

ARCHITECTURAL REVIEW BOARD STAFF REPORT

Project #/Name	CCP-2019-02: Regional P25 Radio Infrastructure Project
Review Type	Advisory Review
Parcel Identification	076000000054P0, -54P1, - 54N1, and -54Z0
Location	County Office Building, 5 th Street (COB5) – 1600 5 th Street (Figure 1)
Zoned	Commercial Office (CO)/Entrance Corridor (EC)
Owner/Applicant	County of Albemarle/Harris Corporation (Helen Moeller)
Magisterial District	Scottsville
Proposal	Establish a microwave radio communications facility supporting operations of the Charlottesville-UVA-Albemarle County Emergency Communications Center (ECC) at its COB5 backup dispatch and equipment facility. See “Project Details” and Attachment A for additional information.
Context	The subject parcel lies on the south side of 5 th Street. Stagecoach Road is nearby on the east, south and west. Single family residences are on both sides of Stagecoach Road. Residential apartment complexes and Region Ten offices are located on the opposite side of 5 th Street. A mix of residential types are in the general area. (Figure 1)
Visibility	See “Analysis Regarding Visibility” below.
ARB Meeting Date	September 3, 2019
Staff Contact	Margaret Maliszewski

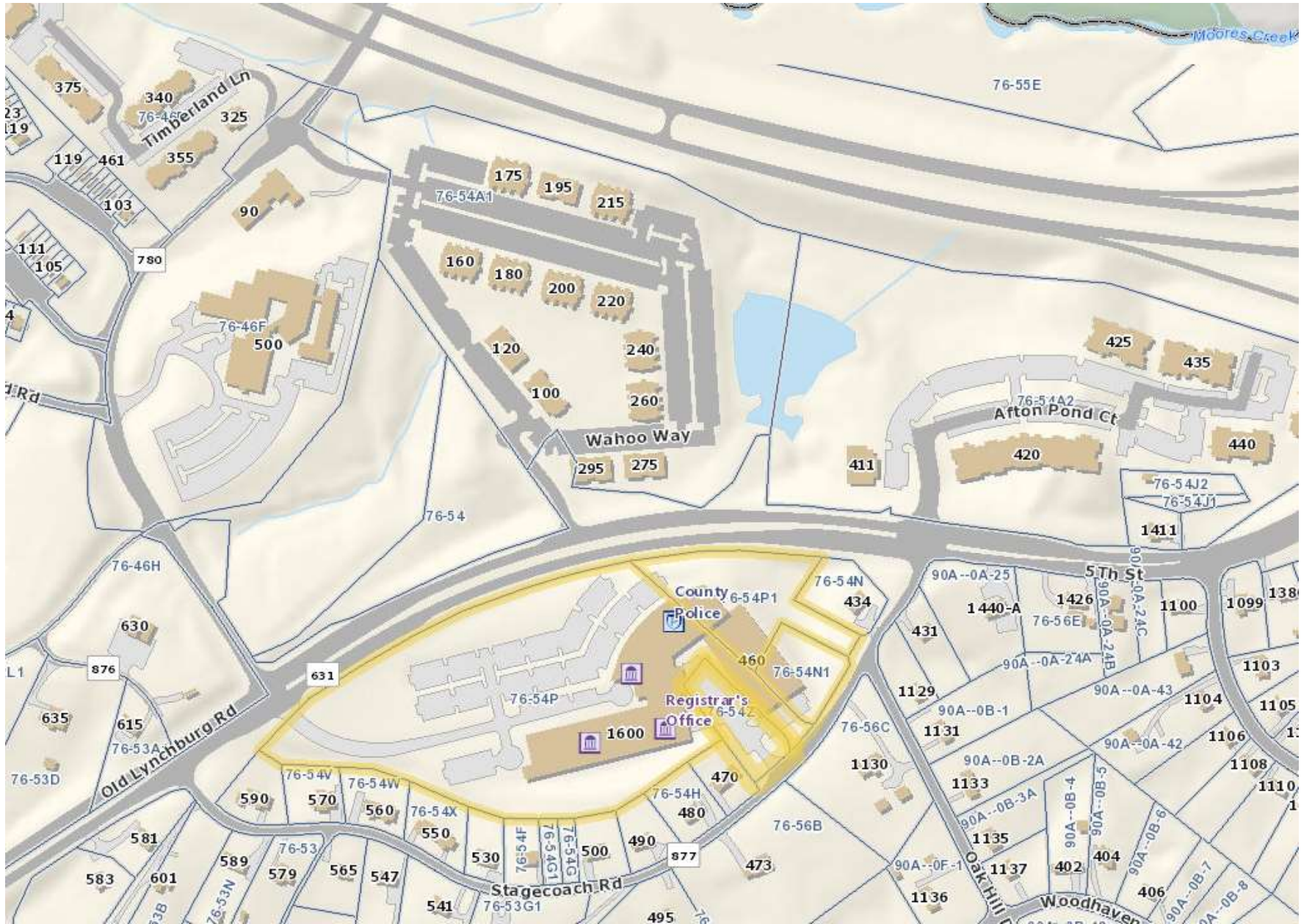


Figure 1: Project site

PROJECT DETAILS

The proposal includes a 123'-tall monopole with two microwave dish antennas, a 6' antenna mounted at 120' AGL and a 3' antenna at 67' AGL. An ice shield is proposed at 71' AGL. Related ground equipment is also proposed. The facility is proposed to be located within the existing mostly enclosed parking and equipment area at the rear of the office building. (Figures 2 and 3)

