

CITY OF DOVER

HERITAGE COMMISSION – STAFF MEMO

Meeting Type: Special Meeting
Meeting Location: 1st Floor Conference Room, City Hall, Dover, NH 03820
Meeting Date: Friday, February 10, 2023
Meeting Time: 9:00 a.m.

To: Heritage Commission
From: Natasha Kypfer, Zoning Administrator
Cc: Carrie Tremblay, Reference Librarian
Date: February 8, 2023

ISSUE

Heritage Commission Meeting

INTENT

This memo will provide an overview of the agenda item entitled “Section 106 Review of application submitted by EBI Consulting”, scheduled for the February 10, 2023 Heritage Commission meeting.

NEW BUSINESS

On January 23, 2023, the Heritage Commission received an email from Ms. Sophie Laino, of EBI Consulting, with a request for comment on a proposed project at 259 County Farm Road. This invitation to comment is pursuant to Section 106 of the National Historic Preservation Act. If the Heritage Commission decides to proceed with comment they would be due by February 23, as they are requested within 30 days.

In the narrative letter, provided by EBI Consulting, it states:
We are only seeking comments related to the proposed project’s potential effect to historic properties.

Furthermore, any comments provided by the Commission would be considered non-binding due to the subject property being a Strafford County-owned parcel. Staff identifies that RSA 674:54 “Governmental Land Uses” is likely applicable here and therefore comments are not needed.

Staff suggests the Commission not submit comments to the requestor due to the governmental ownership of the parcel and the applicability of RSA 674:54.

From: Sophie Laino <slaino@ebiconsulting.com>
Sent: Monday, January 23, 2023 2:49 PM
To: Heritage Commission - All
Subject: 6122010437 - SC ADMIN BLDG, 259 County Farm Road, Dover, Stafford County, NH 03820
Attachments: [ITC Letter_HC.pdf](#)

Security Notice: External sender. Use caution with hyperlinks or attachments.

Good Afternoon,

Please find attached a copy of the "ITC Letter" for the EBI project site referenced in the subject line. EBI would like to inquire if you would be interested in commenting on this proposed project.

Should you have any further questions or require additional information, please do not hesitate to contact EBI at the e-mail address or telephone number provided in attached letter.

Thank you for your assistance in this matter.

Best,

Sophie Laino
Production Associate
slaino@ebiconsulting.com
21 B Street | Burlington, MA | 01803
www.ebiconsulting.com | [Blog](#)



[EBI's Notice of Collection and Privacy Policy](#)

January 23, 2023

Heritage Commission
Attn: Jeffrey Spires, Chairperson
288 Central Ave.
Dover, NH 0382
(603) 591-2754
HeritageCommission-All@dover.nh.gov

Subject: Invitation to Comment
SC ADMIN BLDG
259 County Farm Road, Dover, Stafford County, NH 03820
EBI Project # 6122010437

Dear Jeffrey Spires:

Pursuant to Section 106 of the National Historic Preservation Act, the regulations promulgated thereunder and interagency agreements developed thereto, EBI Consulting, Inc., on behalf of Motorola Solutions, Inc., provides this notice of a proposed telecommunications facility installation at the address listed above.

EBI would like to inquire if you would be interested in commenting on this proposed project. Please refer to the attached plans for additional details.

Please note that we are requesting your review of the attached information as part of the Section 106 process only and not as part of the local zoning process. We are only seeking comments related to the proposed project's potential effect to historic properties.

Please submit your comments regarding the proposed project's potential effect on historic properties to EBI Consulting, to my attention at 21 B Street, Burlington, MA 01803, or contact me via telephone at the number listed below. Please reference the EBI project number. We would appreciate your comments as soon as possible within the next 30 days.

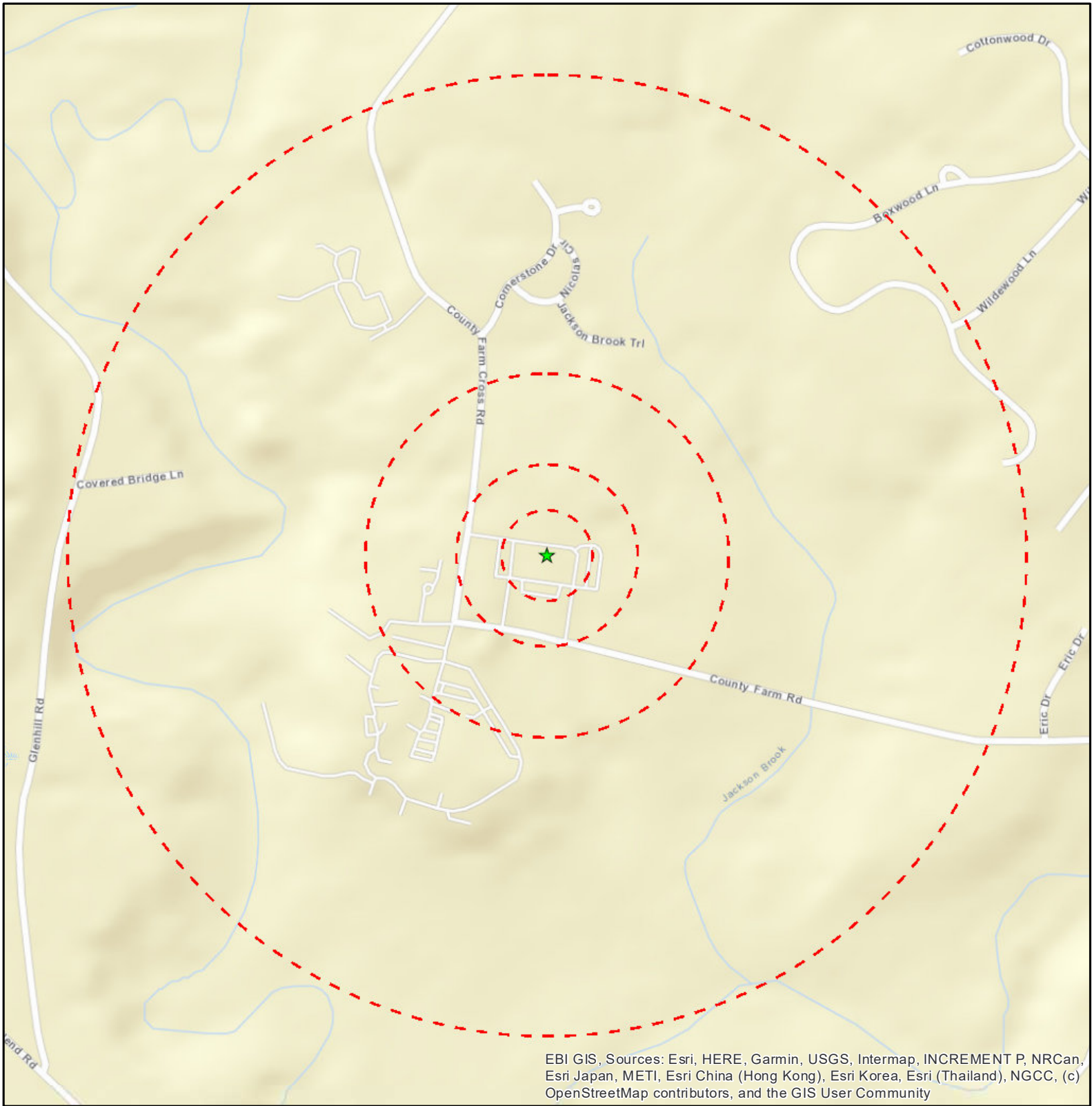
Note that this project will be entered into the Federal Communication Commission's e106 System, which will send notifications of the project throughout the Section 106 process.

Respectfully Submitted,



Makenzie Bandstra
Senior Architectural Historian
T: (717) 472-3070
mbandstra@ebiconsulting.com

Attachments - Drawings and Maps



Legend

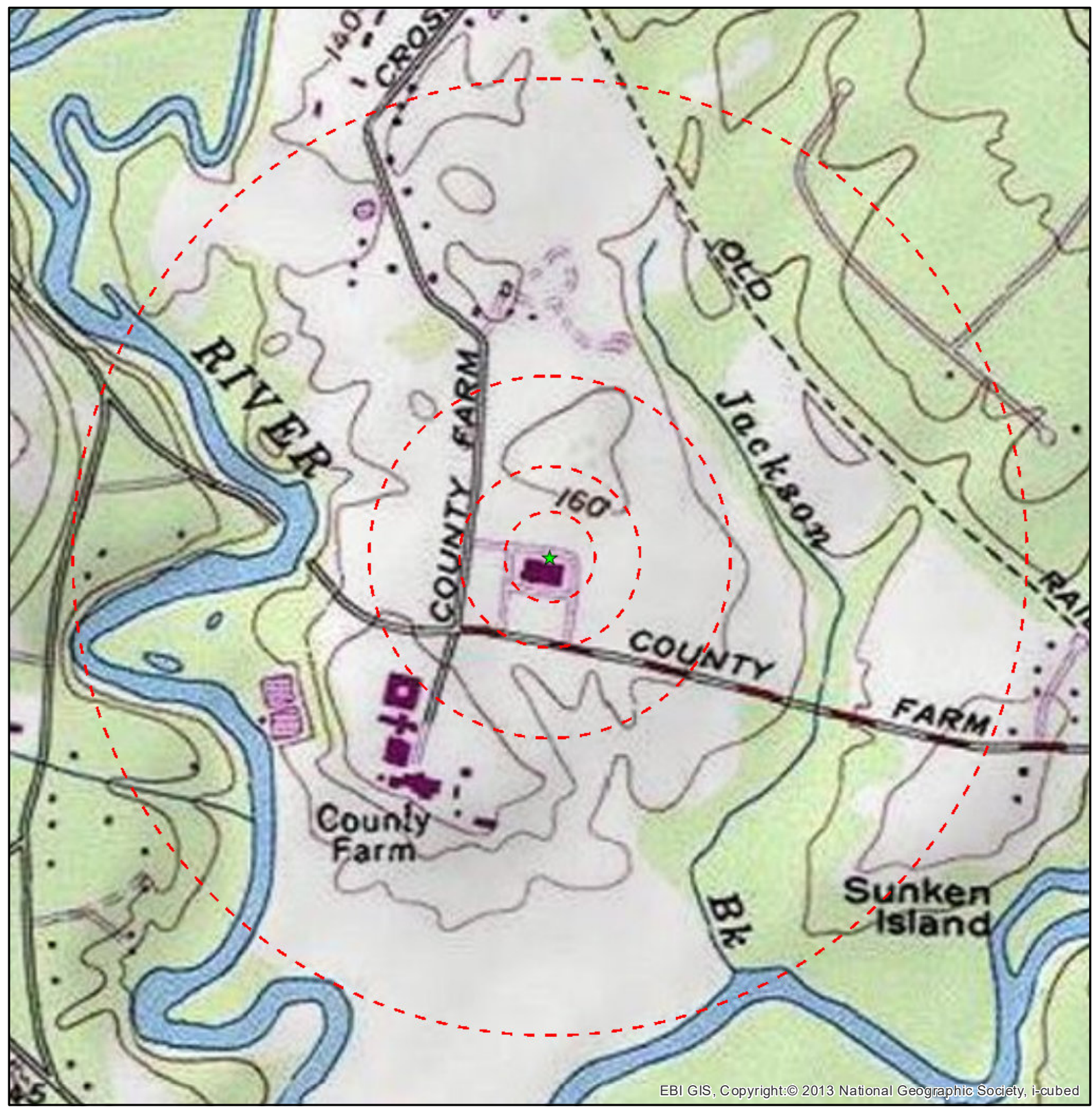
- ★ Project Site
- Site Radius at 250', 500', 1000' and 1/2 mile

