



PROJECT: AT&T mmWave
JDE PROJECT NUMBER: 665289
SITE CASCADE: CRAN_RCTB_00004_05
SITE TYPE: STREETLIGHT POLE
SCU: 493175
DRAWING DESCRIPTION: PERMIT DRAWING

PLANS PREPARED FOR:
 CROWN CASTLE

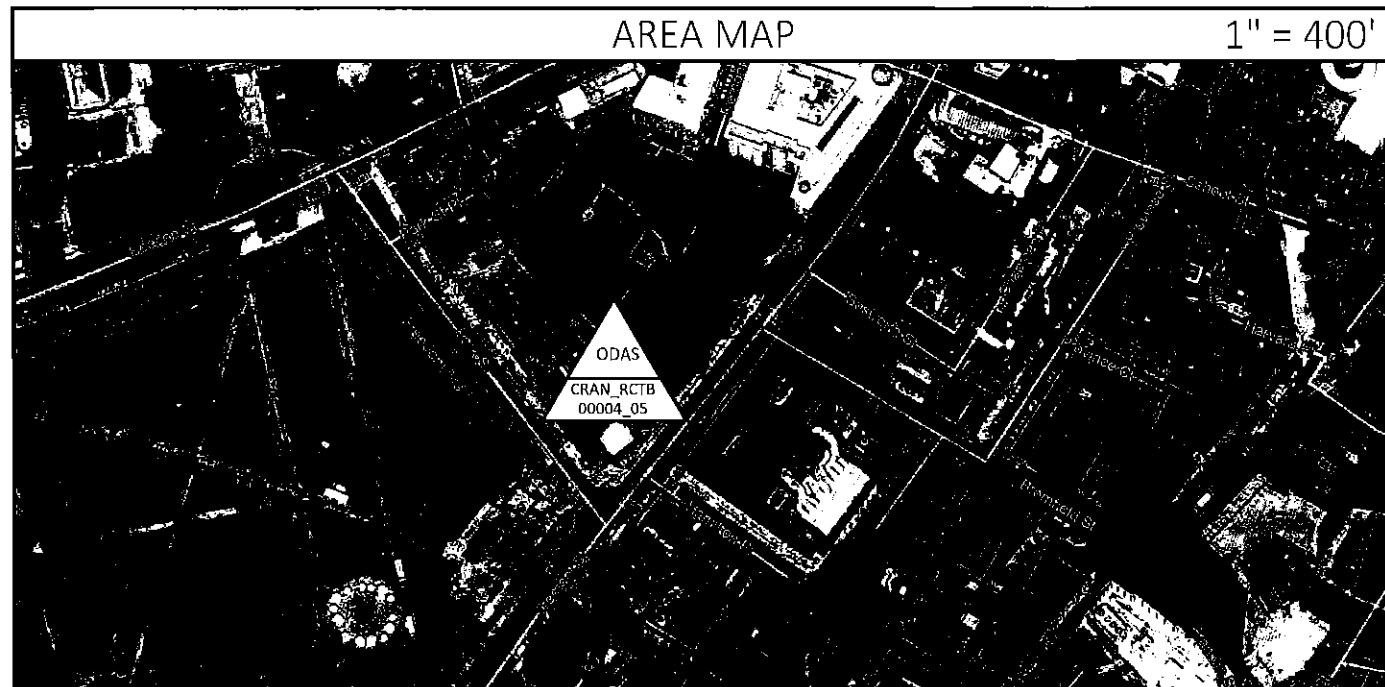
PLANS PREPARED BY:
 MAVERICK
 1 Westinghouse Plaza, Suite D6,
 Boston, Massachusetts, 02136
 +1 617-361-6700

FOR PERMITTING
 PURPOSES ONLY

ENGINEERING SEAL:

SITE INFORMATION

LATITUDE:
 42°21'25.36"N
 42.357028°
LONGITUDE:
 71° 3'41.54"W
 -71.061539°
COUNTY:
 SUFFOLK
ZONING JURISDICTION
 BOSTON
ZONING DISTRICT:
 GOVERNMENT CENTER/MARKETS
POWER COMPANY
 EVERSOURCE



DRAWING INDEX

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PROJECT EQUIPMENT

NEW CROWN CASTLE INSTALLED EQUIPMENT

- (2) ERICSSON AIR12818257 AC VERSION
- (1) RSD-DMC-X10MS-21NN

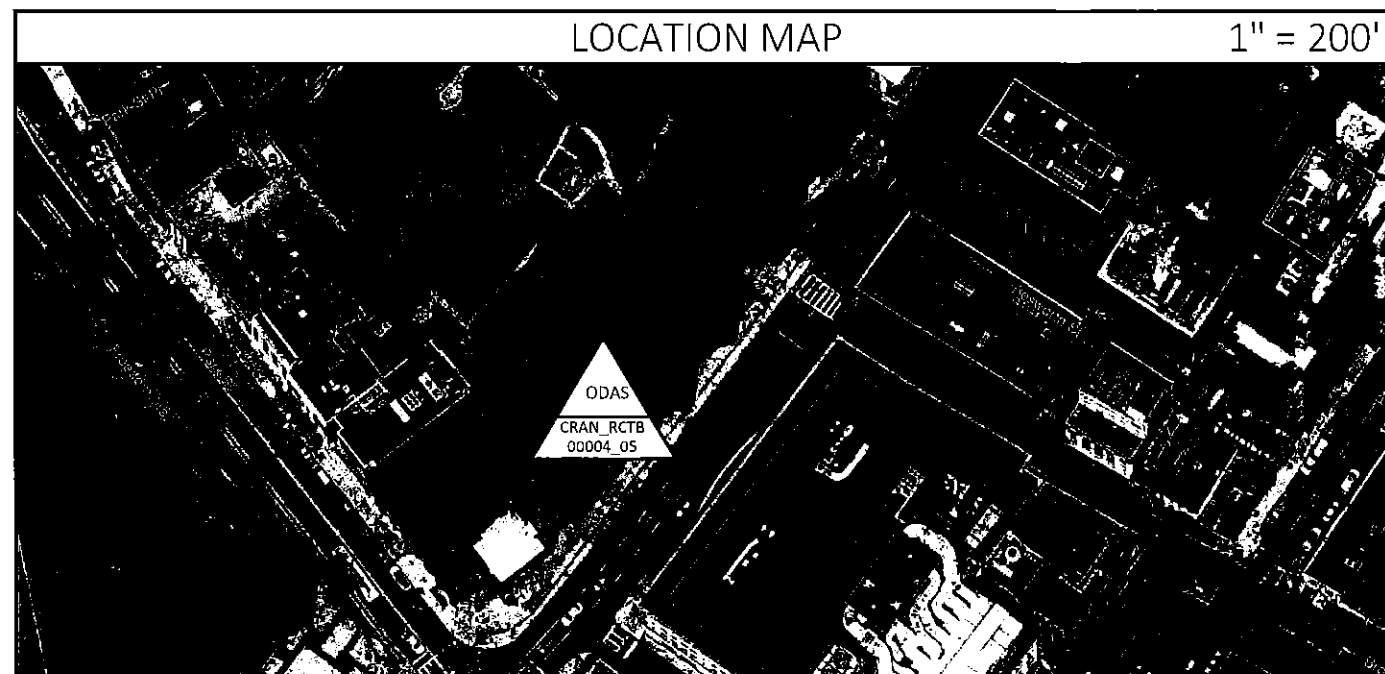
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PROJECT TEAM