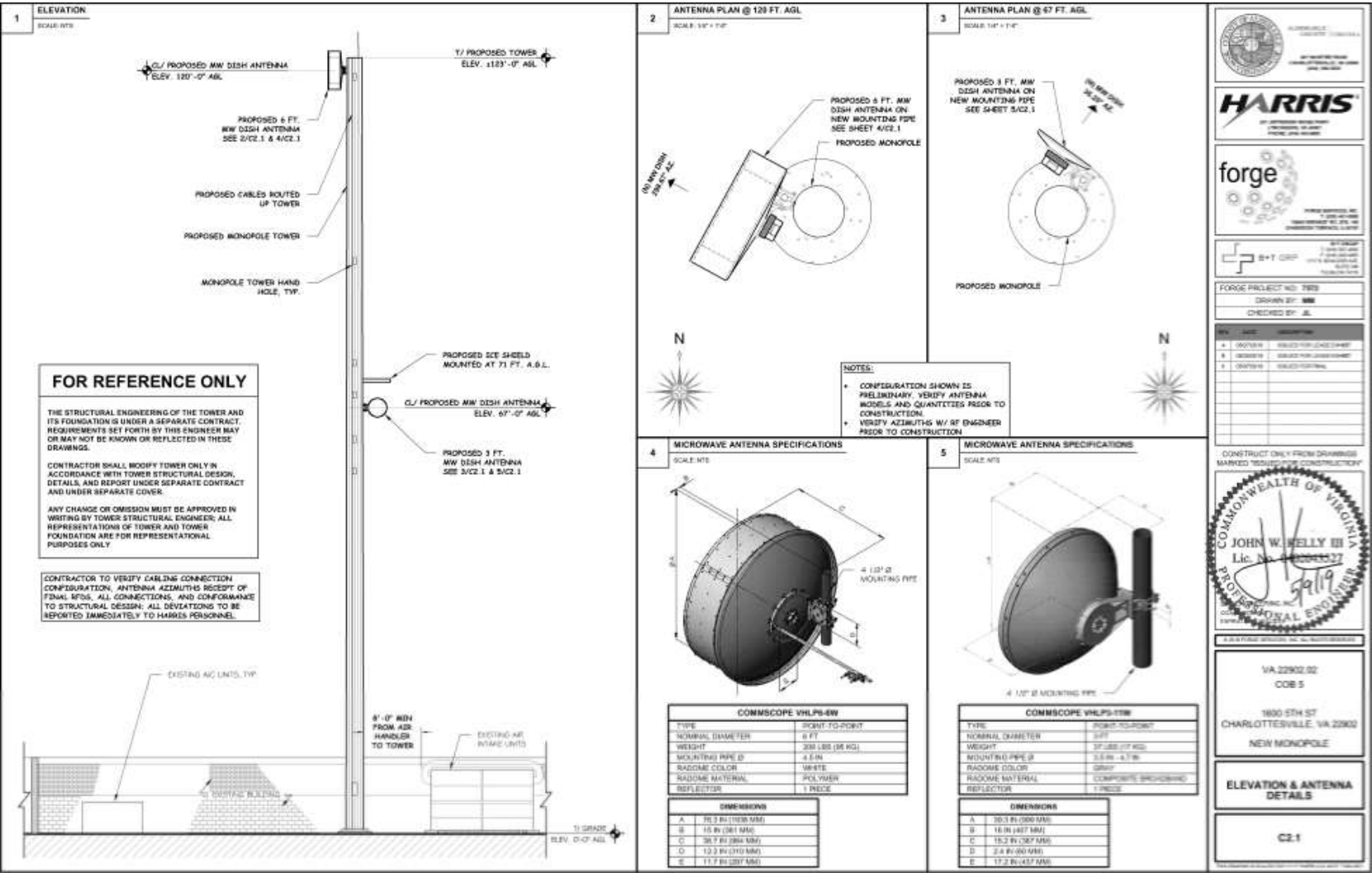
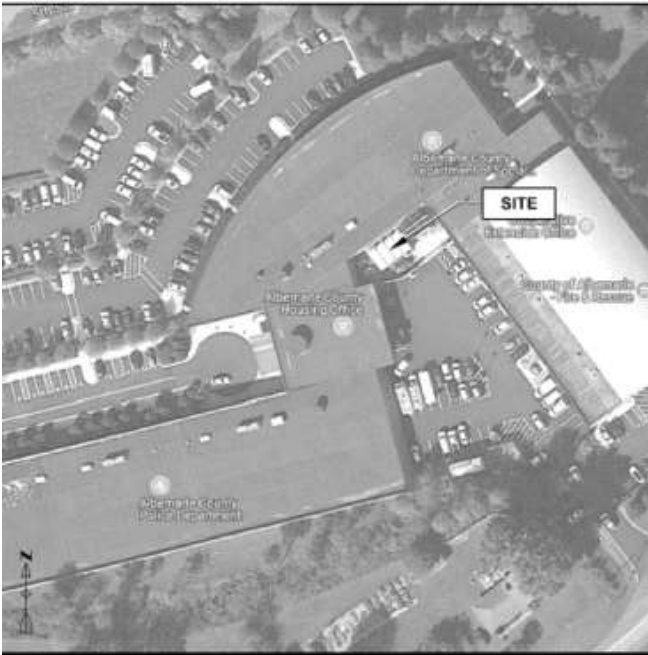