Date: 11/18/2022

Figure 1: Site Location Map

**SC ADMIN BLDG
259 COUNTY FARM ROAD
DOVER, NH 03820**





Legend

- ★ Project Site
- Site Radius at 250', 500', 1000' and ½ mile

Date: 11/18/2022

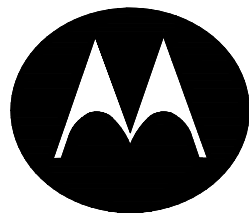
USGS 24K Quad: Dover West, NH 1986

Figure 2 - Topographic Map

SC ADMIN BLDG
259 COUNTY FARM ROAD
DOVER, NH 03820

PN: 6122010437





MOTOROLA
SOLUTIONS

SITE NAME: SC ADMIN BLDG

259 COUNTY FARM ROAD
DOVER, NH 03820
CITY OF DOVER
STRAFFORD COUNTY

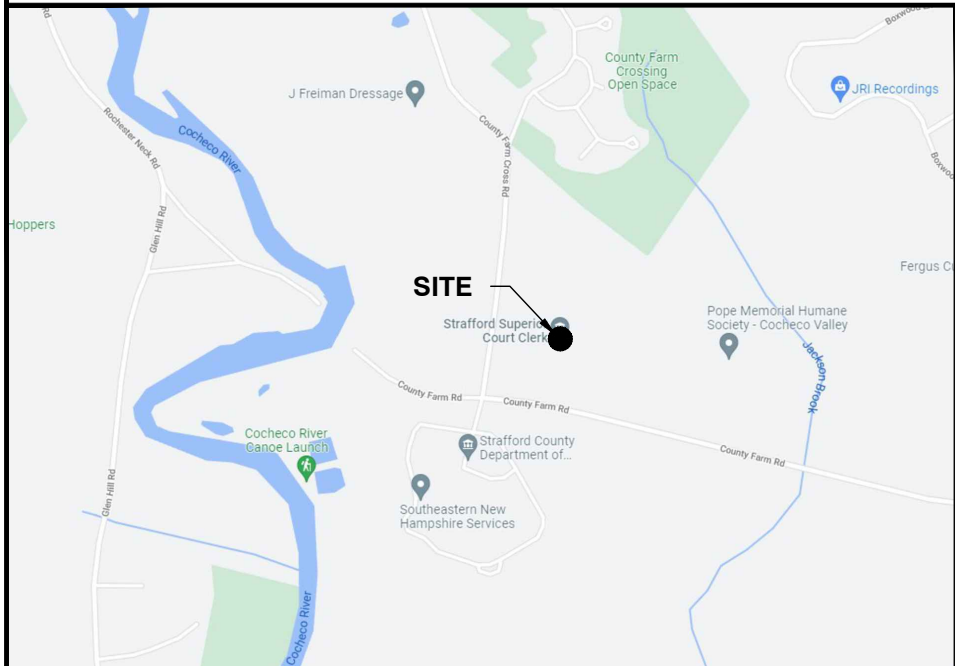
SITE INFORMATION

CURRENT USE: TELECOMMUNICATIONS FACILITY
SITE ADDRESS: 259 COUNTY FARM ROAD
DOVER, NH 03820
JURISDICTION: CITY OF DOVER
STRAFFORD COUNTY
LATITUDE (NAD 83): 43° 13' 13.83" N (43.220508°)
LONGITUDE (NAD 83): 70° 56' 17.69" W (-70.938247°)
MAP BLOCK NUMBER: B-20-0-0
PARCEL ID: B0020-000000
ZONING: R-40
PROPERTY / TOWER OWNER: STRAFFORD COUNTY C/O CITY OF DOVER
288 CENTRAL AVENUE
DOVER, NH 03820
STRUCTURE TYPE: ROOFTOP
STRUCTURE HEIGHT: 45'
CONSTRUCTION TYPE: IIB
USE GROUP: U
GROUND ELEVATION: 155.0' AMSL

PROJECT TEAM

APPLICANT: MOTOROLA SOLUTIONS, INC
500 W MONROE STREET, SUITE 440
CHICAGO, IL 60661
(847) 576-5000
PROJECT MANAGEMENT FIRM: SR. PROJECT MANAGER, NEW ENGLAND:
WILLIAM FOUSTOUKOS
MOTOROLA SOLUTIONS, INC
WILLIAM.FOUSTOUKOS@MOTOROLASOLUTIONS.COM
(603) 918-6138
MOTOROLA SR. ENGINEER: STEVE BALDRATE, SYSTEMS ENGINEER
MOTOROLA SOLUTIONS, INC
(978) 987-8659
ENGINEERING FIRM: NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
(716) 856-8308

VICINITY MAP



SAFETY PLAN & EMERGENCY CONTACT INFO

POLICE: 911
FIRE/EMS: 911
HOSPITAL: WENTWORTH-DOUGLASS HOSPITAL
789 CENTRAL AVENUE
DOVER, NH 03820

NOTE:
GENERAL CONTRACTORS SAFETY PLAN SHALL BE
LOCATED ON A JOB BOARD AT THE ENTRANCE INTO
THE SITES COMPOUND.

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.

- 2015 INTERNATIONAL BUILDING CODE
- 2017 NATIONAL ELECTRICAL CODE
- 2015 NFPA 101, LIFE SAFETY CODE
- STATE FIRE CODE SAF-C 6000
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ANSI/TIA-222-G
- TIA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELECORDIA GR-1275
- ANSI/T 311

DRAWING INDEX

T-1 TITLE SHEET
GN-1 GENERAL NOTES I
GN-2 GENERAL NOTES II
C-1 ROOFTOP PLAN
C-2 ELEVATION
A-1 ANTENNA & TOWER APPURTENANCE SCHEDULE & DETAILS
A-2 MW1 DISH MOUNTING DETAILS
A-3 MW2 DISH MOUNTING DETAILS
A-4 NON-PENETRATING MOUNT SYSTEM DETAILS
G-1 CABLE GROUNDING DETAILS

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE SCALED AT FULL SIZE (22"X34") AND MAY NOT SCALE WHEN PRINTED AT OTHER SIZES. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

SCOPE OF WORK

- PROJECT CONSISTS OF:
- INSTALLING (2) PROPOSED MW DISH ANTENNAS
 - INSTALLING (2) PROPOSED ANTENNA MOUNTS
 - INSTALLING (2) PROPOSED COAX CABLES
 - INSTALLING (1) IDU
 - INSTALLING (1) NON-PENETRATING MOUNT SYSTEM

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
(978) 856-8308

APPLICANT

MOTOROLA
SOLUTIONS

SITE INFORMATION

SC ADMIN BLDG
259 COUNTY FARM ROAD
DOVER, NH 03820
CITY OF DOVER
STRAFFORD COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
0	08/26/22	REVISED PER COMMENTS	CSG

PROFESSIONAL STAMP



ENGINEER

DANIEL J. CORNING, P.E.
NH PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

LAST PLOTTED: 08/26/2022 4:16 PM

GENERAL REQUIREMENTS

1.1 SUMMARY OF WORK

THE WORK MAY CONSIST OF, BUT NOT BE LIMITED TO, THE INSTALLATION OF EQUIPMENT CABINETS, ANTENNAS, AND LINES. FUEL TANKS, GROUNDING, ELECTRICAL WORK, ETC., ASSOCIATED WITH THE MOTOROLA EQUIPMENT AS INDICATED ON DRAWINGS AND AS SPECIFIED HEREIN. GENERAL CONTRACTOR SHALL SUPPLY ALL PERMANENT MATERIALS/EQUIPMENT REQUIRED AND ALL LABOR, EQUIPMENT, TOOLS, UTILITIES, MINOR HARDWARE/MATERIALS, TRANSPORTATION, AND FACILITIES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF SERVICES AND INSTALL WORK, WHETHER TEMPORARY OR PERMANENT. GENERAL CONTRACTOR SHALL BE OBLIGATED TO PERFORM ALL THE WORK OUTLINED IN THESE DRAWINGS IN ACCORDANCE WITH THE CONTRACT AGREEMENT, FEDERAL REGULATIONS, STATE REQUIREMENTS, LOCAL CODES, COMMERCIAL/INDUSTRY STANDARDS, DETAILED SCOPE OF WORK, AND THE DOCUMENTS IDENTIFIED BELOW. IN CASE OF A CONFLICT BETWEEN THE ABOVE LISTED DOCUMENTS REGARDING STANDARDS OF WORK, THE MORE STRINGENT CRITERIA SHALL APPLY. ANY ADDITIONAL COSTS OR DELAYS RESULTING FROM CORRECTION OF THE WORK TO COMPLY WITH THE ABOVE REQUIREMENT SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

1.2 SITE VISIT

GENERAL CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE ITSELF WITH THE SCOPE OF WORK REQUIRED PER THE DRAWINGS AND ALL LOCAL CONDITIONS, LAWS, AND REGULATIONS THAT MAY IN ANY MANNER AFFECT THE PRICE, PROGRESS, AND PERFORMANCE OF WORK, INCLUDING ANY COSTS ASSOCIATED WITH IT. THE GENERAL CONTRACTOR SHALL ALSO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND NOTIFY THE MOTOROLA REPRESENTATIVE OF ANY DISCREPANCIES OR INTERFERENCES WHICH AFFECT THE WORK OF THIS CONTRACT.

1.3 STANDARDS AND CODES

THE FOLLOWING DOCUMENTS (LATEST REVISION) SHALL BE CONSIDERED TO BE SPECIFICATION AND ARE INCORPORATED HEREIN BY REFERENCE. IN THE EVENT OF CONFLICT BETWEEN THE REQUIREMENTS OF THIS SPECIFICATION AND THE REQUIREMENTS OF THE REFERENCE DOCUMENTS, THE STRICTER SPECIFICATION SHALL GOVERN. WHERE PROVISIONS OF THE CODES AND STANDARDS ARE IN CONFLICT WITH THE BUILDING CODE IN FORCE FOR THIS PROJECT, THE BUILDING CODE SHALL GOVERN.

A. MOTOROLA R56 STANDARDS AND GUIDELINES FOR COMMUNICATIONS SITES (LATEST REVISION).

B. MOTOROLA'S CIVIL WORKS BID SPECIFICATIONS.

C. AMERICAN CONCRETE INSTITUTE:

- ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
- ACI 305 HOT WEATHER CONCRETING.
- ACI 306 COLD WEATHER CONCRETING.
- ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
- ACI 614 RECOMMENDED PRACTICE FOR MEASURING, MIXING, AND PLACING CONCRETE.
- ACI 311 RECOMMENDED PRACTICE FOR CONCRETE INSPECTION.
- ACI 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.
- ACI 613 RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR CONCRETE.

B. AMERICAN NATIONAL STANDARDS INSTITUTE:

- ANSI Z359 REQUIREMENTS FOR PERSONAL FALL ARREST SYSTEMS, SUBSYSTEMS, AND COMPONENTS
- ANSI Z87.1 OCCUPATIONAL AND EDUCATIONAL EYE AND FACE PROTECTION
- ANSI Z89.1 PROTECTIVE HEADWEAR FOR INDUSTRIAL WORKERS – REQUIREMENTS
- ANSI/IEEE C95.1 SAFETY LEVELS WITH RESPECT TO HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY
- ANSI/TIA/EIA STANDARD 222, REV H: STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS AND SMALL WIND TURBINE SUPPORT STRUCTURES.

C. AMERICAN INSTITUTE OF STEEL CONSTRUCTION

- AISC MANUAL OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION: LATEST EDITION

D. AMERICAN SOCIETY FOR TESTING AND MATERIALS:

- ASTM A615 – SPECIFICATION FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT.
- ASTM C94–80 – SPECIFICATION FOR READY–MIX CONCRETE.
- ASTM C39–77 – SPECIFICATION FOR TEST FOR COMPREHENSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMEN.
- ASTM 33 – SPECIFICATION FOR CONCRETE AGGREGATES.
- ASTM C150 – SPECIFICATION FOR PORTLAND CEMENT.
- ASTM C172 – SAMPLING FRESH CONCRETE.
- ASTM C143 – SLUMP OF PORTLAND CEMENT CONCRETE.
- ASTM D698–91 – TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT.
- ASTM D1556–84 – DENSITY OF SOIL IN PLACE BY THE SAND–CONE METHOD.
- ASTM D1557 – TEST FOR MOISTURE–UNIT WEIGHT RELATIONS OF SOILS AND SOIL–AGGREGATE MIXTURES USING 10–LB. HAMMER AND 18–IN. DROP. (PROCEDURE C)
- ASTM D2487 – STANDARD CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES. (UNIFIED SOIL CLASSIFICATION SYSTEM)
- ASTM D2922 – DENSITY OF SOIL AND SOIL AGGREGATE IN PLACE BY NUCLEAR METHODS SHALLOW DEPTH.
- ASTM D2940 – STANDARD SPECIFICATION FOR GRADED AGGREGATE MATERIAL FOR BASES OR SUB–BASES FOR HIGHWAYS OR AIRPORTS.

E. AMERICAN WELDING SOCIETY:

- AWS D12.1 – RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL. METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTION.

F. CONCRETE REINFORCING STEEL INSTITUTE:

- MANUAL OF STANDARD PRACTICE

G. FEDERAL AVIATION ADMINISTRATION:

- DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR, AC 70/7460–1G: OBSTRUCTION MARKING AND LIGHTING.
- DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR, 150–5345–43, FAA/DOD SPECIFICATION L–856: HIGH INTENSITY OBSTRUCTION LIGHTING SYSTEMS.

H. FEDERAL COMMUNICATIONS COMMISSION:

- FEDERAL COMMUNICATIONS COMMISSION – RULES AND REGULATIONS PART 17, CONSTRUCTION, MARKING, AND LIGHTING OF ANTENNA STRUCTURES.

