGRITY OF THIS STRUCTURE IS DESIGNED TO BE ATTAINED IN ITS COMPLETED STATE. WHILE UNDER CONSTRUCTION ANY TEMPORARY BRACING OR SHORING WHICH MAY BE REQUIRED TO MAINTAIN STABILITY PRIOR TO COMPLETION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
9. THE PLANS AND DETAILS WITHIN DO NOT INCLUDE DETAILS OR DESIGN FOR DRAINAGE FROM OR WATERPROOFING OF EXTERIOR OR INTERIOR SURFACES OF THE EXISTING BUILDING OR STRUCTURE. THESE DETAILS MUST BE COMPLETED BY OTHERS.
10. CONTRACTOR TO SHIM BASEPLATE AS REQUIRED TO ENSURE LEVEL SURFACE.

DESIGN NOTES:

2015 VIRGINIA UNIFORM STATEWIDE BUILDING CODE (2015 IBC)

DESIGN LOADS:

WIND: ULTIMATE WIND SPEED 115 MPH PER ASCE 7-10 STANDARD  
OCCUPANCY CATEGORY: II  
EXPOSURE: B

DESIGN:

1. ENGINEERING AND DESIGN CALCULATIONS FOR STEALTH ® POLE AND TOWER PRODUCTS ARE PREPARED IN ACCORDANCE WITH THE LATEST VERSION OF THE ASCE 7-10. OTHER STRUCTURES ARE DESIGNED IN ACCORDANCE WITH APPLICABLE LOCAL OR NATIONAL STANDARDS PER CLIENT INPUT.

ENCLOSURE:

DESIGN REACTIONS (LRFD):

DESIGN WINDWARD WIND PRESSURE : 33.18 PSF

Weight List Per Each Sector:

|                                               |        |
|-----------------------------------------------|--------|
| Ballast Frame Weight (lbs.)                   | 1901.3 |
| Required Ballast Weight fro Each Tray (lbs.)* | 497    |
| Total Equipment Weight (lbs.)                 | 210    |
| Area Load on Roof (psf)                       | 22.63  |

\*Assuming every block is 71 lbs. each (7 of 8"x8"x16" Solid CMU Blocks)

THE DESIGN REACTIONS ARE TYPICAL AT EACH CONNECTION. THE DESIGN REACTIONS "V" ARE CONSIDERED TO ACT IN ANY SHEAR DIRECTION AND "R" TO ACT HORIZONTALLY. THE CONNECTION OF THE COLUMNS TO THE STRUCTURE SHALL BE COMPLETED BY OTHERS FOR THE DESIGN REACTIONS LISTED ABOVE. THE ADEQUACY OF THE EXISTING STRUCTURE TO SUPPORT THE DESIGN REACTIONS SHALL BE DETERMINED BY OTHERS.

STEALTHSKIN PANELS

1. FASTENER HOLES IN STEALTHSKIN FOAM COMPOSITE PANELS ARE NOT FACTORY DRILLED AND MUST BE DRILLED IN THE FIELD.
2. PANEL FASTENERS TO BE SPACED 12" O.C. MAX. AND LOCATED 6" MAX. HORIZONTALLY FROM EACH EDGE AT TOP AND BOTTOM OF PANEL, UNLESS NOTED OTHERWISE. MAINTAIN 1 ½" MIN. EDGE DISTANCE FROM ALL EDGES. 4' WIDE PANELS REQUIRE (4) FASTENERS TOP AND BOTTOM. 5' WIDE PANELS REQUIRE (5) FASTENERS TOP AND BOTTOM.
3. WHEN FASTENER BOLT HEAD OR NUT BEARS DIRECTLY ON SURFACE OF STEALTHSKIN PANEL, TIGHTEN PANEL BOLTS ONLY ½ TURN PAST SNUG. APPLY THREAD LOCK COMPOUND TO THE THREADS OF METAL BOLTS. USE THIN BEAD OF EPOXY TO LOCK THE NUTS OF FRP BOLTS AND STEALTH® STAINLESS STEEL PANEL BOLTS. USE WASHER OR FLANGED HEAD BOLT, OR FASTENER WITH LARGE BEARING SURFACE.
4. PANELS WILL EXPAND AND CONTRACT DUE TO TEMPERATURE. WHEN INSTALLING PANELS IN COLD TEMPERATURES, EVENLY SPACE PANELS ALONG LENGTH OF SCREEN WALL WITH EQUAL GAPS BETWEEN PANELS TO ALLOW FOR EXPANSION DURING WARM TEMPERATURES.
5. ADJACENT FLAT PANELS ARE JOINED BY A VERTICAL FOAM SPLINE THAT IS INSERTED INTO GROOVES CUT INTO THE SIDE OF EACH PANEL. DO NOT LIFT PANELS BY GROOVES. PANELS MUST BE LIFTED WITH FORCE DIRECTED ONTO PANEL SURFACE.
6. ADJACENT RADIUS PANELS ARE JOINED BY A VERTICAL H-CHANNEL. INSERT PANELS INTO EACH SIDE OF H-CHANNEL.
7. RADIUS PANELS MUST BE EVENLY SPACED ALONG RADIUS SUPPORT. CONTRACTOR TO MEASURE LENGTH OF RADIUS SUPPORT AND DIVIDE BY THE NUMBER OF RADIUS PANELS TO DETERMINE PROPER SPACING. H-CHANNEL CONNECTORS ARE USED TO COVER THE GAP BETWEEN PANELS AND TO ALLOW FOR PANEL EXPANSION AND CONTRACTION.
8. SURFACES OF PANELS SHALL BE COATED WITH SUITABLE PAINT FOR UV PROTECTION. TOP EDGE OF PANEL MUST BE COVERED TO PREVENT WATER TRAVEL BETWEEN PANELS. USE SHERWIN WILLIAMS "COROTHANE II" OR PRE APPROVED EQUIVALENT.
9. EXPOSED TOP AND SIDE FOAM EDGES OF PANELS MUST BE COVERED OR COATED FOR UV PROTECTION. STEALTH® WILL PROVIDE PANEL EDGE CAPS (VERTICAL AND HORIZONTAL) TO BE FIELD APPLIED FOR THIS PURPOSE FOR MOST APPLICATIONS. HORIZONTAL AND VERTICAL PANEL EDGE CAPS TO BE SECURED TO THE EXPOSED EDGES OF THE PANELS WITH PROVIDED TEK SCREWS INSTALLED @ 12" MAXIMUM SPACING ON THE INSIDE FACE OF THE PANEL. IN RF SENSITIVE LOCATIONS, CONTRACTOR WILL APPLY (2) BEADS OF ADHESIVE TO EACH INSIDE CORNER OF THE EDGE CAP AND SECURE CAP TO PANEL WITH TAPE WHILE ADHESIVE CURES.
10. AT CORNER APPLICATIONS, VERTICAL PANEL EDGE CAPS ARE TO BE USED TO CAP BOTH EXPOSED EDGES (1 PER CUT EDGE OF PANELS). THESE EDGE CAPS ARE TO BE CUT 1" SHORTER THAN THE PANEL AND LEAVE 1" GAP AT THE TOP TO ALLOW ROOM FOR THE THE HORIZONTAL PANEL EDGE CAP AT THE TOP. CONTRACTOR TO APPLY (2) BEADS OF ADHESIVE TO EACH EDGE CAP (INSIDE CORNERS OF CAP), AND SECURE WITH TAPE AND/OR PROVIDED SCREWS (16 TOTAL PER CORNER) WHILE THE ADHESIVE CURES. IF CORNERS ARE IN NON-RF AREAS, EDGE CAP SCREWS CAN BE LEFT IN PLACE.
11. AT CORNER APPLICATIONS WITH SSV PANEL ONLY, CORNER CHANNELS ARE TO BE USED TO JOIN PANELS TOGETHER. BOTH ADJOINING PANELS WILL BE INSERTED INTO THE CORNER CHANNEL AND SECURED USING PROVIDED NYLON PUSHpins. THE PUSHpins ARE TO BE PLACED ON THE INSIDE OF ONE OF THE PANELS ONLY @ 12" MAXIMUM SPACING.

BALLASTED CONCEALMENTS

1. ROOF MUST BE CLEAN AND FREE OF DEBRIS
2. THE BALLAST FRAME IS TO BEAR ON A NEOPRENE PAD PROVIDED BY OTHERS, PLACED BETWEEN THE NEW BALLAST FRAME AND ROOF.
3. DESIGN ASSUMES CONTRACTOR IS RESPONSIBLE FOR LEVELING THE PLATFORM ON ROOF AND PROVIDING APPROPRIATE SHIM METHOD IF ROOF IS SLOPED.

STRUCTURAL STEEL

1. STEEL FABRICATION AND INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL AND SPECIFICATIONS.
2. STEEL I-SHAPE, ANGLE, CHANNEL, AND MISCELLANEOUS MEMBERS SHALL CONFORM TO ASTM A36 (36 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
3. STEEL PLATE MEMBERS SHALL CONFORM TO ASTM A36 (36 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS U.N.O.
4. STEEL PIPE AND ROUND TUBE MEMBERS SHALL CONFORM TO ASTM A500 GRADE B (42 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
5. STEEL RECTANGULAR AND SQUARE TUBE MEMBERS SHALL CONFORM TO ASTM A500 GRADE B (46 KSI MIN. YIELD STRENGTH) STEEL SPECIFICATIONS, U.N.O.
6. STEEL WIDEFLANGE MEMBERS SHALL CONFORM TO ASTM A992 (50 KSI MIN, YIELD STRENGTH) STEEL SPECIFICATIONS U.N.O.
7. ALL BOLTS FOR STEEL-TO-STEEL CONNECTIONS SHALL CONFORM TO ASTM F3125 GRADE A325 SPECIFICATIONS, U.N.O. A325N AND A325X ALLOWED.
8. STRUCTURAL BOLTS SHALL BE TIGHTENED USING TURN-OF-THE-NUT METHOD.
9. BOLT HOLE EDGE DISTANCES SHALL BE A MINIMUM 1", U.N.O.
10. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS AND PROCEDURES OF THE AMERICAN WELDING SOCIETY (AWS) BY CERTIFIED WELDERS PER AWS D1.1 FOR STEEL AND AWS D1.2 FOR ALUMINUM. STEEL WELDS SHALL BE BY E70XX, LOW HYDROGEN ELECTRODE.
11. STEEL SHALL BE HOT DIP GALVANIZED PER ASTM A123 SPECIFICATIONS AFTER FABRICATION OR PAINTED WITH RUST INHIBITIVE PRIMER.
12. STEEL HARDWARE SHALL BE HOT DIP GALVANIZED PER ASTM F2329, U.N.O.
13. AFTER ANY FIELD HOLE PUNCHING / DRILLING OR CUTTING HAS BEEN COMPLETED, OR FOR ANY DAMAGED STRUCTURAL MEMBER, TOUCH UP ALL BARE MATERIAL AND WELDED AREAS WITH TWO COATS OF GAL-CON OR SIMILAR MATERIAL TO RESTORE THE GALVANIZED PROTECTION ON THE MEMBERS.
14. ALL WELDED STEEL ASSEMBLIES AND INDIVIDUAL STEEL PARTS SHOULD HAVE THE PART NUMBER WELDED ONTO THE PART OR ASSEMBLY. THE PART NUMBERS SHOULD BE LOCATED CONSISTENTLY AND AWAY FROM ANY CONNECTION POINT TO AVOID ANY INTERFERENCE ISSUES WITH THE WELD.

FRP STRUCTURAL MEMBERS

1. FRP STRUCTURAL SHAPES SHALL BE BEDFORD FRP SERIES 1525, MANUFACTURED USING THE PULTRUSION PROCESS.
2. IF PREFABRICATED MEMBERS DO NOT ASSEMBLE PER PLAN, CONTACT STEALTH® CONCEALMENT SOLUTIONS, INC. BEFORE CUTTING OR ALTERING FABRICATED MEMBERS.
3. FRP STRUCTURAL MEMBERS SHALL BE FABRICATED AND ASSEMBLED AS INDICATED ON THE DRAWINGS.
4. THE CONTRACTOR SHALL PROTECT THE FRP STRUCTURAL MEMBERS FROM ABUSE TO PREVENT BREAKAGE, NICKS, GOUGES, ETC. DURING FABRICATION, HANDLING, AND INSTALLATION.
5. FRP BOLTS SHOULD BE TIGHTENED ½ TURN PAST SNUG AND LOCKED WITH EPOXY.

Raycap

STEALTH

7555-A PALMETTO COMMERCE PARKWAY  
NORTH CHARLESTON, SC 29420 USA  
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PETROS EPSTRATIOS TSOUKALAS

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PETROS E. TSOUKALAS

VIRGINIA PROFESSIONAL ENGINEER

LICENSE NO.: 0402044884

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OTHERWISE DIMENSIONS SHOWN IN INCHES

DECIMALS  
X ± 1/16"  
.XXX ± 0.01"

ANGULAR  
X ± 0.5°

NOTES & SPECIFICATIONS

BC ARCHITECTS ENGINEERS, PLC  
HUNTMAR PARK  
505 HUNTMAR PARK DR.  
HERNDON, VA 20170

JOB #: SP19-00015W-17R0

DRAWN: SH

DESIGNED: SH

REVISED: MSG

N1

02-07-19

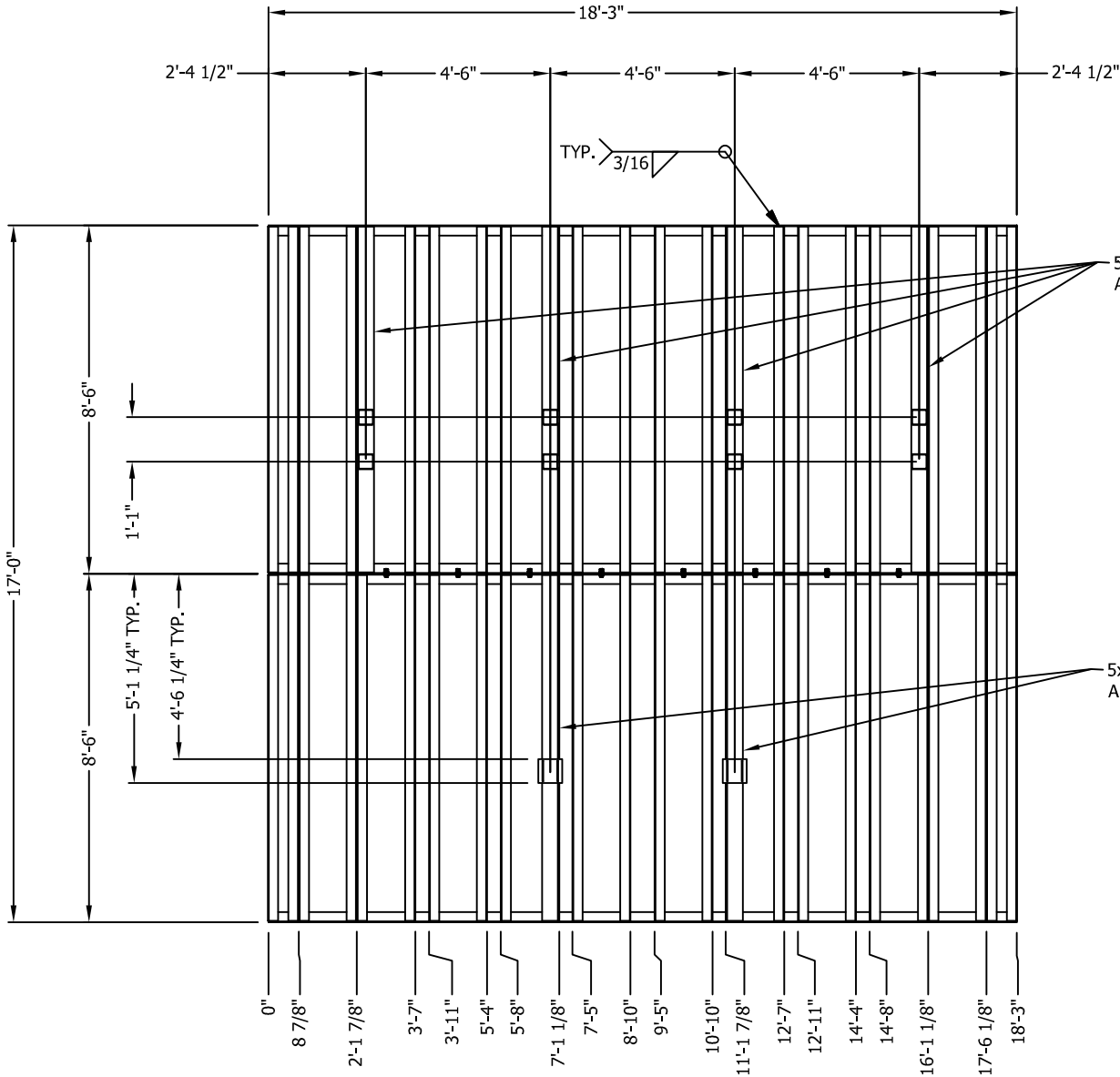
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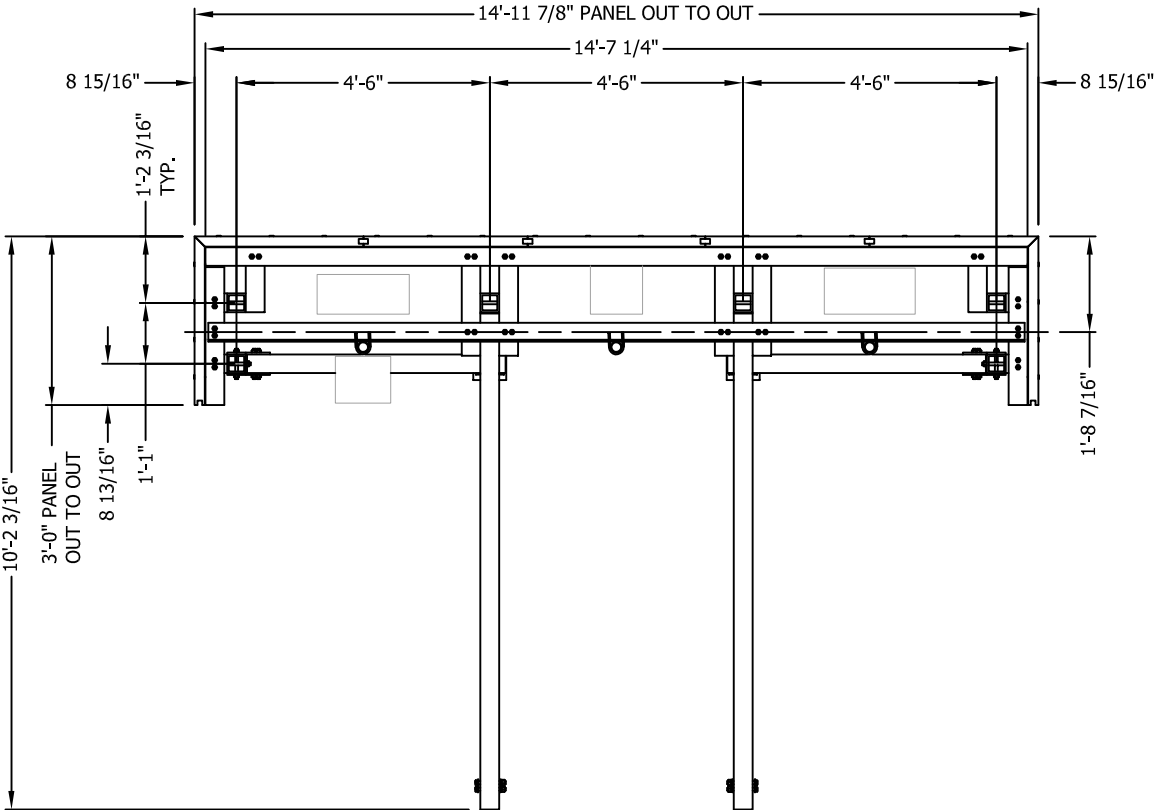




