NOTE:
SCALE NOTED APPLIES TO 11"X17" SHEET SIZE. IF PRINT SIZE IS 24"X36", THEN ACTUAL SCALE IS DOUBLE OF SCALE NOTED.
(EXAMPLE: 1/4"=1'-0" BECOMES 1/2"=1'-0" ON 22"X34" PRINTED AREA OF SHEET SIZE 24"X36").
THIS NOTE APPLIES TO ALL DRAWING SHEETS.

AT&T Mobility

SITE NUMBER: IL4407
SITE NAME: AURORA SOUTH NSB
PROJECT: NSB
FA CODE: 15815770
PTN # : 3301A13M9C
PACE ID: MRCHI067690
US ID: 319760
SITE ADDRESS: 1010 LEBANON STREET
AURORA, IL 60505

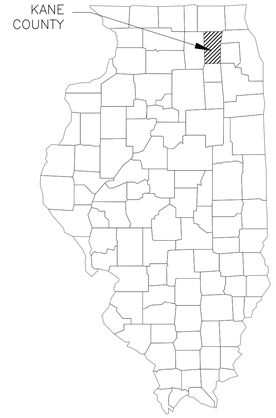
PROJECT INFORMATION

APPLICANT:	AT&T 95 W ALGONQUIN RD ARLINGTON HEIGHTS, IL 60005
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
STRUCTURE TYPE:	MONOPOLE TOWER
PIN:	15-34-105-008
PROPERTY OWNER:	FOX VALLEY PARK DISTRICT AURORA, IL 60505
CONTACT PERSON:	JEFF PALMQUIST 630-966-4512 JPALMQUIST@FVPD.NET
JURISDICTION:	CITY OF AURORA
COUNTY:	KANE COUNTY
LATITUDE:	N 41° 44' 09.54" (41.735983° N)
LONGITUDE:	W 088° 19' 04.37" (88.317881° W)
LAT/ LONG TYPE:	NAD 83
GROUND ELEVATION:	±652 FT AMSL
POWER COMPANY:	COMED
PHONE:	(800) 334-7661
TELEPHONE COMPANY:	AT&T
PHONE:	(800) 357-0902

VICINITY MAP

DIRECTIONS:

DEPART O'HARE INTERNATIONAL. MERGE ONTO I-190, AT EXIT 1D, TURN RIGHT ONTO RAMP I-294 / INDIANA, *TOLL ROAD* MERGE ONTO I-294 [TRI-STATE TOLLWAY], TURN RIGHT ONTO RAMP I-88 / E-W TOLLWAY / AURORA, TURN RIGHT ONTO RAMP SOUTH FARNSWORTH AVE, BEAR RIGHT (SOUTH) ONTO CR-77 [N FARNSWORTH AVE], TURN RIGHT (WEST) ONTO E INDIAN TRAIL , TURN LEFT (SOUTH) ONTO SR-25 [AURORA AVE], BEAR RIGHT (SOUTH) ONTO SR-25 [N BROADWAY AVE], KEEP STRAIGHT ONTO SR-25 [S BROADWAY ST] TURN LEFT (EAST) ONTO EVANS AVE, TURN RIGHT (SOUTH) ONTO LAFAYETTE ST, TURN RIGHT (WEST) ONTO LOCAL ROAD(S), ARRIVE AT IL4407



SCOPE OF WORK

NEW EQUIPMENT TO BE INSTALLED:
- INSTALL NEW 125' HIGH MONOPOLE & (3) NEW SECTOR FRAMES
- INSTALL (9) NEW ANTENNAS (TYP.3 PER SECTOR)
- INSTALL (12) NEW RRUS (TYP.4 PER SECTOR)
- INSTALL (2) NEW RAYCAP DC9-48-60-24-8C-EV SQUIDS
- INSTALL NEW EQUIPMENT SHELTER W/ GENERATOR ROOM
- INSTALL (1) DC POWER PLANT: VERTIV 5100 WITH 12R/ OC
- INSTALL (2) STRINGS OF SBS190F BATTERIES & (1) FIF RACK
- INSTALL (6) #6AWG DC POWER & (2) 24 PAIRS FIBER CABLES
- INSTALL RAYCAP DC50 PANEL TO BE PROVIDED BY AT&T, D2 SIAD, GPS ANTENNA AND 6610 SAU KIT
- INSTALL (1) 6648 + XMU Tri-Mode BBU for LTE/5G/C-Band/DoD.
- INSTALL NEW ICE BRIDGE; H-FRAME, METER & FIBER EQUIPMENT
- INSTALL NEW ALUMINUM FENCE
- INSTALL NEW LANDSCAPING & NEW PAVED ACCESS DRIVEWAY

