

# DOCOMO PACIFIC 5M RADOME & UHF ANTENNA

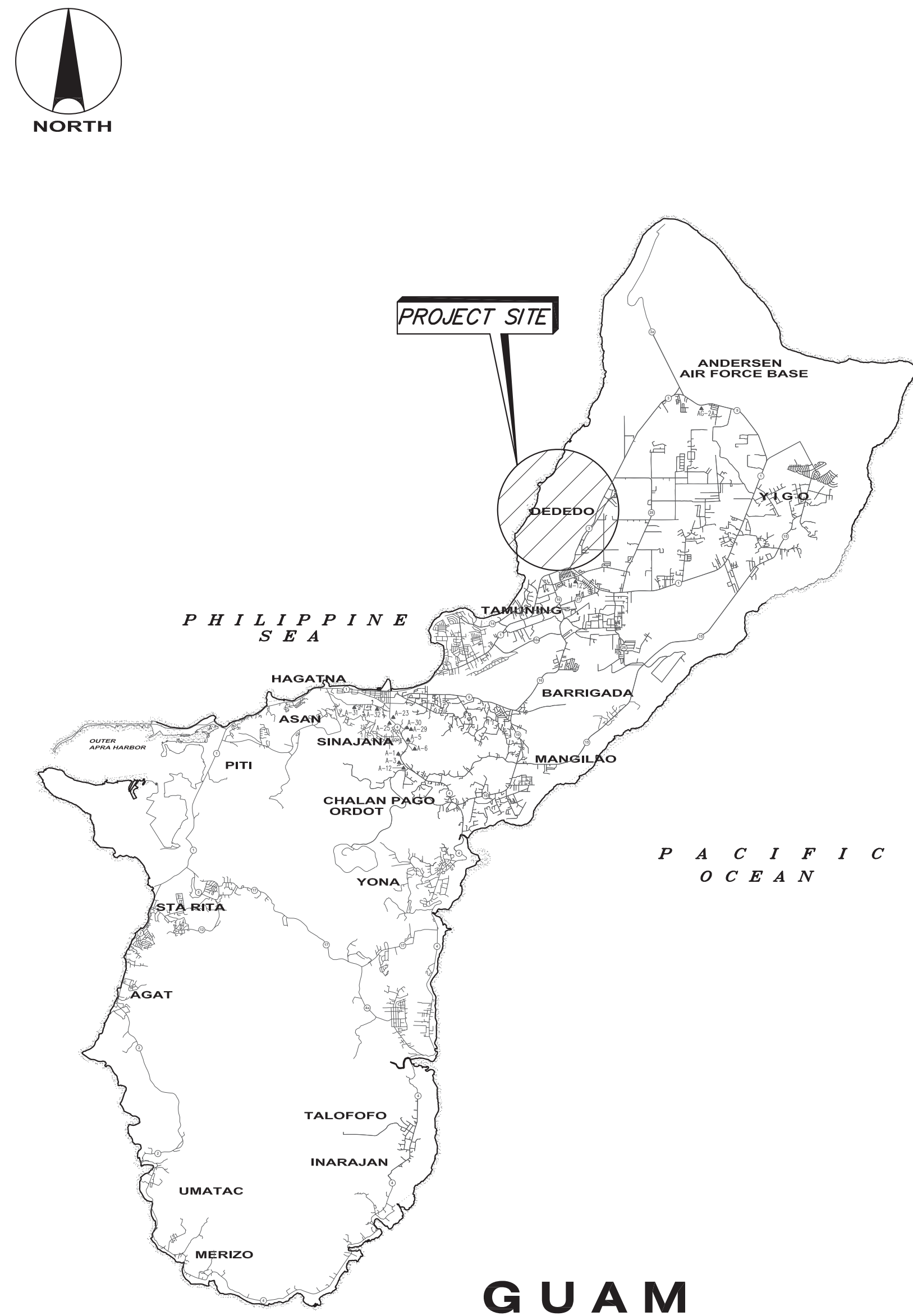
DEDEDO

GUAM

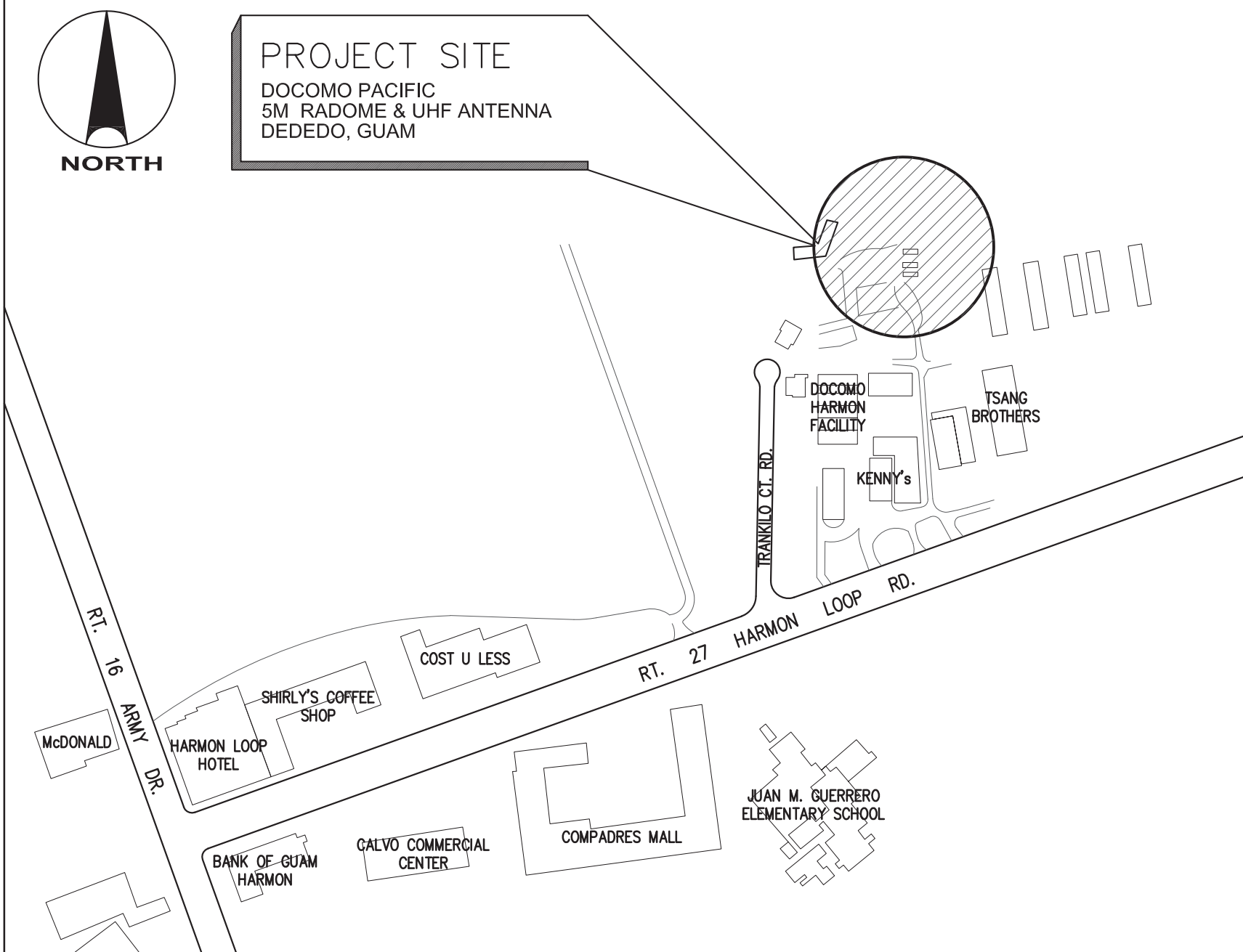
PROJECT LOCATION

VICINITY MAP

SITE PLAN



**GUAM**

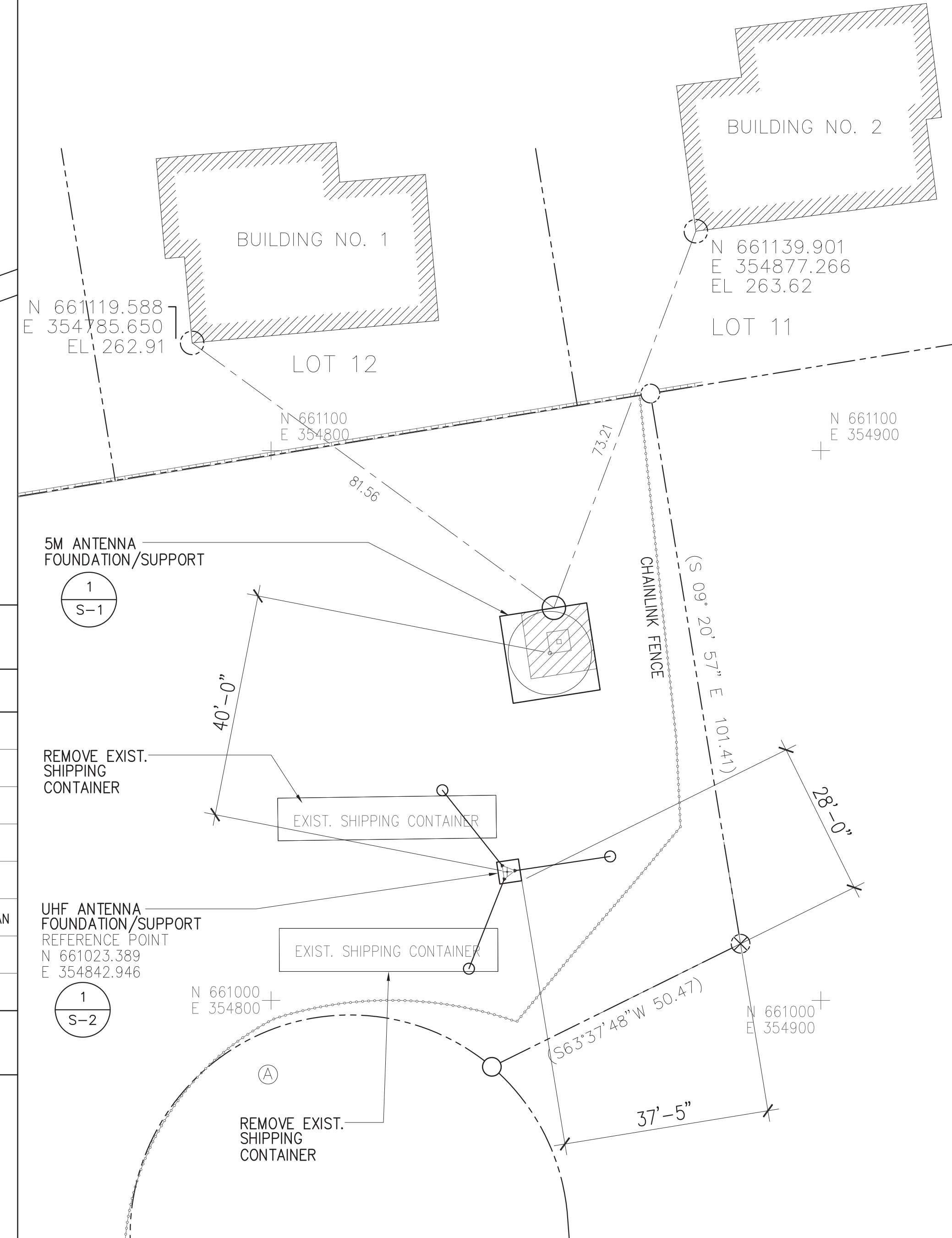
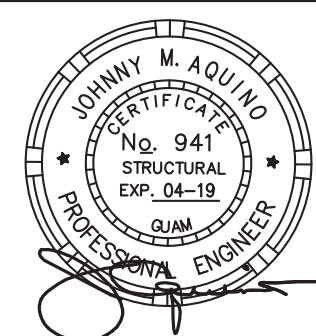


### INDEX OF DRAWINGS

SHEET NO.	DRAWING NO.	TITLE OF DRAWINGS
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4 OF 8	S-2	UHF ANTENNA PLAN, SECTION, FOUNDATION PLAN, DEADMAN ANCHOR DETAILS
5 OF 8	E-1	ONE-LINE DIAGRAM, COMM. RISER DIAGRAM
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7 OF 8	E-3	HANDHOLE DETAIL
8 OF 8	E-4	HANDHOLE DETAIL

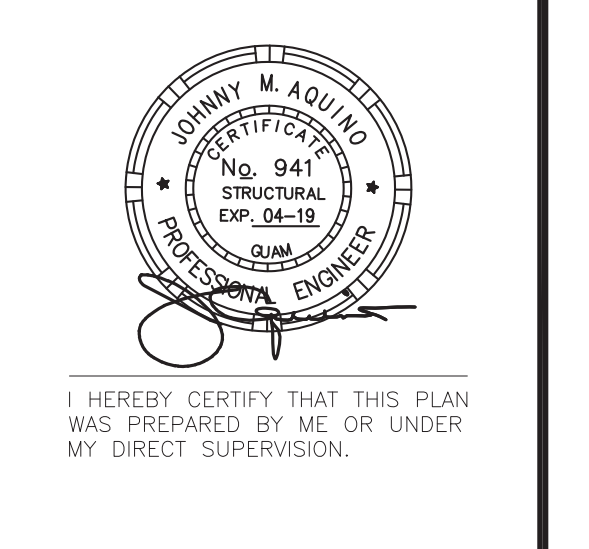
STRUCTURAL

ELECTRICAL



REVISIONS		
No.	Description	Date

**NTT docomo**  
**DOCOMO PACIFIC**  
J.M. AQUINO, P.C.  
CIVIL / STRUCTURAL  
278 S. MARINE CORPS DRIVE,  
HENGI PLAZA, SUITE 208  
TAMUNING GUAM 96913  
TEL:(671) 647-5124 FAX:(671) 647-5123