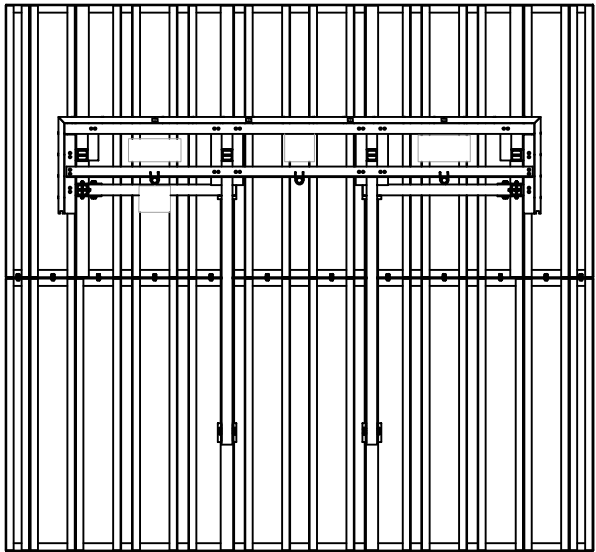


BALLAST PLAN VIEW

QTY:(3)



SCREENWALL PLAN VIEW



PLAN VIEW

- NOTES:
- 1.) THE INTEGRITY OF THE EXISTING STRUCTURE MUST BE VERIFIED BY OTHERS.
  - 2.) THE DIMENSIONS OF THE EXISTING STRUCTURE ARE BASED UPON INFORMATION COLLECTED BY STEALTH® DURING THE SALES PROCESS AND DRAWINGS BY (BC ARCHITECTS ENGINEERS) DATED 10-30-18. STEALTH® HAS NOT PERFORMED A TECHNICAL SITEWALK TO VERIFY THE DIMENSIONS LISTED. VERIFICATION OF THESE DIMENSIONS IS THE RESPONSIBILITY OF THE CUSTOMER.
  - 3.) THE ATTACHMENT TO EXISTING (DESIGN AND FASTENERS) MUST BE PROVIDED BY OTHERS. STEALTH® WILL ONLY SUPPLY FASTENER SIZE AND QUANTITY REQUIRED, FOR ATTACHMENT TO EXISTING.
  - 4.) THE PANELS ARE TO BE PAINTED / TEXTURED ACCORDING TO THE CUSTOMER APPROVED SAMPLE(S).
  - 5.) THIS CONCEALMENT WAS DESIGNED TO ACCEPT THE FOLLOWING ANTENNA (RFS APXVBL15X\_43-C-120). IT IS THE CUSTOMERS RESPONSIBILITY TO ENSURE THE FIT OF THE ANTENNA AND COAX WITH THEIR SPECIFIC MOUNTING EQUIPMENT.
  - 6.) IT IS STRONGLY RECOMMENDED THAT THE CUSTOMER REVIEWS THE RF CONSIDERATIONS IN THIS DESIGN.
  - 7.) DUE TO THE USE OF NON-CONVENTIONAL MATERIALS FOR RF PERFORMANCE, THIS CONCEALMENT WAS NOT DESIGNED TO BE WATERPROOF.

Raycap STEALTH®

7555-A PALMETTO COMMERCE PARKWAY  
NORTH CHARLESTON, SC 29420 USA  
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Lic. No. 0402 044884

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VIRGINIA PROFESSIONAL ENGINEER  
LICENSE NO.: 0402044884

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OTHERWISE. DIMENSIONS SHOWN IN INCHES  
UNLESS NOTED OTHERWISE.

DECIMALS  
X ± 1/16"  
.XXX ± 0.01"

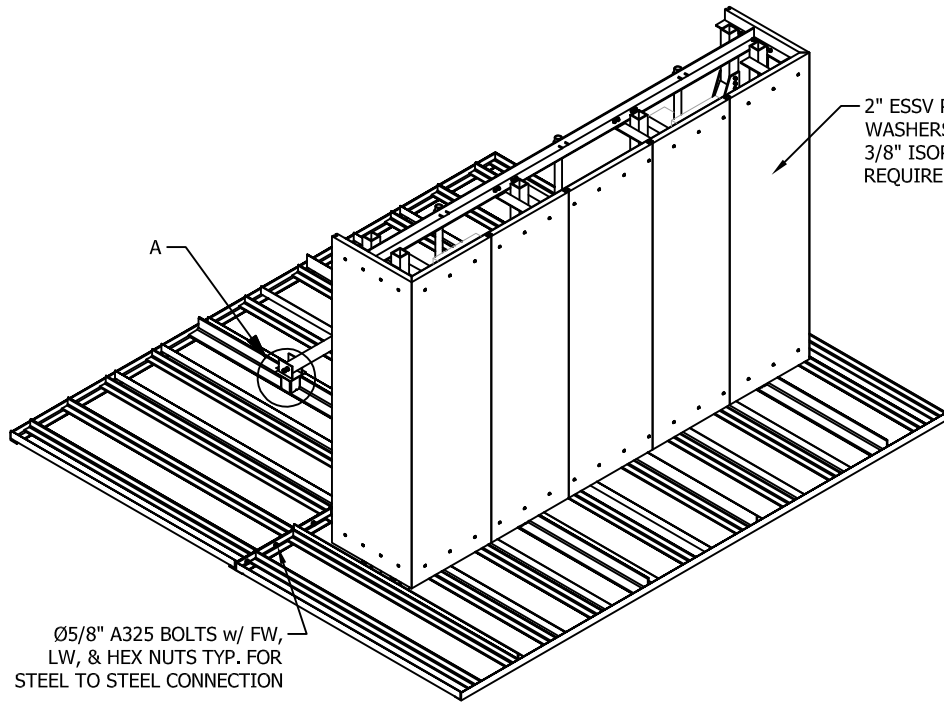
ANGULAR  
X ± 0.5°

ASSEMBLY - ELEVATIONS

BC ARCHITECTS ENGINEERS, PLC  
HUNTMAR PARK  
505 HUNTMAR PARK DR.  
HERNDON, VA 20170

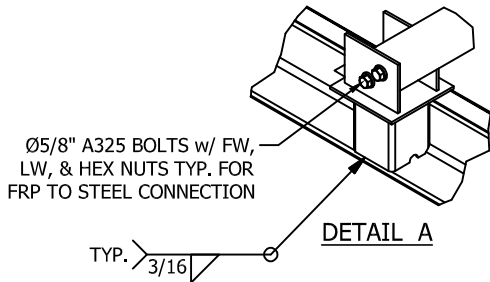
|                         |          |
|-------------------------|----------|
| JOB #: SP19-00015W-17R0 |          |
| DRAWN: SH               |          |
| DESIGNED: SH            |          |
| REVISED: MSG            |          |
| S1                      | REVISION |
|                         | 0        |



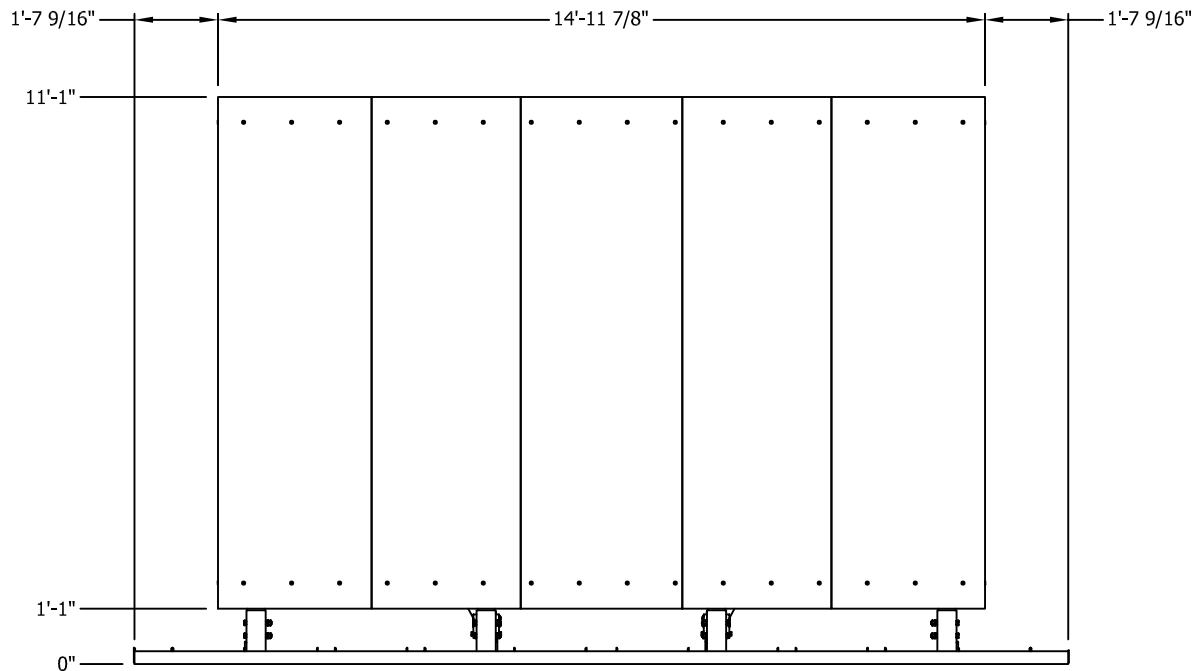
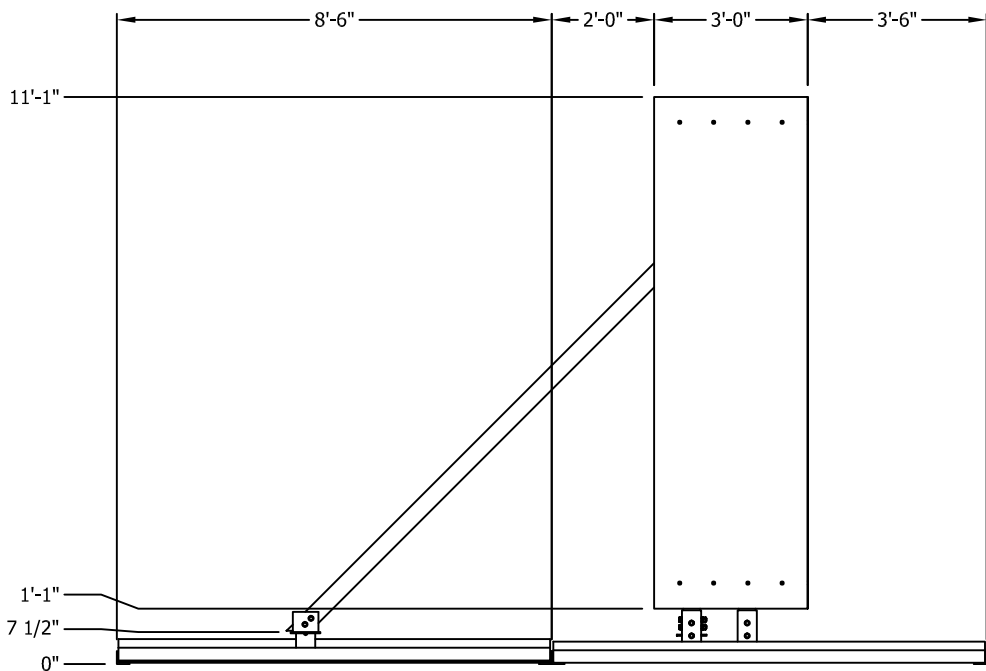
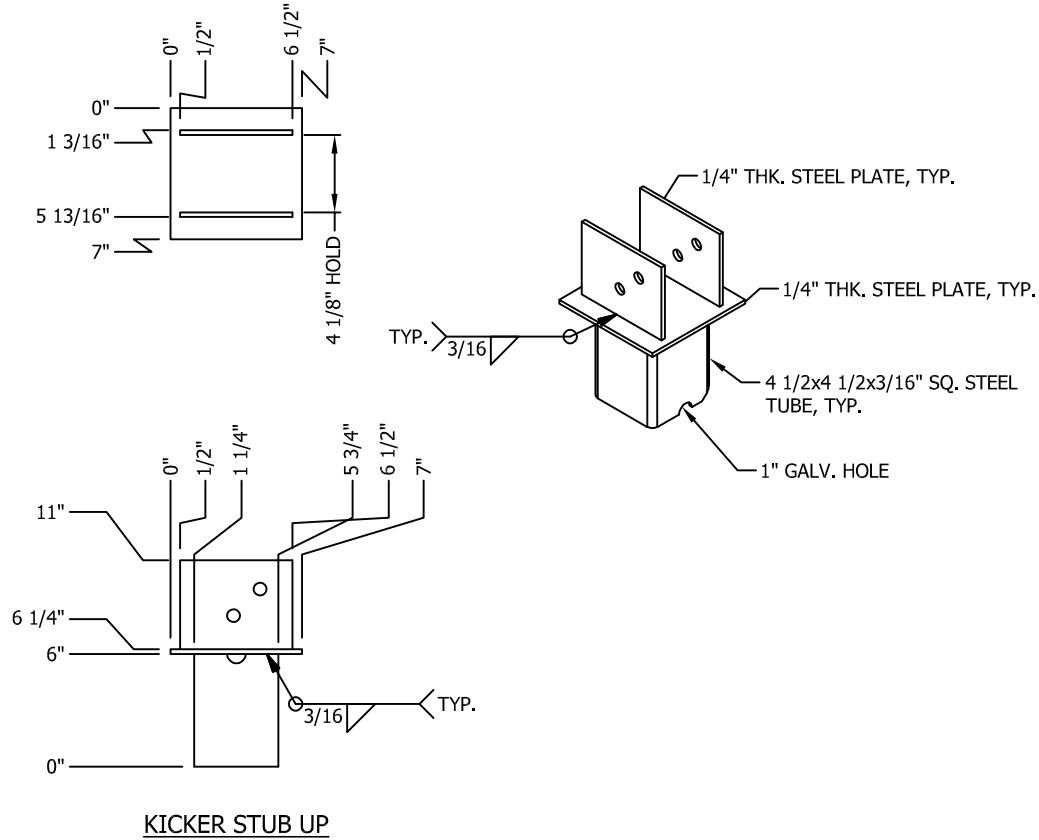


2" ESSV PANEL w/ #14 FLAT HEAD SCREW w/ 3/8" SS FLAT WASHERS IN NON-RF AREAS & Ø3/8" CS ISOPLAST BOLTS w/ 3/8" ISOPLAST HEX NUTS @ 12" O.C. MAX IN RF AREAS AS REQUIRED

Ø5/8" A325 BOLTS w/ FW, LW, & HEX NUTS TYP. FOR STEEL TO STEEL CONNECTION



Ø5/8" A325 BOLTS w/ FW, LW, & HEX NUTS TYP. FOR FRP TO STEEL CONNECTION



Raycap STEALTH

7555-A PALMETTO COMMERCE PARKWAY  
NORTH CHARLESTON, SC 29420 USA  
P: (800)-755-0689 F: (843)-207-0207  
WWW.STEALTHCONCEALMENT.COM

PROPRIETARY INFORMATION: THE INFORMATION CONTAINED WITHIN THIS DRAWING SET IS PROPRIETARY & CONFIDENTIAL BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO STEALTH® CONCEALMENT SOLUTIONS, INC. IS STRICTLY PROHIBITED.

