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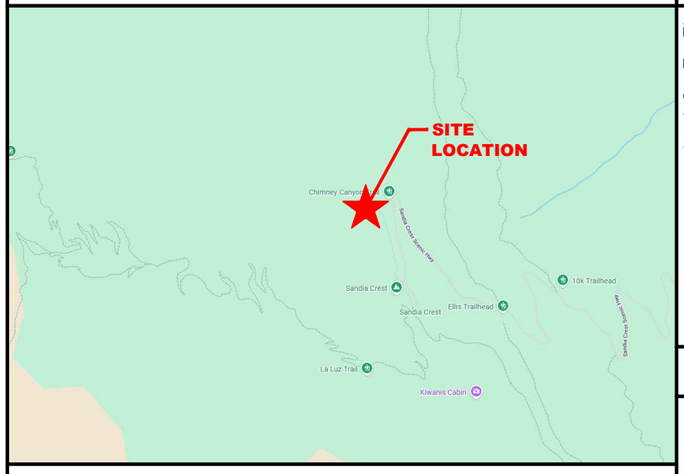
SANDIA CREST
CONSTRUCTION DRAWINGS

75'-6" SELF-SUPPORT TOWER
SANDIA CREST ROAD
SANDIA CREST, NM 87008
(BERNALILLO COUNTY)

VICINITY MAP



AERIAL MAP

PROJECT INFORMATION

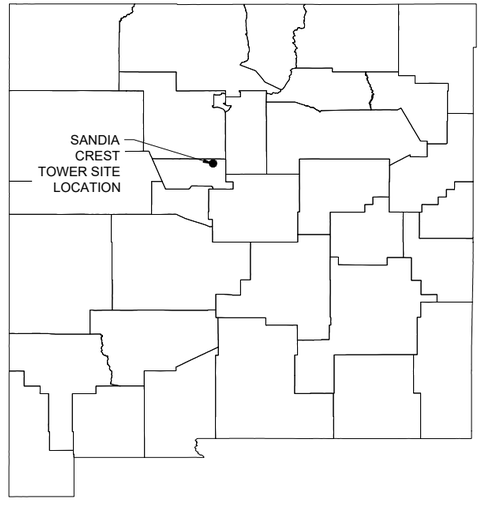
SITE DATA - SANDIA CREST TOWER:
LATITUDE: 35° 12' 55.4" N (35.215389°)
LONGITUDE: 106° 27' 08.0" W (-106.452222°)
GROUND ELEVATION: 10617 FT AMSL
SELF-SUPPORT TOWER HEIGHT: 75'-6"

ADDRESS: SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

APPLICANT/LESSEE:
FBI-OTD: VIDEO SURVEILLANCE UNIT
CONTACT: DARRELL SHORT
EMAIL: TDSHORT@FBI.GOV

PROJECT MANAGER:
RAMAKER
1955 ATWOOD AVENUE, SUITE 202
MADISON, WI 53704
CONTACT: ANGELA KVALHEIM, PROJECT MANAGER
PH.: (608) 643-4100
FAX: (608) 643-7999
EMAIL: akvalheim@ramaker.com

GENERAL LOCATION



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Certification & Seal:

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of New Mexico.

JEFFREY H. ZANDER
NEW MEXICO
25637
LICENSED PROFESSIONAL ENGINEER

Jeffrey H. Zander: 4/16/2026 Date:

MARK	DATE	DESCRIPTION
0	04/16/26	FINAL CDs ISSUED
A	02/12/26	PRELIMINARY CDs ISSUED

ISSUE PHASE: FINAL DATE ISSUED: 04/16/2026

PROJECT TITLE:
SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
TITLE SHEET

PROJECT NUMBER: 38075
SHEET NUMBER: T-1

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GENERAL

THE CONSTRUCTION DOCUMENT DRAWINGS ARE INTERRELATED. WHEN PERFORMING THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. COORDINATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

DIVISION 1: GENERAL REQUIREMENTS

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

1. OBTAIN AND SUBMIT RELEASES ENABLING THE OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES; INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES AND SIMILAR RELEASES

2. SUBMIT RECORD DRAWINGS, DAMAGE OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND ACCESS TO SERVICES AND UTILITIES; INCLUDE OCCUPANCY PERMITS, OPERATING

3. COMPLETE FINAL CLEAN UP REQUIREMENTS, INCLUDING TOUCH-UP PAINTING. TOUCH UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES.

PART 2 - FINAL CLEANING

1. COMPLETE THE FOLLOWING CLEANING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATION OF COMPLETION.
   A. CLEAN THE PROJECT SITE, YARD AND GROUNDS, IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT AREAS, OF RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN-TEXTURED SURFACE.
   B. REMOVE TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY AND SURPLUS MATERIAL FROM THE SITE.
   C. REMOVE SNOW AND ICE TO PROVIDE SAFE ACCESS TO THE SITE AND EQUIPMENT ENCLOSURE.
   D. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT FREE CONDITION, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
   E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING ROOFS, EQUIPMENT ENCLOSURE, MANHOLES, AND SIMILAR SPACES.
   F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.
   G. TOUCH-UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CAN NOT BE SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
   H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
   I. DUST-OFF ALL EQUIPMENT, INCLUDING BATTERY PACKS, WITHIN EQUIPMENT ENCLOSURE.
   J. WASH AND WAX FLOOR WITHIN EQUIPMENT ENCLOSURE.

2. REMOVAL OF PROTECTION: REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

DIVISION 2: SITE WORK

SECTION 02200 - EARTHWORK AND DRAINAGE

PART 1 - GENERAL

1. WORK INCLUDED: SEE SITE PLAN.

2. DESCRIPTIONS
   LEASE AREA, AND IF APPLICABLE ACCESS DRIVE / TURNAROUND AREA, AND UNDERGROUND UTILITY EASEMENTS ARE TO BE CONSTRUCTED TO PROVIDE A WELL DRAINED, EASILY MAINTAINED, EVEN SURFACE FOR MATERIAL AND EQUIPMENT DELIVERIES AND MAINTENANCE PERSONNEL ACCESS.

3. QUALITY ASSURANCE
   A. APPLY SOIL STERILIZER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (AS NEEDED).
   B. APPLY AND MAINTAIN GRASS SEED AS RECOMMENDED BY THE SEED PRODUCER (IF REQUIRED).
   C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, RECOMMENDED BY NURSERY INDUSTRY STANDARDS.

4. SEQUENCING
   A. CONFIRM SURVEY STAKES AND SET ELEVATION STAKES PRIOR TO ANY CONSTRUCTION.
   B. COMPLETELY GRUB THE ACCESS DRIVE W/ TURNAROUND, UNDERGROUND UTILITY EASEMENTS, (IF APPLICABLE) AND LEASE AREA PRIOR TO FOUNDATION CONSTRUCTION, PLACEMENT OF BACKFILL AND SUB-BASE MATERIAL.
   C. CONSTRUCT TEMPORARY CONSTRUCTION AREA ALONG ACCESS DRIVE.
   D. BRING THE LEASE AREA AND ACCESS DRIVE W/ TURNAROUND TO BASE COURSE ELEVATION PRIOR TO INSTALLING FOUNDATION.
   E. APPLY SOIL STERILIZER PRIOR TO PLACING BASE MATERIALS.
   F. GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRINGING LEASE AREA AND ACCESS DRIVE W/ TURNAROUND TO BASE COURSE ELEVATION, WATER TO ENSURE GROWTH.
   G. REMOVE GRAVEL FROM TEMPORARY CONSTRUCTION ZONE TO AN AUTHORIZED AREA OR AS DIRECTED BY PROJECT MANAGER.
   H. AFTER APPLICATIONS OF FINAL SURFACES, APPLY SOIL STERILIZER TO STONE SURFACES.

PART 2 - PRODUCTS

1. MATERIALS
   A. SOIL STERILIZER SHALL BE EPA-REGISTERED, PRE-EMERGENCE LIQUID:
      TOTAL KILL (PRODUCT 910) - EPA 10292-7
      PHASAR CORPORATION
      P.O. BOX 5123
      DEARBORN, MI 48128
      (313) 563-8000
      AMBUSH HERBICIDE - EPA REGISTERED
      FRAMAR INDUSTRIAL PRODUCTS
      1435 MORRIS AVE.
      UNION, NJ 07083
      (800) 526-4924

   B. ROAD AND SITE MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS FILL MATERIAL (UNLESS OTHERWISE NOTED) - ACCEPTABLE SELECT FILL SHALL STANDARD SPECIFICATIONS... BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION.
   C. SOIL STABILIZER FABRIC SHALL BE MIRAFI - 500X.

PART 3 - EXECUTION

1. INSPECTIONS
   LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, UNLESS OTHERWISE SPECIFIED BY JURISDICTION.

2. PREPARATION
   A. CLEAR TREES, BRUSH AND DEBRIS FROM LEASE AREA, ACCESS DRIVE W/ TURN-AROUND AND UNDER GROUND UTILITY EASEMENTS AS REQUIRED FOR CONSTRUCTION.
   B. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION, GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX (6) INCHES BELOW GRADE.
   C. UNLESS OTHERWISE INSTRUCTED BY CARRIER, TRANSPORT ALL REMOVED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
   D. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL.
   E. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.

3. INSTALLATION
   A. GRADE OR FILL THE LEASE AREA AND ACCESS DRIVE W/TURNAROUND AS REQUIRED IN ORDER THAT UPON DISTRIBUTION OF SPOILS, RESULTING FROM EXCAVATIONS, THE RESULTING GRADE WILL CORRESPOND WITH SAID SUB-BASE COURSE. ELEVATIONS ARE TO BE CALCULATED FROM BENCHMARK, FINISHED GRADES, OR INDICATED SLOPES.
   B. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND AGREED TO BY LANDOWNER.
   C. BRING THE ACCESS DRIVE W/ TURNAROUND TO BASE COURSE ELEVATION TO FACILITATE CONSTRUCTION AND OBSERVATION DURING CONSTRUCTION OF THE SITE.
   D. AVOID CREATING DEPRESSIONS WHERE WATER MAY POND.
   E. THE CONTRACT SHALL INCLUDE GRADING, BANKING, AND DITCHING, UNLESS OTHERWISE INDICATED.
   F. WHEN IMPROVING AN EXISTING ACCESS DRIVE, GRADE THE EXISTING DRIVE TO REMOVE ANY ORGANIC MATTER AND SMOOTH THE SURFACE BEFORE PLACING FILL OR STONE.
   G. PLACE FILL OR STONE IN SIX (6) INCH MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.
   H. THE TOP SURFACE COURSE SHALL EXTEND A MINIMUM OF ONE (1) FOOT BEYOND THE SITE FENCE (UNLESS OTHERWISE NOTED) AND SHALL COVER THE AREA AS INDICATED.
   I. APPLY RIPRAP TO THE SIDE SLOPES OF ALL FENCED SITE AREAS, PARKING AREAS, AND ALL OTHER SLOPES GREATER THAN 2:1.
   J. APPLY RIPRAP TO THE SIDES OF DITCHES OR DRAINAGE SWALES.
   K. RIPRAP ENTIRE DITCH FOR SIX (6) FEET IN ALL DIRECTIONS AT CULVERT OPENINGS.
   L. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIP RAPPED.
   M. UNDER NO CIRCUMSTANCES WILL DITCHES, SWALES, OR CULVERTS BE PLACED SO THAT THEY DIRECT WATER TOWARDS, OR PERMIT STANDING WATER IMMEDIATELY ADJACENT TO SHELTER OR EQUIPMENT. IF DESIGNS OR ELEVATIONS ARE IN CONFLICT WITH THIS, ADVISE CONSTRUCTION MANAGER IMMEDIATELY.
   N. IN DITCHES WITH SLOPES GREATER THAN 10%, MOUND DIVERSIONARY HEADWALLS IN THE DITCH AT CULVERT ENTRANCES. POSITION THE HEADWALL AT AN ANGLE NO GREATER THAT 60° OFF THE DITCH LINE. RIPRAP THE UPSTREAM SIDE OF THE HEADWALL AS WELL AS THE DITCH FOR SIX (6) FEET ABOVE THE CULVERT ENTRANCE.
   O. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEEDED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
   P. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
   Q. ENSURE GROWTH OF SEEDED AND LANDSCAPED AREAS, BY WATERING, UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.