I. STRUCTURAL STEEL PAINTING COUNCIL:

- SSPC–SP–1–63: SPECIFICATION FOR PAINTING STEEL STRUCTURES.

J. NATIONAL FIRE PROTECTION ASSOCIATION:

- NFPA 1 – FIRE PREVENTIONS CODE
- NFPA 101 – LIFE SAFETY CODE
- NFPA 111 – STANDARD ON STORED ELECTRICAL ENERGY, EMERGENCY, AND STANDBY POWER SYSTEMS

M. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

- OSHA 1926
- OSHA DIRECTIVES CPL 2–1.29 – INTERIM INSPECTION PROCEDURES DURING COMMUNICATION TOWER CONSTRUCTION ACTIVITIES.

N. VIRGINIA STATE BUILDING AND ELECTRICAL CODE, OR AHJ CODES.

- 2018 INTERNATIONAL BUILDING CODE
- 2014 NATIONAL ELECTRIC CODE
- 2015 INTERNATIONAL FIRE CODE

1.4. NOTICE TO PROCEED

WHEN THE SITE IS READY FOR INSTALLATION, MOTOROLA SHALL ISSUE A NOTICE TO PROCEED TO THE GENERAL CONTRACTOR. UPON RECEIPT OF THE NOTICE OF PROCEED, THE GENERAL CONTRACTOR SHALL SUBMIT TO MOTOROLA A SCHEDULE REFLECTING THE WORK PLAN. THE SCHEDULE SHALL BE IN MS PROJECT AND PDF FORMAT. THE GENERAL CONTRACTOR SHALL ADVISE THE MOTOROLA REPRESENTATIVE IMMEDIATELY OF ANY SCHEDULE CHANGES. THE GENERAL CONTRACTOR SHALL ADJUST HIS WORK, AS REQUIRED, TO COORDINATE WITH THE MOTOROLA INSTALLATION TEAM IF THE SCHEDULES OVERLAP.

1.5. MOTOROLA REPRESENTATIVE

MOTOROLA SHALL DESIGNATE A REPRESENTATIVE. THIS PERSON IS THE ONLY CONTACT POINT AUTHORIZED TO MAKE ANY CHANGES TO THE CONTRACT PROVISIONS OR THE PLANS AND SPECIFICATIONS. ANY CHANGES MADE BY THE GENERAL CONTRACTOR ARE AT THE GENERAL CONTRACTOR'S RESPONSIBILITY AND RISK.

1.6. GENERAL CONTRACTOR FIELD REPRESENTATIVE

GENERAL CONTRACTOR SHALL ASSIGN A FIELD REPRESENTATIVE WHO IS FAMILIAR WITH THESE SPECIFICATIONS AND WILL REPRESENT THE GENERAL CONTRACTOR AND HAVE THE AUTHORITY TO ACT FOR THE GENERAL CONTRACTOR AND SUPERVISE ALL CONSTRUCTION ACTIVITIES. THE FIELD REPRESENTATIVE SHALL BE AVAILABLE WHEN CONSTRUCTION ACTIVITIES BEGIN. THE FIELD REPRESENTATIVE SHALL BE THE PRIMARY POINT OF CONTACT FOR MOTOROLA DURING THE CONSTRUCTION PHASE OF THE WORK.

1.7. PROJECT MEETINGS

THE GENERAL CONTRACTOR SHALL CONDUCT THE INITIAL (PRE–CONSTRUCTION) MEETING (INCLUDING ALL SUB–CONTRACTORS) WITH THE MOTOROLA REPRESENTATIVE WITHIN TWO WEEKS AFTER AWARD OF THE CONTRACT. SUBSEQUENTLY, THE GENERAL CONTRACTOR SHALL PROVIDE PROGRESS SCHEDULE UPDATES TO MOTOROLA ON A WEEKLY BASIS. THE SCHEDULE SHALL BE IN MS PROJECT OR OTHER FORMAT AGREED UPON WITH MOTOROLA.

1.8. MATERIALS

GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AS REQUIRED FOR COMPLETE SYSTEMS INCLUDING: ALL PARTS OBVIOUSLY OR REASONABLY INCIDENTAL TO A COMPLETE INSTALLATION, WHETHER SPECIFICALLY INDICATED OR NOT. ALL SYSTEMS SHALL BE COMPLETELY ASSEMBLED, TESTED, ADJUSTED, AND DEMONSTRATED TO BE READY FOR OPERATION PRIOR TO MOTOROLA'S ACCEPTANCE.

MATERIALS AND WORKMANSHIP SHALL BE THE BEST OF THEIR RESPECTIVE KINDS (AS DEFINED BY INDUSTRY STANDARDS), FREE OF DEFECTS, AND ALL MATERIALS SHALL BE PROPOSED AND UNUSED IN ALL CASES, UNLESS OTHERWISE SPECIFIED. WHERE THE NAME OF A CONCERN OR MANUFACTURER IS MENTIONED ON DRAWINGS OR IN SPECIFICATIONS IN REFERENCE TO A REQUIRED SERVICE OR PRODUCT, AND NO QUALIFICATIONS OR SPECIFICATION OF SUCH IS INCLUDED, THEN THE MATERIAL SPECIFICATIONS, DETAILS OF MANUFACTURE, FINISH, ETC., SHALL BE IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICE, DIRECTION, OR SPECIFICATIONS. THE GENERAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCE TAKE PRECEDENCE.

1.9. VERIFICATION OF EXISTING CONDITIONS

BEFORE STARTING ANY OPERATION, THE GENERAL CONTRACTOR SHALL EXAMINE EXISTING WORK, OR WORK PERFORMED BY OTHERS, TO WHICH ITS WORK IS TO ADJOIN OR BE APPLIED AND SHALL REPORT IN WRITING TO THE MOTOROLA PROJECT MANAGER ANY CONDITIONS THAT WILL PREVENT SATISFACTORY ACCOMPLISHMENT OF HIS WORK. PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE GENERAL CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF ALL SURVEY DATA AS INDICATED IN THE PLANS AND SPECIFICATIONS AND/OR AS PROVIDED BY MOTOROLA. SHOULD THE GENERAL CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS, OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE MOTOROLA REPRESENTATIVE IN WRITING SO THAT PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED. FAILURE TO NOTIFY THE MOTOROLA REPRESENTATIVE IN WRITING OF DEFICIENCIES, ERRORS, OR FAULTS PRIOR TO COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE THEREOF AND WAIVER OF ANY CLAIMS OF UNSUITABILITY, ERRORS, OMISSIONS, OR INACCURACIES.

THE GENERAL CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE GENERAL CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY. THE GENERAL CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PRESERVING ALL ESTABLISHED SURVEY CONTROL POINTS. IF THE GENERAL CONTRACTOR OR ANY OF HIS SUB–GENERAL CONTRACTORS MOVE OR DESTROY ANY SURVEY CONTROL POINTS, THE COST INCURRED BY THE LAND OWNER OR MOTOROLA TO REESTABLISH THEM WILL BE BORNE BY THE GENERAL CONTRACTOR.

1.10. PERMITS

THE GENERAL CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDER OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. THE GENERAL CONTRACTOR SHALL MEET ALL OF THE REGULATORY REQUIREMENTS OF THE JURISDICTION GOVERNING CONSTRUCTION.

1.11 SITE INSPECTION

THE GENERAL CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR ARRANGING WITH MOTOROLA FOR AN INSPECTION PRIOR TO COVERING UP ALL WORK THAT WILL BE COVERED IN FINISHED CONDITION. IT IS THE SITE GENERAL CONTRACTOR'S RESPONSIBILITY TO MANAGE THE SEQUENCE OF WORK AND REQUEST THE INSPECTIONS IN A TIMELY MANNER. THE SITE GENERAL CONTRACTOR SHALL NOT REQUEST AN INSPECTION UNLESS ALL OF THE RELATED WORK AS BEEN COMPLETED. WORK SHALL NOT PROCEED TO THE NEXT STEP UNTIL THE PREVIOUS STEP HAS BEEN INSPECTED AND APPROVED BY THE LOCAL INSPECTORS AND THE MOTOROLA REPRESENTATIVE. THE PRESENCE OF THE OWNER OR MOTOROLA REPRESENTATIVE ON THE JOB SITE IN NO WAY RELIEVES THE SITE GENERAL CONTRACTOR OF THE ASSOCIATED RESPONSIBILITIES OF THE JOB. ANY WORK WHICH DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS WILL BE CORRECTED OR REMOVED SOLELY AT THE SITE GENERAL CONTRACTOR'S EXPENSE.

THE FOLLOWING INFORMATION IS INCLUDED AS A GUIDE TO THE GENERAL CONTRACTOR TO ASSIST IN DETERMINING THE TYPE AND FREQUENCY OF INSPECTIONS. THE LISTED INSPECTIONS REPRESENT THOSE REQUIRED FOR SMALL OR SIMPLE PROJECTS. LARGE OR COMPLEX PROJECTS MAY REQUIRE ADDITIONAL INSPECTIONS DEPENDING ON THE SEQUENCE OF WORK.

- FOUNDATION EXCAVATIONS AND REBAR: TO BE MADE AFTER TRENCHES ARE EXCAVATED AND FORMS ERECTED, REINFORCEMENT PLACED, COMPACTION TESTED, SOIL TREATED, VAPOR BARRIER PLACED, AND ESSENTIALLY READY FOR CONCRETE PLACEMENT.
- GROUNDING: TO BE MADE AFTER THE BELOW GROUND CADWELD CONNECTIONS HAVE BEEN COMPLETED, PRIOR TO COVERING UP THE TRENCHES.
- ELECTRICAL WORK WITHIN WALLS: TO BE MADE AFTER THE ROOF, FRAMING, FIRE BLOCKING, AND BRACING IS IN PLACE PRIOR TO THE INSTALLATION OF INSULATION OR WALL/CEILING MEMBRANES.

AS A GENERAL RULE, THE GENERAL CONTRACTOR SHALL PROVIDE ADVANCE NOTICE TO MOTOROLA FOR INSPECTION OF ALL WORK PRIOR TO CONCEALMENT. THE GENERAL CONTRACTOR HAS RESPONSIBILITIES RELATIVE TO ALL TYPES OF INSPECTIONS AND IS RESPONSIBLE FOR CONTACTING ALL OF THE INSPECTING ENTITIES TO DETERMINE HIS RESPONSIBILITIES. ALL OF THESE INSPECTING ENTITIES HAVE UNIQUE AND SEPARATE RESPONSIBILITIES. ONE INSPECTION FROM AN ENTITY WILL NOT SUBSTITUTE FOR AN INSPECTION FROM ANOTHER ENTITY.

1.12 SAFETY

THE GENERAL CONTRACTOR, HIS EMPLOYEES, ANY SUB–GENERAL CONTRACTORS, VENDORS, THEIR RESPECTIVE EMPLOYEES, AND GENERAL CONTRACTOR'S VISITORS SHALL COMPLY WITH ALL SAFETY STANDARDS, ACCIDENT PREVENTION REGULATIONS, AND ENVIRONMENTAL REGULATIONS PROMULGATED BY FEDERAL, STATE, OR LOCAL AUTHORITIES HAVING JURISDICTION AND SHALL AT ALL TIMES CONDUCT ALL OPERATIONS UNDER THE CONTRACT IN A MANNER TO AVOID THE RISK OF BODILY HARM TO ANY PERSONS AND THE RISK OF DAMAGE TO ANY PROPERTY, EQUIPMENT, OR MATERIAL. SUCH PARTIES SHALL ALSO COMPLY WITH ANY SAFETY PROGRAMS AND/OR RULES PROMULGATED BY OWNER AND/OR MOTOROLA.

1.13 ELECTRO MAGNETIC EMISSIONS

THE GENERAL CONTRACTOR SHALL ACKNOWLEDGE ALL OR PORTIONS OF THE WORK MAY INVOLVE POSSIBLE EXPOSURE OF GENERAL CONTRACTOR, SUB–GENERAL CONTRACTORS AND THEIR RESPECTIVE EMPLOYEES, AGENTS, INVITEES, LICENSEES, AND OTHER VISITORS TO THE JOBSITE AND/OR MOTOROLA PREMISES TO ELECTRO–MAGNETIC ENERGY (–EME–) WHILE PERFORMING WORK UNDER THIS CONTRACT, ESPECIALLY IF WORK IS PERFORMED ON EXISTING ANTENNA TOWERS WHERE ANTENNAS ARE LOCATED. THE GENERAL CONTRACTOR REPRESENTS THAT GENERAL CONTRACTOR, SUB–GENERAL CONTRACTORS, AND ALL OF THEIR RESPECTIVE EMPLOYEES, AGENTS, INVITEES, LICENSEES, AND OTHER AUTHORIZED REPRESENTATIVES WHO ARE PERFORMING SERVICES UNDER THIS AGREEMENT WILL COMPLY WITH ALL ANSI AND ANY OTHER APPLICABLE EME STANDARDS, RULES, OR REGULATIONS, INCLUDING, BUT NOT LIMITED TO, THOSE RULES OR REGULATIONS IMPOSED OR SUGGESTED BY MOTOROLA, IF ANY.