BACKHAUL PROVIDER:
 CROWN CASTLE FIBER
CROWN CASTLE PROJECT MANAGER:
 NAME: DEIVIDAS KAVALIAUSKAS



APPLICABLE CODE

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

- INTERNATIONAL BUILDING CODE
- INTERNATIONAL MECHANICAL CODE
- ANSI / TIA-222 STRUCTURAL STANDARD
- NFPA 780 - LIGHTING PROTECTION CODE
- UNIFORM PLUMBING CODE
- NATIONAL ELECTRICAL CODE
- 2017 NATIONAL ELECTRICAL SAFETY CODE

THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM THE INFORMATION AVAILABLE. THE INFORMATION PROVIDED IS NOT IMPLIED NOR INTENDED TO BE THE COMPLETE INVENTORY OF UTILITIES IN THIS AREA. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTORS ACTIVITIES.

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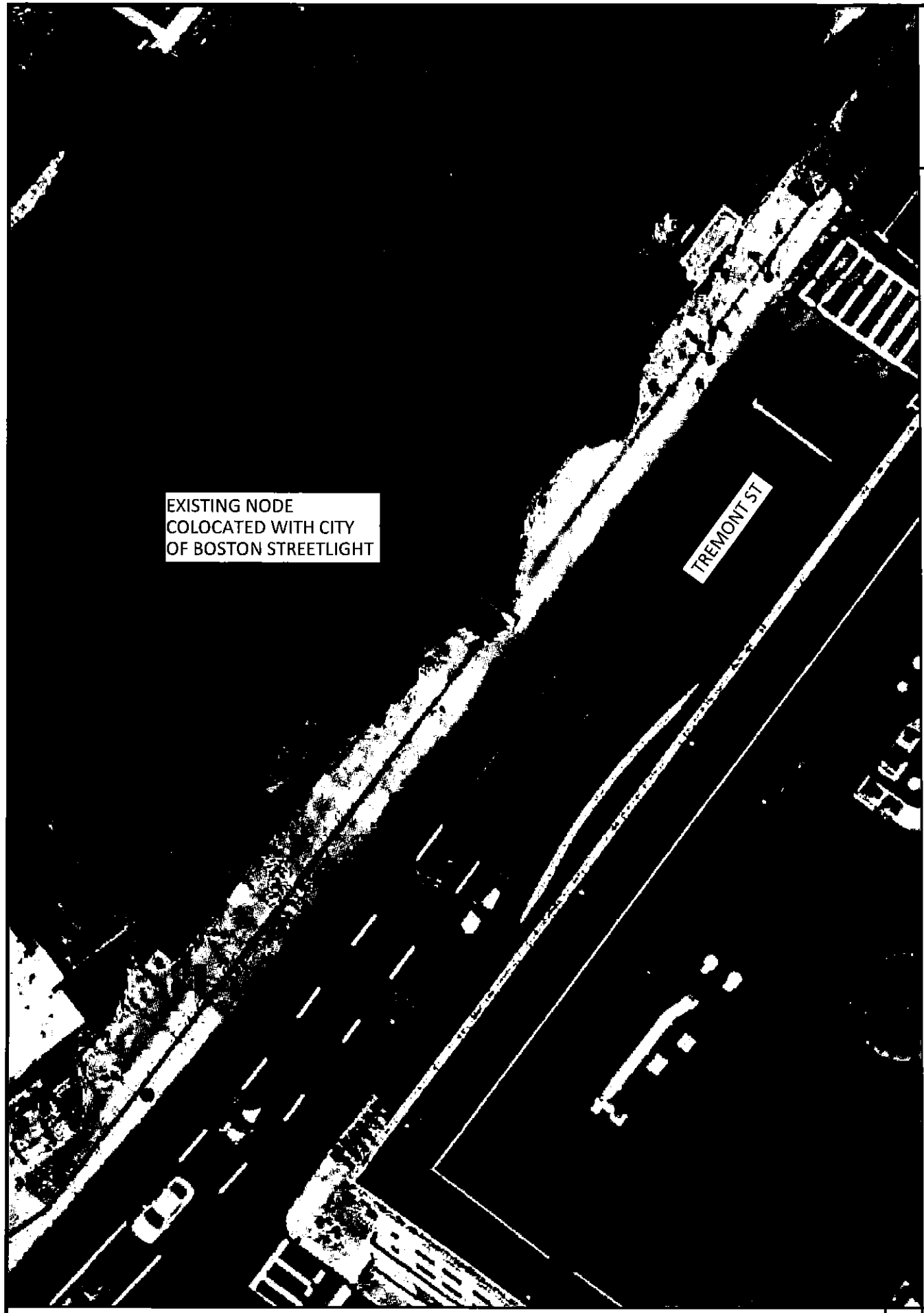
SITE ADDRESS:
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 BOSTON, MA 02108, USA
 POLE# N/A

SHEET DESCRIPTION:
 TITLE SHEET

SHEET NUMBER:
 T-1

DO NOT SCALE DRAWINGS

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



AERIAL SITE LOCATION

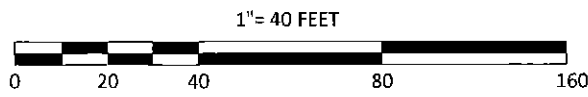
1":100' 1

THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL STREET LIGHTING FACILITIES EXISTING IN THE WORK AREA. SHOULD ANY DAMAGE TO THE STREET LIGHTING SYSTEM OCCUR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RELEVANT CITY STREET LIGHT AUTHORITY.