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

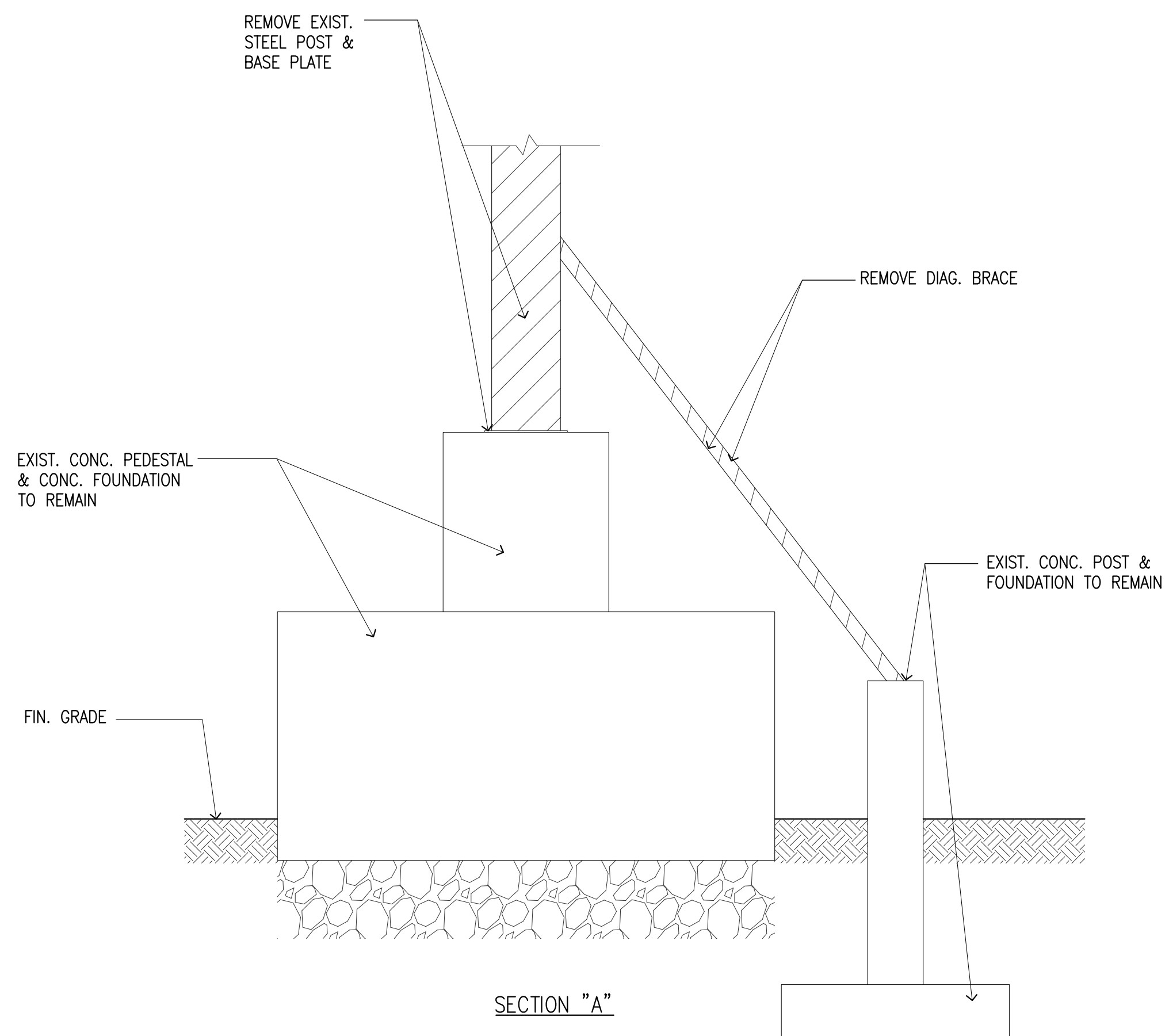
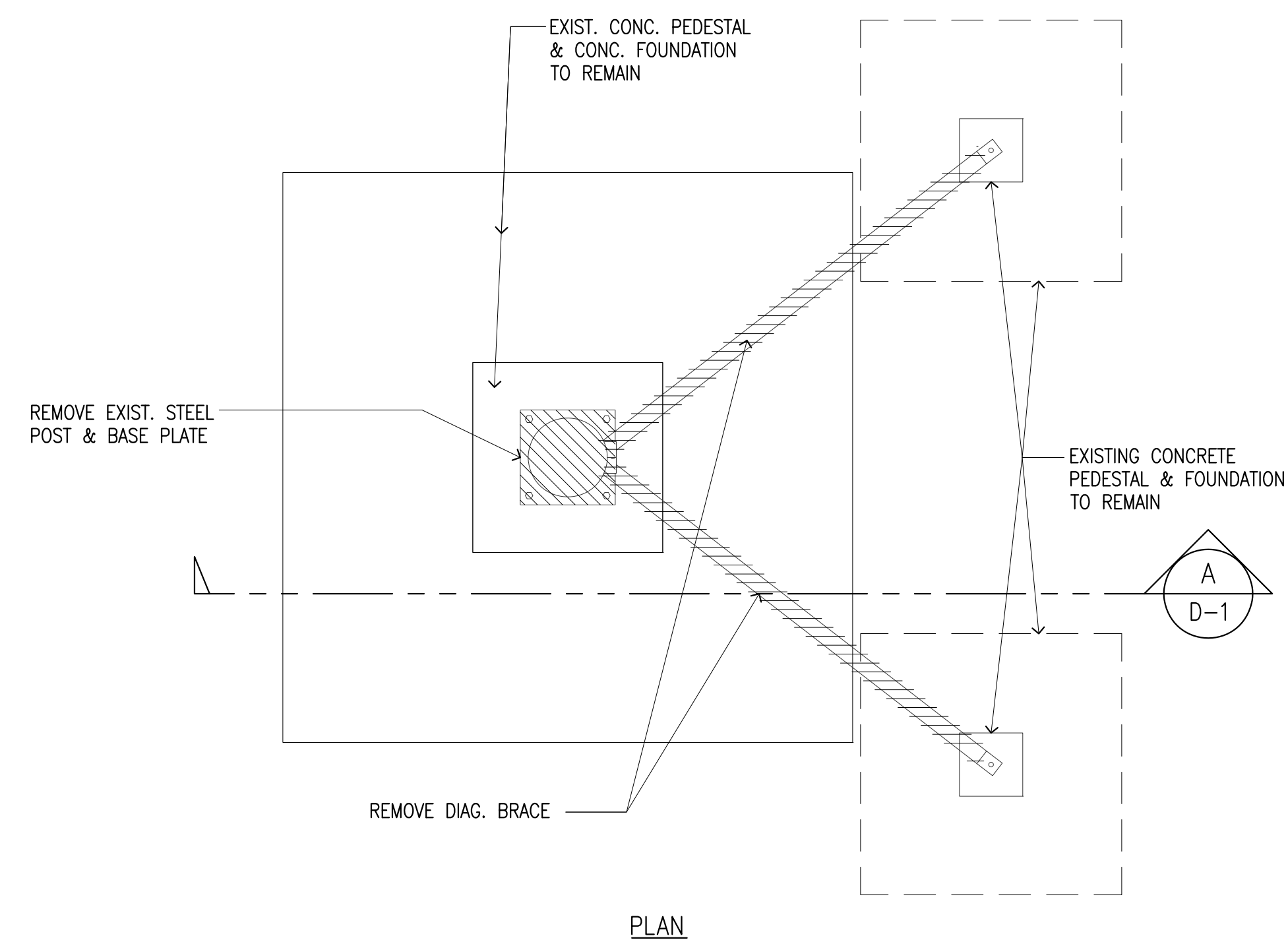
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TITLE, PROJECT LOCATION,  
VICINITY MAP, INDEX OF  
DRAWINGS

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**

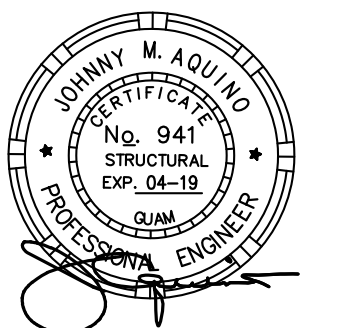
Sheet No.   1   Of   8



1  
D-1 **EXIST CONDITION/REMOVAL PLAN**  
SCALE : 3/8"=1'-0"

REVISIONS		
No.	Description	Date

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

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

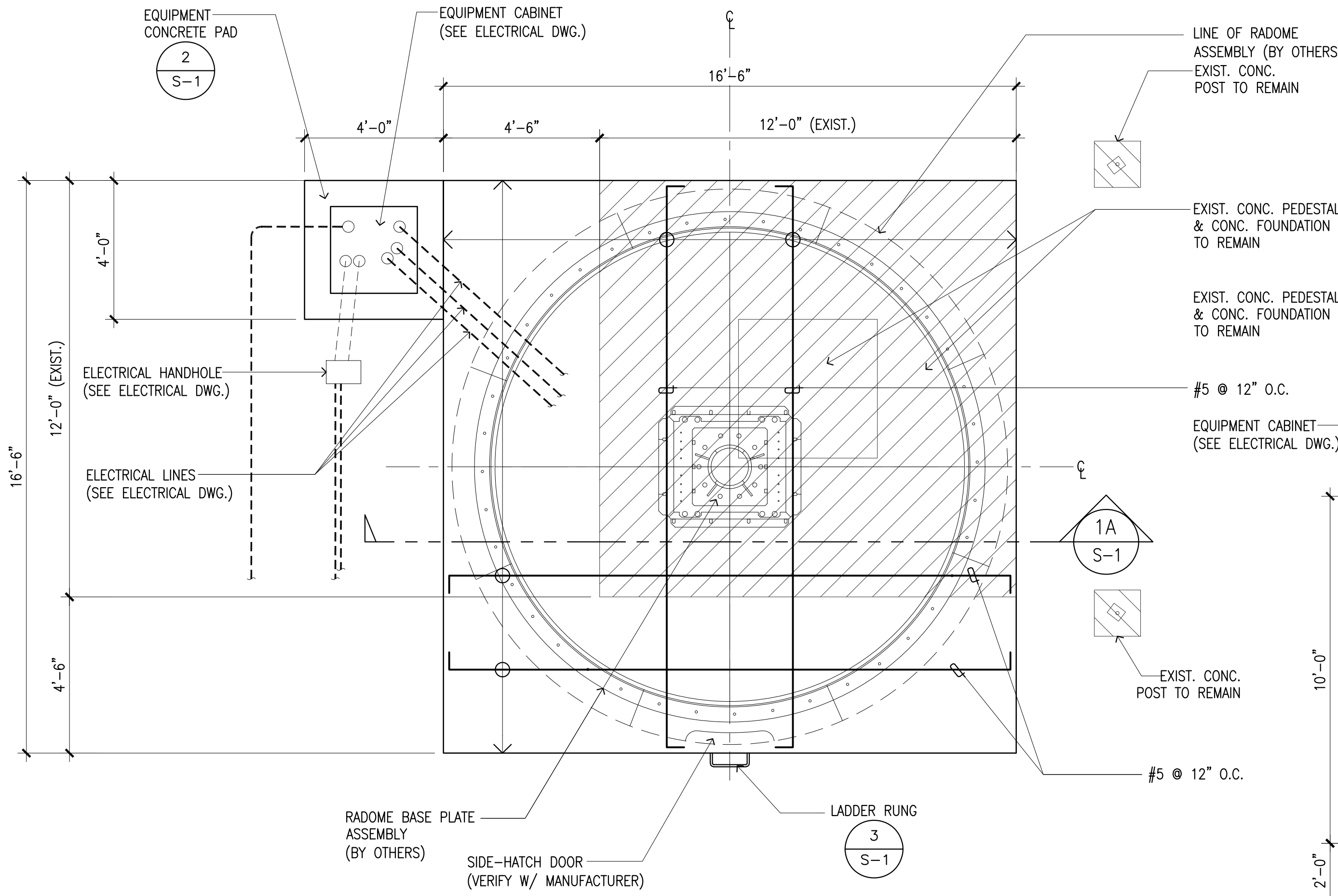
Sheet Content:  
EXIST CONDITION/REMOVAL  
PLAN

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



1  
S-1 **5M ANTENNA PLAN**  
SCALE : 3/8"=1'-0"

**GENERAL NOTES:**

1. 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.
2. 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.
3. ALL WORK SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE FOLLOWING
  - A. THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE (IBC 2015).
  - B. ALL APPLICABLE CODES AND STANDARDS OR ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK.
4. ALL ABANDONED FOOTINGS, UTILITIES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
5. 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:**

1. REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A615 GRADE 40.
2. ALL BARS SHALL BE FREE OF RUST, GREASE, MILL SCALE, OR ANY MATERIAL WHICH MAY AFFECT THEIR BOND TO CONCRETE.
3. ALL BARS BENDS MUST BE MADE COLD. REBENDING OF BARS WILL NOT BE PERMITTED.
4. 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).