THE GENERAL CONTRACTOR SHALL ADHERE TO ALL OSHA RULES, REGULATIONS, AND ADOPTED POLICIES. ALL GENERAL CONTRACTOR PERSONNEL SHALL HAVE UNDERGONE ELECTROMAGNETIC ENERGY (EME) TRAINING FOR PERSONNEL WORKING IN THE VICINITY OF ACTIVE ANTENNAS. AS SUCH, IT IS RECOMMENDED THAT RF MONITORS BE USED BY THE TOWER PERSONNEL TO MONITOR EXPOSURE LEVELS. IF EME LEVELS AT THE SITE EXCEED THE MAXIMUM PERMISSIBLE EXPOSURE LIMITS, THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE INDIVIDUALS RESPONSIBLE FOR USE OF THE TRANSMITTER TO MAKE SURE THAT THE EQUIPMENT IS DEACTIVATED BEFORE WORK CAN BE RESUMED, WITHOUT CAUSING A SERIOUS DISRUPTION OF THE SERVICE.

1.14 SITE CLEANUP

THE GENERAL CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE AT ALL TIMES DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, VEGETATION, AND RUBBISH, AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. WHENEVER THE WORKSITE IS LEFT UNATTENDED, THE GENERAL CONTRACTOR SHALL BLOCK THE OPENING WITH WARNING TAPE TO DISCOURAGE TRESPASSING. THE PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE AT THE CONCLUSION OF SITE WORK.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LANDSCAPE GRADING AND SEEDING OF THE DISTURBED SOIL. THE GENERAL CONTRACTOR SHALL USE LOCAL GRASS SEED TO STABILIZE SOIL AND SHALL COVER DISTURBED AREAS WITH HAY MULCH TO REDUCE RUNOFF OF SEDIMENT TO DOWNSTREAM AREAS. THE GENERAL CONTRACTOR SHALL RESTORE THE SITE TO ITS ORIGINAL CONDITION. ALL SLOPES AND DISTURBED AREAS NOT RECEIVING AGGREGATE SURFACING ARE TO BE PREPARED AND BROADCAST SEEDDED AND FERTILIZED FOR EROSION PROTECTION. SEEDING FOR AREAS DISTURBED SHALL BE ESTABLISHED SEASONALLY AS REQUIRED BY LOCAL CODES.

THE GENERAL CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE OR INTERRUPTION OF EXISTING UNDERGROUND OR OVERHEAD ELECTRIC SERVICES, UNDERGROUND GROUNDING AND FUEL LINES, EQUIPMENT, AND BUILDINGS ON THE SITE, PLUS OFF SITE SERVICES, BURIED OR OVERHEAD, SURROUNDING THE EXISTING OR EXPANDED COMPOUND. ANY PROPERTY DAMAGE CAUSED BY THE GENERAL CONTRACTOR OR HIS OPERATIONS SHALL BE CORRECTED AND/OR RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER(S) AND MOTOROLA AT NO ADDITIONAL COST TO THE PROPERTY OWNER OR MOTOROLA. BURNING WILL NOT BE PERMITTED.

1.15 FACILITY STARTUP & COMMISSIONING

THE GENERAL CONTRACTOR AND/OR SUB–GENERAL CONTRACTORS SHALL DEMONSTRATE TO MOTOROLA THAT ALL SYSTEMS AND SUB–SYSTEMS INSTALLED UNDER THIS CONTRACT OPERATE PROPERLY PRIOR TO THE FINAL ACCEPTANCE INSPECTION AND PROVIDE THE OPERATIONS AND MAINTENANCE MANUALS AT THIS TIME.

1.16 SHOP DRAWINGS/AS–BUILT DRAWINGS

THE MODIFICATIONS TO THE DRAWINGS AFTER CONSTRUCTION START SHALL RECEIVE ENGINEERING AND MOTOROLA APPROVAL PRIOR TO ANY CHANGES BEING MADE. THE ENGINEER OF RECORD SHALL MAKE THE REQUIRED CHANGE AND WILL SUBMIT CHANGES TO MOTOROLA AND ANY JURISDICTION HAVING AUTHORITY.

THE GENERAL CONTRACTOR SHALL KEEP UP–TO–DATE MARKED–UP PRINTS OF THE PROJECT DRAWINGS. UPON COMPLETION OF WORK AT THE SITE, THE GENERAL CONTRACTOR SHALL REVIEW THE COMPLETED AS–BUILT DRAWINGS AND ASCERTAIN THAT ALL DATA FURNISHED ON THE DRAWINGS IS ACCURATE AND TRULY REPRESENTS THE WORK THAT IS ACTUALLY INSTALLED. MARKINGS INDICATING CHANGES TO THE DRAWINGS SHALL BE RED OR GREEN AND CLEARLY VISIBLE. TWO (2) SETS OF AS–BUILT DRAWINGS SHALL BE FURNISHED TO THE MOTOROLA REPRESENTATIVE WITHIN 5 DAYS OF THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL ALSO SHOW THE FOLLOWING:

- MODIFICATIONS TO SITE LAYOUT.
- GROUNDING SYSTEM LAYOUT
- UNDERGROUND FUEL LINE RUN.
- UNDERGROUND TELCO CABLE RUN.
- UNDERGROUND ELECTRICAL RUN.

WHERE THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE SITE EQUIPMENT SHELTER, ISOLATION TRANSFORMER, GENERATOR, ETC., THAT REQUIRES PERIODIC MAINTENANCE, THE GENERAL CONTRACTOR SHALL INCLUDE ALL OPERATION AND MAINTENANCE MANUALS AND ALL AS–BUILT DRAWINGS WHICH FULLY DESCRIBE THE ACTUAL INSTALLED EQUIPMENT.

ENGINEERING FIRM



APPLICANT



SITE INFORMATION

SC ADMIN BLDG
259 COUNTY FARM ROAD
DOVER, NH 03820
CITY OF DOVER
STRAFFORD COUNTY

DESIGN RECORD

REVISIONS			
0	08/26/22	REVISED PER COMMENTS	CSG
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PROFESSIONAL STAMP



ENGINEER

DANIEL J. CORNING, P.E.
NH PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

GENERAL
NOTES I

SHEET NUMBER

GN-1

1.17. TEST PROCEDURES AND RESULTS

GENERAL CONTRACTOR WILL CONTRACT WITH A THIRD PARTY "INDEPENDENT" TESTING FIRM TO PERFORM & SUBMIT THE RESULTS OF ALL TESTS REQUIRED BY THE PROJECT SPECIFICATIONS AND DRAWINGS THAT FALL WITHIN THE SCOPE OF WORK. THESE RESULTS SHALL BE SUBMITTED TO THE DESIGNATED MOTOROLA REPRESENTATIVE. IN GENERAL, THE "INDEPENDENT" TESTING FIRM SHALL SUBMIT THE FOLLOWING TEST RESULTS:

- MIX DESIGN/CONCRETE COMPRESSION TEST FOR ALL CONCRETE WORK.
- TIME DOMAIN REFLECTOMETER (TDR) WITH PRECISION LOAD / SWEEP TEST FOR ANTENNA AND TRANSMISSION LINE INSTALLATION WORK.
- FUEL LINE LEAKAGE TEST FOR FUEL TANK AND PIPING INSTALLATION WORK.
- SLUMP TEST FOR CONCRETE WORK.
- GROUNDING RESISTANCE TEST FOR GROUNDING WORK.
- STRUCTURAL STEEL FABRICATION DRAWINGS.
- ANY OTHER TEST THAT MAY BE REQUIRED.

1.18. CONTRACT CLOSEOUT

GENERAL CONTRACTOR SHALL REFERENCE CHECKLIST PROVIDED BY MOTOROLA AND ENSURE ALL ITEMS HAVE BEEN COMPLETED IN A SATISFACTORY MANNER PRIOR TO INITIATING CONTRACT CLOSEOUT. IN ACCORDANCE WITH MOTOROLA'S SUBCONTRACT AGREEMENT TERMS AND CONDITIONS, THE MOTOROLA REPRESENTATIVE WILL PROVIDE A CERTIFICATE OF COMPLETION AND APPROVE FINAL PAYMENT WHEN ALL PUNCH-LIST ITEMS HAVE BEEN CORRECTED, RECORD DRAWINGS SUBMITTED, AND ALL SYSTEMS ARE ACCEPTABLE. THE GENERAL CONTRACTOR MUST ALSO RECEIVE A CERTIFICATE OF COMPLETION FROM THE MUNICIPALITY. AFTER FINAL PAYMENT, GENERAL CONTRACTOR WILL SIGN A RELEASE OF LIEN.

1.19. WARRANTY

ALL WORK PERFORMED BY THE GENERAL CONTRACTOR IN COMPLETING THE SCOPE IDENTIFIED ON THE DRAWINGS SHALL BE GUARANTEED BY THE GENERAL CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL COMPLETION OF THE PROJECT. THIS GUARANTEE SHALL COVER ALL MATERIALS, EQUIPMENT, OR WORKMANSHIP WHICH, IN THE OPINION OF MOTOROLA, IS RENDERED DEFECTIVE, INFERIOR, OR NOT IN ACCORDANCE WITH THE TERMS OF THE CONTRACT DURING THE GUARANTEE PERIOD. IF, WITHIN THE GUARANTEE PERIOD, REPAIRS OR CHANGES ARE REQUIRED TO CORRECT THE GUARANTEE WORK, THEN UPON RECEIPT OF NOTICE, THE GENERAL CONTRACTOR SHALL PROMPTLY AND WITHOUT EXPENSE TO MOTOROLA OR THE OWNER, PROCEED TO:

- PLACE IN SATISFACTORY CONDITION ALL OF SUCH GUARANTEED WORK AND CORRECT ALL DEFECTS THEREIN.
- MAKE GOOD ALL DAMAGES TO THE STRUCTURE, SITE, EQUIPMENT, OR CONTENTS THEREOF, WHICH, IN THE OPINION OF MOTOROLA, IS THE RESULT OF THE USE OF MATERIALS, EQUIPMENT, OR WORKMANSHIP WHICH ARE INFERIOR, DEFECTIVE, OR NOT IN ACCORDANCE WITH THE TERMS OF THE CONTRACT;
- MAKE GOOD ANY WORK, MATERIALS, OR EQUIPMENT AND ADJACENT STRUCTURES DISTURBED IN FULFILLING THE GUARANTEE.

1.1. RELATED DOCUMENTS

GENERAL CONTRACTOR SHALL BECOME FAMILIAR WITH THE INFORMATION AND REQUIREMENTS CONTAINED IN THE FOLLOWING DOCUMENTS RELATED TO THE PROJECT:

A.R56 STANDARDS AND GUIDELINES FOR COMMUNICATIONS SITES BY MOTOROLA. ALL WORK SHALL COMPLY WITH R56 STANDARDS AND GUIDELINES UNLESS A MORE STRINGENT REQUIREMENT EXISTS. (i.e. LOCAL CODE, ETC.)

B.TOWER AND TOWER FOUNDATION DRAWINGS BY THE MANUFACTURER.

C.ALL OTHER PERTINENT DOCUMENTS.

STRUCTURAL NOTES

- THE STRUCTURAL STEEL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANCHOR BOLT LOCATIONS, ELEVATION OF TOP OF CONCRETE AND BEARING PLATES, ALIGNMENT ETC. PRIOR TO START OF STEEL ERECTION.
- THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS SHALL GOVERN:
 - AISC – "ALLOWABLE STRESS DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
 - AISC – "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
 - AWS – "D1.1 STRUCTURAL WELDING CODE – STEEL".
- MATERIAL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

STRUCTURAL WIDE FLANGE & M SHAPES	A992 OR A572 FY = 50KSI
OTHER STRUCTURAL SHAPES AND PLATES	A36, FY = 36 KSI
STRUCTURAL TUBING	A500, GRADE B FY = 46 KSI
HIGH STRENGTH BOLTS	A325
THREADED RODS	A354, GRADE BC
ANCHOR BOLTS	A325 OR A354 BC
PIPE (HANDRAIL)	SCH 40 PIPE

- ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED PROVIDE CONTINUOUS MINIMUM SIZED FILLET WELDS PER AISC REQUIREMENTS.
- HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED. ALL HOLES IN BEARING PLATES SHALL BE DRILLED.
- ALL STEEL TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123.
- EPOXY ANCHORS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- ALL BOLTS SHALL BE TIGHTENED USING TURN-OF-THE-NUT METHOD PER AISC SPECIFICATIONS USING STANDARD HOLES.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FIT PRIOR TO FABRICATION.

