



Landmark Certificate of Appropriateness Info Sheet

Printed Date: July 29, 2025

Property Address:

2741 FAIRMOUNT BLVD CLEVELAND HEIGHTS, OH 44106

Detailed Project Description

Like for like replacement of existing stealth antennas on church.



CLEVELAND HTS

MDG LOCATION #: 5000171167

FUZE PROJECT ID: 17356075

ADDRESS: 2747 FAIRMOUNT BLVD

CLEVELAND HEIGHTS, OH 44106



4 CENTEROCK ROAD
WEST NYACK, NY 10994



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #:
5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106

EXISTING ROOFTOP

SHEET DESCRIPTION

TITLE SHEET

SHEET NO.

T-1

PROJECT INFORMATION

PROJECT DESCRIPTION: PMP DONOR

SITE NAME: CLEVELAND HTS

LOCATION #: 5000171167

SITE ADDRESS: 2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH 44106

LATITUDE: 41.495552° / 41° 29' 43.9872"

LONGITUDE: -81.581111° / -81° 34' 51.9996"

PARCEL #: 686-02-066

ZONING: TBD

JURISDICTION: CITY OF CLEVELAND HEIGHTS

POWER COMPANY: TBD

TELCO COMPANY: VERIZON

OCCUPANCY CLASS: RES

CONSTRUCTION CLASS: TYPE II-B

GROUND ELEVATION: ±899'

STRUCTURE TYPE: ROOFTOP

STRUCTURE HEIGHT: ±153"-10"

NUMBER OF STORIES: TBD

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES
A-1	SITE PLAN
A-2 & A-2.1	ELEVATION
A-3	ANTENNA PLANS
A-4	ANTENNA & CABLE SCHEDULE
D-1	EQUIPMENT AND ANTENNA SPECIFICATIONS
E-1	ELECTRICAL NOTES
E-2	ELECTRICAL GROUNDING NOTES AND DETAILS

PROJECT DESCRIPTION

MODIFICATION OF EXISTING VERIZON WIRELESS TELECOMMUNICATIONS ANTENNAS ON THE ROOF. ALL WORK IS IN COMPLIANCE WITH TPPN #5/98. NO CHANGE IN USE, EGRESS OR OCCUPANCY.

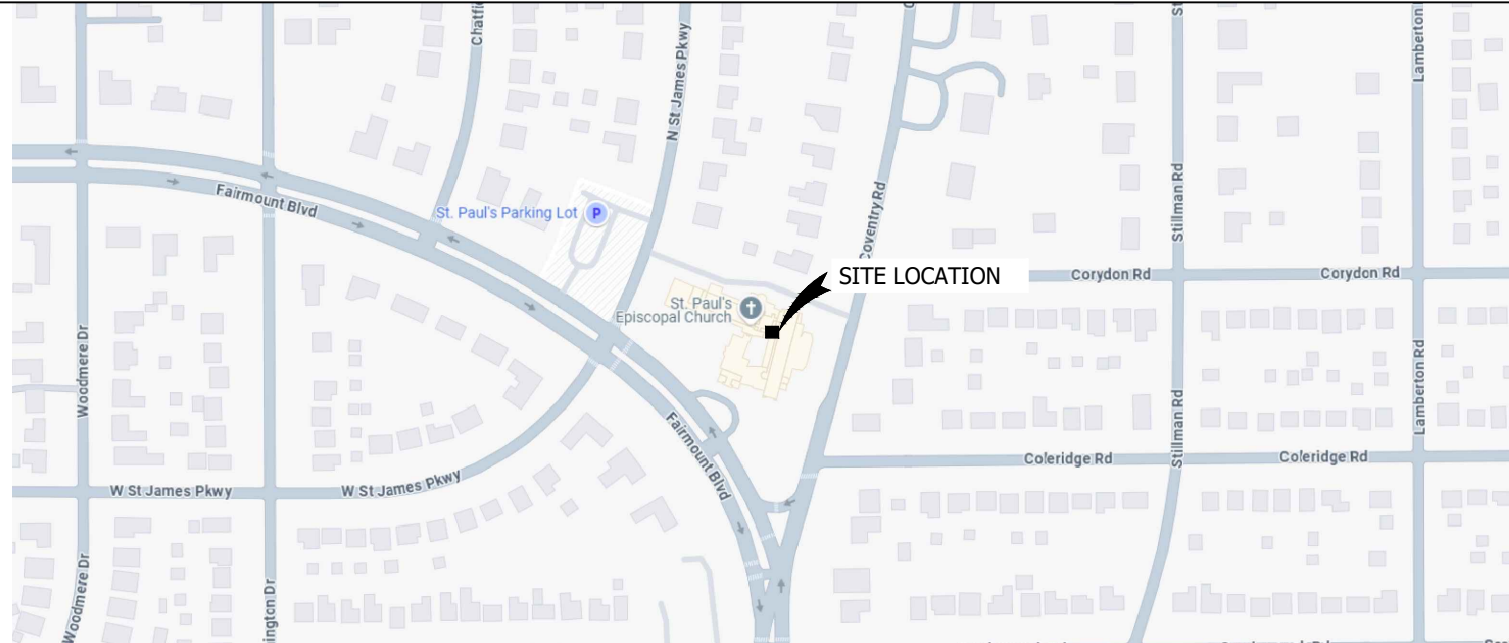
EXISTING ANTENNAS TO BE REMOVED = 0
EXISTING ANTENNAS TO REMAIN = 9
EXISTING RRHs TO BE REMOVED = 0
EXISTING RRHs TO REMAIN = 9
INSTALLATION OF NEW ANTENNAS = 4
EXISTING TOWER MOUNTED OVP TO REMAIN = 3
EXISTING RACK MOUNTED OVP TO REMAIN: 2
EXISTING GROUND MOUNTED OVP TO REMAIN: 1
EXISTING HYBRID CABLES TO REMAIN: 3
INSTALLATION OF NEW RRH's = 0
INSTALLATION OF NEW OVP = 0

APPLICABLE CODES

ALL WORK SHALL BE PERFORMED AND MATERIALS 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 THESE CODES:

2024 OHIO BUILDING CODE (IBC 2021 W/ AMENDMENTS)
2019 OHIO RESIDENTIAL CODE (IRC 2018 W/ AMENDMENTS)
2017 OHIO FIRE CODE (IFC 2022)
2024 OHIO PLUMBING CODE (IPC 2021 W/ AMENDMENTS)
2024 OHIO MECHANICAL CODE (IMC 2021 W/ AMENDMENTS)
2015 OHIO LP GAS CODE (NFPA 58, 2020)
2017 OHIO ENERGY CODE (IECC 2021 W/ AMENDMENTS)

LOCATION MAP



OWNER INFORMATION

PROPERTY OWNER:
EPISCOPLA OF CLEVELAND HEIGHTS
2747 FAIRMOUNT BLVD
CLEVELAND HEGHTS, OH 44106
(216) 932-5815

OWNER SIGNATURE: _____ DATE: _____

PROJECT CONTACTS

APPLICANT: VERIZON WIRELESS
7575 COMMERCE COURT
LEWIS CENTER, OHIO 43035

SITE ACQUISITION FIRM: SMARTLINK GROUP, LLC
CONTACT: DAVID CUMMINGS
EMAIL: DAVID.CUMMINGS@SMARTLINKGROUP.COM

ENGINEERING FIRM: TRYLON
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038 1-855-669-5421

CONTRUCTION MANAGER: TBD
EMAIL:

GENERAL CONSTRUCTION NOTES:

1. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL DRAWINGS HAVE BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION."
2. ADA COMPLIANCE: THE FACILITY IS A NORMALLY UNOCCUPIED MOBILE RADIO FACILITY.
3. THESE PLANS ARE INTENDED TO BE USED TO DIRECT THE PROPOSED LAYOUT. DRAWINGS SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. PLANS, ELEVATIONS AND DETAILS ARE INTENDED TO SHOW THE END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AND NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES BEFORE STARTING ANY WORK.
5. THE CLIENT AND CONTRACTOR(S) ATTENTION IS HEREBY BROUGHT TO EXISTING SITE CONDITIONS WHICH NEED TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION. TRYLON, LLC. DOES NOT TAKE ANY LIABILITY FOR AREAS THAT ARE NOT READILY ACCESSIBLE BY FIELD PERSONNEL WALKING ON THE ROOF DURING THE SITE VISIT. SUCH CONDITIONS INCLUDE BUT ARE NOT LIMITED TO ELEVATED STRUCTURES OUT OF REACH WHILE STANDING ON THE ROOF, BUILDING FACADES, STRUCTURES MOUNTED ON BUILDING FACADES, WINDOWS, ETC. IF NOT REQUESTED BY THE CLIENT AND SUPPLIED TO THE CONTRACTOR, THE CONTRACTOR SHALL INCLUDE WITHIN THEIR BID TO OBTAIN MAPPING INFORMATION FOR ANY INACCESSIBLE AREAS WHICH ARE INCLUDED AS PART OF THIS DESIGN DRAWING PACKAGE TO ENSURE ALL EXISTING CONDITIONS ARE VERIFIED PRIOR TO CONSTRUCTION AND SHALL RELAY ALL FINDINGS TO TRYLON PRIOR TO CONSTRUCTION FOR OUR REVIEW. SUCH FINDINGS MAY REQUIRE DRAWINGS TO BE MODIFIED PRIOR TO CONSTRUCTION.
6. THESE PLANS ARE DESIGNED TO REFLECT OBSERVED FIELD CONDITIONS. CERTAIN CONDITIONS ARE ASSUMED TO COMPLY WITH GENERAL STANDARD CONSTRUCTION DESIGN METHODS AND PRINCIPLES, AND THE CONTRACTOR SHALL NOTE THAT NOT ALL AREAS OF STRUCTURAL ATTACHMENT HAVE BEEN OPENED OR SPECIFICALLY VERIFIED. THE CONTRACTOR IS THEREFORE REQUESTED TO NOTIFY THE ENGINEER IMMEDIATELY SHOULD ENCOUNTERED FIELD CONDITIONS VARY FROM THOSE DEPICTED ON THE DRAWINGS. TRYLON, LLC WILL ISSUE FIELD CHANGE DIRECTION IF REQUIRED. THE PROJECT MANAGER IS REFERENCED ON THE COVER SHEET.
7. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS UNLESS OTHERWISE NOTED BY THE ENGINEER OF RECORD.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK PERFORMED AND MATERIALS INSTALLED TO BE IN STRICT CONFORMANCE, AS A MINIMUM STANDARD, WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES HAVING JURISDICTION. ELECTRICAL SYSTEMS SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE, AND ALL OTHER LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES, AND WITH LOCAL UTILITY COMPANY SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
9. THE CONTRACTOR SHALL KEEP CONTRACT AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DIRT, STUMPS, STONES, RUBBISH OR DEBRIS IN ACCORDANCE WITH ALL LOCAL AND ENVIRONMENTAL LAWS. NO MATERIALS OR EQUIPMENT SHALL BE PLACED ANYWHERE ON OR IN THE STRUCTURE WITHOUT MAKING ADEQUATE PROVISIONS TO PROTECT EXISTING PROPERTY. UPON COMPLETION, REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DURING CONSTRUCTION. REPAIR ALL EXISTING WALL SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND WITH ADJACENT SURFACES.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES.

SITE WORK GENERAL NOTES:

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT LIMITED TO:

A. FALL PROTECTION

B. CONFINED SPACE

C. ELECTRICAL SAFETY

D. TRENCHING & EXCAVATION
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWING.
4. THE AREAS OF THE OWNERS' PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDDED, AND COVERED WITH MULCH.
5. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

2014 NYC BUILDING CODE - SECTION BC 3108 - RADIO, TELEVISION, AND TELECOMMUNICATIONS TOWERS AND ANTENNAS:

- 3108.1 GENERAL.

SUBJECT TO THE PROVISIONS OF CHAPTER 16 AND THE REQUIREMENTS OF CHAPTER 15 GOVERNING THE FIRE-RESISTANCE RATINGS OF BUILDINGS FOR THE SUPPORT OF ROOF STRUCTURES, RADIO, TELEVISION, AND TELECOMMUNICATIONS TOWERS AND ANTENNAS SHALL BE DESIGNED AND CONSTRUCTED AS HEREIN PROVIDED. ALL SUCH TOWERS AND ANTENNAS SHALL BE COLLECTIVELY REFERRED TO AS "TOWERS" FOR THE PURPOSES OF THIS SECTION. TOWERS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF TIA-222.
- 3108.2 LOCATION AND ACCESS.

TOWERS SHALL BE LOCATED AND EQUIPPED WITH STEP BOLTS AND LADDERS SO AS TO PROVIDE READY ACCESS FOR INSPECTION PURPOSES. GUY WIRES OR OTHER ACCESSORIES SHALL NOT CROSS OR ENCROACH UPON ANY STREET OR OTHER PUBLIC SPACE, OR OVER ABOVE-GROUND ELECTRIC UTILITY LINES, OR ENCROACH UPON ANY PRIVATELY OWNED PROPERTY WITHOUT WRITTEN CONSENT OF THE OWNER OF THE ENCROACHED-UPON PROPERTY, SPACE OR ABOVE-GROUND ELECTRIC UTILITY LINES. TOWERS SHALL BE EQUIPPED WITH CLIMBING AND WORKING FACILITIES IN COMPLIANCE WITH TIA-222. SEE APPLICABLE OSHA, FCC AND EPA REGULATIONS RELATING TO LIMITATIONS ON ACCESS TO TOWER SITES.
- 3108.3 CONSTRUCTION.

TOWERS SHALL BE CONSTRUCTED OF APPROVED CORROSION-RESISTANT NONCOMBUSTIBLE MATERIAL. THE MINIMUM TYPE OF CONSTRUCTION OF ISOLATED RADIO TOWERS NOT MORE THAN 100 FEET (30,480 MM) IN HEIGHT SHALL BE TYPE IIB.
- 3108.4 LOADS.

TOWERS SHALL BE DESIGNED TO RESIST WIND LOADS IN ACCORDANCE WITH TIA/EIA-222. CONSIDERATION SHALL BE GIVEN TO CONDITIONS INVOLVING WIND LOAD ON ICE-COVERED SECTIONS.

3108.4.1 DEAD LOAD.

TOWERS SHALL BE DESIGNED FOR THE DEAD LOAD PLUS ICE LOAD.

3108.4.2 WIND LOAD.

TOWERS SHALL BE PROVIDED WITH ADEQUATE FOUNDATIONS AND ANCHORAGE DESIGNED TO RESIST TWO TIMES THE CALCULATED WIND LOAD.
- 3108.5 GROUNDING.

TOWERS SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDING IN ACCORDANCE WITH THE NEW YORK CITY ELECTRICAL CODE.