**MASER**  
Consulting, Architectural & Environmental Engineers  
New Jersey New York Pennsylvania Virginia  
Customer Loyalty Through Client Satisfaction  
2000 Midantic Drive, Suite 100  
Mt. Laurel, NJ 08054  
856-797-0412

**PETROS E. TSOUKALAS**  
Lic. No. 0402 044884

**PETROS E. TSOUKALAS**  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE NO.: 0402044884

DRAWING NOT TO SCALE, UNLESS SPECIFIED  
OTHERWISE. DIMENSIONS SHOWN IN INCHES  
UNLESS NOTED OTHERWISE

DECIMALS  
X ± 1/16"  
.XXX ± 0.01"

ANGULAR  
X ± 0.5°

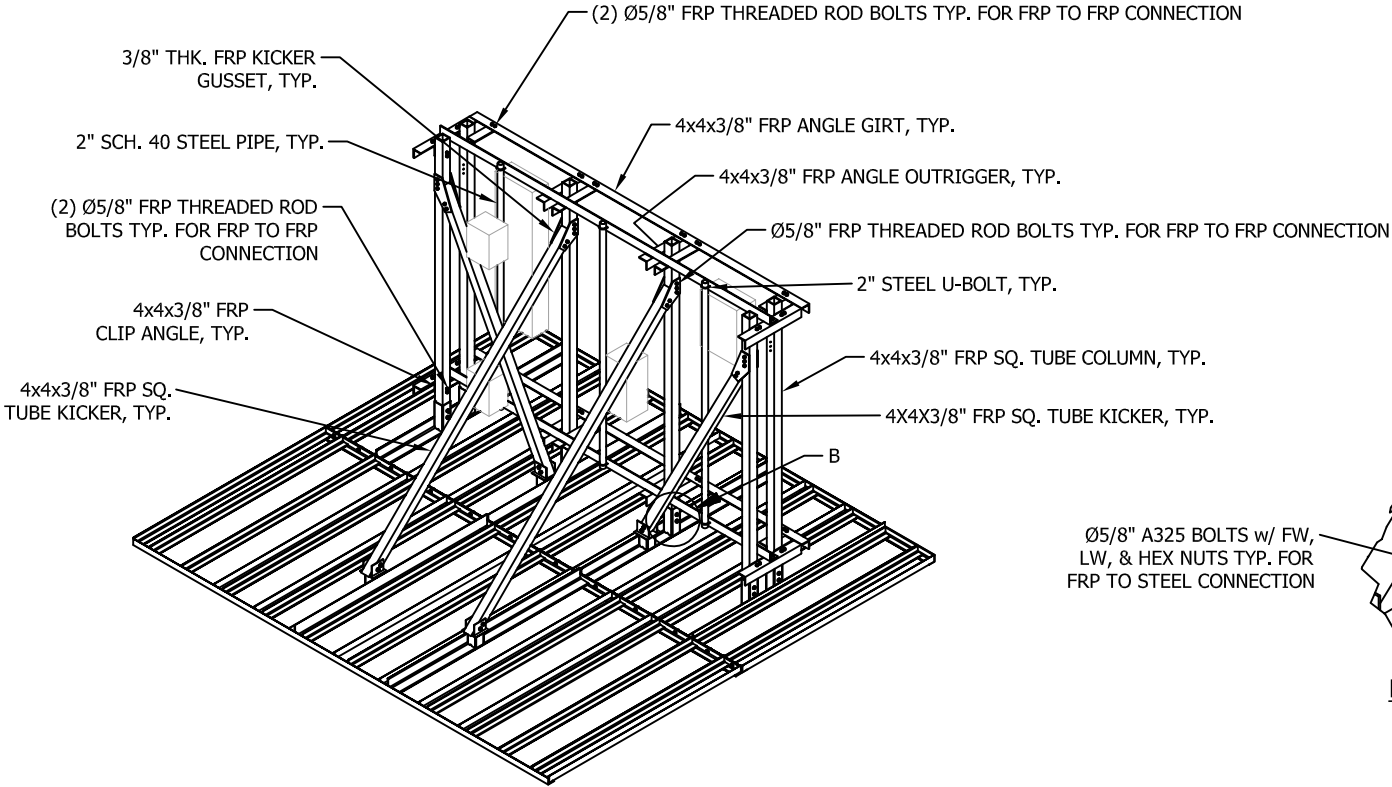
ASSEMBLY - ELEVATIONS

BC ARCHITECTS ENGINEERS, PLC  
HUNTMAR PARK  
505 HUNTMAR PARK DR.  
HERNDON, VA 20170

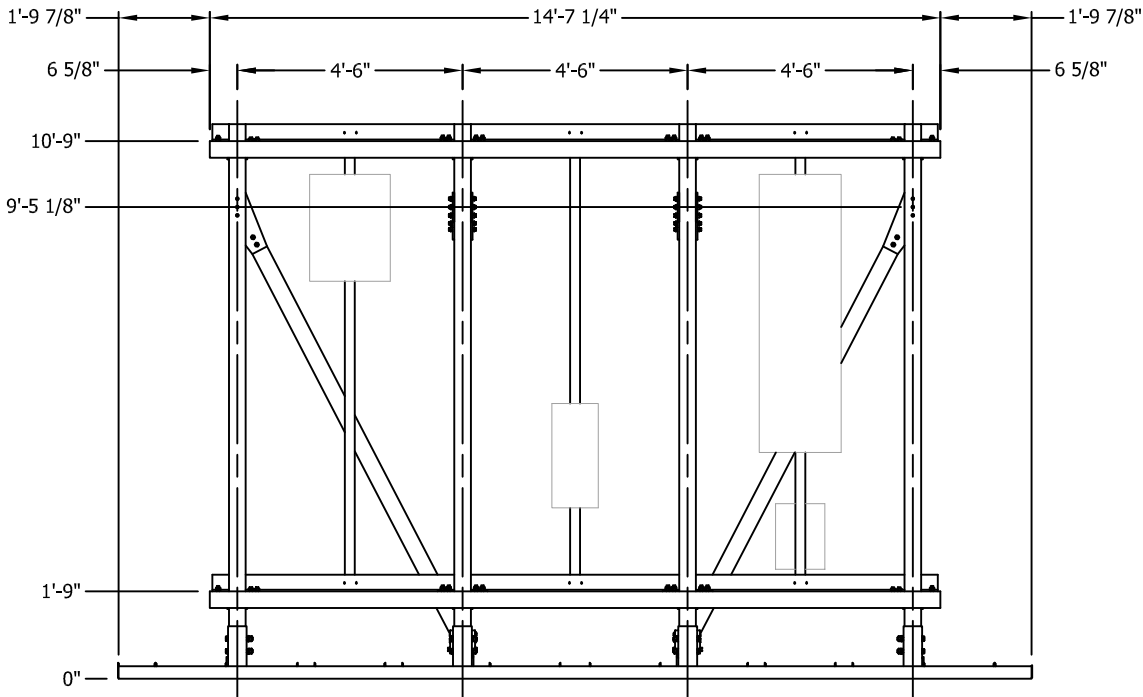
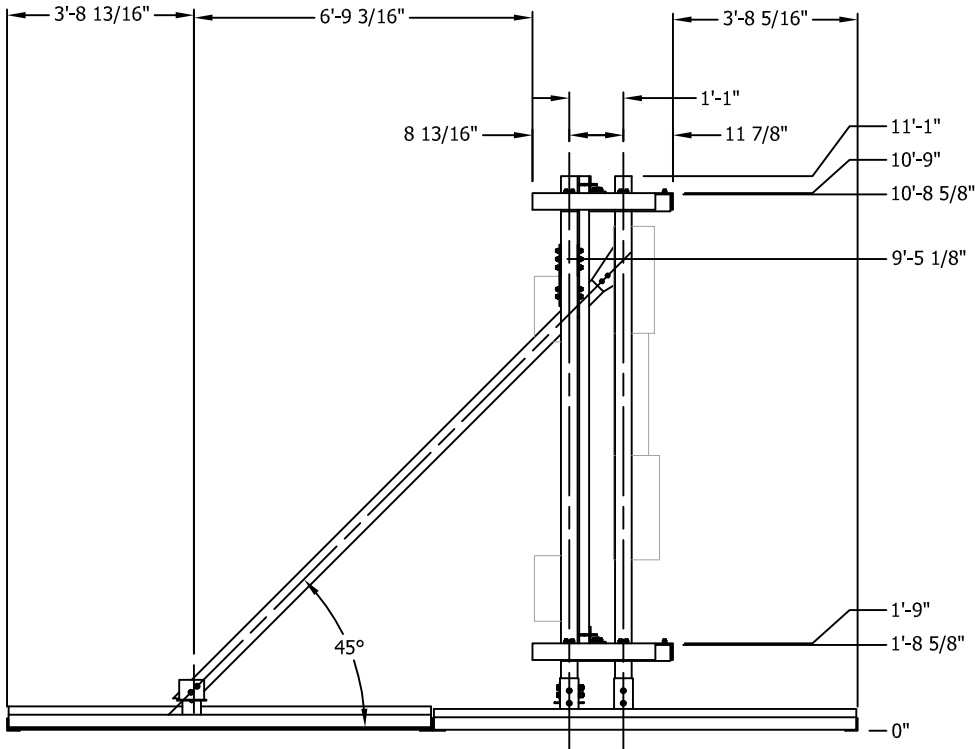
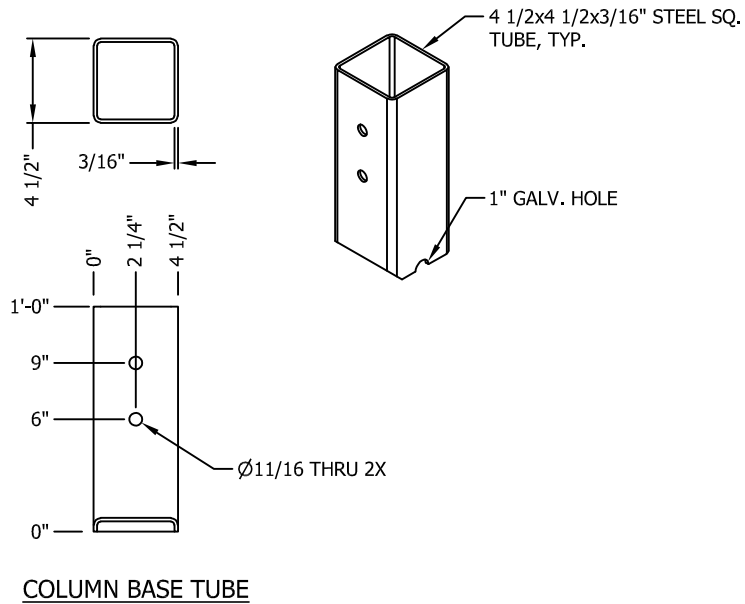
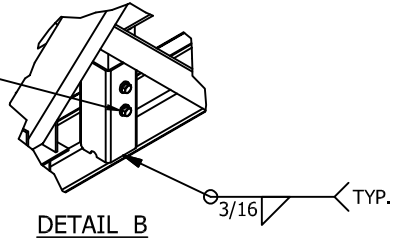
JOB #: SP19-00015W-17R0  
DRAWN: SH  
DESIGNED: SH  
REVISED: MSG

S2  
02-07-19

REVISION  
0



Ø5/8" A325 BOLTS w/ FW, LW, & HEX NUTS TYP. FOR FRP TO STEEL CONNECTION



Raycap STEALTH

7555-A PALMETTO COMMERCE PARKWAY  
NORTH CHARLESTON, SC 29420 USA  
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**PETROS E. TSOUKALAS**  
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VIRGINIA PROFESSIONAL ENGINEER  
LICENSE NO.: 0402044884

DRAWING NOT TO SCALE, UNLESS SPECIFIED  
OTHERWISE, DIMENSIONS SHOWN IN INCHES

DECIMALS  
X ± 1/16"  
.XXX ± 0.01"

ANGULAR  
X ± 0.5°

ASSEMBLY - ELEVATIONS

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HERNDON, VA 20170

JOB #: SP19-00015W-17R0  
DRAWN: SH  
DESIGNED: SH  
REVISED: MSG

S3  
02-07-19

REVISION  
0





## STEALTH Framing Design & Analysis

FOR

**Huntmar Park**

SP19-00015W-17R0  
505 Huntmar Park Drive  
Herndon, VA 20170

**February 7, 2019**

*Prepared For*

**STEALTH® Concealment Solutions**

7555-A Palmetto Commerce Parkway  
North Charleston, SC 29420

*Prepared By*

**Maser Consulting P.A.**

2000 Midlantic Drive, Suite 100  
Mount Laurel, NJ 08054  
856.797.0412

---

Michael P. Cleary, P.E.

Telecommunications Department Manager  
Virginia License No. 0402055672

MC Project No. 19937005A



### **Objective:**

The objective of this report is to structurally evaluate the existing building and the proposed concealments located at the above referenced address with respect to the local building codes and standards to support the final loading.

### **Introduction:**

Maser Consulting P.A. has utilized information provided by **STEALTH®** Concealment Solutions and completed a structural evaluation on the proposed concealment system and the existing building. The proposed **STEALTH®** Concealments consist of three (3) 3-sided screen wall frames which shall be connected to the proposed customized steel ballast frames. The proposed concealments are intended to conceal the proposed antennas at a centerline of approximately 41'-6" above ground level. This report is a review of the concealment systems, steel ballast frames and the existing building.

These calculations apply to the design shown in the corresponding Final Engineering Drawings for the above referenced location.

### **Codes, Standards and Loading:**

Maser Consulting P.A. utilized the following codes and standards:

- 2015 Virginia Uniform Statewide Building Code (2015 IBC)
- Minimum Design Loads for Buildings and Other Structures 7-10
  - o Ultimate Wind Speed – 115 mph
  - o Exposure Category - C
  - o Risk Category – II
  - o Topographic Category – 1
- Specification for Structural Steel Buildings ANSI/AISC 360-10, American Institute of Steel Construction (AISC)

### **Analysis Approach & Assumptions:**

1. The analysis approach used in this structural analysis is based on the premise that if the existing roof and the proposed concealments frames are structurally adequate to support the proposed **STEALTH®** concealments loading per the aforementioned codes and standards, or if the increase in the forces in the support structure is deemed to be negligible or acceptable, then the proposed panel concealments can be installed as intended.
2. The existing building was designed by a professional engineer and constructed according to specified codes and standards.
3. The existing roof was designed for a live load of 30 psf.

### **Site Specific Design Parameters:**

The following design parameters have been utilized in this report:

- All FRP structural shapes shall be Bedford FRP series 1525 produced using the pultrusion process.
- Structural Steel Grades have been used as follows:
  - o Angle ASTM A36 (Gr. 36)
  - o Pipe ASTM A53 (Gr. B-35)
  - o Bolts ASTM A32
- The concealment panels are **STEALTH®** ESSV panels, as indicated in the design drawings.



### General Notes:

- The typical notes and details shall apply in all cases unless specifically detailed elsewhere. Where no detail is shown, the construction shall be as shown for other similar work and as required by the building code.
- The contractor shall be responsible for compliance with local construction safety orders. Approval of shop drawings by the architect or structural engineer shall not be construed as accepting his responsibility.
- All structural framing members shall be adequately shored and braced during erection and until full lateral and vertical support is provided by adjoining members.
- It is the responsibility of the client to ensure that the information provided to Maser Consulting P.A. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that the original design, material production, fabrication, and erection of the existing structure was performed in accordance with accepted industry design standards and in accordance with all applicable codes. Further, it is assumed that the existing structure and appurtenances have been properly maintained in accordance with all applicable codes and manufacturer's specifications and no structural defects and/or deterioration to the structural members has occurred.
- Prior to the installation of the proposed design, the contractor shall verify that the dimensions, conditions and elevations are proper. If any deficiencies are noted the contractor shall notify the engineer of the conditions prior to installation of any hardware for additional evaluation.

### Calculations:

The calculations are found in Appendix A of this report.

### Conclusion:

Maser Consulting P.A. has determined the proposed **STEALTH®** concealment panels, framing systems and the existing roof have **ADEQUATE** structural capacity to support the loading per the aforementioned codes and standards. Therefore, the proposed **STEALTH®** concealment panels and framings can be installed as intended. Based on the loading analysis completed per the design criteria listed, the panels shall be attached as follows:

- **For the panels for the screen wall frame, fasten the ESSV panels to FRP angles frame with #14 Stainless Steel Screws with washers or 3/8" ISOPLAST bolts in RF areas at 6" on center.**

Maser Consulting P.A. has also determined that the required ballast to support the proposed installation along with the proposed ballast frames will generate a maximum uniform distributed load of 22.6 psf under each ballast mount. Since this is less than the assumed live load of the roof of 30 psf, the proposed **STEALTH®** concealment panels and framings **CAN** be installed as intended.

| Total Required | Each Ballast Tray (lb.) * | Uniform Load Distribution (psf) with ballast |
|----------------|---------------------------|----------------------------------------------|
| Ballast Mount  | 497                       | 22.6 psf                                     |

\*Assuming each block is 71 lbs. each (16"x8"x8" Solid CMU Blocks)



The conclusions reached by Maser Consulting P.A. in this report are only valid for the **STEALTH®** structure, ballast frames and exiting rooftop listed in this report. Any change to the installation will require a revision to this structural analysis.

We appreciate the opportunity to be of service on this project. If you should have any questions or require any additional information, please do not hesitate to call our office.

Sincerely,

Maser Consulting P.A.

A handwritten signature in blue ink, reading 'Clara Basanti'.

Michael P. Cleary, P.E.  
Telecommunications Department Manager

Clara Basanti  
Engineer



# ENHANCED STEALTHSKIN™V (ESSV) CONCEALMENT PANEL

## PRODUCT INFORMATION SHEET

**DESCRIPTION** Through testing and the experience of thousands of concealment sites constructed, STEALTH® Concealment Solutions, Inc. has determined that the type and placement of materials used for screening antennas play a vital role in their performance. All STEALTH® concealment panels allow for superior antenna signal transmission compared to fiberglass without the durability problems of fiberbloom or cracking over time. STEALTH® panels are engineered and manufactured to become part of the existing structure and withstand extreme weather conditions while maintaining their original appearance.

**APPLICATIONS** STEALTH® ESSV panels are generally specified for dark color and desert climate applications. STEALTH® ESSV panels can be used to manufacture a variety of rooftop and tower type concealment products including screenwalls, wall replacements, side mounted boxes, clock towers and bell towers. The panel can be factory textured to match most existing architectural appearances, such as brick, stucco, aggregate and split face block as well as custom applications.

**RECOMMENDED FREQUENCIES** STEALTH® generally recommends ESSV panels for frequencies up to 3GHz. STEALTH® has testing currently in process for higher frequency applications.

**SIZES AND STYLES AVAILABLE** STEALTH® ESSV panels are available in 4' x 8' and 4' x 10' standard sizes. Custom sizes are available upon request. Nominal panel thickness is 2.18". Panel weight is 1.5 lb/sf for a smooth/painted texture.

**PHYSICAL PROPERTIES** STEALTH® ESSV panels are manufactured with a sandwich panel geometry. FRP (fiberglass reinforced plastic) skins are laminated to an extruded polystyrene core using an ICBO approved adhesive. Physical performance properties of the skins and core are listed to the right.

**FABRICATION/INSTALLATION** STEALTH® ESSV panels can be fabricated into various sizes and shapes. Due to the critical design aspects of many of its applications, STEALTH® recommends that qualified designers or consultants design a total concealment system to support the panels.

**AVAILABILITY** STEALTH® maintains inventory of STEALTH® ESSV panels and has custom manufacturing capability in its facility in South Carolina. Please contact us at (843) 207-8000 for sales information.