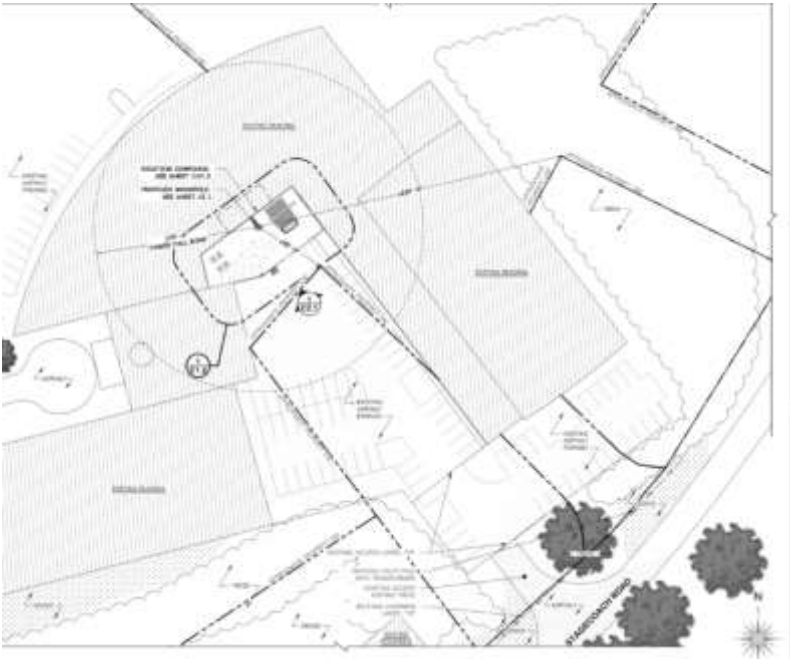


Figure 2: Illustration showing the proposed monopole and dish antennas.