4. FIELD QUALITY CONTROL
   COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION
   ACHIEVED ON AS-BUILT DRAWINGS.

5. PROTECTION
   A. PROTECT SEEDED AREAS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL BE AN ACCEPTABLE ALTERNATE.
   B. ALL TREES PLACED IN CONJUNCTION WITH A LANDSCAPE CONTRACT WILL BE WRAPPED, TIED WITH HOSE PROTECTED WIRE, AND SECURED TO 2" X 2" X 4'-0" WOODEN STAKES EXTENDING TWO-FEET INTO THE GROUND ON FOUR SIDES OF THE TREE.
   C. PROTECT ALL EXPOSED AREAS AGAINST WASHOUTS AND SOIL EROSION. PLACE STRAW BALES AT THE INLET APPROACH TO ALL NEW OR EXISTING CULVERTS. WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE RAIL LINE, STAKE EROSION CONTROL FABRIC FULL LENGTH IN THE SWALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

SECTION 02830 - FENCING AND GATE(S)

PART 1 - GENERAL

1. WORK INCLUDED
   SEE PLAN FOR SITE AND LOCATION OF FENCE AND GATE(S).

2. QUALITY ASSURANCE
   ALL STEEL MATERIALS UTILIZED IN CONJUNCTION WITH THIS SPECIFICATION WILL BE GALVANIZED OR STAINLESS STEEL. WEIGHT OF ZINC COATING ON THE FABRIC SHALL NOT BE LESS THAN 12 OUNCES
   PER SQUARE FOOT OF MATERIAL COVERED. POSTS SHALL BE HOT-DIPPED IN GRADE 'E' ZINC, 18 OUNCES PER SQUARE FOOT.

3. SEQUENCING
   IF THE SITE AREA HAS BEEN BROUGHT UP TO SURFACE COURSE ELEVATION (PRIOR TO THE FENCE CONSTRUCTION), FENCE POST EXCAVATION SPOILS MUST BE CONTROLLED TO PRECLUDE CONTAMINATION OF SAID SURFACE COURSE.

4. SUBMITTALS
   A. MANUFACTURER'S DESCRIPTIVE LITERATURE.
   B. CERTIFICATE OR STATEMENT OF COMPLIANCE WITH THE SPECIFICATIONS.

PART 2 - PRODUCTS

1. FENCE MATERIAL
   A. ALL FABRIC WIRE, RAILS, HARDWARE, AND OTHER STEEL MATERIALS SHALL BE HOT-DIPPED GALVANIZED.
   B. FABRIC SHALL BE SEVEN-FOOT HIGH OR TO MATCH EXISTING FENCE TWO-INCH CHAIN LINK MESH OF NO. 9 GAUGE (0.148") WIRE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A-392 CLASS 1.
   C. BARBED WIRE SHALL BE DOUBLE-STRAND, 12-1/2 GAUGE TWISTED WIRE, WITH 14-GAUGE, 4-POINT ROUND BARBS SPACED ON FIVE-INCH CENTERS.
   D. ALL POSTS SHALL BE SCHEDULE - 40 MECHANICAL SERVICE PIPE AND SHALL BE TYPE 1 ASTM A-128 AND OF THE FOLLOWING DIAMETER LINE 2" SCHEDULE 40 (23#8" O.D.)
   GATE 3" SCHEDULE 40 (31#2" O.D.)
   CORNER 3" SCHEDULE 40 (31#2" O.D.)
   E. GATE POSTS SHALL BE EXTENDED 12 INCHES, INCLUDING DOME CAP, TO PROVIDE FOR ATTACHMENT OF BARBED WIRE.

   F. ALL TOP AND BRACE RAILS SHALL BE 1" DIAMETER SCHEDULE 40 MECHANICAL-SERVICE PIPE.
   G. GATE FRAMES AND BRACES SHALL BE 1.90 INCH DIAMETER SCHEDULE 40 MECHANICAL-SERVICE PIPE. FRAMES SHALL HAVE WELDED CORNERS.
   H. GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE, AND A FULL-WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
   I. GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 6409, 188-DEGREE ATTACHMENT.
   J. THE GUIDE (LATCH ASSEMBLY) SHALL BE HEAVY INDUSTRIAL DOUBLE GATE LATCH. SEE DETAIL.
   K. LATCHES AND STOPS SHALL BE PROVIDED FOR ALL GATES.
   L. PLUNGER ROD COMPLETE WITH RECEPTOR TO BE PROVIDED AT THE INACTIVE LEAF OF ALL DOUBLE GATE INSTALLATIONS.
   M. ALL STOPS SHALL HAVE KEEPERS CAPABLE OF HOLDING THE GATE LEAF IN THE OPEN POSITION.
   N. A NO. 7 GAUGE ZINC COATED TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.
   O. A SIX-INCH BY 1/2-INCH DIAMETER EYEBOLT TO HOLD TENSION WIRE SHALL BE PLACED AT LINE POSTS.
   P. STRETCHER BARS SHALL BE 3/16-INCH BY 3/4-INCH OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.
   Q. ALL CORNER GATE AND PANELS SHALL HAVE A 3/8-INCH TRUSS ROD WITH TURNBUCKLES.
   R. ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARBED WIRE SUPPORTING ARM. GATE POSTS SHALL HAVE A DOME CAP.
   S. OTHER HARDWARE INCLUDES BUT MAY NOT BE LIMITED TO TIE CLIPS, BAND CLIPS AND TENSION BAND CLIPS.
   T. BARBED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
   U. BARBED WIRE SUPPORT ARMS SHALL BE PRESSED STEEL COMPLETE WITH SET BOLT AND LOCK WIRE IN THE ARM.
   V. ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.
   W. WHERE THE USE OF CONCERTINA HAS BEEN SPECIFIED, 24-INCH DIAMETERS COIL. BARBED TAPE, STAINLESS STEEL, CYCLONE FENCE MODEL G8P TO TYPE III SHALL BE FURNISHED. IT SHALL BE SUPPORTED ABOVE THE TOP RAIL BY USE OF SIX (6) WIRE BARBED WIRE ARMS POSITIONED ATOP EACH LINE/CORNER POST.

1. INSPECTION
   TO CONFIRM PROPER DEPTH AND DIAMETER OF POST HOLE EXCAVATIONS. ALL POST HOLES WILL BE EXCAVATED AS PER CONSTRUCTION DOCUMENTS.

2. INSTALLATION
   A. FOUNDATIONS SHALL HAVE A MINIMUM SIX (6) INCH CONCRETE COVER UNDER POST.
   B. ALL FENCE POSTS SHALL BE VERTICALLY PLUMB; ONE QUARTER (1/4) INCH
   C. AT CORNER POSTS, GATE POSTS, AND SIDES OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND-CLIPS AT FIFTEEN(15) INCH INTERVALS.
   D. AT LINE POSTS, FABRIC SHALL BE ATTACHED WITH BAND-CLIPS AT FIFTEEN (15) INCH INTERVALS.
   E. FABRIC SHALL BE ATTACHED TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH TIE-CLIPS AT TWO (2) FOOT INTERVALS.
   F. A MAXIMUM GAP OF ONE INCH WILL BE PERMITTED BETWEEN TIE CHAIN LINE FABRIC AND THE FINAL GRADE.
   G. GATE SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.
   H. GATE HINGE BOLTS SHALL HAVE THEIR THREADS PEENED OR WELDED TO PREVENT UNAUTHORIZED REMOVAL.
   I. CONCRETE TO BE A MINIMUM OF 4,000 PSI AT 7 DAYS. CEMENT SHALL EXCEED ASTM C150, TYPE IIIA.

3. PROTECTION
   UPON COMPLETION OF ERECTION, INSPECT FENCE MATERIAL AND PAINT FIELD CUTS OR GALVANIZING BREAKS WITH ZINC-BASED PAINT, COLOR TO MATCH THE GALVANIZED METAL.

APPLICABLE STANDARDS

ASTM-A120 SPECIFICATION FOR PIPE, STEEL BLACK AND HOT-DIPPED ZINC COATED (GALVANIZED) WELDED AND SEAMLESS, FOR ORDINARY USES.
ASTM-A123 ZINC (HOT-DIP GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
ASTM-A153 STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE.
ASTM-A392 SPECIFICATION FOR ZINC-COATED STEEL CHAIN LINK FENCE FABRIC.
ASTM-A491 SPECIFICATION FOR ALUMINUM-COATED STEEL CHAIN LINK FENCE FABRIC
ASTM-A525 STANDARD SPECIFICATION FOR STEEL SHEET ZINC COATED (GALVANIZED) BY THE HOT-DIPPED PROCESS. ASTM-A570 SPECIFICATION FOR HOT-ROLLED CARBON STEEL SHEET AND STRIP. STRUCTURAL QUALITY.
ASTM-A535 SPECIFICATION FOR ALUMINUM COATED STEEL BARBED WIRE.

FEDERAL SPECIFICATION RR-F-191- FENCING, WIRE AND POST METAL (AND GATES, CHAIN LINK FENCE FABRIC, AND ACCESSORIES)

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Certification & Seal:

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of New Mexico.

JEFFREY H. ZANDER
NEW MEXICO
25637
LICENSED PROFESSIONAL ENGINEER

Jeffrey H. Zander: 4/16/2026 Date:

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PROJECT TITLE:
SANDIA CREST

PROJECT INFORMATION:
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SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
GENERAL NOTES

PROJECT NUMBER: 38075
SHEET NUMBER: GN-1

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DIVISION 3: CONCRETE

SECTION 03000 - BASIC CONCRETE MATERIALS AND METHODS

PART 1 - GENERAL

1. WORK INCLUDED FORM WORK, REINFORCEMENT, ACCESSORIES, CAST-IN-PLACE CONCRETE, FINISHING, AND CURING.

2. INSPECTIONS
   A. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING BUILDING DEPARTMENT INSPECTIONS REQUIRED FOR HIS SCOPE OF WORK.
   B. ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY THE CARRIER CONSTRUCTION MANAGER, OR THEIR DESIGNEE, PRIOR TO PLACEMENT OF CONCRETE.
   C. THE CARRIER CONSTRUCTION MANAGER SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS.

