



CROWN CASTLE ID #
LV054

WEST SAHARA AVENUE
LAS VEGAS, NEVADA 89117

CROWN CASTLE
CROWN CASTLE NG WEST LLC
2055 SOUTH STEARMAN DRIVE
CHANDLER, ARIZONA 85286

PROJECT INFORMATION:
CROWN CASTLE ID #
LV054
WEST SAHARA AVENUE
LAS VEGAS, NEVADA 89117

CURRENT ISSUE DATE:
04/09/19

ISSUED FOR:
PROPOSED WORK

REV.	DATE	DESCRIPTION	BY
2	02/05/19	POLE REVISION	C.P.
1	10/16/18	100% PERMITTING	R.S.
0	09/28/18	90% PERMITTING	R.S.

PLANS PREPARED BY:
SPECTRUM

DGS
CONSULTING ENGINEERING SERVICES LLC

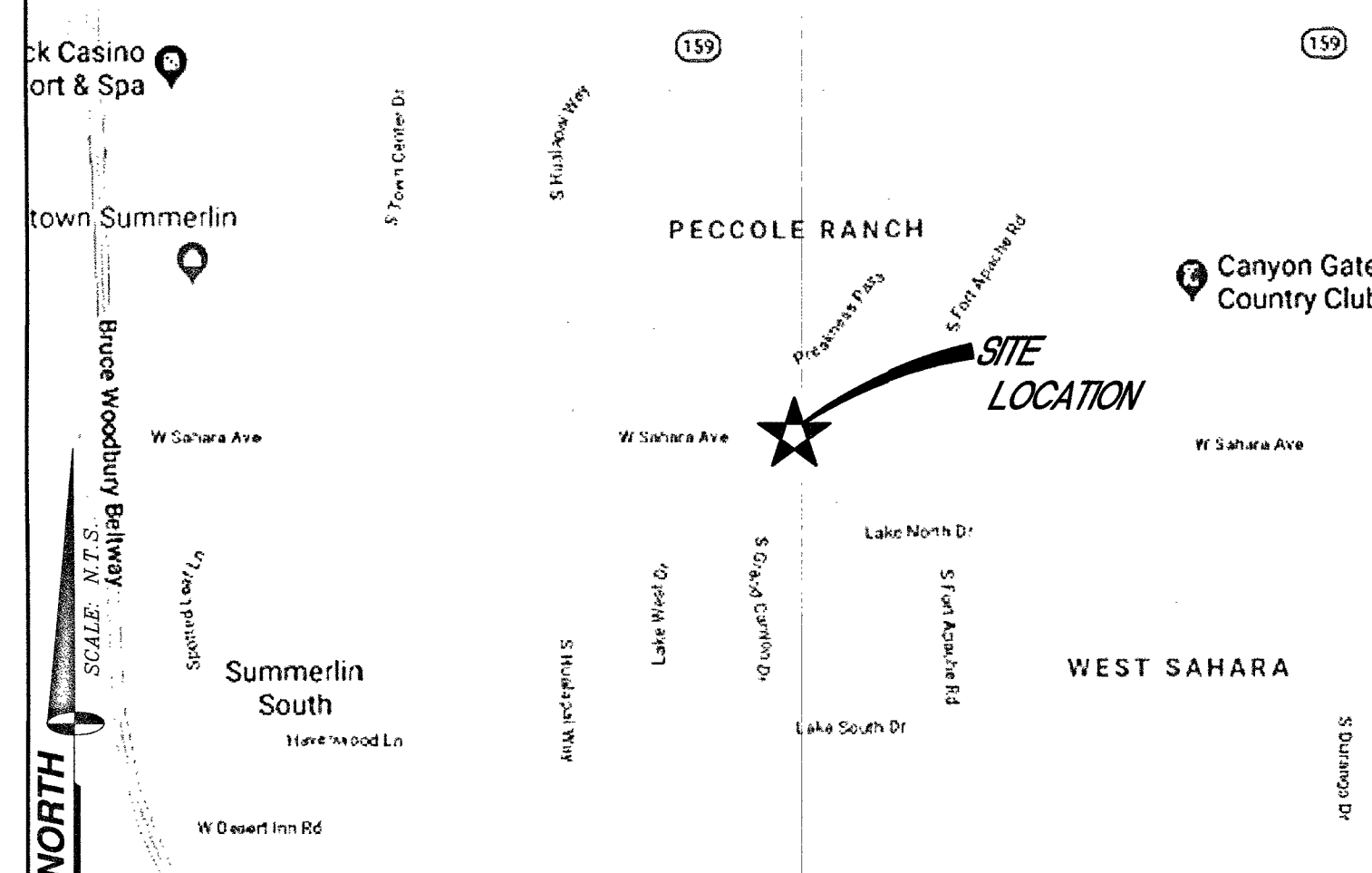
LICENSURE:

SHEET TITLE:
TITLE SHEET

SHEET NUMBER: C1
REVISION: 2

- REPLACEMENT OF AN EXISTING CONCRETE LIGHT POLE WITH A NEW RADIO AND ANTENNA AT THE TOP

TOTAL ENCROACHMENT NOTE



VICINITY MAP

APPLICANT/LESSEE
CROWN CASTLE NG WEST LLC
2055 SOUTH STEARMAN DRIVE
CHANDLER, ARIZONA 85286

CONTACT: MATT BOND
MOBILE: (480) 586-4306

PROPERTY INFORMATION

OWNER: PUBLIC RIGHT-OF-WAY
OCCUPANCY TYPE: U
CONSTRUCTION TYPE: V-B
CURRENT ZONING: N/A
JURISDICTION: CITY OF LAS VEGAS
APN: 163-07-599-001
LATITUDE: 36.1444
LONGITUDE: -115.3048
HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.

PROJECT SUMMARY

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- INTERNATIONAL BUILDING CODE 2018 W/STATE AMENDMENTS
- INTERNATIONAL EXISTING BUILDING CODE 2018 W/STATE AMENDMENTS
- INTERNATIONAL ENERGY CONSERVATION CODE 2018
- UNIFORM MECHANICAL CODE 2018
- UNIFORM PLUMBING CODE 2018
- NATIONAL ELECTRIC CODE 2017
- INTERNATIONAL FIRE CODE 2018
- ANSI/EIA-222-G LIFE SAFETY CODE
- LOCAL BUILDING CODE(S)
- CITY AND/OR COUNTY ORDINANCES

CODE COMPLIANCE

SPECIAL INSPECTIONS ARE REQUIRED FOR THE TYPES OF WORK DESCRIBED BELOW:

- HIGH-STRENGTH BOLTS. (IF REQUIRED)
- WELDING: FIELD WELDING OF STRUCTURAL STEEL AND REINFORCING STEEL. (IF REQUIRED)
- STRUCTURAL STEEL. (IF REQUIRED)
- CONCRETE: REINFORCING STEEL AND PLACEMENT.
- CONCRETE WITH DESIGN GREATER THAN 2500 PSI.
- PILE, PIER OR CAISSON FOUNDATIONS.
- SOILS: SITE PREPARATION, FILL PLACEMENT, IN-PLACE DENSITY.

SPECIAL INSPECTIONS

CIVIL ENGINEER

SPECTRUM SERVICES, INC.
4850 WEST OQUENDO ROAD
LAS VEGAS, NEVADA 89118
CHRIS WENER
PHONE: (702) 367-7705
FAX: (702) 367-8733

ELECTRICAL ENGINEER:

DGS CONSULTING ENGINEERING SERVICES LLC
9811 W. CHARLESTON BOULEVARD, SUITE 2539
LAS VEGAS, NEVADA 89117
DEREK G. STEFUREAC
PHONE: (702) 885-1552

PROJECT TEAM

SHEET	DESCRIPTION	REV.
C1	TITLE SHEET	2
C2	SITE PHOTO, GENERAL & CONSTRUCTION NOTES	2
C3	SITE PLAN	2
C4	EXISTING AND PROPOSED WEST ELEVATIONS	3
C5	CONSTRUCTION DETAILS	2
C6	CONCRETE FOUNDATION DETAILS	3
E1	GROUNDING LAYOUT, NOTES & DETAILS	2
SHEET INDEX		PERMIT

CITY OF LAS VEGAS
APPROVED FOR CONSTRUCTION

THIS APPROVAL IS FOR WORK IN CITY OF LAS VEGAS EASEMENT ONLY. OBTAINING PERMISSION OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

