

DOCOMO PACIFIC

5M RADOME & UHF ANTENNA

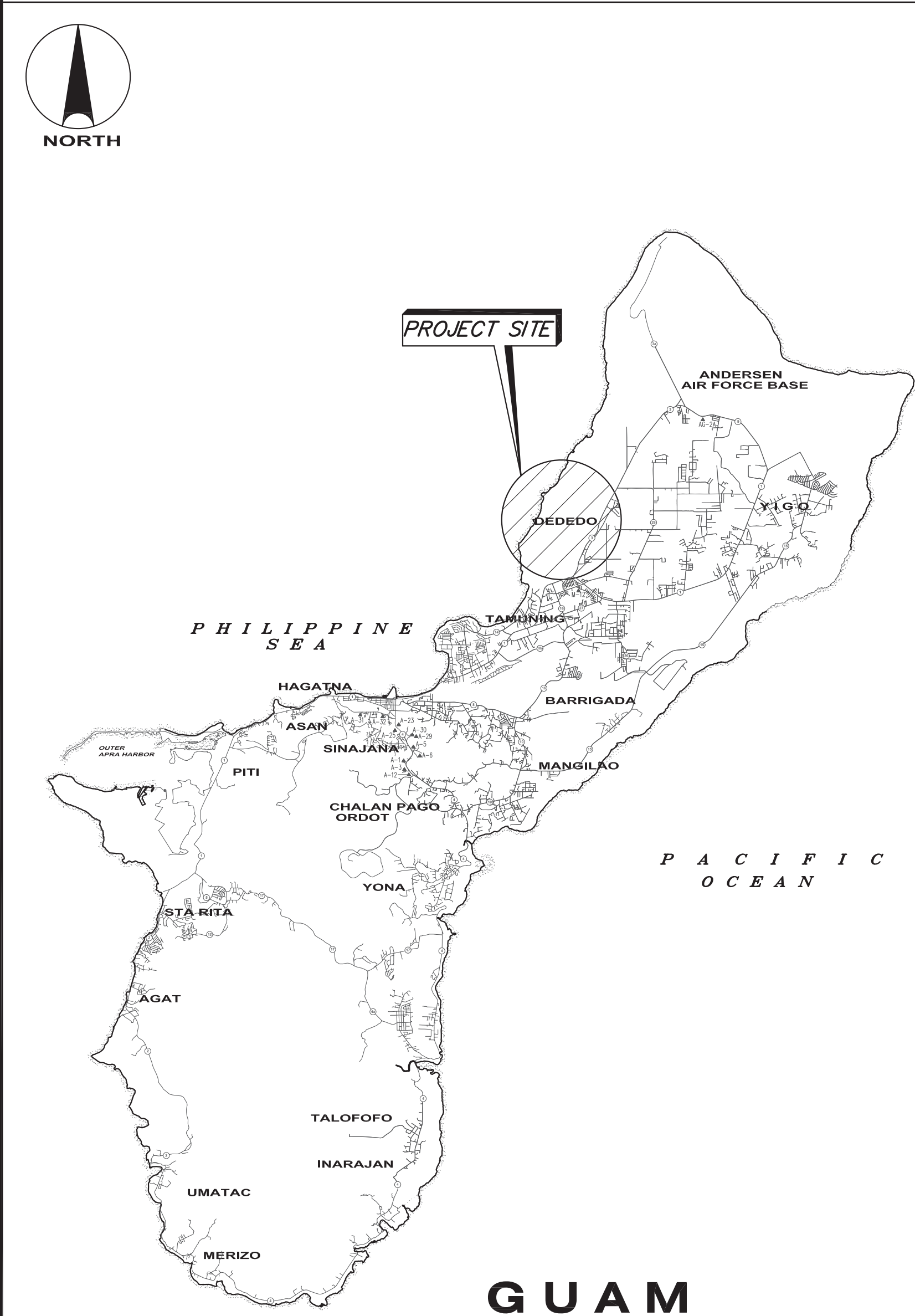
DEDEDO

GUAM

PROJECT LOCATION

VICINITY MAP

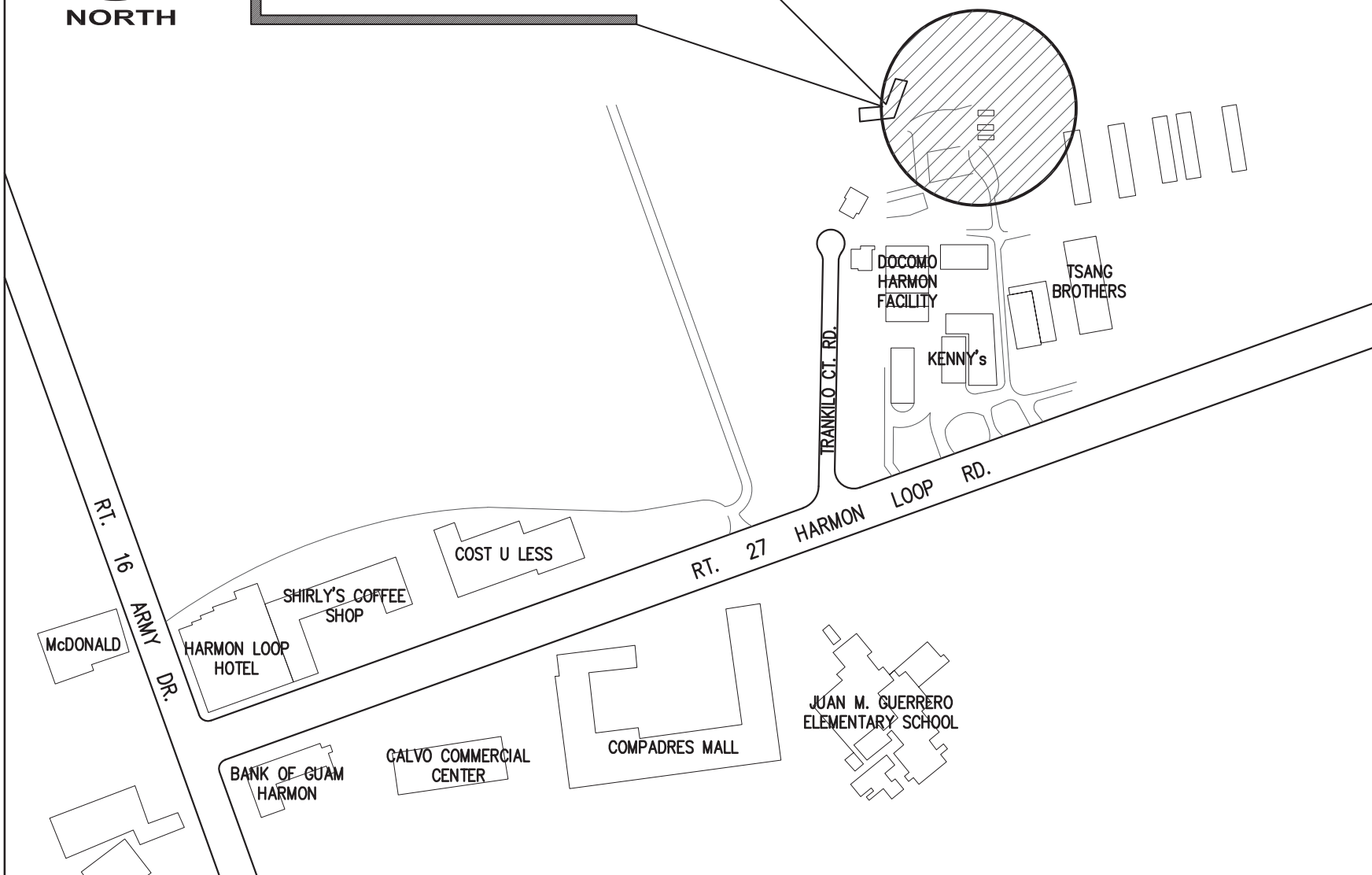
SITE PLAN



GUAM



PROJECT SITE
DOCOMO PACIFIC
5M RADOME & UHF ANTENNA
DEDEDO, GUAM

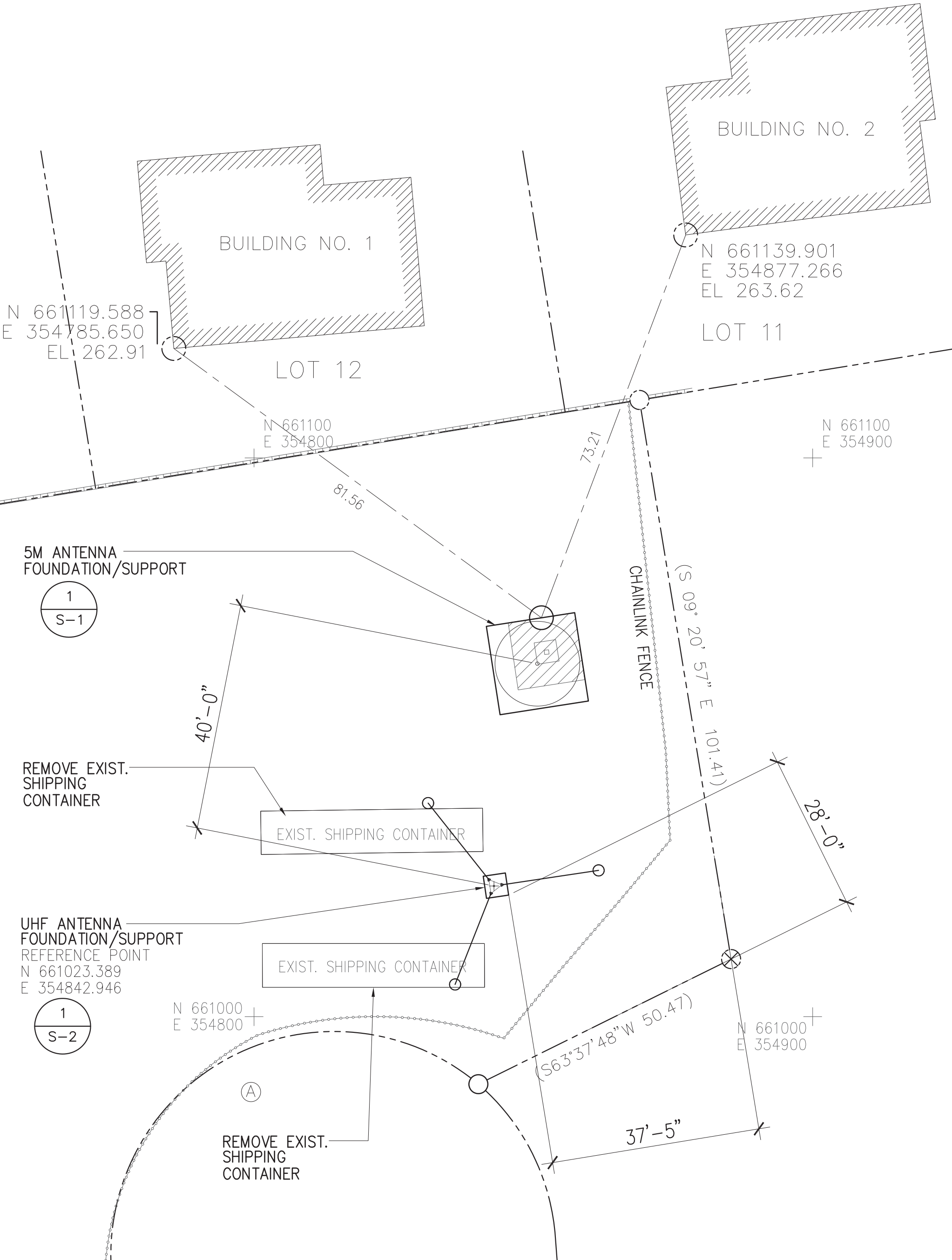
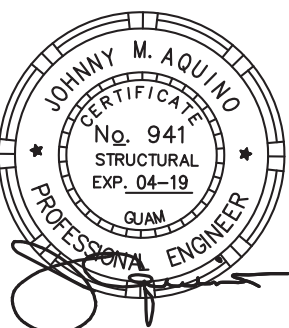


INDEX OF DRAWINGS

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7 OF 8	E-3	HANDHOLE DETAIL
8 OF 8	E-4	HANDHOLE DETAIL

STRUCTURAL

ELECTRICAL



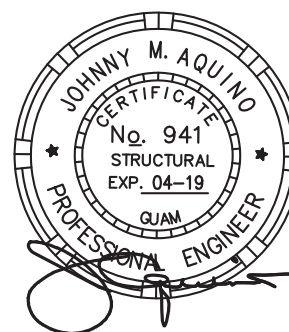
REVISIONS

No.	Description	Date



DOCOMO PACIFIC

J.M. AQUINO, P.C.
CIVIL / STRUCTURAL
278 S. MARINE CORPS DRIVE,
HENGU PLAZA, SUITE 206
TAMUNING GUAM 96913
TEL:(671) 647-5124 FAX:(671) 647-5123



I HEREBY CERTIFY THAT THIS PLAN
WAS PREPARED BY ME OR UNDER
MY DIRECT SUPERVISION.