CONCRETE GENERAL NOTES

- ALL CONCRETE WORK SHALL CONFORM TO ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND TO THE PROJECT SPECIFICATIONS.
- ALL CONCRETE IS TO BE NORMAL DENSITY CONCRETE WITH A MAXIMUM SLUMP OF 4 INCHES. MAXIMUM AGGREGATE SIZE 3/4 INCH. NO ADDITIONAL WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
- PROVIDE AIR ENTRAINMENT OF 4 TO 6 PERCENT IN ALL EXPOSED CONCRETE WORK WITH AIR-ENTRAINING ADMIXTURE COMPLYING WITH ASTM C 260. AT TROWEL-FINISHED FLOORS, DO NOT EXCEED AIR-ENTRAINMENT CONTENT OF 3 PERCENT.
- NO HOLES OR SLEEVES SHALL BE MADE THROUGH CONCRETE WORK OTHER THAN THOSE INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- ALL FORMWORK OFFSET TOLERANCES (PER ACI 117) TO BE CLASS A.

- FLOOR SLAB TOLERANCES TO ASTM E1155; SPECIFIED OVERALL MINIMUM VALUE OF FLATNESS F F=25 WITH LOCAL MINIMUM F F=17, AND MINIMUM VALUE OF LEVELNESS F F=20 WITH LOCAL MINIMUM F I AND F F WITHIN 72 HOURS OF SLAB CONSTRUCTION.
- CABINETS ON SLAB (IF APPLICABLE). ALLOWABLE CAPACITY OF CONCRETE USED IN DESIGN MIN. 3000 PSI.
- WHERE APPLICABLE, CONCRETE AND FOUNDATION REQUIREMENTS NEED TO BE CONSISTENT BETWEEN TOWER, SHELTER, GENERATOR, ETC.

FOUNDATION NOTES:

- DESIGN INFORMATION AND GENERAL REQUIREMENTS

1.1 CODES

A. DESIGN CONFORMS TO INTERNATIONAL BUILDING CODE 2015.

B. AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-14.

2. EARTHWORK

2.1 FOUNDATIONS

A. FOUNDATIONS HAVE BEEN DESIGNED TO BEAR ON (UNDISTURBED RESIDUAL SOILS/COMPACTED STRUCTURAL FILL), CAPABLE OF SAFELY SUPPORTING A NET ALLOWABLE BEARING PRESSURE OF 2000 PSF. IF FOUNDATION CONDITIONS PROVE UNACCEPTABLE AT ELEVATIONS SHOWN, EXCAVATION SHALL BE CARRIED DEEPER AND SHALL BE BACKFILLED WITH LEAN CONCRETE TO PLAN FOOTING BOTTOM, OR REDESIGN OF FOUNDATIONS WILL BE REQUIRED AT THE DIRECTION OF THE ENGINEER.

B. DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND DRAINAGE NECESSARY TO MAINTAIN THE EXCAVATION AND PROTECT SURROUNDING STRUCTURES AND UTILITIES.

C. THOROUGHLY COMPACT ALL BOTTOM OF FOOTINGS PRIOR TO PLACING ANY CONCRETE.

3. CONCRETE

3.1 FORMWORK

A. CONCRETE CONSTRUCTION SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL, CONCRETE FOR BUILDINGS," (ACI 301-89).

B. FORMWORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS."

3.2 REINFORCEMENT

A. REINFORCING STEEL ASTM A615, GRADE 60. WELDED WIRE ASTM A185 (FLAT SHEET). LAPS 40 BAR DIAMETERS UNLESS NOTED. BARS SHALL BE SECURELY HELD IN ACCURATE POSITION BY SUITABLE ACCESSORIES, TIE BARS, SUPPORT BARS, ETC. HOOK LENGTHS SHALL BE 12 BAR DIAMETERS.

B. CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED.

FOOTINGS & SLABS CAST AGAINST GROUND	3"
CONCRETE TO BE IN CONTACT WITH GROUND OR WEATHER AT BARS GREATER THAN #5	2"
AT BARS #5 OR LESS	1-1/2"
CONCRETE NOT TO BE EXPOSED TO GROUND OR WEATHER	1-1/2"
BEAMS, GIRDERS & COLUMNS	1-1/2"
SLABS & WALLS	3/4"

3.3 CAST-IN-PLACE-CONCRETE

A. MINIMUM 28 DAY CYLINDER STRENGTH AND MAXIMUM SLUMP, PRIOR TO ADDITION OF SUPER PLASTICIZERS, AS FOLLOWS:

	F'C (PSI)	SLUMP
CLASS I FOOTINGS	3000	3"
CLASS II FOOTINGS	3000	3"
CLASS III INTERIOR ELEVATED SLABS & WALLS	3000	4"
CLASS V OTHER WORK	3000	4"
CLASS VI LEAN CONCRETE FOR OVER EXCAVATION OF FOUNDATIONS	2000	N/A

B. MIX DESIGN TO BE IN ACCORDANCE WITH ACI 318, CHAPTER 5. NO CALCIUM CHLORIDE OR ADMIXTURE CONTAINING CHLORIDES SHALL BE USED IN ANY CONCRETE.

C. COARSE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 SIZE #57. COARSE AGGREGATE FOR LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C330 GRADED 3/4" TO 1/4".

D. COLD WEATHER PLACEMENT SHALL COMPLY WITH ACI 306.1

E. HOT WEATHER PLACEMENT SHALL COMPLY WITH ACI 305 R.

F. CHAMFER ALL EXPOSED EDGES 3/4".

G. THE MAXIMUM TEMPERATURE OF ALL CONCRETE AT DELIVERY TO THE SITE SHALL BE 85°F, TOTAL DELIVERY TIME SHALL BE LESS THEN 75 MINUTES.

SYMBOLS LEGEND

	REVISION		DETAIL REFERENCE
	KEY NOTE		ELEVATION REFERENCE
	ROOM NUMBER		SECTION REFERENCE
	KEYED NOTE		

UTILITY ABBREVIATIONS AND SYMBOLS LEGEND

ACH1 – AIR CONDITIONER/HEATER #1	LE – LIGHT EXTERIOR	WW4 – WIREWAY, 4 x 4 SQ.
ACH2 – AIR CONDITIONER/HEATER #2	LED – LIGHT FLUORESCENT	UPSTP1 – POWER PANEL #1 (TECH)
ACH3 – AIR CONDITIONER/HEATER #3	LM – LIGHT EMERGENCY	– RCPT., DUPLEX
ATS1 – AUTOMATIC XFER SW #1 (GEN 5611)	LTA – LOW TEMPERATURE ALARM(SET @ 50°)	– JUNCTION BOX, 4 X 4
ATS2 – AUTOMATIC XFER SW #2 (EXISTING GEN)	LV2 – LOUVER, INTAKE	– JUNCTION BOX, 2 X 4
OE – CUSTOMER INSTALLED EQUIPMENT	MGB – MAIN GROUND BAR	– REF PART LIST ITEM NUMBER
CPE – CUSTOMER FURNISHED EQUIPMENT	MTS – MANUAL TRANSFER SWITCH	– REF DWG NOTE
CL – CABLE LADDER	PC – PHOTOCELL	
CLH – CABLE LADDER HANGER	PFA – POWER FAIL ALARM (K1)	
CTF – CUT TO FIT	PL – PLACES	
DA – DOOR ALARM	PP1 – POWER PANEL #1 (UTILITY)	
EB – EXIT BUTTON (SECURITY)	RCPT – RECEPTACLE	
EOB1 – ENCLOSED CIRCUIT BREAKER (LA1)	REF – REFERENCE	
EW – EYE WASH	RK – RACK (EQUIPMENT)	
FE1,2 – FIRE EXTINGUISHER	SD1 – SAFETY DISCONNECT (MAIN)	
FL1-3 – EXTERIOR FLOOD LIGHTS 1-3	T1 – THERMOSTAT #1 (LEAD/LAG)(SET @ 72°)	
FN – FAN (EXHAUST)	T2 – THERMOSTAT #2 (FAN CONTROL)	
GBA – GROUND BAR ALARM	TB1,2,3 – TERMINAL BOARD	
GNR – GENERATOR RECEPTACLE,200A,4P	TR1 – TIMER #1, INTERIOR LIGHTS 'A'	
HD – HEAT DETECTOR	TR2 – TIMER #2, INTERIOR LIGHTS 'B'	
HTA – HIGH TEMPERATURE ALARM(SET @ 85°)	TRPZ – TRAPEZEE ASSY, 4 TIER, 30"	
K1 – RELAY (PFA)	TYP – TYPICAL	
LA1 – LIGHTNING ARRESTOR MOV	WGE – WAVEGUIDE ENTRY	
LA2 – LIGHTNING ARRESTOR MOV/SAD	WR – RCPT., WEATHER RESISTANT	

ABBREVIATIONS AND SYMBOLS

A/C	AIR CONDITIONING	N	NORTH
ADJ	ADJUSTABLE	N/A	NOT APPLICABLE
AFF	ABOVE FINISH FLOOR	NIC	NOT IN CONTRACT
APPROX	APPROXIMATELY	NTS	NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	O/C,O.C.	ON CENTER
AWG	AMERICAN WIRE GAUGE	OD	OUTSIDE DIAMETER
		OPG	OPENING
		OPP	OPPOSITE
BLDG	BUILDING		
BLK	BLOCK	PLYWD	PLYWOOD
BMR	BASE MOBILE RADIO	PR	PAIR
B/S	BUILDING STANDARD	PROJ	PROJECT
		PROP	PROPERTY
CLG	CEILING	PT	PRESSURE TREATED
CLR	CLEAR		
CND,C	CONDUIT	REQ'D	REQUIRED
CONC	CONCRETE	RM	ROOM
CONST	CONSTRUCTION	RO	ROUGH OPENING
CONT	CONTINUOUS		
		S	SOUTH
DBL	DOUBLE	SHT	SHEET
DIA,Ø	DIAMETER	SIM	SIMILAR
DIAG	DIAGONAL	SPEC	SPECIFICATION
DIM	DIMENSION	SQ	SQUARE
DN	DOWN	SS	STAINLESS STEEL
DTL,DETL	DETAIL	STL	STEEL
DWG	DRAWING	STRUCT	STRUCTURAL
		SUSP	SUSPENDED
E	EAST	SV	SHEET VINYL
EA	EACH		
EL,ELEV	ELEVATION	THRU	THROUGH
ELECT	ELECTRICAL	TNND	TINNED
EQ	EQUAL	TOC	TOP OF CONCRETE
EQUIP	EQUIPMENT	TOM	TOP OF MASONRY
EW	EACH WAY	TYP	TYPICAL
EXIST	EXISTING		
EXT	EXTERIOR	UBC	UNIFORM BUILDING CODE
		UNO	UNLESS NOTED OTHERWISE
FIN	FINISH		
FLUOR	FLUORESCENT	VERT	VERTICAL
FLR	FLOOR	VIF	VERIFY IN FIELD
FT	FOOT	VT	VINYL TILE
		W	WEST
GALV	GAUGE	WIN	WINDOW
GC	GALVANIZE(D)	W/O	WITHOUT
GRND	GROUND	WP	WATERPROOF
GWB	GYP SUM WALL BOARD		
GYP BD	GYP SUM BOARD		
HARD'WD	HARDWOOD		
HORIZ	HORIZONTAL		
HR	HOUR		
HT	HEIGHT		
HVAC	HEATING, VENTING & AIR CONDITIONING		
		ANGLE & CENTER LINE	ANGLE AND CENTER LINE
ID	INSIDE DIA.	PROPERTY LINE	PROPERTY LINE
IN	INCH	AT	AT
INFO	INFORMATION	NUMBER	NUMBER
INSUL	INSULATION		
INT	INTERIOR		
LB(S)	POUND(S)		
MAX	MAXIMUM		
MECH	MECHANICAL		
NET,MTL	METAL		
MFR	MANUFACTURER		
MGR	MANAGER		
MIN	MINIMUM		
MISC	MISCELLANEOUS		

ENGINEERING FIRM



APPLICANT



SITE INFORMATION

SC ADMIN BLDG
259 COUNTY FARM ROAD
DOVER, NH 03820
CITY OF DOVER
STRAFFORD COUNTY

DESIGN RECORD

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PROFESSIONAL STAMP



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NH PROFESSIONAL ENGINEER LIC #53767