ANALYSIS REGARDING THE GROUND EQUIPMENT

A Certificate of Appropriateness from the ARB is required for the base equipment portion of proposed telecommunications facilities in the Entrance Corridors. The ARB may impose conditions on the Certificate of Appropriateness, based on the EC Guidelines, and consistent with Section 5.1.40 of the Zoning Ordinance.

Ref	Guideline	Issues	Recommendations
	Accessory structures and equipment		
17	The following should be screened to eliminate visibility from the Entrance Corridor street: e) Mechanical equipment.	The ground equipment is not expected to be visible from the 5 th Street Entrance Corridor because the office building will provide full screening. (Figure 3)	No objection.



Figures 3a, b and c: The facility is proposed to be located within the mostly enclosed parking and equipment area at the rear of the COB5 office building.

ANALYSIS REGARDING VISIBILITY OF THE FACILITY

The ARB may act in an advisory capacity to the Agent as to whether the facility is being sited to minimize its visibility. For reference in this analysis, please note that the test balloon measured 12’ in diameter and 8’ tall.

Ref	Guideline	Issues	Recommendations
	Development pattern		
33	<p>The relationship of buildings and other structures to the Entrance Corridor street and to other development within the corridor should be as follows:</p> <p>f. The placement of structures on the site should respect existing views and vistas on and around the site.</p>	<p>A balloon test was conducted on July 31, 2019 for this proposal. 5th Street/Old Lynchburg Road and I-64 were traveled to determine visibility.</p> <p>Traveling south out of the city on 5th Street and viewing from the west side of the street, the balloon was first visible in the vicinity of Pinehurst Ct. (Figure 4) There, it was visible above the trees and it was sky-lit. Continuing south, at the first intersection with Stagecoach Road, the off-site trees at the corner of the intersection provided screening (Figure 5), but a short distance further south, a gap in the trees provided a clear view of the balloon (figure 6). Similar views were available traveling south on the west side of 5th Street (Figure 7). When viewed from vantage points on 5th Street north of the site, the taller section of the building (approximately 30’ tall) would completely screen the lower section of the monopole and all of the ground equipment.</p> <p>On the east side of 5th Street facing north at the southern Stagecoach Road intersection, the balloon was clearly visible. It was sky-lit and above the trees. In this location, most of the monopole would be visible. (Figure 8) At the entrance to COB5 from 5th Street the balloon was also visible (Figure 9). Again, it was sky-lit and above the trees, and much of the monopole would be visible. North of the site entrance, a row of trees, in full leaf at the time of the balloon test, significantly screened the balloon from the street. (Figure 10) A few gaps in the trees afforded a clear view of the balloon. (Figure 11) In those locations, the balloon was sky-lit and above the trees and most of a monopole would be visible when viewed from those locations. The screening provided by the trees will be significantly diminished when the leaves drop, but the trees will still filter the view of the monopole. When viewed from vantage points on 5th Street south of the site, the 16’-tall building would always completely screen the lowest portion of the monopole and the ground equipment.</p> <p>When traveling both eastbound (Figure 12) and westbound (Figure 13) on I-64, the balloon was visible between the Cavalier Crossing and 5th Street Place Apartments developments. In those locations the balloon was sky-lit and above the trees. Westbound, the balloon was significantly above the trees. From these vantage points, the balloon was over 1000’ away and it was visible for (estimated) less than 1000’ along the I64 corridor. See Figure 14 for photo locations.</p> <p>Although visibility of the balloon was limited in some ways, when the balloon was visible, it showed that a significant amount of the monopole would be visible, sky-lit, and well above the trees. That level of visibility does not have an appropriate appearance for the Entrance Corridor.</p> <p>The color of the monopole is not identified in the applicant’s submittal. Given the mostly sky-lit views, a shade of light grey would be appropriate – not the brown typically preferred for monopoles in wooded areas.</p> <p>The dish antennas, at 3’ and 6’ in diameter, will be obvious and will not blend in with the monopole as panel antennas can.</p>	<p>Given the degree of visibility displayed at the balloon test, the proposed location of the facility does not sufficiently minimize the visibility of the monopole from the 5th Street and I-64 Entrance Corridors. Negative visual impact is anticipated.</p> <p>A shade of light grey is recommended for the color of the monopole.</p>



Figure 4: View facing south on 5th Street in the vicinity of Pinehurst Ct.