Project:

DOCOMO PACIFIC
5M RADOME & UHF
ANTENNA

DEDEDO, GUAM

Sheet Content:

TITLE, PROJECT LOCATION,
VICINITY MAP, INDEX OF
DRAWINGS

CLIENT/OWNER:

DOCOMO PACIFIC

Designed:

RMD

Drawn:

JBC

Checked:

JMA

Supv.:

JMA

Scale:

AS SHOWN

Date:

NOVEMBER 2018

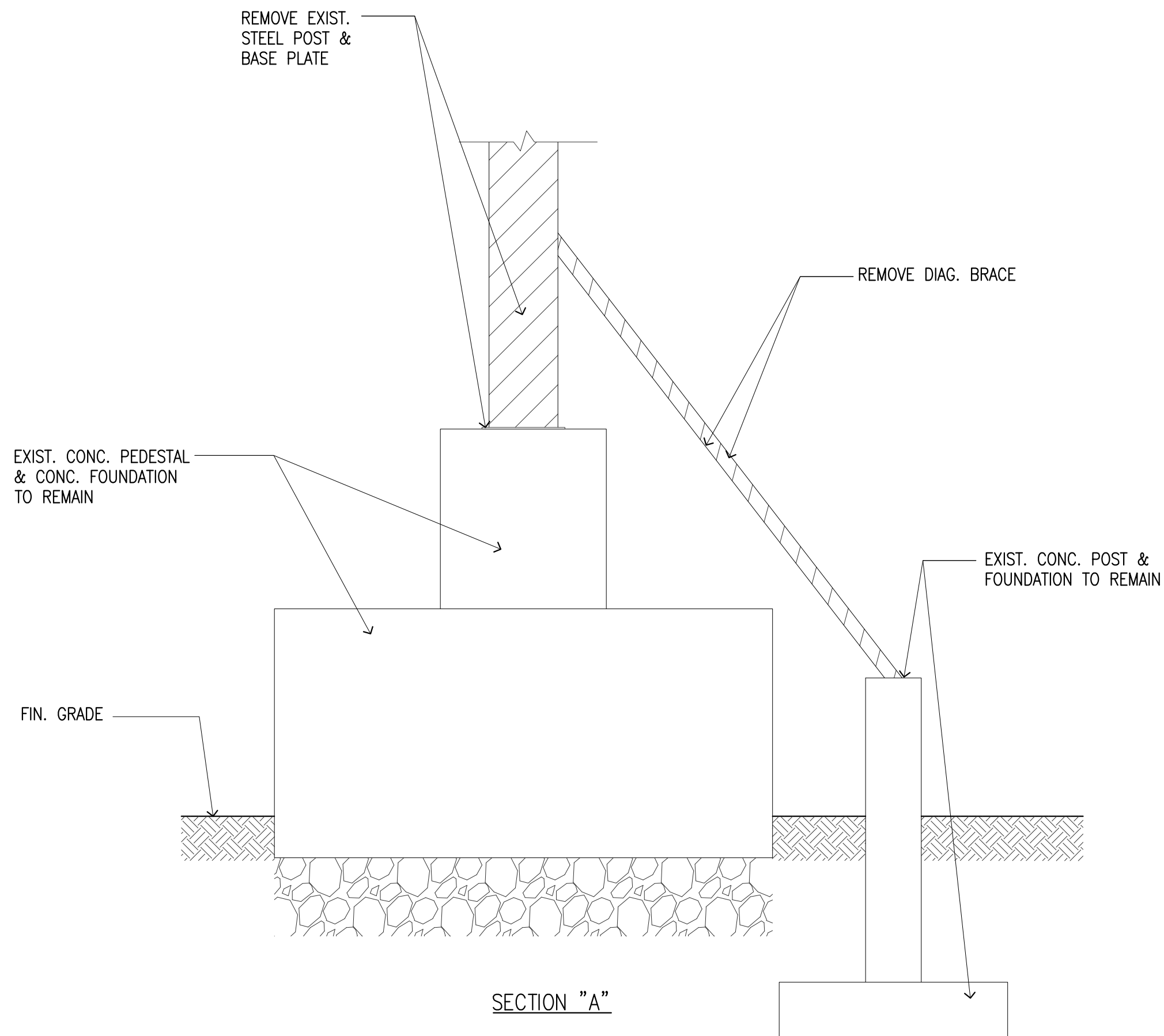
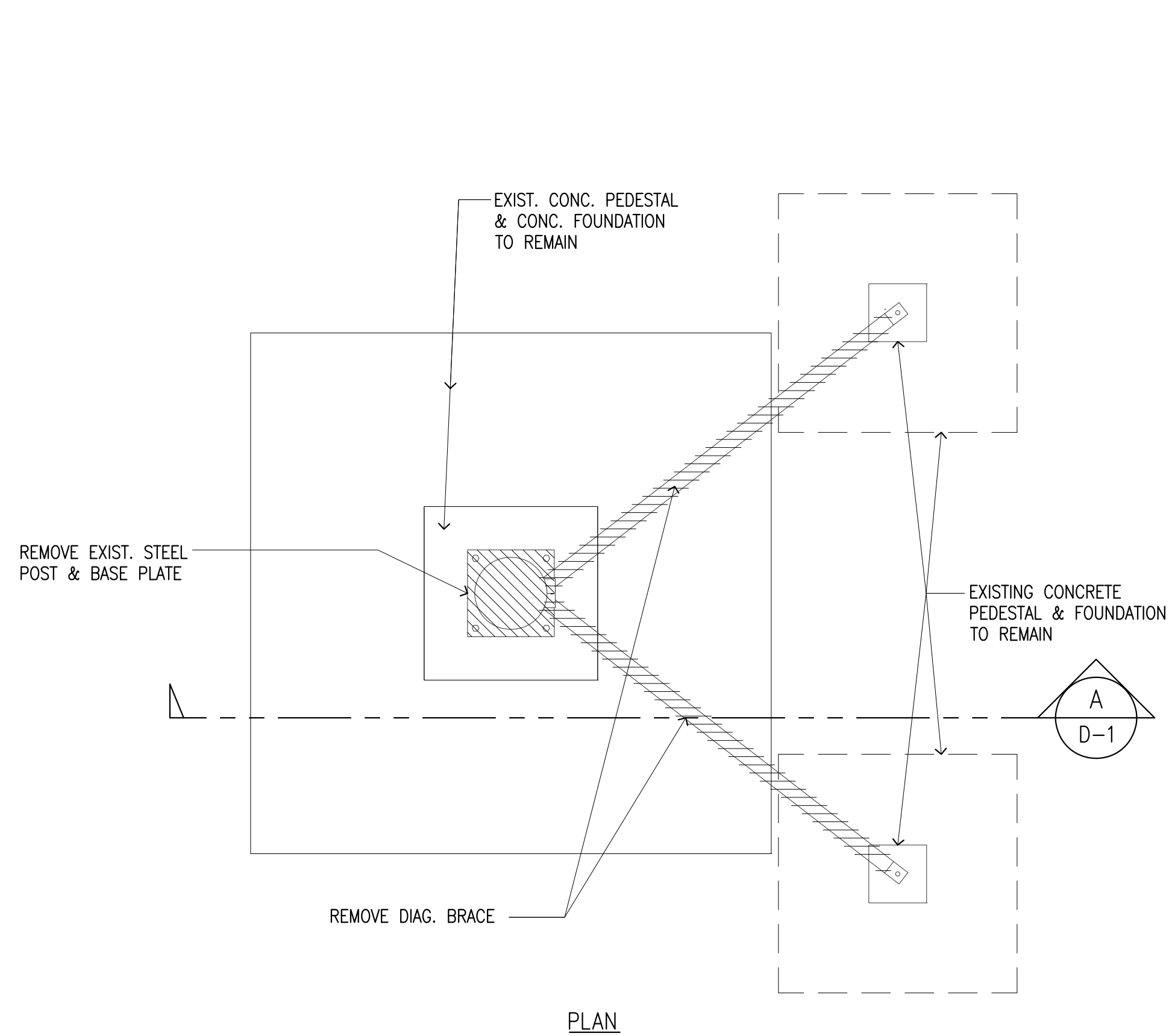
Project no.

AutoCAD File:

Drawing no.

T-1

Sheet No. 1 Of 8



1
D-1

EXIST CONDITION/REMOVAL PLAN

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

REVISIONS		
No.	Description	Date

DOCOMO PACIFIC

J.M. AQUINO, P.C.
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HENGU PLAZA, SUITE 206
TAMUNING GUAM 96913
TEL:(671) 647-5124 FAX:(671) 647-5123

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Project:

**DOCOMO PACIFIC
5M RADOME & UHF
ANTENNA**

DEDEDO, GUAM

Sheet Content:

EXIST CONDITION/REMOVAL
PLAN

CLIENT/OWNER:

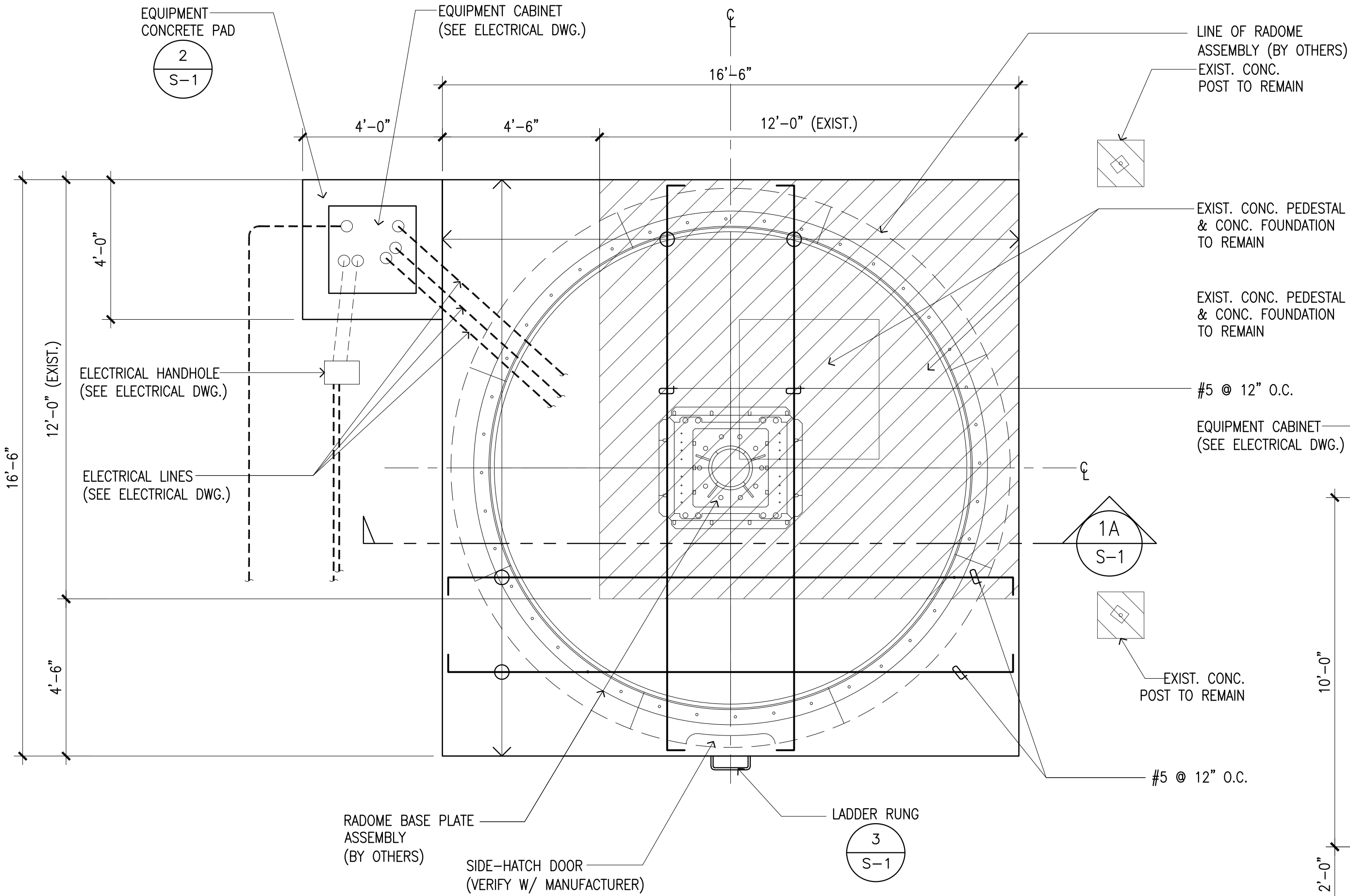
DOCOMO PACIFIC

Designed:	RMD
Drawn:	JBC
Checked:	JMA
Supv.:	JMA
Scale:	AS SHOWN
Date:	NOVEMBER 2018
Project no.	AutoCAD File:

Drawing no.

D-1

Sheet No. 2 Of 8



GENERAL NOTES:

- THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE DRAWINGS BEFORE BEGINNING ANY WORK. HE SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES, OMISSIONS OR CONFLICTS HE MAY FIND BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL SITE CONDITIONS AND DIMENSIONS. HE SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
- ALL WORK SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE FOLLOWING
 - THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE (IBC 2015).
 - ALL APPLICABLE CODES AND STANDARDS OR ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK.
- ALL ABANDONED FOOTINGS, UTILITIES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
- PROVIDE OTHER MATERIALS, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION, AS SELECTED BY THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE ENGINEER.

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A615 GRADE 40.
- ALL BARS SHALL BE FREE OF RUST, GREASE, MILL SCALE, OR ANY MATERIAL WHICH MAY AFFECT THEIR BOND TO CONCRETE.
- ALL BARS BENDS MUST BE MADE COLD. REBENDING OF BARS WILL NOT BE PERMITTED.
- BENDING, PLACING, SPACING, CONCRETE PROTECTIVE COVER, SPLICING, AND ALL OTHER DETAILS OF REINFORCING SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).