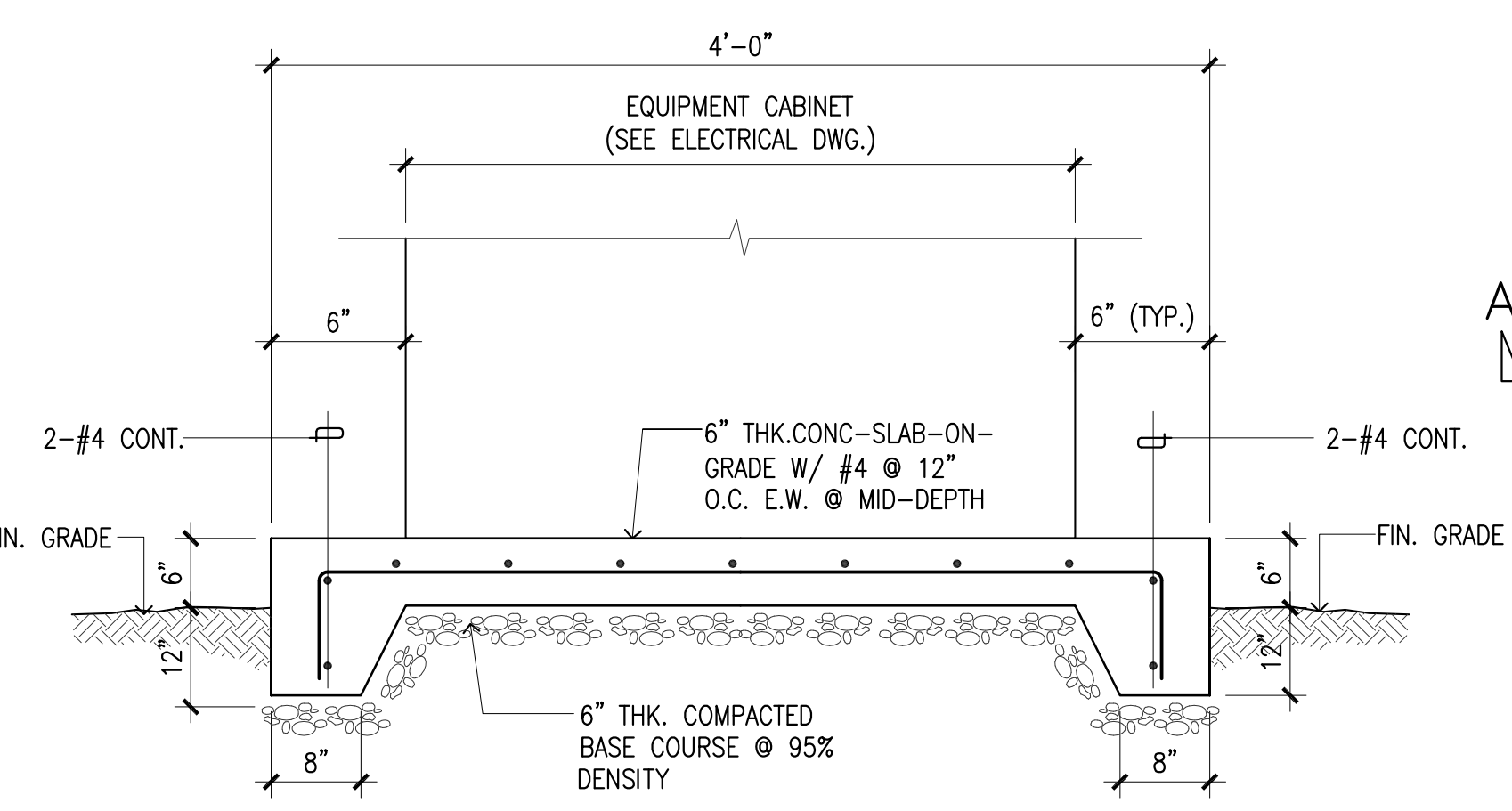
**CONCRETE:**

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

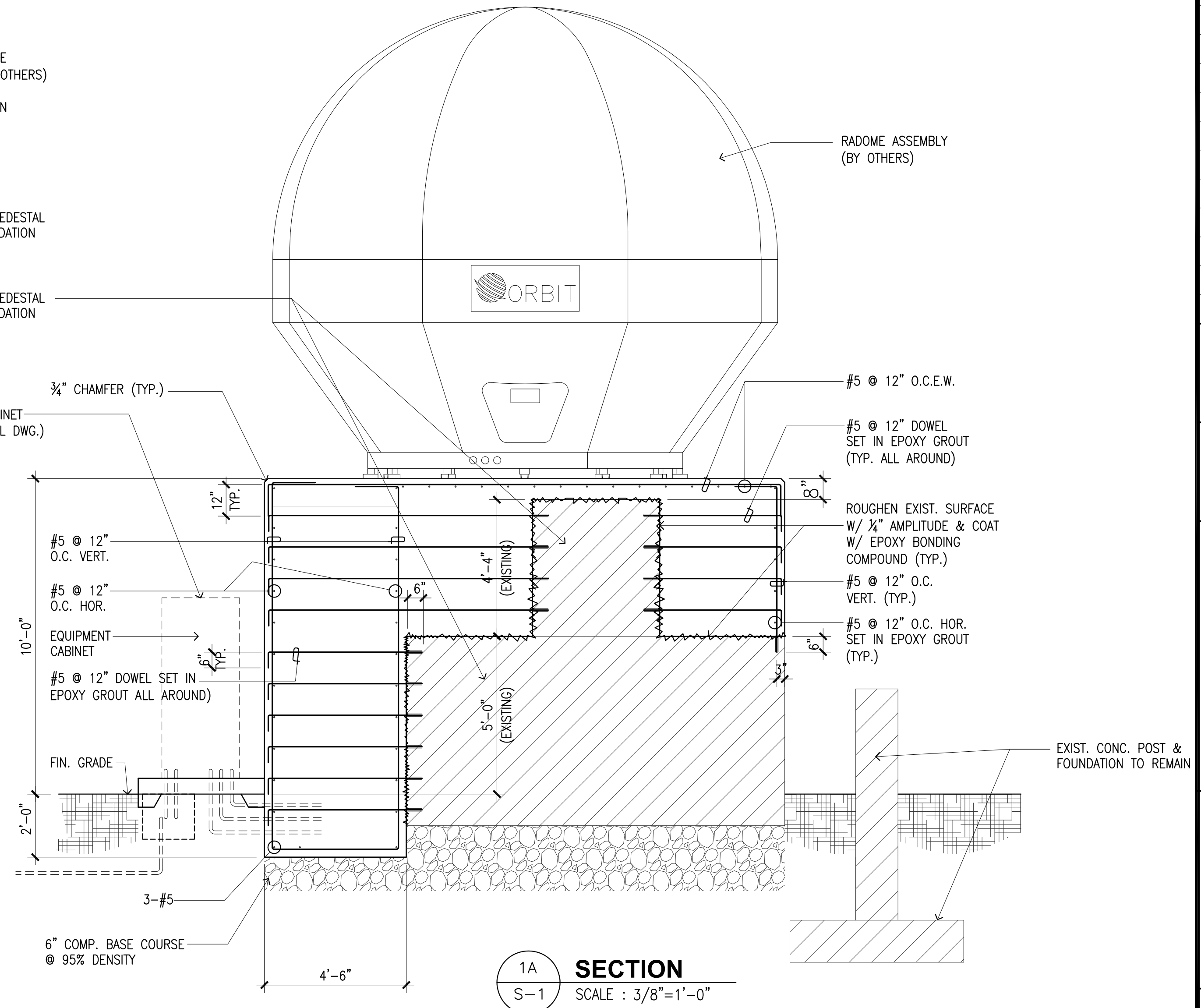
FOOTING, PEDESTAL	$f'_c = 4,000$ PSI
EQUIPMENT PAD, DEADMAN ANCHOR	$f'_c = 3,000$ PSI
2. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) WITH MODIFICATIONS AS NOTED IN THE DRAWINGS.
3. CEMENT SHALL BE TYPE I CONFORMING TO ASTM C150. MIXING OPERATIONS SHALL CONFORM TO ASTM C94. PLACEMENT SHALL CONFORM TO ACI STANDARDS.
4. 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.
5. 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
6. SPLICES SHALL BE SECURELY WIRED TOGETHER AND SHALL LAP OR EXTEND A MINIMUM OF 48 BAR DIAMETER UNLESS SHOWN OTHERWISE ON PLAN.
7. STRIPPING OF FORMS AND SHORES:
 

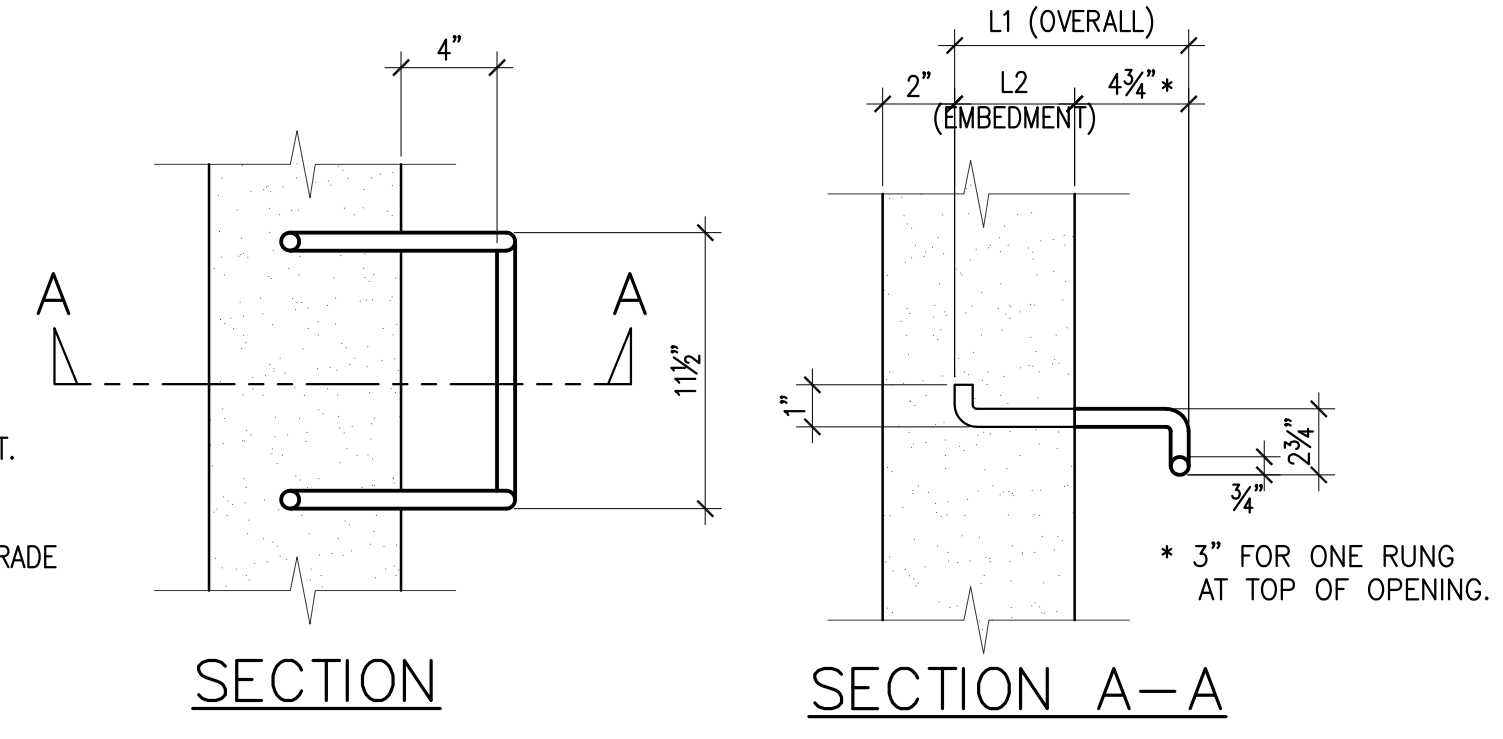
FOUNDATIONS, PEDESTAL	24 HOURS
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2  
S-1 **EQUIPMENT CONCRETE PAD**  
SCALE : NTS



1A  
S-1 **SECTION**  
SCALE : 3/8"=1'-0"



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

REVISIONS		
No.	Description	Date

**NTT docomo**  
**DOCOMO PACIFIC**  
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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