SPECIFICS FOR SIKA TOP 123 PLUS NON SHRINK GENERAL PURPOSE GROUT:

1. ALL NON-SHRINK GENERAL-PURPOSE GROUT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. THE NON-SHRINK GENERAL-PURPOSE GROUT SHALL BE MECHANICALLY MIXED FOR A MINIMUM OF TEN MINUTES.
3. MIX NO MORE GROUT THEN CAN BE PLACED IN 10 TO 15 MINUTES.
4. SURFACES TO RECEIVE THE GROUT SHALL BE FREE OF ANY TYPE OF FOREIGN MATERIAL AND BOND INHIBITING MATERIALS. BE SURE REPAIR AREA IS NOT LESS THAN 1/8" IN DEPTH.
5. THE SUBSTRATE SHALL BE SATURATED SURFACE DRY WITH NO STANDING WATER. MORTAR MUST BE SCRUBBED INTO SUBSTRATE FILLING ALL PORES AND VOIDS.
6. TYPICAL PROPERTIES OF THE GROUT SHALL BE AS FOLLOWS:

• COMPRESSIVE STRENGTH (ASTM C-109 MODIFIED)

• 1 DAY: 3500 PSI MIN (24.1 MPA)

• 7 DAY: 6000 PSI MIN (44.8 MPA)

• 28 DAY: 7000 PSI MIN (48.3 MPA)

• FLEXURAL STRENGTH (ASTM C-293) @ 28 DAYS: 2000 PSI (13.8 MPA)

• SPLITTING TENSILE STRENGTH (ASTM C-496) @ 28 DAYS: 900 PSI (6.2 MPA)

• BOND STRENGTH (ASTM C-882 MODIFIED) @ 28 DAYS: 2200 PSI (15.2 MPA)

• THE PORTLAND CEMENT MORTAR SHALL NOT PRODUCE A VAPOR BARRIER

• DENSITY (WET MIX): 132 LBS/CU FT (2.2 KG/L)

• PERMEABILITY – AASHTO T-277 @ 28 DAYS: APPROXIMATELY 500 COULOMBS
7. ALL STEEL BEARING PLATES AND MAIN SUPPORT STEEL SHALL BE INSTALLED ONCE THE GROUT HAS BEEN LEVELED AND HAS BEEN CURED FOR A MINIMUM OF 24 HOURS. THE FULL DESIGN EQUIPMENT LOAD SHALL BE

INSTALLED AFTER THE GROUT HAS CURED FOR 48 HOURS.

8. SHOULD THE CONTRACTOR WISH TO PROPOSE AN ALTERNATIVE GROUT AND METHOD OF WORKING OUTSIDE THESE PARAMETERS, THIS MUST BE PRESENTED TO THE ENGINEER IN WRITING WITH A FULL METHOD STATEMENT, MATERIAL DATA SHEET AND INSTALLATION INSTRUCTIONS FOR HIS/HER APPROVAL.
9. FAILURE TO COMPLY WITH THIS SPECIFICATION COULD SERIOUSLY AFFECT THE STABILITY OF THE INSTALLATION.

GENERAL NOTES FOR POST-INSTALLED ANCHORS (HILTI OR APPROVED EQUAL):

EPOXY ANCHOR MOUNTING CHART	
WALL TYPE	METHOD OF ATTACHMENT
CONCRETE	HILTI HIT HY200, MINIMUM EMBEDMENT 6" SPACED 16" ON CENTER UNLESS NOTED OTHERWISE
MASONRY (CMU AND BRICK)	HILTI HIT HY270 WITH SCREEN TUBE, MINIMUM EMBEDMENT 6" SPACED 16" ON CENTER UNLESS NOTED OTHERWISE
THRU-BOLT MOUNTING CHART	
WALL TYPE	BOLT TYPE
CONCRETE/MASONRY	F1554 GRADE 55 THRU-BOLT UNLESS NOTED OTHERWISE

INSTALLER TRAINING:

1. INSTALLERS MUST BE CERTIFIED THROUGH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR EQUIVALENT. THE GENERAL CONTRACTOR SHALL ARRANGE INSTALLATION TRAINING FOR ALL POST-INSTALLED ANCHOR PRODUCTS SPECIFIED AND SHALL PROVIDE THE ENGINEER OF RECORD DOCUMENTATION DEMONSTRATING THAT ALL PERSONNEL RESPONSIBLE FOR INSTALLING ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
2. INSTALLERS SHALL BE TRAINED ON THE COMPLETE INSTALLATION PROCESS FOR DRILLED-IN ANCHORS, INCLUDING BUT NOT LIMITED TO:

A. HOLE DRILLING PROCEDURE

B. HOLE PREPARATION & CLEANING TECHNIQUE

C. ADHESIVE INJECTION TECHNIQUE & DISPENSER TRAINING / MAINTENANCE

D. REBAR DOWEL PREPARATION AND INSTALLATION

E. PROOF LOADING/TENSILE TESTS/TORQUING

GENERAL PROCEDURES:

CONTRACTOR/INSTALLER TO FOLLOW ANCHOR MANUFACTURER SPECIFICATIONS AND INSTRUCTIONS FOR USE, INCLUDING BUT NOT LIMITED TO THE FOLLOWING GENERAL PROCEDURES:

1. HOLE DRILLING PROCEDURE

A. DRILL HOLES WITH ROTARY IMPACT HAMMER DRILLS USING CARBIDE-TIPPED BITS, HOLLOW DRILL BIT SYSTEM, AND/OR CORE DRILLS USING DIAMOND CORE BITS. DRILL BITS SHALL BE OF DIAMETERS AS SPECIFIED BY THE ANCHOR MANUFACTURER. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, ALL HOLES SHALL BE DRILLED PERPENDICULAR TO THE CONCRETE OR MASONRY SURFACE.
2. HOLE PREPARATION & CLEANING

A. HOLES MUST BE FREE OF DEBRIS, DUST, WATER, ICE, OIL, GREASE, AND OTHER CONTAMINANTS PRIOR TO ADHESIVE INJECTION. INSTALLER TO ENSURE ALL HOLES ARE PROPERLY CLEANED USING COMPRESSED AIR AND STEEL WIRE BRUSH, FOLLOWING MANUFACTURER SPECIFIED METHODS:

• FOR BLOWING OUT THE HOLE, BLOW OUT WITH OIL FREE AIR UNTIL RETURN AIR STREAM IS FREE OF NOTICEABLE DUST.

• FOR BRUSHING OUT THE HOLE, ONLY USE SPECIFIED WIRE BRUSH. THE BRUSH MUST RESIST INSERTION INTO THE HOLE. IF NOT, BRUSH IS TOO SMALL AND MUST BE REPLACED.
3. CARTRIDGE INJECTION ADHESIVE ANCHORS

A. CLEAN ALL HOLES PER MANUFACTURER INSTRUCTIONS TO REMOVE LOOSE MATERIAL AND DRILLING DUST PRIOR TO INSTALLATION OF ADHESIVE. INJECT ADHESIVE INTO HOLES PROCEEDING FROM THE BOTTOM OF THE HOLE AND PROGRESSING TOWARD THE SURFACE IN SUCH A MANNER AS TO AVOID INTRODUCTION OF AIR POCKETS IN THE ADHESIVE. FOLLOW MANUFACTURER RECOMMENDATIONS TO ENSURE PROPER MIXING OF ADHESIVE COMPONENTS. SUFFICIENT ADHESIVE SHALL BE INJECTED IN THE HOLE TO ENSURE THAT THE ANNULAR GAP IS FILLED TO THE SURFACE. REMOVE EXCESS ADHESIVE FROM THE SURFACE. SHIM ANCHORS WITH SUITABLE DEVICE TO CENTER THE ANCHOR IN THE HOLE.

B. FOR HOLLOW MASONRY APPLICATIONS, CONTRACTOR TO USE PLASTIC-MESH SCREEN TUBES AND INSERTS, FOLLOWING MANUFACTURER SPECIFICATIONS.

C. DO NOT DISTURB OR LOAD ANCHORS BEFORE MANUFACTURER SPECIFIED CURE TIME HAS ELAPSED.

D. OBSERVE MANUFACTURER RECOMMENDATIONS WITH RESPECT TO INSTALLATION TEMPERATURES FOR CARTRIDGE INJECTION ADHESIVE ANCHORS.
- POST-INSTALLED ANCHOR SPECIAL INSPECTION:
1. THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AND SPECIAL INSPECTOR OF RECORD WHEN POST-INSTALLED ANCHOR WORK IS SCHEDULED TO BE PERFORMED TO ALLOW ON-SITE INSPECTION DURING INSTALLATION.

2. THE GENERAL CONTRACTOR SHALL DOCUMENT THEIR WORK WITH PHOTOGRAPHS AND/OR VIDEO DURING THE INSTALLATION PROCESS DEMONSTRATING THE ABOVE MINIMUM GENERAL PROCEDURES HAVE BEEN PERFORMED, AND SHALL FURNISH PHOTOGRAPHS, VIDEOS, AND/OR TEST REPORTS TO THE ENGINEER OF RECORD AS PART OF THE SPECIAL INSPECTION REVIEW AND PROJECT CLOSE-OUT PROCESS.

3. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH ALL ITEMS NOTED. FAILURE FOR THE CONTRACTOR TO PROVIDE SUFFICIENT TRAINING DOCUMENTATION, NOTIFICATIONS TO THE ENGINEER, AND/OR TO PROVIDE SUFFICIENT PROGRESS PHOTOGRAPHS DOES NOT REMOVE THE CONTRACTOR'S LIABILITY FOR FULL COMPLIANCE AND MAY REQUIRE THE CONTRACTOR TO REMOVE AND REINSTALL ALL ANCHORS AND REPAIR ADJACENT AFFECTED AREAS.
- CONSTRUCTION SPECIFICATIONS:
- DIVISION 1 - GENERAL REQUIREMENTS SECTION 01010 SUMMARY OF WORK:
1. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT THEMSELVES WITH THE CONDITIONS AS THEY EXIST IN ORDER THAT ANY RESTRICTIONS PERTAINING TO THE WORK ARE UNDERSTOOD. ALL AREAS AND DIMENSIONS ARE INDICATED ON THE DRAWINGS AS ACCURATELY AS POSSIBLE, BUT ALL CONDITIONS SHALL BE VERIFIED BY EACH CONTRACTOR AND/OR SUBCONTRACTOR AT THE SITE. THE FAILURE OF THE CONTRACTOR TO EXAMINE OR RECEIVE ANY FORM, INSTRUMENT OR DOCUMENT, OR TO VISIT THE SITE SHALL NOT RELIEVE THE CONTRACTOR FROM ANY OBLIGATION WITH RESPECT TO THEIR QUOTED THE SUBMISSION OF A QUOTATION SHALL ACKNOWLEDGE THAT THE CONTRACTOR AND THEIR SUBCONTRACTORS HAVE FULLY EXAMINED THE SITE AND KNOW THE EXISTING CONDITIONS AND HAVE MADE PROVISIONS FOR OPERATING UNDER THE CONDITIONS AS THEY EXIST AT THE SITE AND HAVE INCLUDED ALL NECESSARY ITEMS.

4. THE GENERAL CONTRACTOR'S RESPONSIBILITIES SHALL INCLUDE, BUT NOT BE LIMITED TO, CONSTRUCTION OF THE EQUIPMENT FOUNDATION, INCLUDING ELECTRICAL SERVICE, TELEPHONE CONDUITS, GROUNDING SYSTEM AND COORDINATION WITH LOCAL UTILITY COMPANIES.

5. THE ANTENNA INSTALLERS RESPONSIBILITIES SHALL INCLUDE, BUT NOT BE LIMITED TO, CABLE TRAY INSTALLATION, ROUTING OF CABLES FROM RADIO EQUIPMENT TO ANTENNAS, ASSOCIATED HARDWARE FOR SECURING ANTENNA CABLES, ANTENNA MOUNTS, DETERMINING SUPPLIER OF ANTENNAS, GROUNDING OF ANTENNAS TO GROUNDING SYSTEM, INSTALLING ANTENNAS AND VERIFYING WITH RADIO FREQUENCY ENGINEERS, THE ALIGNMENT, LOCATION, AND PROPER ORIENTATION OF ANTENNAS.

6. THE CONTRACTORS SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE BUILDING LANDLORD IN ORDER TO AVOID CONFLICTS WITH CURRENT USE OF THE SITE.

7. THE OWNER MAY HAVE WORK PERFORMED UNDER SEPARATE CONTRACTS, CONCURRENTLY, WITH THE WORK OF THIS CONTRACT.

8. THE GENERAL CONTRACTOR SHALL PERMIT ACCESS TO THE PROJECT TO THESE CONTRACTORS TO PERFORM THEIR WORK.

9. THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE LOCAL, COUNTY, STATE, AND FEDERAL CODES, LAWS AND REQUIREMENTS, INCLUDING OSHA.

10. THE CONTRACTOR SHALL APPLY AND PAY FOR THE CONSTRUCTION PERMIT, CERTIFICATE OF OCCUPANCY AND ALL OTHER REQUIRED PERMITS OR LICENSES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL
- INSPECTIONS.
11. CARE SHALL BE EXERCISED IN PROTECTING THE BUILDING OCCUPANTS DURING THE DEMOLITION AND CONSTRUCTION PERIODS OF THIS PROJECT. EVERY EFFORT SHALL BE MADE TO MAINTAIN A CLEAN OPERATION. DEBRIS SHALL NOT ACCUMULATE. ALL DEBRIS WILL BE DEPOSITED IN A SUITABLE CONTAINER ON A DAILY BASIS AND SHALL BE EMPTIED ON A REGULAR SCHEDULE. THE LOCATION OF THE CONTAINER SHALL BE COORDINATED WITH THE BUILDING MANAGER.

12. SAFETY PROCEDURES: ATTENTION IS DIRECTED TO FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH STANDARDS. THE CONSTRUCTION COMPANY AWARDED THIS PROJECT SHALL ENSURE ALL WORKING SURROUNDINGS AND CONDITIONS ARE SANITARY, AND ARE NOT HAZARDOUS OR DANGEROUS TO THE HEALTH OR SAFETY OF THE WORK CREWS OR BUILDING OCCUPANTS. PRECAUTION SHALL BE EXERCISED AT ALL TIMES FOR THE PROTECTION OF PERSONS AND PROPERTY. IT IS MANDATORY THAT THE SAFETY PROVISIONS OF APPLICABLE LOCAL LAWS, OSHA REGULATIONS AND BUILDING AND CONSTRUCTION CODES, BE OBSERVED FOR ALL CONTRACTORS AND ANTENNA RIGGERS.