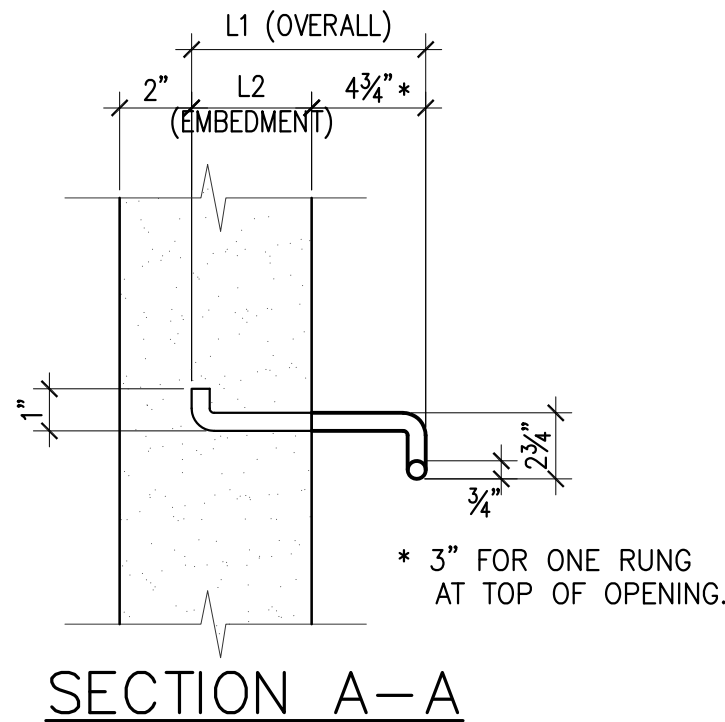
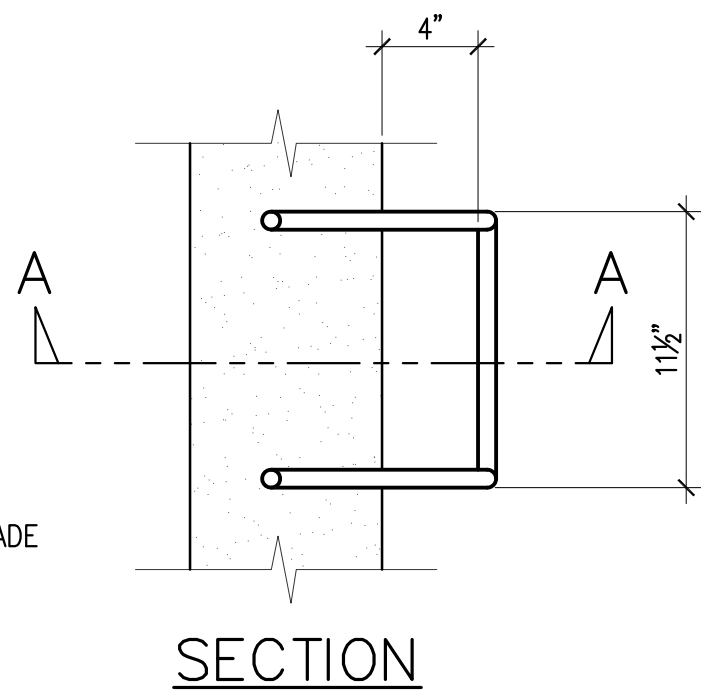
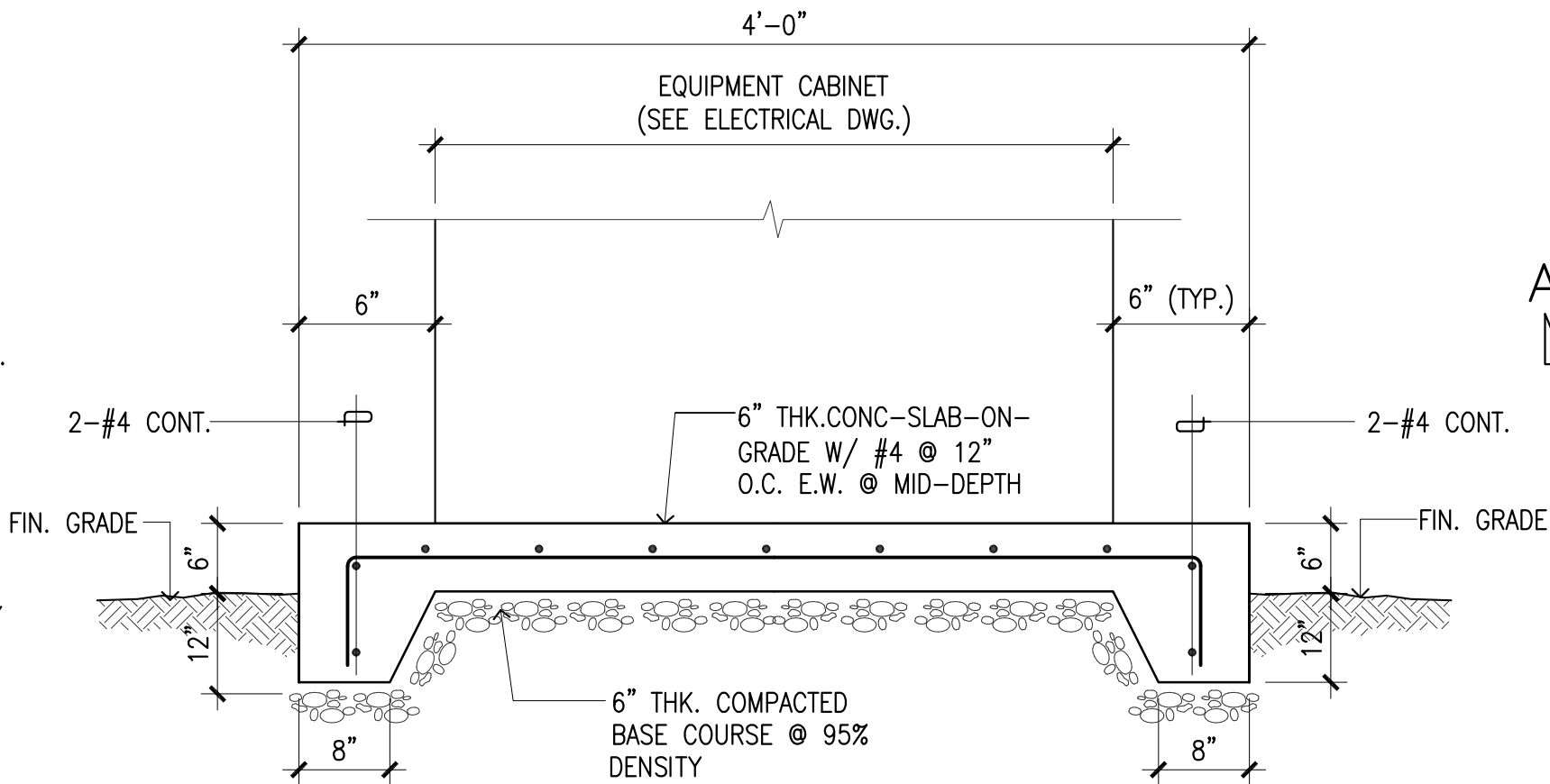
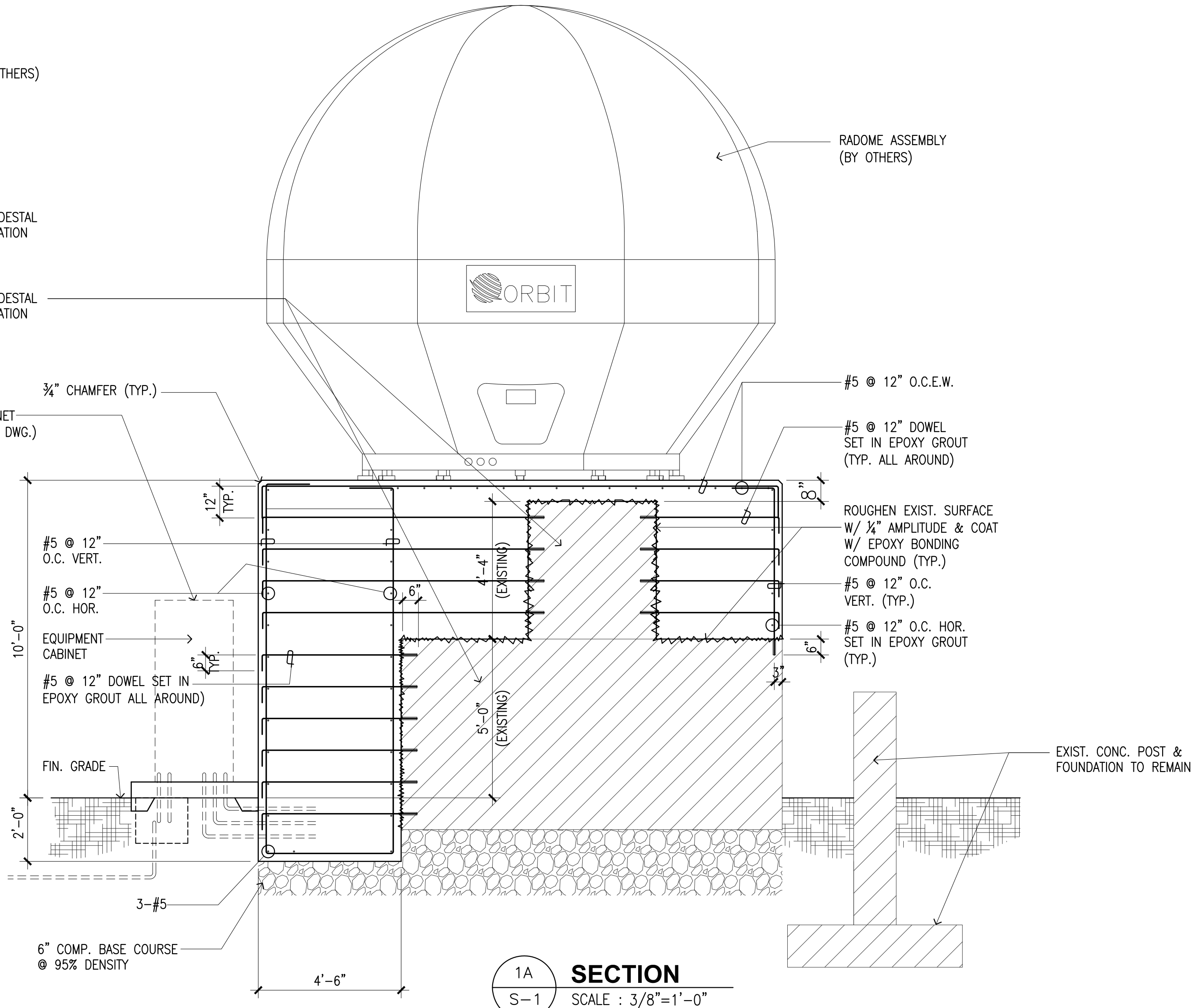
CONCRETE:

- CONCRETE TO BE USED IN THE WORK SHALL HAVE THE FOLLOWING MINIMUM ULTIMATE COMPRESSIVE STRENGTHS AT AGE 28 DAYS:

FOOTING, PEDESTAL	$f'_c = 4,000$ PSI
EQUIPMENT PAD, DEADMAN ANCHOR	$f'_c = 3,000$ PSI
- ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) WITH MODIFICATIONS AS NOTED IN THE DRAWINGS.
- CEMENT SHALL BE TYPE I CONFORMING TO ASTM C150. MIXING OPERATIONS SHALL CONFORM TO ASTM C94. PLACEMENT SHALL CONFORM TO ACI STANDARDS.
- ALL CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED INDEPENDENT TESTING LABORATORY WHO SHALL SUBMIT COPIES OF THE DESIGN FOR APPROVAL AND SHALL IN ADDITION SUBMIT COPIES OF 7 AND 28 DAY CYLINDER TEST RESULTS TO THE ENGINEER AND OBTAIN APPROVAL PRIOR TO USE.
- CONCRETE COVER OVER REINFORCING STEEL SHALL BE:

A. CONCRETE CAST AGAINST EARTH (UNFORMED)	3 INCHES
B. CONCRETE CAST AGAINST EARTH (FORMED)	2 INCHES
C. CAST-IN-PLACE COLUMNS TO MAIN STEEL	2 INCHES
- SPLICING SHALL BE SECURELY WIRED TOGETHER AND SHALL LAP OR EXTEND A MINIMUM OF 48 BAR DIAMETER UNLESS SHOWN OTHERWISE ON PLAN.
- STRIPPING OF FORMS AND SHORES:

FOUNDATIONS, PEDESTAL	24 HOURS
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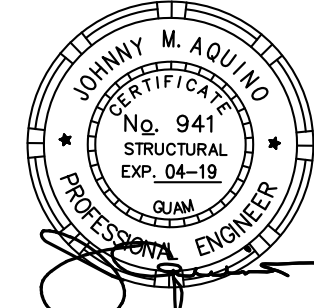
NOTES:
RUNGS SHALL BE 3/4" DIAMETER WROUGHT IRON OR ASTM A36 STEEL RODS AND SHALL BE HOT-DIPPED GALV. OR CADMIUM PLATED AFTER BENDING.

3 RUNG DETAIL
SCALE : 1 1/2"=1'-0"

2 EQUIPMENT CONCRETE PAD
SCALE : NTS

REVISIONS		
No.	Description	Date

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DOCOMO PACIFIC
J.M. AQUINO, P.C.
CIVIL / STRUCTURAL
278 S. MARINE CORPS DRIVE,
HENRI PLAZA, SUITE 206
TAMUNING GUAM 96913
TEL:(671) 647-5124 FAX:(671) 647-5123



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.