APPROVAL

L19-00250

5 22 19

DATE

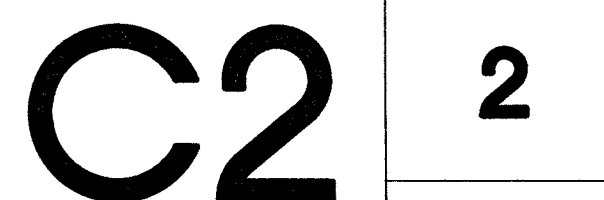
100V7721- P1B

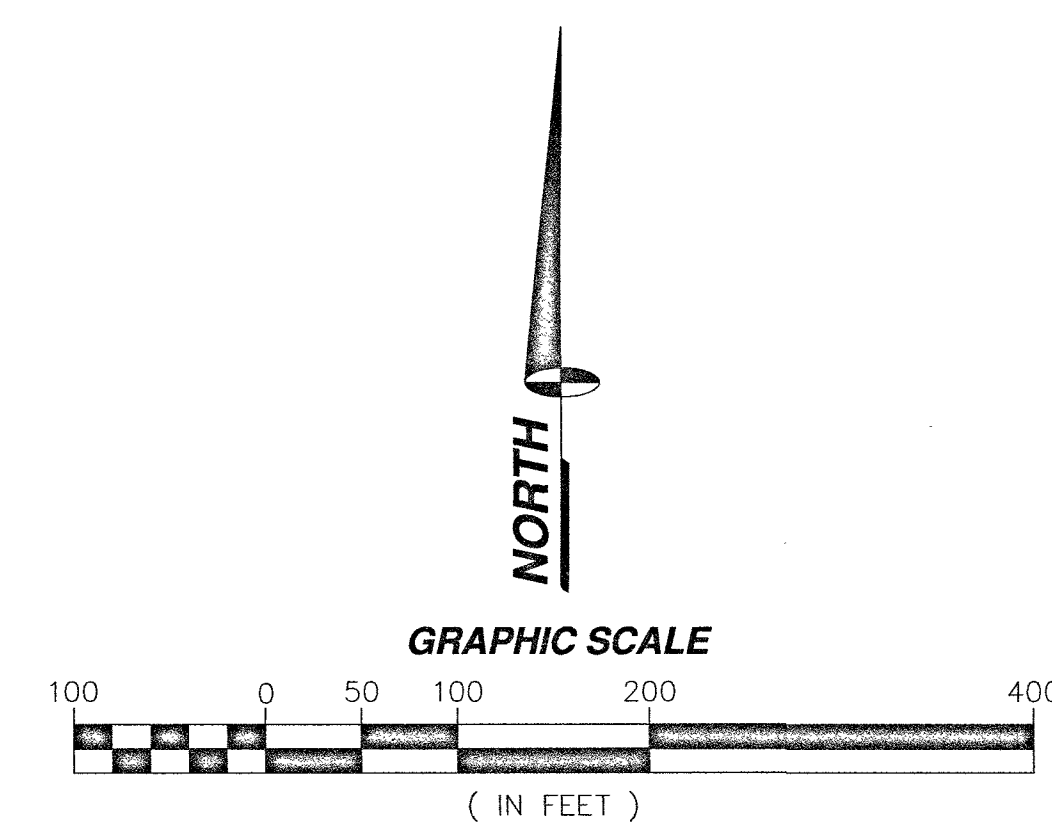
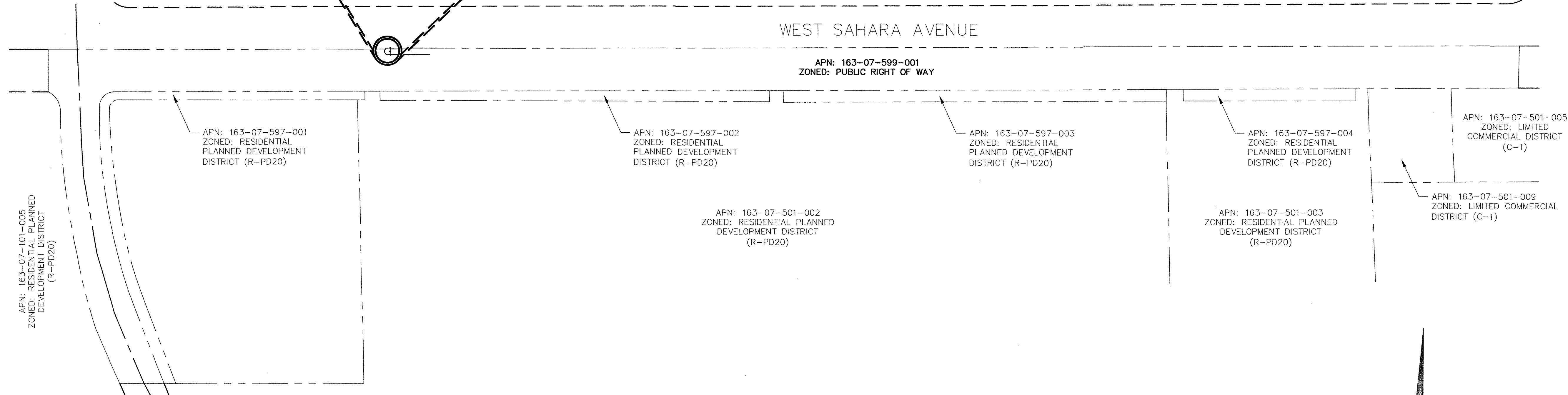
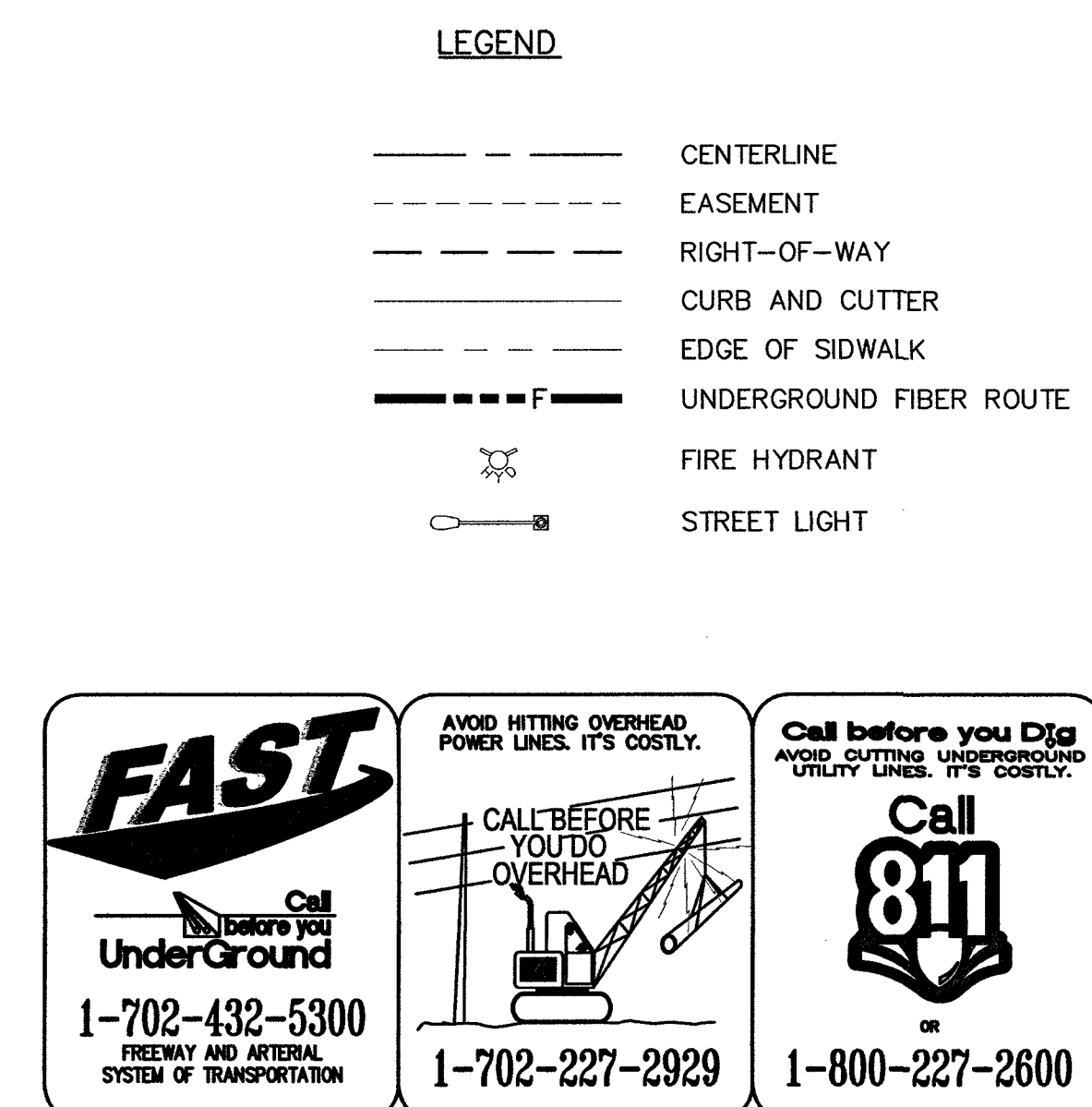
6/15/19 4/15/19
L19-00250



- ## PROJECT GENERAL NOTES

- ## CONSTRUCTION NOTES





SITE PLAN

**CC CROWN
CASTLE**

CROWN CASTLE NG WEST LLC
2055 SOUTH STEARMAN DRIVE
CHANDLER, ARIZONA 85286

PROJECT INFORMATION:

CROWN CASTLE ID #
LV054

WEST SAHARA AVENUE
LAS VEGAS, NEVADA 89117

CURRENT ISSUE DATE: 3/1/2004

04/09/19

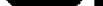
ISSUED FOR:

PROPOSED WORK

REV.: DATE: DESCRIPTION: BY:

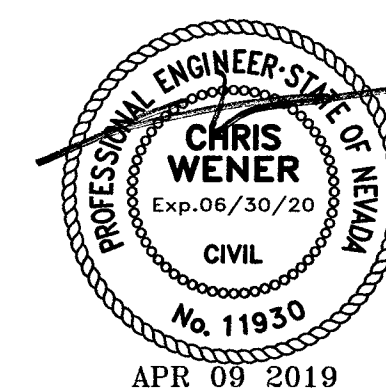
2	02/05/19	POLE REVISION	C.P.
1	10/16/18	100% PERMITTING	R.S.
0	09/28/18	90% PERMITTING	R.S.

PLANS PREPARED BY:



SPECTRUM SERVICES, INC.
4850 WEST OQUENDO ROAD
LAS VEGAS, NEVADA 89118
PHONE: (702) 367-7705
FAX: (702) 367-8733

LICENSURE:



SHEET TITLE:

SITE PLAN

SHEET NUMBER: == REVISION: ==

C3

2



CROWN CASTLE NG WEST LLC
2055 SOUTH STEARMAN DRIVE
CHANDLER, ARIZONA 85286

PROJECT INFORMATION:

CROWN CASTLE ID #
LV054

WEST SAHARA AVENUE
LAS VEGAS, NEVADA 89117

CURRENT ISSUE DATE:

04/09/19

ISSUED FOR:

PROPOSED WORK

REV.: DATE: DESCRIPTION: BY:

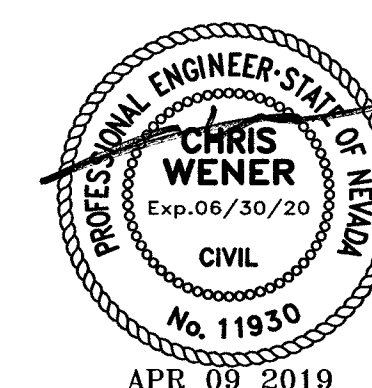
REV.	DATE	DESCRIPTION	BY
3	04/09/19	LAND DEV. COMMENTS	R.S.
2	02/05/19	POLE REVISION	C.P.
1	10/16/18	100% PERMITTING	R.S.
0	09/28/18	90% PERMITTING	R.S.