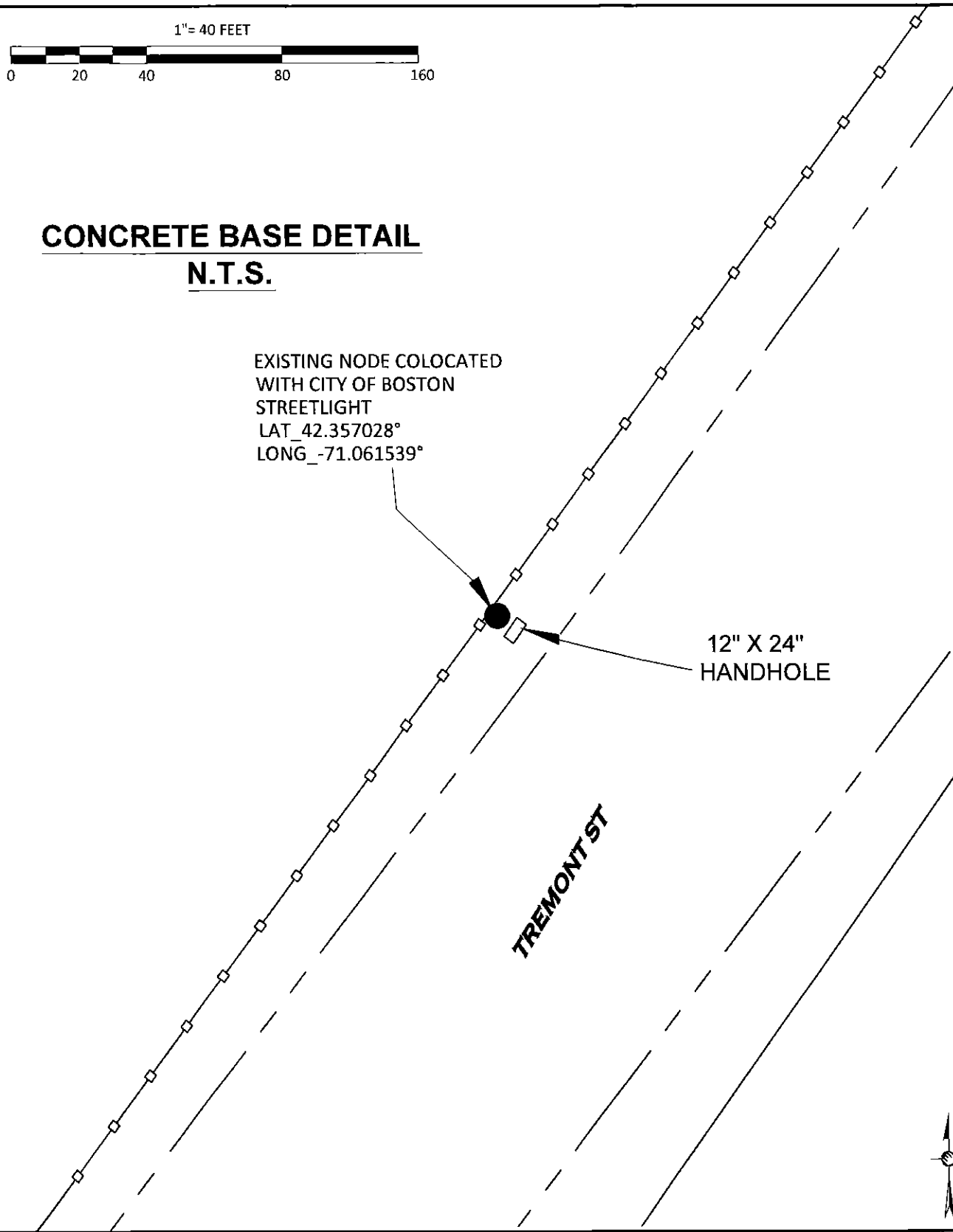
THE CONTRACTOR SHALL ARRANGE FOR THE IMMEDIATE REPAIR AND RESTORATION OF THE DAMAGED STREET LIGHTING SYSTEM AT NO COST TO THE CITY. A LICENSED ELECTRICAL CONTRACTOR IS REQUIRED TO MAKE ALL REPAIRS NECESSARY TO THE STREET LIGHTING FACILITIES.

THE CONTRACTOR SHALL EXERCISE PROPER CAUTION WHEN WORKING NEAR ELECTRICAL FACILITIES.

THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND MAKE ALL NECESSARY NOTIFICATIONS TO LOCAL PERMITTING AUTHORITIES AND UTILITIES PRIOR TO COMMENCING WORK.



CONCRETE BASE DETAIL
N.T.S.