Project:
**DOCOMO PACIFIC
5M RADOME & UHF
ANTENNA**

DEDEDO, GUAM

Sheet Content:
**5M ANTENNA PLAN,
SECTION, STRUCTURAL
NOTES**

CLIENT/OWNER:
DOCOMO PACIFIC

Designed: **RMD**

Drawn: **JBC**

Checked: **JMA**

Supv.: **JMA**

Scale: **AS SHOWN**

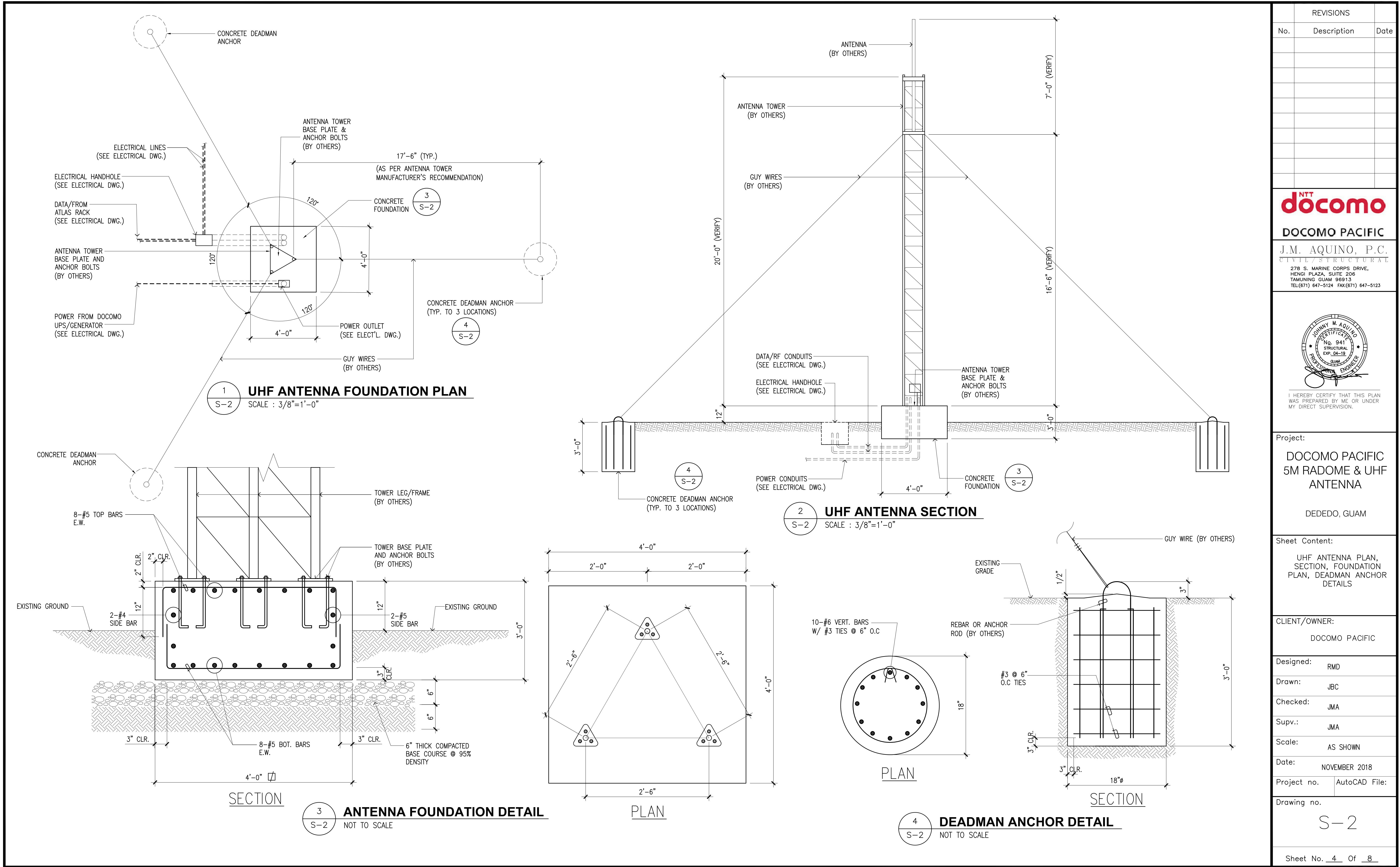
Date: **NOVEMBER 2018**

Project no. AutoCAD File:

Drawing no.

S-1

Sheet No. 3 Of 8



REVISIONS		
No.	Description	Date
NTT docomo DOCOMO PACIFIC J.M. AQUINO, P.C. CIVIL / STRUCTURAL 278 S. MARINE CORPS DRIVE, HENGI PLAZA, SUITE 206 TAMUNING GUAM 96913 TEL:(671) 647-5124 FAX:(671) 647-5123		
JOHNNY M. AQUINO CERTIFIED No. 941 STRUCTURAL EXP. 04-19 GUAM PROFESSIONAL ENGINEER I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.		
Project: DOCOMO PACIFIC 5M RADOME & UHF ANTENNA DEDEDO, GUAM		
Sheet Content: UHF ANTENNA PLAN, SECTION, FOUNDATION PLAN, DEADMAN ANCHOR DETAILS		
CLIENT/OWNER: DOCOMO PACIFIC		
Designed: RMD		
Drawn: JBC		
Checked: JMA		
Supv.: JMA		
Scale: AS SHOWN		
Date: NOVEMBER 2018		
Project no.	AutoCAD File:	
Drawing no. S-2		
Sheet No. <u>4</u> Of <u>8</u>		

GENERAL NOTES AND SPECIFICATIONS

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE NATIONAL ELECTRICAL CODE (NEC), LATEST EDITION.
2. ALL EQUIPMENT AND MATERIALS SHALL BE UL LISTED WHERE LISTING IS AVAILABLE FOR THAT TYPE OF EQUIPMENT OR CONFORM TO ANSI OR NEMA STANDARDS. SUBMIT SHOP DRAWINGS AND PRODUCT INFORMATION CATALOG FOR APPROVAL.
3. WORKMANSHIP SHALL CONFORM TO CONSTRUCTION PRACTICES RECOMMENDED BY THE AMERICAN ELECTRICIANS HANDBOOK BY CROFT (LATEST EDITION) AND SHALL BE SUBJECT TO THE APPROVAL OF THE AGENCY WHO HAS JURISDICTION AND THE ENGINEER.
4. ANY DEVICE MAY BE RELOCATED FROM THE LOCATION SHOWN ON DRAWINGS PRIOR TO INSTALLATION AT THE DIRECTION OF THE CONTRACTING OFFICER AND AT NO ADDITIONAL COST TO THE OWNER.
5. METALLIC ENCLOSURES, RACEWAYS, AND ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH REQUIREMENTS OF NEC ARTICLE 250. PROVIDE GROUND WIRE IN EVERY RACEWAY. SIZE IN ACCORDANCE WITH NEC TABLE.
6. CONDUIT SHALL BE PVC (ENCASED IN CONCRETE AND BELOW GRADE), ALUMINUM (EXPOSED INSTALLATION), EMT (DRY LOCATIONS) CONCEALED ABOVE GRADE). 3/4" MINIMUM DIAMETER UNLESS OTHERWISE NOTED.
7. WIRING SHALL BE NEC TYPE THW, THWN OR XHHW, 600V. CONDUCTORS SHALL BE COPPER.
8. TEST: TESTING IN PRESENCE OF ENGINEER. RESULTS SUBMITTED FOR APPROVAL TO ENGINEER.
 - A. MEASUREMENT OF VOLTAGES AT EQUIPMENT.
 - B. OPERATION TEST OF EQUIPMENT
 - C. INSULATION RESISTANCE TEST OF CONDUCTOR
 - D. GROUNDING TEST AT EQUIPMENT
9. ELECTRICAL WORK SHALL BE UNDER FULL SUPERVISION OF A PROFESSIONAL ELECTRICAL ENGINEER OR A MASTER ELECTRICIAN REGISTERED TO PRACTICE IN GUAM.
10. SUBSTITUTE MATERIALS TO BE EQUAL QUALITY TO SPECIFIED ITEM.
11. GUARANTEE - THE ENTIRE INSTALLATION SHALL BE GUARANTEED FOR ONE YEAR AFTER ACCEPTANCE BY THE OWNER AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP. WHEN NOTIFIED OF ANY FAILURE OF ANY PART OF THE INSTALLATION DURING THE GUARANTEE PERIOD, CONTRACTOR SHALL REPAIR OR REPLACE THE DEFECTIVE PART AT HIS OWN EXPENSE TO THE SATISFACTION OF THE OWNER.
12. INSTALLATION AND WORKMANSHIP:
 - A. ALL WORK SHALL BE NEATLY EXECUTED, WORKMANLIKE IN APPEARANCE, SYMMETRICAL, PLUMB, UNIFORM, PROPERLY ALIGNED AND SECURED IN PLACE.
 - B. WIRING METHODS:
 - (1) USE SEALTITE FLEX FOR CONNECTION TO EQUIPMENT.
 - (2) ATTACH TO CONCRETE AND MASONRY WITH EXPANSION ANCHORS AND TO WOOD WITH WOOD SCREWS.

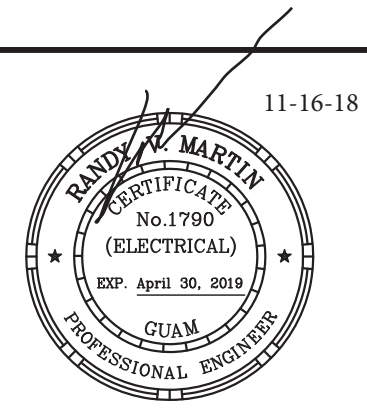
- (3) SUPPORT RACEWAYS PER NEC.
 - (4) DO NOT SUPPORT RACEWAYS AND BOXES FROM AND ON MECHANICAL SYSTEMS.
 - (5) CABLES WILL NOT BE PERMITTED.
- C. CONDUCTORS:
- (1) TAPE ALL SPLICES WITH SCOTCH NO. 33 VINYL TAPE OR EQUAL.
 - (2) FORM WIRE NEATLY IN ENCLOSURES.
 - (3) IDENTIFY CONDUCTORS BY COLOR CODE - NEUTRAL WIRE TO BE WHITE AND GROUND WIRE TO BE GREEN.
- D. CUT, DRILL AND PATCH AS REQUIRED. REPAIR ANY SURFACES DAMAGED OR MARRED. CUTTING, REPAIRS AND REFINISHING SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.
- E. CLEAN ALL SURFACES TO RECEIVE PAINT. PAINT ANY SURFACE DAMAGED DURING INSTALLATION.
- F. REPAIR ALL SURFACES DAMAGED DURING THE INSTALLATION OF THE WORK.
- G. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED WITH APPROVED FIRESTOPPING MATERIAL.
- H. PROVIDE EXPANSION/DEFLECTION FITTING FOR CONDUITS THROUGH SEISMIC JOINTS.
- I. PROVIDE CONDUIT SEAL FOR CONDUITS PASSING THROUGH AIR CONDITIONED AND NON- AIR CONDITIONED AREAS.

13. OUTLETS - PROVIDE OUTLET BOXES TO SUIT CONDITIONS ENCOUNTERED. BOXES SIZED TO ACCOMMODATE CONDUCTORS PER NEC. MINIMUM SIZE OF BOX FOR USE WITH RACEWAY SYSTEMS TO BE 4" SQUARE BY 1-1/2" DEEP.
14. CIRCUIT BREAKERS AND SAFETY SWITCHES - GENERAL ELECTRIC, SQUARE D, SAFETY SWITCH - HEAVY DUTY TYPE.
15. SUBMIT SHOP DRAWING AND CATALOG DATA FOR ALL MATERIALS FOR APPROVAL.
16. AT THE CONCLUSION OF THE WORK, THE CONTRACTOR WILL INCORPORATE ALL CHANGES MADE, AND RECORDED, INTO THE SET OF REPRODUCEABLES IN A CLEAR, LEGIBLE AND REPRODUCIBLE MANNER. ALL SUB-OUTS SHALL BE DIMENSIONALLY LOCATED WITHIN THE BUILDING STRUCTURE. AS A CONDITION FOR ACCEPTANCE OF WORK, "AS-BUILT" REPRODUCEABLE SHALL BE SIGNED BY CONTRACTOR ATTESTING THAT ALL CHANGES HAVE BEEN INCORPORATED.
17. ALL MATERIALS SHALL BE NEW AND "LISTED" OR "LABELED" AS DEFINED BY THE NATIONAL ELECTRICAL CODE (NEC).
18. COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICTS AND PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM.
19. ALL SECONDARY FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER AND INSTALLED IN RACEWAYS.
20. PROVIDE A GREEN EQUIPMENT GROUND CONDUCTOR IN ALL SECONDARY FEEDER AND BRANCH CIRCUITS SIZED IN ACCORDANCE WITH NEC ARTICLE 250.