13. THE GENERAL CONTRACTOR MUST COORDINATE ALL ROOF RELATED WORK WITH THE LANDLORD'S PRE-APPROVED ROOFER. THE GENERAL CONTRACTOR MUST CONFIRM THE COMPATIBILITY OF ALL MATERIALS AND ENSURE THAT ALL EXISTING ROOF WARRANTIES, IF ANY, REMAIN IN EFFECT.
- SECTION 01613 - DELIVERY, STORAGE AND HANDLING:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROCEDURES AND SCHEDULING ASSOCIATED WITH HOISTING, STAGING, AND ERECTING OF MATERIALS AND EQUIPMENT TO AND/OR UPON THE SITE.

2. ALL ELEMENTS OF THE EXISTING SITE, I.E. STRUCTURES, SITE PLANTINGS, ETC. SHALL BE PROTECTED AS NECESSARY FROM SAID ACTIONS. THIS WORK MUST BE DONE IN A SAFE, SECURE NONDESTRUCTIVE MANNER FOR PROTECTING PERSONNEL AND PROPERTY.
- SECTION 01740 - WARRANTIES AND BONDS:
1. THE CONTRACTOR SHALL GUARANTEE ALL LABOR AND MATERIALS USED IN THIS PROJECT FOR A MINIMUM PERIOD OF ONE (1) YEAR COMMENCING FROM THE DATE OF FINAL ACCEPTANCE BY THE CLIENT. THE CONTRACTOR IS NOT REQUIRED TO GUARANTEE MATERIAL SUPPLIED BY THE OWNER.

2. FINAL DATE OF ACCEPTANCE IS DEEMED AS THE DATE THAT ALL REQUIRED STATE AND FEDERAL APPROVAL HAVE BEEN OBTAINED INCLUDING, BUT NOT LIMITED TO:

A. FINAL INSPECTION – D14

B. CERTIFICATE OF OCCUPANCY

3. ANY DEFICIENCIES THAT COME EVIDENT DURING THIS ONE (1) YEAR PERIOD SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
-
-
- ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIAS BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
- | SUBMITTALS | | | |
|------------|----------|-------------|-----|
| REV | DATE | DESCRIPTION | BY |
| A | 03/18/25 | 90% CD | YOG |
| 0 | 04/03/25 | 100% CD | YOG |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
-
- PROJECT TITLE
- MDG LOCATION #:
5000171167
- CLEVELAND HTS
- 2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106
- EXISTING ROOFTOP
- SHEET DESCRIPTION
- GENERAL NOTES
- SHEET NO.
- GN—1
- NOTES

DIVISION 4 - MASONRY
SECTION 04520 - MASONRY RESTORATION - TUCK POINTING:

1. THIS SECTION SPECIFIES REQUIREMENTS FOR THE CLEANING, RESTORATION OF MORTAR JOINTS, REPLACEMENT OF MASONRY, AND MASONRY REPAIR. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE SPECIFICATIONS IN ADDITION TO:
- A. ASTM INTERNATIONAL:
- ASTM C91 STANDARD SPECIFICATION FOR MASONRY CEMENT.
 - ASTM C144 STANDARD SPECIFICATION FOR AGGREGATE FOR MASONRY MORTAR.
 - ASTM C150 STANDARD SPECIFICATION FOR PORTLAND CEMENT.
 - ASTM C207 STANDARD SPECIFICATION FOR HYDRATED LIME FOR MASONRY PURPOSES.
 - ASTM C270 STANDARD SPECIFICATION FOR MORTAR FOR UNIT MASONRY.
 - ASTM C476 STANDARD SPECIFICATION FOR GROUT FOR MASONRY.
 - ASTM C780 STANDARD TEST METHOD FOR PRE CONSTRUCTION AND CONSTRUCTION EVALUATION OF MORTARS FOR PLAIN AND REINFORCED UNIT MASONRY.
 - ASTM C979 STANDARD SPECIFICATION FOR PIGMENTS FOR INTEGRALLY COLORED CONCRETE.
 - ASTM C1329 STANDARD SPECIFICATION FOR MORTAR CEMENT.
 - ASTM C1384 STANDARD SPECIFICATION FOR ADMIXTURES FOR MASONRY MORTARS.
 - ASTM E514 STANDARD TEST METHOD FOR WATER PENETRATION AND LEAKAGE THROUGH MASONRY.
- B. INTERNATIONAL MASONRY INDUSTRY ALL-WEATHER COUNCIL (IMAC):
- RECOMMENDED PRACTICES AND GUIDE SPECIFICATION FOR COLD WEATHER MASONRY CONSTRUCTION.
 - RECOMMENDED PRACTICES AND GUIDE SPECIFICATION FOR HOT WEATHER MASONRY CONSTRUCTION.
- C. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA):
- NCMA TEK BULLETIN #8-2A REMOVAL OF STAINS FROM CONCRETE MASONRY.
 - NCMA TEK BULLETIN #8-3A CONTROL AND REMOVAL OF EFFLORESCENCE.
2. MATERIAL DELIVERY, STORAGE AND HANDLING SHALL COMPLY WITH DIVISION 1:
- A. DELIVERY: DELIVER MATERIALS IN MANUFACTURER'S ORIGINAL, UNOPENED, UNDAMAGED CONTAINERS WITH IDENTIFICATION LABELS INTACT.
- B. STORAGE AND PROTECTION:
- STORE MATERIALS PROTECTED FROM EXPOSURE TO HARMFUL ENVIRONMENTAL CONDITIONS AND AT TEMPERATURE AND HUMIDITY CONDITIONS RECOMMENDED BY THE MANUFACTURER.
 - STORE MATERIALS IN A DRY LOCATION, COVERED WITH A TARP OR OTHER SUITABLE COVERING.
3. THE CONTRACTOR SHALL INSTALL A MERCURY THERMOMETER AT THE SITE TO MONITOR EXTERNAL TEMPERATURES. THE THERMOMETER LOCATION SHOULD BE CONTINUALLY MONITORED AND UNDER NO CIRCUMSTANCES SHOULD THE POSITIONING OF A MERCURY THERMOMETER BE AS SUCH TO ALLOW SUNLIGHT TO EVER STRIKE IT.
4. THE CONTRACTOR SHALL NOT PERFORM WORK WHEN THE AIR TEMPERATURE REACHES 40° F ON A FALLING THERMOMETER, EXCEPT WHEN THE CONTRACTOR CONFORM WITH THE IMAC "RECOMMENDED PRACTICES AND GUIDE SPECIFICATION FOR COLD WEATHER MASONRY CONSTRUCTION" AS APPROVED BY THE ENGINEER.
5. THE CONTRACTOR SHALL PROTECT ALL MASONRY WORK AREAS FROM DIRECT SUNLIGHT WHEN THE AIR TEMPERATURE REACHES 99° F ON A RISING THERMOMETER WITH LESS THAN 50% RELATIVE HUMIDITY.
6. USE MORTAR WITHIN TWO HOURS AFTER MIXING AT TEMPERATURES ABOVE 50° F AND FOR 2-1/2 HOURS AT TEMPERATURES UNDER 50° F.
7. RE-TEMPER MORTAR TO MAINTAIN WORKABILITY.
8. THOROUGHLY MIX MORTAR INGREDIENTS IN QUANTITIES NEEDED FOR IMMEDIATE USE IN ACCORDANCE WITH ASTM C270 AND C780 TO PROVIDE UNIFORMITY OF MIX.
9. DO NOT USE ANTIFREEZE COMPOUNDS TO LOWER THE FREEZING POINT OF MORTAR UNLESS EXPRESSLY APPROVED BY THE ENGINEER IN WRITING.
10. IF WATER IS LOST BY EVAPORATION, RE-TEMPER ONLY WITHIN TWO HOURS OF MIXING.
11. PREPARATION:
- A. ESTABLISH LINES, LEVELS, AND COURSING. PROTECT FROM DISTURBANCE.
- B. WET CLAY MASONRY UNITS AND ALL ADJACENT EXISTING MASONRY PRIOR TO LAYING IF THE TEMPERATURE IS ABOVE 70° F TO REDUCE EXCESSIVE ABSORPTION OF MORTAR MOISTURE BY THE UNIT. DO NOT WET CONCRETE MASONRY UNITS.
12. COURSING:
- A. PLACE MASONRY TO LINES AND LEVELS INDICATED OR TO BLEND INTO THE EXISTING LINES AND LEVELS OF ADJACENT MASONRY.
- B. MAINTAIN MASONRY JOINTS TO UNIFORM WIDTH OF 3/8". MAKE VERTICAL AND HORIZONTAL JOINTS EQUAL, OF UNIFORM THICKNESS, TIGHTLY TUCKED.
- C. LAY CONCRETE MASONRY UNITS IN RUNNING BOND. COURSE ONE BLOCK UNIT AND ONE MORTAR JOINT TO EQUAL 8". FORM CONCAVE MORTAR JOINTS ON EXPOSED WORK AND FLUSH JOINTS ON WORK TO RECEIVE SUBSEQUENT WALL COATING.
- D. LAY CLAY BRICK AND CONCRETE BRICK IN A BOND PATTERN IN ACCORDANCE WITH THE DRAWINGS. IF THE DRAWINGS DO NOT STIPULATE A PARTICULAR BONDING PATTERN THE BOND PATTERN SHALL MATCH AND BE KEED INTO THE EXISTING. ALL MORTAR JOINTS SHALL CONCAVE AND SHALL NOT PROTRUDE PAST THE EDGES OF MASONRY UNITS. BONDING PATTERN IS GENERIC. BRICK WORK SHOWN SHALL CONFORM WITH EXISTING PATTERN AND SHALL HAVE FULL PENETRATION BONDING COURSES AT 24" MAX HORIZONTALLY AND VERTICALLY. THESE CAN EITHER BE THROUGH MASONRY BONDING OR REINFORCEMENT.
13. TOLERANCES:
- A. VARIATION FROM UNIT TO ADJACENT UNIT: 1/32" MAXIMUM UNLESS EXISTING CONDITIONS DO NOT PERMIT.
- B. VARIATION FROM PLANE OF WALL: 1/4" IN 10' AND 1/2" IN 20' OR MORE, UNLESS EXISTING CONDITIONS DO NOT PERMIT.
- C. VARIATION FROM LEVEL COURSING: 1/8" IN 3'; 1/4" IN 10'; 1/2" MAXIMUM UNLESS EXISTING CONDITIONS DO NOT PERMIT.
- D. VARIATION OF JOINT THICKNESS: 1/8" IN 3'.
- E. MAXIMUM VARIATION FROM CROSS SECTIONAL THICKNESS OF WALLS: PLUS OR MINUS 1/4".
14. DO NOT PERMIT MORTAR TO DROP OR ACCUMULATE INTO CAVITY AIR SPACE OR TO PLUG WEEP HOLES.
15. CLEANING:
- A. REMOVE EXCESS MORTAR AND SMEARS.
- B. REPLACE DEFECTIVE MORTAR. MATCH ADJACENT WORK.
- C. CLEAN SOILED SURFACES WITH A NON-ACIDIC SOLUTION WHICH WILL NOT HARM MASONRY OR ADJACENT MATERIALS. CONSULT MASONRY MANUFACTURER FOR ACCEPTABLE CLEANERS. LEAVE SURFACES THOROUGHLY CLEAN AND FREE OF ALL MORTAR AND OTHER SOILING.
- D. USE NON-METALLIC TOOLS IN CLEANING OPERATIONS.
- E. DURING WORK PROGRESS AND AT THE COMPLETION OF WORK, CLEAN WALL, SILL, LEDGE AND OTHER SURFACES WITH STIFF NYLON BRISTLE BRUSHES AND WATER TO LEAVE ALL SURFACES CLEAN AND FREE OF MORTAR DAUBS. DO NOT USE METAL SCRAPERS OR BRUSHES.
16. CONTRACTOR BID INCLUSION – AREA OF MASONRY REPAIR:
- A. DURING THE CONTRACTORS "BID-WALK" THE CONTRACTOR SHALL REVIEW ALL EXISTING MASONRY LOCATIONS WHICH ARE TO ACCOMMODATE ATTACHMENTS. THE CONTRACTOR UNDERSTANDS THAT IN MANY CASES THEY WILL BE ENGAGED TO PERFORM SERVICES ON AGED BUILDINGS AND WEATHERED MASONRY. THE CONTRACTOR SHALL ENSURE THAT THEY HAVE THE SKILLED MASONRY STAFF TO REVIEW, EVALUATE AND REPAIR OR WILL BE ENGAGING SUCH STAFF AS A CONTRACTED THIRD PARTY. THE CONTRACTOR SHALL EVALUATE THESE AREAS GIVING FULL CONSIDERATION TO THEIR PROPOSED METHOD OF WORKING PROCEDURES TO EVALUATE WHETHER THE EXISTING MASONRY IS SATISFACTORY, REQUIRES REPOINTING, OR REQUIRES RE-BUILDING. IN MANY INSTANCES, THE MASONRY BEING ATTACHED TO IS OLD AND CAN OFTEN BECOME LOOSE DUE TO THE VIBRATION OF CONSTRUCTION ACTIVITIES WHICH INCREASES THE AREA OF REPAIR NEEDED FROM THAT PREVIOUSLY ASSESSED BY THE ENGINEER. IN ADDITION, IF THE MASONRY IS CONCEALED, A PROBE MIGHT HAVE BEEN COMPLETED TO AID WITH ESTIMATING THE CONDITION OF THE EXISTING MASONRY. PARAPET PROBES ARE LIMITED TO SMALL AREAS AND ARE INTENDED TO GIVE AN INITIAL IDEA OF CONDITIONS, HOWEVER, THESE AREAS OFTEN NEED TO BE EXTENDED DUE TO CONSTRUCTION ACTIVITIES AFTER FURTHER EXPOSURE OF THE PARAPET MASONRY CONDITIONS, THEREFORE, THE CONTRACTOR NEEDS TO TAKE THIS INTO ACCOUNT AS DETAILED BELOW WITHIN THEIR BID.
- B. THE CONTRACTOR SHALL INCLUDE WITHIN THEIR TENDERED BID PRICE TO REPOINT BOTH SIDES OF ALL ACCESSIBLE MASONRY WITHIN A 5'-0" MINIMUM RADIUS FROM ANY PROPOSED ATTACHMENT INTO THE MASONRY OR ANY UPGRADE OF AN EXISTING ATTACHMENT. FOR EXAMPLE, FOR A 3FT HIGH PARAPET WITH A STRUCTURAL ATTACHMENT LENGTH OF 12FT, REPRESENTING A SECTOR LENGTH OR LENGTH OF EQUIPMENT PLATFORM, THE OVERALL AREA FOR REPOINTING WOULD BE (5FT+12FT + 5FT) X 3FT = 66SQ.FT ON ONE OR BOTH SIDES OF THE ACCESSIBLE SECTION OF MASONRY.
- C. THE CONTRACTOR SHALL INCLUDE WITHIN THEIR TENDERED BID PRICE FOR THE COMPLETE REBUILD OF MASONRY TO THE FULL DEPTH OF EXISTING CONSTRUCTION WITHIN A 5'-0" MINIMUM RADIUS OF ANY BEAM POCKET OR MASONRY ENCASED ATTACHMENT INCLUDING DOWN TO ROOF LEVEL.
- D. WHERE SOLID MASONRY IS NOT FOUND, THE CONTRACTOR SHALL INCLUDE WITHIN THEIR TENDERED BID