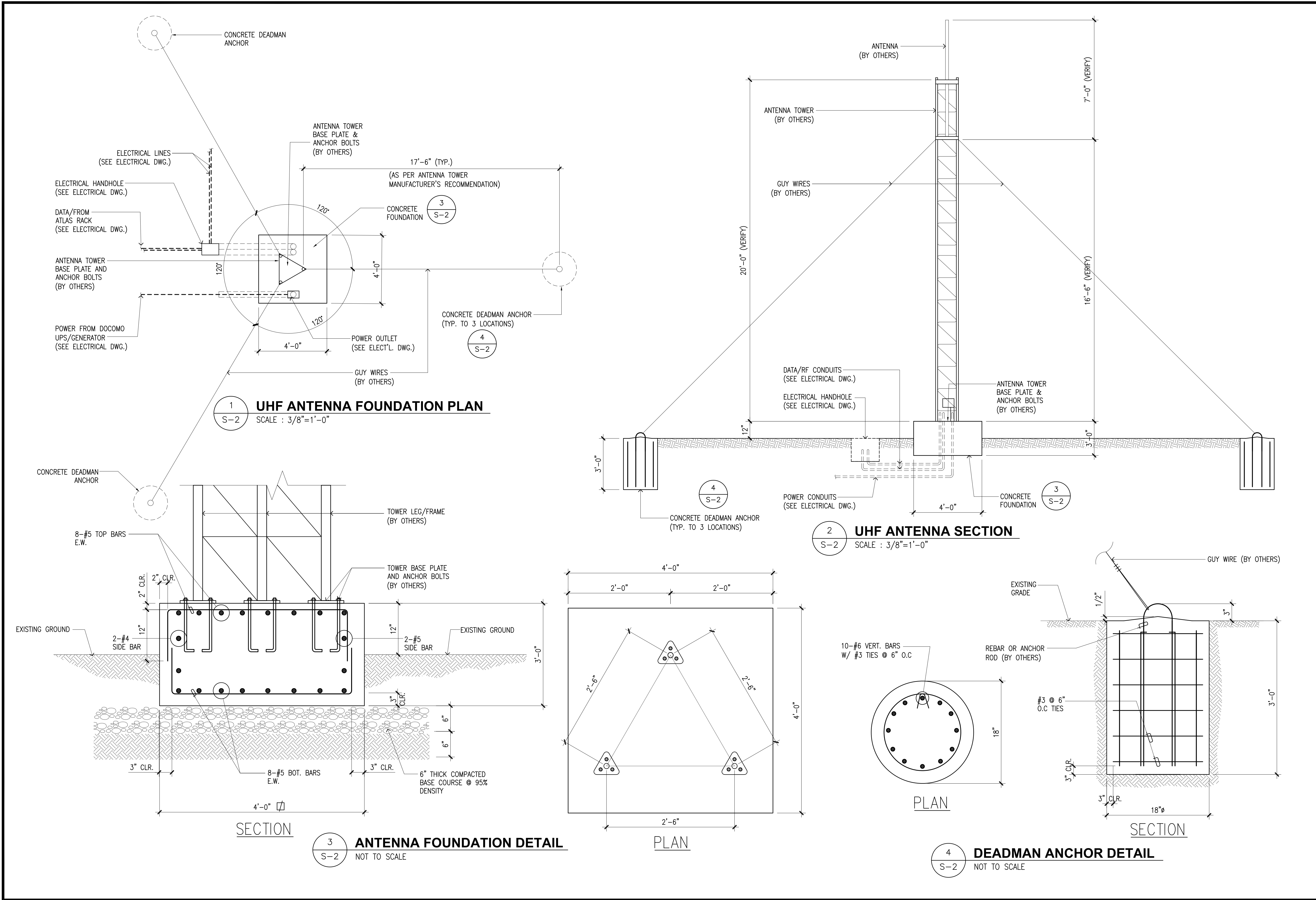
Supv.: JMA

Scale: AS SHOWN

Date: NOVEMBER 2018

Project no. AutoCAD File:

Drawing no.  
S-1



REVISIONS		
No.	Description	Date

**NTT docomo**  
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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**

**GENERAL NOTES AND SPECIFICATIONS**

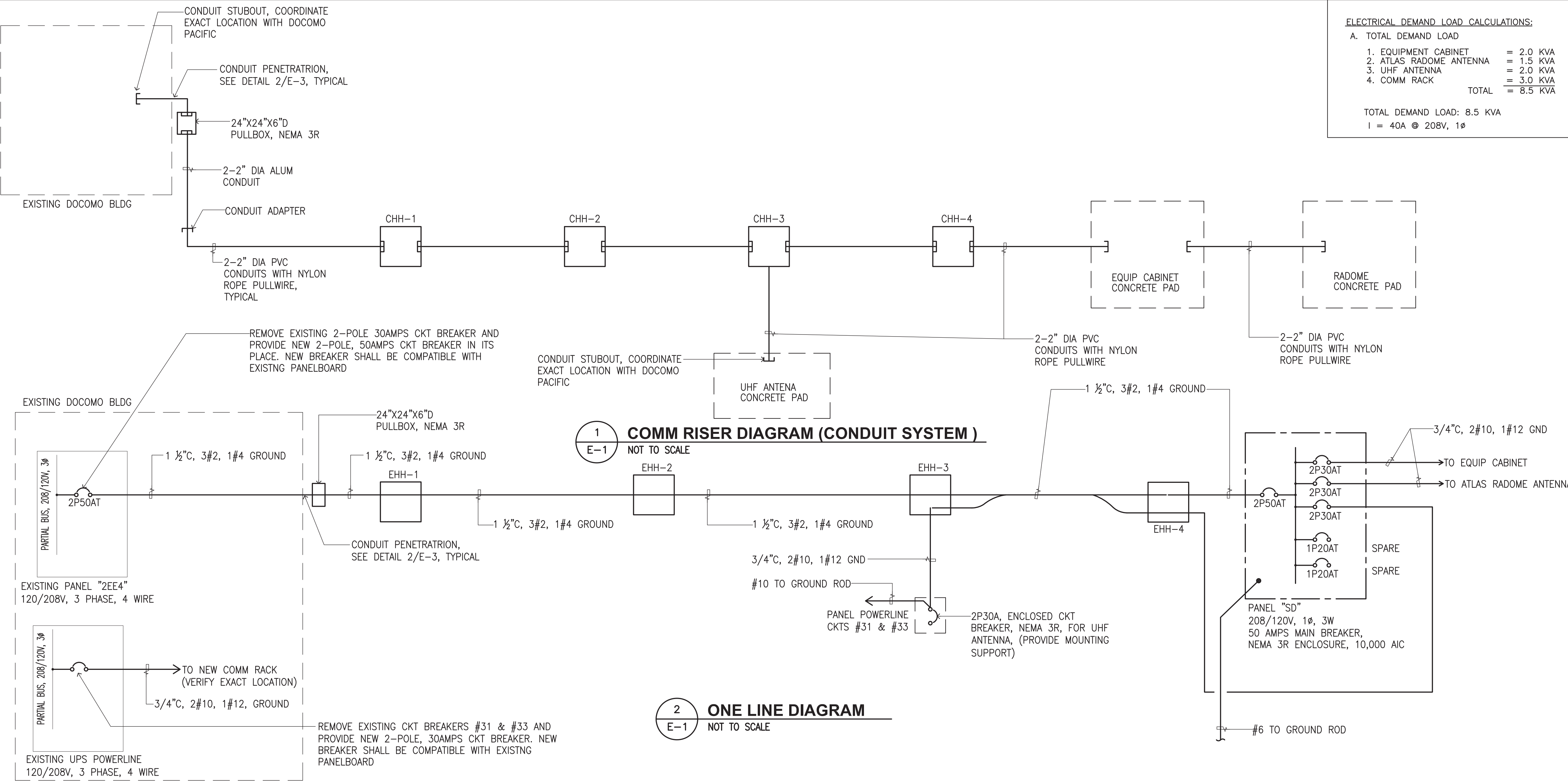
1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE NATIONAL ELECTRICAL CODE (NEC), LATEST EDITION.
2. ALL EQUIPMENT AND MATERIALS SHALL BE UL LISTED WHERE LISTING IS AVAILABLE FOR THAT TYPE OF EQUIPMENT OR CONFORM TO ANSI OR NEMA STANDARDS. SUBMIT SHOP DRAWINGS AND PRODUCT 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 BY THE OWNER OF 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.

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 REPRODUCIBLES IN A CLEAR, LEGIBLE AND REPRODUCIBLE MANNER. ALL STUB-OUTS SHALL BE DIMENSIONALLY LOCATED WITHIN THE BUILDING STRUCTURE. AS A CONDITION FOR ACCEPTANCE OF WORK, "AS-BUILT" REPRODUCIBLE 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.

**ELECTRICAL DEMAND LOAD CALCULATIONS:**

A. TOTAL DEMAND LOAD	
1. EQUIPMENT CABINET	= 2.0 KVA
2. ATLAS RADOME ANTENNA	= 1.5 KVA
3. UHF ANTENNA	= 2.0 KVA
4. COMM RACK	= 3.0 KVA
<b>TOTAL</b>	<b>= 8.5 KVA</b>

TOTAL DEMAND LOAD: 8.5 KVA  
I = 40A @ 208V, 1ø



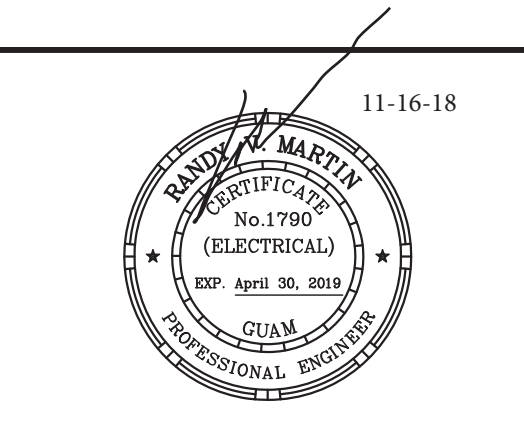
**1 COMM RISER DIAGRAM (CONDUIT SYSTEM)**  
NOT TO SCALE

**2 ONE LINE DIAGRAM**  
NOT TO SCALE

REVISIONS		
No.	Description	Date



RANDY V. MARTIN, P.E.  
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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:  
GENERAL NOTES AND SPECS.,  
COMM RISER DIAGRAM,  
AND ONE LINE DIAGRAM