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docomo
DOCOMO PACIFIC

RANDY V. MARTIN, P.E.
ELECTRICAL ENGINEER: GUAM | CNMI | CALIFORNIA
PHONE: (671) 858-2291
Email: randyvmartin@gmail.com



I HEREBY CERTIFY THAT THIS PLAN
WAS PREPARED BY ME OR UNDER
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Project:

DOCOMO PACIFIC
5M RADOME & UHF
ANTENNA

DEDEDO, GUAM

Sheet Content:

GENERAL NOTES AND SPECS.,
COMM RISER DIAGRAM,
AND ONE LINE DIAGRAM

CLIENT/OWNER:

DOCOMO PACIFIC

Designed:

RVM

Drawn:

LCL

Checked:

RVM

Supv.:

DMM

Scale:

AS SHOWN

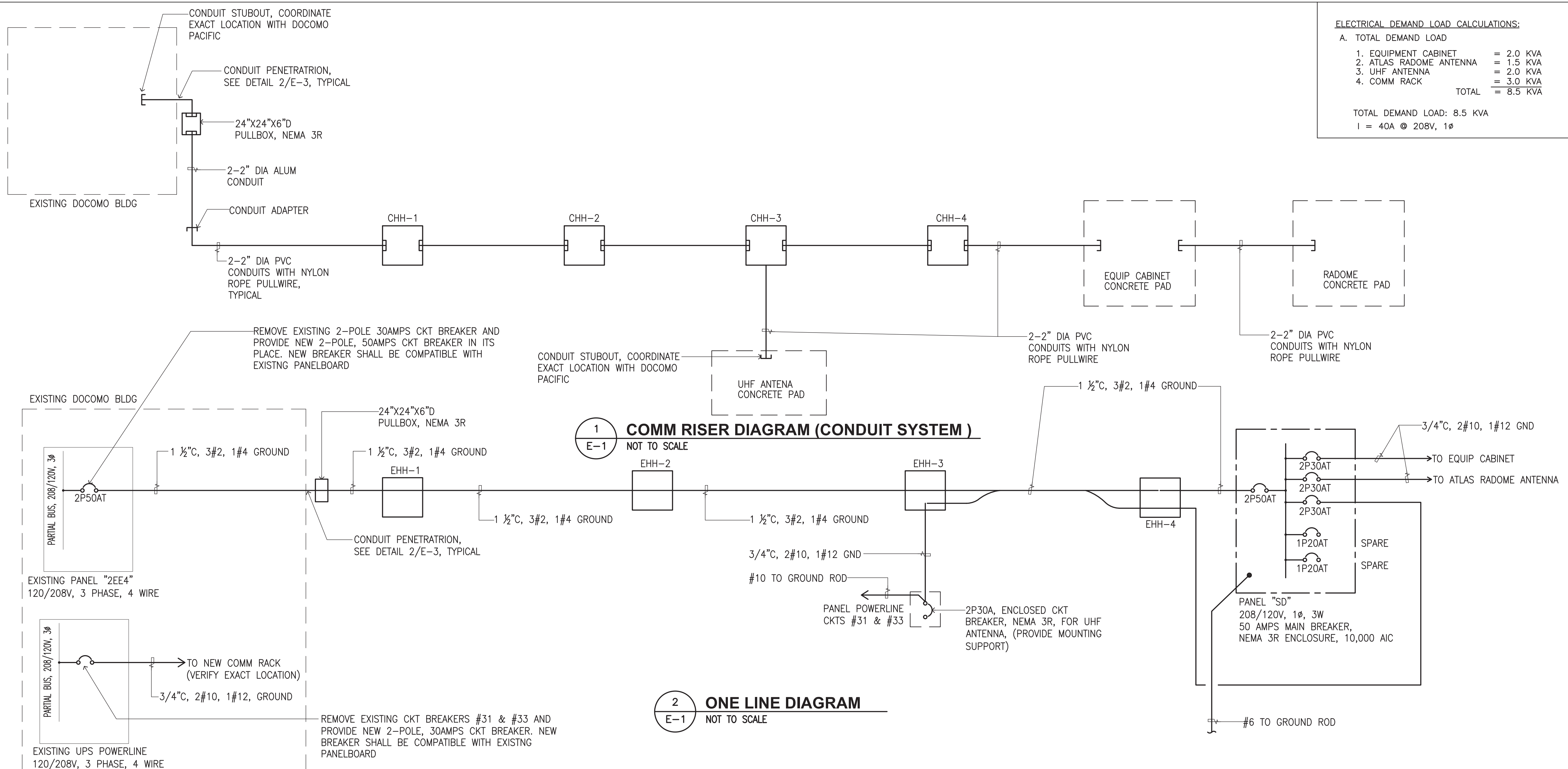
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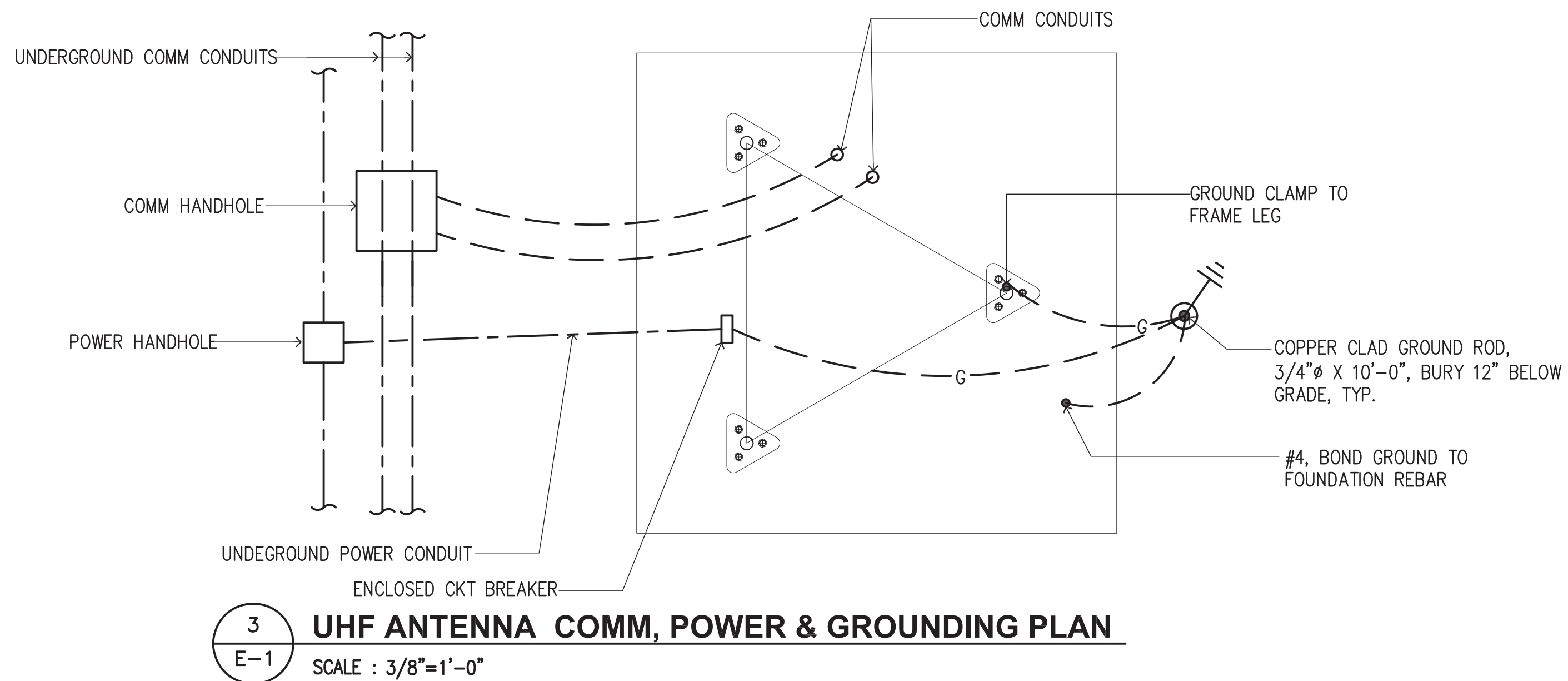
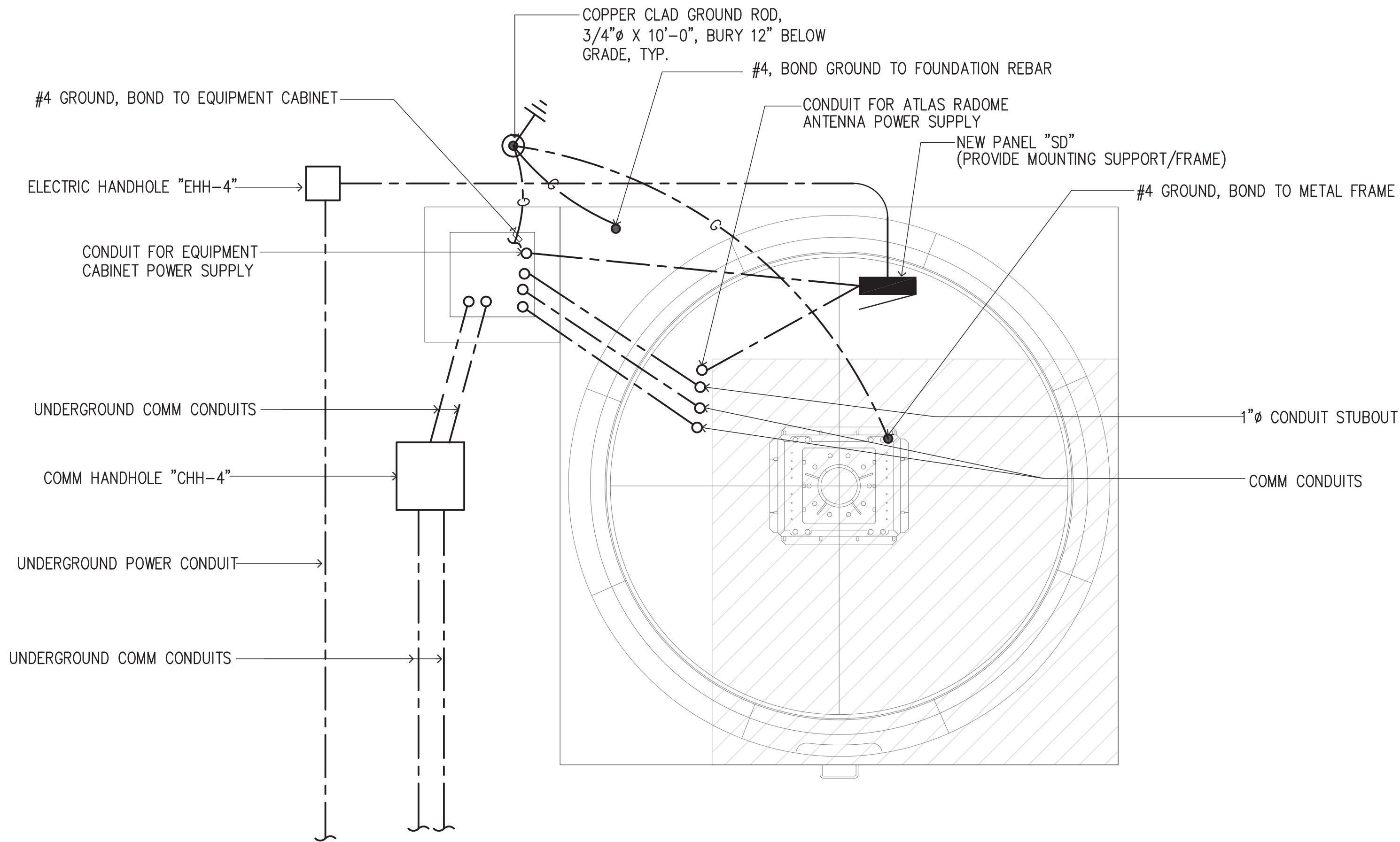
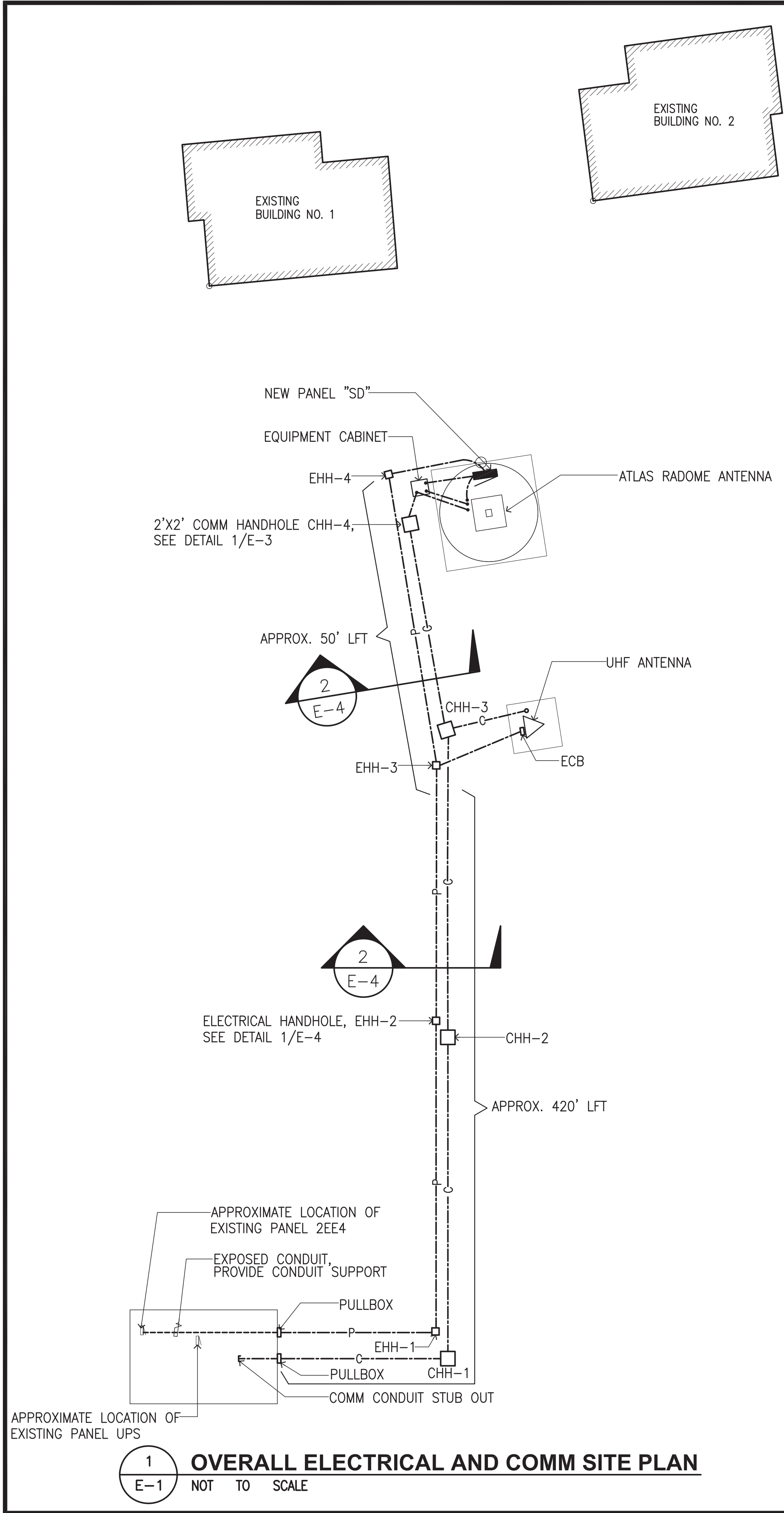
NOVEMBER 2018

Drawing no.