REMOVE:
- REMOVE EXISTING LIGHT POLE IN BASEBALL FIELD.

RELOCATE:
- RELOCATE EXISTING FLOODLIGHTS TO NEW MONOPOLE TOWER.

CODE COMPLIANCE

- 2015 INTERNATIONAL BUILDING CODE
- 2014 NATIONAL ELECTRICAL CODE
- 2015 INTERNATIONAL ENERGY CONSERVATION CODE
- 2015 INTERNATIONAL FIRE CODE
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 607
- NFPA 780-2000 LIGHTNING PROTECTION CODE
- AMERICAN CONCRETE INSTITUTE (ACI) 318
- AISC MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION
- IEEE 81, IEEE 1100 & IEEE C62.41
- TELCORDIA GR-1275, GENERAL INSTALLATION REQUIREMENTS
- TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS
- ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

DRAWING INDEX

SHEET	DESCRIPTION
IL4407-T01	TITLE SHEET
IL4407-L1-L3	PLAT OF SURVEY OF LEASE PARCEL AND EASEMENTS
IL4407-C01	OVERALL SITE PLAN
IL4407-C02	ENLARGED SITE PLAN
IL4407-C03	TOWER ELEVATION & ANTENNA LAYOUT
IL4407-A01	SLAB DETAILS
IL4407-A02	SHELTER ELEVATIONS
IL4407-A03	FENCE DETAILS
IL4407-A04	CONSTRUCTION DETAILS
IL4407-A05-1	EQUIPMENT SPECIFICATIONS-1
IL4407-A05-2	EQUIPMENT SPECIFICATIONS-2
IL4407-A06	ANTENNA MATRIX
IL4407-A07	COAX COLOR CODING
IL4407-A08	FIBER-OPTIC JUMPER COLOR CODING
IL4407-A09	CONSTRUCTION NOTES
IL4407-E01	UTILITY PLAN & ELECTRICAL DETAILS
IL4407-E02	ELECTRICAL NOTES & DETAILS
IL4407-E03	UTILITY RACK DETAILS
IL4407-G01	GROUNDING PLAN & DETAILS
IL4407-G02	GROUNDING DETAILS & NOTES
IL4407-G03	FENCE GROUNDING & DETAILS
IL4407-LS01	LANDSCAPE IMPLEMENTATION PLAN

PROJECT CONSULTANTS

SITE ACQUISITION:	MASTEC NETWORK SOLUTIONS 1351 E. IRVING PARK RD, ITASCA, IL 60143 TISH R SPALDING PHONE: (615) 714-7418
ENGINEER:	APEX ENGINEERS, INC. 500 EAST 22ND STREET, SUITE B LOMBARD, IL 60148, RAJESH K. GOYAL PHONE: (630) 627-1800
RF ENGINEER:	AT&T MOBILITY SANTANU SARKAR PHONE: (847) 542-5098

CALL J.U.L.I.E. 48 HOURS BEFORE YOU DIG
JULIE
1 (800) 892-0123

DO NOT SCALE DRAWINGS

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

HANDICAPPED REQUIREMENTS

FACILITY IS UNMANNED & NOT FOR HUMAN HABITATION. HANDICAP ACCESS REQUIREMENTS NOT REQUIRED.