EXISTING NODE COLOCATED
WITH CITY OF BOSTON
STREETLIGHT
LAT_42.357028°
LONG_-71.061539°

12" X 24"
HANDHOLE

TREMONT ST

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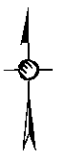
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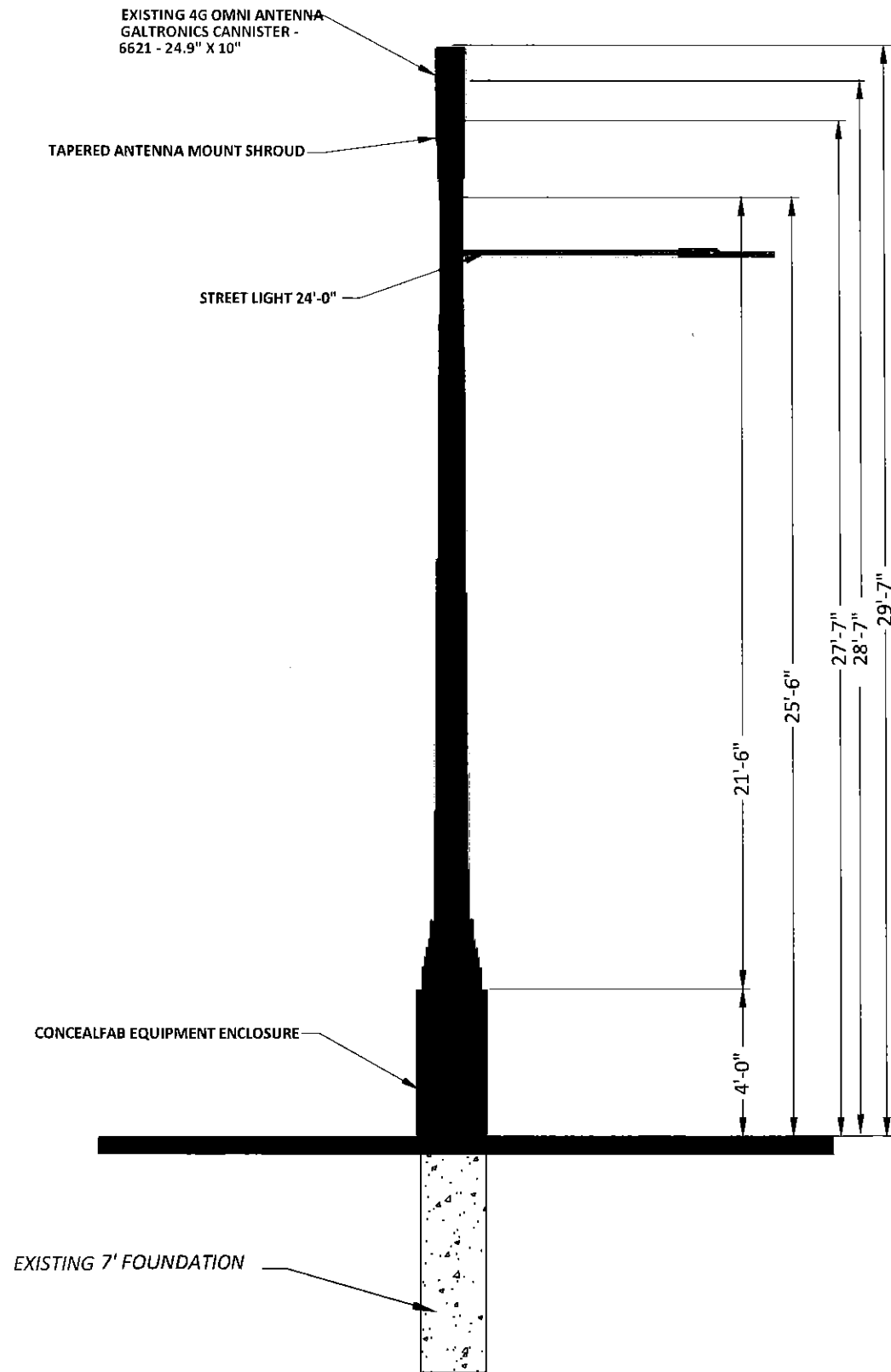
SHEET DESCRIPTION:
OVERALL SITE PLAN