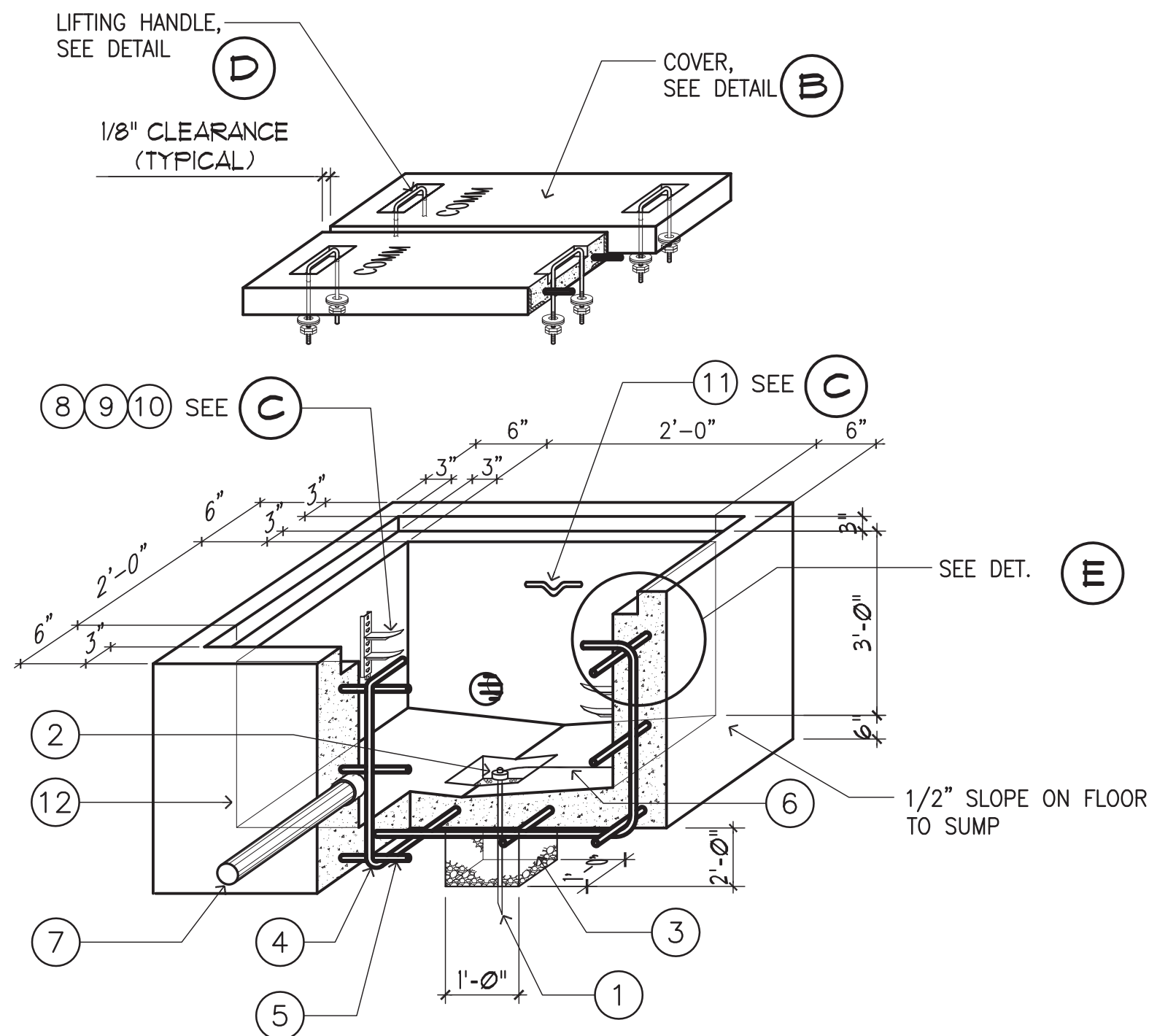
E-1

Sheet No. 5 Of 8

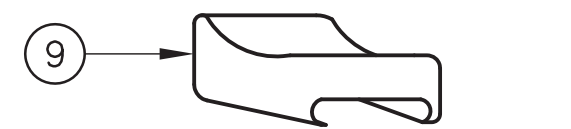




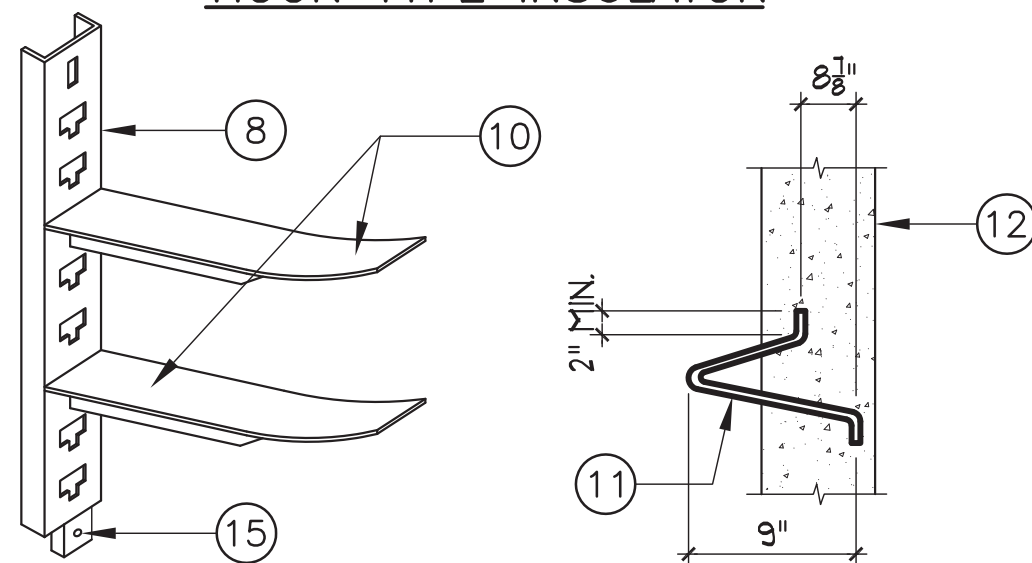
REVISIONS		
No.	Description	Date
 DOCOMO PACIFIC RANDY V. MARTIN, P.E. ELECTRICAL ENGINEER- GUAM / CNMI / CALIFORNIA PHONE: (671) 858-2291 Email: randymartin@gmail.com		
 11-16-18 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION.		
Project: DOCOMO PACIFIC 5M RADOME & UHF ANTENNA DEDEDO, GUAM		
Sheet Content: ELECTRICAL AND COMM SITE PLAN, ENLARGED ATLAS - RADOME AND UHF ANTENNA COMM, POWER AND PLAN		
CLIENT/OWNER: DOCOMO PACIFIC		
Designed: RVM		
Drawn: LCL		
Checked: RVM		
Supv.: RVM		
Scale: AS SHOWN		
Date: NOVEMBER 2018		
Project no.	AutoCAD File:	
Drawing no. E-2		
Sheet No. <u> 6 </u> Of <u> 8 </u>		