PLANS PREPARED BY:



SPECTRUM SERVICES, INC.
4850 WEST OQUENDO ROAD
LAS VEGAS, NEVADA 89118
PHONE: (702) 367-7705
FAX: (702) 367-8733

LICENSURE:

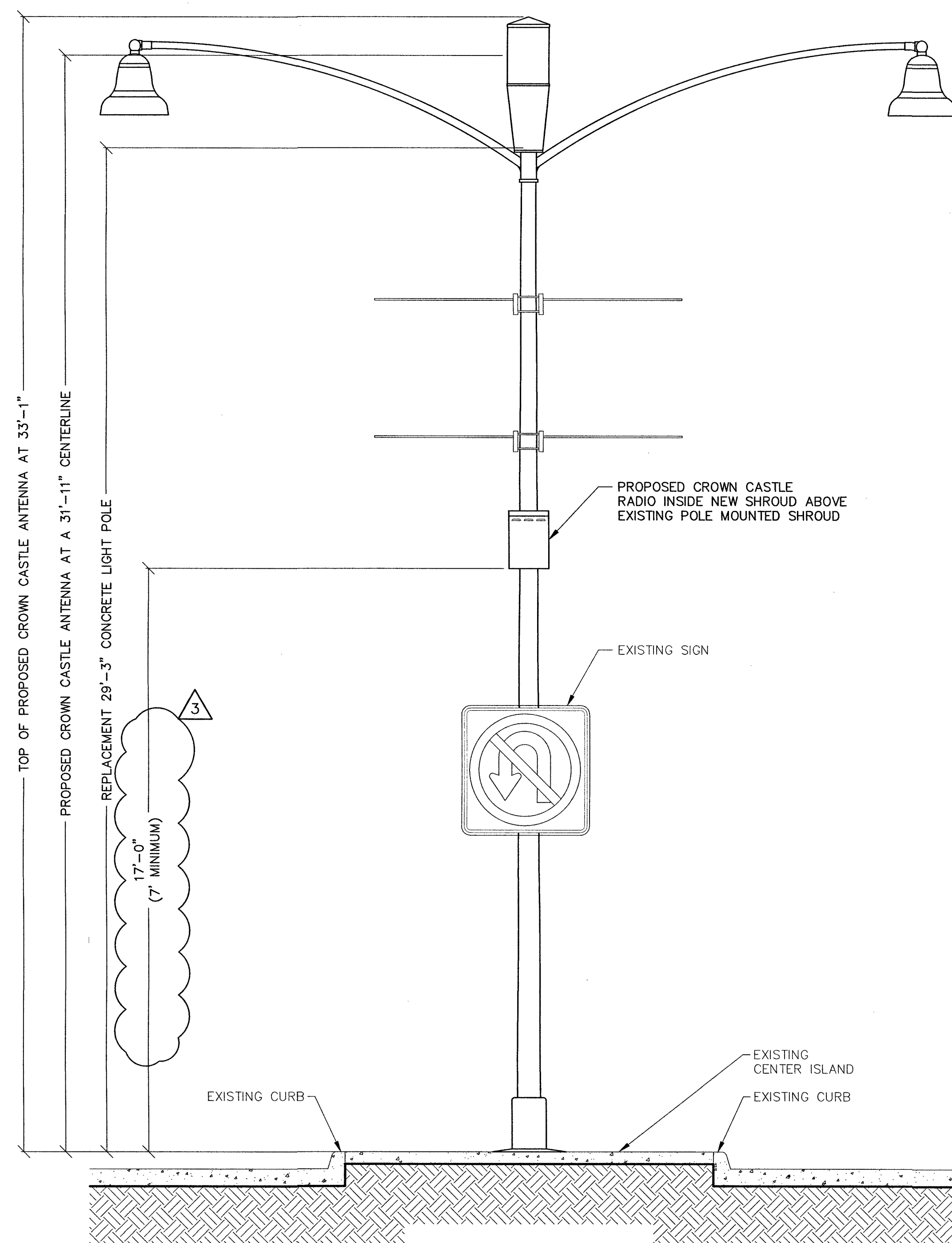


SHEET TITLE:

EXISTING AND PROPOSED
WEST ELEVATION

SHEET NUMBER: REVISION:

C4 3

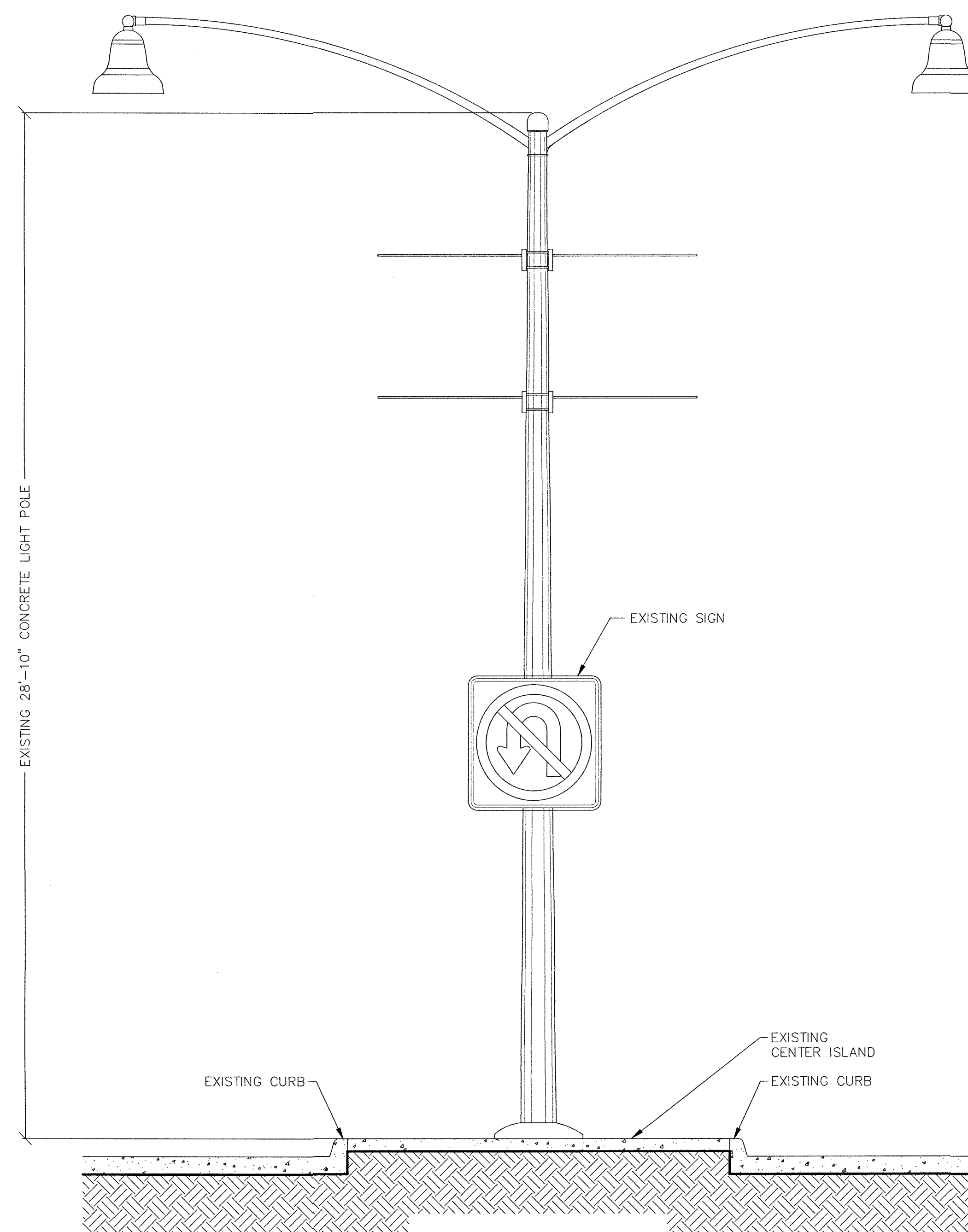


PROPOSED WEST ELEVATION

11" X 17" SCALE | 24" X 36" SCALE
1" = 5' | 1" = 2'-6"

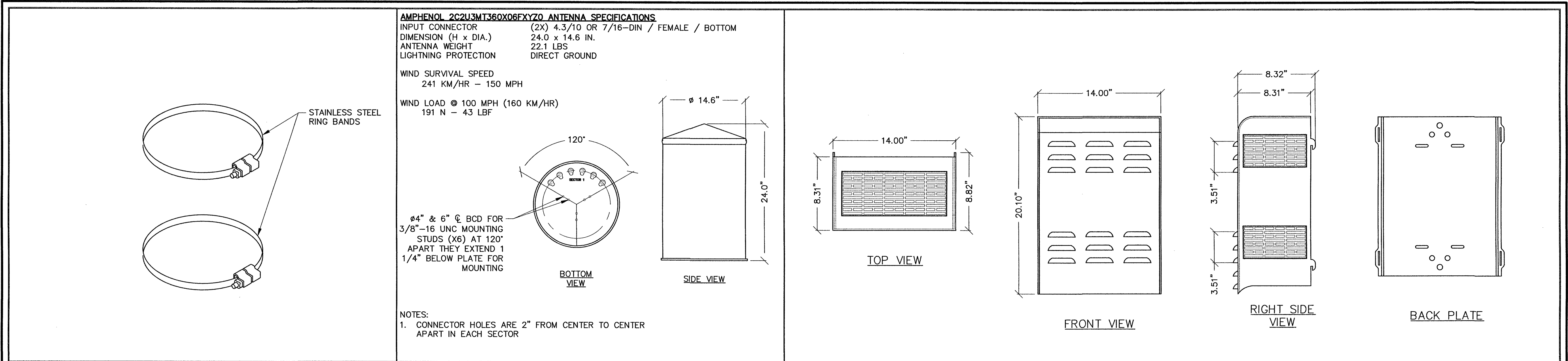
2

EXISTING WEST ELEVATION



11" X 17" SCALE | 24" X 36" SCALE
1" = 5' | 1" = 2'-6"