**TECHNICAL SERVICES** STEALTH® can provide technical information and support to address questions when using STEALTH® ESSV panels. Technical personnel are available via telephone at (843) 207-8000.

| PHYSICAL PERFORMANCE PROPERTIES OF FRP SKINS |                            |             |                            |
|----------------------------------------------|----------------------------|-------------|----------------------------|
| PROPERTY                                     | UNITS                      | TEST METHOD | RESULT                     |
| Coefficient of Linea Thermal Expansion       | 10 <sup>-5</sup> /IN/IN/°C | ASTM D-696  | 3.46                       |
| Water absorption (24 Hour)                   | %                          | ASTM D-570  | 0.27                       |
| Tensile Modulus                              | psi x 10 <sup>6</sup>      | ASTM D-638  | 0.803 / 0.651 (Transverse) |
| Tensile Strength, Yield                      | psi                        | ASTM D-638  | 12288 / 8679 (Transverse)  |
| Elongation, Yield                            | %                          | ASTM D-638  | 1.88 / 1.87 (Transverse)   |
| Flexural Modulus                             | psi x 10 <sup>6</sup>      | ASTM D-790  | 0.735 / 0.432 (Transverse) |
| Flexural Strength                            | psi                        | ASTM D-790  | 25602 / 15712 (Tranverse)  |
| Compressive Strength                         | psi                        | ASTM D-695  | 18043 / 13042 (Transverse) |
| Compressive Modulus                          | psi x 10 <sup>6</sup>      | ASTM D-695  | 0.783/0.508 (Transverse)   |
| IZOD Impact                                  | Ft/lbs Inch Notch          | ASTM D-256  | 10.32                      |

| PHYSICAL PERFORMANCE PROPERTIES OF EXTRUDED POLYSTYRENE CORE   |                        |                      |        |
|----------------------------------------------------------------|------------------------|----------------------|--------|
| PROPERTY                                                       | UNITS                  | TEST METHOD          | RESULT |
| Density                                                        | lb/ft <sup>3</sup>     | ASTM D 1622          | 1.5    |
| Compressive Strength                                           | lb/in <sup>2</sup>     | ASTM D1621, vertical | 20     |
| Tensile Strength                                               | lb/in <sup>2</sup>     | ASTM D1623, vertical | 50     |
| Shear Strength                                                 | lb/in <sup>2</sup>     | ASTM C273            | 25     |
| Shear Modulus                                                  | lb/in <sup>2</sup>     | ASTM C273            | 330    |
| Flexural Strength                                              | lb/in <sup>2</sup>     | ASTM C203            | 50     |
| Flexural Modulus                                               | lb/in <sup>2</sup>     | ASTM C203            | 1600   |
| Water Absorption                                               | % by vol.              | ASTM C272            | .5     |
| R-Value per Inch                                               | F-ft <sup>2</sup> /Btu | ASTM C518            | 5.0    |
| Surface Burning Characteristics (Flame Spread/Smoke Developed) | -                      | ASTM E84             | 15/165 |

©2013, STEALTH® Concealment Solutions, Inc.



**STEALTH Concealment Solutions, Inc.**  
 3034-A Ashley Phosphate Road  
 North Charleston, South Carolina 29418  
 toll-free 800.755.0689 fax 843.207.0207  
 website [stealthconcealment.com](http://stealthconcealment.com)

## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

---

### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)





## STAFF REPORT

### Architectural Review Board

March 6, 2019

#### Title:

APPLICATION FOR ALTERATION TO AN EXISTING STRUCTURE, ARB #19-14.

#### Staff Contact:

Christopher J. Garcia, AICP, Community Design Planner/Deputy Zoning Administrator  
(703) 787-7380  
[christopher.garcia@herndon-va.gov](mailto:christopher.garcia@herndon-va.gov)

#### Summary:

An application to consider replacement of existing telecommunications antennas and installation of new telecommunication antennas with associated equipment on the Town-owned water tank located at 806 3rd Street, Herndon (Attachment #1).

#### Location Factors:

|                    |                                                                                                                                                                                        |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant:         | Aimee Clark, Agent                                                                                                                                                                     |
| Owner:             | Town of Herndon, Virginia                                                                                                                                                              |
| Use:               | Municipal Water Tank / Telecommunications Facility                                                                                                                                     |
| Location:          | 806 3rd Street                                                                                                                                                                         |
| Tax Map Reference: | 0104-02-0045A                                                                                                                                                                          |
| Zoning of Site:    | R-10, Residential Single Family - 10                                                                                                                                                   |
| Adjacent Zoning:   | North: R-10, Residential Single Family - 10<br>South: R-15, Residential Single Family - 15<br>East: R-10, Residential Single Family - 10<br>West: R-10, Residential Single Family - 10 |

#### Description:

The applicant proposes to replace four (4) existing and install new telecommunications antennas in their place and install an additional four (4) new telecommunications antennas with associated equipment and cabling on the catwalk railing on the municipal water tank on the subject Town-owned property. The antennas will be located approximately 100 feet above ground level.

In addition, one new electrical equipment cabinet will be ground mounted to a new metal H-frame to be installed beneath the water tower along with minor electrical equipment being installed on an existing H-frame within less than five (5) feet of each other. A proposed dual flood light is to be mounted over the new electrical equipment on the existing H-frame to serve as a night time work light. New cabling to new antenna equipment is not specified as to the location and methods of attachment to the water tank structure (Attachment #3, #4, and #5).

The subject property has been subject to several approved ARB cases related to the installation of telecommunications equipment. The latest ARB case in 2017, ARB #17-15, approved four (4) of the antennas currently planned for replacement with new antennas.

The current proposed project is a result of T-Mobile's effort to update and enhance its wireless telecommunications network.

No other alterations are being proposed under this application.

### **Recommendation:**

Staff recommends approval of ARB #19-14 with the following conditions:

1. The applicant shall clarify the location and attachment methods of new cabling to be installed to support existing and new antenna equipment.
2. The color of the proposed antennas and cabling match the color of the water tank.
3. The installation and use of the proposed work light over the new ground-mounted electrical equipment shall comply with Town's Zoning Ordinance, Section 78-130.9. - Exterior Lighting.
4. The proposed telecommunications equipment is installed in substantial conformance with the application and supporting materials as submitted January 28, 2019 and subsequent updates resulting from ARB approval conditions.

### **Staff Analysis:**

1. The proposed minor sight lighting complies with Town's Zoning Ordinance, Section 78-130.9. - Exterior Lighting.
2. The proposed telecommunications equipment installation complies with the applicable design criteria within the Town's Architectural Control District as specified in Section 58-96 of the Town Code of Ordinances (Attachment #6).

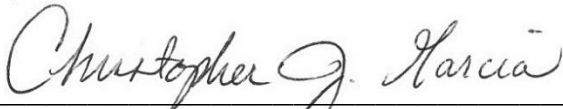


3. The proposed installation clearly shows an addition of minor ground-mounted equipment that does not significantly increase the amount of unscreened, ground mounted telecommunications equipment. However, future increases in the density and volume of ground-mounted telecommunications equipment may require screening in accordance with Zoning Ordinance Section. 78-114. – Screening, as may be determined by the Town’s Zoning Administrator.

**Attachments:**

1. Location Map
2. Aerial Image
3. Applicant Letter
4. Site Photos of Existing Conditions
5. Equipment Installation Plan, Elevation, Details and Product Information
6. Town’s Code of Ordinances Division 4 - Standards, Sec. 58-96. (ARB) Design Criteria

**Staff:**



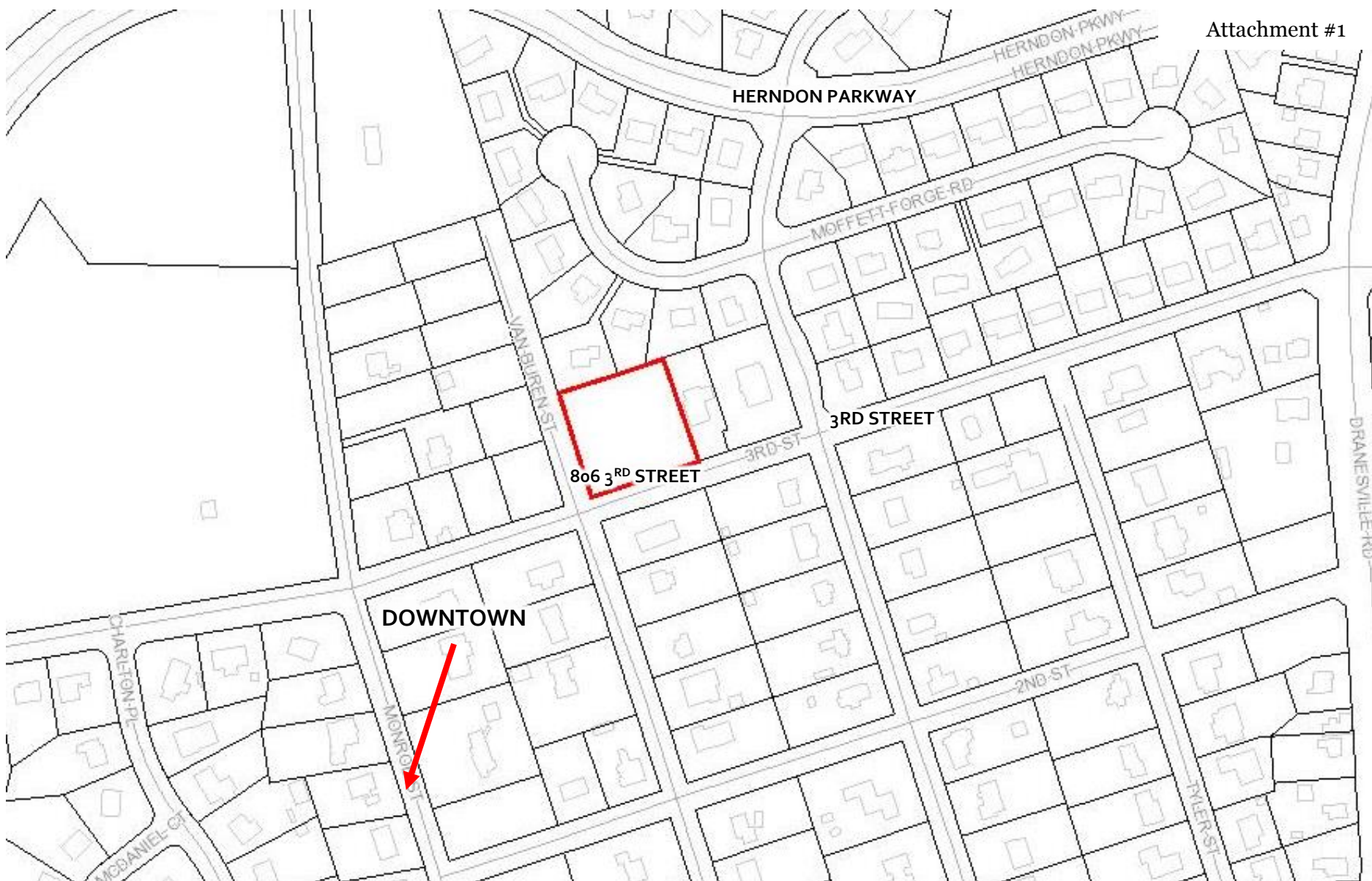
---

Christopher J. Garcia, AICP  
Community Design Planner/Deputy Zoning Administrator



---

Bryce A. Perry  
Deputy Director of Community Development



## SITE LOCATION - VICINITY MAP



Map prepared by Town of Herndon Department of  
Community Development  
Image source: Fairfax County Property Tax Map  
Viewer





Google Earth

# SITE LOCATION – AERIAL PHOTO



Imagery prepared by Town of Herndon  
Department of Community Development  
Image source: Google Earth © 2018



T-Mobile Northeast LLC, a subsidiary of T-Mobile USA, Inc.  
12050 Baltimore Avenue Beltsville, MD 20705

January 28, 2019

**VIA MAIL**

**Architectural Review Board**  
777 Lynn Street  
Herndon, VA 20170

Re: Application For An Alteration To An Existing Structure  
Architectural Review Board

Site Number: 7WAC057A (the "Site")  
Site Address: 806 3<sup>rd</sup> Street, Herndon VA, 20170 (the "Property")

To Whom It May Concern:

T-Mobile is in the process of updating certain equipment that supports its wireless telecommunications network. As part of this effort, T-Mobile will need to perform work at the above-referenced Property.

The purpose of this letter is to provide a description of the above referenced work, which is to swap (4) four antennas (1 per sector), relocate the existing TMAs, install (4) new RRUs, and install (4) new antennas. We will also be upgrading the existing electrical service from 100A to 200A.

Should you have any questions, please contact me via email at [aclark@advantageengineers.com](mailto:aclark@advantageengineers.com) or by phone at 443-366-3545. Thank you in advance for your cooperation in this matter.

Very truly yours,

A handwritten signature in black ink, appearing to be 'Aimee Clark', written over a horizontal line.

Aimee Clark  
Site Acquisition Specialist  
Advantage Engineers  
o/b/o T-Mobile Northeast, LLC



Alpha-Delta  
Sector



Beta Sector





Gamma sector



# T-Mobile NORTHEAST LLC

**SITE NAME:**  
**TOWN OF HERNDON-HERNDON**

**SITE NUMBER:**  
**7WAC057A**  
**SITE ADDRESS:**  
**806 3RD STREET**  
**HERNDON, VIRGINIA 20170**

**Attachment #5**



**Know what's below.**  
**Call before you dig.**

PROTECT YOURSELF. GIVE THREE  
WORKING DAYS NOTICE  
THIS DRAWING DOES NOT INCLUDE NECESSARY  
COMPONENTS FOR CONSTRUCTION SAFETY. ALL  
CONSTRUCTION MUST BE DONE IN COMPLIANCE  
WITH THE OCCUPATIONAL SAFETY AND HEALTH  
ACT OF 1970 AND ALL RULES AND REGULATIONS  
THERE TO APPURTENANT.



**advantage engineers**

7070 SAMUEL MORSE DRIVE, SUITE 150  
COLUMBIA, MARYLAND 21046  
PHONE: (443) 387-0003  
www.advantageengineers.com

**PLAN REVISIONS:**

|        |          |          |                             |
|--------|----------|----------|-----------------------------|
| 5      |          |          |                             |
| 4      |          |          |                             |
| 3      |          |          |                             |
| 2      |          |          |                             |
| 1      |          |          |                             |
| 0      | 01-28-19 | TA       | ISSUED FOR CONSTRUCTION     |
| A      | 01-21-19 | JPP      | ISSUED FOR 90% REVIEW (CDs) |
| REV No | DATE     | DESIGNER | DESCRIPTION                 |

**AE DESIGN INFO:**

DESIGNER: JPP  
AE JOB No: 18E019A.001

**DRAWING TITLE:**

**TITLE SHEET &  
PROJECT DATA**

**DRAWING SHEET:**

**T-1**

**SITE INFORMATION:**

SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
7WAC057A  
SITE ADDRESS:  
806 3RD STREET  
HERNDON, VIRGINIA 20170  
JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

**SHEET NUMBER:**  
**1 OF 9**

**SITE INFORMATION:**

SITE NAME: TOWN OF HERNDON-HERNDON  
SITE NUMBER: 7WAC057A  
SITE ADDRESS: 806 3RD STREET  
HERNDON, VIRGINIA 20170  
JURISDICTION: TOWN OF HERNDON, VIRGINIA  
ZONING: R-10  
PARCEL ID: 0104-02-0045-A  
PARCEL SIZE: 0.92± ACRES  
SITE COORDINATES: N 38° 58' 49.0794" (38.98030°) (NAD83)  
W -77° 22' 59.2674" (-77.38313°) (NAD83)  
GROUND ELEVATION: 407.0' ± (NAVD 88)  
STRUCTURE TYPE: WATER TANK  
STRUCTURE HEIGHT: 120'-0" ± AGL (TOP OF WATER TANK)  
ANTENNA RAD CENTER 103'-0" ± AGL  
TOWER OWNER NAME: POLICY PLANNING & EVALUATION INC.  
TOWER OWNER ADDRESS: 806 3RD STREET  
HERNDON, VIRGINIA 20170  
GROUND OWNER NAME: POLICY PLANNING & EVALUATION INC.  
GROUND OWNER ADDRESS: 806 3RD STREET  
HERNDON, VIRGINIA 20170  
APPLICANT: T-MOBILE, NORTHEAST LLC  
12050 BALTIMORE AVENUE  
BELTSVILLE, MARYLAND 20705  
APPLICANT PHONE: (240) 264-8600  
APPLICANT FAX: (240) 264-8610

**ABBREVIATIONS:**

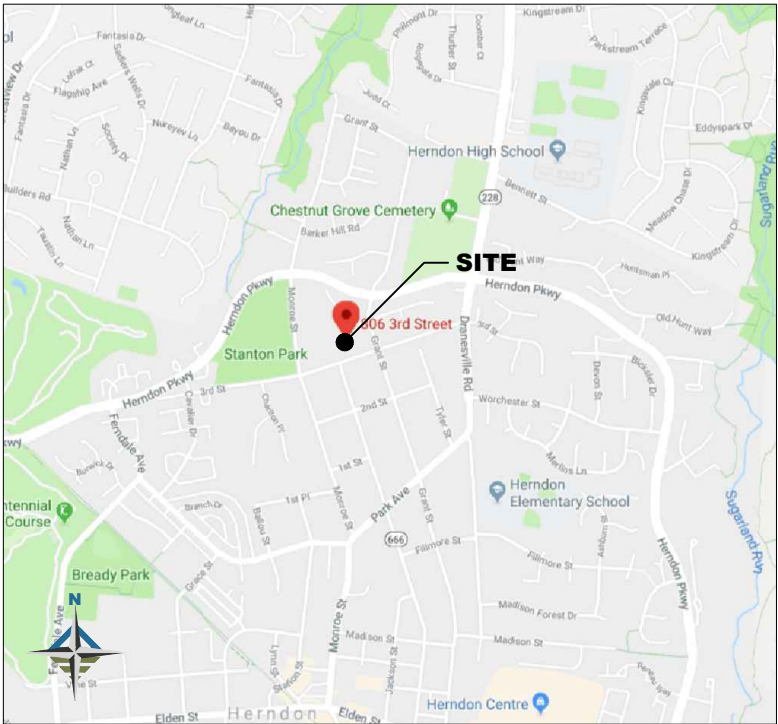
|      |                             |     |                             |
|------|-----------------------------|-----|-----------------------------|
| ATS  | AUTOMATIC TRANSFER SWITCH   | MAX | MAXIMUM                     |
| AWG  | AMERICAN WIRE GAUGE         | MGB | MASTER GROUND BAR           |
| ATTN | ATTENTION                   | MIN | MINIMUM                     |
| BTS  | BASE TRANSMISSION SYSTEM    | MTS | MANUAL TRANSFER SWITCH      |
| CONT | CONTINUED                   | NEC | NATIONAL ELECTRICAL CODE    |
| CU   | COPPER                      | POB | POINT OF BEGINNING          |
| DWG  | DRAWING                     | POC | POINT OF CONNECTION         |
| EMT  | ELECTRICAL METALLIC TUBING  | POT | POINT OF TERMINATION        |
| GEN  | GENERATOR                   | PPC | POWER PROTECTION CABINET    |
| GRD  | GROUND                      | PVC | POLYMERIZING VINYL CHLORIDE |
| IBC  | INTERNATIONAL BUILDING CODE | RGS | RIGID GALVANIZED STEEL      |
| IFC  | INTERNATIONAL FIRE CODE     | RF  | RADIO FREQUENCY             |
| LOD  | LIMIT OF DISTURBANCE        | TYP | TYPICAL                     |

**VIRGINIA CODE COMPLIANCE:**

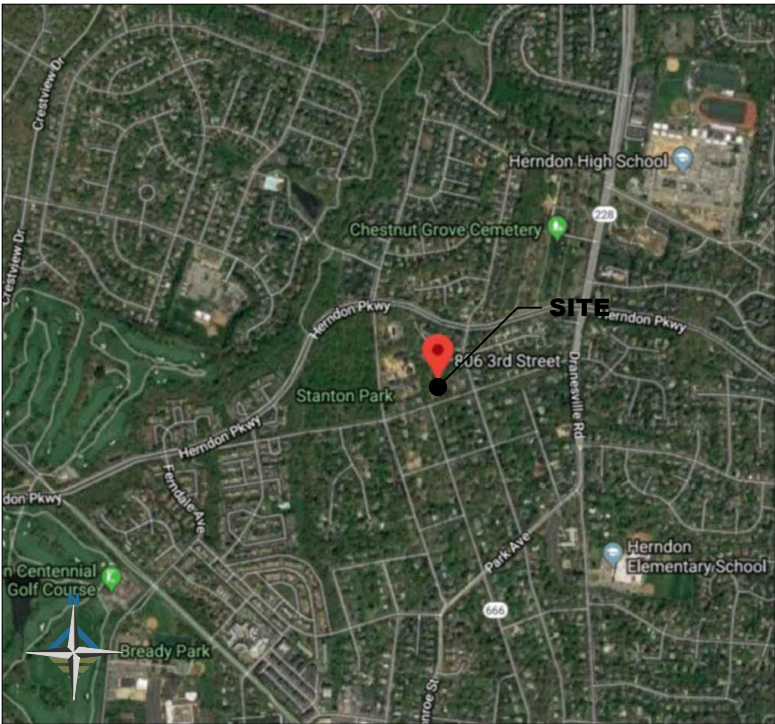
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES:

BUILDING CODE: 2012 VIRGINIA CONSTRUCTION CODE  
ELECTRICAL CODE: NATIONAL ELECTRICAL CODE 2014  
FIRE SAFETY CODE: 2012 VIRGINIA STATEWIDE FIRE PREVENTION CODE  
USE GROUP: U (UTILITY)  
CONSTRUCTION TYPE: IIB

**VICINITY MAP:**



**LOCATION MAP:**



**PROJECT DESCRIPTION:**

- (4) FOUR EXISTING L700 ANTENNAS TO BE REMOVED AND REPLACED WITH (4) FOUR NEW LTE 600/LTE 700 ANTENNAS (1) PER SECTOR.
- EXISTING TMA'S TO BE RELOCATED.
- (4) FOUR NEW LTE 600/LTE 700 RRUS WILL BE INSTALLED.
- (4) FOUR NEW HBXX ANTENNAS TO BE INSTALLED.
- UPGRADE EXISTING ELECTRICAL SERVICE FROM 100A TO 200A.