SHEET NUMBER:
A-1

OVERALL SITE PLAN

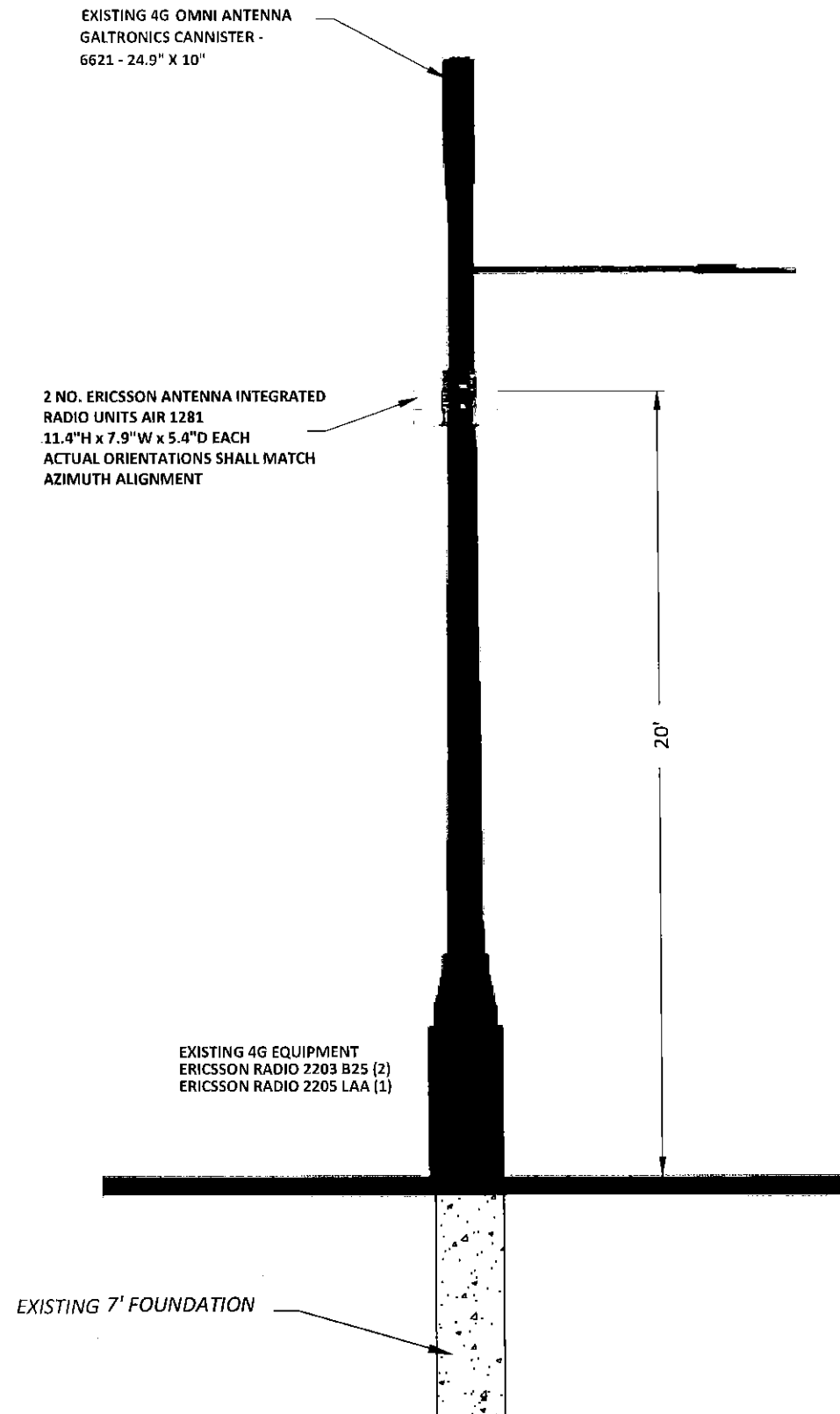


2



EXISTING STREETLIGHT POLE

AZIMUTH (DEGREES)			MECHANICAL DOWNTILT (DEGREES)		
A	B	C	A	B	C
40	211	N/A	10	15	N/A



INSTALL EQUIPMENT ON EXISTING STREETLIGHT POLE

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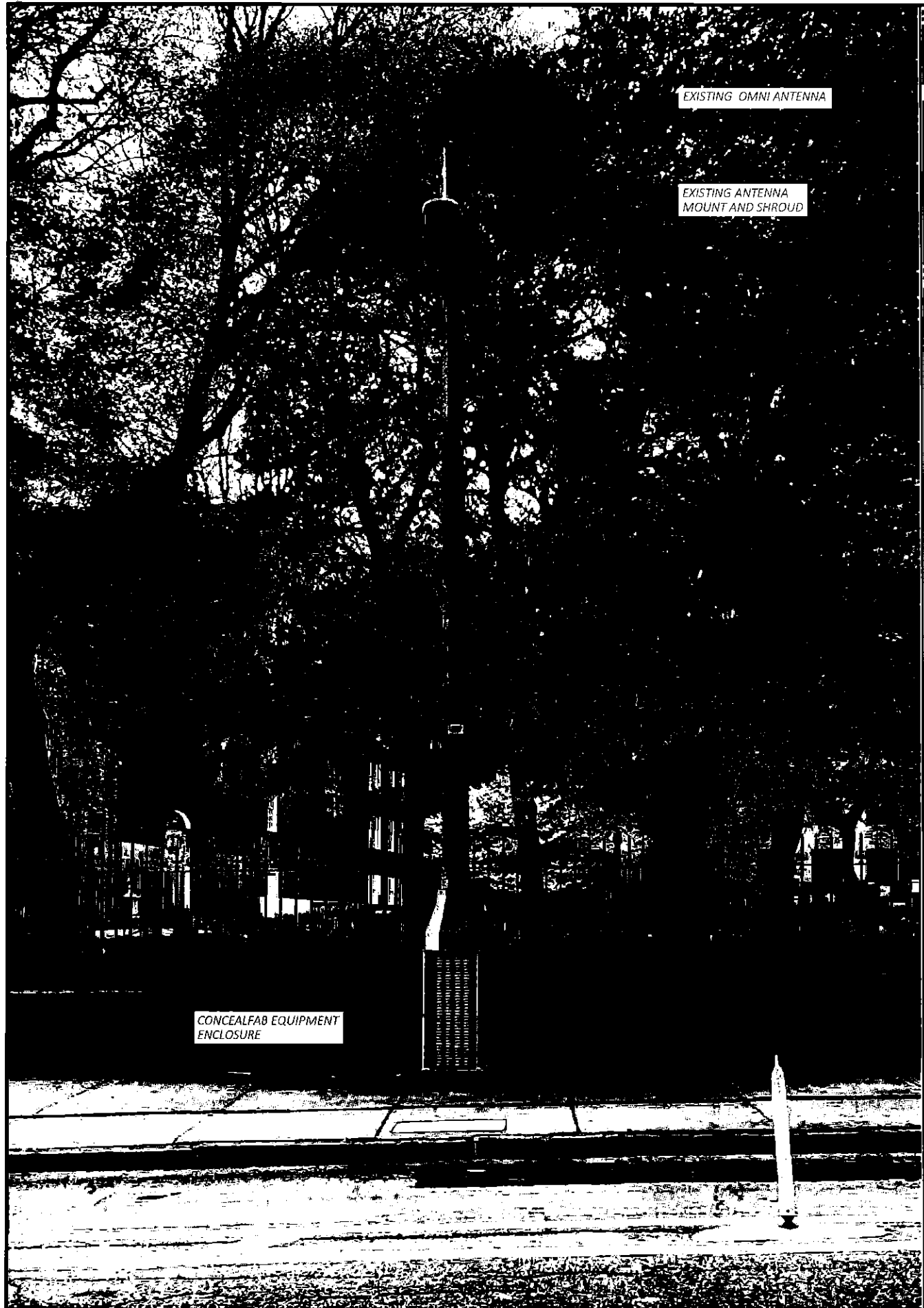
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SHEET DESCRIPTION:
 PROFILE