3. QUALITY ASSURANCE
   A. CONSTRUCT AND ERECT CONCRETE FORM WORK IN ACCORDANCE WITH ACI 301 AND ACI 318.
   B. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ASTM A184.
   C. PERFORM CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ACI 117-90.
   D. OPEN FOUNDATION TRENCHES SHALL BE INSPECTED BY MES PRIOR TO CONCRETE INSTALLATION.

4. SUBMITTALS SUBMIT CONCRETE MIX AND REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL BY CARRIER CONSTRUCTION MANAGER/ENGINEER. THE SHOP DRAWINGS SHALL BE SUBMITTED IN THE FORM OF TWO (2) CONCRETE MIX DESIGN INFORMATION SHEETS AND TWO (2) BLUE LINE DRAWINGS FOR REINFORCING STEEL.

PART 2 - PRODUCTS

1. REINFORCEMENT MATERIALS
   A. REINFORCEMENT STEEL, ASTM A615, 60 ksi YIELD GRADE, DEFORMED BILLET STEEL BARS, PLAIN FINISH.
   B. WELDED STEEL WIRE FABRIC ASTM A185 PLAIN TYPE, IN FLAT SHEETS, PLAIN FINISH.
   C. CHAIRS, BOLSTERS, BAR SUPPORTS, SPACERS. SIZED AND SHAPED FOR SUPPORTS OF REINFORCING.
   D. FABRICATE CONCRETE REINFORCING IN ACCORDANCE WITH ACI 315, ACI 318, ASTM A184

2. CONCRETE MATERIALS
   A. CEMENT: ASTM C150, PORTLAND TYPE
   B. FINE AND COURSE AGGREGATES: ASTM C33 - MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED; ONE (1) INCH SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR ONE-THIRD CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
   C. WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE
   D. AIR ENTRAINING ADMIXTURE: ASTM C260
   E. BONDING AGENT: LATEX EMULSION FOR BONDING NEW TO OLD CONCRETE AS MANUFACTURED BY DAYTON SUPERIOR.
   F. NON-SHRINK GROUT: PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE. CEMENT, WATER REDUCING AND PLASTICIZING AGENTS.

3. CONCRETE MIX
   A. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE A.C.I. REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
   B. MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94, ALT. 3.
   C. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. PROVIDE CONCRETE AS FOLLOWS:
      1. COMPRESSIVE STRENGTH: 4000 psi AT 7 DAYS.
      2. SLUMP: 3 INCHES

PART 3 - EXECUTION

1. INSERTS, EMBEDDED COMPONENTS AND OPENINGS
   A. THE CONTRACTOR SHALL COORDINATE AND CROSS-CHECK ARCHITECTURAL, BUILDING & ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THE PROPER LOCATION BEFORE PLACING CONCRETE
   B. PROVIDE FORMED OPENINGS WHERE REQUIRED FOR WORK TO BE EMBEDDED IN AND PASSING THROUGH CONCRETE MEMBERS.
   C. COORDINATE WORK OF OTHER SECTIONS IN FORMING AND SETTING OPENING, SLOTS, RECESSES, CHASES, SLEEVES, BOLTS, ANCHORS, AND OTHER INSERTS.
   D. INSTALL CONCRETE ACCESSORIES STRAIGHT, LEVEL AND PLUMB.

2. REINFORCEMENT PLACEMENT
   A. PLACE REINFORCEMENT, SUPPORTED AND SECURED AGAINST DISPLACEMENT.
   B. ENSURE REINFORCING IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER FOREIGN COATINGS.
   C. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
   D. MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.E. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES NOR BE LESS THAN 2INCHES.

3. PLACING CONCRETE
   A. VIBRATE ALL CONCRETE.
   B. ALL CONCRETE WORK SHALL ADHERE TO THE LATEST A.C.I STANDARDS FOR WINTER POURING AND CURING PROCEDURES IF SEASONAL CONDITIONS APPLY

4. CURING
   A. AFTER PLACEMENT, PROTECT CONCRETE FROM PREMATURE DRYING.
   B. MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.

5. PROVIDE HAND RUBBED SMOOTH FINISH TO ALL EXPOSED VERTICAL FORMED CONCRETE SURFACES.

6. FIELD QUALITY CONTROL
   A. SUBMIT THREE (3) CONCRETE TEST CYLINDERS - TAKEN FOR EVERY 15 CUBIC YARD OR LESS. SUBMIT CONCRETE TESTS TO THE PROJECT MANAGER IN ACCORDANCE WITH ASTM , C-31 AND C-39.
   B. SUBMIT ONE (1) ADDITIONAL TEST CYLINDER - TAKEN DURING COLD WEATHER POURS, AND CURED ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
   C. SUBMIT ONE (1) SLUMP TEST - TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.

7. DEFECTIVE CONCRETE MODIFY OR REPLACE CONCRETE NOT CONFORMING TO REQUIRED LINES, DETAILS OR ELEVATIONS AT COST OF GC, AS DIRECTED BY ARCHITECT/ENGINEER.

DIVISION 5: METALS

SECTION 05000 - METALS

PART 1 - GENERAL

1. SECTION INCLUDES:
   STRUCTURAL STEEL FRAMING MEMBERS, BASE PLATES, PLATES, BARS AND GROUTING UNDER BASE PLATES.
2. SUBMITTALS:
   SHOP DRAWINGS: INDICATE SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, CONNECTIONS, CAMBERS, LOADS, AND WELDED SECTIONS.
3. QUALITY ASSURANCE:
   A. FABRICATE STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
   B. PERFORM DESIGN UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE.

PART 2 - PRODUCTS

1. MATERIALS:
   A. STRUCTURAL STEEL MEMBERS: ASTM A572, GRADE 50
   B. STRUCTURAL TUBING: ASTM A500, GRADE B
   C. PIPE: ASTM A53, TYPE E OR S, GRADE B
   D. BOLTS, NUTS, AND WASHERS: ASTM A325
   E. ANCHOR BOLTS: ASTM A307
   F. WELDING MATERIALS: AWS D1.1, TYPE REQUIRED FOR MATERIALS BEING WELDED
   G. GROUT: NON-SHRINK TYPE, PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING ADDITIVES, CAPABLE OF DEVELOPING MINIMUM COMPRESSIVE STRENGTH OF 7000 psi AT 28 DAYS.
   H. SHOP AND TOUCH-UP PRIMER: SSPC 15, TYPE 1, RED OXIDE
   I. TOUCH-UP PRIMER FOR GALV. SURFACES: ZINC RICH TYPE
2. FABRICATION: CONTINUOUSLY SEAL JOINTED MEMBERS BY CONTINUOUS WELDS. GRIND EXPOSED WELDS SMOOTH.
3. FINISH:
   A. PREPARE STRUCTURAL COMPONENT SURFACES IN ACCORDANCE WITH SSPC SP-1 TO SP-10 PROCEDURES.
   B. STRUCTURAL STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED.

PART 3 - EXECUTION

1. EXAMINATION AND PREPARATION:
VERIFY THAT THE FIELD CONDITIONS ARE ACCEPTABLE.
2. ERECTION:
   A. ALLOW FOR ERECTION LOADS. PROVIDE TEMPORARY BRACING TO MAINTAIN FRAMING IN ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRIDGING AND BRACING.
   B. FIELD WELD COMPONENTS INDICATED ON SHOP DRAWINGS.
   C. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.
   D. AFTER ERECTION, TOUCH-UP WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED OR GALVANIZED WITH TOUCH-UP PRIMERS AS SPECIFIED UNDER SECTION 05000,-METALS, PART 2 - PRODUCTS, H & I. SURFACES TO BE IN CONTACT WITH CONCRETE NOT INCLUDED.
3. FIELD QUALITY CONTROL: FIELD INSPECTION OF MEMBERS, CONNECTIONS, WELDS AND TORQUING.

DIVISION 16: ELECTRICAL

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

1. CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.
2. ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
3. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "J" WHERE APPLICABLE. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NBFU AND "UL" LISTED.
5. ALL CONDUIT SHALL HAVE A PULL CORD.
6. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
7. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
8. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY UBC, NEC AND ALL APPLICABLE CODES.
9. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
10. PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVER PLATES.

SECTION 16400 - SERVICE AND DISTRIBUTION

1. WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 600V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG, COLOR CODED. ALL RECTIFIER DROPS SHALL BE STRANDED TO ACCEPT CRIMP CONNECTORS.
2. ALL CHEMICAL GROUND RODS SHALL BE "UL" APPROVED.
3. METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE A NOTED ON THE DRAWINGS. MANUFACTURED BY MILBANK OR APPROVED EQUAL, AND SHALL BE UTILITY COMPANY APPROVED.
4. CONDUIT:
   A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 2/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
   B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTING SHALL BE GLAND RING COMPRESSION TYPE.
   C. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.
   D. ALL UNDERGROUND CONDUIT SHALL BE AS NOTED ON THE DRAWINGS AT A MINIMUM DEPTH OF 30" BELOW GRADE. IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY THE UTILITY CLEARANCE HOTLINE (DIGGER'S HOTLINE OR OTHER SUCH NOTIFYING AGENCY) SEVENTY-TWO (72) BUSINESS HOURS PRIOR TO DIGGING.
5. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.
6. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE 1/4-INCH). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ADHESIVE.
7. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENGAGED BY THE CONTRACTOR SHALL BE SUBMITTED FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
8. GROUNDING ELECTRODE SYSTEM
   A. PREPARATION
      1. SURFACE PREPARATION: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
      2. GROUND BAR PREPARATION: ALL COPPER GROUND BARS SHALL BE CLEANED, POLISHED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
      3. SLEEVES: ALL GROUNDING CONDUCTORS SHALL RUN THROUGH PVC SLEEVES WHEREVER CONDUCTORS RUN THROUGH WALLS, FLOORS OR CEILINGS. IF CONDUCTORS MUST RUN THROUGH EMT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
   B. GROUND BARS
      1. ALL GROUND BARS SHALL BE 1/4-INCH THICK TINNED COPPER PLATE AND OF SIZE INDICATED ON DRAWINGS.
      2. ALL CONNECTIONS TO THE GROUND BARS SHALL OBSERVE THE FOLLOWING SEQUENCE:
         A. BOLT-HEAD
         B. 2-HOLE LUG
         C. NON-OX (ANTI-OXIDATION COMPOUND)
         D. TINNED COPPER BUSS BAR
         E. NON-OX (ANTI-OXIDATION COMPOUND)
         F. STAR WASHER
         G. NUT
   C. EXTERNAL CONNECTIONS
      1. ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEE'S, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.
      2. ALL ABOVE GRADE GROUNDING AND BONDING CONDUCTORS SHALL BE CONNECTED BY TWO HOLE CRIMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG AND GROUND ROD) MECHANICAL CONNECTIONS, FITTINGS OR CONNECTIONS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE DOUBLE CRIMP TYPE CONNECTIONS.CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.
   D. GROUND RODS ALL GROUND RODS SHALL BE 5/8-INCH DIAMETER X 10'-0" LONG "COPPERED" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.
   E. GROUND CONDUCTORS ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS NOTED OTHERWISE.
   F. LUGS
      1. LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES #548 BE OR EQUIVALENT MINIMUM BENDING
         A. 535 MCM DLO 54880BE
         B. 262 MCM DLO 54872BE
         C. #1/0 DLO 54862BE
         D. #4/0 THWN AND BARE 54866BE
         E. #2/0 THWN 54862BE
         F. #2 THHN 54207BE
         G. #6 DLO 54205BE
      2. WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CHART:

GROUNDING CONDUCTOR SIZE	RADIUS TO INSIDE EDGE
NO. 6 AWG TO NO. 4 AWG	6 INCHES
NO. 2 AWG TO NO. 1/0 AWG	8 INCHES
NO. 2/0 AWG TO 4/0 MCM	12 INCHES
250 MCM TO 750 MCM	24 INCHES

   G. GROUND RING
      1. THE EXTERNAL GROUND RING ENCIRCLING THE TOWER (IF APPLICABLE) AND BETWEEN THE EQUIPMENT SHELTER PLATFORM ANCHORS SHALL BE MINIMUM NO. 2 A.W.G. SOLID TINNED BARE COPPER CONDUCTORS IN DIRECT CONTACT WITH THE EARTH AT THE DEPTH INDICATED ON THE DRAWINGS. CONDUCTOR BENDS SHALL HAVE A MINIMUM BENDING RADIUS OF EIGHT (8) INCHES.
      2. ALL EXTERNAL GROUND RINGS ARE TO BE JOINED TOGETHER AND ALL CONNECTIONS MUST BE CADWELDED. NO LUGS OR CLAMPS WILL BE ACCEPTED.
   H. FENCE/GATE GROUND EACH GATE POST, CORNER POST AND GATE AS INDICATED ON DRAWING GROUND CONNECTIONS TO FENCE POSTS AND ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY EXOTHERMIC WELD PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES, AND SPRAYED WITH COLD GALVANIZED PAINT.
9. I.E.E.E. FALL POTENTIAL TESTS
   A. FOR RAW LAND SITE
      1. GROUND TESTS SHALL BE PERFORMED AS INDICATED ON DRAWINGS. A BIDDLE GROUND OHMER OR THE METHOD OF USING TWO AUXILIARY GROUND RODS (AS DESCRIBED IN I.E.E.E. STANDARDS NO. 81-1983, PART 1) MAY BE USED. THE I.E.E.E. METHOD REQUIRES THE USE OF AN A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST BE SUFFICIENTLY FAR AWAY FROM THE ROD UNDER TEST SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED DO NOT OVERLAP. THE TEST POINT WILL BE THE GROUND ROD AND WILL CONSIST OF THE THREE POINT FALL OF POTENTIAL MEGGER TEST METHOD, USING THE BIDDLE NULL-BALANCE EARTH TESTER (MEGGER #250220-2 OR EQUIVALENT)
      2. CONTRACTOR TO CONDUCT GROUND RESISTANCE TEST IN THE FORMAT AS FOLLOWS:

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Certification & Seal:

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of New Mexico.

JEFFREY H. ZANDER NEW MEXICO 25637 LICENSED PROFESSIONAL ENGINEER

Jeffrey H. Zander 4/16/2026
Jeffrey H. Zander: Date:

MARK	DATE	DESCRIPTION
0	04/16/26	FINAL CDs ISSUED
A	02/12/26	PRELIMINARY CDs ISSUED

ISSUE PHASE: FINAL DATE ISSUED: 04/16/2026

PROJECT TITLE:
SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
GENERAL NOTES

PROJECT NUMBER: 38075
SHEET NUMBER: GN-2

A. EQUIPMENT PAD
   1. FIRST TEST - SHALL BE WITH FOUR GROUND RODS INSTALLED, ONE AT EACH CORNER OF THE PAD BUT NOT CONNECTED TO THE MAIN GROUNDING BUS. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL FOUR GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL FOUR RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
   2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

B. TOWER
   1. FIRST TEST - SHALL BE WITH THREE GROUND RODS INSTALLED (MINIMUM), EQUALLY SPACED AROUND THE TOWER FOUNDATION, BUT NOT CONNECTED TO THE SHELTER PAD EXTERNAL GROUND RING. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL THREE GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL THREE (3) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
   2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS , THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT EITHER ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

C. EQUIPMENT PAD AND TOWER
   1. AFTER THE EQUIPMENT PAD AND TOWER GROUND RESISTANCE TEST IS COMPLETED, CONTRACTOR SHALL TIE EQUIPMENT PAD EXTERNAL GROUND RING AND TOWER EXTERNAL GROUND RING TOGETHER. AFTER FIRST AND SECOND TEST ALL CONNECTIONS MUST BE MADE USING EXOTHERMIC WELD. NO LUGS OR CLAMPS WILL BE ACCEPTED.
   2. AFTER ALL THE EXTERNAL GROUND RINGS ARE TIED TOGETHER, COMPLETE A MEGGER CHECK OF THE GROUND SYSTEM SHOULD BE DONE. THE MAXIMUM ALLOWABLE LEADING IS 5 OHMS TO GROUND. 10. GROUNDING RESISTANCE TEST REPORT UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT 5 FEET AND 10 FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

10. GROUNDING RESISTANCE TEST REPORT UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT 5 FEET AND 10 FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OR WORK COMPLETION.

SECTION 16503 - POLES, POSTS, AND STANDARDS
(SINGLE MAST AND SELF SUPPORTING TOWERS)

1. GENERAL
   A. LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.
   B. PROVIDE TEMPORARY LIGHTING FOR TOWER AS PER FAA REGULATIONS DURING CONSTRUCTION, IF REQUIRED.
   C. GROUNDING: GROUND TOWER WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TOWER BASE PLATE. TWO (2) GROUNDING LEADS PER TOWER BASE PLATE. NON-EXOTHERMIC WELDS SHALL BE ATTACHED DIRECTLY TO THE MONOPOLE TOWER SHAFT.

SECTION 16745 - TELECOMMUNICATIONS WIRING COMPONENTS
(COAXIAL ANTENNA CABLE)

1. GENERAL
   A. ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.
   B. CERTAIN MATERIALS AND PRODUCTS WILL BE SUPPLIED BY THE OWNER (REFER TO GENERAL CONDITIONS FOR THE LIST OF OWNER FURNISHED EQUIPMENT, MATERIALS AND SUPPLIES FOR THESE ITEMS). THE CONTRACTOR IS RESPONSIBLE FOR PICKUP AND DELIVERY OF ALL SUCH MATERIALS
   C. ALL OTHER MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR.

2. MATERIALS:
   A. COAXIAL CABLE:
      1. INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURERS' REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
      2. ALL COAX RUN LENGTHS SHALL BE PER RF APPROVED DESIGN.
3. ANTENNA AND COAXIAL CABLE GROUNDING
   A. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)
4. COAXIAL CABLE IDENTIFICATION
   A. TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, MARK CABLE:
      1. FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).
      2. SECOND LOCATION IS INSIDE THE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT.
      3. THIRD LOCATION IS OUTSIDE THE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT.
5. TESTING THE CONTRACTOR IS REQUIRED TO COMPLETE COAX SWEEPS PER CARRIER REQUIRED GUIDANCE. THE CONTRACTOR TO PROVIDE 96 HOUR ADVANCED NOTIFICATION TO CARRIER CONSTRUCTION MANAGER SO THAT OPERATIONS STAFF CAN BE ON-SITE TO SUPERVISE SWEEPS, IF REQUIRED.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of New Mexico.

JEFFREY H. ZANDER
NEW MEXICO
25637
LICENSED PROFESSIONAL ENGINEER

Jeffrey H. Zander Date: 4/16/2026

MARK	DATE	DESCRIPTION
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BERNALILLO COUNTY

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SHEET NUMBER: GN-3

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LOCATION PLAN - SANDIA CREST

0 50' 100' 200'

11X17 SCALE - 1" = 100'

1

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JEFFREY H. ZANDER
NEW MEXICO
25637
LICENSED PROFESSIONAL ENGINEER

Jeffrey H. Zander: 4/16/2026 Date:

MARK	DATE	DESCRIPTION
0	04/16/26	FINAL CDs ISSUED
A	02/12/26	PRELIMINARY CDs ISSUED

ISSUE PHASE: FINAL DATE ISSUED: 04/16/2026

PROJECT TITLE:

SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:

LOCATION PLAN

PROJECT NUMBER: 38075

SHEET NUMBER: C-1

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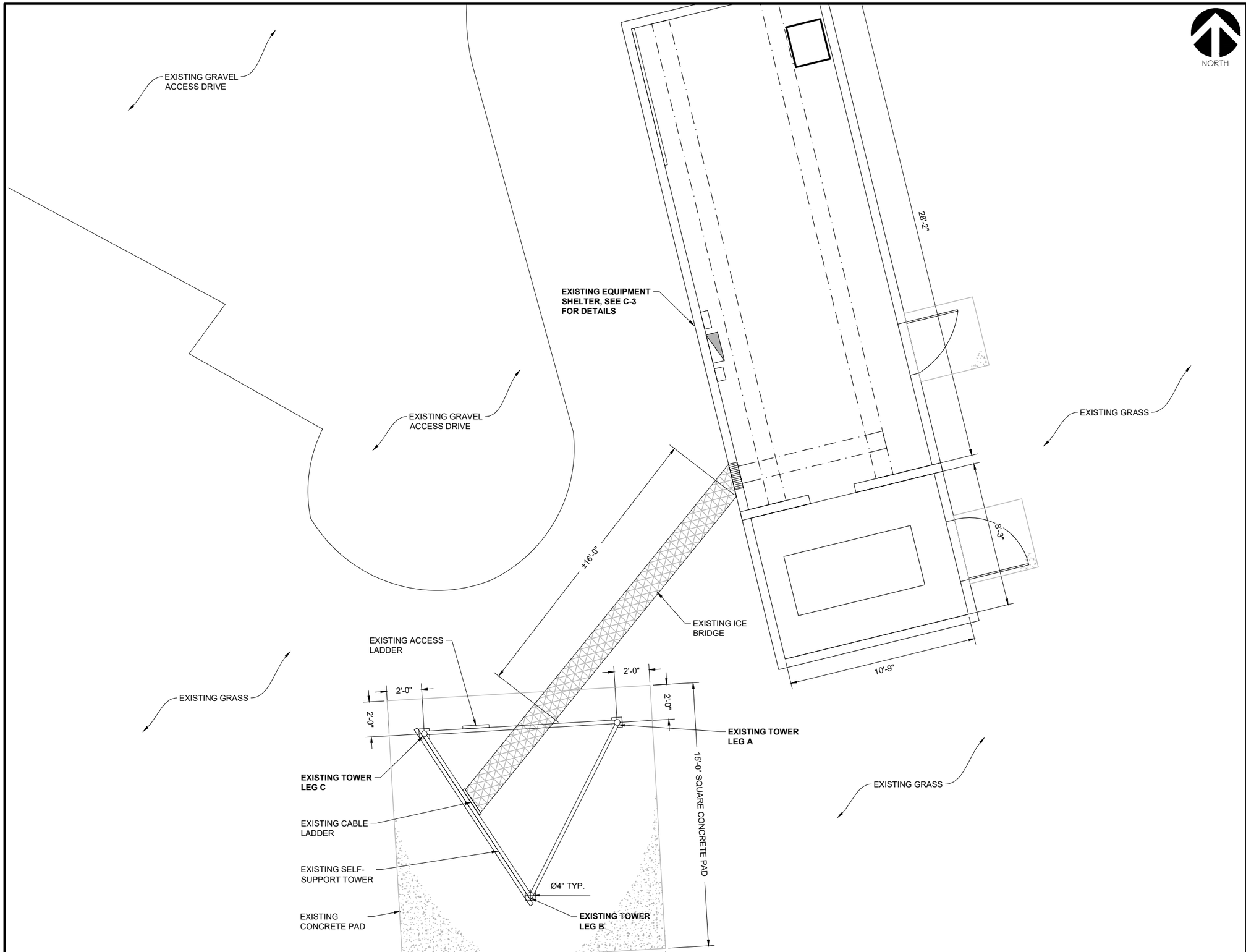