- PRICE FOR THE COMPLETE REBUILD OF MASONRY WALL TO THE FULL DEPTH OF EXISTING CONSTRUCTION, OR AS FOUND TO BE REQUIRED PER EXISTING FIELD CONDITIONS.
- E. THE CONTRACTOR SHALL INCLUDE WITHIN THEIR TENDERED BID PRICE TO REPOINT ALL MASONRY WITHIN 2'-6" MINIMUM BELOW ANY NEWLY CONSTRUCTED WALL, OR AS NOTED BY ENGINEER ON THE DRAWINGS.
- F. THE CONTRACTOR SHALL INCLUDE WITHIN THEIR TENDERED BID PRICE TO GROUT SOLID ANY CMU WALL MINIMUM 3 COURSES BELOW AND 5'-0" IN EACH DIRECTION FROM ANY ATTACHMENT POINTS.
- G. ALL REBUILT MASONRY SHALL CONFORM WITH THE EXISTING MASONRY WITH REGARD TO COLOR, TEXTURE, AND BOND PATTERN.
- H. THE CONTRACTOR SHALL APPLY ULTRA CLEAR PRO-SEAL WEATHER MASTER IN ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS (OR APPROVED EQUIVALENT).
- PRO-SEAL WEATHER MASTER SHALL BE APPLIED TO ALL SURFACES AFFECTED BY THE PROPOSED INSTALLATION WITHIN A RADIUS OF 2'-6" FROM ANY ATTACHMENT POINT. FOR ALL EPOXY ANCHORS ATTACHMENTS, THE CONTRACTOR SHALL LOCATE THE ANCHORS, SET THE ANCHORS AND APPLY THE COATING PRIOR TO SETTING ANY ATTACHMENT STEEL AGAINST THE BRICKWORK SURFACE.
 - PRO-SEAL WEATHER MASTER SHALL BE APPLIED TO ALL RE-BUILD SECTIONS OF BRICKWORK AND TO ALL FACES. PRO-SEAL WEATHER MASTER SHALL BE APPLIED TO THE TOP OF ALL BRICKWORK SURFACES PRIOR TO THE INSTALLATION OF ANY COPING.
 - THE CONTRACTOR SHALL PROVIDE PHOTOGRAPHIC EVIDENCE THAT PRO-SEAL WEATHER MASTER HAS BEEN APPLIED AT ALL REQUIRED LOCATIONS. PHOTOGRAPHS SHALL INCLUDE THE PRODUCT LABEL AND APPLICATION AT ALL LOCATIONS. FOLLOWING THE APPLICATION OF PRO-SEAL, THE CONTRACTOR SHALL APPLY SILICON SEALANT AROUND ALL INTERFACES OF MASONRY AND STEEL.
17. MASONRY UNITS SHALL CONFORM TO ASTM C62 AND SHALL HAVE A COMPRESSIVE STRENGTH NO LESS THAN 4500 PSI. MORTAR SHALL BE TYPE N, UNLESS OTHERWISE SPECIFICALLY NOTED ON WITHIN THE DRAWINGS, AND SHALL HAVE A COMPRESSIVE STRENGTH NO LESS THAN 1800 PSI.
18. FOLLOWING THE "BID WALK" THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING AS TO THE EXTENT OF ANY LOOSE OR RECESSED MORTAR ENCOUNTERED WITHIN 10'-0" FROM THE PROPOSED ATTACHMENT POINT TO ENABLE THE ENGINEER TO INSPECT THE AREAS AND ADVISE REPAIR PRIOR TO FINALIZING BIDS AND COMMENCING CONSTRUCTION. EXISTING CONDITIONS MAY HAVE CHANGED SINCE THE DRAWINGS WERE PRODUCED AND THE SITE BID WALK DATE.
19. ALL AREAS OF BRICK REPAIR SHALL BE PHOTOGRAPHED BEFORE, DURING AND UPON COMPLETION OF CONSTRUCTION. THE CONTRACTOR SHALL LABEL AND DATE EACH PHOTOGRAPH AND SUBMIT TO THE OWNER AND ENGINEER AS PER THE SCHEDULE BELOW:
- A. BID WALK PHOTOGRAPHS OF ALL EQUIPMENT MASONRY ATTACHMENT LOCATIONS.
- B. AREAS OF BRICKWORK SHOWING THE DEPTH OF REMOVED MORTAR PRIOR TO REPOINTING.
- C. FINISHED AREAS OF REPOINTING.
- D. AREAS OF BRICKWORK PRIOR TO REMOVAL.
- E. PROGRESS PHOTOGRAPHS OF ALL REBUILT MASONRY.
- F. PROGRESS PHOTOS OF ALL GROUTED CMU BLOCKS.
- G. AREAS OF BRICK FOLLOWING REMOVAL, CLEANING AND PREPARATION PRIOR TO RE-BUILDING. PHOTOGRAPHS SHOULD CLEARLY INDICATE THE EXISTING BONDING PATTERN AND DISPLAY HOW THE NEW MASONRY WILL "KEY" AND BOND INTO THE EXISTING TO MAINTAIN STRUCTURAL INTEGRITY.
20. AS A MINIMUM AND UNLESS SPECIFIED OTHERWISE, ALL BRICKWORK PENETRATIONS SHALL BE FACED WITH 4" MINIMUM THICKNESS OF MATCHING BRICKWORK, TIED TO EXISTING. AT LEAST ONE METAL TIE "Z" SHOULD BE USED FOR EACH 3 SQ. FT. OF WALL SURFACE. TIES IN ALTERNATE COURSES SHOULD BE STAGGERED. THE DISTANCE BETWEEN ADJACENT TIES SHOULD NOT EXCEED 24" VERTICALLY NOR 24" HORIZONTALLY. TIES SHALL NOT BE LESS THAN 3/16" DIAMETER.
21. WATER SHALL BE CLEAN AND POTABLE.
22. DEFECTIVE JOINTS. "DEFECTIVE JOINTS" SHALL MEAN JOINTS WHICH HAVE ERODED 1/8" OR MORE, OR HAVE LOOSE, POWDERED OR BROKEN MORTAR. JOINTS WITH HAIRLINE CRACKS (1/64") THAT ARE OTHERWISE SOUND SHALL NOT BE CONSIDERED DEFECTIVE.
23. JOINT PREPARATION. DEFECTIVE MORTAR JOINTS SHALL BE RAKED USING A TUCK POINT RAKE WITH A WORKING TIP NO GREATER THAN 5/16" TO EXPOSE UNWEATHERED MORTAR. THE MINIMUM DEPTH FOR REPOINTING SHALL BE 1/4". REVEALS WITH SQUARE BACKS. FURROWED OR SHALLOW JOINTS ARE PROHIBITED. BRUSH, VACUUM, AIR JET OR WATER STREAM JOINTS TO REMOVE ALL LOOSE DEBRIS.
24. DAMPEN SURFACES PRIOR TO TUCK POINTING. APPLY POINTING MORTAR BY MEANS OF A TROWEL NARROWER THAN THE MORTAR JOINTS TO BE FILLED. SPREAD MORTAR INTO JOINT IN LAYERS, FIRMLY PRESSING TO FORM A COMPLETELY FILLED FULLY PACKED JOINT WITHOUT JOINT TOOLING – WHEN MORTAR IS THUMBPRINT HARD, TOOL TO MATCH ORIGINAL APPEARANCE OF ADJACENT JOINTS. BRUSH EXCESS MORTAR FROM EDGE OF JOINT.
25. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH ALL ITEMS ABOVE IN DIVISION 4 MASONRY. FAILURE FOR THE CONTRACTOR TO NOTIFY THE ENGINEER, PROVIDE SUFFICIENT FUNDING WITHIN THEIR TENDERED BID PRICE TO THE CLIENT IN ACCORDANCE WITH THESE REQUIREMENTS, OR TO PROVIDE SUFFICIENT PROGRESS PHOTOGRAPHS DOES NOT REMOVE THE CONTRACTOR'S LIABILITY FOR FULL COMPLIANCE, AND THE CONTRACTOR SHALL MAKE GOOD ALL MASONRY AREAS AS DIRECTED BY THE ENGINEER DURING OR AT ANY TIME POST CONSTRUCTION COMPLETION FOR REPAIR OR REBUILDING AT THEIR OWN COST. BY BIDDING AND PERFORMING THE CONSTRUCTION SERVICES AS DEPICTED ON THESE DRAWINGS, THE CONTRACTOR AGREES TO THESE TERMS IN PERPETUITY.

DIVISION 5 - METALS
SECTION 05120 - STRUCTURAL STEEL:

1. CODES AND SPECIFICATIONS:
- A. THE FABRICATION/ERECTION SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES AND SPECIFICATIONS, LATEST EDITION, UNLESS OTHERWISE NOTED:
- THE LOCAL BUILDING CODE.
 - AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
 - ASTM A992 STRUCTURAL STEEL (FOR ALL W SECTIONS ONLY).
 - ASTM A36 STRUCTURAL STEEL (ALL OTHER SECTIONS).
 - ASTM A53, TYPE E, GRADE B, ELECTRIC RESISTANCE WELDED STEEL PIPE.
 - ASTM 123 ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS.
 - ASTM 153 ZINC COATED (HOT-DIP) IRON AND STEEL HARDWARE.
 - AWS D1.1 STRUCTURAL WELDING CODE.
 - EIA/TIA-222 STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
2. DESIGN PARAMETERS:
- A. THE STRUCTURAL STEEL ANTENNA MOUNTING FRAMES ARE DESIGNED TO PROVIDE SUPPORT FOR ANTENNAS AND ALL HARDWARE AND ACCESSORIES ASSOCIATED WITH ANTENNAS.
3. FABRICATION AND INSTALLATION REQUIREMENTS:
- A. THE ANTENNA SUPPORTS, ANTENNAS AND MOUNTING HARDWARE SHALL BE CONSTRUCTED PLUMB, LEVEL AND TRUE.
- B. ALL STRUCTURAL ELEMENTS AND FASTENERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 AND A153.
- C. WELDS SHOULD BE SHOP MADE WHEREVER POSSIBLE, CONFORMING TO AISC SPECIFICATION AND AWS REQUIREMENTS. ALL WELDS ARE TO BE OF THE SIZE AND TYPE INDICATED. CONTRACTOR SHALL EMPLOY A LICENSED WELDER AND SHALL PROVIDE THE ENGINEER WITH THEIR NAME AND A COPY OF THEIR LICENSE PRIOR TO COMMENCING ANY FIELD WELDING.
- D. CONTRACTOR SHALL PROVIDE FIRE WATCH DURING ALL WELDING OPERATIONS, BRAZING AND SOLDERING AND OTHER WORK REQUIRING THE USE OF AN OPEN FLAME. TWO (2) HAND HELD 30 LB. FIRE EXTINGUISHERS AND ADEQUATE WATER SUPPLY SHALL BE MAINTAINED ON SITE. FIRE WATCH PLAN SHALL BE SUBMITTED TO THE CLIENT FOR APPROVAL PRIOR TO WELDING.
- E. ALL BOLTED CONNECTIONS SHALL BE A325 HIGH STRENGTH BOLTS 5/8" DIAMETER MINIMUM SIZE UNLESS OTHERWISE NOTED. BOLTS SHALL BE SUPPLIED WITH FLAT WASHERS. BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE AISC SNUG TIGHT CONDITION, UNLESS OTHERWISE NOTED.
- F. PROTECTIVE GALVANIZED COATINGS WHICH WERE DAMAGED OR REMOVED DURING ERECTION OR TRANSPORTATION SHALL BE RESTORED BY PAINTING WITH ZINC-RICH PRIMER.
- G. ALL THREADED RODS SHALL BE 1/2" DIAMETER A36 STEEL UNLESS OTHERWISE NOTED.
- H. TEMPORARY STRUCTURES FOR STAGING AND CONSTRUCTION SHALL BE CAPABLE OF WITH STANDING FORCES SPECIFIED BY THE LOCAL BUILDING CODE CURRENT EDITION.
4. INSPECTIONS:
- A. ALL STRUCTURAL STEEL ANTENNA FRAMES, AND CONNECTIONS SHALL BE INSPECTED PRIOR TO INSTALLATION OF ANTENNAS.
- B. ALL ANTENNA CABLE TRAYS, SUPPORTS, CHANNELS, AND CLAMPS SHALL BE INSPECTED PRIOR TO INSTALLATION OF ANTENNA CABLES.
- C. COORDINATE ALL INSPECTIONS WITH THE CLIENT'S CONSTRUCTION MANAGER.

STRUCTURAL STEEL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.
2. FOR MATERIAL SPECIFICATIONS, SEE GENERAL NOTES.
3. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED WELDS WITH WELDING ELECTRODES E-70XX OR SPECIFIED HIGH STRENGTH BOLTS TO BE ASTM A325.
4. ALL STEEL EXPOSED TO MOISTURE, SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM A-123. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH 2 COATS OF ZRC COLD GALVANIZING COMPOUND MANUFACTURED BY ZRC CHEMICAL PRODUCTS CO. QUINCY, MA OR USE THERMAL SPRAYING WITH PLATTZINC 85/15 AS MANUFACTURED BY PLATT BROTHERS & COMPANY WATERBURY,CT.
5. ALL SHOP AND FIELD WELDING SHALL BE DONE BY WELDERS QUALIFIED AS DESCRIBED IN THE "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED.
6. ALL PIPE SIZES ARE NOMINAL DIAMETER.
7. CONTRACTOR SHALL MEASURE AND VERIFY ALL EXISTING CONDITIONS AND MEASUREMENTS IN FIELD. ANY UNUSUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE PURCHASE, FABRICATION AND ERECTION OF ANY MATERIAL.
8. INCORRECTLY FABRICATED, DAMAGED, OTHERWISE MISFITTING, OR NON-CONFORMING MATERIALS AND CONDITIONS SHALL BE REPORTED TO THE OWNER, ENGINEER, AND CONSTRUCTION MANAGER PRIOR TO ANY REMEDIAL OR CORRECTIVE ACTION. ALL ACTIONS SHALL REQUIRE APPROVAL FROM THE OWNER.
9. CONTRACTOR SHALL PROMPTLY REMOVE ANY & ALL DEBRIS FROM SITE.
10. ALL STEEL TO BE ERECTED PLUMB AND LEVEL.
11. WHERE DETAILED GRATING SUPPORT ANGLES RUN THE FULL LENGTH OF THE MAIN BEAM.



ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #: 5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH 44106

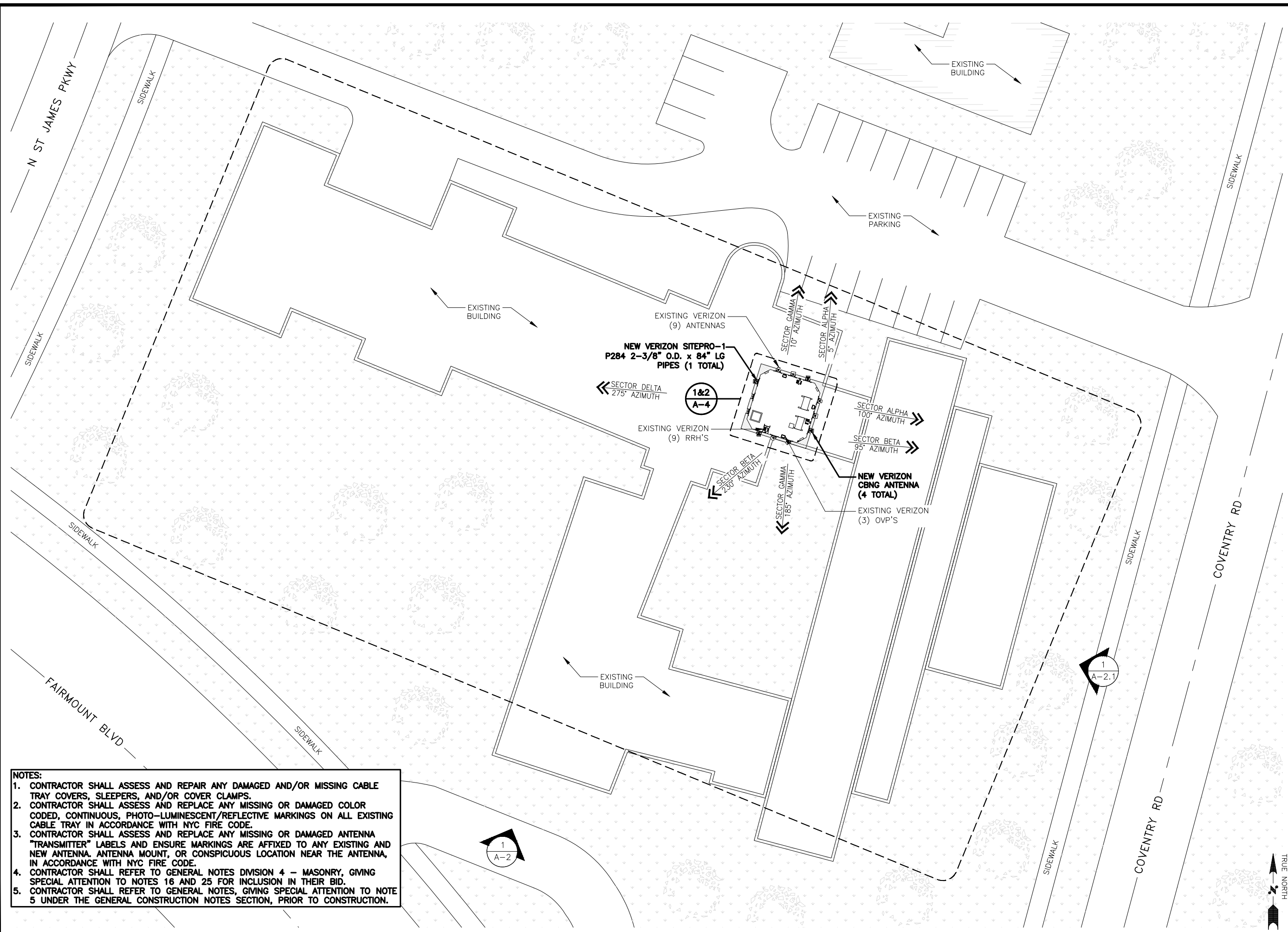
EXISTING ROOFTOP

SHEET DESCRIPTION

GENERAL NOTES

SHEET NO.

GN-2



- NOTES:
- CONTRACTOR SHALL ASSESS AND REPAIR ANY DAMAGED AND/OR MISSING CABLE TRAY COVERS, SLEEPERS, AND/OR COVER CLAMPS.
 - CONTRACTOR SHALL ASSESS AND REPLACE ANY MISSING OR DAMAGED COLOR CODED, CONTINUOUS, PHOTO-LUMINESCENT/REFLECTIVE MARKINGS ON ALL EXISTING CABLE TRAY IN ACCORDANCE WITH NYC FIRE CODE.
 - CONTRACTOR SHALL ASSESS AND REPLACE ANY MISSING OR DAMAGED ANTENNA "TRANSMITTER" LABELS AND ENSURE MARKINGS ARE AFFIXED TO ANY EXISTING AND NEW ANTENNA. ANTENNA MOUNT, OR CONSPICUOUS LOCATION NEAR THE ANTENNA, IN ACCORDANCE WITH NYC FIRE CODE.
 - CONTRACTOR SHALL REFER TO GENERAL NOTES DIVISION 4 - MASONRY, GIVING SPECIAL ATTENTION TO NOTES 16 AND 25 FOR INCLUSION IN THEIR BID.
 - CONTRACTOR SHALL REFER TO GENERAL NOTES, GIVING SPECIAL ATTENTION TO NOTE 5 UNDER THE GENERAL CONSTRUCTION NOTES SECTION, PRIOR TO CONSTRUCTION.



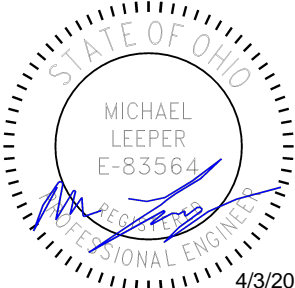
4 CENTEROCK ROAD
WEST NYACK, NY 10994



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



4/3/2025

PROJECT TITLE

MDG LOCATION #:
5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106

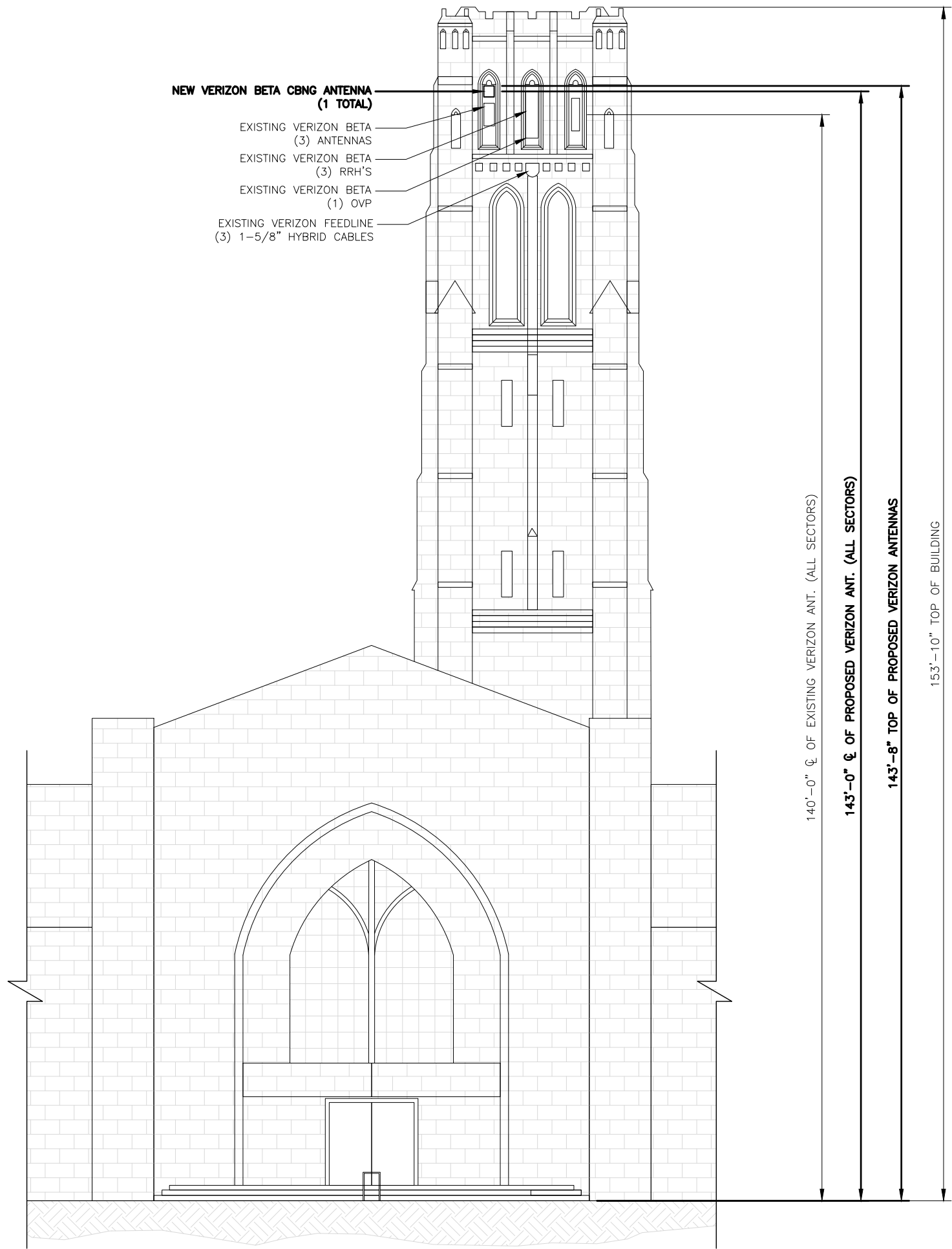
EXISTING ROOFTOP

SHEET DESCRIPTION

ROOF PLAN

SHEET NO.

A-1



PROPOSED SOUTH SIDE BUILDING ELEVATION



SCALE: 1/16"=1'-0" (11x17)
(OR) 1/8"=1'-0" (22x34)




4 CENTEROCK ROAD
WEST NYACK, NY 10994



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #:
5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106

EXISTING ROOFTOP

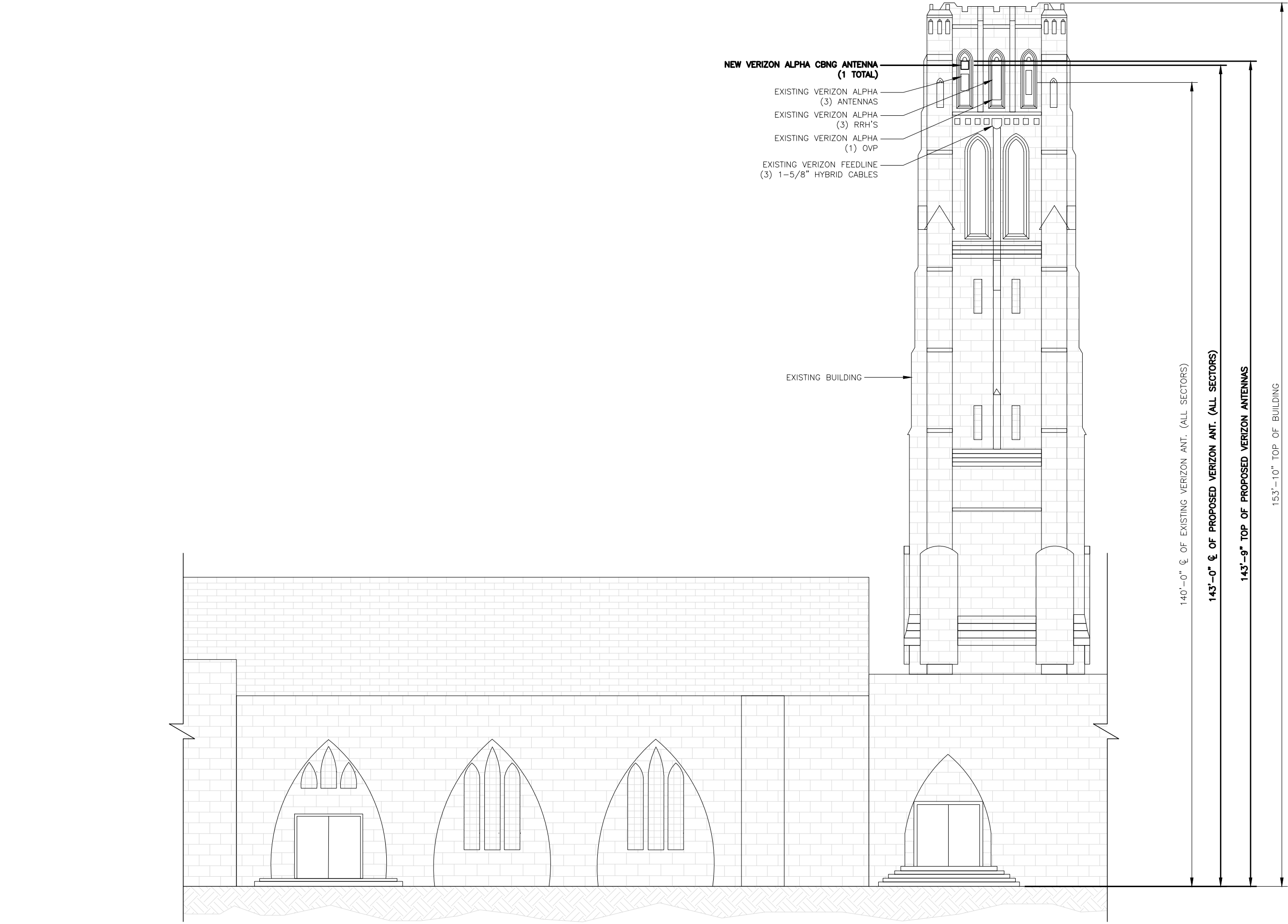
SHEET DESCRIPTION

ELEVATIONS

SHEET NO.