**DRIVING DIRECTIONS:**

HEADING FROM 12050 BALTIMORE AVENUE:  
DEPART US-1 / BALTIMORE AVENUE TOWARD RITZ WAY. TURN LEFT ONTO RITZ WAY. TURN RIGHT ONTO VIRGINIA MANOR ROAD. KEEP STRAIGHT ONTO KONTERRA DRIVE. TAKE RAMP LEFT FOR MARYLAND-200 WEST / MARYLAND-200 TOLL. AT EXIT 16B-A, TAKE RAMP RIGHT FOR US-29 SOUTH TOWARD SILVER SPRING. BEAR RIGHT ONTO US-29 SOUTH / COLUMBIA PIKE. TAKE RAMP RIGHT FOR I-495 WEST TOWARD BETHESDA / NORTHERN VIRGINIA. ROAD NAME CHANGES TO I-495 SOUTH / CAPITAL BELTWAY. AT EXIT 45A, TAKE RAMP RIGHT FOR VIRGINIA-267 WEST TOWARD DULLES AIRPORT / HERNDON / RESTON. AT EXIT 11, TAKE RAMP RIGHT AND FOLLOW SIGNS FOR VIRGINIA-286 NORTH. TAKE RAMP RIGHT AND FOLLOW SIGNS FOR VIRGINIA-606 WEST. BEAR LEFT ONTO VIRGINIA-606 WEST / BARON CAMERON AVENUE. TURN RIGHT ONTO HERNDON PARKWAY. TURN LEFT ONTO GRANT STREET. TURN RIGHT ONTO 3RD STREET. ARRIVE AT 3RD STREET ON THE RIGHT.

**PLAN APPROVALS:**

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

R.F. ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_

ZONING MGR: \_\_\_\_\_ DATE: \_\_\_\_\_

S.A. MGR: \_\_\_\_\_ DATE: \_\_\_\_\_

CONSTRUCTION MGR: \_\_\_\_\_ DATE: \_\_\_\_\_

A&E MGR: \_\_\_\_\_ DATE: \_\_\_\_\_

PROPERTY OWNER: \_\_\_\_\_ DATE: \_\_\_\_\_

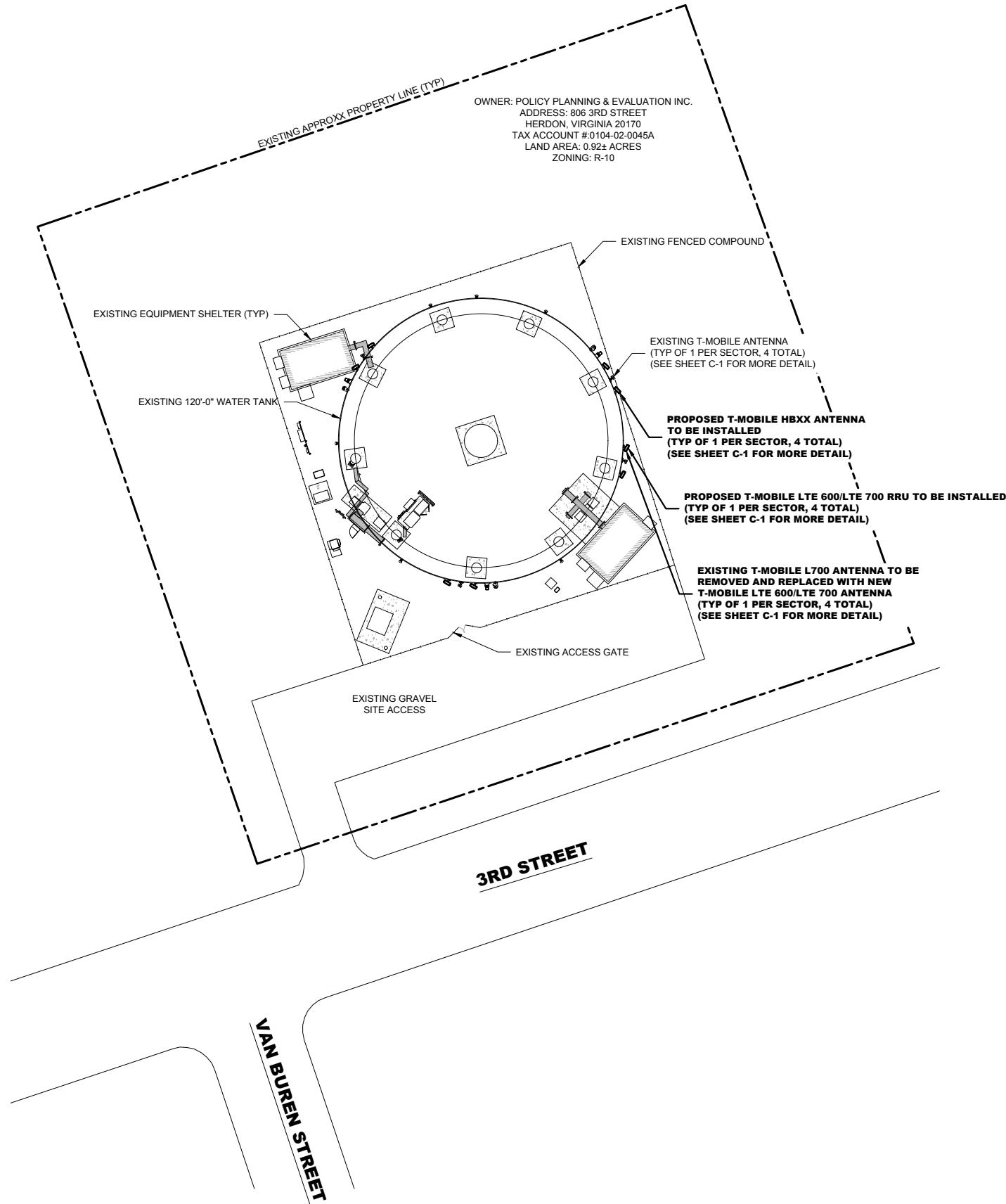
**DRAWING SCALE NOTES:**

THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 22"x34". 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.

ANDREW M. MILLER, PE  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE # 050495

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**GENERAL NOTES:**

1. THIS PLAN WAS PREPARED USING AN APPROVED PLAN ENTITLED "SITE PLAN" BY NB+C ENGINEERING SERVICES, LLC. DATED 02-16-2017.
2. THE PROPOSED FACILITY WILL CAUSE "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
3. NO NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
4. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. (THERE IS NO HANDICAP ACCESS REQUIRED.)
5. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
6. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
7. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE STREET SIGNS OF ANY TYPE.
8. THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES.
9. ACCORDING TO THE F.I.R.M. COMMUNITY PANEL # 51059C0110E, DATED 09/17/2010, THE PROPOSED SITE IS NOT IN A FLOODPLAIN.

**T-Mobile**  
**NORTHEAST LLC**

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**advantage engineers**

7070 SAMUEL MORSE DRIVE, SUITE 150  
COLUMBIA, MARYLAND 21046  
PHONE: (443) 387-0003  
www.advantageengineers.com

**PLAN REVISIONS:**

|        |          |          |                             |
|--------|----------|----------|-----------------------------|
| 5      |          |          |                             |
| 4      |          |          |                             |
| 3      |          |          |                             |
| 2      |          |          |                             |
| 1      |          |          |                             |
| 0      | 01-28-19 | TA       | ISSUED FOR CONSTRUCTION     |
| A      | 01-21-19 | JPP      | ISSUED FOR 90% REVIEW (CDs) |
| REV No | DATE     | DESIGNER | DESCRIPTION                 |

**AE DESIGN INFO:**

DESIGNER: JPP  
AE JOB No: 18E019A.001

**DRAWING TITLE:**

SITE PLAN

**DRAWING SHEET:**

**Z-1**

**SITE INFORMATION:**

SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
7WAC057A  
SITE ADDRESS:

806 3RD STREET  
HERNDON, VIRGINIA 20170

JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

**SHEET NUMBER:**

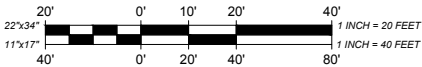
2 OF 9



**Know what's below.**  
**Call before you dig.**

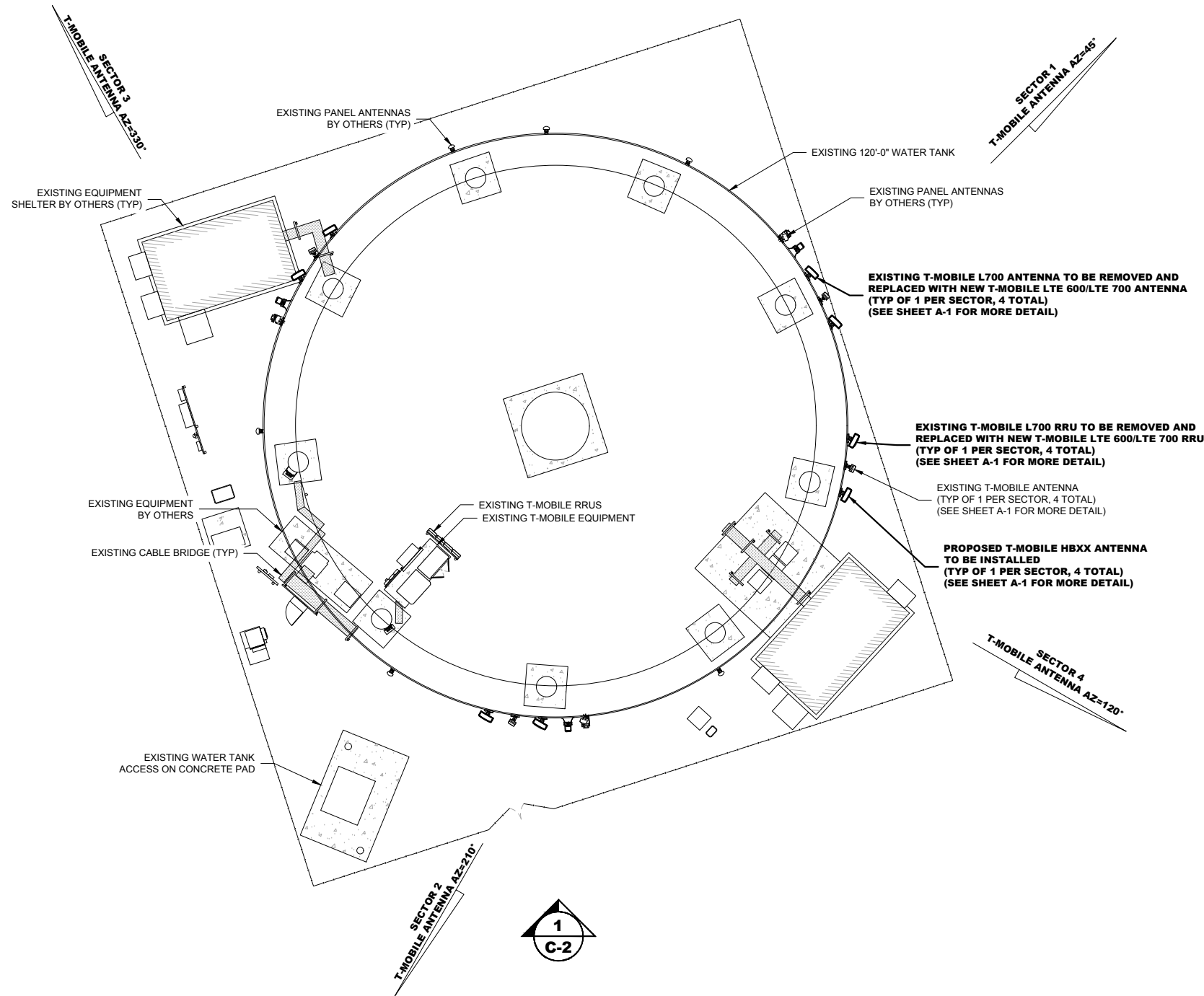
PROTECT YOURSELF. GIVE THREE WORKING DAYS NOTICE.  
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

**1 SITE PLAN**  
**Z-1**  
**SCALE = 1" = 20'-0"**

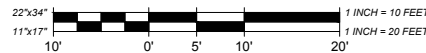


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ANDREW M. MILLER, PE  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE # 050495



**1**  
**C-1**  
**COMPOUND PLAN**  
SCALE = 1" = 10'-0"



**GENERAL NOTES:**

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC AUTHORITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
5. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. THIS PLAN WAS PREPARED USING AN APPROVED PLAN ENTITLED "PLANS & ELEVATION" BY NB+C ENGINEERING SERVICES, LLC, DATED 08-27-2018.
8. THE PROPOSED FACILITY WILL CAUSE ONLY A "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
9. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY.
10. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (THERE IS NO HANDICAP ACCESS REQUIRED).
11. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
12. POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER.
13. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEER PRIOR TO INSTALLATION.
14. MOUNTS AND ANTENNAS ARE DESIGNED TO MEET ANSI/TIA-222-G-1 AS PER IBC 2012 REQUIREMENTS.
15. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
16. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
17. IF ANY PIPING EXISTS BENEATH THE SITE AREA, CONTRACTOR MUST LOCATE IT AND CONTACT OWNERS REPRESENTATIVE.
18. CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING STRUCTURAL ANALYSIS. STRUCTURAL ANALYSIS TO BE PERFORMED BY ADVANTAGE ENGINEERS.
19. CONSTRUCTION TO COMMENCE UPON COMPLETION OF A PASSING MOUNT ANALYSIS. MOUNT ANALYSIS TO BE PERFORMED BY ADVANTAGE ENGINEERS.