SHEET NUMBER:
 A-2



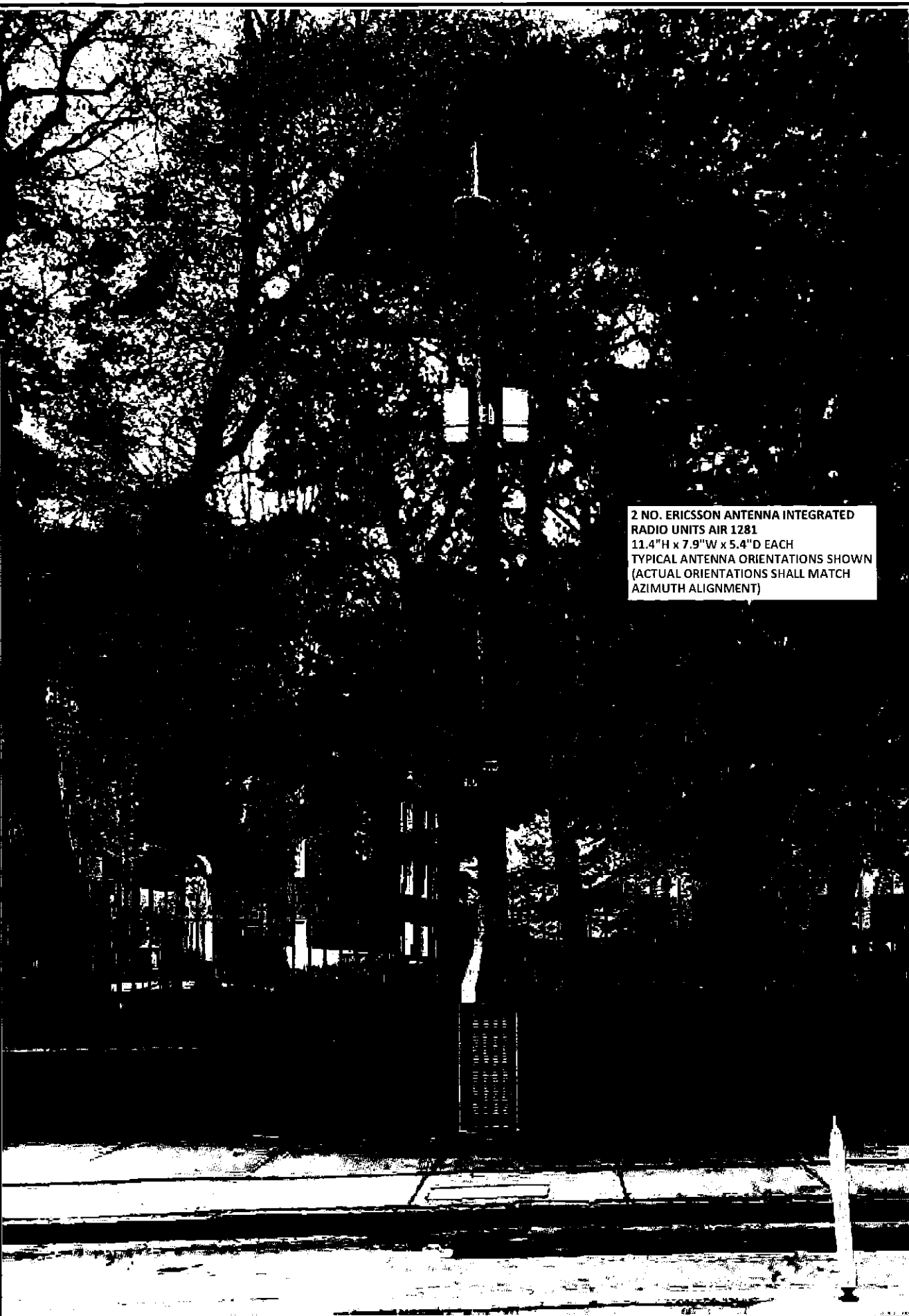
EXISTING OMNI ANTENNA

EXISTING ANTENNA MOUNT AND SHROUD

CONCEALFAB EQUIPMENT ENCLOSURE

EXISTING PHOTOGRAPHIC VIEW

1



2 NO. ERICSSON ANTENNA INTEGRATED RADIO UNITS AIR 1281
11.4"H x 7.9"W x 5.4"D EACH
TYPICAL ANTENNA ORIENTATIONS SHOWN
(ACTUAL ORIENTATIONS SHALL MATCH AZIMUTH ALIGNMENT)

PROPOSED PHOTOGRAPHIC SIMULATION

2

PLANS PREPARED FOR:



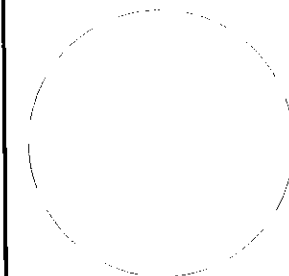
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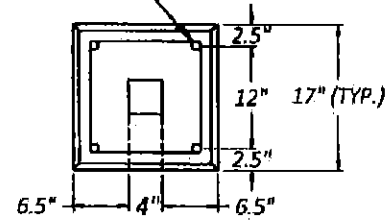
PHOTOGRAPHIC SIMULATION

SHEET NUMBER:

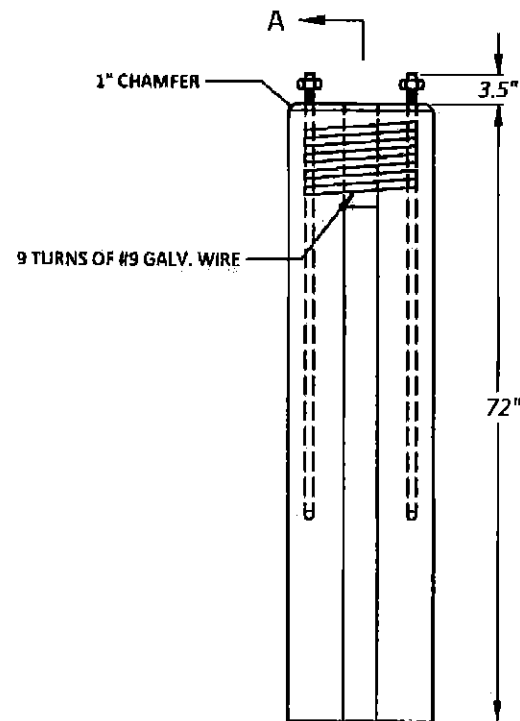
A-3

(4) 1" Ø x 48" GALV. STEEL ASTM F1554 GRADE
 55 ANCHOR BOLTS w/HEAVY HEX NUTS &
 WASHERS GALV. PER ASTM A153

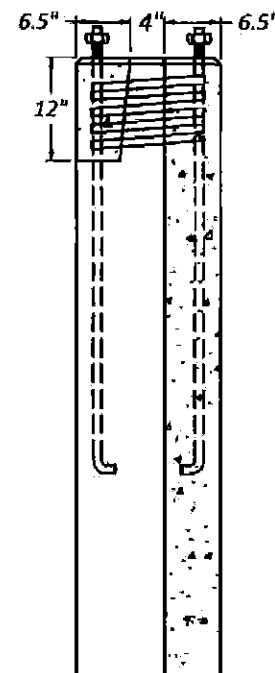
17" BOLT CIRCLE



TOP VIEW



PLAN VIEW



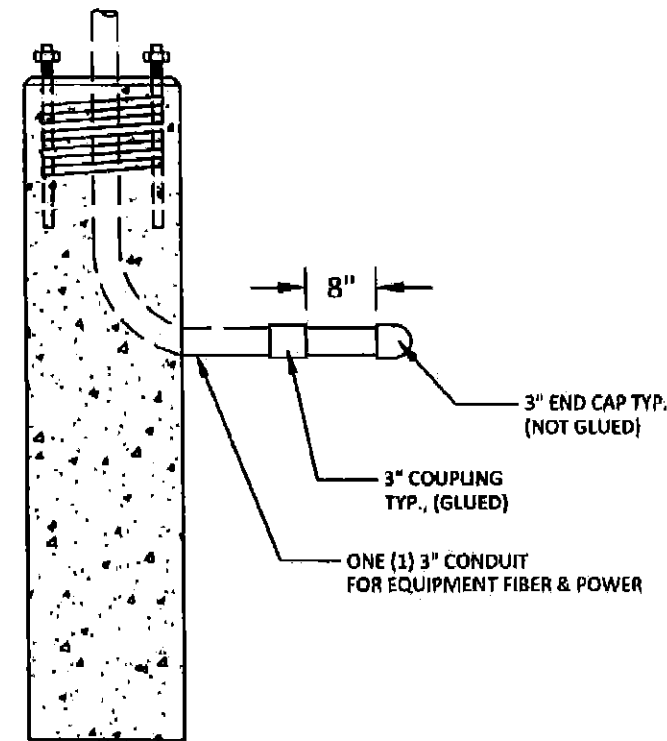
SECTION VIEW A-A

PRECAST SPECIALTIES CORP.
 17" X 72" SQUARE POLE BASE

SCALE: 1" = 2'