SITE PLAN - SANDIA CREST

0 2.7' 5.333' 10.667'

11X17 SCALE - 3/16" = 1'-0"

1

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4/16/2026
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PROJECT TITLE:

SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:

SITE PLAN

PROJECT NUMBER: 38075

SHEET NUMBER: C-2

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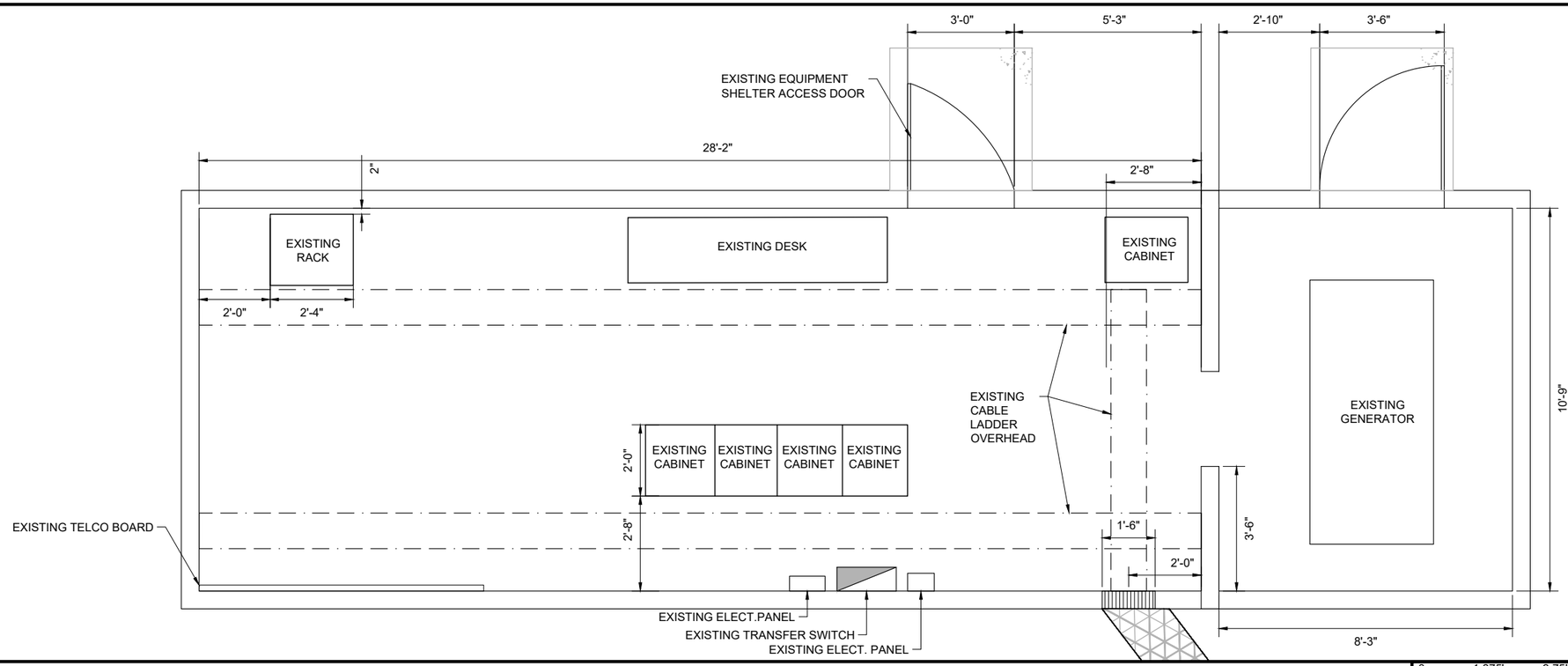
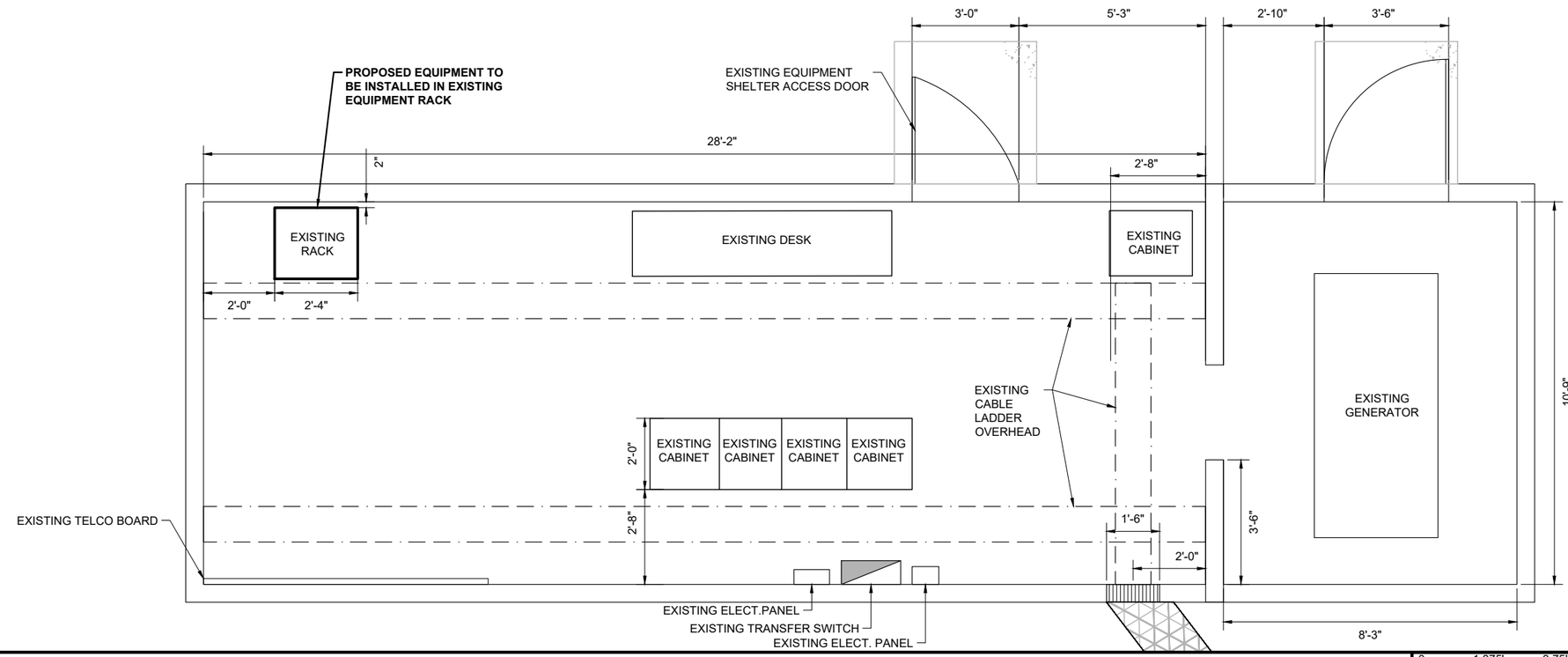


EXISTING EQUIPMENT ROOM - SANDIA CREST

0 1.875' 3.75' 7.5'
11X17 SCALE - 1" = 3.75'

1



PROPOSED EQUIPMENT ROOM - SANDIA CREST

0 1.875' 3.75' 7.5'
11X17 SCALE - 1" = 3.75'

2

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DATE ISSUED: 04/16/2026

PROJECT TITLE:
SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
EQUIPMENT ROOM LAYOUT - SANDIA CREST

PROJECT NUMBER: 38075
SHEET NUMBER: C-3

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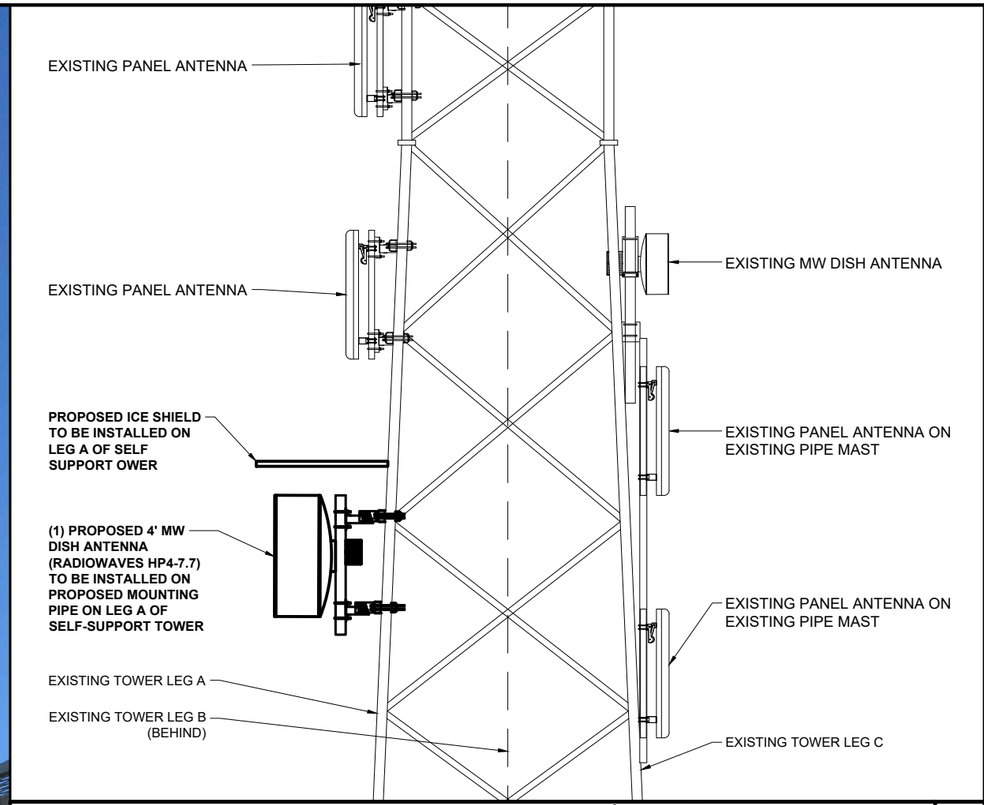
TOWER ELEVATION