CLIENT/OWNER:  
DOCOMO PACIFIC

Designed: **RVM**

Drawn: **LCL**

Checked: **RVM**

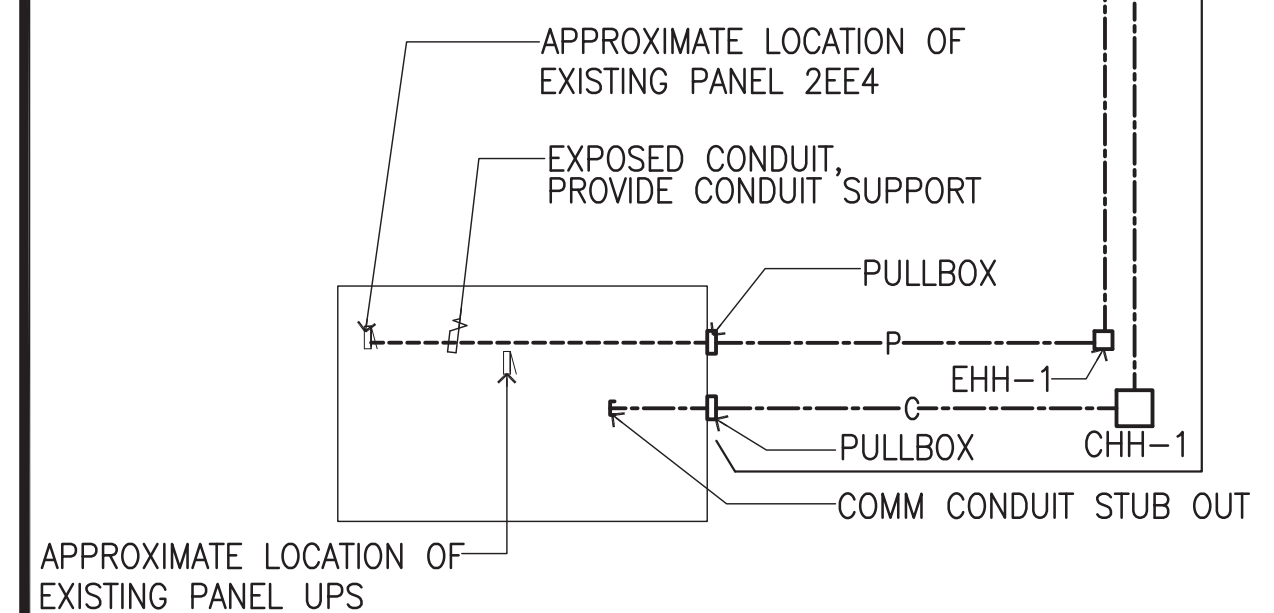
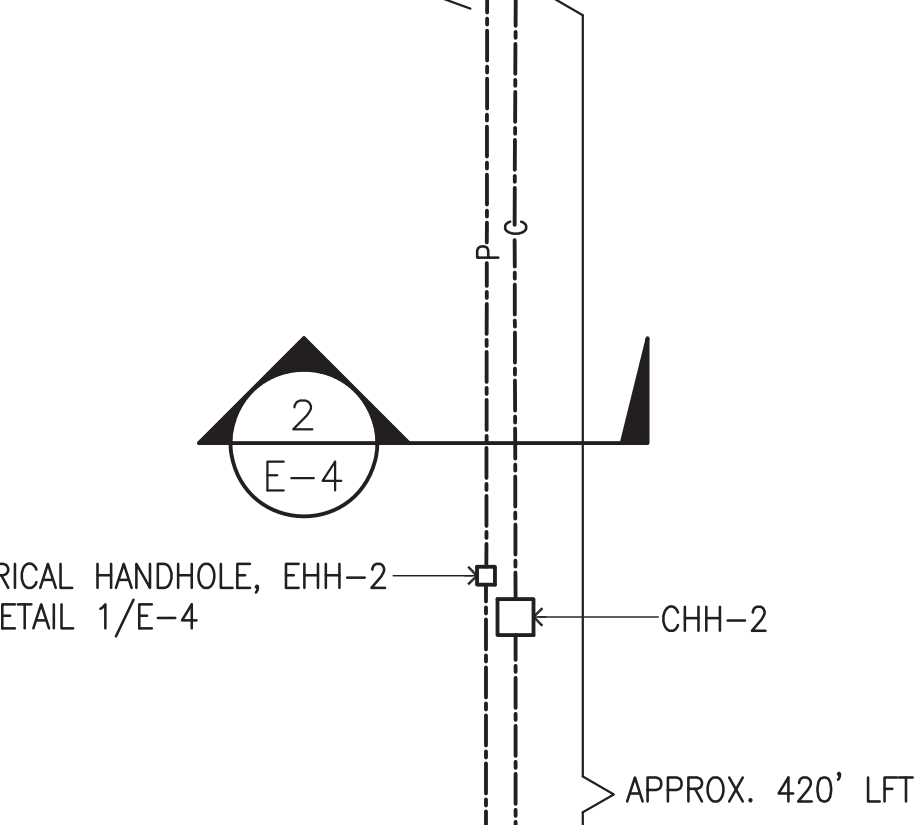
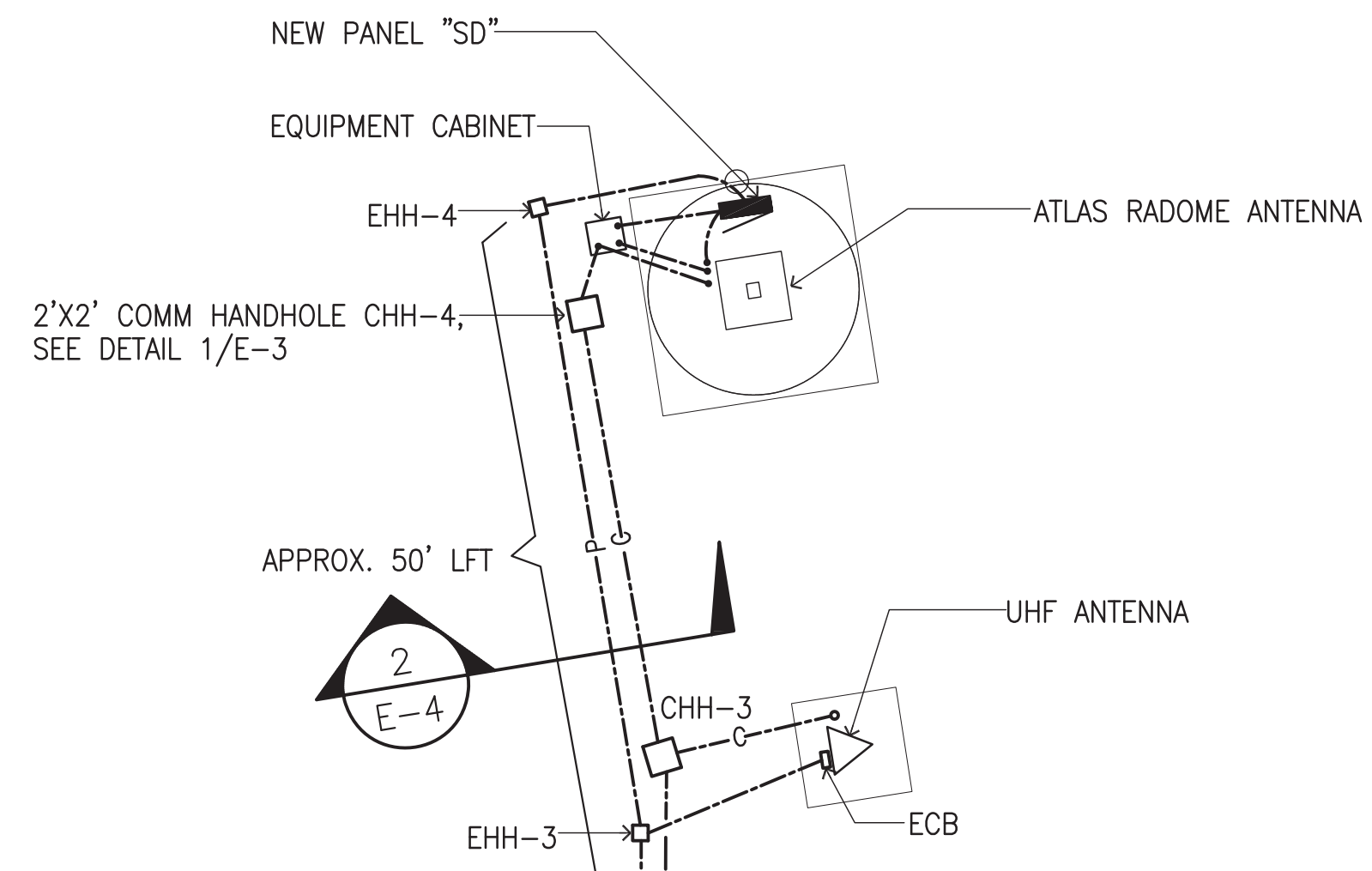
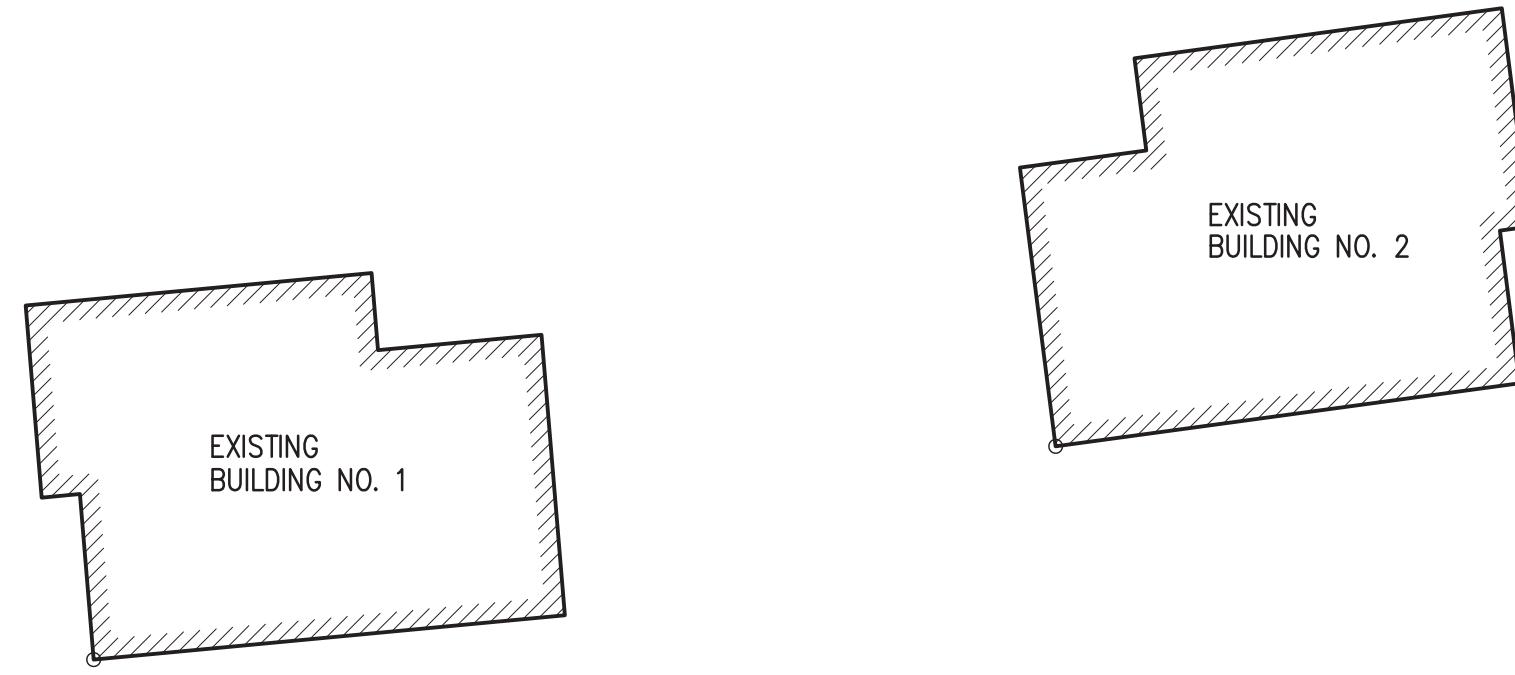
Supv.: **RVM**

Scale: **AS SHOWN**

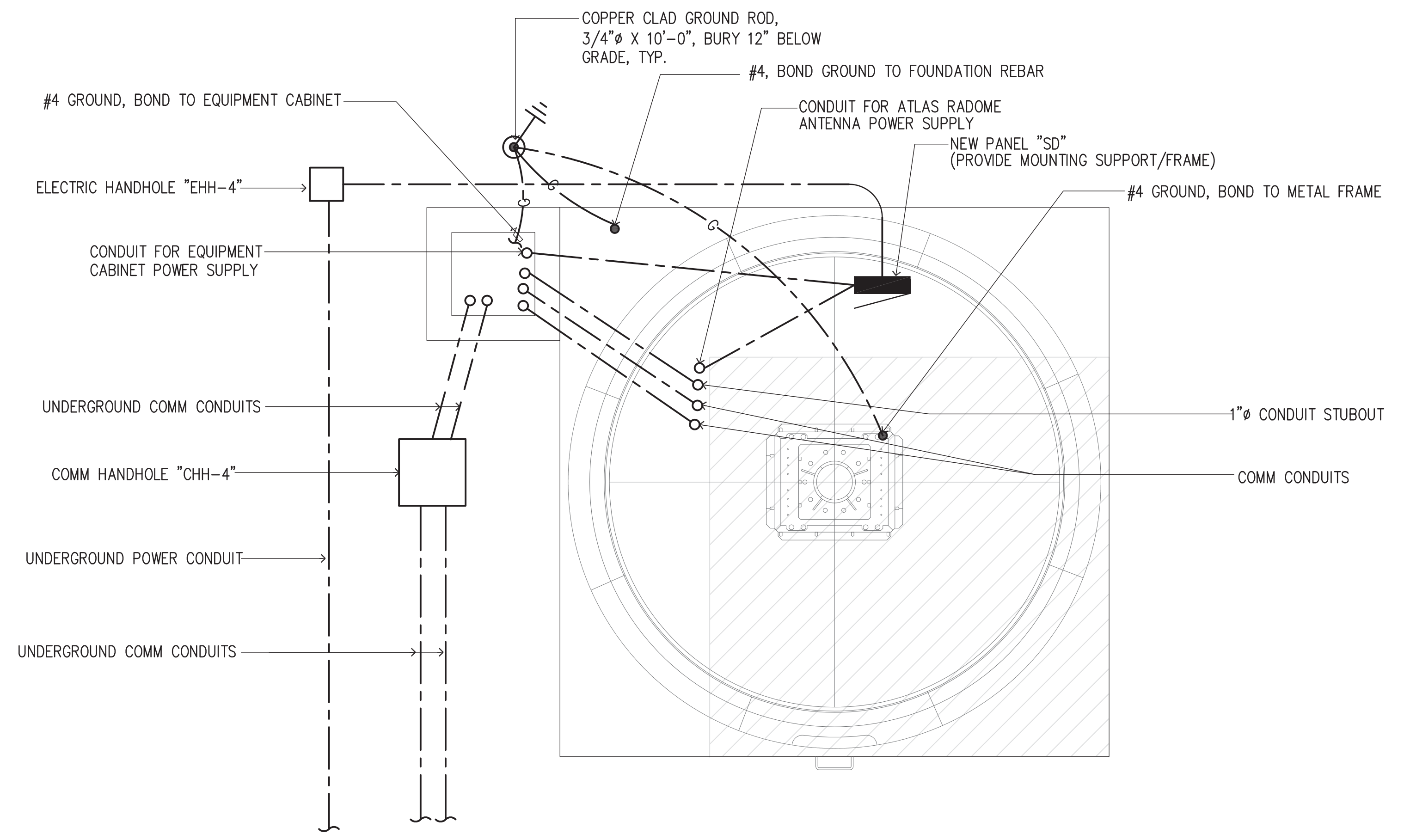
Date: **NOVEMBER 2018**

Project no. AutoCAD File:

Drawing no.  
**E-1**

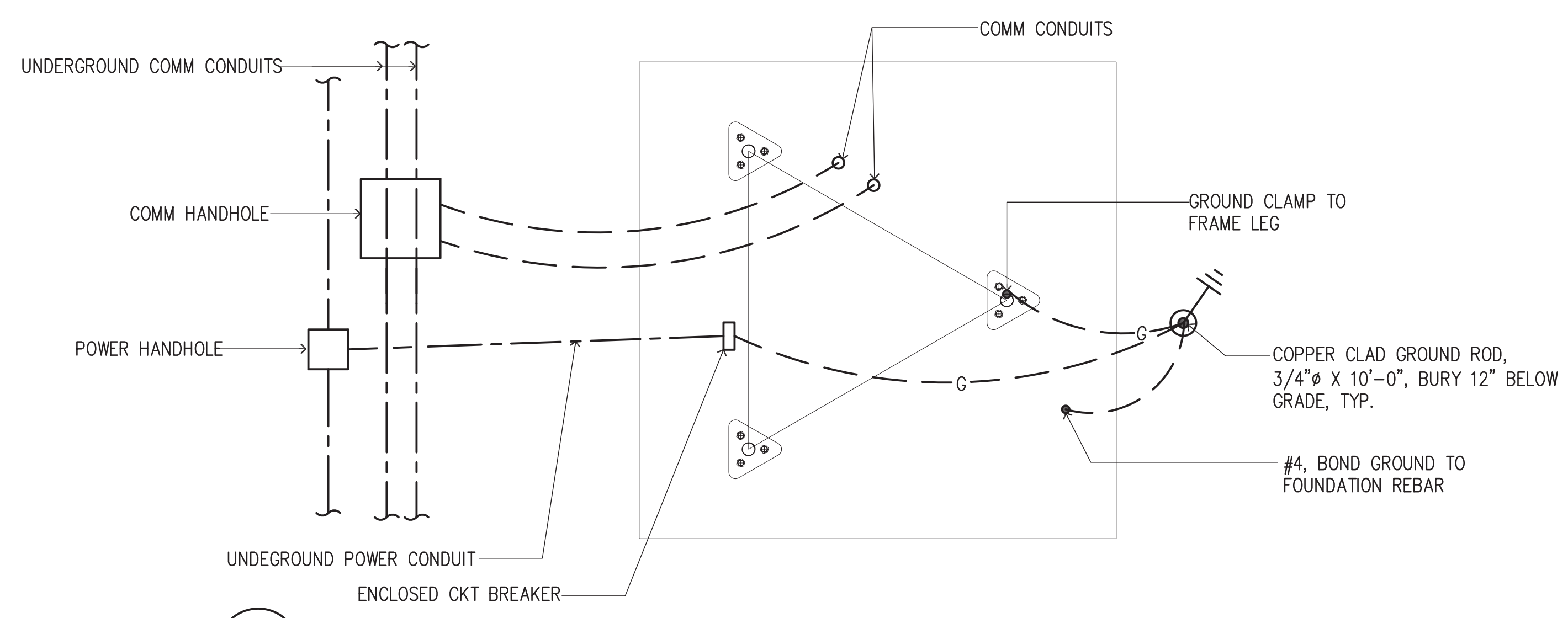


**1 OVERALL ELECTRICAL AND COMM SITE PLAN**  
E-1 NOT TO SCALE



GENERAL NOTE:  
1. GROUNDING RESISTANCE TO EARTH SHALL BE 25 OHMS OR LESS. PROVIDE ADDITIONAL GROUND ROD AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