FOUNDATION NOTE:

PROPOSED FOUNDATION DETAILS PROVIDED BY CROWN CASTLE AND
 ENGINEERED/STAMPED BY OTHERS



CONDUIT ELEVATION DETAIL

SCALE: 1" = 2'

CONDUIT NOTES:

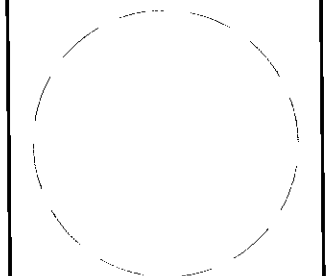
1. FIBER AND POWER CONDUIT ORIENTATION/DIRECTION SHOWN IS FOR PICTORIAL REFERENCE ONLY. PLEASE CONTACT THE CROWN CASTLE FIBER CONSTRUCTION ENGINEER (FCE) FOR ACTUAL ORIENTATION/DIRECTION PRIOR TO CONSTRUCTION.
2. POLE FOUNDATION/CONDUIT INSTALLER TO ADD A 3"-PVC COUPLING, MINIMUM 8"-LONG SECTION OF 3"-PVC PIPE, AND 3"-PVC PIPE CAP (CAP NOT TO BE GLUED/CEMENTED) OR OTHER MEANS TO EACH SWEEP ELBOW COMING OF OF THE FOUNDATION BELOW GROUND LEVEL AND TO EXTEND PAST CONCRETE FOUNDATION TO INSURE NO CONCRETE RE-ENTERS THE PIPE EXTENSION OR SWEEP ELBOW.
3. POLE FOUNDATION/CONDUIT INSTALLER TO PLACE MULE/PULL TAPE IN ALL CONDUITS.
4. ALL CONDUIT SHALL BE PLACED UP AND THROUGH CENTER/INTERIOR OF POLE (NOT EXTERIOR) UNLESS OTHERWISE SPECIFIED.

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SITE ADDRESS:
 59 BAY STATE RD, BOSTON,
 MA 02215, USA
 POLE# N/A

SHEET DESCRIPTION:
 FOUNDATION DESIGN DETAIL

SHEET NUMBER:
 A-4

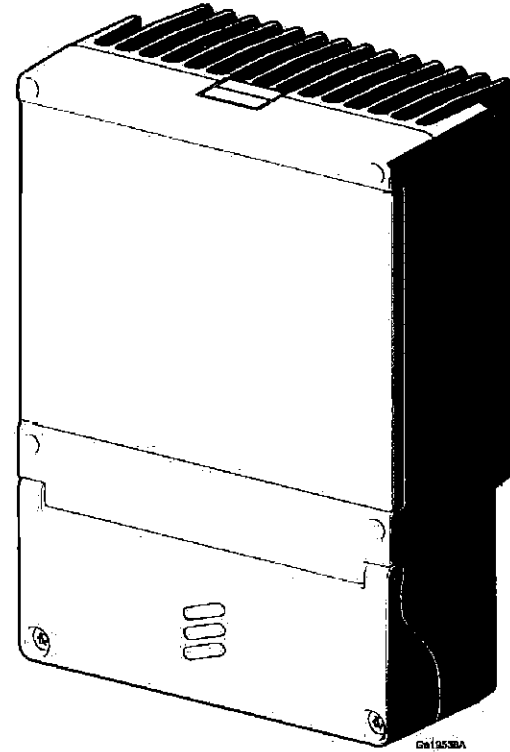
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Antenna Integrated Radio Unit Description

AIR 1281

Description



Physical Characteristics

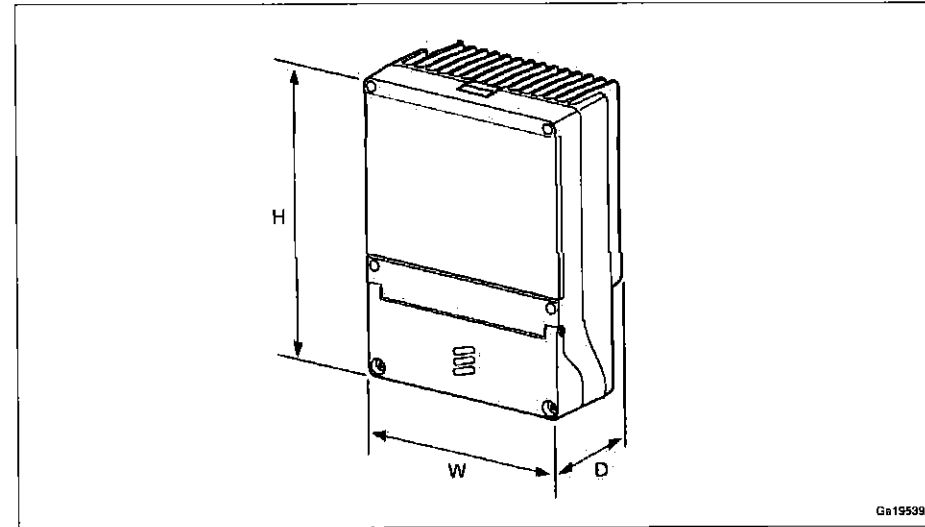


Figure 2 Dimensions

Table 3 Dimensions

AIR Unit Type	Height (H)	Width (W)	Depth (D)
AIR 1281 B257 AC version	290 mm	200 mm	136 mm

AIR Unit Weight with and without Installation Kit

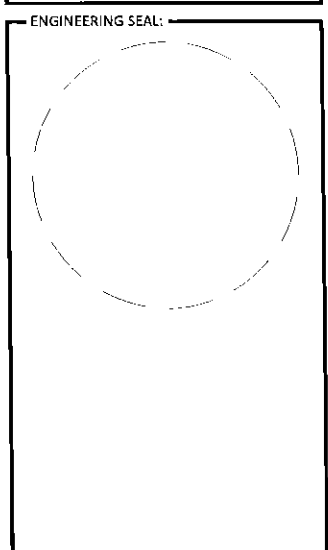
AIR Unit Type	Unit Weight	Mounting Kit Weight			
		SXK 109 2157/1	SXK 109 2157/2	SXK 109 2157/3	SXK 109 2157/4
AIR 1281 B257 AC version	7.5 kg ±5%	3.2 kg	2.3 kg	2.0 kg	0.9 kg

The whole body of the AIR Unit including the radome is gray, and the color code is NCS S 1002-B and MZY 510 25/1108.