**T - Mobile**  
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**T-MOBILE NORTHEAST LLC**  
**12050 BALTIMORE AVENUE**  
**BELTSVILLE, MARYLAND 20705**  
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**advantage engineers**  
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www.advantageengineers.com

**PLAN REVISIONS:**

|        |          |          |                             |
|--------|----------|----------|-----------------------------|
| 5      |          |          |                             |
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| 0      | 01-28-19 | TA       | ISSUED FOR CONSTRUCTION     |
| A      | 01-21-19 | JPP      | ISSUED FOR 90% REVIEW (CDs) |
| REV No | DATE     | DESIGNER | DESCRIPTION                 |

**AE DESIGN INFO:**

DESIGNER: JPP  
AE JOB No: 18E019A.001

**DRAWING TITLE:**

COMPOUND  
PLAN

**DRAWING SHEET:**

**C-1**

**SITE INFORMATION:**

SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
7WAC057A  
SITE ADDRESS:  
806 3RD STREET  
HERNDON, VIRGINIA 20170  
JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

**SHEET NUMBER:**

3 OF 9



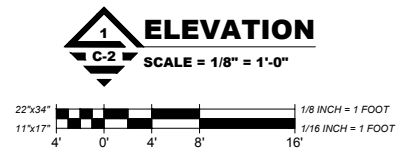
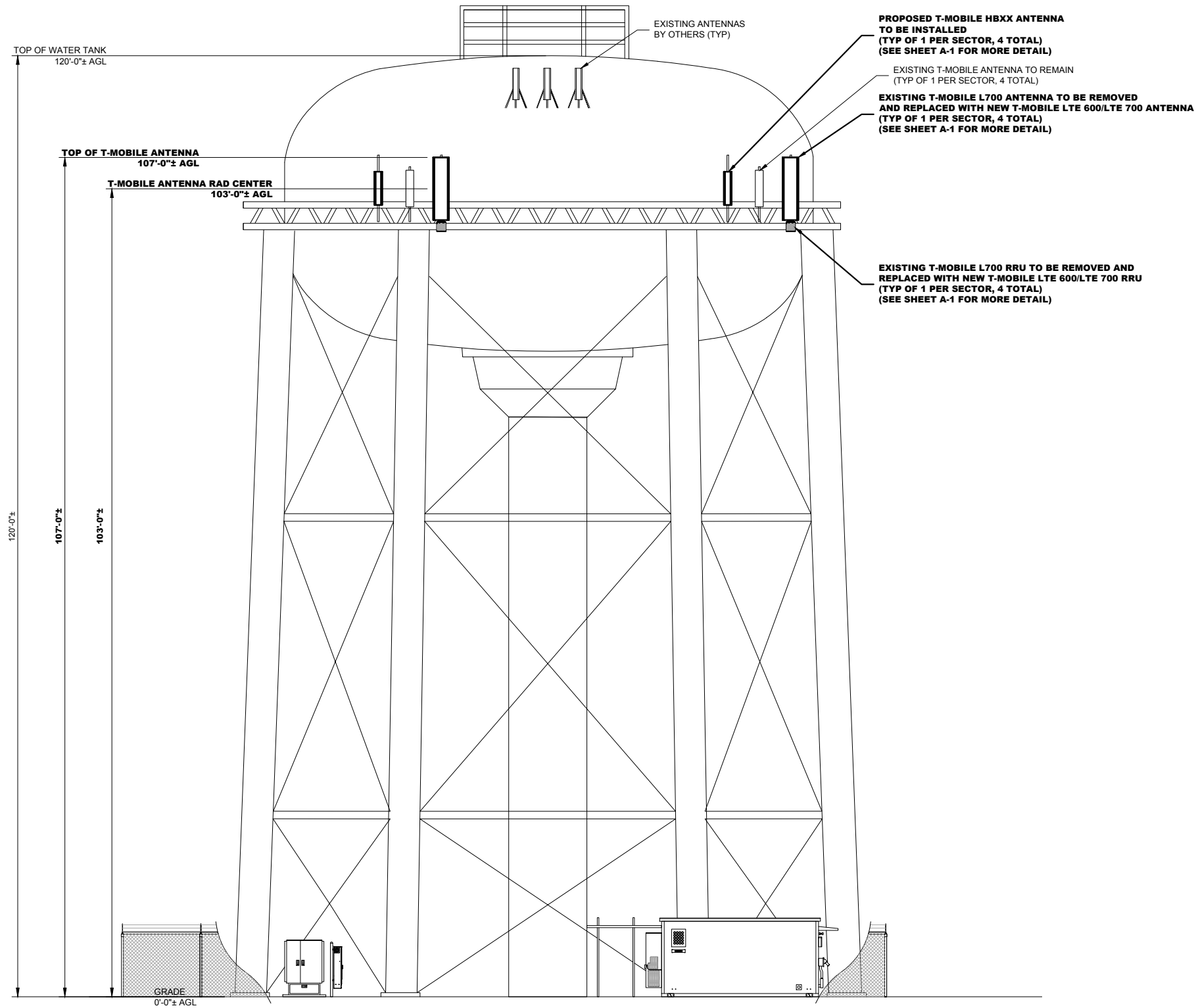
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ANDREW M. MILLER, PE  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE # 050495

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**PLAN REVISIONS:**

|        |          |          |                             |
|--------|----------|----------|-----------------------------|
| 5      |          |          |                             |
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| REV No | DATE     | DESIGNER | DESCRIPTION                 |

**AE DESIGN INFO:**

DESIGNER: JPP  
AE JOB No: 18E019A.001

**DRAWING TITLE:**

ELEVATION

**DRAWING SHEET:**

**C-2**

**SITE INFORMATION:**

SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
7WAC057A  
SITE ADDRESS:

806 3RD STREET  
HERNDON, VIRGINIA 20170

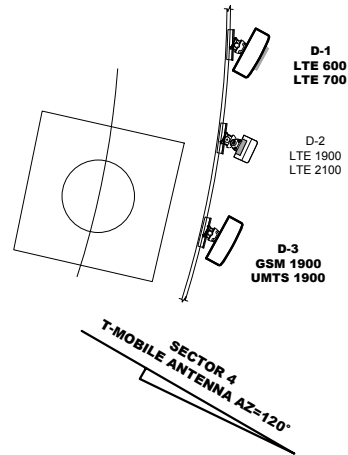
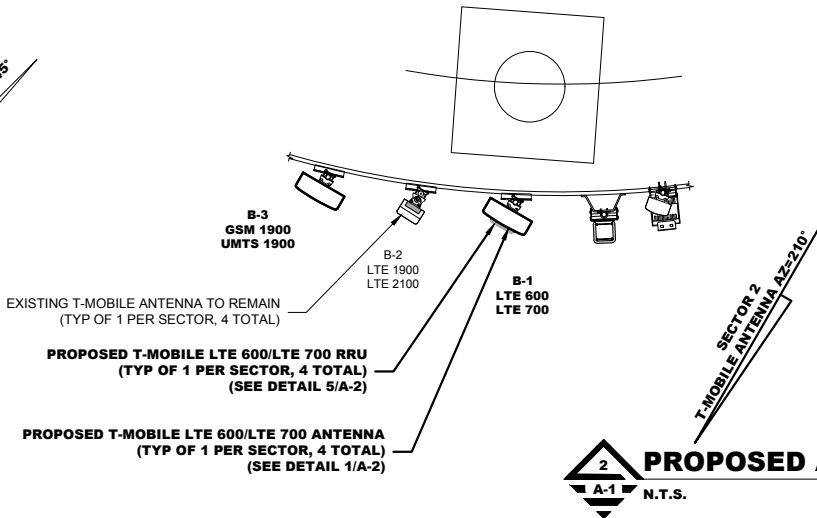
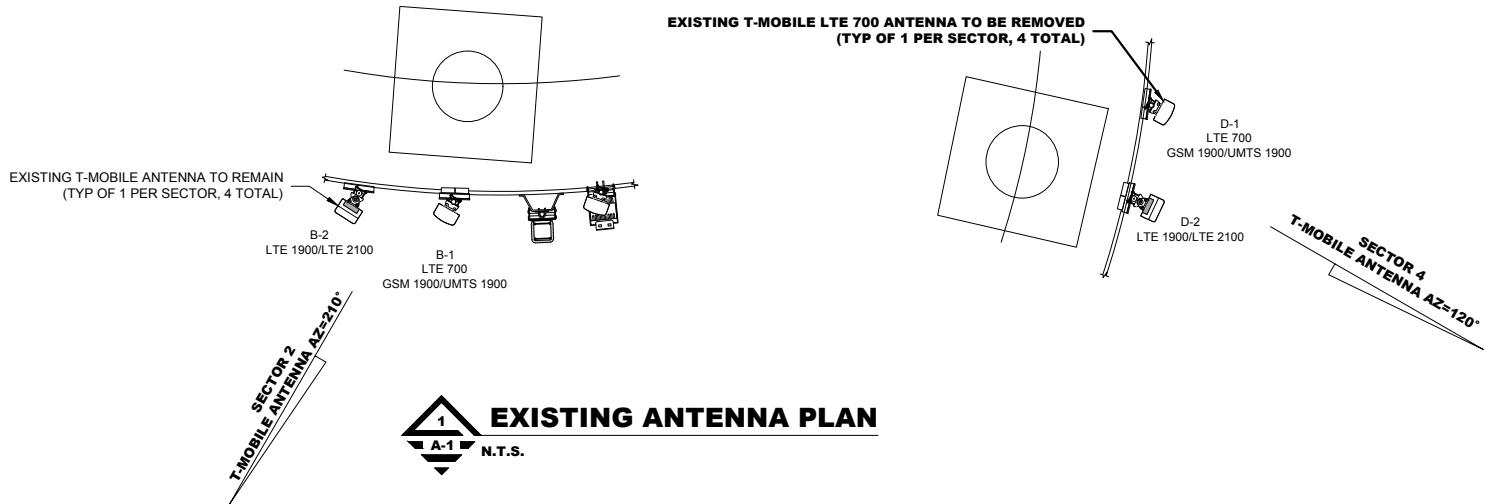
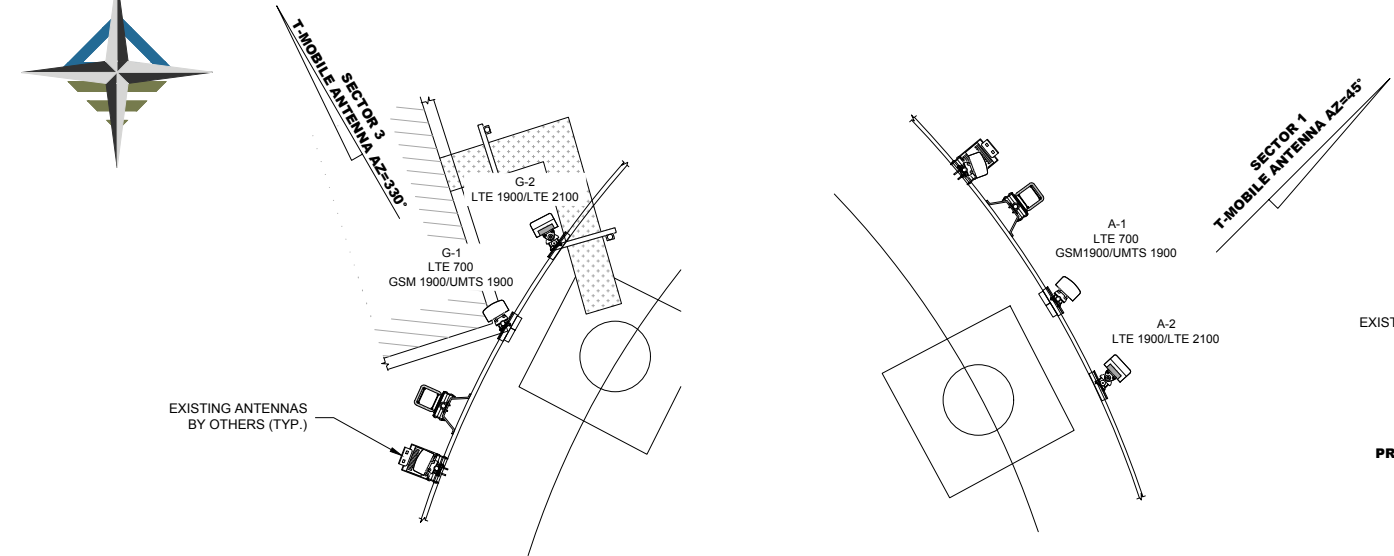
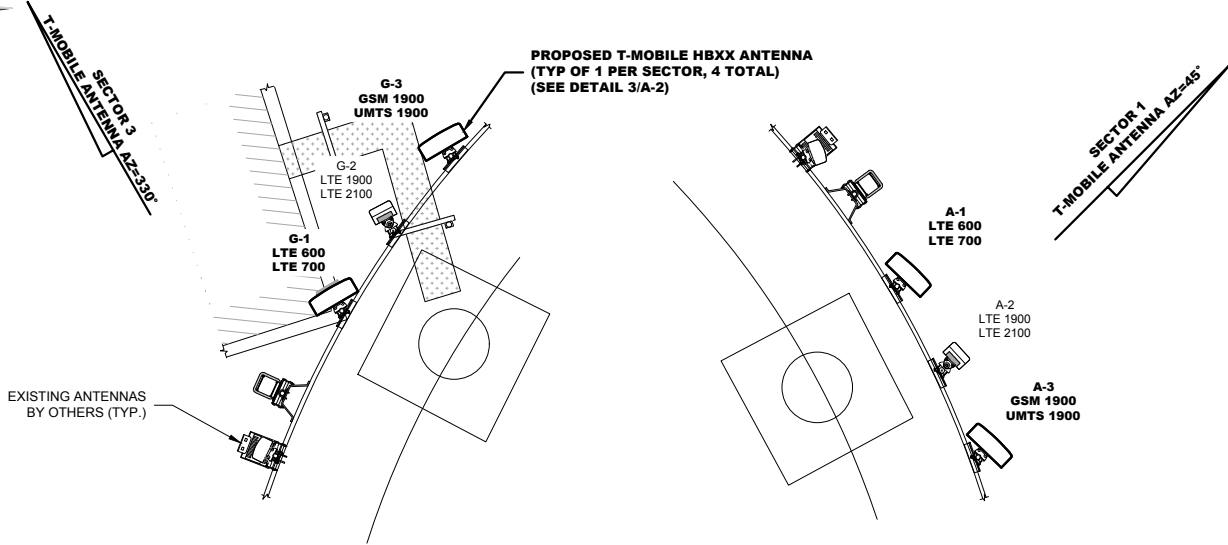
JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

**SHEET NUMBER:**

4 OF 9

ANDREW M. MILLER, PE  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE # 050495

| ANTENNA & CABLE SCHEDULE: |     |         |            |          |                    |                   |               |               |                                 |                 |              |
|---------------------------|-----|---------|------------|----------|--------------------|-------------------|---------------|---------------|---------------------------------|-----------------|--------------|
| LOCATION                  |     | AZIMUTH | RAD CENTER | STATUS   | TECHNOLOGY         | ANTENNA MODEL NO. | MECH DOWNTILT | ELEC DOWNTILT | TMA/RRU                         | CABLE SIZE      | CABLE LENGTH |
| ALPHA                     | A-1 | 45°     | 103'-0"    | PROPOSED | LTE 600/LTE 700    | APXVAARR24        | 0°            | 3°/3'         | RRUS4449 B71+B12                | (1) 6X12 HYBRID | 250'-0"      |
|                           | A-2 | 45°     | 103'-0"    | EXISTING | LTE 1900/LTE 2100  | AIR32 B66A/B2A    | 0°            | 3°/3°/3°/3°   | N/A                             | SHARED          | N/A          |
|                           | A-3 | 45°     | 103'-0"    | PROPOSED | GSM 1900 UMTS 1900 | HBXX-6516DS-A2M   | 0°            | 4°            | (1) TMA TWIN 1A-PCS (RELOCATED) | (2) 1-5/8" COAX | 250'-0"      |
| BETA                      | B-1 | 210°    | 103'-0"    | PROPOSED | LTE 600/LTE 700    | APXVAARR24        | 0°            | 3°/3'         | RRUS4449 B71+B12                | (1) 6X12 HYBRID | 150'-0"      |
|                           | B-2 | 210°    | 103'-0"    | EXISTING | LTE 1900/LTE 2100  | AIR32 B66A/B2A    | 0°            | 3°/3°/3°/3°   | N/A                             | SHARED          | N/A          |
|                           | B-3 | 210°    | 103'-0"    | PROPOSED | GSM 1900 UMTS 1900 | HBXX-6516DS-A2M   | 0°            | 4°            | (1) TMA TWIN 1A-PCS (RELOCATED) | (2) 1-5/8" COAX | 150'-0"      |
| GAMMA                     | G-1 | 330°    | 103'-0"    | PROPOSED | LTE 600/LTE 700    | APXVAARR24        | 0°            | 3°/3'         | RRUS4449 B71+B12                | (1) 6X12 HYBRID | 190'-0"      |
|                           | G-2 | 330°    | 103'-0"    | EXISTING | LTE 1900/LTE 2100  | AIR32 B66A/B2A    | 0°            | 3°/3°/3°/3°   | N/A                             | SHARED          | N/A          |
|                           | G-3 | 330°    | 103'-0"    | PROPOSED | GSM 1900 UMTS 1900 | HBXX-6516DS-A2M   | 0°            | 4°            | (1) TMA TWIN 1A-PCS (RELOCATED) | (2) 1-5/8" COAX | 190'-0"      |
| DELTA                     | D-1 | 120°    | 103'-0"    | PROPOSED | LTE 600/LTE 700    | APXVAARR24        | 0°            | 3°/3'         | RRUS4449 B71+B12                | (1) 6X12 HYBRID | 220'-0"      |
|                           | D-2 | 120°    | 103'-0"    | EXISTING | LTE 1900/LTE 2100  | AIR32 B66A/B2A    | 0°            | 3°/3°/3°/3°   | N/A                             | SHARED          | N/A          |
|                           | D-3 | 120°    | 103'-0"    | PROPOSED | GSM 1900 UMTS 1900 | HBXX-6516DS-A2M   | 0°            | 4°            | (1) TMA TWIN 1A-PCS (RELOCATED) | (2) 1-5/8" COAX | 220'-0"      |
|                           |     |         |            |          |                    |                   |               |               | TOTAL 6X12 HYBRID CABLE         |                 |              |



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**PLAN REVISIONS:**

|        |          |          |                             |
|--------|----------|----------|-----------------------------|
| 5      |          |          |                             |
| 4      |          |          |                             |
| 3      |          |          |                             |
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| 0      | 01-28-19 | TA       | ISSUED FOR CONSTRUCTION     |
| A      | 01-21-19 | JPP      | ISSUED FOR 90% REVIEW (CDs) |
| REV No | DATE     | DESIGNER | DESCRIPTION                 |

**AE DESIGN INFO:**

DESIGNER: JPP  
AE JOB No: 18E019A.001

**DRAWING TITLE:**

EXISTING & PROPOSED  
ANTENNA PLANS &  
SCHEDULE

**DRAWING SHEET:**

**A-1**

**SITE INFORMATION:**

SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
7WAC057A  
SITE ADDRESS:  
806 3RD STREET  
HERNDON, VIRGINIA 20170  
JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

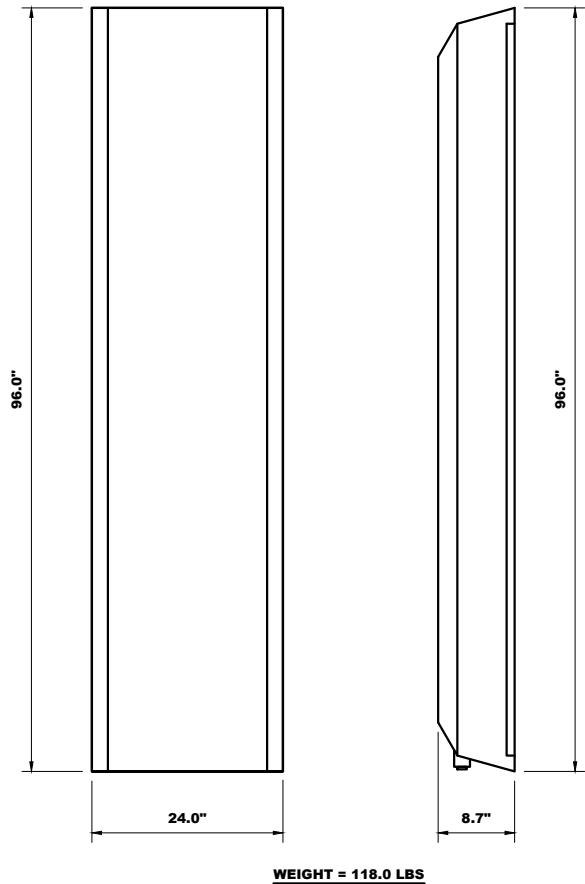
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5 OF 9