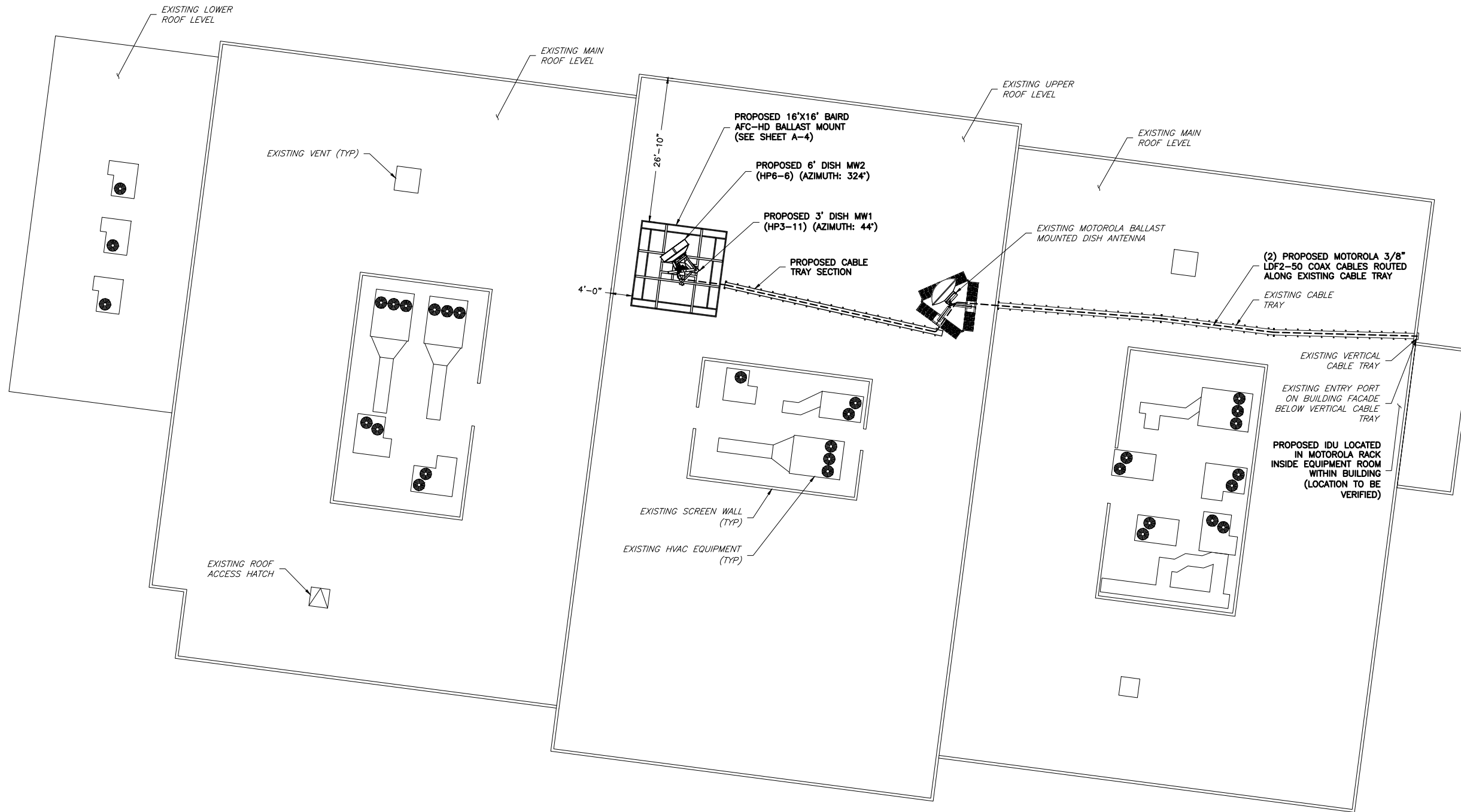
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GENERAL NOTES II

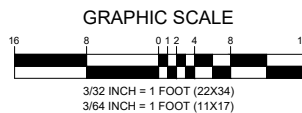
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GN-2

LAST PLOTTED: 08/26/2022 4:17 PM



1 ROOFTOP PLAN
SCALE: 3/32" = 1' (22X34)
SCALE: 3/64" = 1' (11X17)



ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
(978) 856-8308

APPLICANT



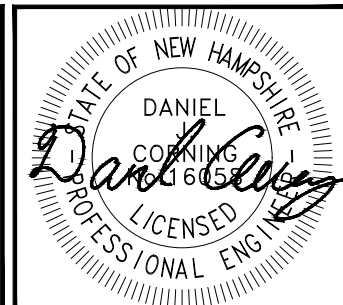
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ENGINEER

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NH PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

ROOFTOP
PLAN

SHEET NUMBER

C-1

LAST PLOTTED: 08/26/2022 4:17 PM

- TOP OF PROPOSED DISH MW2

ELEV.=66'-0" AGL
- PROPOSED DISH MW2 CENTERLINE

ELEV.=63'-0" AGL
- TOP OF PROPOSED DISH MW1

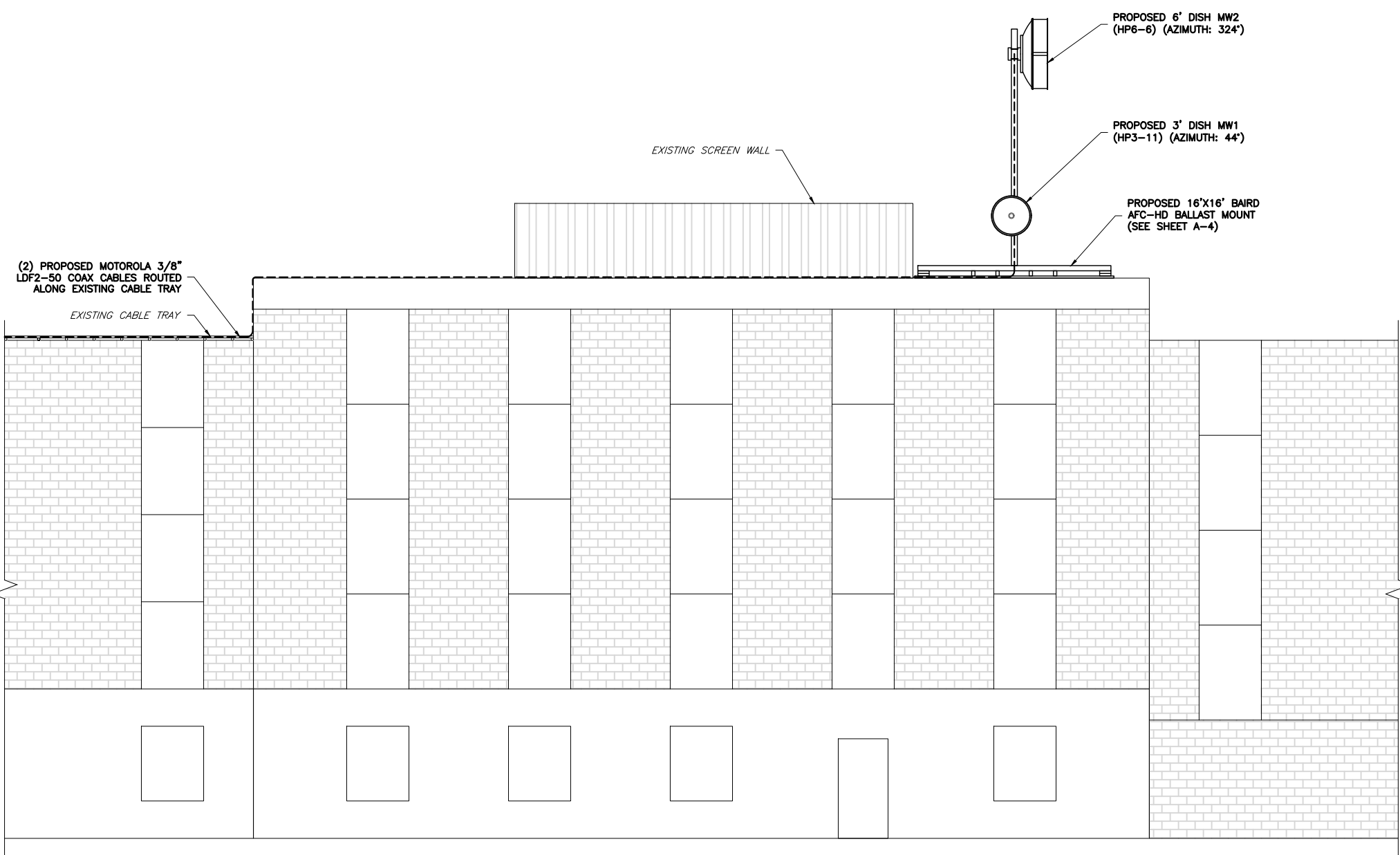
ELEV.=51'-6" AGL
- PROPOSED DISH MW1 CENTERLINE

ELEV.=50'-0" AGL
- UPPER ROOF LEVEL

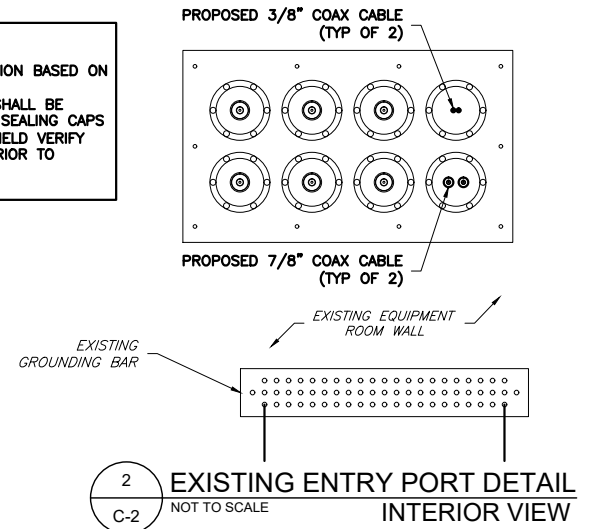
ELEV.=45'-0" AGL
- MAIN ROOF LEVEL

ELEV.=40'-0" AGL
- GROUND

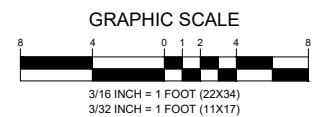
ELEV.=0'-0" AGL



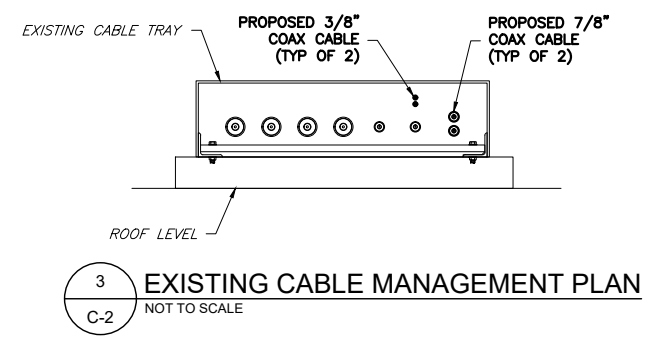
- NOTES:
- 1) CABLE PORT ORIENTATION BASED ON INTERIOR VIEW.
 - 2) ALL UNUSED PORTS SHALL BE COVERED WITH BLANK SEALING CAPS
 - 3) CONTRACTOR SHALL FIELD VERIFY CABLE PORT SPACE PRIOR TO CONSTRUCTION.



1 ELEVATION
C-2
SCALE: 3/16" = 1' (22X34)
SCALE: 3/32" = 1' (11X17)



- EW63
- 12/24
- 6/12
- 1-5/8"
- 1-1/4"
- 7/8"
- GPS OR CAT5
- 3/8"



ENGINEERING FIRM

NB+C

TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
(978) 856-8308

APPLICANT

MOTOROLA

SOLUTIONS

SITE INFORMATION

SC ADMIN BLDG
259 COUNTY FARM ROAD
DOVER, NH 03820
CITY OF DOVER
STRAFFORD COUNTY

DESIGN RECORD

REVISIONS			
REV	DATE	DESCRIPTION	BY
0	08/26/22	REVISED PER COMMENTS	CSG

PROFESSIONAL STAMP

STATE OF NEW HAMPSHIRE

DANIEL CORNING

PROFESSIONAL ENGINEER

6016054

ENGINEER

DANIEL J. CORNING, P.E.
NH PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

ELEVATION

SHEET NUMBER

C-2

LAST PLOTTED: 08/26/2022 4:17 PM

GENERAL ANTENNA NOTES

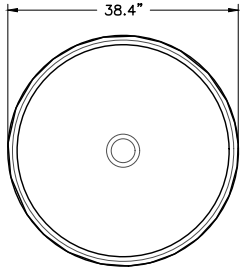
1. ALL ANTENNAS TO BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR IS TO COORDINATE AND VERIFY THE PROPOSED DOWNTILTS WITH MOTOROLA MANAGER PRIOR TO CONSTRUCTION.
2. ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO ELEVATION 0.0'. (EXISTING GRADE)
3. CHECK WITH RF ENGINEER FOR LATEST ANTENNA TYPE & AZIMUTH.
4. CONTRACTOR SHALL VERIFY ANTENNA TYPE AND AZIMUTH WITH CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
5. ALL CABLE LENGTHS ARE ESTIMATED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
6. COLOR TAPE MARKINGS MUST BE 3/4" WIDE AND UV RESISTANT, SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE.
7. CONTRACTOR SHALL COORDINATE COLOR CODINGS IN THE FIELD WITH MOTOROLA REPRESENTATIVE.
8. PRIOR TO THE INSTALLATION OF THE PROPOSED EQUIPMENT OR MODIFICATION OF THE EXISTING STRUCTURE, A STRUCTURAL & MOUNT ANALYSIS SHALL BE PERFORMED TO CERTIFY THAT THE EXISTING/PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, COAXIAL CABLES AND OTHER APPURTENANCES. A CERTIFICATION LETTER/REPORT SEALED BY A REGISTERED PROFESSIONAL ENGINEER STATING THAT THIS STRUCTURAL ANALYSIS WAS PREPARED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS SHALL BE PROVIDED.