A-2

PROPOSED EAST SIDE BUILDING ELEVATION



verizon

4 CENTEROCK ROAD
WEST NYACK, NY 10994

Trylon

1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #:
5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106

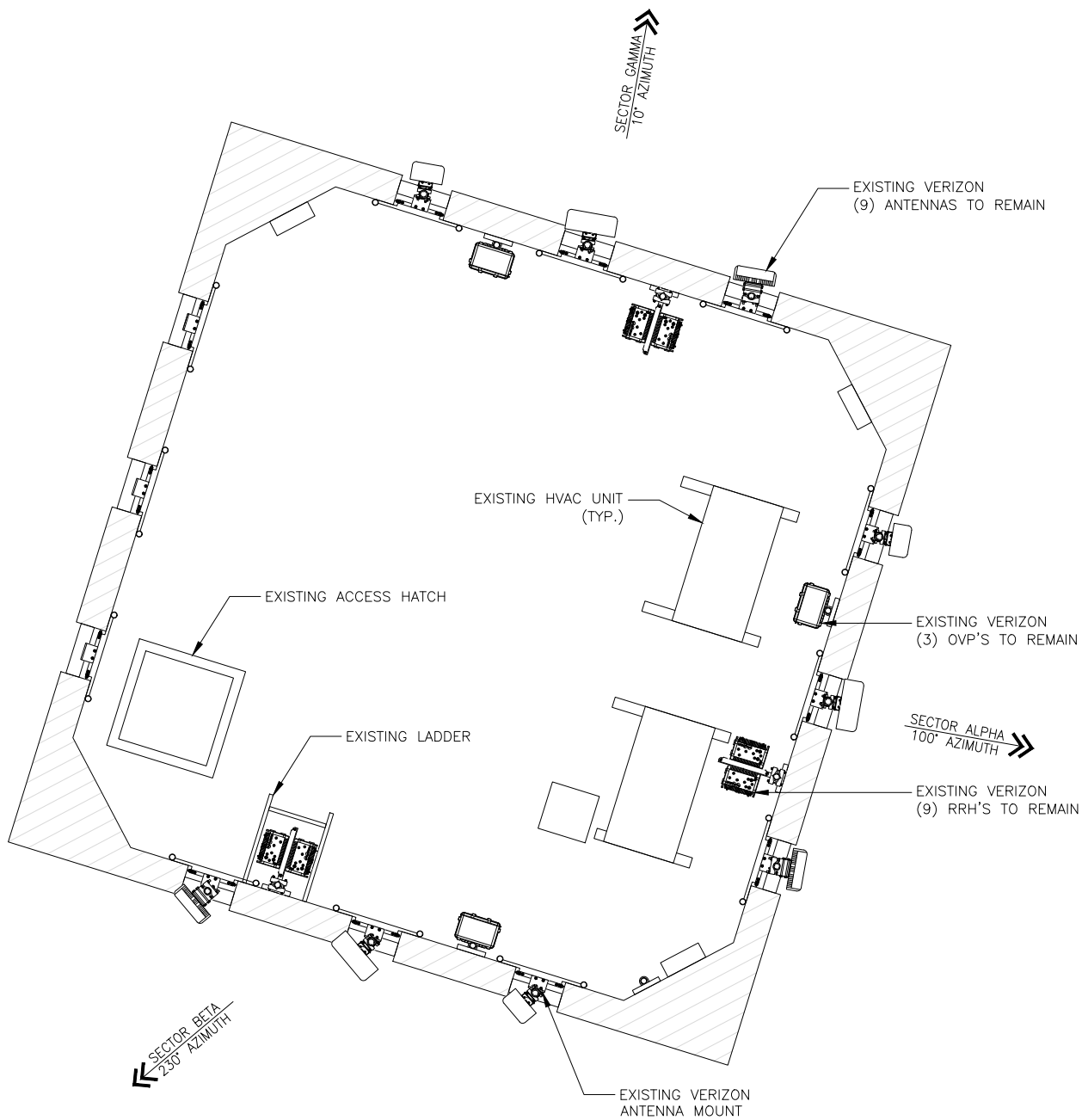
EXISTING ROOFTOP

SHEET DESCRIPTION

ELEVATIONS

SHEET NO.

A-2.1



EXISTING ANTENNA LAYOUT

0 3' 6'

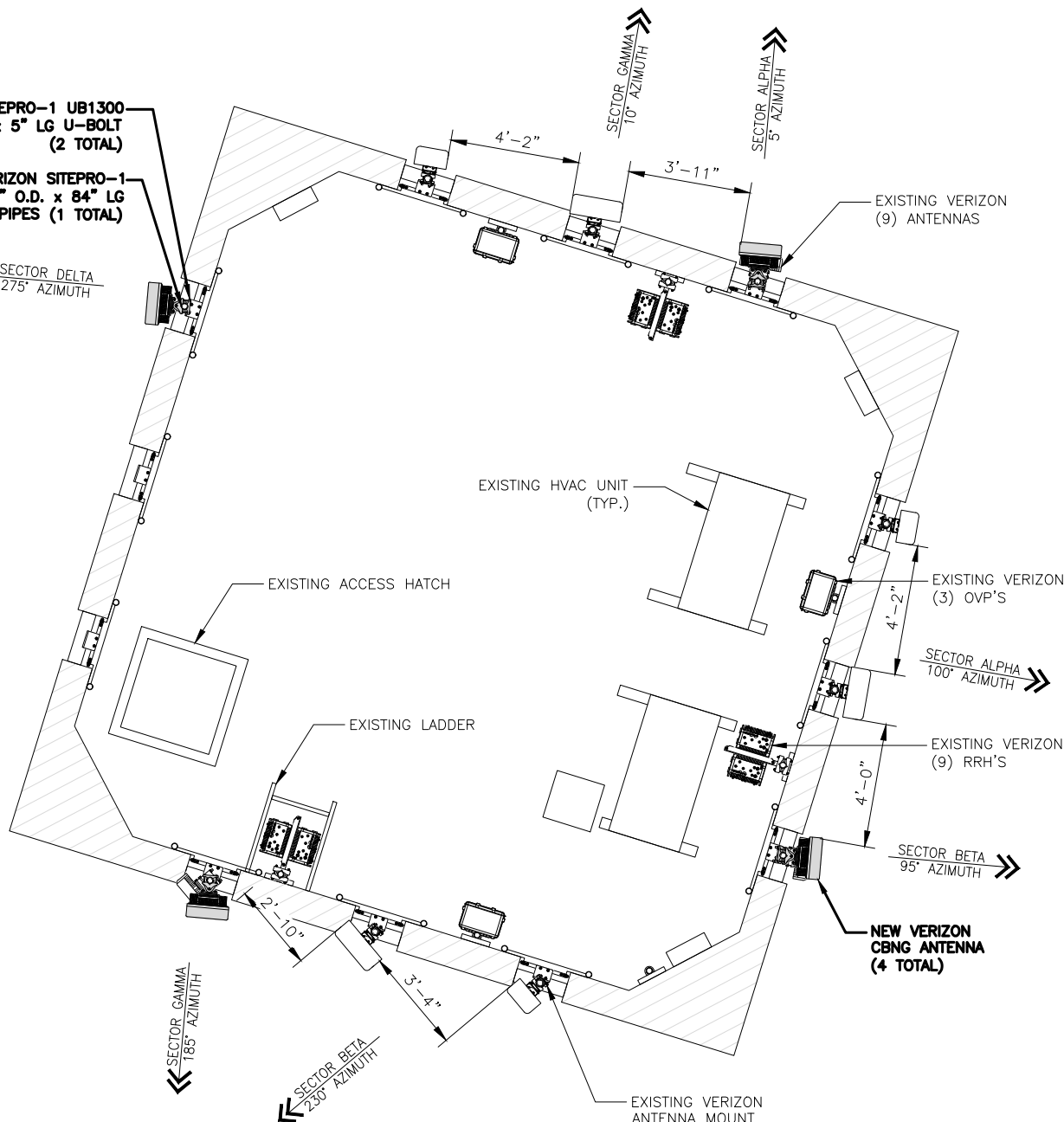
SCALE: 3/16"=1'-0" (11x17)
(OR) 3/8"=1'-0" (22x34)

1

PROPOSED ANTENNA LAYOUT

NEW VERIZON SITEPRO-1 UB1300
3" O.D. x 5" LG U-BOLT
(2 TOTAL)
NEW VERIZON SITEPRO-1
P284 2-3/8" O.D. x 84" LG
PIPES (1 TOTAL)

SECTOR DELTA
275° AZIMUTH



0 3' 6'

SCALE: 3/16"=1'-0" (11x17)
(OR) 3/8"=1'-0" (22x34)

2

verizon

4 CENTEROCK ROAD
WEST NYACK, NY 10994

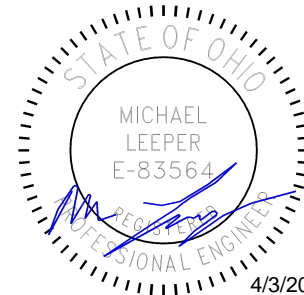


1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #:
5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106

EXISTING ROOFTOP

SHEET DESCRIPTION

ANTENNA PLANS

SHEET NO.

A-3

ANTENNA										TOWER EQUIPMENT	
SECTOR	TYPE	STATUS	MODEL	SPECIFICATIONS			QUANTITY	AZIMUTH (DEGREES)	DT ELECTRICAL (DEGREES)	DT MECH (DEGREES)	MAKE/MODEL
				LENGTH (IN)	WIDTH (IN)	DEPTH (IN)					
ALPHA	-	EXISTING	X7CAP-465-6C	50.5	12.5	7.1	1	100	0	0	(1) B2/B66A RRH-BR049 (RFV01U-D1A) (1) B5/B13 RRH-BR04C (RFV01U-D2A)
ALPHA	LTE 700/5G850/1900/AWS/CBRS	EXISTING	NNH4SS-65B-R3T8	72.8	19.6	7.8	1	100	8,6,3	0	(1) CBRS RRH - RT4401-48A
ALPHA	5G L-SUB6	EXISTING	MT6407-77A	35.1	16.1	5.5	1	100	3	0	INTEGRATED RRU
BETA	5G 39GHz	PROPOSED	39GHz VECTASTAR NRgNB	16.7	16.1	9.0	1	95	0	0	INTEGRATED RRU
BETA	-	EXISTING	X7CAP-465-6C	50.5	12.5	7.1	1	230	0	0	(1) B2/B66A RRH-BR049 (RFV01U-D1A) (1) B5/B13 RRH-BR04C (RFV01U-D2A)
BETA	LTE 700/5G850/1900/AWS/CBRS	EXISTING	NNH4SS-65B-R3T8	72.8	19.6	7.8	1	230	8,12,6	0	(1) CBRS RRH - RT4401-48A
BETA	5G L-SUB6	EXISTING	MT6407-77A	35.1	16.1	5.5	1	230	3	0	INTEGRATED RRU
GAMMA	5G 39GHz	PROPOSED	39GHz VECTASTAR NRgNB	16.7	16.1	9.0	1	185	0	0	INTEGRATED RRU
DELTA	5G 39GHz	PROPOSED	39GHz VECTASTAR NRgNB	16.7	16.1	9.0	1	275	0	0	INTEGRATED RRU
GAMMA	-	EXISTING	X7CAP-465-6C	50.5	12.5	7.1	1	10	0	0	(1) B2/B66A RRH-BR049 (RFV01U-D1A) (1) B5/B13 RRH-BR04C (RFV01U-D2A)
GAMMA	LTE 700/5G850/1900/AWS/CBRS	EXISTING	NNH4SS-65B-R3T8	72.8	19.6	7.8	1	10	8,7,3	0	(1) CBRS RRH - RT4401-48A
GAMMA	5G L-SUB6	EXISTING	MT6407-77A	35.1	16.1	5.5	1	10	3	0	INTEGRATED RRU
ALPHA	5G 39GHz	PROPOSED	39GHz VECTASTAR NRgNB	16.7	16.1	9.0	1	5	0	0	INTEGRATED RRU

SECTOR	BASE COLOR	700 LTE	AWS LTE	PCS LTE	850 LTE	850 1X	PCS 1X	GPS
SECTOR 1 (ALPHA)	WHITE	RED	YELLOW	LIGHT BLUE	PINK	GRAY	PURPLE	BROWN
SECTOR 2 (BETA)	BLUE	RED	YELLOW	LIGHT BLUE	PINK	GRAY	PURPLE	
SECTOR 3 (GAMMA)	GREEN	RED	YELLOW	LIGHT BLUE	PINK	GRAY	PURPLE	
SECTOR 4 (DELTA)	WHITE/WHITE	RED	YELLOW	LIGHT BLUE	PINK	GRAY	PURPLE	
SECTOR 5 (EPSILON)	BLUE/BLUE	RED	YELLOW	LIGHT BLUE	PINK	GRAY	PURPLE	
SECTOR 6 (ZETA)	GREEN/GREEN	RED	YELLOW	LIGHT BLUE	PINK	GRAY	PURPLE	

NOTES:

1. CONTRACTOR SHALL PROVIDE MECHANICAL DOWNTILT BRACKETS.
2. VERIFY CABLE LENGTHS IN FIELD AND COORDINATE WITH VERIZON WIRELESS PRIOR TO ORDERING.
3. VERIFY CABLE MANUFACTURER AND DIAMETER WITH VERIZON WIRELESS PRIOR TO ORDERING.
4. CONTRACTOR SHALL CONFIRM GPS MODEL AND CABLE WITH VERIZON WIRELESS.
5. VERIFY MAKES AND MODEL NUMBERS WITH VERIZON WIRELESS RF ENGINEER AND PROVIDE 1/2" HELIAX ANTENNA JUMPERS OF APPROPRIATE LENGTHS AT THE EQUIPMENT AND AT THE ANTENNAS.



4 CENTEROCK ROAD
WEST NYACK, NY 10994



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #:
5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106

EXISTING ROOFTOP

SHEET DESCRIPTION

ANTENNA & CABLE SCHEDULE

SHEET NO.

A – 4

Product Dimensions: 409mm (width) x 455mm (height) x 229mm (depth)



Pxxx: Bulk Pipe



Part #	Length	OD x Length (in)
Schedule 40		
P250	5'-0"	2-3/8" x 60"
P263	5'-3"	2-3/8" x 63"
P272	6'-0"	2-3/8" x 72"
P284	7'-0"	2-3/8" x 84"
P296	8'-0"	2-3/8" x 96"
P2108	9'-0"	2-3/8" x 108"
P2120	10'-0"	2-3/8" x 120"
P2126	10'-6"	2-3/8" x 126"
P2150	12'-6"	2-3/8" x 150"
P2174	14'-6"	2-3/8" x 174"
P2252	21'-0"	2-3/8" x 252"
P3072	6'-0"	2-7/8" x 72"
P3084	7'-0"	2-7/8" x 84"
P3096	8'-0"	2-7/8" x 96"
P30108	9'-0"	2-7/8" x 108"
P30120	10'-0"	2-7/8" x 120"
P30126	10'-6"	2-7/8" x 126"
P30150	12'-6"	2-7/8" x 150"
P30174	14'-6"	2-7/8" x 174"
P30252	21'-0"	2-7/8" x 252"
P360	5'-0"	3-1/2" x 60"
P372	6'-0"	3-1/2" x 72"
P384	7'-0"	3-1/2" x 84"
P396	8'-0"	3-1/2" x 96"
P3150	12'-6"	3-1/2" x 150"
P3160	13'-4"	3-1/2" x 160"
P3174	14'-6"	3-1/2" x 174"
P3216	18'-0"	3-1/2" x 216"
P3252	21'-0"	3-1/2" x 252"
P472	6'-0"	4-1/2" x 72"
P4126	10'-6"	4-1/2" x 126"
P4252	21'-0"	4-1/2" x 252"



- Features:**
- Factory cut end, hot-dip galvanized pipe
- Construction:**
- ASTM A53 Grade B
 - Schedule 40 or Schedule 80
- Design Criteria:**
- ASTM A53 Grade B (Yield $F_y = 35$ ksi [240 MPa]/Tensile $F_u = 60$ ksi [415 MPa])
 - Hot dip galvanized in accordance with ASTM A123 requirements

Part #	Length	OD x Length (in)
Schedule 80		
P2252-80	21'	2-1/2" x 252"
P30126-80	10'-6"	2-7/8" x 126"
P30252-80	21'	2-7/8" x 252"
P3252-80	21'	3-1/2" x 252"

SitePro1.com 888-438-7761

39GHZ VECTASTAR NRGNB ANTENNA DETAILS

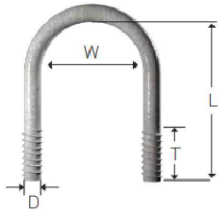
N.T.S.