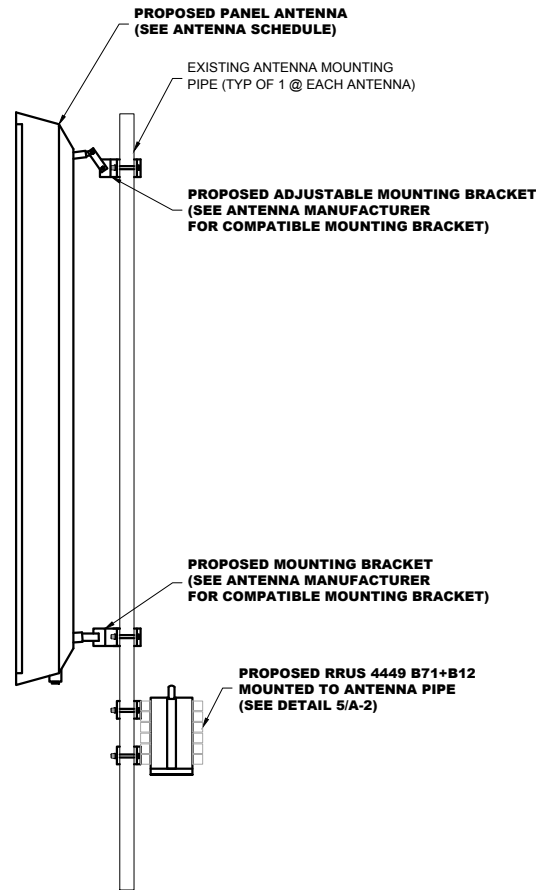
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LICENSE # 050495

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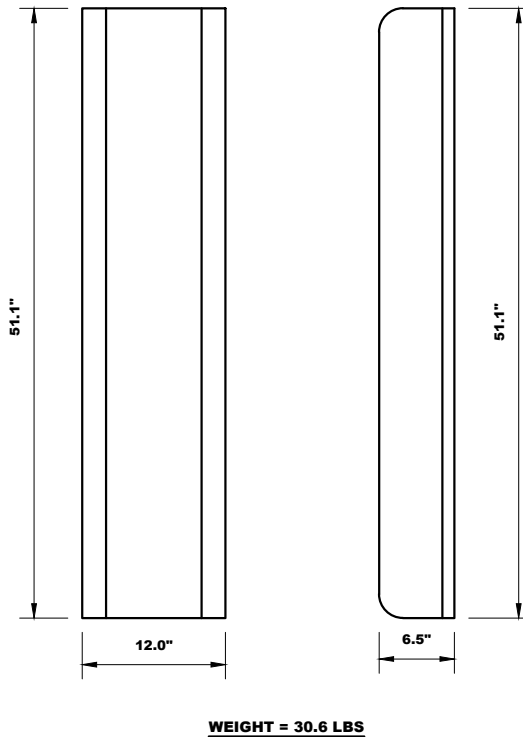




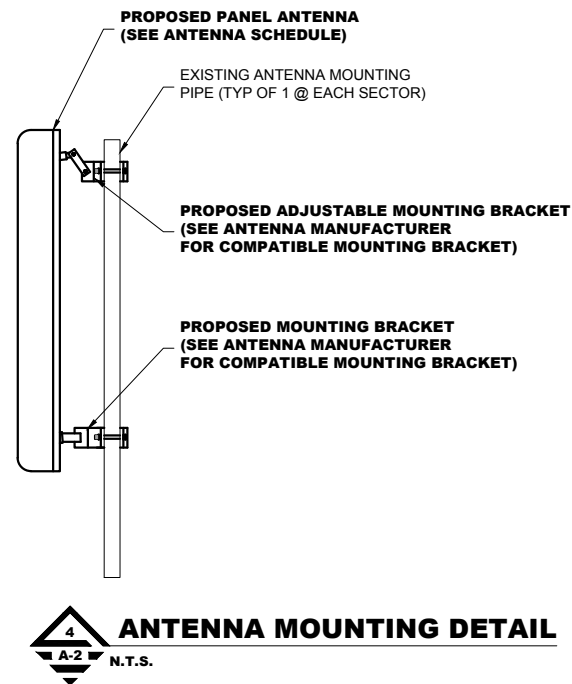
1 APXVAARR24 ANTENNA DETAIL  
A-2 N.T.S.



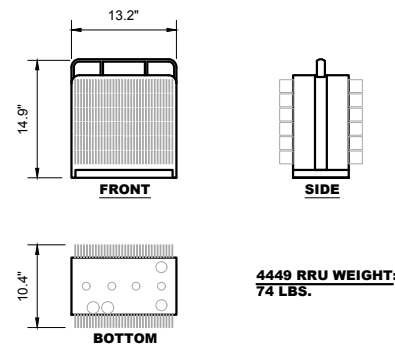
2 ANTENNA MOUNTING DETAIL  
A-2 N.T.S.



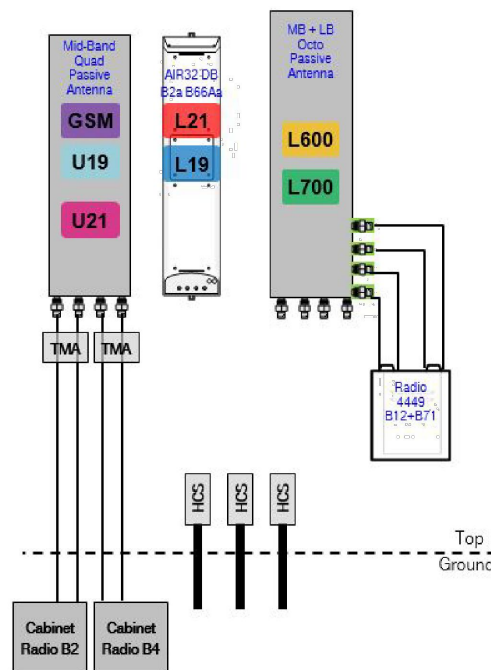
3 HBXX-6516DS-A2M ANTENNA DETAIL  
A-2 N.T.S.



4 ANTENNA MOUNTING DETAIL  
A-2 N.T.S.



5 ERICSSON 4449 B71 + B12 RRU DETAIL  
A-2 N.T.S.



6 PLUMBING DIAGRAM  
A-2 N.T.S.

**T-Mobile**  
**NORTHEAST LLC**  
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7070 SAMUEL MORSE DRIVE, SUITE 150  
COLUMBIA, MARYLAND 21046  
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| PLAN REVISIONS: |          |          |                             |
|-----------------|----------|----------|-----------------------------|
| 5               |          |          |                             |
| 4               |          |          |                             |
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| 1               |          |          |                             |
| 0               | 01-28-19 | TA       | ISSUED FOR CONSTRUCTION     |
| A               | 01-21-19 | JPP      | ISSUED FOR 90% REVIEW (CDs) |
| REV No          | DATE     | DESIGNER | DESCRIPTION                 |

**AE DESIGN INFO:**  
DESIGNER: JPP  
AE JOB No: 18E019A.001

**DRAWING TITLE:**  
ANTENNA & RRU DETAILS  
& PLUMBING DIAGRAMS

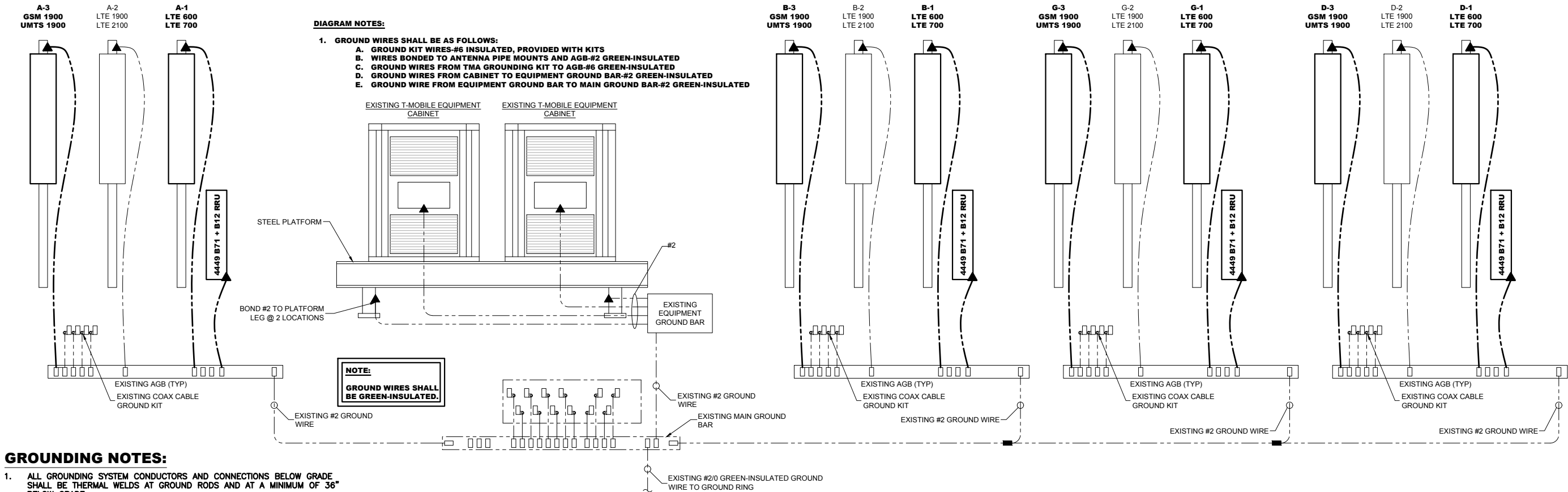
**DRAWING SHEET:**

**A-2**

**SITE INFORMATION:**  
SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
7WAC057A  
SITE ADDRESS:  
806 3RD STREET  
HERNDON, VIRGINIA 20170  
JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

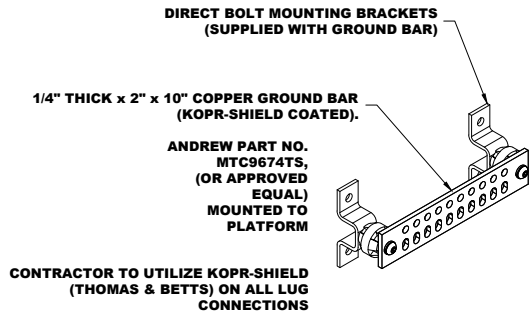
**SHEET NUMBER:**  
6 OF 9

ANDREW M. MILLER, PE  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE # 050495



### GROUNDING NOTES:

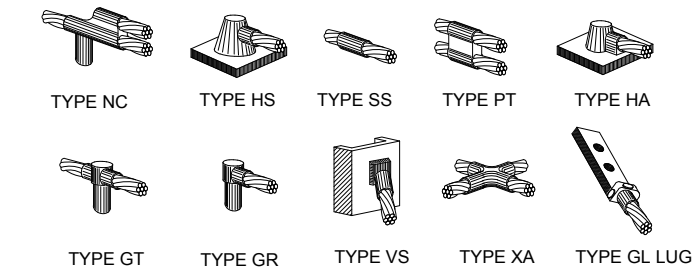
- ALL GROUNDING SYSTEM CONDUCTORS AND CONNECTIONS BELOW GRADE SHALL BE THERMAL WELDS AT GROUND RODS AND AT A MINIMUM OF 36" BELOW GRADE.
- ALL INSTALLATIONS SHALL BE FIELD VERIFIED.
- ALL GROUND WIRE SHALL BE #2 AWG BARE COPPER TINNED UNLESS NOTED OTHERWISE.
- ALL GROUND WIRES SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
- THE CONTRACTOR SHALL COORDINATE INSTALLATION OF GROUND RODS AND GROUND RING WITH FOUNDATION AND UNDERGROUND CONDUIT.
- EACH EQUIPMENT CABINET SHALL BE CONNECTED WITH (2) #2 AWG INSULATED SOLID TINNED COPPER WIRE TO GROUND BAR. EQUIPMENT CABINETS SHALL EACH HAVE (2) CONNECTIONS.
- ANTENNA GROUND KITS SHALL BE FURNISHED BY T-MOBILE AND INSTALLED BY ELECTRICAL CONTRACTOR.
- KOPR-SHIELD ANTI-OXIDATION COMPOUND SHALL BE USED ON ALL GROUNDING CONNECTIONS.
- ALL EXOTHERMIC CONNECTS SHALL BE INSTALLED UTILIZING THE PROPER CONNECTION/MOLD AND MATERIALS FOR THE PARTICULAR APPLICATION.
- ALL BOLTED GROUNDING CONNECTIONS SHALL BE INSTALLED WITH A LOCK WASHER UNDER THE NUT. HARDWARE FOR BOLTED CONNECTIONS SHALL BE A MINIMUM OF 3/8" DIAMETER AND SHALL BE STAINLESS STEEL.
- GROUNDING WIRE SHALL NOT BE INSTALLED OR ROUTED THROUGH HOLES IN ANY METAL OBJECTS OR SUPPORTS TO PRECLUDE ESTABLISHING A "CHOKE" POINT.
- PLASTIC CLIPS OR METAL CLIPS WHICH DO NOT COMPLETELY SURROUND THE GROUNDING CONDUCTORS SHALL BE USED TO FASTEN AND SUPPORT GROUNDING CONDUCTORS. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUNDING CONDUCTOR SHALL NOT BE USED.
- STANDARD BUS BARS (CIGBE AND MIGB) SHALL BE FURNISHED AND INSTALLED. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD.
- THE GROUNDING CONNECTION TO THE POWER AND TELCO SECTIONS OF THE PPC CABINET SHALL BE MADE BY CONNECTING A CONDUCTOR FROM THE GROUND RING TO THE FACTORY FURNISHED BUS BAR IN EACH COMPARTMENT.
- THE CONTRACTOR SHALL SUPPLY T-MOBILE WITH RESULTS FROM POST-CONSTRUCTION OHM TESTING (GROUND) RESULTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A "FALL OF POTENTIAL" TEST ON THE NEW SUPPLEMENTAL GROUND FIELD PRIOR TO FINAL CONNECTION OF THE GROUNDING SYSTEM TO EQUIPMENT. THE TEST SHALL BE PERFORMED BY A QUALIFIED AND CERTIFIED TESTING AGENT. PROVIDE INDEPENDENT TEST RESULTS TO THE PROJECT MANAGER FOR REVIEW. THE GROUND SYSTEM RESISTANCE TO EARTH GROUND SHALL NOT EXCEED FIVE (5) OHMS. IF THE GROUND TEST EXCEEDS THE MAXIMUM OF 5 OHMS, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL GROUND CONNECTIONS AS REQUIRED TO MEET THE 5 OHMS MAXIMUM.
- IF COAX ON ICE BRIDGE IS MORE THAT 6' FROM THE GROUND BAR AT THE BASE OF THE TOWER, A SECOND GROUND BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE RUN TO GROUND THE COAX GROUND KIT AND THE IN-LINE SURGE ARRESTORS.



### 2 G-1 N.T.S. GROUND BAR DETAIL

#### GROUND LEADS

- CADWELDED #2 AWG BCW TO EQUIPMENT CABINETS
- TWO HOLE LUG TO BE USED WITH #2 AWG BCW TO GROUND RING #6 AWG FROM ANTENNA CABLE GROUND KITS.



### 3 G-1 N.T.S. TYPICAL CADWELD TYPE CONNECTIONS

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FAX: (240) 264-8610



#### PLAN REVISIONS:

| REV No | DATE     | DESIGNER | DESCRIPTION                 |
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| A      | 01-21-19 | JPP      | ISSUED FOR 90% REVIEW (CDs) |

#### AE DESIGN INFO:

DESIGNER: JPP  
AE JOB No: 18E019A.001

#### DRAWING TITLE:

GROUNDING DIAGRAM,  
DETAILS & NOTES

#### DRAWING SHEET:

**G-1**

#### SITE INFORMATION:

SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
7WAC057A  
SITE ADDRESS:  
806 3RD STREET  
HERNDON, VIRGINIA 20170  
JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

**SHEET NUMBER:**  
7 OF 9

ANDREW M. MILLER, PE  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE # 050495

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1. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT ADOPTED NATIONAL ELECTRIC CODES AND ALL LOCAL AND STATE CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC.
2. UNDERGROUND POWER AND TELCO SERVICE LINES SHALL BE ROUTED IN A COMMON TRENCH. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 AND CONDUIT EXPOSED ABOVE GROUND SHALL BE RIGID GALVANIZED STEEL. INTERIOR CONDUIT SHALL BE EMT UNLESS OTHERWISE INDICATED. POWER CONDUIT LINES SHALL BE SIZED AS REQUIRED PER THE SERVICE SIZE REQUIREMENTS.
3. CONDUITS INSTALLED AT BTS EQUIPMENT ENDS PRIOR TO THE EQUIPMENT INSTALLATION SHALL BE STUBBED AND CAPPED AT 6" ABOVE GRADE OR PLATFORM. IF SERVICE LINES CAN'T BE INSTALLED INITIALLY, PROVIDE NYLON PULL CORD IN CONDUITS.
4. E.C. SHALL VERIFY THAT PANEL BOARD WILL ACCEPT A 150 AMP BRANCH BREAKER.



240 VAC, 1φ, 200 AMP SERVICE SUPPLIED  
& INSTALLED BY SITE ELECTRICAL CONTRACTOR



- ELECTRICAL NOTE:**
1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
  2. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO ROUGH-IN.
  3. THE CONDUIT RUNS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATION AND ROUTING SHALL BE PER EXISTING FIELD CONDITIONS.
  4. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.
  5. ALL CONDUITS SHALL BE MET WITH BENDS MADE IN ACCORDANCE WITH NEC. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12 INCH MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2 INCH OR LARGER.
  6. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH PLASTIC THROAT INSULATING GROUND BUSHINGS.
  7. ALL WIRE SHALL BE TYPE THHN/THWN-2, SOLID, ANNEALED COPPER UP TO SIZE #10 AWG (#8 AND LARGER SHALL BE CONCENTRIC STRANDED) 75 DEGREES C, (167 DEGREES F), 98% CONDUCTIVITY, MINIMUM #12 AWG.
  8. ALL WIRES SHALL BE TAGGED AT ALL PULL BOXES, JUNCTION BOXES, EQUIPMENT BOXES AND CABINETS WITH APPROVED PLASTIC TAGS, ACTION CRAFT, BRADY, OR APPROVED EQUAL.
  9. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
  10. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN, NOT HAND WRITTEN.
  11. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL PULL BOXES, JUNCTION BOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.
  12. THE CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS, DOCUMENT ANY AND ALL WIRING AND EQUIPMENT CONDITIONS AND CHANGES WHILE COMPLETING THIS CONTRACT. SUBMIT AT SUBSTANTIAL COMPLETION.
  13. ALL DISCONNECT SWITCHES AND OTHER CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM (NO EXCEPTIONS).
  14. ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT (NEW AND EXISTING) SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AND EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN OF CONDUIT AND WIRE. ALL EQUIPMENT SHALL BE PROPERLY CONNECTED ACCORDING TO THE NAMEPLATE DATA FURNISHED ON THE EQUIPMENT (THE DESIGN OF THESE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AT THE TIME OF THE DESIGN AND SOME EQUIPMENT CHARACTERISTICS MAY VARY FROM DESIGN AS SHOWN ON THESE DRAWINGS). LOCATION OF ALL OUTLETS, BOXES, ETC., AND THE TYPE OF CONNECTIONS (PLUG OR DIRECT) SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
  15. CONDUIT SCHEDULE: EXTERIOR BELOW GRADE SCHEDULE 40 PVC. EXTERIOR ABOVE GRADE RGS INTERIOR EMT.