PLUMBING REQUIREMENTS

FACILITY HAS NO PLUMBING

FIRE PROTECTION NOTE

NONE

SPECIAL NOTES

- ALL WORK SHALL BE INSTALLED IN CONFORMANCE WITH CURRENT AT&T CONSTRUCTION INSTALLATION GUIDE.
- EXISTING CONDITIONS MUST BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION. IF THERE IS ANY SIGNIFICANT DEVIATION FROM THE DESIGN DRAWINGS, NOTIFY ENGINEER IMMEDIATELY.
- STATEMENT THAT COMPLIANCE WITH THE ENERGY CODE IS NOT REQUIRED.
- SCOPE OF WORK DOES NOT INVOLVE MODIFICATIONS TO EXTERIOR ENVELOPE OF BUILDING, HVAC SYSTEMS OR ELECTRICAL LIGHTING.

STATE OF ILLINOIS
RAJESH K. GOYAL
081-005096
CHICAGO
LICENSED STRUCTURAL ENGINEER

REFERENCE MATERIALS

THESE DRAWINGS ARE PREPARED BASED ON RFDS DATED 02/24/2022 REVISION # V1.0 GENERAL CONTRACTOR TO VERIFY AND INCORPORATE MOST RECENT VERSION OF RFDS PRIOR TO CONSTRUCTION.

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE THEY COMPLY WITH THE REQUIREMENT OF ALL APPLICABLE CODES AND ORDINANCES.

DATE: 05/12/2023

RAJESH K. GOYAL
ILLINOIS S.E. LICENSE # 081-005096
EXPIRES 11-30-2024

MasTec Network Solutions
1351 E. Irving Park Rd
Itasca, IL 60143

Apex Engineers, Inc.
Structural & Civil Engineers
500 East 22nd Street, Suite B
Lombard, Illinois 60148
Ph. (630) 627-1800
Fax. (630) 627-1165
APEX JOB No. NS22-025

AURORA SOUTH NSB
SITE NO. IL4407
1010 LEBANON STREET
AURORA, IL 60505

AT&T

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	05/12/23	FINAL CDs - ISSUED FOR CONSTRUCTION	YA	PB	RG
E	04/25/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
D	03/16/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
C	02/11/23	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG
B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

TITLE SHEET

DRAWING NUMBER	REV
IL4407-T01	0

11 x 17 "B" SIZE

6 5 4 3 2 1
D C B A

AERIAL OVERVIEW OF SITE

PROPOSED LEASE AREA LOCATION
(LOOKING WEST)