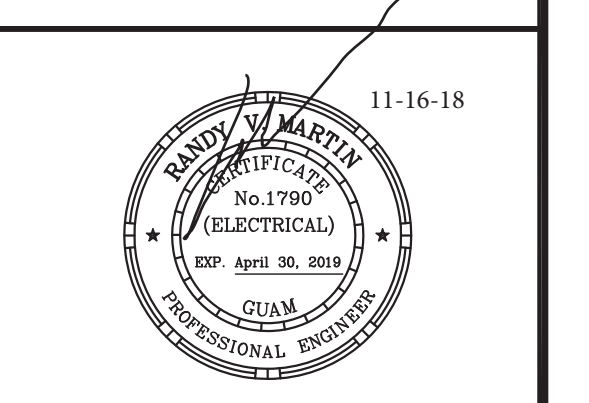
**2 ATLAS - RADOME ANTENNA COMM, POWER & GROUNDING PLAN**  
E-1 SCALE : 3/8"=1'-0"



**3 UHF ANTENNA COMM, POWER & GROUNDING PLAN**  
E-1 SCALE : 3/8"=1'-0"

REVISIONS		
No.	Description	Date

**NTT docomo**  
**DOCOMO PACIFIC**  
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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**

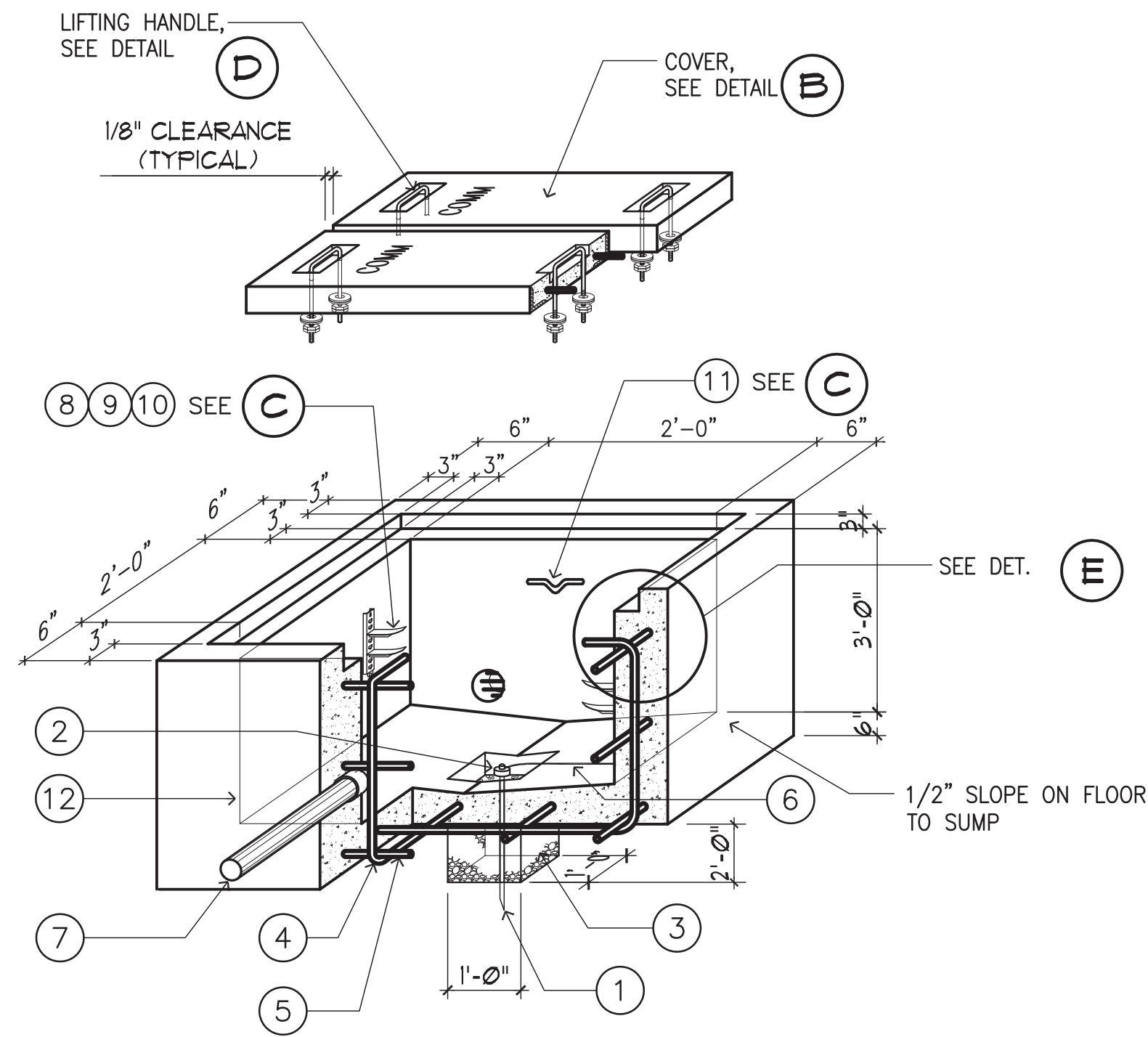
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Scale: **AS SHOWN**

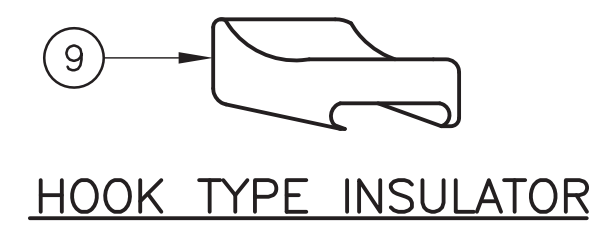
Date: **NOVEMBER 2018**

Project no. AutoCAD File:

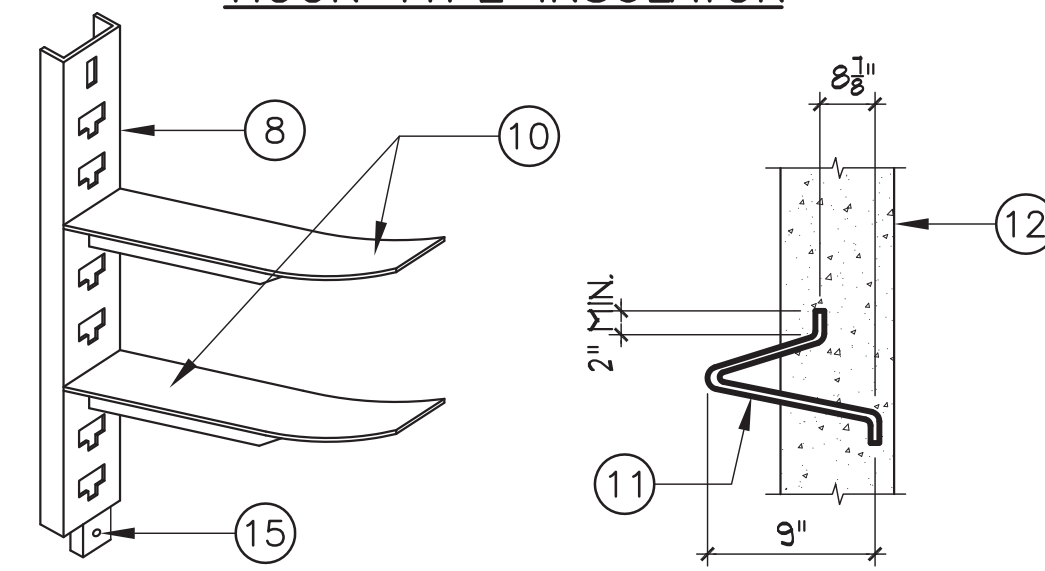
Drawing no.  
**E-2**



**A HANDHOLE DETAIL**  
NOT TO SCALE



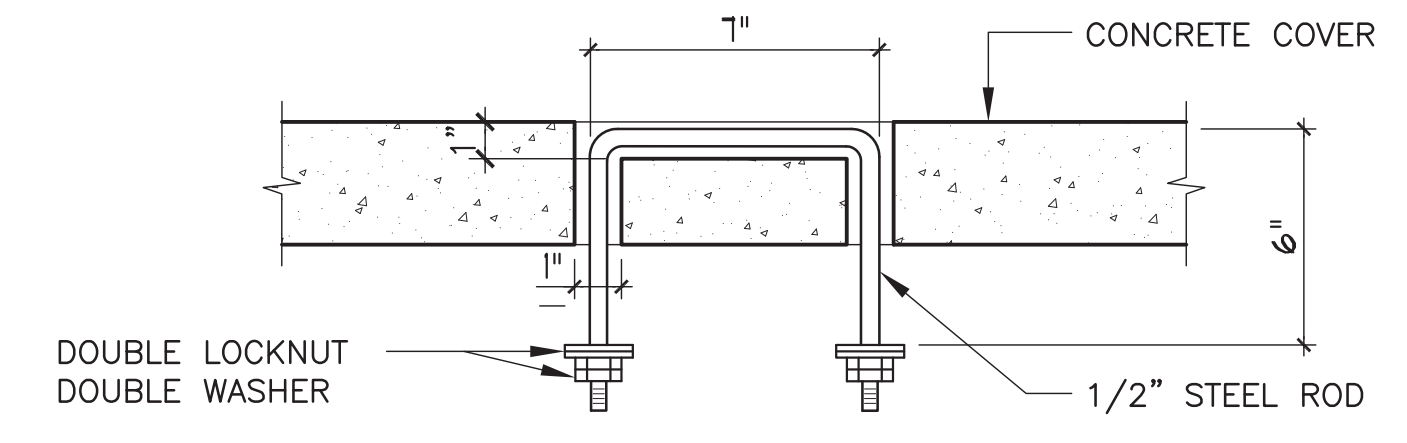
**HOOK TYPE INSULATOR**



**CABLE RACK**

**PULLING IRON**

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

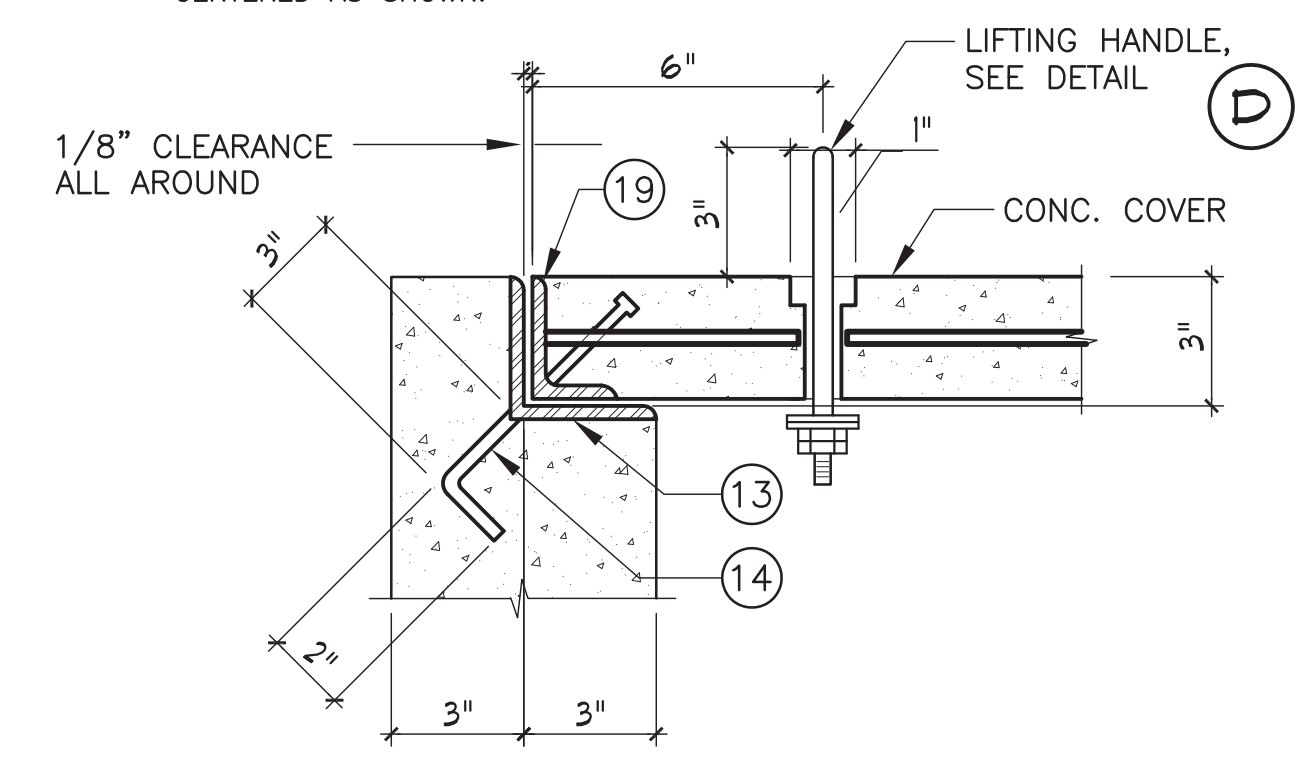


**D LIFTING HANDLE DETAIL**  
NOT TO SCALE

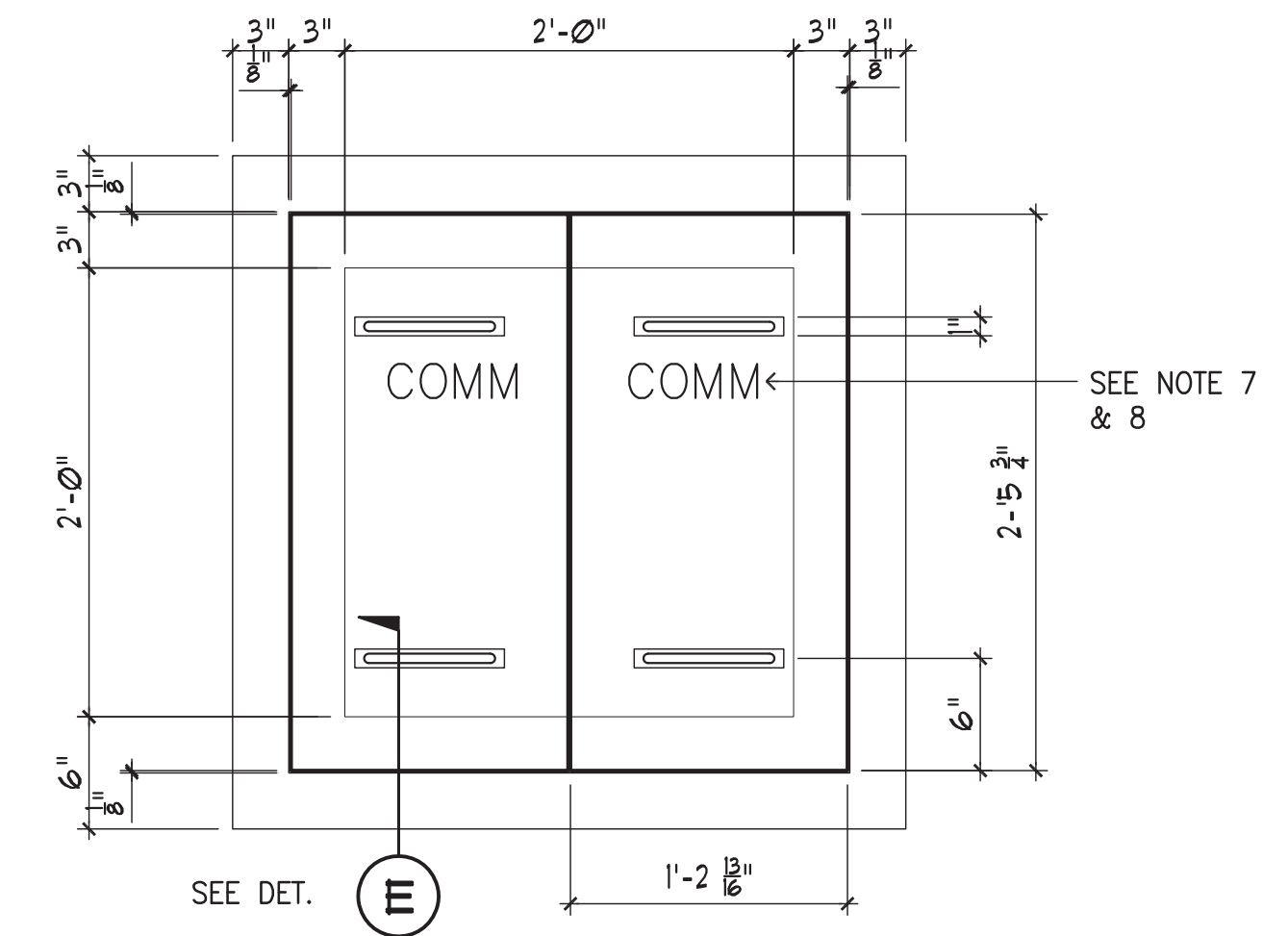
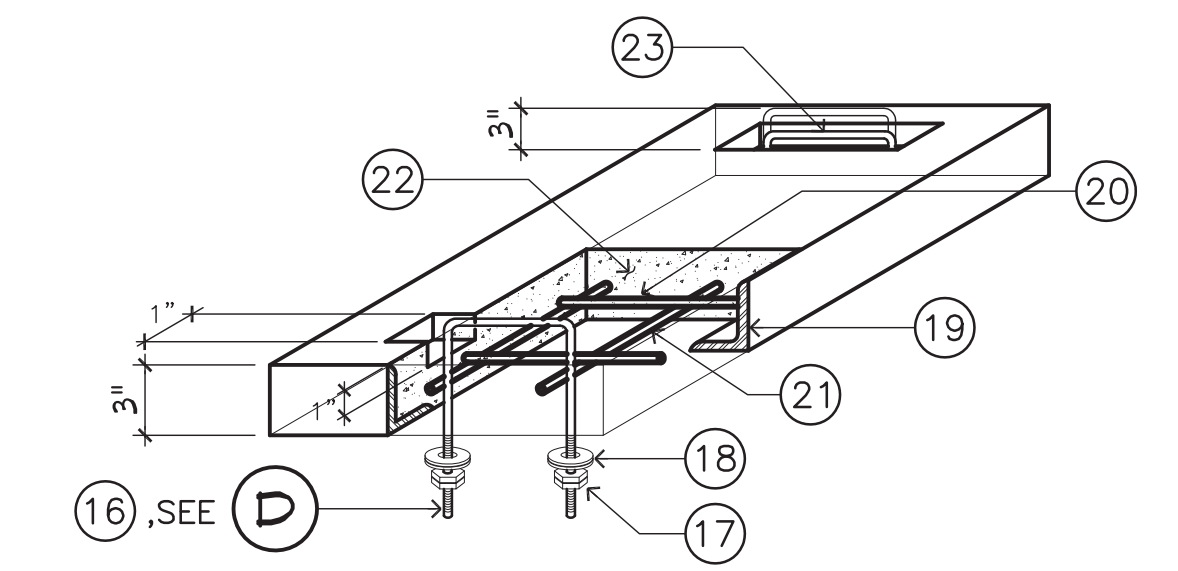
ITEM	BILL OF MATERIALS
1	5/8"Ø X 8'-0" COPPER WELD GROUND ROD
2	5/8"Ø COPPER GROUND ROD CLAMP
3	3/4"Ø MAXIMUM GRAVEL SIZE, FILL TO FINISH FLOOR
4	#4 REBAR @ 10" O.C. VERTICAL
5	#4 REBAR @ 10" O.C. HORIZONTAL
6	#6 COPPER WIRE (SOLID) FOR GROUNDING HARDWARE
7	CONDUIT WITH END BELL 6" FROM FLOOR SLAB, SIZE 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:**

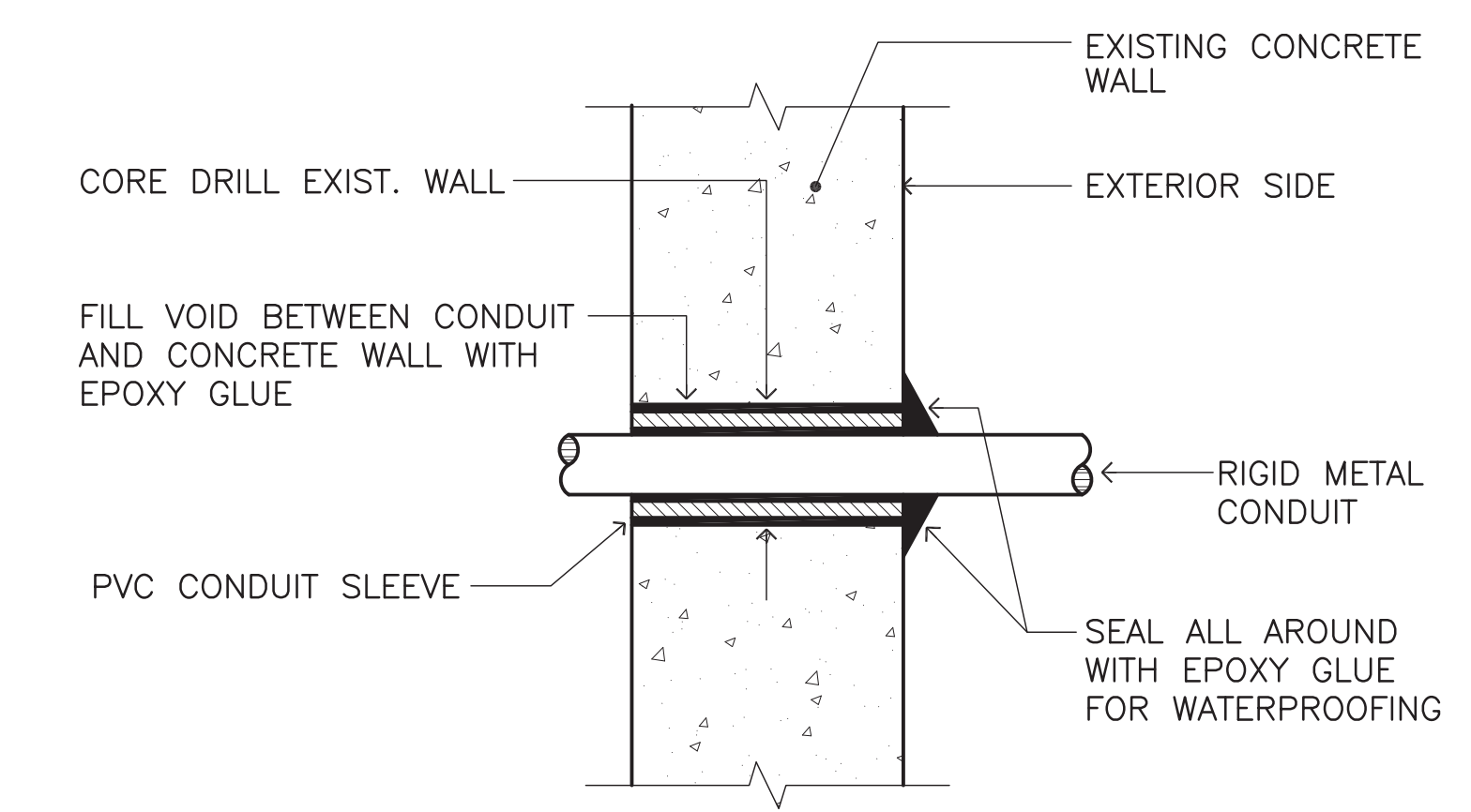
- COORDINATE LAYOUT AND EXACT DIMENSIONS WITH GPA ENGINEERING PRIOR TO INSTALLATION.
- THIS HANDHOLE IS TO BE USED IN LOCATIONS WHERE NOT MORE THAN 3 JUNCTIONS OF SECONDARY WILL BE INSTALLED.
- GROUND ALL HARDWARE IN THE HANDHOLE.
- TOP OF THE HANDHOLE SHALL BE FLUSH WITH THE SIDEWALK SURFACE, OTHERWISE 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