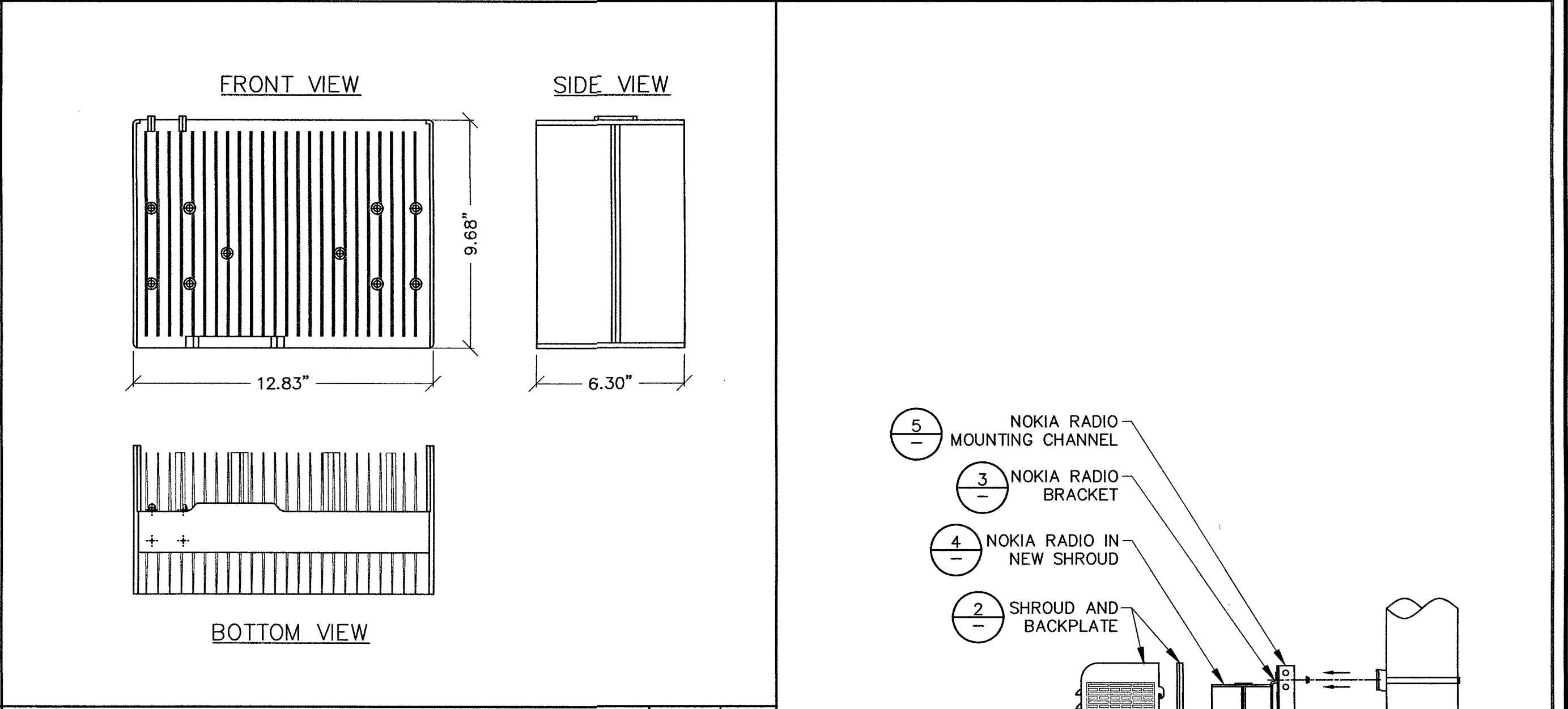
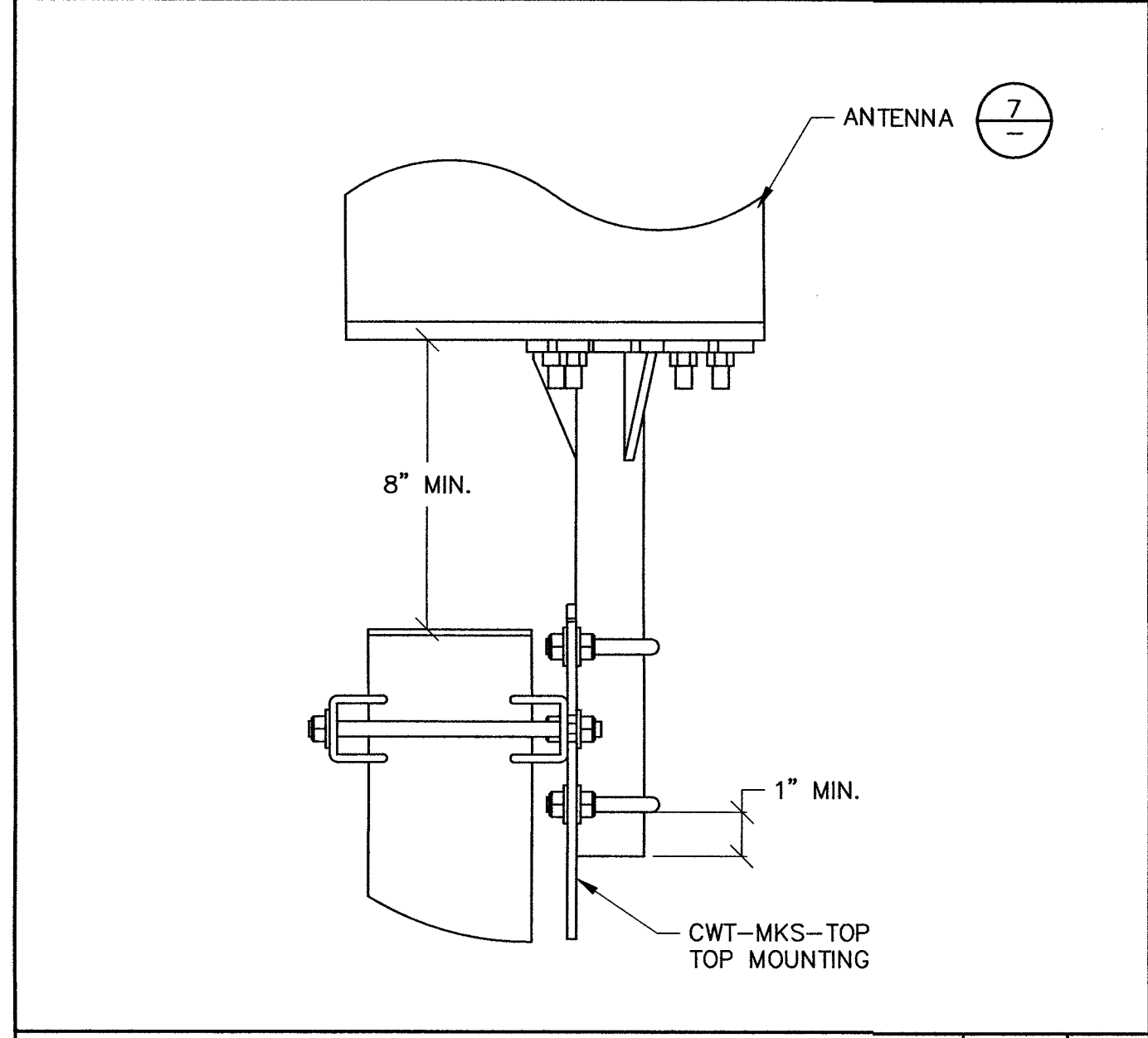
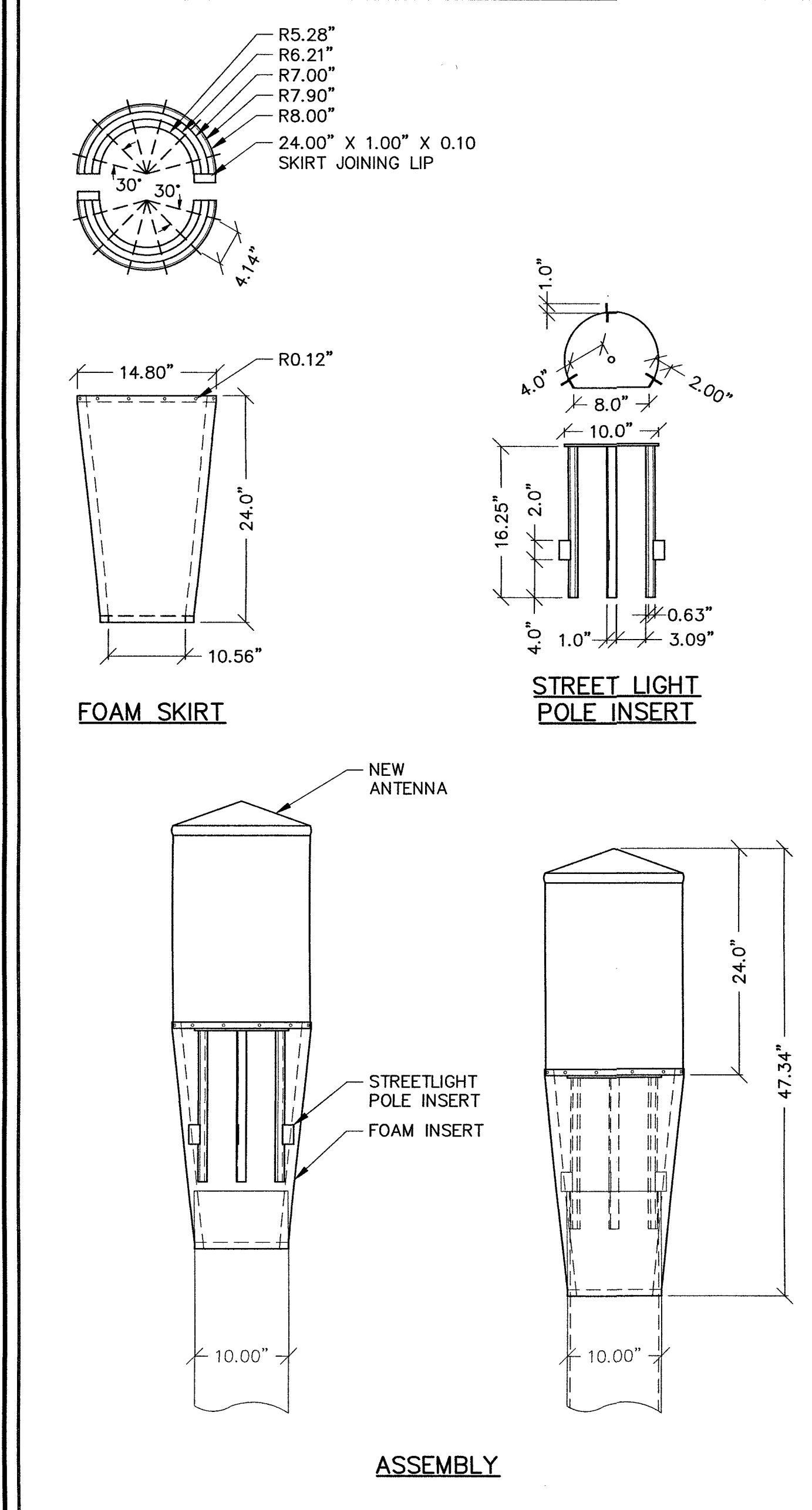
1