NOTE:
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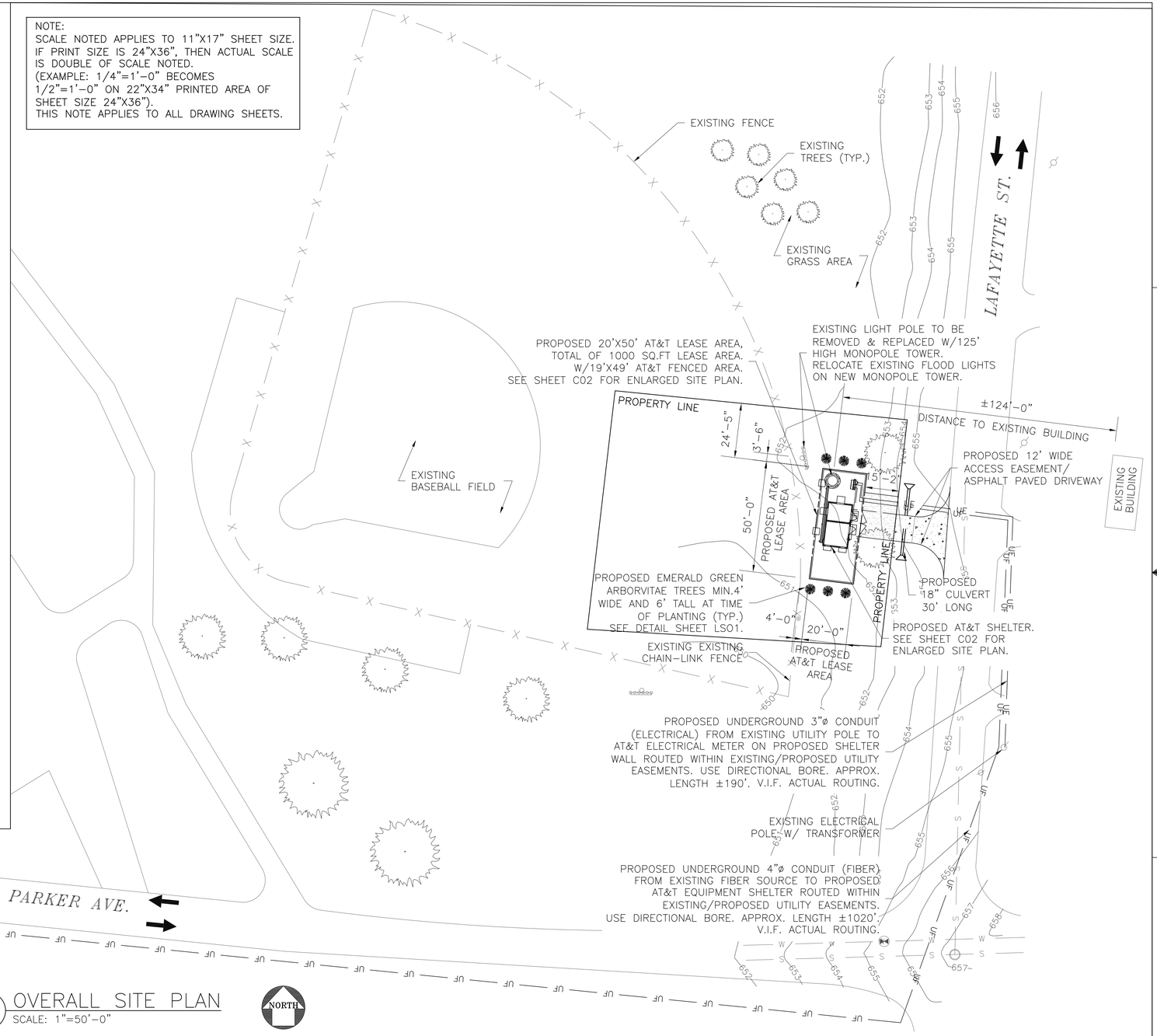
(EXAMPLE: 1/4"=1'-0" BECOMES 1/2"=1'-0" ON 22"X34" PRINTED AREA OF SHEET SIZE 24"X36").
THIS NOTE APPLIES TO ALL DRAWING SHEETS.



1 OVERALL SITE PLAN
SCALE: 1"=50'-0"

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SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

OVERALL SITE PLAN

DRAWING NUMBER	REV
IL4407- C01	0

11 x 17 "B" SIZE

NOTE:
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EXISTING FENCE TO REMAIN

EXISTING LIGHT POLE TO BE REMOVED & REPLACED W/125' HIGH MONOPOLE TOWER. RELOCATE EXISTING FLOOD LIGHTS ON NEW MONOPOLE TOWER. VERIFY WITH PARK DISTRICT/ LANDLORD FOR ACTUAL MOUNTING HEIGHT & LIGHT ORIENTATION.

PROPOSED AT&T METER

PROPOSED AT&T 4'-0" WIDE UTILITY H-FRAME

PROPOSED AT&T LEASE AREA

PROPOSED ALUMINUM SECURITY FENCE

PROPOSED AT&T SHELTER

GENERATOR ROOM

PROPOSED 11'-5"X20'-0" AT&T EQUIPMENT SHELTER

PROPOSED AT&T SHELTER

PROPOSED AT&T ICE BRIDGE

PROPOSED GPS ANTENNA

PROPOSED ACCESS GATE

PROPOSED ACCESS EASEMENT/ ASPHALT PAVED DRIVEWAY

PROPOSED UTILITY EASEMENT

PROPERTY LINE

EXISTING TREE TO REMAIN (TYP.)

PROPOSED 12' WIDE ACCESS EASEMENT/ ASPHALT PAVED DRIVEWAY

PROPOSED UNDERGROUND 3"ø CONDUIT (POWER) & PROPOSED UNDERGROUND 4"ø CONDUIT (FIBER). RUN WITHIN EXISTING/PROPOSED UTILITY EASEMENT. USE DIRECTIONAL BORE. V.I.F. ACTUAL ROUTING (BY LOCAL UTILITY COMPANIES)

PROPOSED 18" CMP CULVERT 30' LONG

EXISTING TREE TO REMAIN (TYP.)