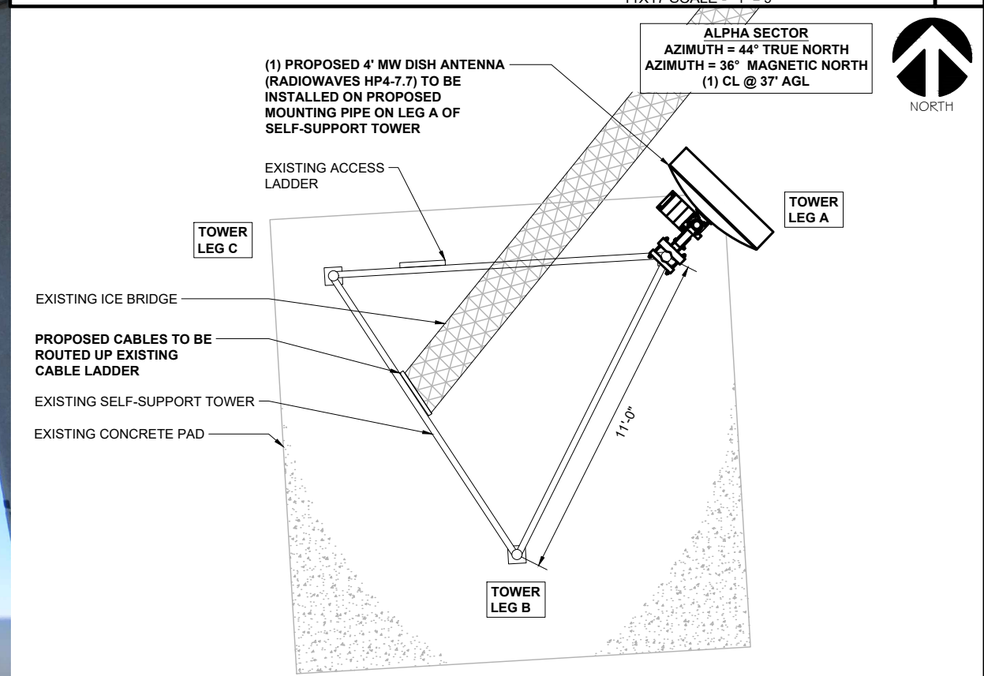
1



ENLARGED MW DISH ELEVATION

0 2.50' 5' 10'
11X17 SCALE - 1" = 5'

2



ANTENNA LAYOUT

0 2.50' 5' 10'
11X17 SCALE - 1" = 5'

3

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DATE ISSUED: 04/16/2026

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SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
ELEVATION & ANTENNA LAYOUT - SANDIA CREST

PROJECT NUMBER: 38075
SHEET NUMBER: C-4

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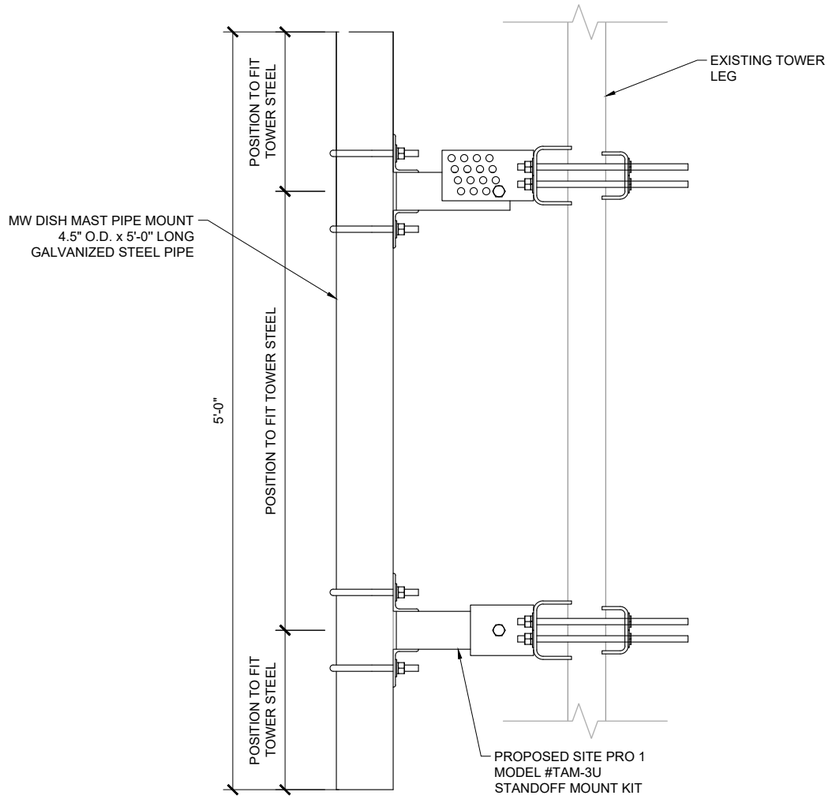
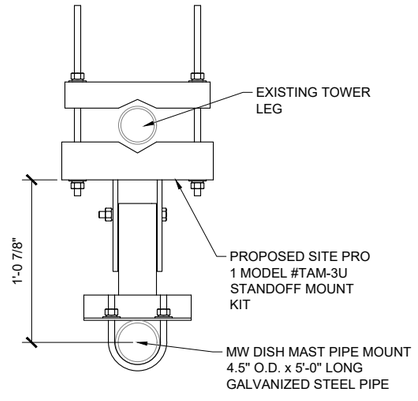
SITE PRO 1 MODEL #TAM-3U
WITH PROPOSED 4.5" O.D. x 5'-0" LONG PIPE



SIDE ELEVATION VIEW



PLAN VIEW

MW DISH MOUNTING DETAIL

SCALE: NONE

2

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ISSUE PHASE: FINAL
DATE ISSUED: 04/16/2026

PROJECT TITLE:
SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
ANTENNA SPECIFICATIONS

PROJECT NUMBER: 38075
SHEET NUMBER: C-5

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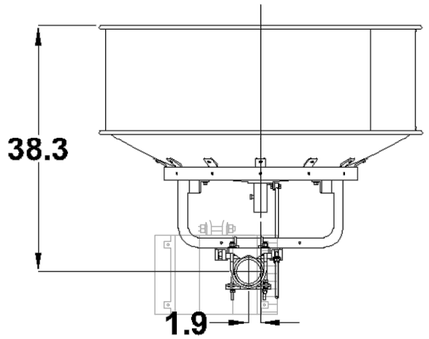

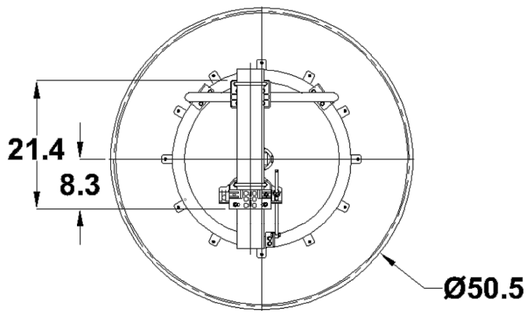

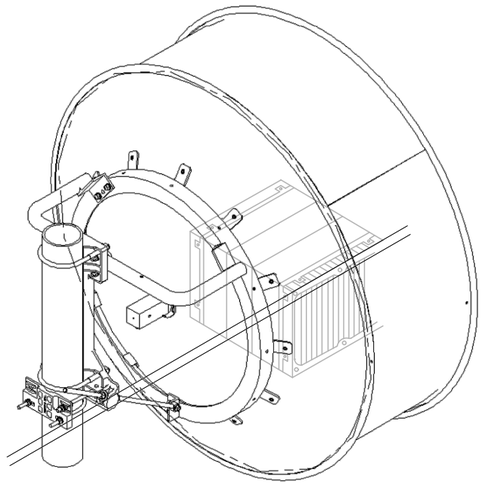

PART NUMBERS
MW DISH - HP4-7.7
RADIO - CPR112G - RS
OMT - N070082L310A

MW DISH ANTENNA SPECIFICATION

SCALE: NONE | 1

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ISSUE PHASE: FINAL — DATE ISSUED: 04/16/2026

PROJECT TITLE:
SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
ANTENNA SPECIFICATIONS

PROJECT NUMBER: 38075
SHEET NUMBER: C-6

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NOTE:

USE BEST PRACTICE CABLE MANAGEMENT FOR THE SPECIFIC INSTALLATION

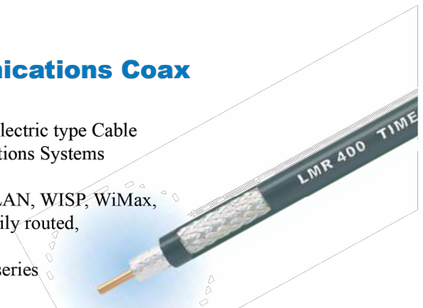
LMR-400

TIMES MICROWAVE SYSTEMS

LMR®-400
Flexible Low Loss Communications Coax

Ideal for...

- Drop-in replacement for RG-8/9913 Air-Dielectric type Cable
- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, GPS, LMR, WLAN, WISP, WiMax, SCADA, Mobile Antennas) requiring an easily routed, low loss RF cable
- **NEW!** Times Protect® LP-18-400 protector-series



- **LMR®** standard is a UV Resistant Polyethylene jacketed cable designed for 20-year service outdoor use. The bending and handling characteristics are significantly better than air-dielectric and corrugated hard-line cables.
- **LMR®- DB** is identical to standard LMR plus has the advantage of being watertight. The addition of waterproofing compound in and around the foil/braid insures continuous reliable service should the jacket be inadvertently damaged during installation or in the future.
- **LMR®- FR** is a non-halogen (non-toxic), low smoke, fire retardant cable designed for in-building runs that can be routed anywhere except air handling plenums. LMR-FR is UL/NEC & CSA rated'CMR' and 'FT4' respectively, meets FAA FAR25 requirements and is MSHA-P for mining applications.
- **LMR®- FR-PVC** is a general-purpose indoor cable and has a UL/NEC & CSA rating of 'CMR' and 'FT4' respectively. It is less expensive than LMR-FR, however it emits toxic fumes (HCL) and greater smoke density when burned.
- **LMR®- PVC** is designed for low loss general-purpose applications and is somewhat more flexible than the standard polyethylene jacketed LMR.
- **LMR®- PVC-W** is a white-jacketed version of LMR-PVC for marine and other applications where color compatibility is desired.

- **Flexibility** and bendability are hallmarks of the LMR-400 cable design. The flexible outer conductor enables the tightest bend radius available for any cable of similar size and performance.
- **Low Loss** is another hallmark feature of LMR-400. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.
- **RF Shielding** is 50 dB greater than typical single shielded coax (40 dB). The multi-ply bonded foil outer conductor is rated conservatively at > 90 dB (i.e. >180 dB between two adjacent cables).
- **Weatherability**: LMR-400 cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.
- **Connectors**: A wide variety of connectors are available for LMR-400 cable, including all common interface types, reverse polarity, and a choice of solder or non-solder center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.
- **Cable Assemblies**: All LMR-400 cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

Part Description				Stock
Part Number	Application	Jacket	Color	Code
LMR-400	Outdoor	PE	Black	54001
LMR-400-DB	Outdoor/Watertight	PE	Black	54091
LMR-400-FR	Indoor/Outdoor Riser CMR	FRPE	Black	54030
LMR-400-FR-PVC	Indoor/Outdoor Riser CMR	FRPVC	Black	54073
LMR-400-PVC	General Purpose	PVC	Black	54218
LMR-400-PVC-W	General Purpose	PVC	White	54204

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BCCAI	0.108	(2.74)
Dielectric	Foam PE	0.285	(7.24)
Outer Conductor	Aluminum Tape	0.291	(7.39)
Overall Braid	Tinned Copper	0.320	(8.13)
Jacket	(see table above)	0.405	(10.29)

PANEL ANTENNA CABLE SPECIFICATION

SCALE: NONE | 1

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JEFFREY H. ZANDER LICENSED PROFESSIONAL ENGINEER NEW MEXICO 25637

Jeffrey H. Zander 4/16/2026 Date:

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PROJECT TITLE:

SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:

CABLE SPECIFICATIONS

PROJECT NUMBER: 38075

SHEET NUMBER: C-7

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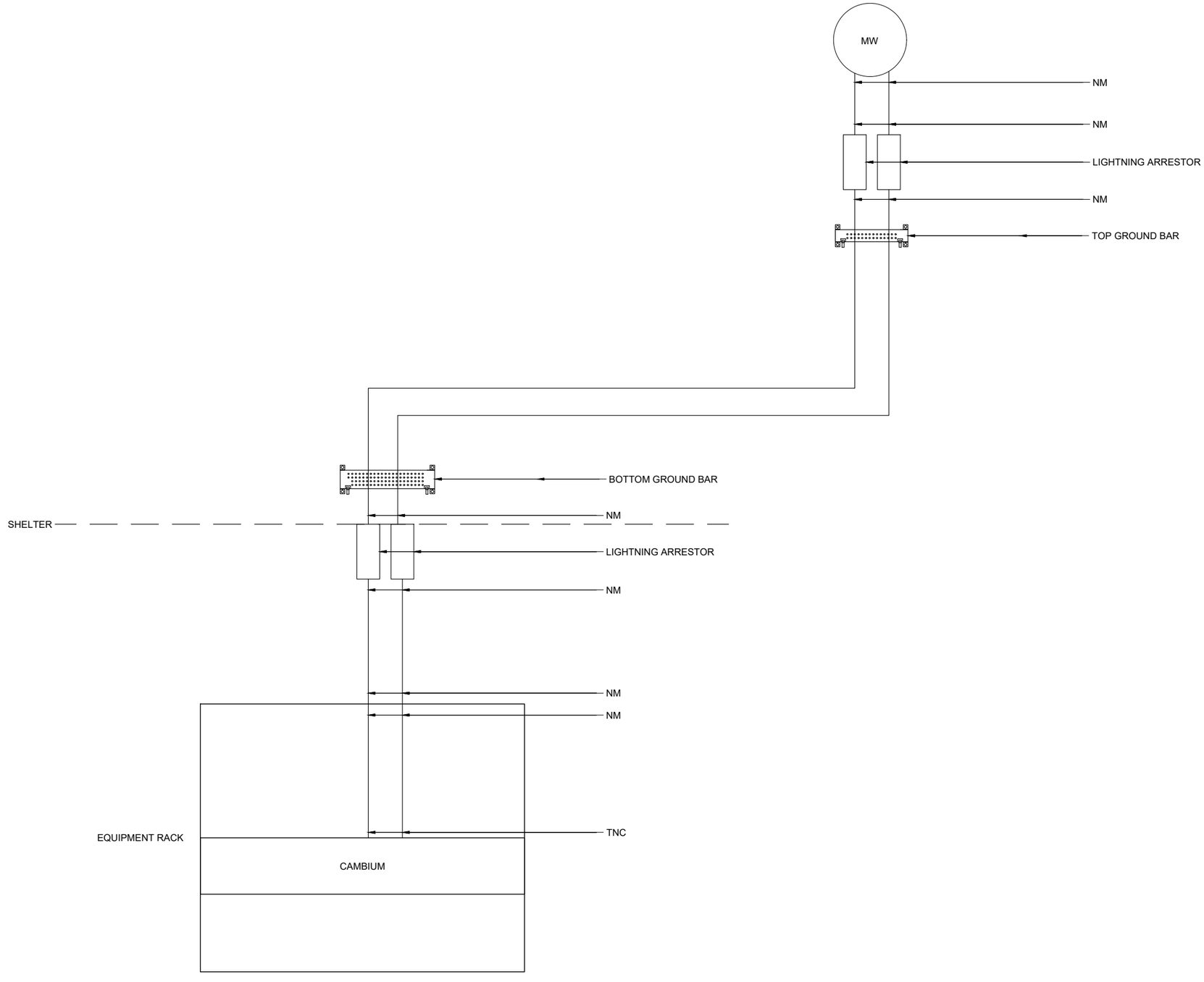

ANTENNA CABLE LAYOUT

SCALE: NONE | 1

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DATE ISSUED: 04/16/2026

PROJECT TITLE:
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PROJECT INFORMATION:
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SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
CABLE LAYOUT

PROJECT NUMBER: 38075
SHEET NUMBER: C-8

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ANTENNA & CABLE SCHEDULE

SITE	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA DIMENSIONS	RAD CENTER	AZIMUTH	CABLE MANUFACTURER	CABLE MODEL	CONNECTOR	CABLE SIZE	CABLE LENGTH
SANDIA CREST TOWER	RADIOWAVES	HP4-7.7	50.5" Ø	37'-0"	44°	TIMES MICROWAVE	LMR-400	(2) - COMMSCOPE 400APNM-CS8	.405"	±115'
							LMR-400		.405"	±115'

NOTE:
CONTRACTOR TO FIELD VERIFY ALL CABLE LENGTH PRIOR TO PURCHASE

PROPOSED ±115'-0" COAX RUN FROM PROPOSED MW DISH ANTENNA TO PROPOSED CABINET

ANTENNA & CABLE SCHEDULE | SCALE: NONE | 1

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SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:
ANTENNA & CABLE SCHEDULE

PROJECT NUMBER: 38075
SHEET NUMBER: C-9

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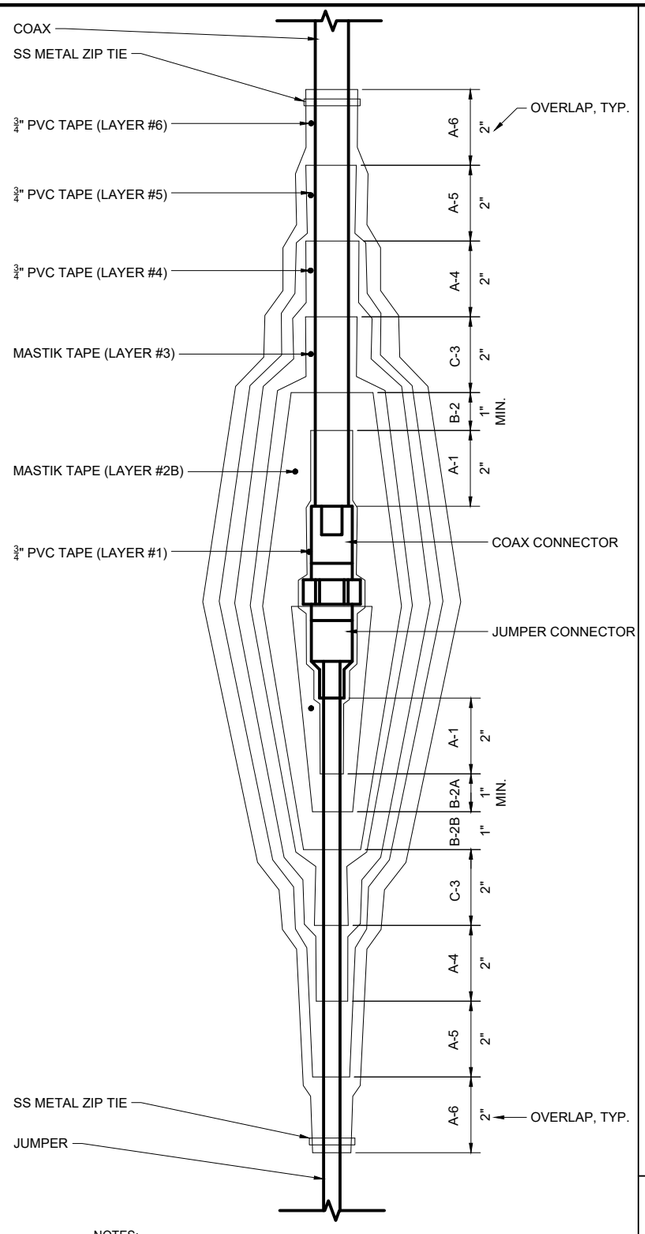


NOTES:

1. KEY: A-1 — MATERIAL; LAYER NUMBER

2. (MATERIAL-A) ¾" PVC TAPE

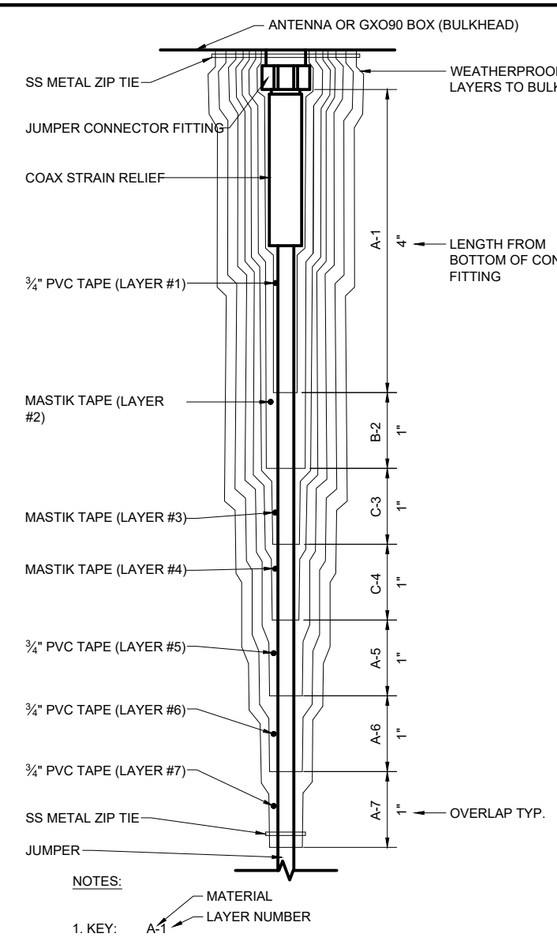
3. (MATERIAL-B) BUTYL

4. MASTIK TAPE

5. ONE LAYER OF (B-2B) OVER ONE LAYER OF (B-2A, WHICH IS OVER LAYER #1 AT JUMPER CONNECTOR FITTING).

6. CURRENT LAYER SHOULD OVERLAP THE PREVIOUS LAYER OF TAPE HALF-WIDTH. TAPE SHOULD BE CUT, NOT PULLED AT THE END OF A WARP.

WEATHERPROOFING COAX TO JUMPER 1



NOTES:

1. KEY: A-1 — MATERIAL; LAYER NUMBER

2. (MATERIAL-A) ¾" PVC TAPE

3. (MATERIAL-B) MASTIK TAPE

4. MASTIK TAPE

5. CURRENT LAYER SHOULD OVERLAP THE PREVIOUS LAYER OF TAPE HALF-WIDTH. TAPE SHOULD BE CUT, NOT PULLED. THE TAPE LAYER SHOULD BEGIN AT THE BOTTOM AND WORK TOWARDS THE TOP.