STAINLESS STEEL RING BAND

ANTENNA DETAIL

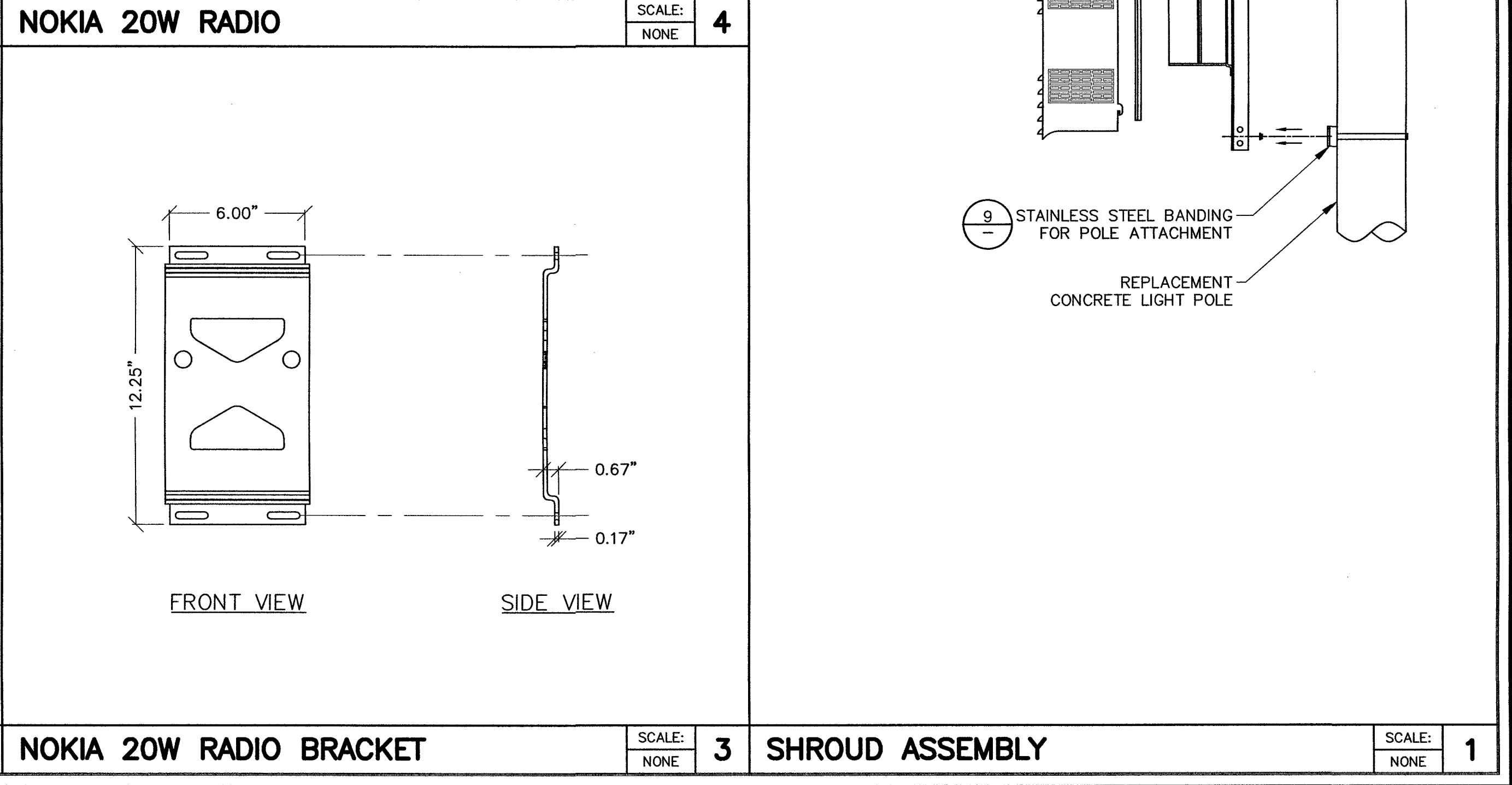
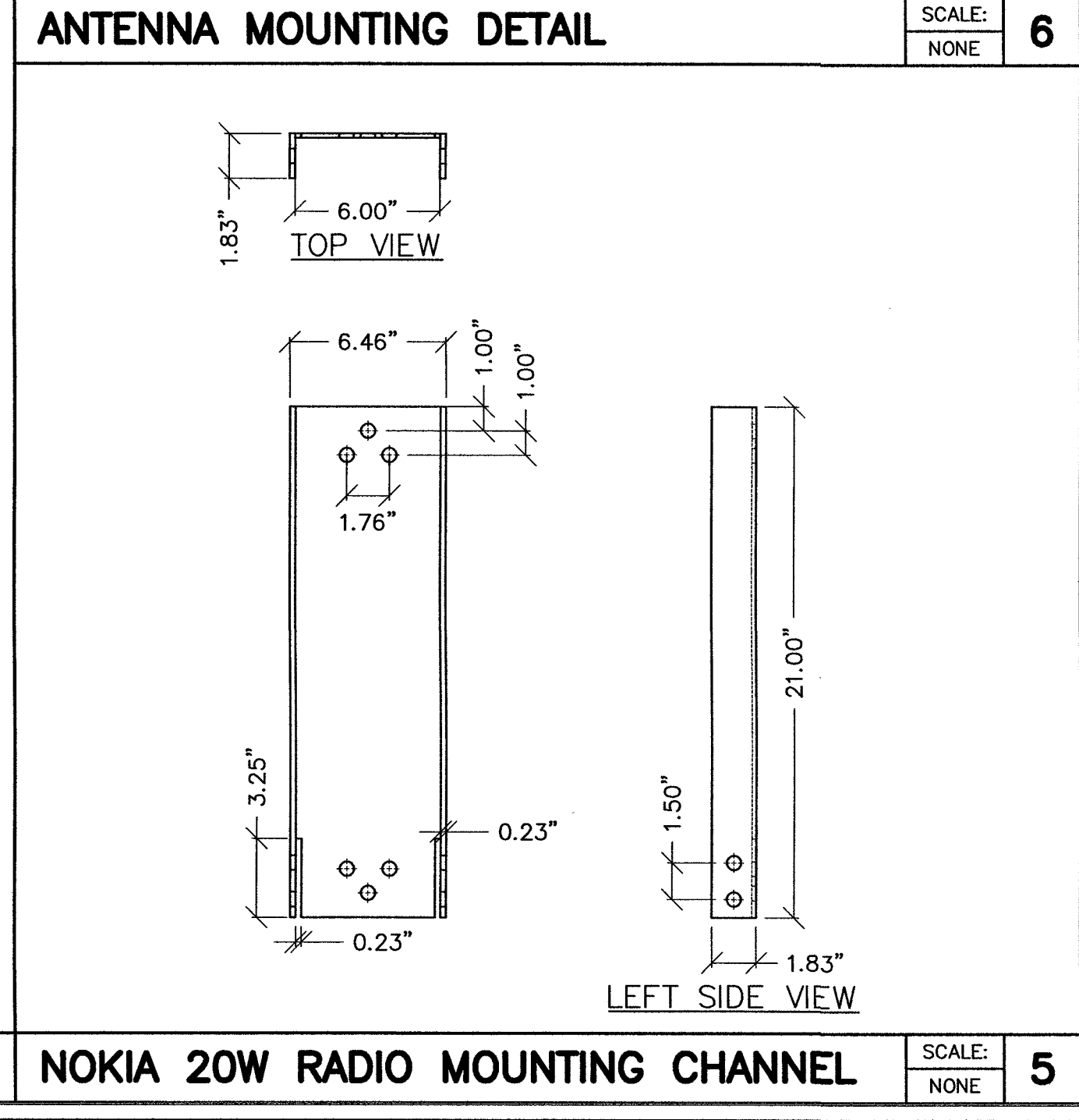
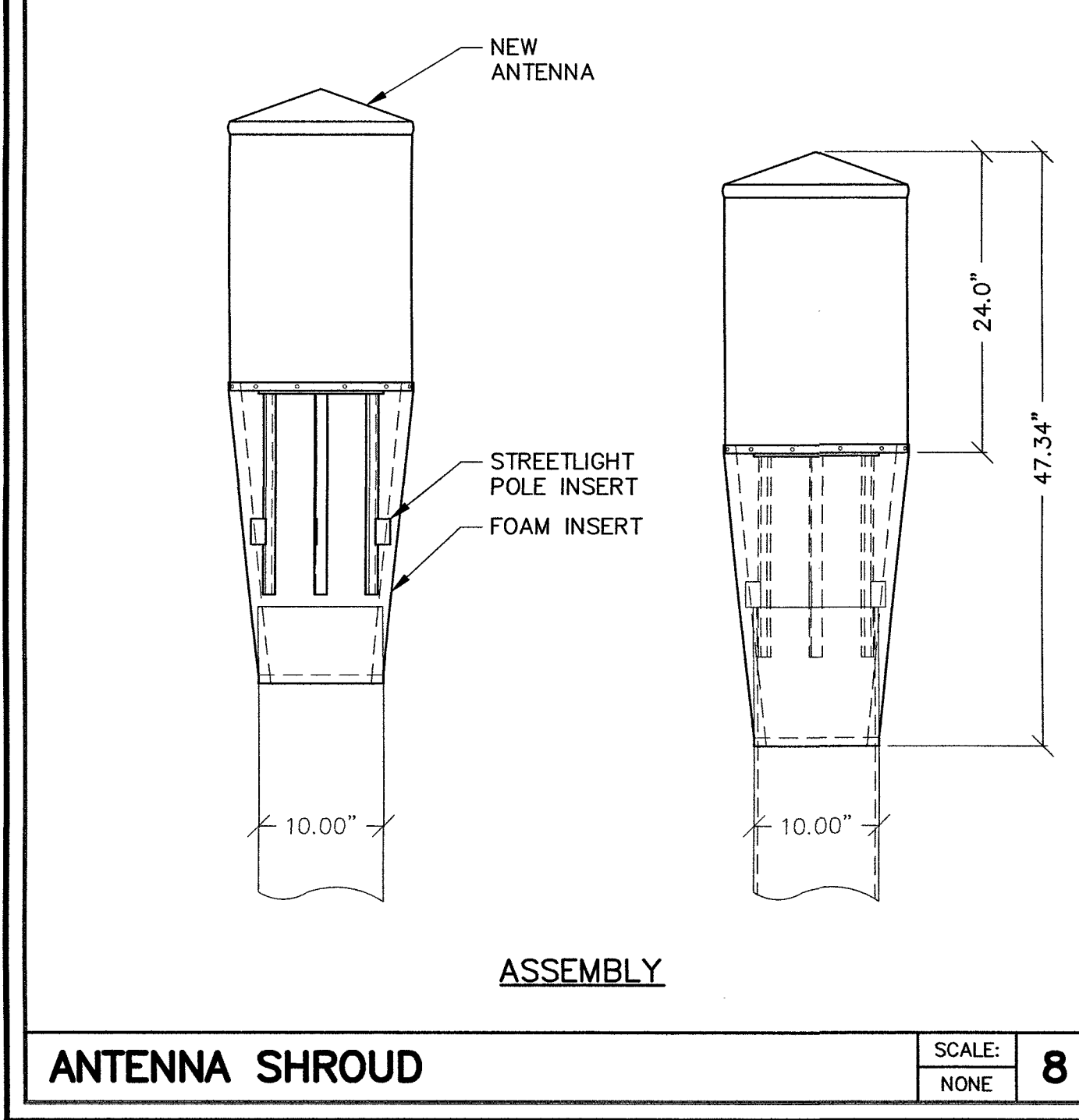
RADIO SHROUD



ANTENNA SHROUD

NOKIA 20W RADIO MOUNTING CHANNEL

NOKIA 20W RADIO BRACKET



CROWN CASTLE

CROWN CASTLE NG WEST LLC
2055 SOUTH STEARMAN DRIVE
CHANDLER, ARIZONA 85286

PROJECT INFORMATION:

CROWN CASTLE ID # LV054

WEST SAHARA AVENUE
LAS VEGAS, NEVADA 89117

CURRENT ISSUE DATE:

04/09/19

ISSUED FOR:

PROPOSED WORK

REV.: DATE: DESCRIPTION: BY:

REV.	DATE	DESCRIPTION	BY
2	02/05/19	POLE REVISION	C.P.
1	10/16/18	100% PERMITTING	R.S.
0	09/28/18	90% PERMITTING	R.S.