### ELECTRICAL NOTE:

PER NEC, THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) BETWEEN PULL BOXES, FOR EXAMPLE, CONDUIT BODIES AND BOXES. NOTE: CONTRACTOR SHALL PROVIDE AND INSTALL ANY/ALL JUNCTION BOXES SIZED IN ACCORDANCE WITH THE NEC GUIDELINES AS REQUIRED FOR THE INSTALLATION.

### ■ ELECTRICAL SYMBOLS:

|                                                                                     |                   |             |            |
|-------------------------------------------------------------------------------------|-------------------|-------------|------------|
|  | TRANSFORMER       | $\emptyset$ | PHASE      |
|  | METER             | — P —       | POWER WIRE |
|  | CIRCUIT BREAKER   | — T —       | TELCO WIRE |
|  | DISCONNECT SWITCH |             |            |

| SERVICE: 120/240 VAC        |        |           |       |      |                |            |                     |     |                         |      |                         |        |
|-----------------------------|--------|-----------|-------|------|----------------|------------|---------------------|-----|-------------------------|------|-------------------------|--------|
| DESIGNATION: T-MOBILE PANEL |        |           |       |      |                |            |                     |     |                         |      |                         |        |
| LOCATION: T-MOBILE PLATFORM |        |           |       |      |                |            |                     |     |                         |      |                         |        |
| Wire Type                   | A.I.C. | Wire size | Poles | Trip | Non-Continuous | Continuous | Load per phase (VA) |     | Unit V.A.               | QTY. | Load                    |        |
|                             |        |           |       |      |                |            | Phase               |     |                         |      | Description             |        |
|                             |        |           |       |      |                |            | A                   | B   |                         |      |                         |        |
| THWN-2                      | 10,000 | 12        | 1     | 20   | X              |            | 26                  |     | 26                      | 1    | PROPOSED LED LIGHT      | 2      |
| THWN-2                      | 10,000 | 12        | 1     | 20   | X              |            |                     | 180 | 180                     | 1    | PROPOSED GFCI           | 4      |
| THWN-2                      | 10,000 |           |       |      |                |            | 0                   |     |                         |      | SPACE                   | 6      |
| THWN-2                      | 10,000 |           |       |      |                |            |                     | 0   |                         |      | SPACE                   | 8      |
| THWN-2                      | 10,000 |           |       |      |                |            | 0                   |     |                         |      | SPACE                   | 10     |
| THWN-2                      | 10,000 |           |       |      |                |            |                     | 0   |                         |      | SPACE                   | 12     |
| THWN-2                      | 10,000 |           |       |      |                |            | 0                   |     |                         |      | SPACE                   | 14     |
| THWN-2                      | 10,000 |           |       |      |                |            |                     | 0   |                         |      | SPACE                   | 16     |
| THWN-2                      | 10,000 |           |       |      |                |            | 0                   |     |                         |      | SPACE                   | 18     |
| THWN-2                      | 10,000 |           |       |      |                |            |                     | 0   |                         |      | SPACE                   | 20     |
| THWN-2                      | 10,000 |           |       |      |                |            | 0                   |     |                         |      | SPACE                   | 22     |
| THWN-2                      | 10,000 |           |       |      |                |            |                     | 0   |                         |      | SPACE                   | 24     |
|                             |        |           |       |      |                |            | 0                   | 0   | SubTotal Continuous     |      | TOTAL CONTINUOUS x 1.25 | 32.5   |
|                             |        |           |       |      |                |            | 26                  | 180 | SubTotal Non-Continuous |      |                         |        |
| Manufacturer: TRANSECTOR    |        |           |       |      |                |            |                     |     |                         |      | TOTAL NON-CONTINUOUS    | 0.206  |
| Model Number: 1101-781-200  |        |           |       |      |                |            |                     |     |                         |      |                         |        |
| APPROVED EQUAL              |        |           |       |      |                |            |                     |     |                         |      | TOTAL KVA               | 32.71  |
| Mounting: SURFACE           |        |           |       |      |                |            |                     |     |                         |      | TOTAL AMPS              | 136.28 |



### ■ PLAN REVISIONS:

|        |          |          |                             |
|--------|----------|----------|-----------------------------|
| 5      |          |          |                             |
| 4      |          |          |                             |
| 3      |          |          |                             |
| 2      |          |          |                             |
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| 0      | 01-26-19 | TA       | ISSUED FOR CONSTRUCTION     |
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| REV No | DATE     | DESIGNER | DESCRIPTION                 |

## ■ AE DESIGN INFO:

|                  |                           |
|------------------|---------------------------|
| DESIGNER:<br>JPP | AE JOB No:<br>18E019A.001 |
|------------------|---------------------------|

■ **DRAWING TITLE:**

## ELECTRICAL DETAILS & NOTES

## ■ DRAWING SHEET:

E-1

**SITE INFORMATION:**

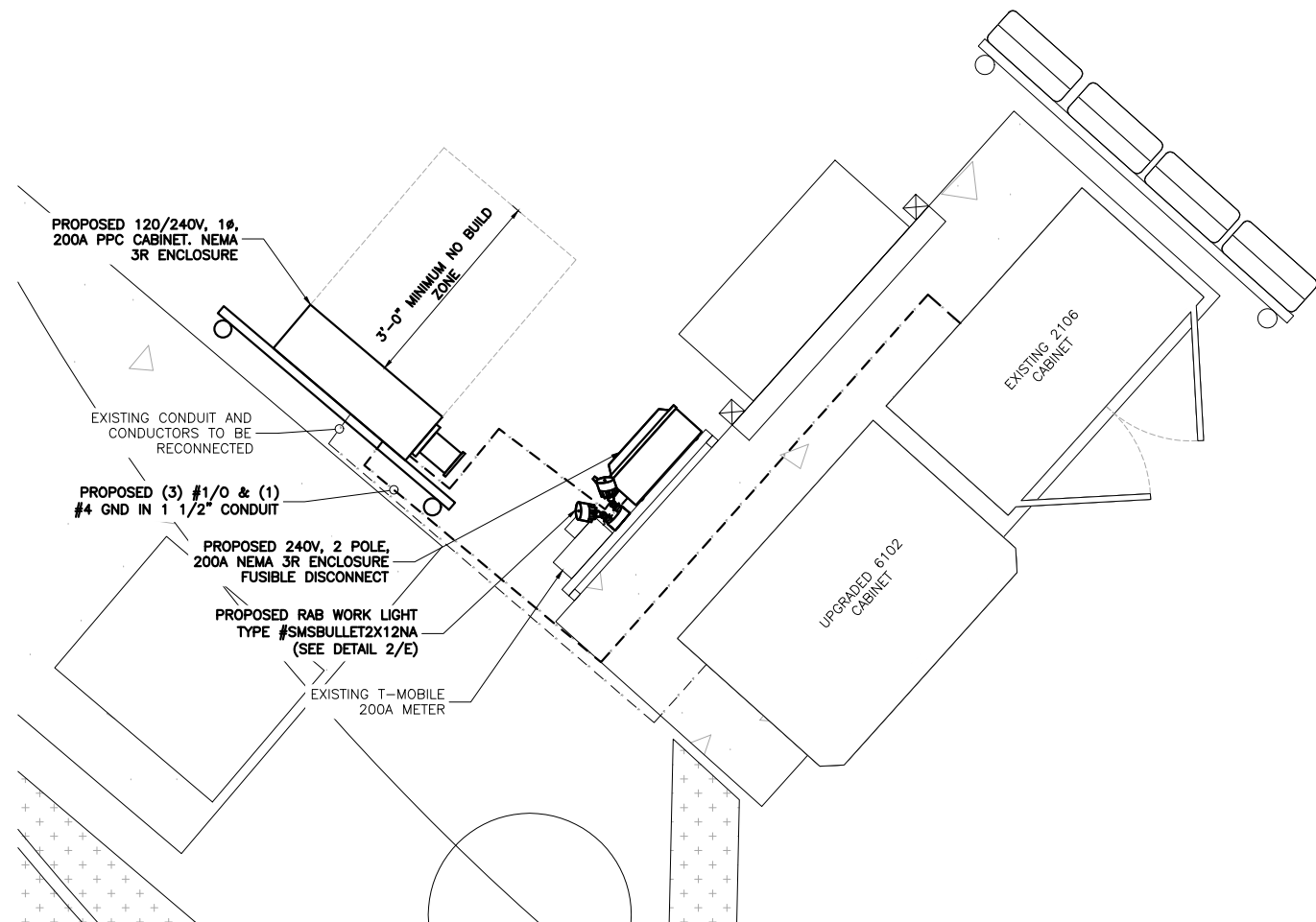
SITE NAME:  
TOWN OF HERNDON-HERNDON  
SITE NUMBER:  
**7WAC057A**  
SITE ADDRESS:

806 3RD STREET  
HERNDON, VIRGINIA 20170

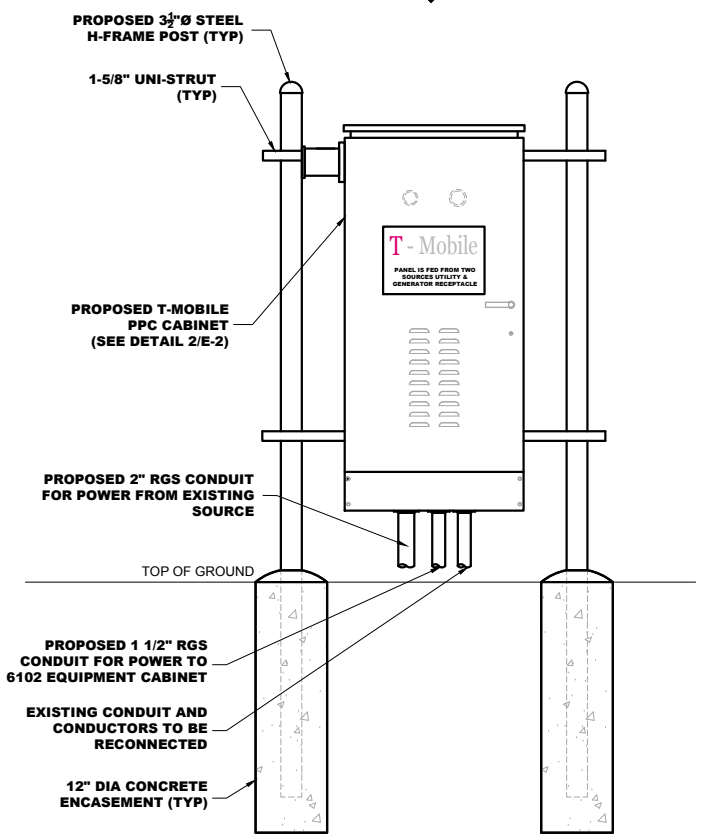
JURISDICTION:  
TOWN OF HERNDON, VIRGINIA

**■ SHEET NUMBER:**

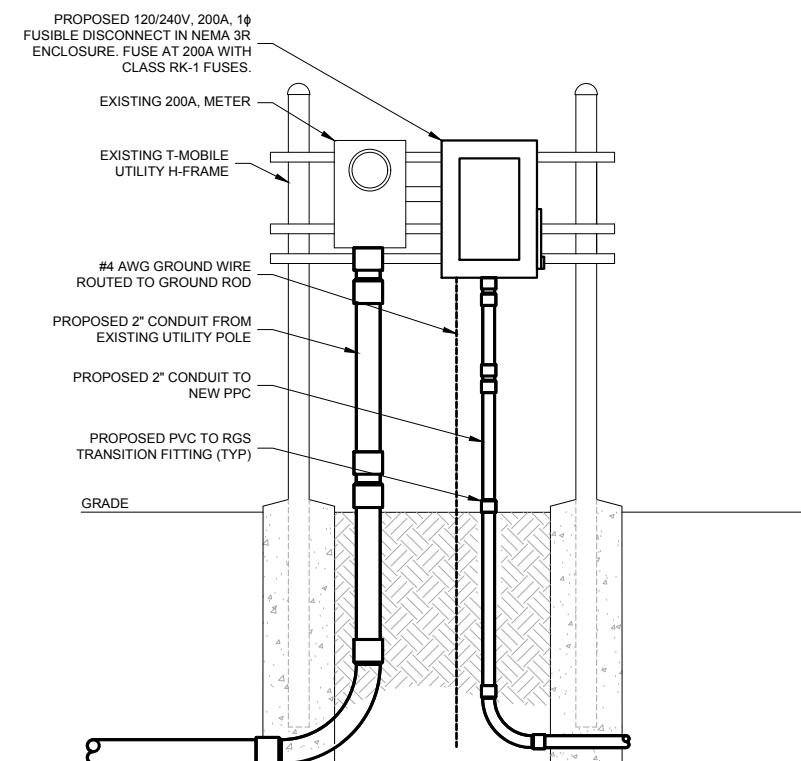
8 OF 9



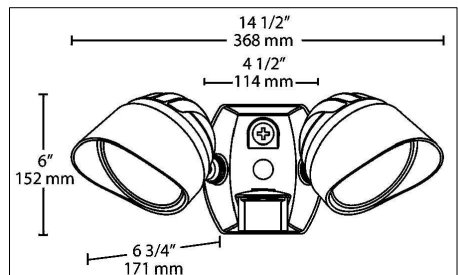
**1**  
E-2  
N.T.S.  
**PROPOSED ELECTRICAL COMPOUND PLAN**



**3**  
E-2  
N.T.S.  
**PROPOSED ELECTRICAL H-FRAME DETAIL**



**4**  
E-2  
N.T.S.  
**EXISTING ELECTRICAL H-FRAME DETAIL**



| LAMP SPECIFICATIONS               |                            |       |
|-----------------------------------|----------------------------|-------|
| DESCRIPTION                       | APPROXIMATE INITIAL LUMENS | WATTS |
| RAB LIGHTING<br># SMSBULLET2X12NA | 1,664                      | 26    |

**2**  
E-2  
N.T.S.  
**PROPOSED RAB LIGHT FIXTURE DETAIL**



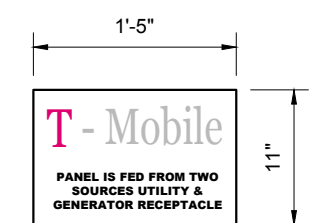
MANUFACTURER: GENERAL ELECTRIC (OR APPROVED EQUAL)

MODEL: U010S010GRP

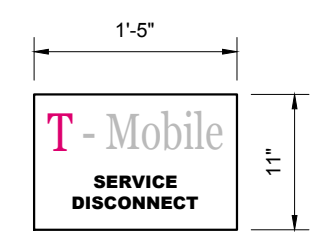
DEPTH: 5.2"  
HEIGHT: 7.1"  
WIDTH: 5.8"  
WEIGHT: 3.92 LBS.

UL LISTING: 1-UL LISTED  
MAX AMPERAGE: 20 A  
VOLTAGE: 120V

**5**  
E-2  
N.T.S.  
**PROPOSED GFI RECPTACLE AND LIGHT SWITCH DETAIL**



**6**  
E-2  
N.T.S.  
**PROPOSED TWO SOURCES OF POWER LABEL DETAIL**



**7**  
E-2  
N.T.S.  
**PROPOSED SEVICE DISCONNECT LABEL DETAIL**

**T - Mobile**  
NORTHEAST LLC

T-MOBILE NORTHEAST LLC  
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**advantage engineers**

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| PLAN REVISIONS: |          |          |                             |
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| REV No          | DATE     | DESIGNER | DESCRIPTION                 |

**AE DESIGN INFO:**

DESIGNER: JPP  
AE JOB No: 18E019A.001

**DRAWING TITLE:**

ELECTRICAL DETAILS & NOTES

**DRAWING SHEET:**

**E-2**

**SITE INFORMATION:**

SITE NAME: TOWN OF HERNDON-HERNDON  
SITE NUMBER: 7WAC057A  
SITE ADDRESS: 806 3RD STREET  
HERNDON, VIRGINIA 20170  
JURISDICTION: TOWN OF HERNDON, VIRGINIA

**SHEET NUMBER:**  
9 OF 9

ANDREW M. MILLER, PE  
VIRGINIA PROFESSIONAL ENGINEER  
LICENSE # 050495

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## **ARCHITECTURAL REVIEW BOARD STANDARDS FOR DESIGN REVIEW**

*Taken from ARB Charter – Chapter 58 (Planning) of Herndon Town Code (2000)*

---

### **DIVISION 4. STANDARDS\* \_\_\_\_\_**

**\*Charter references:** Standards and purpose, § 7.4:1(c). \_\_\_\_\_

#### **Sec. 58-96. Design criteria.**

The board of architectural review and, on appeal, the town council shall use the following standards and criteria in considering applications filed under this article:

- (1) Whether or not the proposed architectural design is suitable for a good suburban community in terms of external architectural features, including signs subject to public view, general design and arrangement, texture, color, line, mass, dimension, material and lighting.
- (2) Whether or not the proposed structure, building or improvement is compatible with existing well-designed structures, acceptable to the board, in the vicinity and in the town as a whole.
- (3) Whether or not, and to what extent, the proposed structure, building or improvement would promote the general welfare and protect the public health, safety and morals by tending to maintain or augment the town's tax base as a whole, generating business activity, maintaining and creating employment opportunity, preserving historical sites and structures and making the town a more attractive and desirable place in which to live.
- (4) Whether or not proposed freestanding buildings use the same or architecturally harmonious materials, color, texture and treatment for all exterior walls; and in the case of partially freestanding buildings, whether or not the same or architecturally harmonious materials, color, texture and treatment are used on all portions of all exterior walls exposed to public view.
- (5) Whether or not the combination of architectural elements proposed for a structure, building or improvement, in terms of design, line, mass, dimension, color, material, texture, lighting, landscaping and roofline and height conform to accepted architectural principles for permanent buildings as contrasted with engineering standards designed to satisfy safety requirements only; and exhibit external characteristics of demonstrated architecture and aesthetic durability.
- (6) Whether or not, in terms of design, material, texture, color, lighting, landscaping, dimension, line, mass or roof line and height, the proposed structure, building or improvement is designed to serve primarily as an advertisement or commercial display, exhibits exterior characteristics likely to deteriorate rapidly, would be of temporary or shortterm architectural or aesthetic acceptability, would be plainly offensive to human sensibilities or would otherwise constitute a reasonable foreseeable detriment to the community.

(Code 1992, § 4-16)