PROPOSED ASPHALT DRIVEWAY

PROPOSED 6' HIGH POWDER COATED ALUMINUM SECURITY FENCE (TYP.) SEE DETAIL SHEET A03 FOR DETAILS.

PROPOSED ALUMINUM SECURITY FENCE

PROPOSED EMERALD GREEN ARBORVITAE TREES MIN.4' WIDE AND 6' TALL AT TIME OF PLANTING (TYP.) SEE DETAIL SHEET LS01

PROPOSED AT&T LEASE AREA

ROW LINE

1 ENLARGED SITE PLAN
SCALE: 1/8"=1'-0"

NORTH

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SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

ENLARGED SITE PLAN

DRAWING NUMBER	REV
IL4407- C02	0

11 x 17 "B" SIZE

REFER TO ANTENNA MOUNT FRAME ANALYSIS BY APEX ENGINEERS, INC. DATED 05/12/2023
TOWER STRUCTURAL ANALYSIS BY OTHERS.

NOTE:
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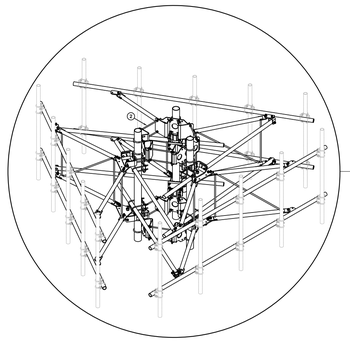
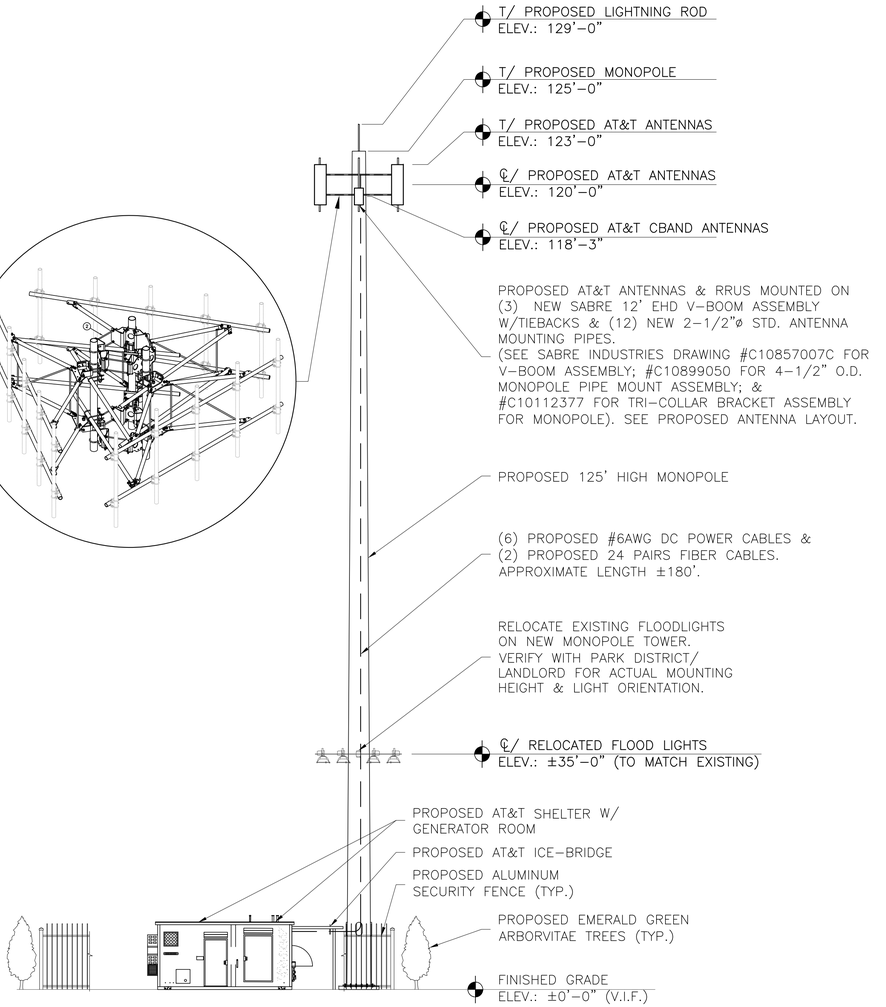
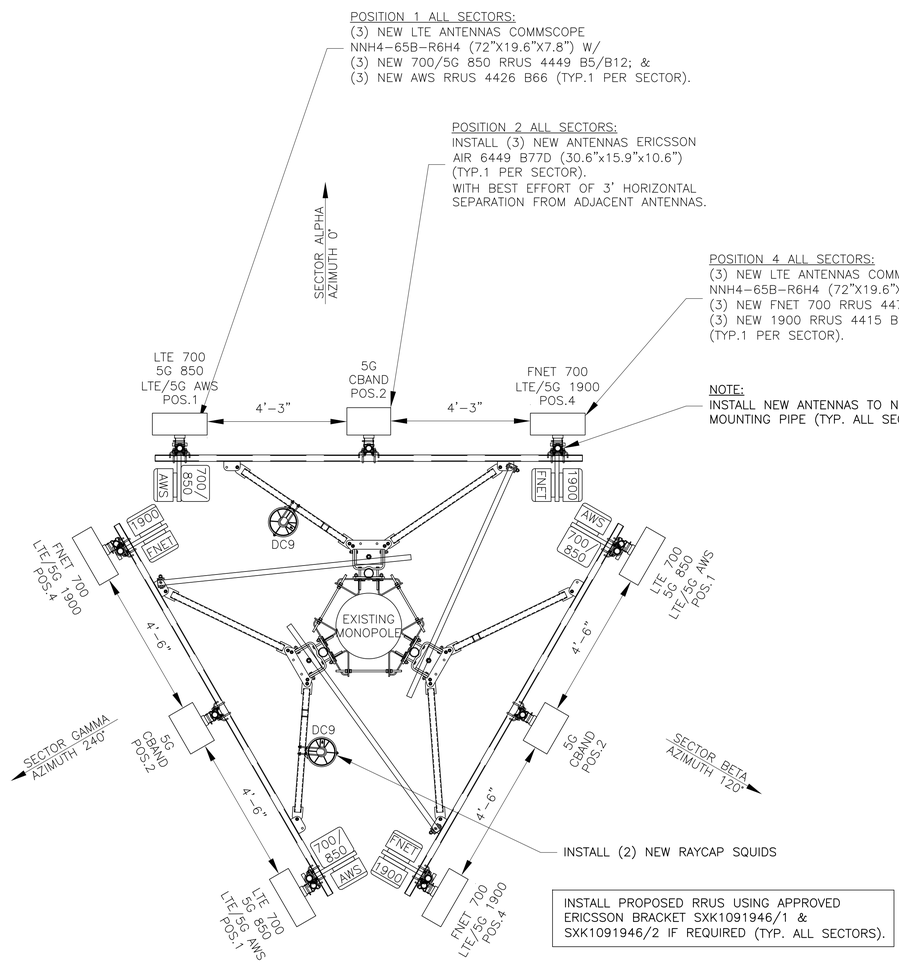
PROPOSED TOTAL OF
(2) RAYCAP DC/FIBER DISTRIBUTION UNITS DC9-48-60-24-8C-EV INTEGRATED SURGE PROTECTOR





1 TOWER ELEVATION
SCALE: 3/64"=1'-0"



2 PROPOSED ANTENNA LAYOUT
SCALE: 1/4"=1'-0"

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APEX JOB No. NS22-025

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AT&T

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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