PLANS PREPARED BY:

SPECTRUM

SPECTRUM SERVICES, INC.
4850 WEST OQUENDO ROAD
LAS VEGAS, NEVADA 89118
PHONE: (702) 367-7705
FAX: (702) 367-8733

LICENSURE:

CHRIS WENER
PROFESSIONAL ENGINEER-STATE OF NEVADA
Exp. 06/30/20
CIVIL
No. 11930
APR 09 2019

SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER: REVISION:

C5 2



CROWN CASTLE NG WEST LLC
2055 SOUTH STEARMAN DRIVE
CHANDLER, ARIZONA 85286

PROJECT INFORMATION:

CROWN CASTLE ID #
LV054

WEST SAHARA AVENUE
LAS VEGAS, NEVADA 89117

CURRENT ISSUE DATE:

04/09/19

ISSUED FOR:

PROPOSED WORK

REV.: DATE: DESCRIPTION: BY:

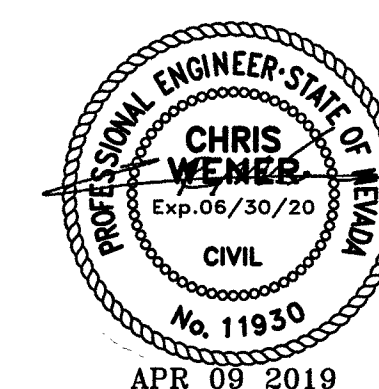
REV.	DATE	DESCRIPTION	BY
3	04/09/19	LAND DEV. COMMENTS	R.S.
2	02/05/19	POLE REVISION	C.P.
1	10/16/18	100% PERMITTING	R.S.
0	09/28/18	90% PERMITTING	R.S.

PLANS PREPARED BY:



SPECTRUM SERVICES, INC.
4850 WEST OQUENDO ROAD
LAS VEGAS, NEVADA 89118
PHONE: (702) 367-7705
FAX: (702) 367-8733

LICENSURE:

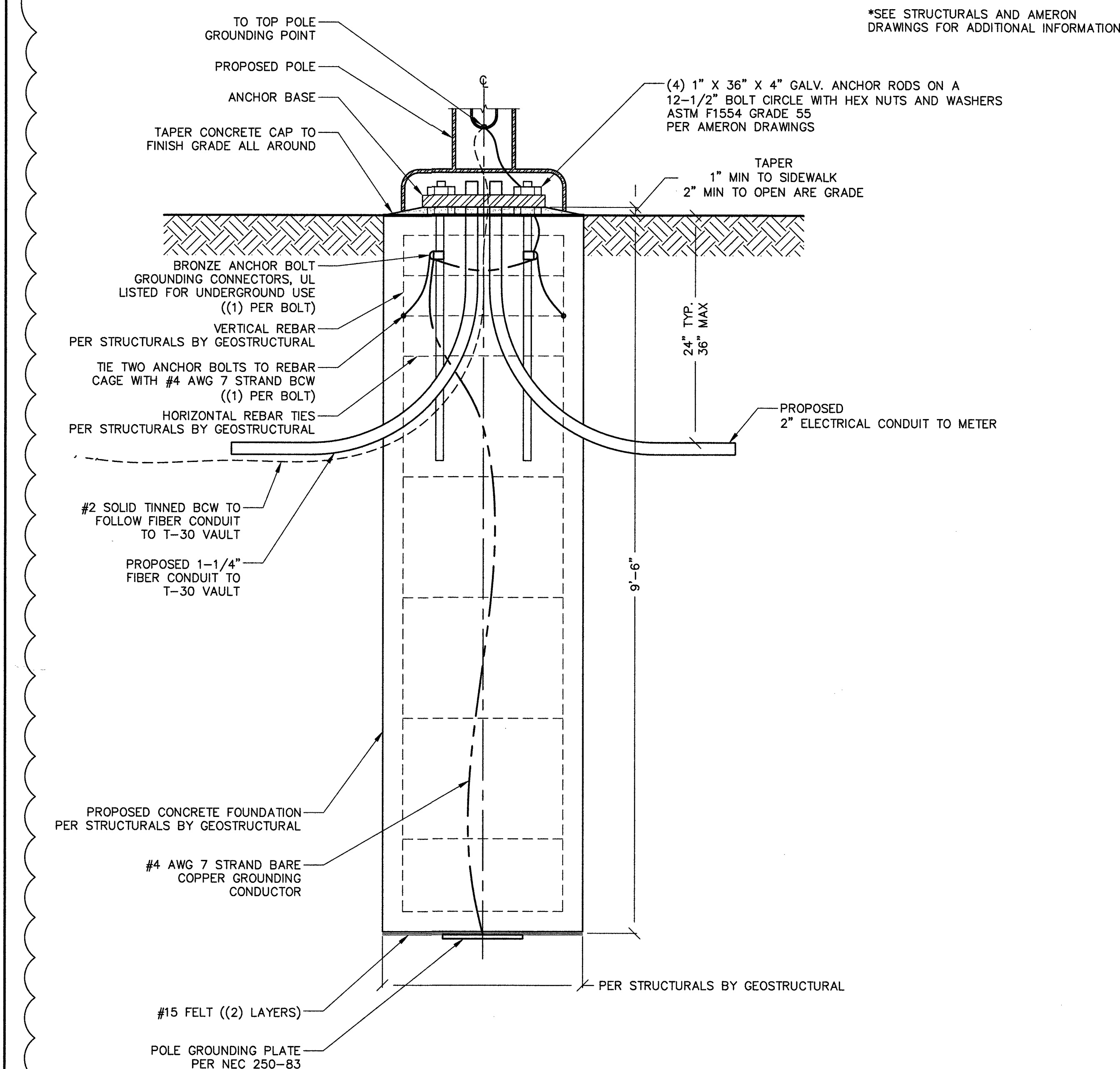


SHEET TITLE:

CONCRETE FOUNDATION
DETAILS

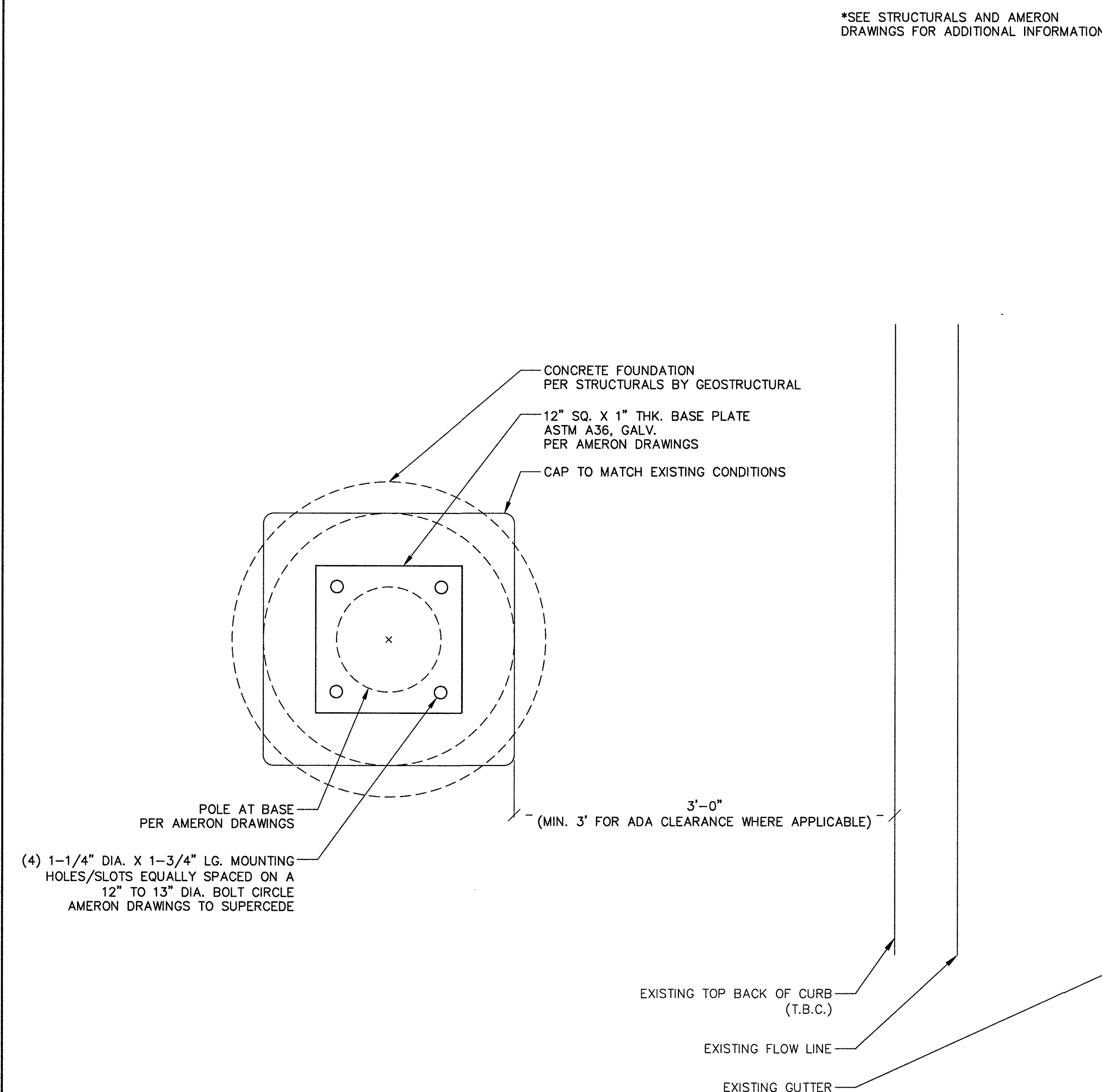
SHEET NUMBER: REVISION:

C6 3



NOTES:

1. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI, IN ACCORDANCE WITH ACI 318-11. BASE PLATE GROUT STRENGTH AT 8000 PSI.
2. USE TYPE V PORTLAND CEMENT AND A MAXIMUM WATER-CEMENT RATIO OF 0.45.
3. REBAR TO CONFORM TO ASTM SPECIFICATION A615 GRADE 60.
4. ALL REBAR TO HAVE A MINIMUM OF 3" CONCRETE COVER.
5. ALL EXPOSED CONCRETE CORNERS TO BE CHAMFERED 3/4".
6. SEE THE GEOTECHNICAL REPORT FOR DRILLED PIER INSTALLATION REQUIREMENTS, IF SPECIFIED.
7. ANCHOR RODS ARE TO BE (4) 1" DIAMETER ASTM F1554 GRADE 55 ON A 12"-1/2" DIAMETER BOLT CIRCLE. MINIMUM LENGTH OF ANCHOR RODS IS 36", WITH A MAXIMUM PROJECTION OF 5" ABOVE CONCRETE. AMERON DRAWINGS TO SUPERCEDE THIS NOTE.