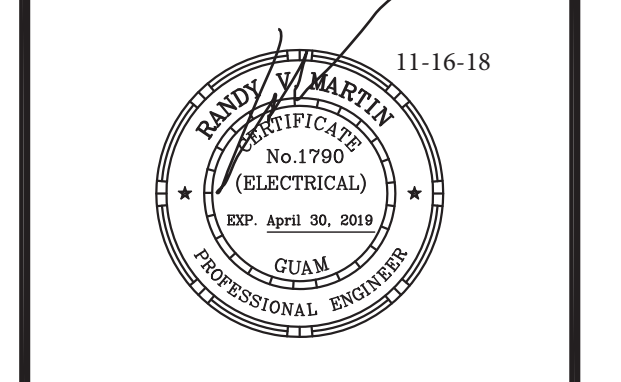


**2 CONDUIT PENETRATION DETAIL**  
E-3 NOT TO SCALE

**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**

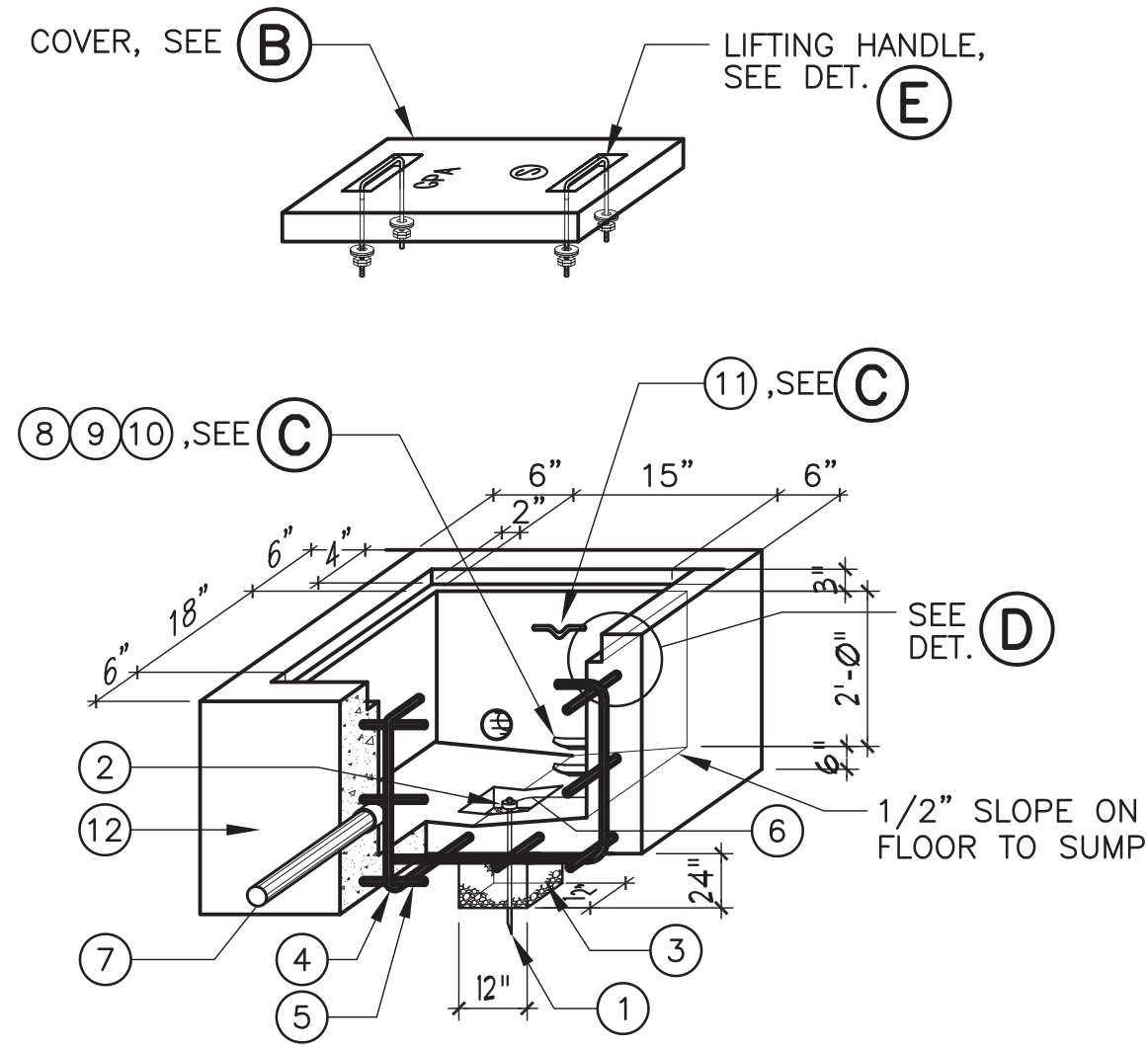
Date: **NOVEMBER 2018**

Project no. AutoCAD File:

Drawing no.  
**E-3**

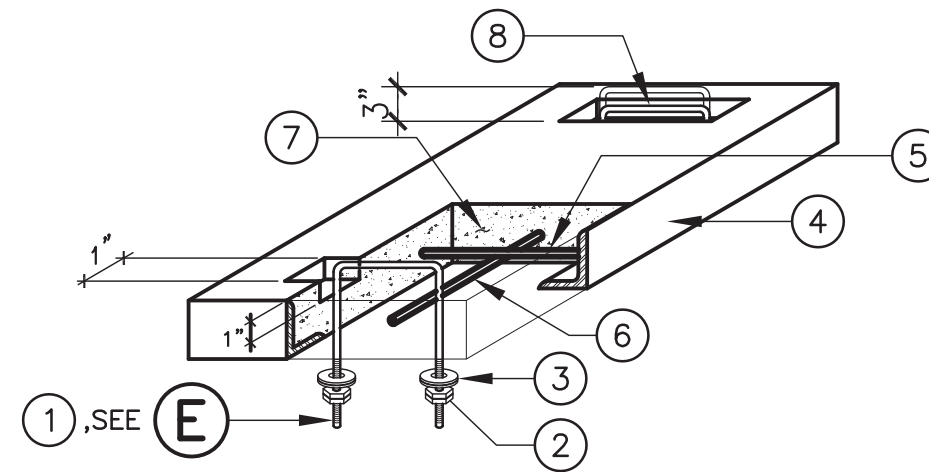
**NOTES:**

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.



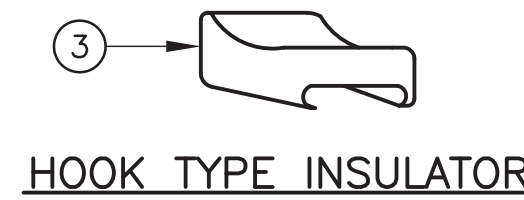
**A HANDHOLE DETAIL**  
NOT TO SCALE

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 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

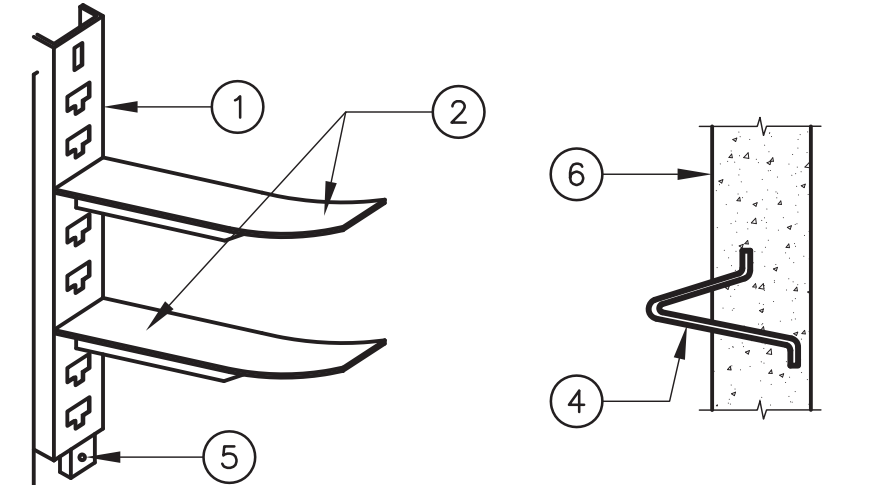


**B HANDHOLE COVER DETAIL**  
NOT TO SCALE

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



**HOOK TYPE INSULATOR**

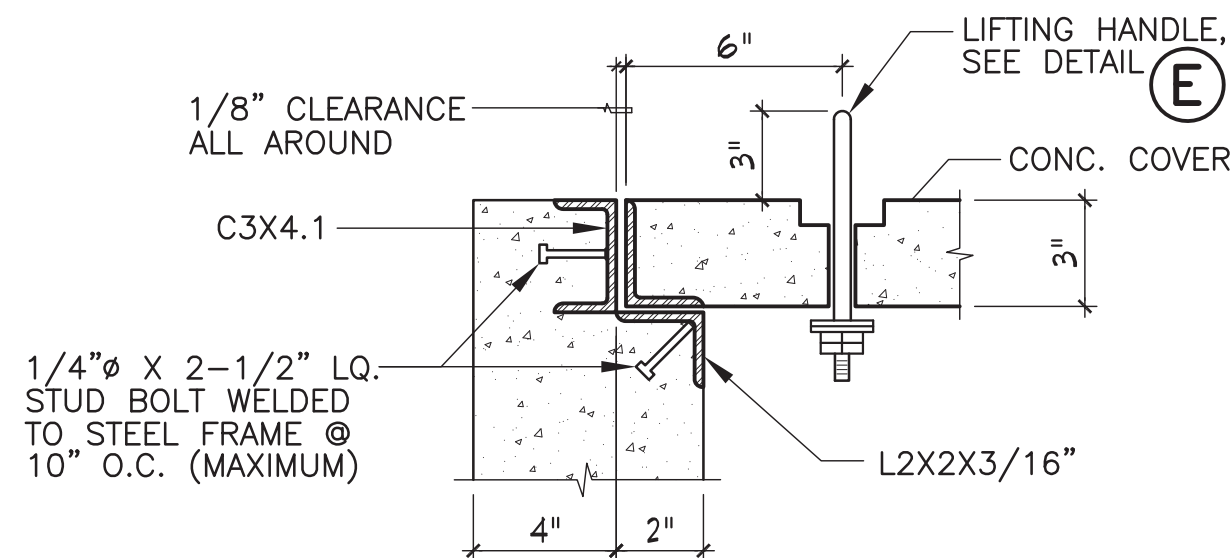


**CABLE RACK**

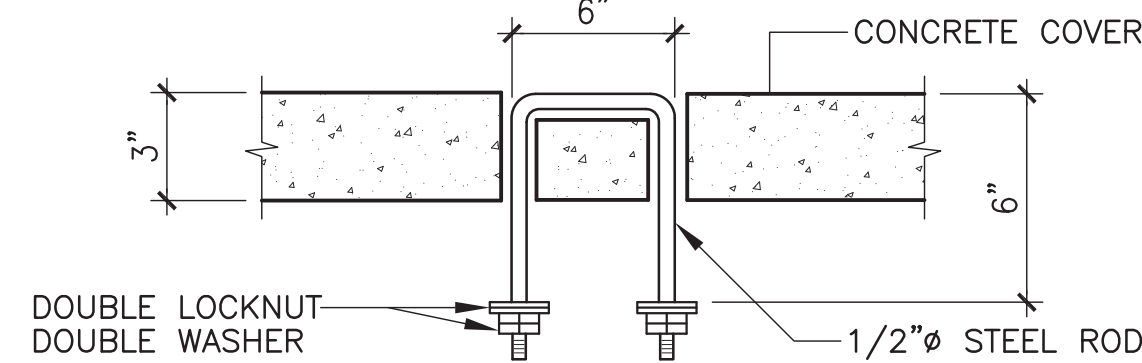
**PULLING IRON**

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

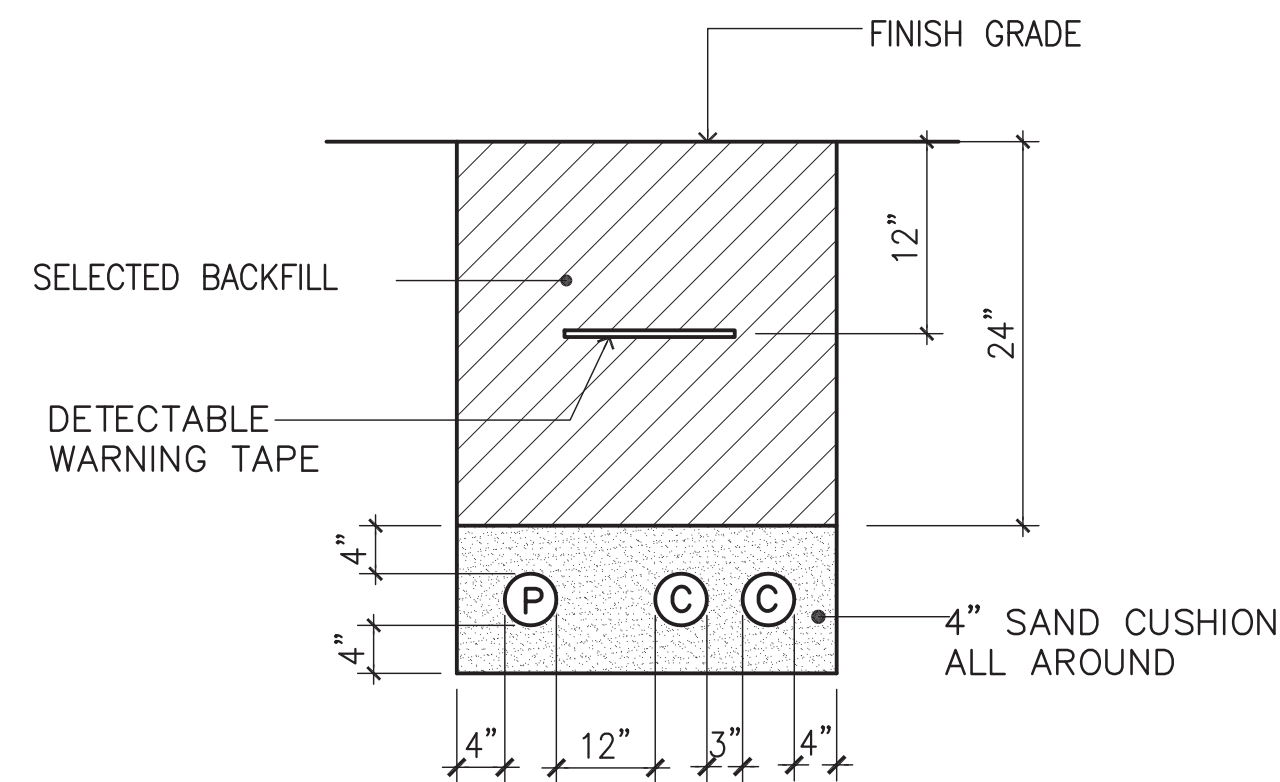
**C CABLE RACK, INSULATOR AND PULLING IRON DETAILS**  
NOT TO SCALE



**D COVER SEAT MOUNTING DETAIL**  
NOT TO SCALE



**E LIFTING HANDLE DETAIL**  
NOT TO SCALE



**2 DUCT SECTION**  
NOT TO SCALE

**1 18" X 15" X 24" ELECTRICAL HANDHOLE**  
NOT TO SCALE

REVISIONS		
No.	Description	Date

**NTT docomo**  
**DOCOMO PACIFIC**  
RANDY V. MARTIN, P.E.  
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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:  
**HANDHOLE DETAIL**

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-4**

Sheet No.   8   Of   8