ANTENNA & TOWER APPURTENANCE SCHEDULE											
TAGS	TYPE	STATUS	TOWER LEG	MANUFACTURER	MODEL	BASE MOUNT ELEVATION	RAD CENTER	AZIMUTH	TIP HEIGHT	TARGET SITE	CABLE SIZE, LENGTH & QUANTITY
1	MW1 DISH	PROPOSED	N/A	RADIOWAVES	HP3-11	48'-5"	50'-0"	44°	51'-6"	LONG HILL	(1) 3/8" COAX (260'±)
2	MW2 DISH	PROPOSED	N/A	RADIOWAVES	HP6-6	61'-5"	63'-0"	324°	66'-0"	CHESLEY MTN	(1) 3/8" COAX (273'±)
3	IDU	PROPOSED (EQUIPMENT ROOM)	-	MICROWAVE NETWORKS	PROTEUS MX	-	-	-	-	-	-

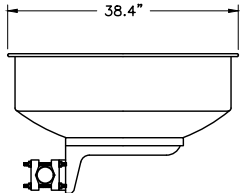
NOTES:
1. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
2. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE TO BUILD FROM THE LATEST SCOPE SHEET.

PROPOSED DISH SPECIFICATIONS					
MANUFACTURER	DISH MODEL	QUANTITY	DIAMETER	DEPTH	WEIGHT
RADIOWAVES	HP3-11	2	38.4"	16.0"	50.0 LBS
RADIOWAVES	HP6-6	1	68.5"	29.0"	251.0 LBS

PROPOSED IDU SPECIFICATIONS					
MANUFACTURER	MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
MICROWAVE NETWORKS	PROTEUS MX	7.0"	19.0"	11.5"	27.0 LBS

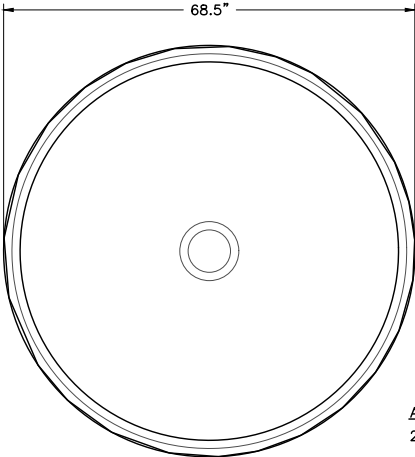


ELEVATION



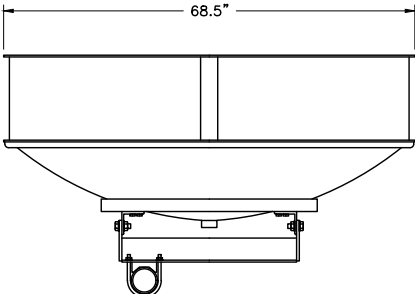
PLAN

1 HP3-11 DISH ANTENNA DETAILS
A-1 NOT TO SCALE



ANTENNA WEIGHT:
251.0 LBS

ELEVATION



PLAN

2 HP6-6 DISH ANTENNA DETAILS
A-1 NOT TO SCALE

ENGINEERING FIRM

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(978) 856-8308

APPLICANT

MOTOROLA SOLUTIONS

SITE INFORMATION

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PROFESSIONAL STAMP

STATE OF NEW HAMPSHIRE

DANIEL CORNING

6016054

LICENSED PROFESSIONAL ENGINEER

ENGINEER

DANIEL J. CORNING, P.E.
NH PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

ANTENNA & TOWER APPURTENANCE SCHEDULE & DETAILS

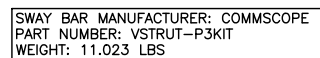
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A-1

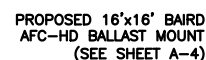
MOUNTS AS SPECIFIED ARE TO BE UTILIZED BY GENERAL CONTRACTOR (AVIAT) FOR THIS INSTALLATION. SHOULD THE GENERAL CONTRACTOR (AVIAT) WISH TO MAKE A CHANGE, THE GENERAL CONTRACTOR (AVIAT) SHALL ENSURE THAT THE PROPOSED ALTERNATIVE MOUNT BE DESIGNED AT OR ABOVE THE DESIGN CRITERIA AS SHOWN ON THIS PAGE. GENERAL CONTRACTOR (AVIAT) TO SUBMIT SHOP DRAWINGS AND CALCULATIONS OF THE PROPOSED ALTERNATIVE MOUNT TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO PLACING ANY ORDER FOR SAID MATERIAL.

1. TIE-BACK STABILIZATION RODS TO BE INSTALLED PER MANUFACTURER'S & MOTOROLA'S SPECIFICATIONS.
2. PIPE MOUNTS SHALL BE POSITIONED TO PREVENT THE ANTENNA FEED HORN ASSEMBLY FROM BEING DIRECTLY OPPOSITE A TOWER MEMBER. PIPE MOUNT POSITIONING SHOULD NOT PREVENT DIRECT WAVEGUIDE INSTALLATION TO ANY ANTENNA.
3. STIFF ARM SUPPORT PIPES SHALL ONLY BE ATTACHED TO TOWERS ON HORIZONTAL LEG-TO-LEG BRACING AND SHALL NOT BE ATTACHED TO DIAGONAL BRACING. ADDITIONAL HORIZONTAL LEG-TO-LEG SQUARE OR ROUND PIPE SHALL BE USED IN CASES IN WHICH SUITABLE ATTACHMENT POINTS DO NOT EXIST AT THE ANTENNA MOUNTING LOCATIONS.

1. (1) SWAY BAR IS REQUIRED FOR EACH MICROWAVE DISH.
2. (1) SWAY BAR IS INCLUDED WITH THE DISH.
3. MAXIMUM INSTALL ANGLE OF ± 25 DEGREES IN ALL DIRECTIONS FOR ALL SWAY BARS.



1 INNER SWAY BAR DETAIL
A-2 NOT TO SCALE



4 PROPOSED ANTENNA ORIENTATION PLAN
A-2 NOT TO SCALE



0
1
2
3
4
5
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7
8
9

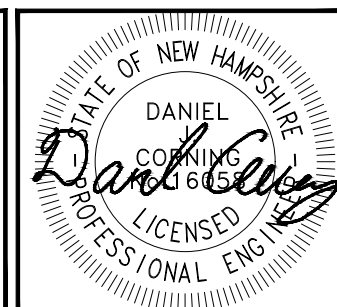
NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
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259 COUNTY FARM ROAD
DOVER, NH 03820
CITY OF DOVER
STRAFFORD COUNTY

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REV	DATE	DESCRIPTION	BY



DANIEL J. CORNING, P.E.
NH PROFESSIONAL ENGINEER LIC #53767

MW1 DISH MOUNTING DETAILS

A-2

CONSTRUCTION NOTE:

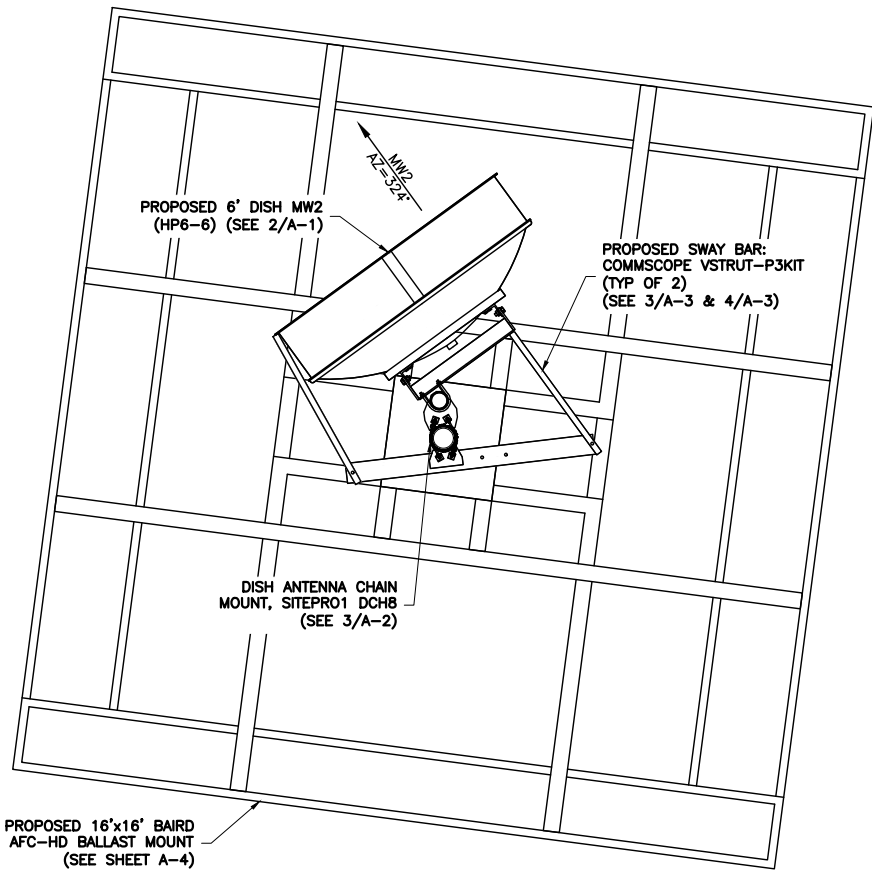
MOUNTS AS SPECIFIED ARE TO BE UTILIZED BY GENERAL CONTRACTOR (AVIAT) FOR THIS INSTALLATION. SHOULD THE GENERAL CONTRACTOR (AVIAT) WISH TO MAKE A CHANGE, THE GENERAL CONTRACTOR (AVIAT) SHALL ENSURE THAT THE PROPOSED ALTERNATIVE MOUNT BE DESIGNED AT OR ABOVE THE DESIGN CRITERIA AS SHOWN ON THIS PAGE. GENERAL CONTRACTOR (AVIAT) TO SUBMIT SHOP DRAWINGS AND CALCULATIONS OF THE PROPOSED ALTERNATIVE MOUNT TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO PLACING ANY ORDER FOR SAID MATERIAL.

NOTES:

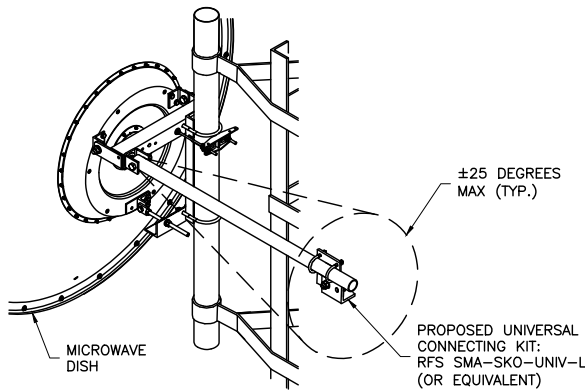
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2. PIPE MOUNTS SHALL BE POSITIONED TO PREVENT THE ANTENNA FEED HORN ASSEMBLY FROM BEING DIRECTLY OPPOSITE A TOWER MEMBER. PIPE MOUNT POSITIONING SHOULD NOT PREVENT DIRECT WAVEGUIDE INSTALLATION TO ANY ANTENNA.
3. STIFF ARM SUPPORT PIPES SHALL ONLY BE ATTACHED TO TOWERS ON HORIZONTAL LEG-TO-LEG BRACING AND SHALL NOT BE ATTACHED TO DIAGONAL BRACING. ADDITIONAL HORIZONTAL LEG-TO-LEG SQUARE OR ROUND PIPE SHALL BE USED IN CASES IN WHICH SUITABLE ATTACHMENT POINTS DO NOT EXIST AT THE ANTENNA MOUNTING LOCATIONS.

SWAY BAR NOTES:

1. (2) SWAY BARS ARE REQUIRED FOR EACH MICROWAVE DISH.
2. (1) SWAY BAR IS INCLUDED WITH THE DISH, (1) SWAY BAR IS TO BE PURCHASED SEPARATELY.
3. MAXIMUM INSTALL ANGLE OF ± 25 DEGREES IN ALL DIRECTIONS FOR ALL SWAY BARS.