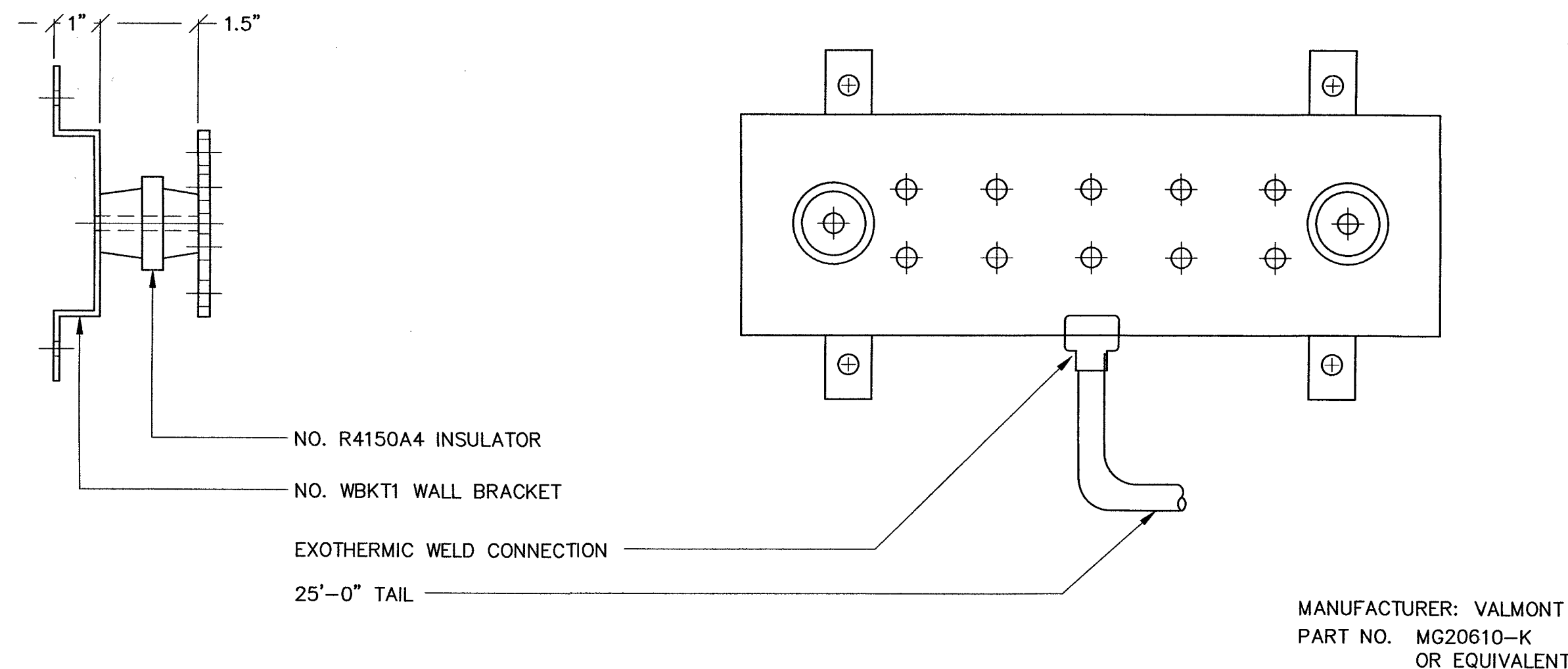
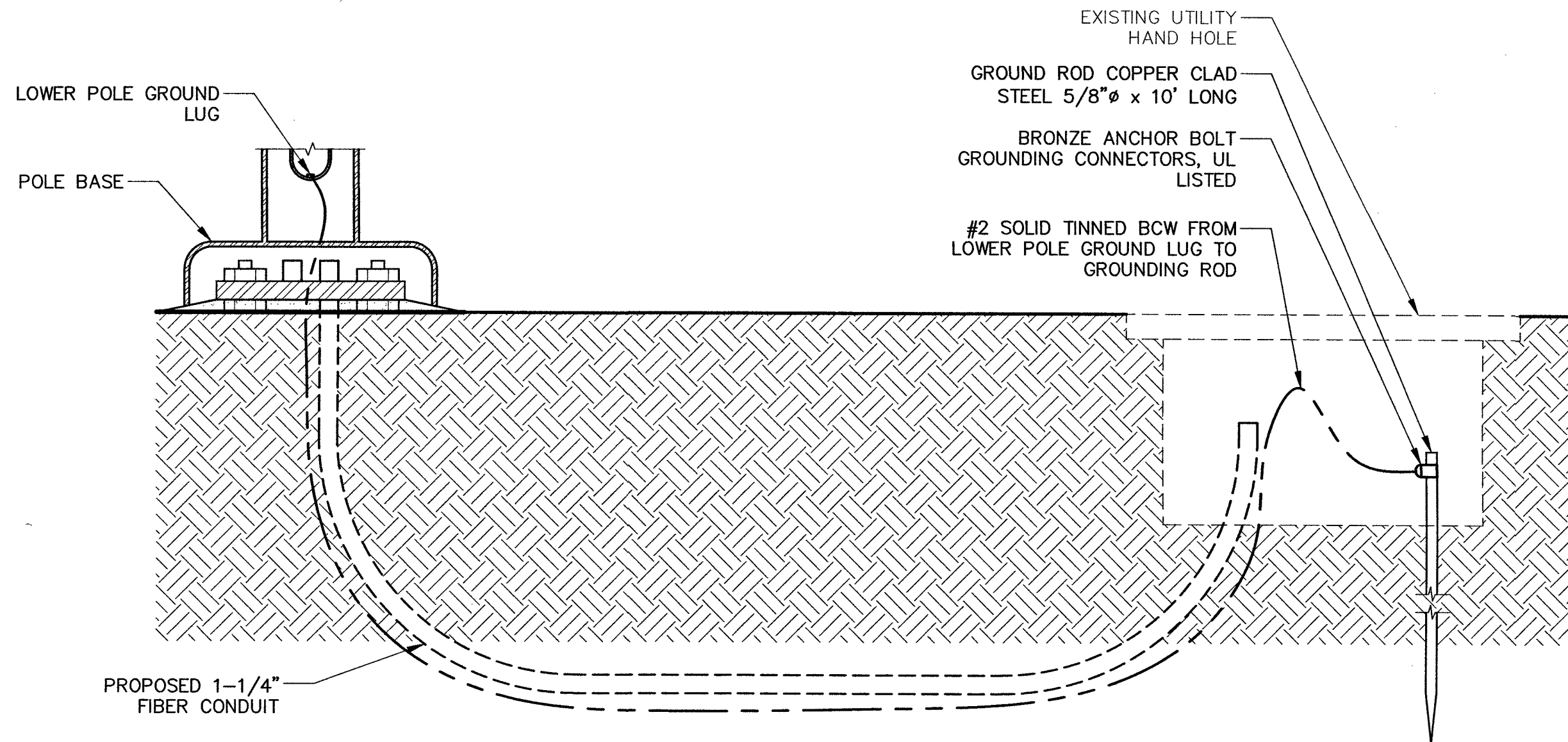