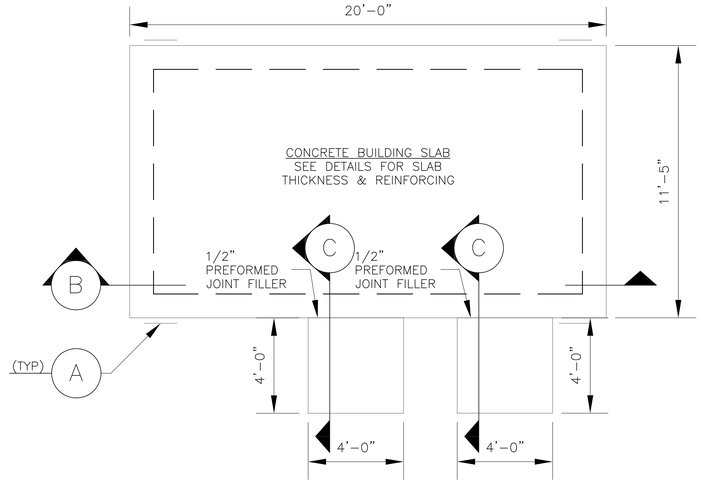
AT&T MOBILITY

TOWER ELEVATION & ANTENNA LAYOUT

DRAWING NUMBER	REV
IL4407-C03	0

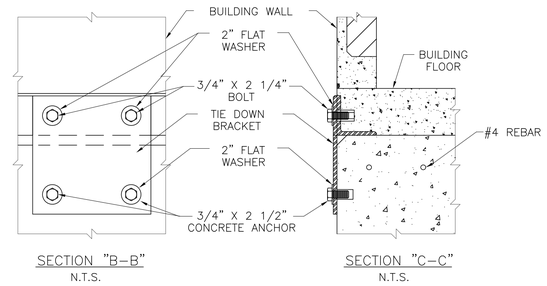
11 x 17 "B" SIZE

6 5 4 3 2 1
D C B A



1 SHELTER FOUNDATION PLAN

SCALE: N.T.S.

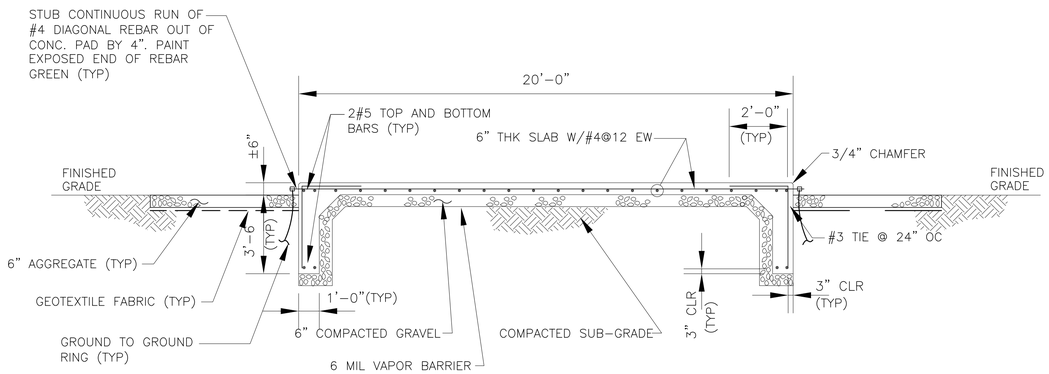


2 BLDG/FND ATTACHMENT DETAIL A

SCALE: N.T.S.

FOUNDATION GENERAL NOTES:

1. THE SITE SHALL BE STRIPPED OF ALL VEGETATION PRIOR TO FILL OR CONSTRUCTION OF THE FOUNDATION PAD.
2. ALL FILL SAND SHALL BE 0-15 P.I. WITH A COMPACTION TEST RUN ON EACH 6" LIFT - COMPACTED TO 90% MODIFIED PROCTOR.
3. ANY SOFT AREAS (TREE STUMP HOLES, ETC.) SHALL BE CUT OUT AND RECOMPACTED TO SAID PROCTOR.
4. THE CONTRACTOR SHALL KEEP THE SITE SO IT WILL HAVE POSITIVE DRAINAGE AT ALL TIMES.
5. ALL EXCAVATIONS SHALL BE FREE OF WATER BEFORE POURING CONCRETE.
6. MINIMUM SOIL BEARING CAPACITY OF 2,500 PSF IN ALL FOUNDATION AND SLAB AREAS.