1 PIPE DETAIL

N.T.S.

2

UBxxx: U-Bolt Assemblies



- Features:**
- Kit includes U-bolt, two nuts, two lock washers, and two flat washers
 - Long thread lengths
- Design Criteria:**
- SAE J429 Grade 5 for 5/8" diameter, all others J429 Grade 2
 - Rolled or cut ONC threads
 - Hot-dip galvanized per ASTM A123

Part #	Diameter (D)	Width (W)	Length (L)	Thread (T)
UB3200	3/8"	2"	3"	1-1/4"
UB3212	3/8"	2-1/2"	3-5/8"	1-3/4"
UB3300	3/8"	3"	4-1/4"	2"
UB3312	3/8"	3-1/2"	4-3/4"	2"
UB3418	3/8"	4"	5-3/4"	2-1/2"
UB1400	1/2"	2"	4"	2"
UB1212	1/2"	2-1/2"	4-1/2"	2"
UB1300	1/2"	3"	5"	2"
UB1358	1/2"	3-5/8"	5-1/2"	3"
UB1306	1/2"	3-5/8"	6"	3"
UB1418	1/2"	4-1/8"	6"	3"
UB1458	1/2"	4-5/8"	7"	3"
UB5258	5/8"	2-5/8"	4-1/2"	2"
UB5300	5/8"	3"	5-1/4"	2-1/2"
UB5358	5/8"	3-5/8"	6"	3"
UB5418	5/8"	4-1/8"	7"	3"
UB5458	5/8"	4-5/8"	7"	3"

SitePro1.com 888-438-7761

U-BOLT DETAIL

N.T.S.

3 NOT USED

N.T.S.

4

verizon

4 CENTEROCK ROAD
WEST NYACK, NY 10994



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #: 5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH 44106




























EXISTING ROOFTOP

SHEET DESCRIPTION

EQUIPMENT AND ANTENNA
SPECIFICATIONS

SHEET NO.

D—1

ELECTRICAL LEGEND			
LIGHTING FIXTURES		EQUIPMENT	
	1' X 4' SURFACE MOUNTED FLOURESCENT FIXTURE WITH WRAP AROUND ACRYLIC PRISMATIC LENS. LITHONIA PART NO. LB-332-120-SS81/3-NYC. LAMPS: (3) F32T8/35K		DISCONNECT SWITCH 30 = AMP RATING NF = NON-FUSED
			PULLBOX
	50 WATT H.P.S. EXTERIOR WALL MOUNTED FIXTURE W/ PHOTOCELL. MOUNT 6" A.F.G. TO BOTTOM. HUBBELL NO. NRG-301-120-PC		PANELBOARD
			MOTOR-OPERATED DAMPER
POWER			MOTOR
	HOMERUN TO DESIGNATED PANEL. CROSS LINES INDICATE NUMBER OF CONDUCTORS WHEN MORE THAN TWO (GROUND NOT INCLUDED) NUMBER DENOTES CIRCUIT	GROUNDING	
	TRANSFORMER		#2 SOLID TINNED COPPER UNLESS OTHERWISE NOTIFIED
			EXOTHERMIC WELD CONNECTION
WIRING DEVICES			MECHANICAL CONNECTION, DOUBLE-CRIMP "C" TYPE
	DUPLEX RECEPTACLE, 20 AMP, 125 V, LEVITON NO. 5262-I MOUNT 1" A.F.F. TO CENTER		MASTER GROUND BAR
	DOUBLE DUPLEX RECEPTACLE. (2) 20 AMP, 125 V, LEVITON NO. 5262-I MOUNT 1" A.F.F. TO CENTER		INSULATED GROUND BAR
	20 AMP, 125 V, DUPLEX RECEPTACLE W/ GROUND FAULT INTERRUPTER LEVITON NO. 6599 W/ LOCKING COVER 5977		UNINSULATED GROUND BAR
	SINGLE POLE, 20 AMP TOGGLE SWITCH LEVITON NO. CSB 1-20. MOUNT 4'-0" A.F.F. TO TOP.		5/8" x 10' COPPER CLAD GROUND ROD
	TWO-POLE, 20 AMP TOGGLE SWITCH LEVITON NO. CSB 2-20. MOUNT 4'-0" A.F.F. TO TOP.		
	3-WAY, 20 AMP TOGGLE SWITCH LEVITON NO. CSB 3-20. MOUNT 4'-0" A.F.F. TO TOP.		
AUXILIARY SYSTEMS			
	CEILING-MOUNTED IONIZATION SMOKE DETECTOR		
	CEILING MOUNTED PHOTOELECTRIC SMOKE DETECTOR		
	SELF-CONTAINED COMBINATION EMERGENCY LED LIGHT W/ (2) LAMPHEADS. DUAL-LITE NO.: LTSRW		
	FIRE ALARM PULL STATION. MOUNT 48" A.F.F. TO TOP.		
	FIRE ALARM HORN / STROBE. MOUNT 80" A.F.F. TO TOP.		

GENERAL SPECIFICATIONS:

- ALL WORK SHOULD BE DONE IN A NEAT WORKMANLIKE MANNER, LEFT CLEAN AND FREE FROM DEFECTS, AND COMPLETELY OPERABLE. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AS SCHEDULED ON THE DRAWINGS. ALL MATERIALS SHALL BE NEW AND ALL WORK AND MATERIALS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER.
- ALL WORK SHALL BE CAREFULLY COORDINATED WITH THE LANDLORD AND ALL TRADES INVOLVED, AND THE CONTRACTOR SHALL PROVIDE PROPER CONNECTIONS, FITTINGS, VALVES, PIPING, ETC. FOR ALL EQUIPMENT FURNISHED BY CARRIER OR OTHER TRADES INVOLVED IN THIS CONTRACT.
- CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY CONFLICT DISCOVERED BEFORE PERFORMING ANY WORK RELATED TO SUCH CONFLICT.
- PROVIDE ALL REQUIRED TEMPORARY UTILITIES AND PAY ALL ASSOCIATED FEES AND OPERATING COSTS.
- THE GENERAL CONTRACTORS SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR THEIR RESPECTIVE WORK, INCLUDING STRUCTURALLY FRAMED OPENINGS SHALL BE CUT AND FRAMED BY THE GENERAL CONTRACTOR. ALL HOLES IN MASONRY FLOORS AND WALLS SHALL BE CORE DRILLED.

GROUNDING NOTES:

- ALL GROUNDING CONDUCTORS SHALL BE #2 SOLID TINNED COPPER, UNLESS OTHERWISE NOTED.
- ALL EXTERIOR CONNECTIONS TO GROUND CONDUCTOR SHALL BE EXOTHERMICALLY WELDED (CADWELD).
- ALL CONNECTIONS BELOW GRADE SHALL BE EXOTHERMICALLY WELDED (CADWELD).
- CONNECTIONS TO GROUND BARS SHALL BE MADE UTILIZING TWO-HOLE LONG BARREL TYPE STAINLESS STEEL BOLTS, NUTS, AND LOCKWASHERS.
- CONNECTIONS TO EQUIPMENT AND ENCLOSURES SHALL BE MADE UTILIZING TWO-HOLE GROUND LUGS WITH AN ANTI-OXIDENT COMPOUND.
- THE GROUNDING SYSTEM SHALL BE TESTED UPON INSTALLATION. THE MAXIMUM RESISTANCE TO GROUND SHALL NOT EXCEED 5 OHMS.
- WHERE GROUNDING CONNECTIONS ARE MADE TO PAINTED METAL, SURFACES SHALL BE SCRAPED CLEAN TO BEAR METAL TO INSURE PROPER CONTACT. SURFACES SHALL BE RESTORED TO MATCH ORIGINAL FINISHES.
- ALL BENDS IN GROUNDING CONDUCTORS SHALL NOT BE LESS THAN A 12" RADIUS.
- BOND ALL METALLIC RACEWAYS, EQUIPMENT ENCLOSURES, AND BOXES.
- ALL BONDING CONDUCTORS SHALL BE #6 AWG. STRANDED INSULATED COPPER.
- CABLE TO CABLE CONNECTIONS SHALL BE EXOTHERMICALLY WELDED (CADWELD).
- CABLE TO STEEL CONECTIONS SHALL BE EXOTHERMICALLY WELDED (CADWELD), UNLESS OTHERWISE NOTED.
- USE OF NINETY DEGREE BENDS SHALL BE AVOIDED. BENDS SHALL BE FORTY FIVE DEGREES WHERE POSSIBLE.
- BOND ALL SERVICE RACEWAYS, EQUIPMENT ENCLOSURES, METER FITTINGS, BOXES, AND METALLIC RACEWAYS IN ACCORDANCE WITH SECTION 250-71 OF THE NATIONAL ELECTRIC CODE.

THE CONTRACTOR IS REQUIRED TO CONTACT AND MEET WITH THE UTILITY COMPANIES PRIOR TO STARTING CONSTRUCTION. THIS IS NECESSARY TO VERIFY THAT FOLLOWING UTILITY POINTS HAVE REMAINED CONSISTENT WITH THE CONTRACTOR DOCUMENTS: * TELEPHONE DEMARCATION POINT * ELECTRICAL SERVICE TAP POINT * NEW UTILITY METER LOCATION

ALL HIGH VOLTAGE WIRING CONDUITS ALONG ROOF SHALL BE COLOR CODED RED. ALL LOW VOLTAGE WIRING CONDUITS ALONG ROOF SHALL BE COLOR CODED ORANGE, AND ALL BARE ANTENNA CABLES SHALL BE COLOR CODED ORANGE WITH CONTINUOUS, DURABLE AND WEATHERPROOF REFLECTIVE OR LUMINESCENT MARKING AS PER SECTION 504.4.2 OF NYC FIRE CODE.

ELECTRICAL SPECIFICATIONS:

- GENERAL:
 - THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION EQUIPMENT, SERVICES AND FACILITIES REQUIRED FOR THE COMPLETE, PROPER AND SUBSTANTIAL INSTALLATION OF ALL ELECTRICAL WORK. ALL FIXTURES, DEVICES, AND EQUIPMENT SHOWN, NOTED OR REQUIRED ON THESE DRAWINGS, AND/OR CONTAINED HEREIN SHALL BE CONNECTED FROM THE SOURCE OF ELECTRIC POWER TO THE FINAL CONNECTION, TESTED AND MADE READY FOR SATISFACTORY OPERATION.
 - ALL CONTROL WIRING SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. OTHER CONTRACTORS SHALL PROVIDE STARTERS, ETC. FOR ALL EQUIPMENT THEY FURNISH, UNLESS SPECIFICALLY INDICATED ON THE ELECTRICAL DRAWINGS.
 - UNLESS OTHERWISE INDICATED, THE ARRANGEMENT, POSITION, CONNECTIONS, ETC. SHOWN ON THE DRAWINGS SHALL BE TAKEN DIAGRAMMATIC. THE RIGHT IS RESERVED BY THE ENGINEER TO MAKE MINOR CHANGES IN LOCATIONS AND ARRANGEMENTS WHEN REQUIRED BY JOB DEVELOPMENT WITHOUT ADDITIONAL COMPENSATION TO THE CONTRACTOR.
 - REFER TO THE GENERAL SPECIFICATION, THIS SHEET.
 - ALL WORK SHALL CONFORM TO THE ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND LOCAL, STATE AND APPLICABLE CODES.
 - PROVIDE AS-BUILT DRAWINGS TO OWNER AT CONCLUSION OF PROJECT.
 - OBTAIN ALL PERMITS AND APPROVALS FROM AUTHORITIES HAVING JURISDICTION AND PAYING ALL FEES REQUIRED.
 - WHEN A UTILITY COMPANY METER IS SPECIFIED, THE CONTRACTOR SHALL OBTAIN ALL ASSOCIATED CUT-IN CARDS, INSPECTIONS, ETC., NECESSARY TO HAVE THE METER SET. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MEET WITH UTILITY COMPANY PRIOR TO CONSTRUCTION TO VERIFY SOURCE OF ELECTRIC SERVICE, TAP AND METER LOCATION.
 - GROUND RING DEPTH SHALL BE 30 INCHES MINIMUM BELOW FINISHED GRADE, OR 6 INCHES BELOW FROST LINE, WHICHEVER IS THE GREATER DISTANCE.

IDENTIFICATION:

- PROVIDE TYPEWRITTEN DIRECTORIES FOR PANELS, INDICATING USE OF EACH BRANCH CIRCUIT AND DESIGNATING SPARE CIRCUITS. HANDWRITTEN DIRECTORIES ARE NOT ACCEPTABLE.
- LABEL ALL CONDUITS AND WIRES WITH THEIR ASSOCIATED CONDUIT AND CIRCUIT/TERMINAL NUMBERS. MARKERS TO BE AS MANUFACTURED BY SETON NAMEPLATE CORP., OR EQUAL.