A HANDHOLE DETAIL
NOT TO SCALE



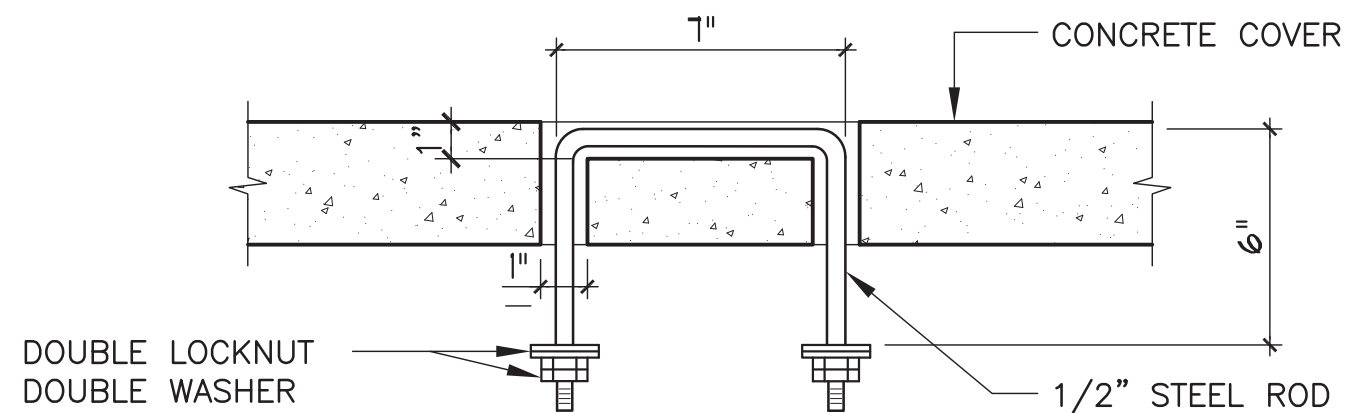
HOOK TYPE INSULATOR



CABLE RACK

PULLING IRON

**C CABLE RACK, INSULATOR
AND PULLING IRON DETAILS**
NOT TO SCALE

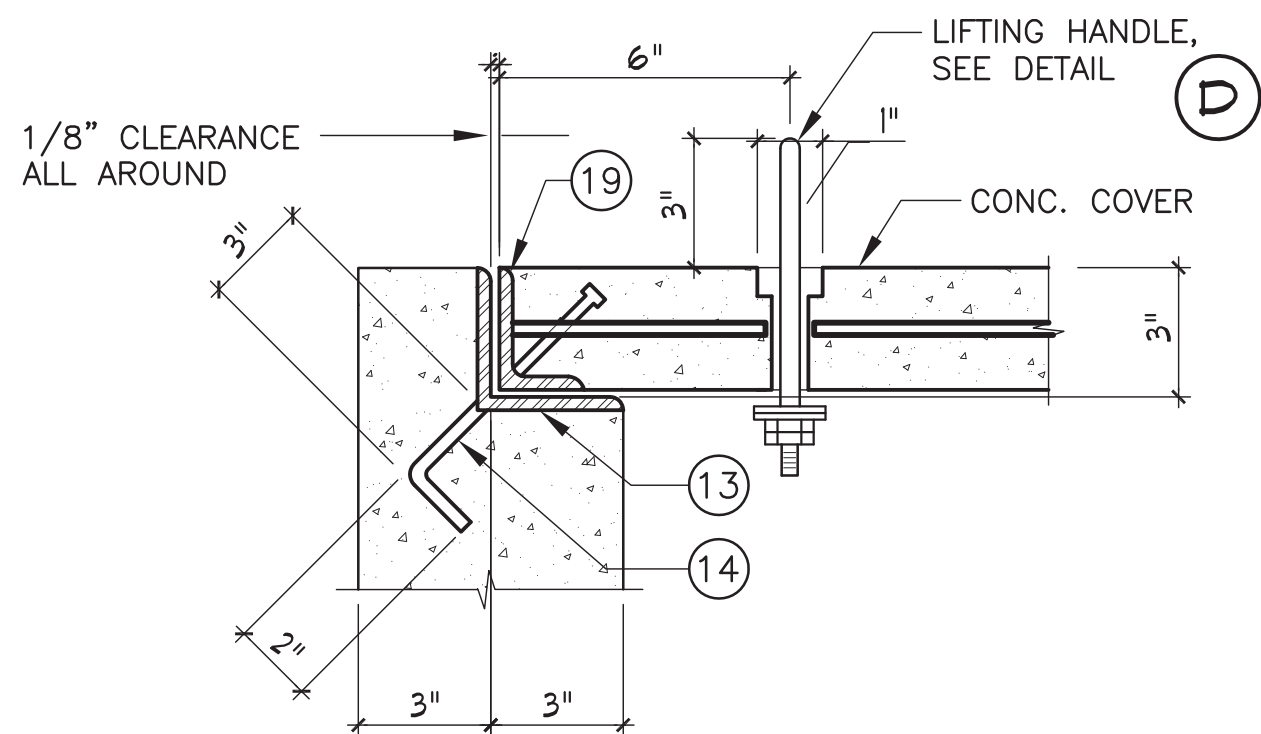


D LIFTING HANDLE DETAIL
NOT TO SCALE

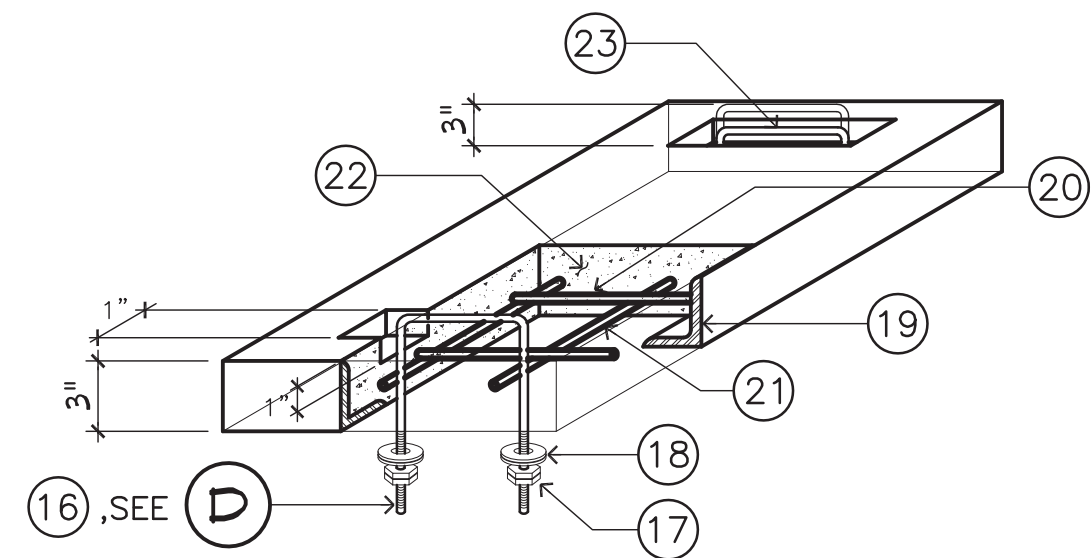
ITEM	BILL OF MATERIALS
1	5/8"Ø X 8'-0" COPPER WELD GROUND ROD
2	5/8"Ø COPPER GROUND ROD CLAMP
3	3/4"Ø MAXIMUM GRAVEL SIZE, FILL TO FINISH FLOOR
4	#4 REBAR @ 10" O.C. VERTICAL
5	#4 REBAR @ 10" O.C. HORIZONTAL
6	#6 COPPER WIRE (SOLID) FOR GROUNDING HARDWARE
7	CONDUIT WITH END BELL 6" FROM FLOOR SLAB, SIZE AND QUANTITY AS REQUIRED
8	CABLE RACK HOT DIP GALVANIZED
9	HOOK TYPE INSULATOR
10	INSULATOR WELDED SUPPORT
11	PULLING IRON 7/8"Ø GALVANIZED, LOCATED AT OPPOSITE END OF EACH CONDUIT ENTRANCE
12	6" THICK CONCRETE FLOOR SLAB AND WALL AT 3000 PSI YIELD STRENGTH OF GRADE 40 FOR REBARS
13	3" X 3" X 3/8" ANGLE IRON HOT DIP GALVANIZED
14	3/8"Ø STEEL ROD WELDED TO FRAME EVERY 12" O.C.
15	SLOT FOR 1/2" BOLT AND LEAD ANCHOR
16	1/2"Ø STEEL LIFTING DEVICE GALVANIZED
17	DOUBLE LOCKNUT, 1/2"Ø HOLE
18	DOUBLE ROUND WASHER 2"Ø WITH 5/8"Ø HOLE
19	3" X 3" X 1/4" ANGLE IRON, HOT DIP GALVANIZED ALL AROUND
20	#4 HOR. REBAR WELDED TO ANGLE FRAME
21	#4 VERT. REBAR WELDED TO ANGLE FROM AND OTHER REBAR
22	4" THICK CONCRETE AT 3000 PSI
23	1/2"Ø STEEL ROD LIFTING HANDLE

NOTES:

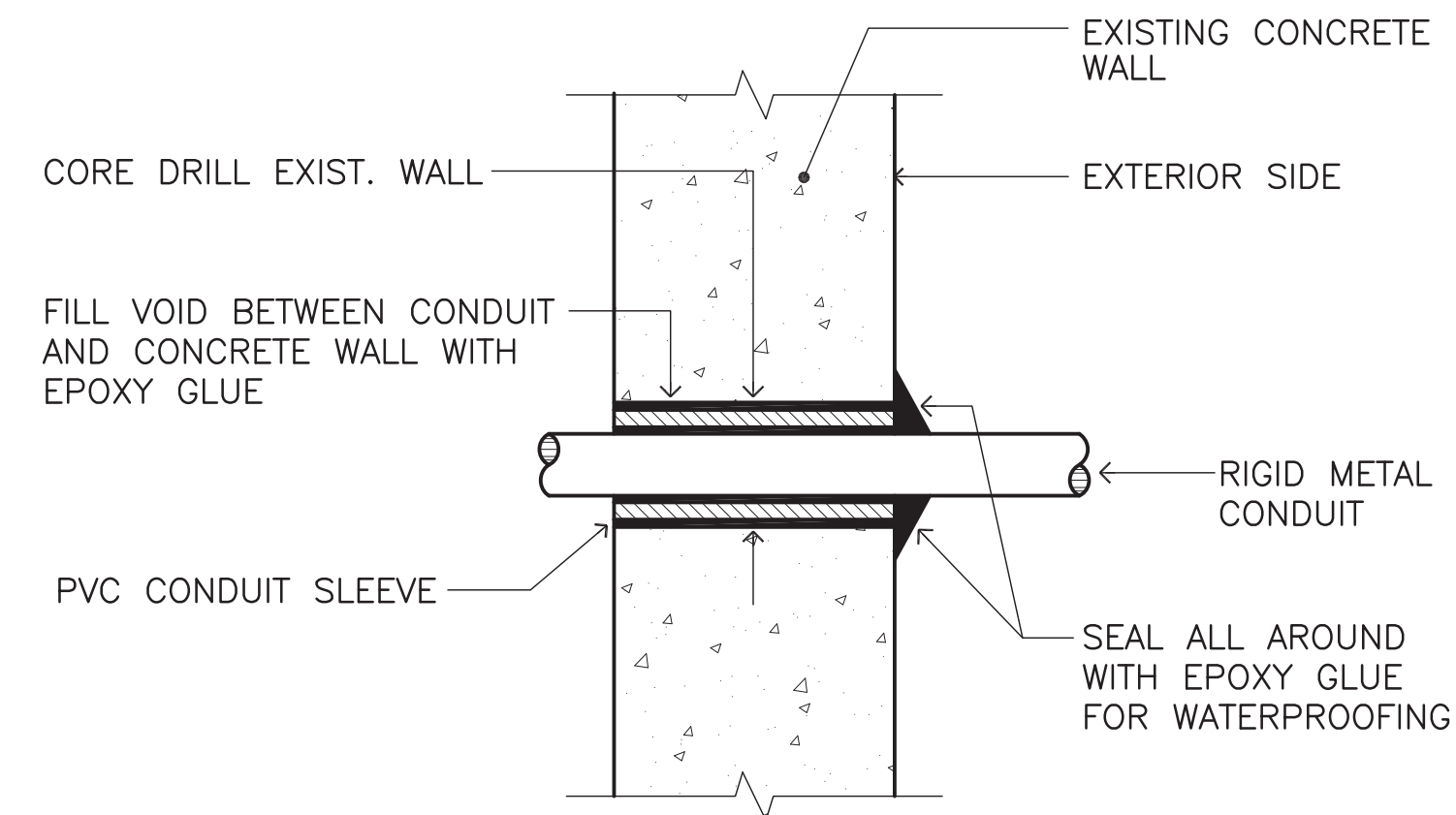
- COORDINATE LAYOUT AND EXACT DIMENSIONS WITH GPA ENGINEERING PRIOR TO INSTALLATION.
- THIS HANDHOLE IS TO BE USED IN LOCATIONS WHERE NOT MORE THAN 3 JUNCTIONS OF SECONDARY WILL BE INSTALLED.
- GROUND ALL HARDWARE IN THE HANDHOLE.
- TOP OF THE HANDHOLE SHALL BE FLUSH WITH THE SIDEWALK SURFACE, OTHERWISE THERE SHOULD BE A 2" CLEARANCE FROM THE FINISHED GROUND SURFACE.
- AREA OF CONDUIT ENTRANCES SHOULD BE 6" MINIMUM FROM THE FLOOR SLAB, 10" MINIMUM FROM THE LEFT OR RIGHT SIDE WALL, AND 15" MINIMUM FROM THE TOP OF THE HANDHOLE.
- PROVIDE APPROXIMATE 1/8" CLEARANCE BETWEEN HANDHOLE COVERS AND BETWEEN COVERS AND LEDGE SIDES.
- ALL LETTERING SHALL BE 3" WITH A 1/4" EMBEEMENT.
- INDICATE "COMM" ON EVERY HANDHOLE COVER WITH THE LETTER AND CENTERED AS SHOWN.



E COVER SEAT MOUNTING DETAIL
NOT TO SCALE



B HANDHOLE COVER DETAIL
NOT TO SCALE

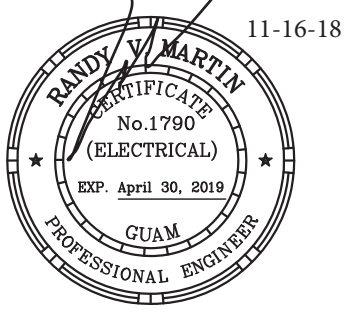


2 CONDUIT PENETRATION DETAIL
E-3 NOT TO SCALE

2 2'X2'X3' COMM HANDHOLE DETAIL
E-3 NOT TO SCALE

REVISIONS		
No.	Description	Date

NTT docomo
DOCOMO PACIFIC
RANDY V. MARTIN, P.E.
ELECTRICAL ENGINEER- GUAM / CNMI / CALIFORNIA
PHONE: (671) 858-2291
Email: randymartin@gmail.com



I HEREBY CERTIFY THAT THIS PLAN
WAS PREPARED BY ME OR UNDER
MY DIRECT SUPERVISION.

Project:
**DOCOMO PACIFIC
5M RADOME & UHF
ANTENNA**
DEDEDO, GUAM

Sheet Content:
HANDHOLE DETAIL

CLIENT/OWNER:
DOCOMO PACIFIC

Designed: **RM**

Drawn: **LCL**

Checked: **RM**

Supv.: **RM**

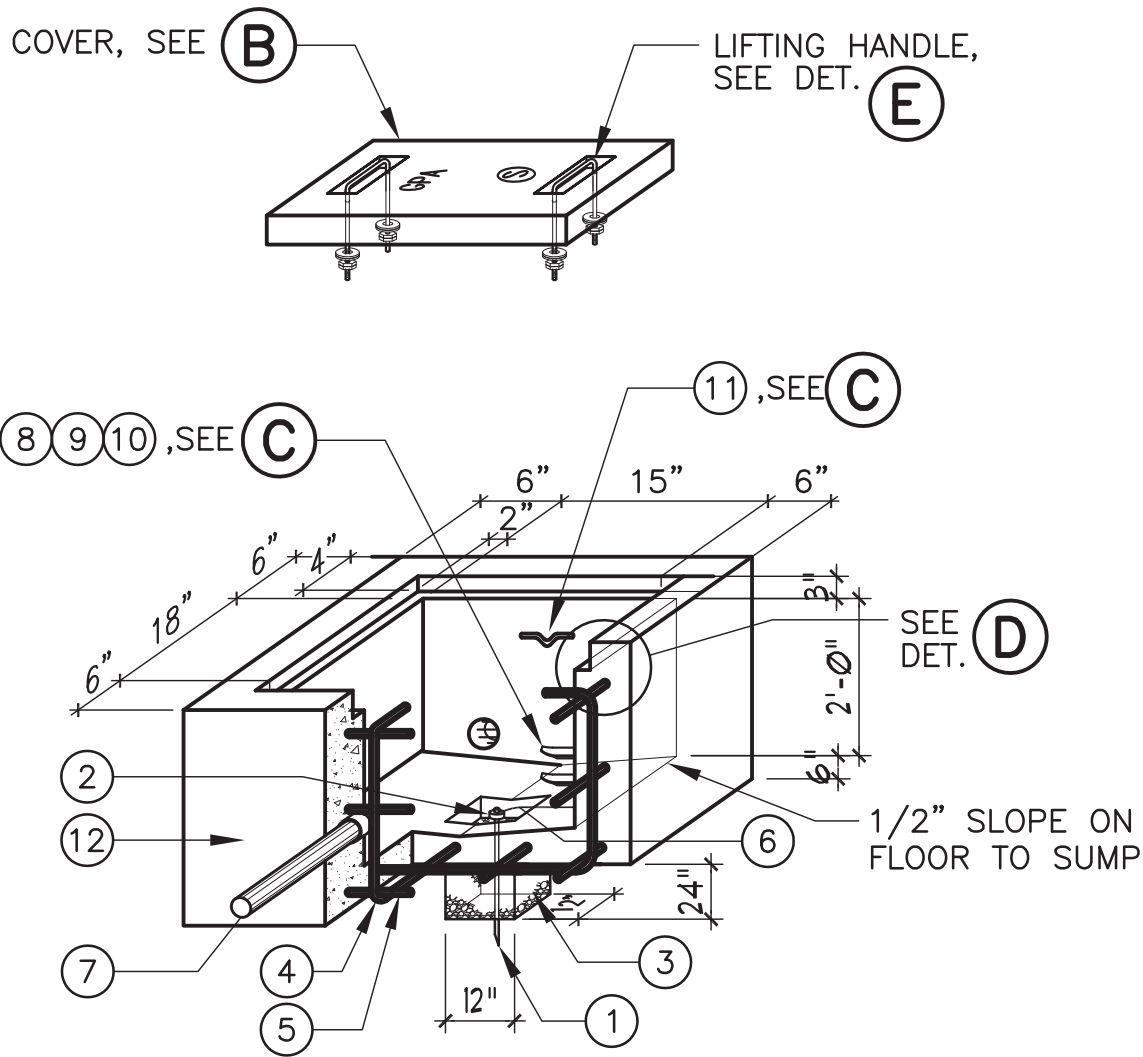
Scale: **AS SHOWN**

Date: **NOVEMBER 2018**

Project no. AutoCAD File:

Drawing no.
E-3

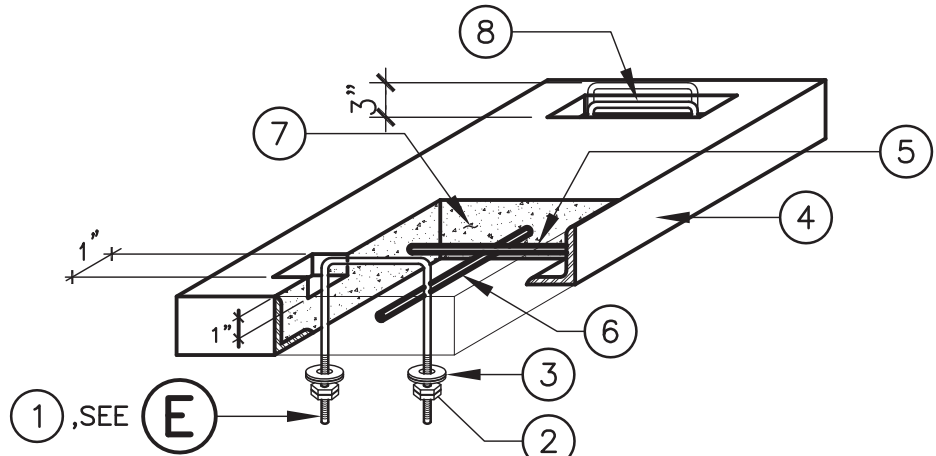
Sheet No. 7 Of 8



NOTES:

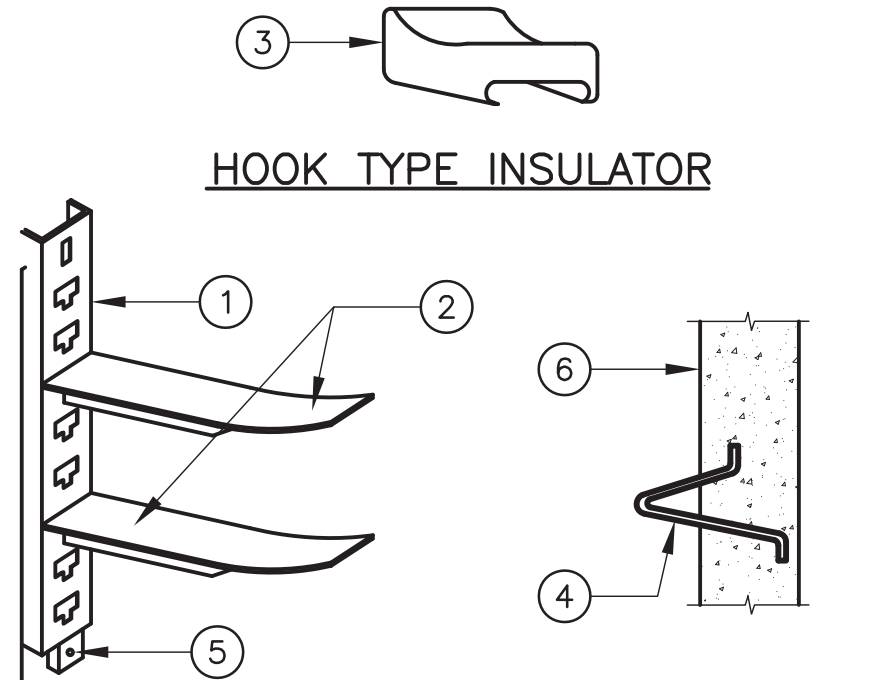
1. THIS HANDHOLE IS TO BE USED FOR LIGHTPOLES.
2. GROUND ALL HARDWARES IN THE HANDHOLE.
3. TOP OF THE HANDHOLE SHOULD BE FLUSHED WITH THE SIDEWALK SURFACE OTHERWISE THERE SHOULD BE A 2" CLEARANCE FROM REGULAR GROUND SURFACE.
4. PROVIDE APPROXIMATELY 1/8" CLEARANCE BETWEEN HANDHOLE COVERS AND BETWEEN COVERS AND LEDGE SIDES.

ITEM	BILL OF MATERIALS
1	5/8"Ø X 8'-0" COPPER WELD GROUND ROD
2	5/8"Ø COPPER GROUND ROD CLAMP
3	3/4"Ø MAXIMUM GRAVEL SIZE, FILL TO FINISH FLOOR
4	#4 REBAR AT 6" O.C. VERTICAL
5	#4 REBAR AT 6" O.C. HORIZONTAL
6	#6 COPPER WIRE (SOLID) FOR GROUNDING HARDWARES
7	CONDUIT WITH END BELL 6" FROM THE FLOOR SLAB, SIZE AND QUANTITY AS REQ'D
8	CABLE RACK HOT DIP GALVANIZED
9	HOOK TYPE INSULATOR
10	INSULATOR WELDED SUPPORT
11	PULLING IRON 7/8" Ø (GALV.) OPPOSITE END OF EACH CONDUIT ENTRANCE
12	6" THICK CONCRETE FLOOR SLAB AND WALL AT 2500 PSI



ITEM	BILL OF MATERIALS
1	1/2"Ø STEEL LIFTING DEVICE GALVANIZED
2	DOUBLE LOCKNUT, 1/2"Ø HOLE
3	DOUBLE ROUND WASHER 2"Ø WITH 5/8"Ø HOLE
4	3" x 3" x 1/4" ANGLE IRON, HOT DIP GALVANIZED ALL AROUND
5	#3 REBAR AT 6" O.C. WELDED TO ANGLE FRAME
6	#3 REBAR AT 6" O.C. WELDED TO ANGLE FROM AND OTHER #3 REBAR
7	3" THICK CONCRETE AT 2500 PSI
8	1/2"Ø STEEL ROD LIFTING HANDLE

A HANDHOLE DETAIL
NOT TO SCALE

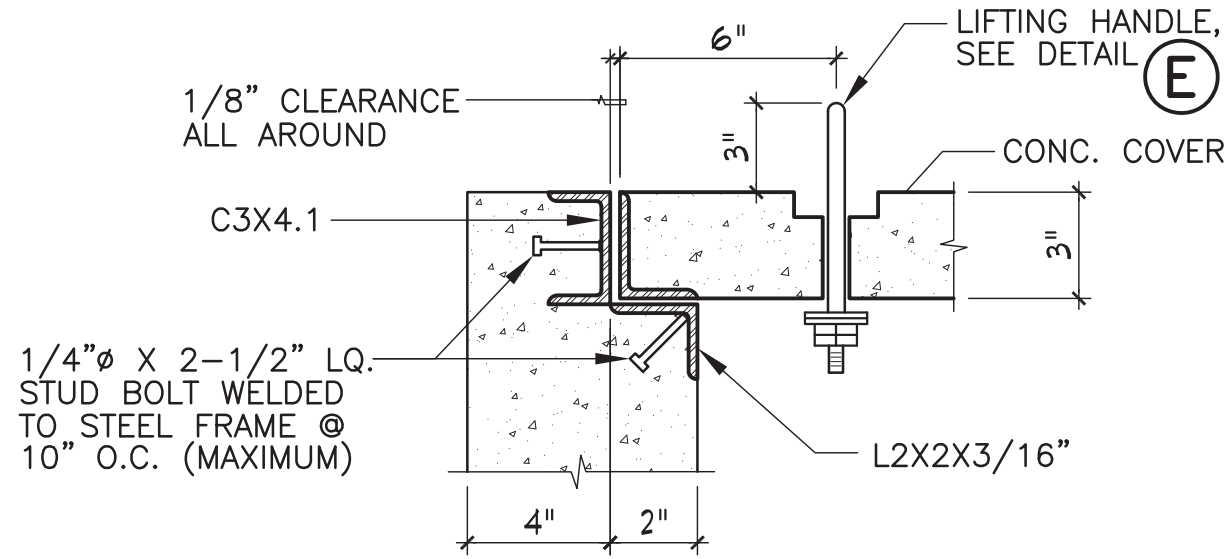


CABLE RACK

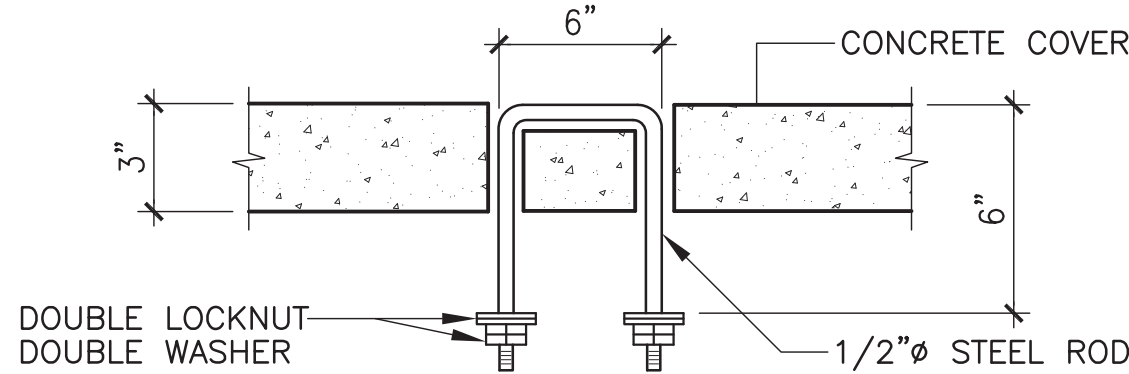
PULLING IRON

ITEM	BILL OF MATERIALS
1	CABLE RACK HOT DIP GALVANIZED
2	INSULATOR WELDED SUPPORT
3	HOOK TYPE INSULATOR
4	PULLING IRON 7/8"Ø GALVANIZED
5	SLOT FOR 1/2" BOLT AND LEAD ANCHOR
6	6" THICK CONCRETE WALL AT 2500 PSI

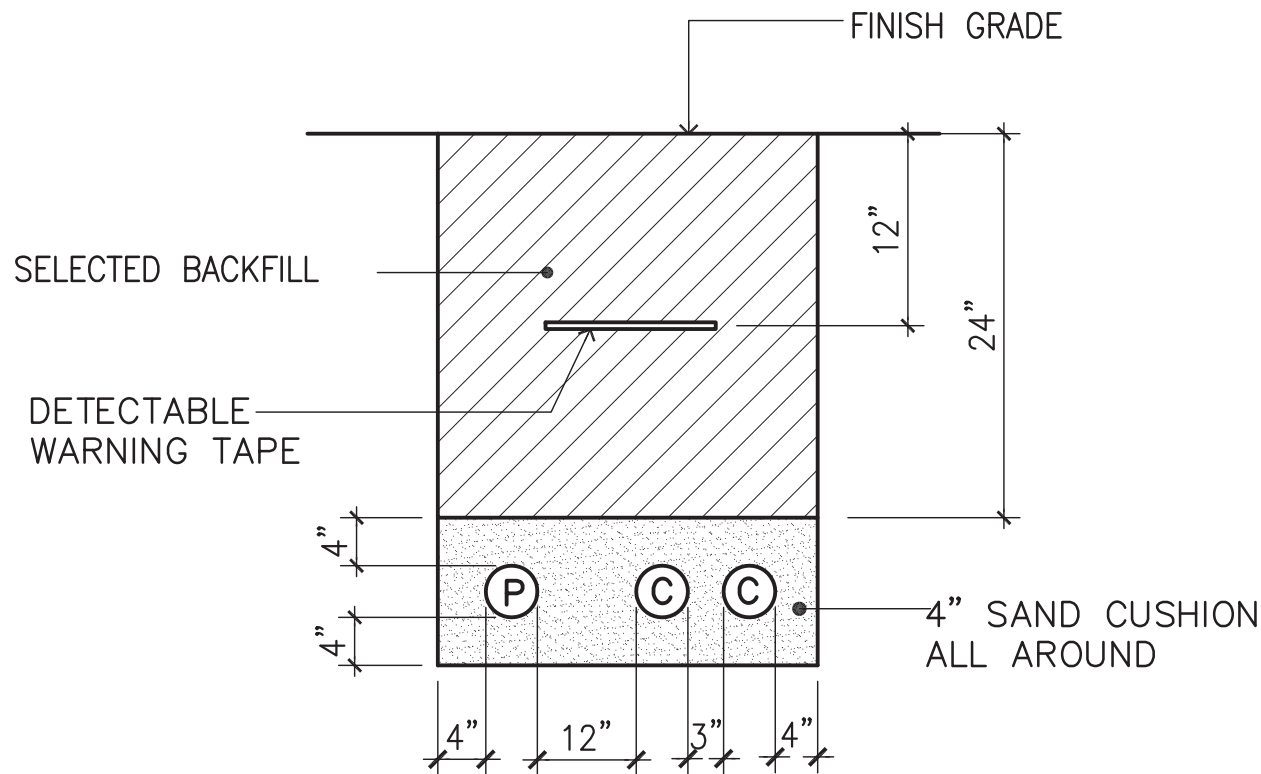
C CABLE RACK, INSULATOR AND PULLING IRON DETAILS
NOT TO SCALE



D COVER SEAT MOUNTING DETAIL
NOT TO SCALE



E LIFTING HANDLE DETAIL
NOT TO SCALE



2 DUCT SECTION
E-4 NOT TO SCALE

1 18" X 15" X 24" ELECTRICAL HANDHOLE
E-4 NOT TO SCALE

REVISIONS		
No.	Description	Date

docomo
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11-16-18
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