WEATHERPROOFING JUMPERS TO BULKHEAD 2

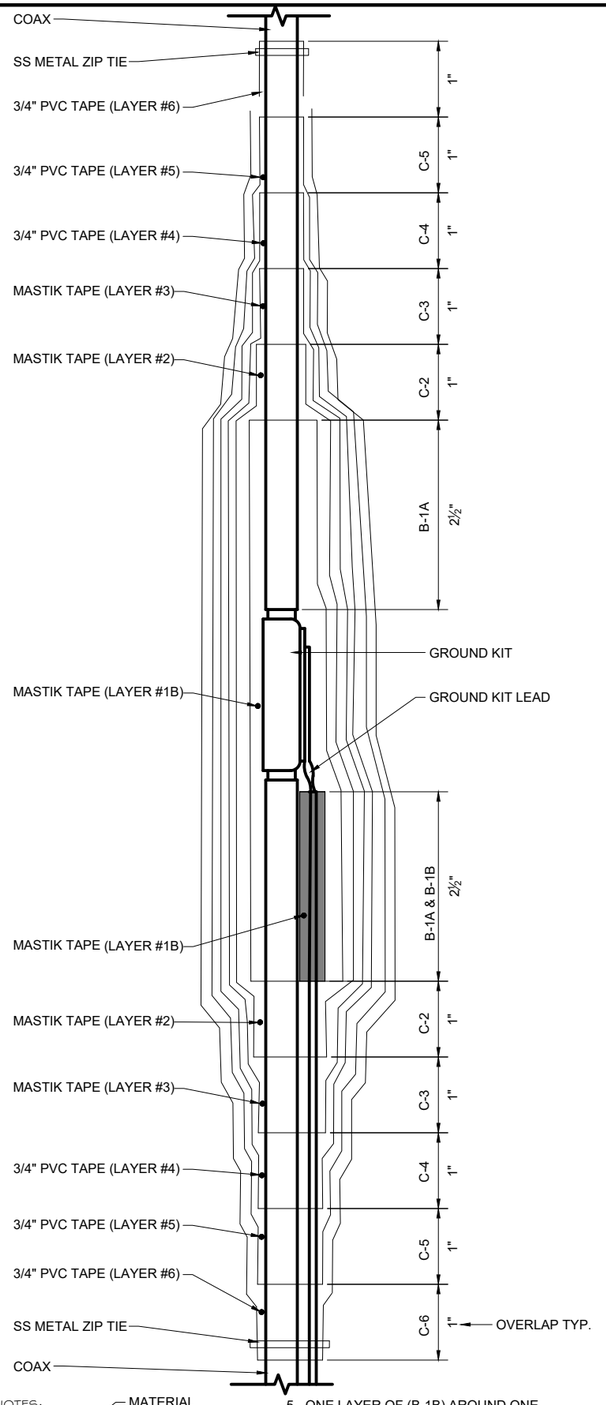
SCALE: NTS

MATERIAL REQUIREMENTS:
IN ORDER TO WEATHERPROOF THE ANTENNA TO JUMPER AND JUMPER TO COAX CONNECTIONS CORRECTLY, THE FOLLOWING MATERIAL IS REQUIRED:

- 2 ¼" BUTYL RUBBER TAPE
- 2" WIDE (51MM) PVC TAPE
- ¾" WIDE (19MM) PVC TAPE
- STAINLESS STEEL METAL ZIP TIE (0.18 " WIDE X 0.010 THICK MIN. - SELECT APPROPRIATE LENGTH TO MATCH COAX SIZE).

THE BUTYL AND PVC TAPES CAN BE PURCHASED IN A WEATHERPROOFING KIT SOLD BY ANDREWS/COMMSCOPE - PART NUMBER #221213. IT IS REQUIRED THAT THIS KIT BE USED ON ALL COAX TO JUMPER AND JUMPER TO ANTENNA CONNECTIONS UNLESS AN ALTERNATE KIT HAS BEEN REVIEWED AND APPROVED BY GDC4S ENGINEERING. FOR WEATHERPROOFING GROUNDING KITS THE FOLLOWING MATERIAL IS REQUIRED:

- 7/8" FXL USE COMMSCOPE SG78-12B2U OR APPROVED EQUIVALENT.
- 1-1/4" FXL USE COMMSCOPE SG114-12B2U OR APPROVED EQUIVALENT.
- 1-5/8" FXL USE COMMSCOPE SG158-12B2U OR APPROVED EQUIVALENT.



NOTES:

1. KEY: A-1 — MATERIAL; LAYER NUMBER

2. (MATERIAL-A) ¾" PVC TAPE

3. (MATERIAL-B) BUTYL

4. MASTIK TAPE

5. ONE LAYER OF (B-1B) AROUND ONE LAYER OF (B-1A, WHICH IS AROUND GROUND KIT LEAD).

6. CURRENT LAYER SHOULD OVERLAP THE PREVIOUS LAYER OF TAPE HALF-WIDTH. TAPE SHOULD BE CUT, NOT PULLED AT THE END OF A WARP.

WEATHERPROOFING GROUND KITS 3

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Certification & Seal:

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of New Mexico.

JEFFREY H. ZANDER
NEW MEXICO
25637
LICENSED PROFESSIONAL ENGINEER

4/16/2026
Jeffrey H. Zander Date:

MARK	DATE	DESCRIPTION
0	04/16/26	FINAL CDs ISSUED
A	02/12/26	PRELIMINARY CDs ISSUED

ISSUE PHASE: FINAL — DATE ISSUED: 04/16/2026

PROJECT TITLE:

SANDIA CREST

PROJECT INFORMATION:
SANDIA CREST ROAD
SANDIA CREST, NM 87008
BERNALILLO COUNTY

SHEET TITLE:

WEATHERPROOFING

PROJECT NUMBER 38075

SHEET NUMBER C-10

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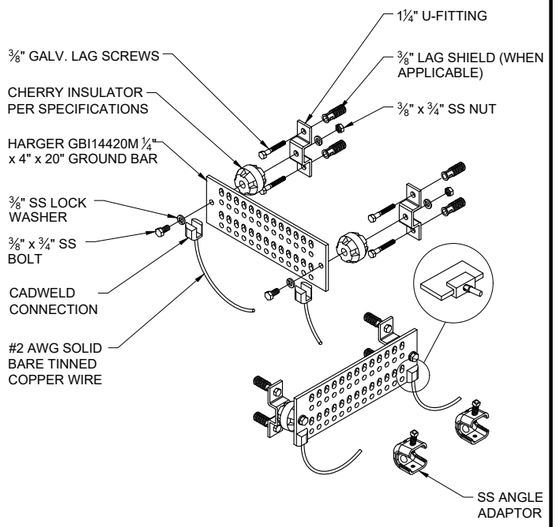
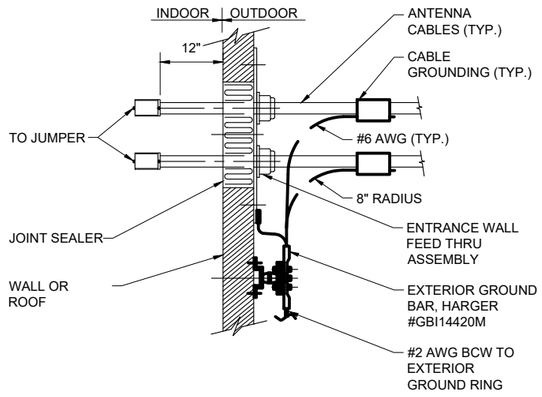
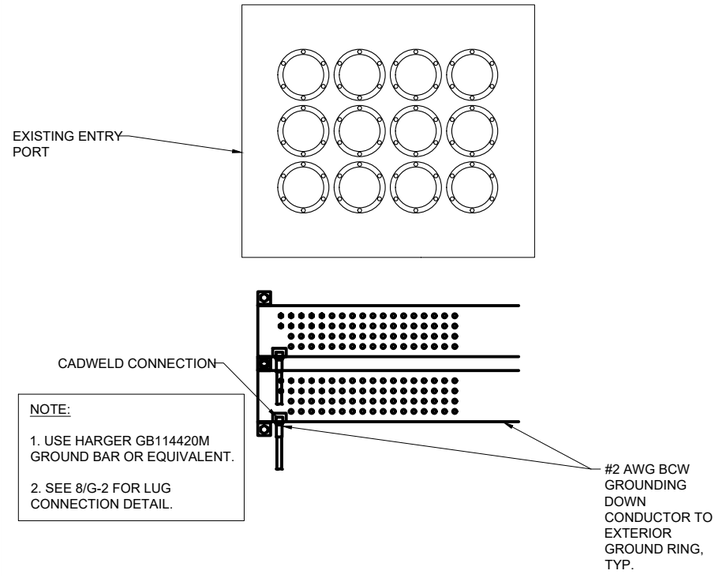
C:\Users\AKV\ALH~1\AppData\Local\Temp\AcPublish_12372\38075_Sandia Crest_Prelim CDs_10.15.2025.dwg Printed by: akvalheim on Apr 16, 2026 - 11:18am



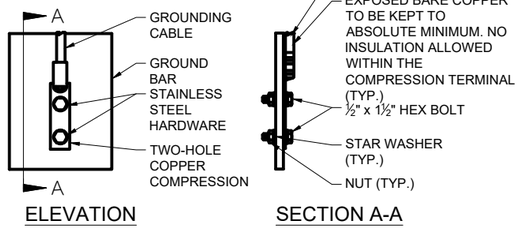
TYP. GROUND BAR DETAIL | SCALE: NONE | 1



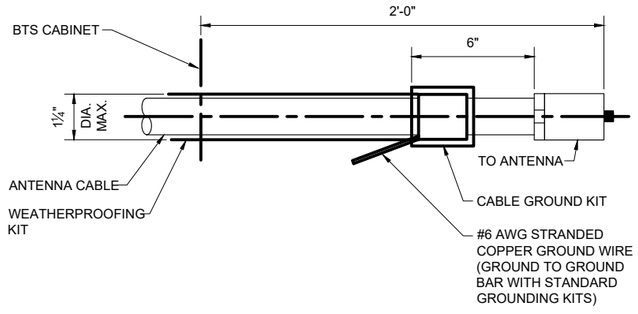
EXTERIOR GROUND BAR DETAIL | SCALE: NONE | 2



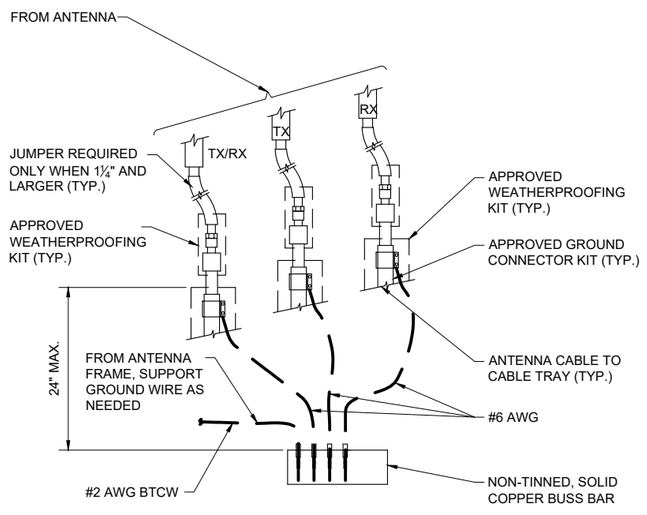
SURGE ARRESTOR/MASTER GROUND BAR DETAIL | SCALE: NONE | 3



2-HOLE LUG CONNECTION DETAIL | SCALE: NONE | 4



CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE | SCALE: NONE | 5



CONNECTION OF GROUND WIRES TO TOP GROUND BAR (UGB) | SCALE: NONE | 6

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BERNALILLO COUNTY

SHEET TITLE:
SITE DETAILS

PROJECT NUMBER: 38075
SHEET NUMBER: G-1

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