Figure 6: View facing south on 5th Street, a short distance south of Stagecoach Road.



Figure 5: View facing south at intersection of 5th Street and Stagecoach Road.



Figure 7: Typical view from the west side of 5th Street.



Figure 8: View facing north on 5th Street at southern intersection with Stagecoach Road.



Figure 10: View north on 5th Street along COB5 frontage.



Figure 9: View north on 5th Street near COB5 entrance.



Figure 11: View north from 5th Street looking towards COB5 office building.



Figure 12: View from eastbound lane of I64 facing south.



Figure 13: View from westbound lane of I64 facing south.



Figure 14: Photo locations.

NOTE REGARDING ARB ADVISORY REVIEW

Section 30.6.9 of the zoning ordinance states that public health and safety shall prevail when any condition of a Certificate of Appropriateness conflicts with public health or safety. However, the ARB's role in this review is limited to determining visual impacts on the Entrance Corridor. The Board of Supervisors will make a final determination on the proposal considering the ARB's advice, issues of public health and safety, and all other recommendations and related information that body receives.

SUMMARY OF RECOMMENDATIONS

Regarding the Certificate of Appropriateness for the ground equipment and base station:

Staff recommends that the ARB forward the following recommendation to the Agent:

Since the ground equipment will not be visible from the EC, the ARB has no objection to the ground equipment and base station as proposed.

Regarding visibility of the monopole:

Staff recommends that the ARB forward the following recommendation to the Agent:

1. Given the degree of visibility displayed at the balloon test, the proposed location of the facility does not sufficiently minimize the visibility of the monopole from the 5th Street and I-64 Entrance Corridors. Negative visual impact is anticipated.
2. A shade of light grey is recommended for the monopole.

ATTACHMENT A Applicant's project description

Regional P25 Radio Infrastructure Project (Charlottesville – UVA – Albemarle County Emergency Communications Center)- COB5 site

Purpose:

The Emergency Communications Center (ECC) operates a regional 800 MHz public safety land mobile radio system on behalf of the County of Albemarle, the City of Charlottesville, and the University of Virginia. The system provides interoperable, mission-critical communications to nearly 3,000 regional public safety and public service users. As part of an enterprise-wide project to replace end-of-life infrastructure and improve public safety communications coverage and reliability, the ECC is seeking to add 123-foot monopole tower (including foundation) at the Albemarle County Office Building on Fifth Street (COB5).

Albemarle County Office Building -5th St. (COB5):

The COB5 facility is a fundamental equipment location for the new regional (Charlottesville, UVA, Albemarle) P25 Radio system currently under construction. COB5 is already the regional ECC's backup dispatch and equipment facility, including 9-1-1, data systems, and dispatch equipment and space. This radio system is designed with fully redundant capabilities, including redundant critical components and dispatch infrastructure at COB5. In the case of a critical event, dispatch could be performed at the COB5 facility.

For reliable connectivity to the COB5 facility, microwave radio is necessary. A tower is required at the COB5 location for mounting the microwave antennas at the proposed heights. This provides a critical link to this facility to maintain continuous communications with the overall P25 system.

TABLE A This report is based on the following submittal items:

Sheet #	Drawing Name	Latest Drawing Date
T1.1	Title Sheet	5/7/2019
C1.1	Site Plan	5/7/2019
C1.2	Compound Plan	5/7/2019
C2.1	Elevation & Antenna Details	5/7/2019
C3.1	Cable Bridge Details	5/7/2019
C4.1	Details	5/7/2019
G1.1	Grounding Diagram	5/7/2019
G2.1	Grounding Riser	5/7/2019
G3.1	Grounding Details	5/7/2019
G4.1	Grounding Details	5/7/2019
GN1.1	General Notes	5/7/2019
GN2.1	General Notes	5/7/2019
GN3.1	General Notes	5/7/2019
14-18	Roof Protection Plan	4-2-19
	Project Description	