- ALL PANELBOARDS, SWITCHES AND OTHER EQUIPMENT ENCLOSURES SHALL BEAR ENGRAVED NAMEPLATES AS MANUFACTURED BY SETON NAMEPLATE CORP., OR EQUAL. LETTERING TO BE 1/2 INCH HIGH WHITE LETTERS ON BLACK BACKGROUND UNLESS NOTED OTHERWISE.
- RACEWAYS:
 - MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - EXPOSED RACEWAYS SHALL BE RUN TRUE, PLUMB, AND PARALLEL OR PERPENDICULAR TO BUILDING LINES.
 - CONDUIT SUPPORTS SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10 FEET APART.
 - WIRING METHODS:
 - SINGLE CONDUCTOR CABLES SHALL BE USED FOR FEEDERS AND BRANCH CIRCUIT WIRING. MINIMUM SIZE WIRE SHALL BE #12 AWG UNLESS OTHERWISE INDICATED AND SHALL BE SIZED TO CONFORM TO NORMAL NEC VOLTAGE DROPS. WIRE SIZES #10AWG AND SMALLER SHALL BE SOLID, #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS SHALL BE COPPER.
 - CONDUCTORS SHALL BE CONTINUOUS FROM ORIGIN TO PANEL OR EQUIPMENT WITHOUT SPLICES. WHERE TAP SPLICES ARE NECESSARY AND APPROVED, THEY SHALL BE MADE WITH SUITABLE CONNECTORS IN JUNCTION BOXES.
 - PHASE CONDUCTORS SHALL BE IDENTIFIED WITH THE FOLLOWING COLOR CODED TAPE AT BOTH ENDS:

120/208 VOLTS	277/480 VOLTS
PHASE A	BLACK
PHASE B	BROWN
PHASE C	ORANGE
NEUTRAL	YELLOW
GROUND	WHITE W/ GREY STRIPE
	GREEN
 - PROVIDE FIRESTOPPING AROUND ALL CONDUITS AT WALL AND FLOOR PENETRATIONS.
 - SEAL ALL EXTERIOR WALL PENETRATIONS AS REQUIRED.
 - THE CONTRACTOR SHALL CONCEAL ALL CONDUIT ROUTING PASSING THROUGH FINISHED AREAS. CONDUIT ROUTING THROUGH UNFINISHED AREAS SHALL BE SUPPORTED AS SPECIFIED IN DRAWINGS. UNLESS CLEARLY SPECIFIED, NO CONDUITS SHALL BE ROUTED ON EXTERIOR SURFACE OF BUILDING.
 - UNDERGROUND CONDUITS SHALL BE A MINIMUM OF 24" BELOW FINISHED GRADE. ALL UNDERGROUND WORK SHALL BE DOCUMENTED BY PHOTOGRAPH BEFORE ANY BACKFILL IS BEGUN. PHOTOS WILL BE REQUIRED AT TIME PUNCHLIST IS PERFORMED. FEEDERS SHALL BE INDIVIDUAL CONDUCTORS IN SCHEDULE 40 PVC, DIRECT BURIAL CONDUIT. WHEN BURIED CONDUITS ARE SUBJECT TO VEHICULAR TRAFFIC, CONDUITS SHALL BE ENCASED IN CONCRETE. ALL SWEEPS BELOW GRADE SHALL BE SCHEDULE 80 PVC.
 - ALL FEEDERS RUN INDOORS SHALL CONSIST OF EMT WITH INDIVIDUAL CONDUCTORS. FLEXIBLE METALLIC CONDUIT (MC) SHALL BE USED WHERE STRUCTURAL MEMBER PROHIBIT CONDUIT. MC MAY ALSO BE UTILIZED FOR LIGHTING WHIPS, BRANCH CIRCUITS AND OTHER MISCELLANEOUS APPLICATIONS PERMITTED BY CODE.
 - ALL FEEDERS IN "DAMP" OR "WET" LOCATIONS SHALL CONSIST OF INDIVIDUAL CONDUCTOR IN RIGID GALVANIZED STEEL OR RIGID ALUMINUM CONDUIT. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE UTILIZED WHEN CONNECTING TO EQUIPMENT CABINETS AND VIBRATING EQUIPMENT. THE MAXIMUM LENGTH FOR FLEXIBLE CONDUIT SHALL BE 6'-0".
 - WIRING DEVICES:
 - SWITCHES, RECEPTACLES AND OTHER WIRING DEVICES SHALL BE SPECIFICATION GRADE OF TYPE, SIZE AND RATING INDICATED ON THE DRAWINGS.
 - DISCONNECT SWITCHES:
 - SWITCHES SHALL BE QUICK-MAKE, QUICK-BREAK NEMA 1 FOR INDOOR USE AND NEMA 3R FOR OUTDOOR USE AS MANUFACTURED BY GENERAL ELECTRIC, SQUARE D OR EQUAL. ELECTRICAL CONTRACTOR TO PROVIDE ALL SAFETY DISCONNECTS.
 - SPECIAL REQUIREMENTS:
 - THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL POWER AND CONTROL WIRING FOR EQUIPMENT FURNISHED UNDER HVAC, PLUMBING AND GENERAL TRADE SECTIONS.
 - ALL WORK REQUIRING AN OUTAGE OR INTERRUPTION OF SERVICE (POWER, TELEPHONE) SHALL BE SCHEDULED ONLY AT SUCH TIME PERMITTED BY OWNER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE PROJECT WITH THE ADVISORY BOARD OF THE CITY OF NEW YORK (IF REQUIRED) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF NECESSARY DRAWINGS, FORMS AND ALL ASSOCIATED FEES.
 - LIGHTING FIXTURES AND LAMPS:
 - LIGHTING FIXTURES SHALL BE FURNISHED COMPLETE WITH NECESSARY HARDWARE AND LAMPS.
 - PANELBOARDS:
 - PANELS SHALL BE BOLTED- ON MOLDED CASE CIRCUIT BREAKER TYPE WITH DOORS AND LOCKS.
 - ALL CONDUCTOR TERMINALS SHALL BE U.L. LISTED FOR MINIMUM OF 75"
 - TRANSFORMERS:
 - TRANSFORMERS SHALL BE DRY TYPE WITH AVERAGE TEMPERATURE RISE NOT TO EXCEED 150° C (115° C) (80° C).
 - TRANSFORMERS SHALL BE AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC OR SIEMENS.
 - TRANSFORMER TO BE INSTALLED WITH A NEMA 3R WEATHERSHIELD.

DRAWING INDEX	
DWG #	DRAWING TITLES
E-001	GENERAL INFORMATION
E-010	ELECTRICAL & GROUNDING DETAILS

verizon

4 CENTEROCK ROAD
WEST NYACK, NY 10994



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG



PROJECT TITLE

MDG LOCATION #: 5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH 44106

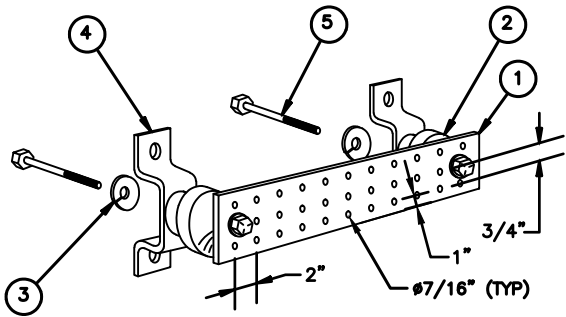
EXISTING ROOFTOP

SHEET DESCRIPTION

ELECTRICAL NOTES

SHEET NO.

E—1

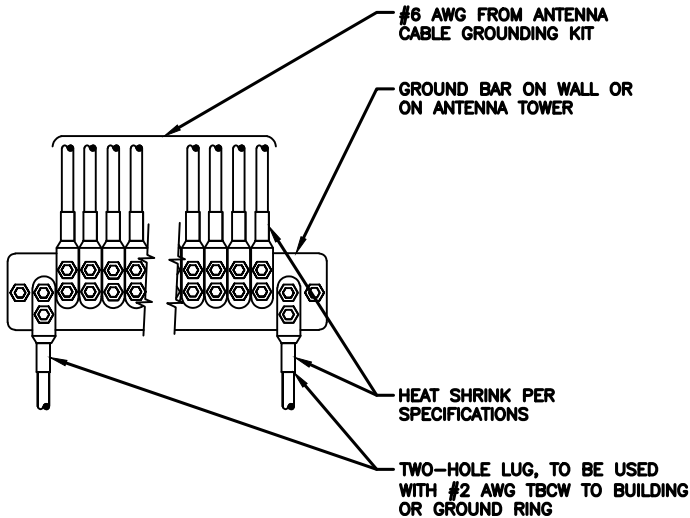


ITEM NO	REQ.	DESCRIPTION	NEWTON #
①	1	GALVANIZED STEEL GROUND BAR 1/4"x1/4"x20". HAGER PART NO TGB-14420G OR ALT PART NO 382227. HOLES CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.	-
②	2	INSULATORS	3061-4
③	4	5/8" LOCK WASHER	3015-8
④	2	WALL MTG. BRKT (OR FLOOR)	A-8056
⑤	4	5/8"-11 x 1 H.H.C.S. BOLTS	3012-1

GROUND BAR DETAIL

N.T.S.

1

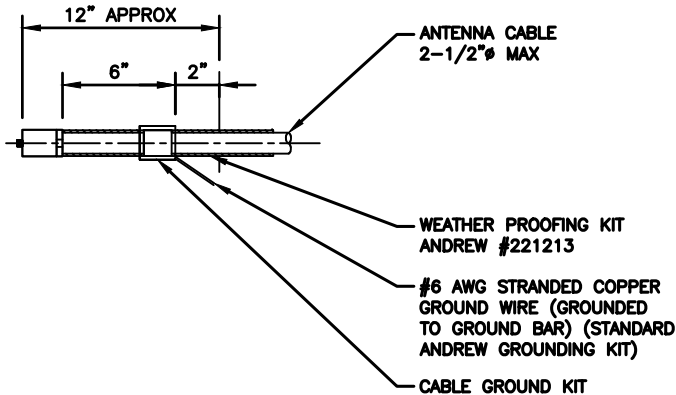


NOTE:
CONTRACTOR TO UTILIZE KOPR-SHIELD (THOMAS & BETTS) ON ALL LUG CONNECTIONS

GROUND LUG TO GROUND BAR CONNECTION DETAIL

N.T.S.

2

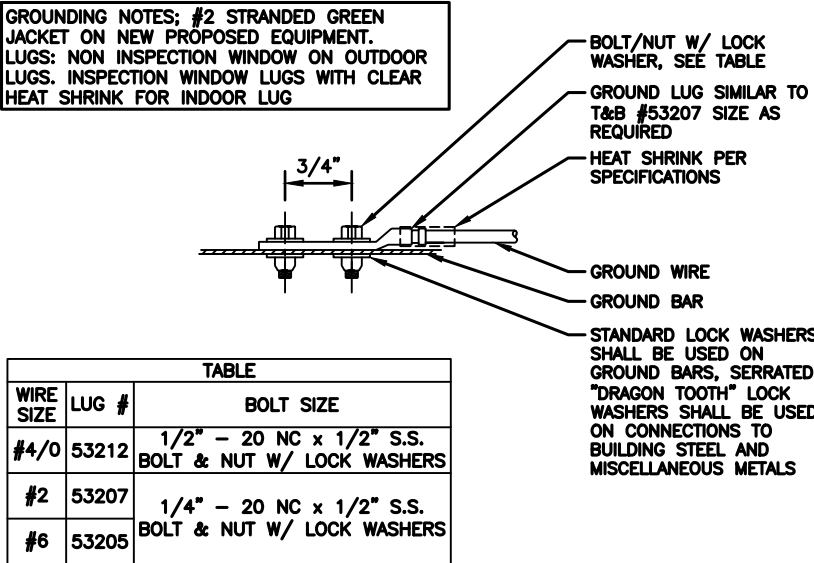


NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

CABLE GROUND KIT CONNECTION DETAIL

N.T.S.

3



GROUND LUG CONNECTION DETAIL

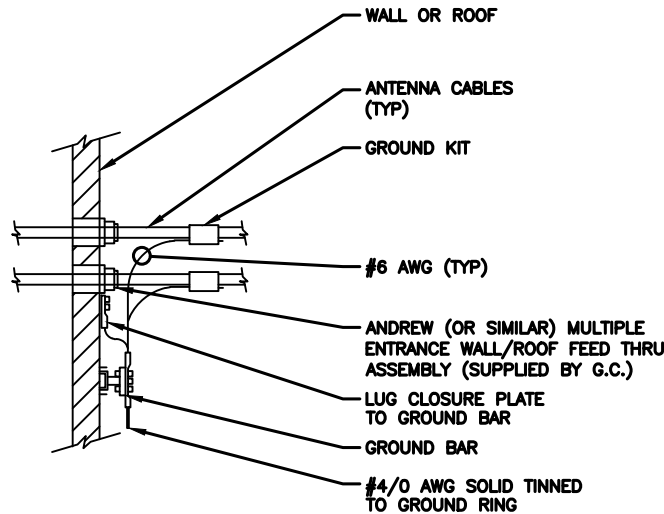
N.T.S.

4

NOT USED

N.T.S.

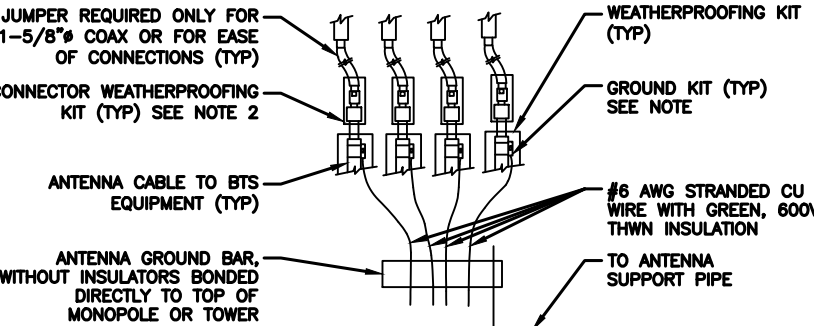
5



CABLE GROUNDING DETAIL

N.T.S.

6



NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.
3. ATTACH "DO NOT DISCONNECT" LABELS TO GROUND BARS. CAN USE BRASS TAG "DO NOT DISCONNECT" AT EACH COAX GROUND POINT OR BACK-A-LITE PLATE ON GROUND BAR.

GROUND BAR CONNECTION DETAIL

N.T.S.

7

NOT USED

N.T.S.

8

verizon

4 CENTEROCK ROAD
WEST NYACK, NY 10994

1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

ALL DRAWINGS CONTAINED HEREIN ARE FORMMATED FOR 11"x17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCEPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SUBMITTALS			
REV	DATE	DESCRIPTION	BY
A	03/18/25	90% CD	YOG
0	04/03/25	100% CD	YOG

STATE OF OHIO

MICHAEL
LEEPER
E-83564

REGISTERED
PROFESSIONAL ENGINEER

4/3/2025

PROJECT TITLE

MDG LOCATION #:
5000171167

CLEVELAND HTS

2747 FAIRMOUNT BLVD
CLEVELAND HEIGHTS, OH
44106

EXISTING ROOFTOP

SHEET DESCRIPTION

ELECTRICAL GROUNDING
NOTES AND DETAILS

SHEET NO.

E-2