STREETLIGHT FOUNDATION DESIGN

SCALE:
NONE 2

STREETLIGHT PLACEMENT ON CONCRETE FOUNDATION

SCALE:
NONE 1



GROUND ROD

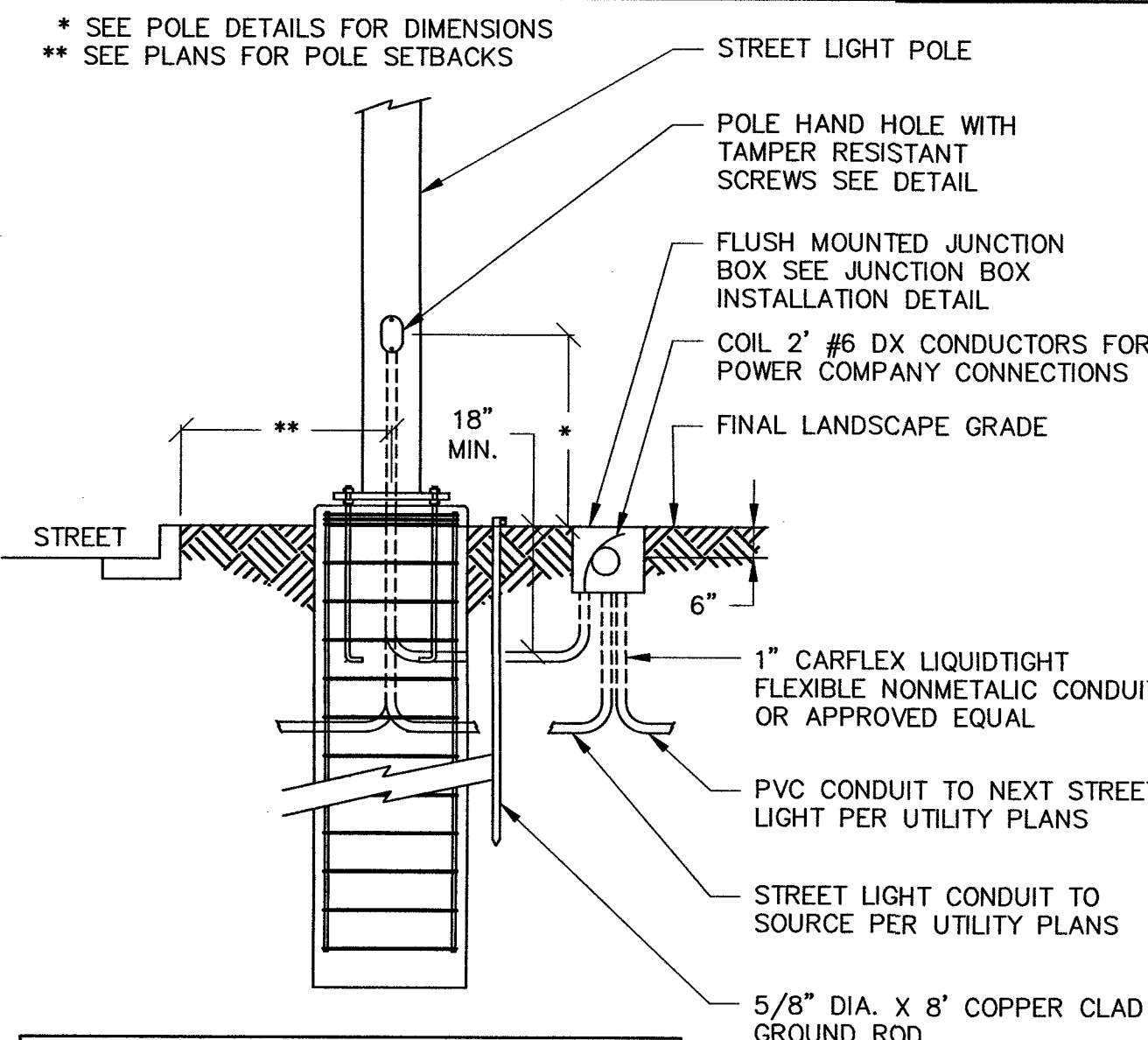
SCALE: NONE 4

GROUND BAR

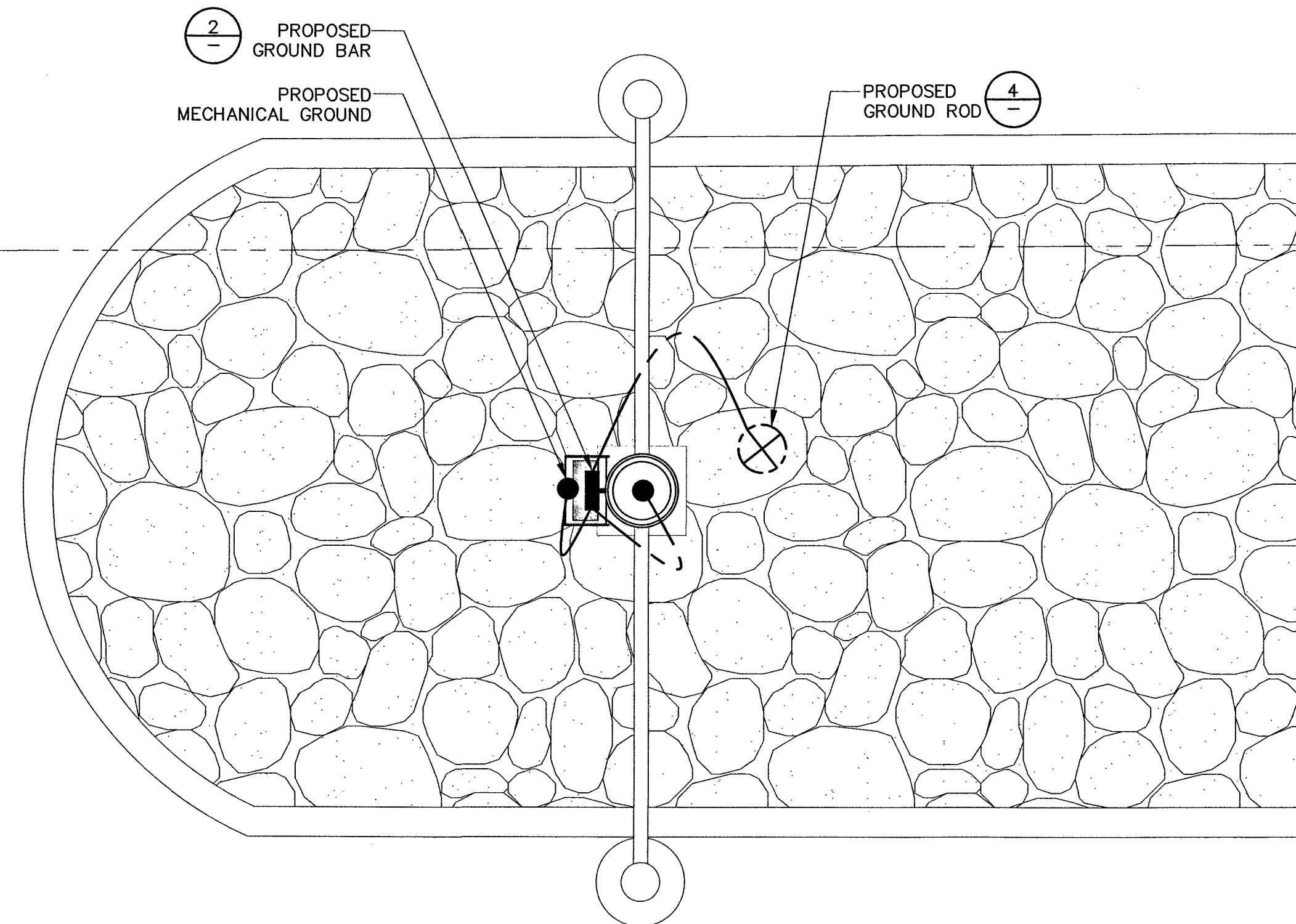
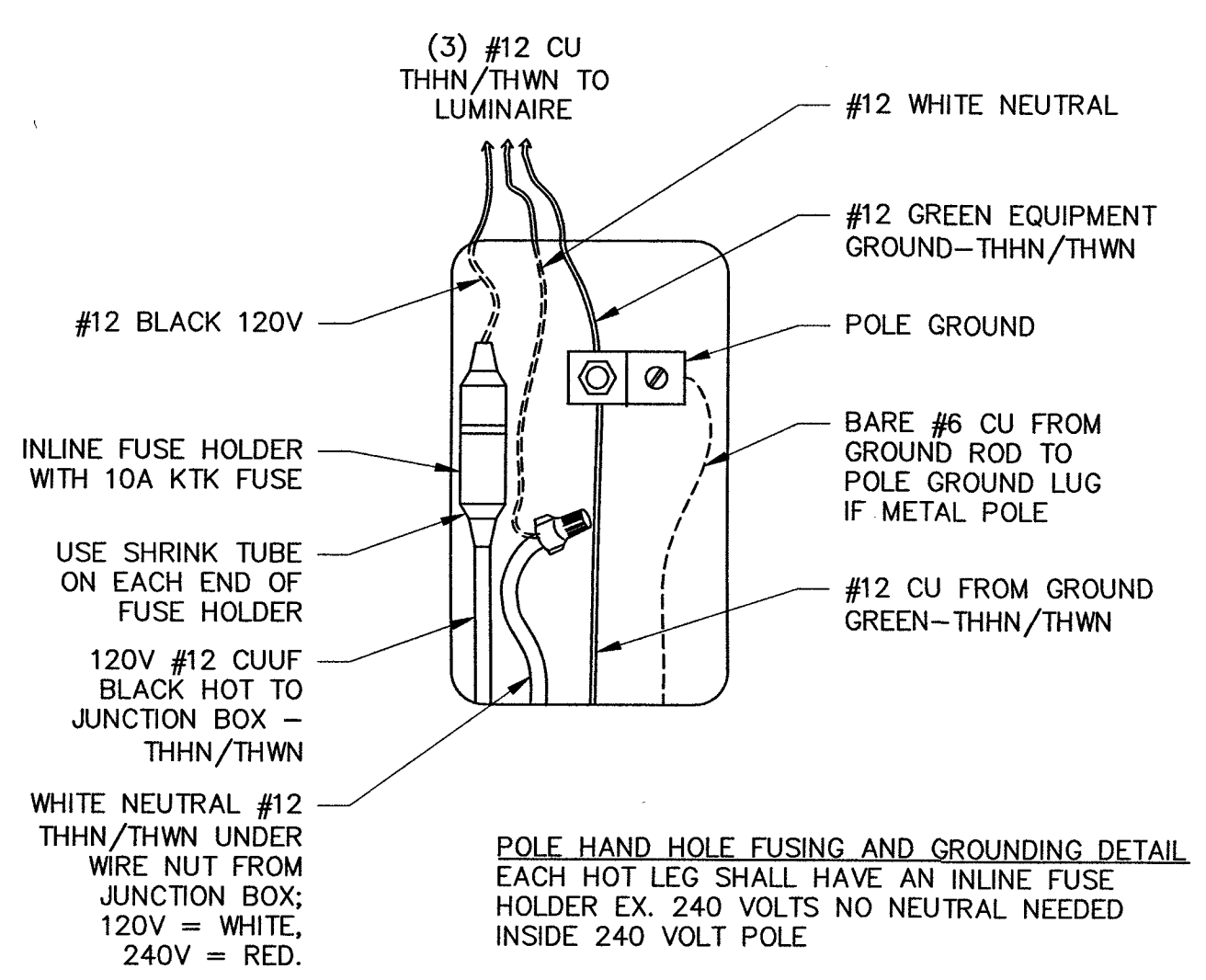
SCALE: NONE 2

- ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS AND CARRIER GROUNDING STANDARD, LATEST REVISION.
- ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.
- GROUND RING TO GROUND BAR CONNECTIONS SHALL BE CADWELED QTY. (2) #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.
- GROUND BAR TO EQUIPMENT AND CABLES SHALL BE #2 AWG BTCW W/ DOUBLE LUG CONNECTIONS.
- GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED, FURNISHED AND INSTALLED BY THE VENDOR.
- GROUND BAR LOCATED BELOW WAVEGUIDE ENTRY PORT, CABLES SHALL BE #2 AWG BTCW/DOUBLE LUG CONNECTIONS. TWO PATHS TO GROUND RING.
- ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE.
- EXTERIOR GROUNDING CONDUCTORS: BURIED TO A MINIMUM DEPTH OF 1'-6" BELOW FINISHED GRADE TO ALLOW FOR FUTURE CONSTRUCTION.
- INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1'-0" FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING, OR FENCE.
- EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY.
- GROUND BARS:
EQUIPMENT GROUND BUSS BAR (EGB) LOCATED AT BOTTOM OF ANTENNA POLE/MAST FOR MAKING GROUNDING JUMPER CONNECTIONS TO COAX FEEDER CABLES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. JUMPERS (FURNISHED BY OWNERS) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR.

MAIN GROUND BUSS BAR (MGB) LOCATED NEAR THE BASE OF THE RADIO EQUIPMENT CABINET(S) SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
- ALL BOLTED TORQUE CONNECTORS SHALL BE LONG-BARRELLLED TYPES AND HAVE TWO HOLES FOR CONNECTION TO SURFACE AND NON-OXIDIZING AGENT APPLIED TO INHIBIT CORROSION.



NOTES:
THIS DETAIL IS DIAGRAMMATIC ONLY.
CONTRACTOR SHALL REFER TO POLE DRAWINGS AND CALCULATIONS FOR EXACT DETAIL.



- NOTE:
- ALL GROUNDING TO BE INSTALLED IN ACCORDANCE WITH VERIZON WIRELESS STANDARD NSTD 46
 - CONTRACTOR TO MODIFY OR ADD NECESSARY GROUNDING TO PROVIDE A MAX. RESISTANCE OF 5 OHMS

GROUNDING NOTES

SCALE: NONE 5

STREET LIGHT WIRING AND GROUNDING

SCALE: NONE 3

GROUNDING LAYOUT

11" X 17" SCALE 24" X 36" SCALE
1" = 4' 1" = 2' 1



CROWN CASTLE NG WEST LLC
2055 SOUTH STEARMAN DRIVE
CHANDLER, ARIZONA 85286

PROJECT INFORMATION:

CROWN CASTLE ID #
LV054

WEST SAHARA AVENUE
LAS VEGAS, NEVADA 89117

CURRENT ISSUE DATE:

04/09/19

ISSUED FOR:

PROPOSED WORK

REV.: DATE: DESCRIPTION: BY:

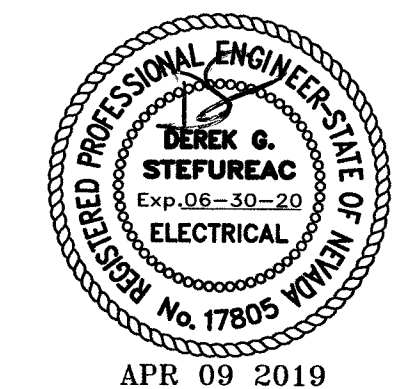
REV.	DATE	DESCRIPTION	BY
2	02/05/19	POLE REVISION	C.P.
1	10/16/18	100% PERMITTING	R.S.
0	09/28/18	90% PERMITTING	R.S.

PLANS PREPARED BY:



DGS
CONSULTING ENGINEERING SERVICES LLC

LICENSURE:



SHEET TITLE:

GROUNDING LAYOUT,
NOTES & DETAILS

SHEET NUMBER: REVISION:

E1 2