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POLE# N/A**

SHEET DESCRIPTION:
**5G EQUIPMENT
SPECIFICATIONS - PAGE 1**

SHEET NUMBER:
A-7

Installation

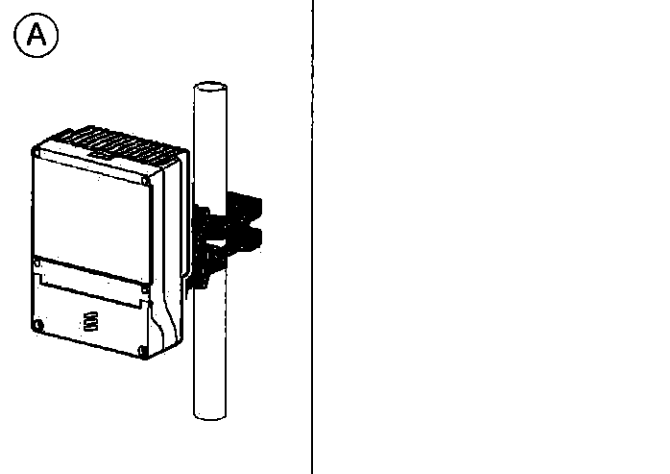


Figure 3 Installation Method Alternatives

Table 5 Key to Installation Alternatives

Installation Method	Description
A	Pole installation (pole with circular, square, or 90° angle cross section)

Table 6 Pole Mounting Range

Pole	Circular	Square	90° Angle
Minimum outer dimension	Ø35 mm	30 x 30 mm	45 x 45 mm
Maximum outer dimension	Ø114 mm	80 x 80 mm	80 x 80 mm

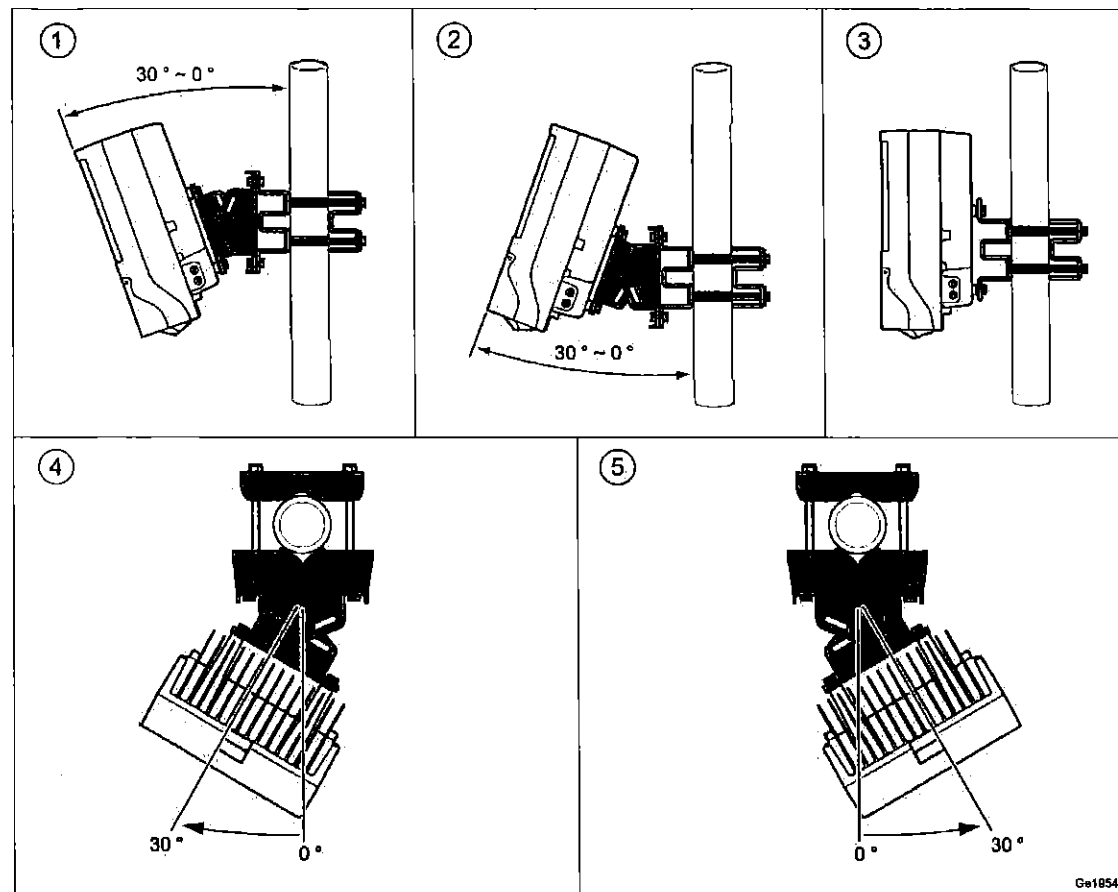


Figure 4 Tilt and Swivel Angle

AC Power Characteristics

Table 9 Radio AC Power Supply Requirements

Conditions	Values and Ranges
Nominal Voltage	100–250 V AC
Voltage Range including tolerance	85–275 V AC
Connection	Line-Neutral, Line-Line
Frequency range	45–65 Hz
Voltage harmonics	< 10% at full load ⁽¹⁾
Shut-off allowance	At undervoltage or overvoltage
Inrush current peak	< 10 A
Inrush current duration	< 100 ms
AC system	TN, TT and IT

(1) Must comply with IEC 61000-3-2

Fuse and Circuit Breaker Recommendations

The recommended fuse and circuit breaker rating is 6 A.

The recommended melting fuse type is am-gL-gG, according to IEC 60269-1. Circuit breakers must comply with at least Curve 3 tripping characteristics, according to IEC 60947-2.

When the radio connected Line-Line a 2-pole circuit breaker or dual fuses are required for interruption of both lines. This is also valid when the radio is used in an IT system.

PLANS PREPARED FOR:

CROWN CASTLE

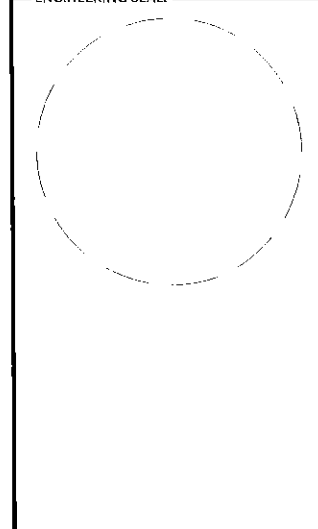
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5G EQUIPMENT
SPECIFICATIONS - PAGE 2

SHEET NUMBER:

A-8