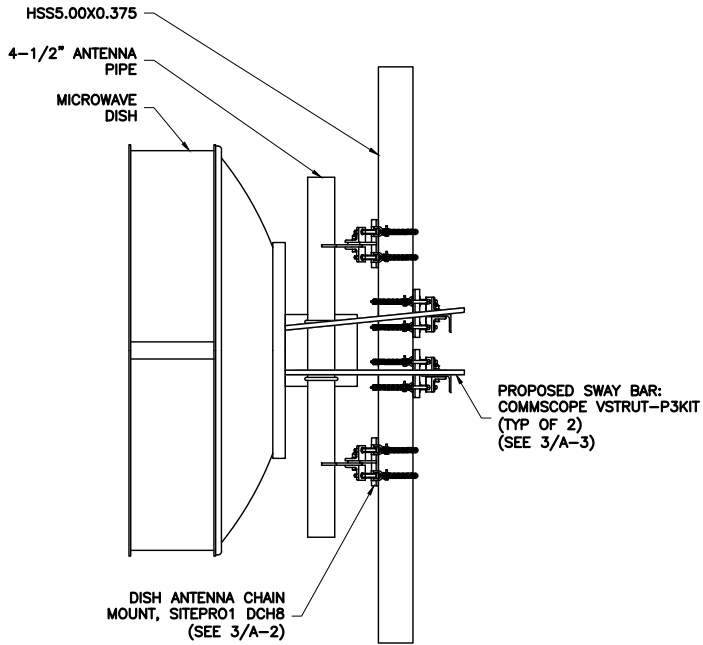


1 PROPOSED ANTENNA ORIENTATION PLAN
A-3 NOT TO SCALE

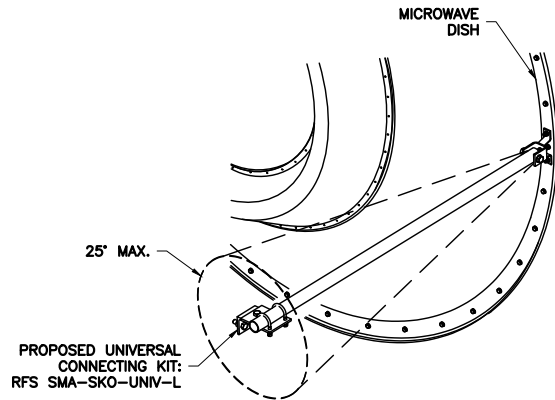


SWAY BAR MANUFACTURER: COMMScope
PART NUMBER: VSTRUT-P3KIT
WEIGHT: 11.023 LBS

3 INNER SWAY BAR DETAIL
A-3 NOT TO SCALE



2 DISH MOUNTING PLAN
A-3 NOT TO SCALE



SWAY BAR
MANUFACTURER: RFS
PART NUMBER: SMA-SK-60-2000A
WEIGHT: N/A

4 SWAY BAR DETAIL
A-3 NOT TO SCALE

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
100 APOLLO DRIVE, SUITE 303
CHELMSFORD, MA 01824
(978) 856-8308

APPLICANT

MOTOROLA
SOLUTIONS

SITE INFORMATION

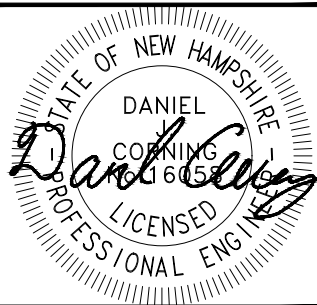
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CITY OF DOVER
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PROFESSIONAL STAMP



ENGINEER

DANIEL J. CORNING, P.E.
NH PROFESSIONAL ENGINEER LIC #53767

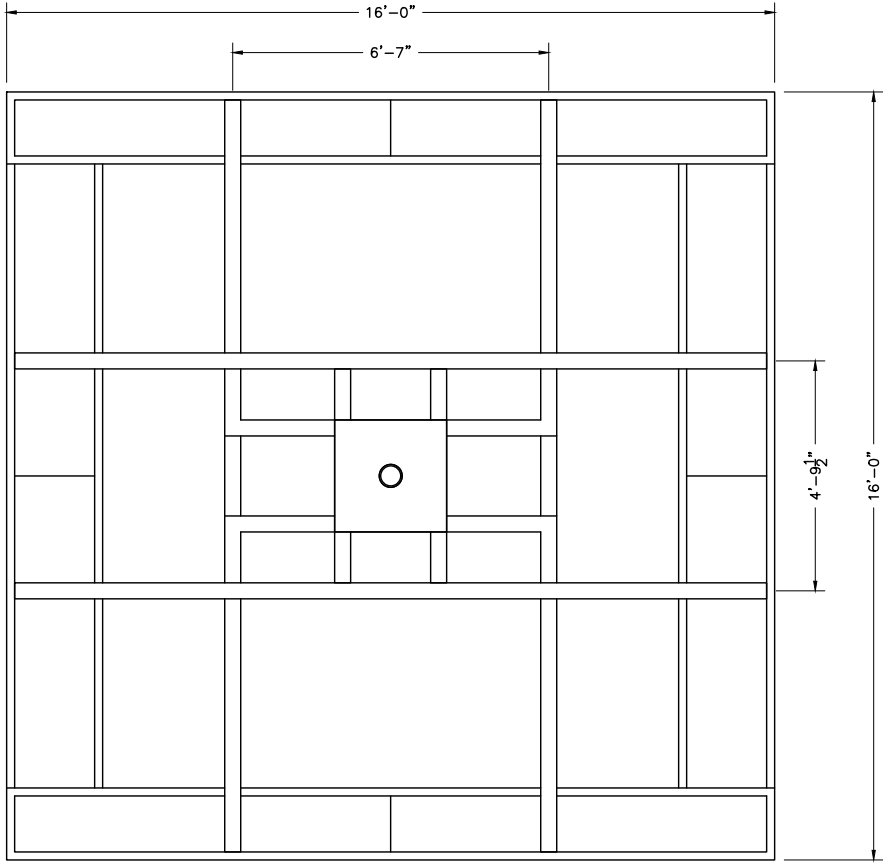
SHEET TITLE

MW2 DISH
MOUNTING
DETAILS

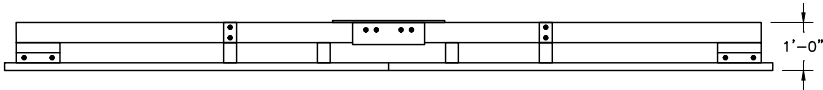
SHEET NUMBER

A-3

LAST PLOTTED: 08/26/2022 4:18 PM



1 PROPOSED BALLAST FRAME PLAN (BAIRD P/N: AFCH16-MONO-R)
A-4 NOT TO SCALE



2 PROPOSED BALLAST FRAME ELEVATION (BAIRD P/N: AFCH16-MONO-R)
A-4 NOT TO SCALE

ENGINEERING FIRM

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ENGINEER

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NH PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

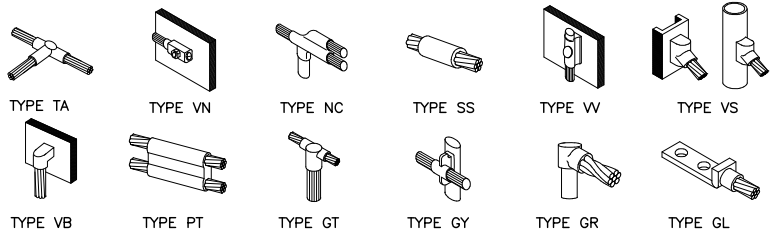
**NON-PENETRATING
MOUNT SYSTEM
DETAILS**

SHEET NUMBER

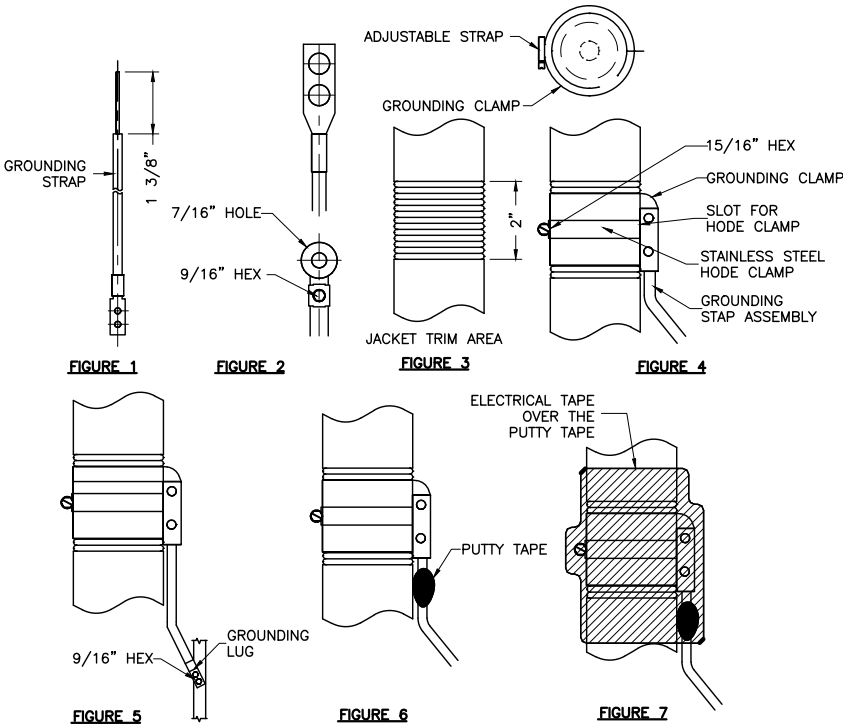
A-4

GROUNDING NOTES:

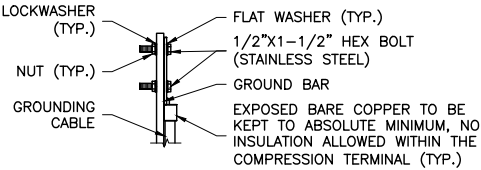
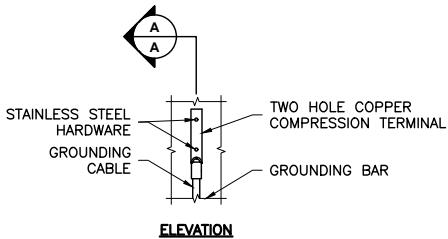
1. GROUNDING SHALL COMPLY WITH MOTOROLA STANDARD, FEDERAL, STATE AND LOCAL CODES. IN THE EVENT OF A CONFLICT, MEET THE MOST STRINGENT REQUIREMENT
2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
4. GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
8. INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
9. EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.
10. CONSTRUCTION OF CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE METROPICS CONSTRUCTION MANAGER.
11. ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 BARE TINNED COPPER WIRE. ALL EXTERIOR GROUND BARS TINNED COPPER.
12. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
13. ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A MOTOROLA REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.
14. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.
15. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
16. ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF #2 BARE TINNED COPPER WIRE.



1 GROUNDING CONNECTION DETAILS
G-1 NOT TO SCALE

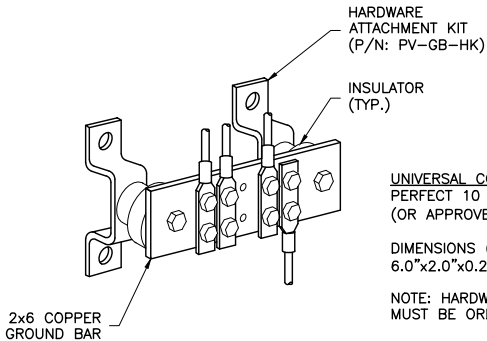


2 GROUNDING STRAP WEATHERPROOFING DETAIL
G-1 NOT TO SCALE

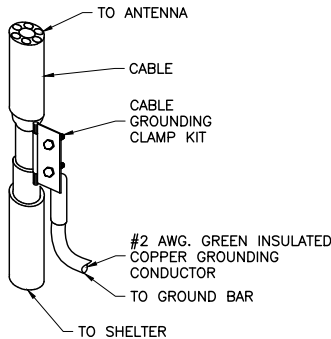


- NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

3 TYPICAL GROUND BAR CONNECTION DETAIL
G-1 NOT TO SCALE



4 GROUND BAR DETAIL
G-1 NOT TO SCALE



5 CABLE GROUNDING DETAIL
G-1 NOT TO SCALE

ENGINEERING FIRM



APPLICANT



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PROFESSIONAL STAMP



ENGINEER

DANIEL J. CORNING, P.E.
NH PROFESSIONAL ENGINEER LIC #53767

SHEET TITLE

CABLE
GROUNDING
DETAILS

SHEET NUMBER

G-1