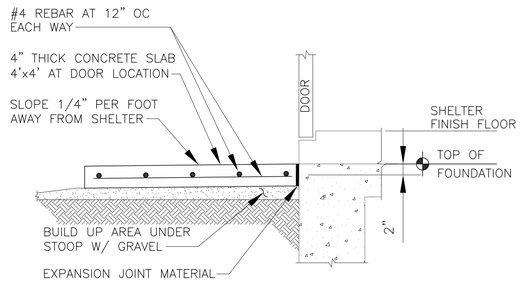


NOTES:

1. CONCRETE FINISH TO BE CLASS A TOLERANCE.
2. BOTTOM OF FOUNDATION SHALL BE 6" BELOW FROST LINE AND BEAR ON UNDESTURBED SOIL
3. TEST FOR 3000 PSI AT 7, 14, & 28 DAYS PER POUR BY INDEPENDENT LAB.
4. ALL CONCRETE TO BE SIX SACK MIX.
5. PERFORM CONCRETE SLUMP TEST (4" MAX). NO WATER TO BE ADDED TO CONCRETE MIX AFTER 4" SLUMP HAS BEEN ESTABLISHED BY INDEPENDENT LAB.

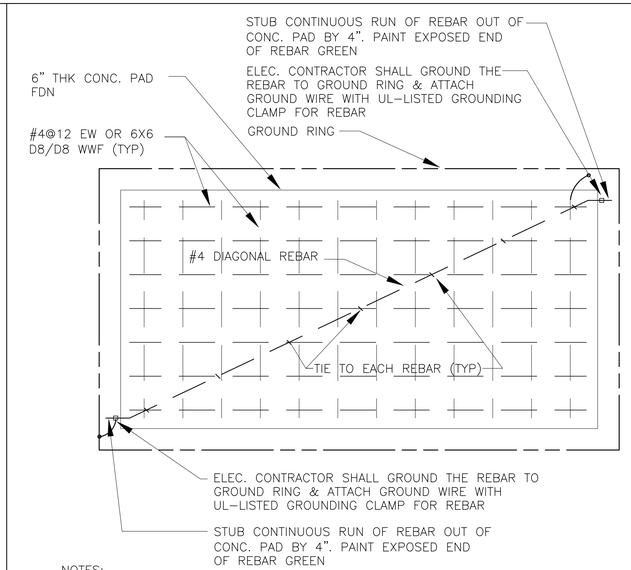
3 BLDG/FND ATTACHMENT SECTION B-B

SCALE: N.T.S.



4 STOOP DETAIL C-C

SCALE: N.T.S.



NOTES:

THE 2008 N.E.C. SECTION 250.52 REQUIRES GROUNDING TO THE REBARS IN THE SHELTER FOUNDATION. THIS IS IN ADDITION TO THE GROUND RING & GROUND ROD REQUIRED. THE CONTRACTOR INSTALLING THE REBARS IN THE FOUNDATION PAD SHALL ADD ONE MORE REBAR THAT ATTACHES DIAGONALLY TO THE OTHER REBARS AND RUN UNBROKEN AS SHOWN IN PLAN.

5 GROUNDING OF FOUNDATION PAD REBARS - PLAN VIEW

SCALE: N.T.S.

MasTec
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Itasca, IL 60143

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SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

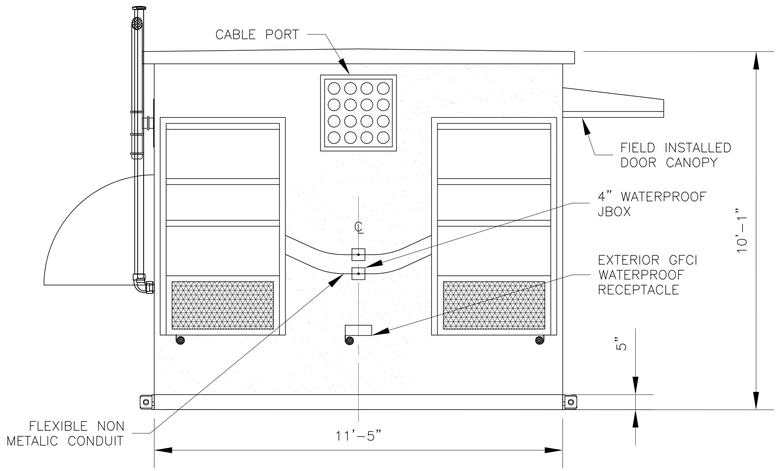
SLAB DETAILS

DRAWING NUMBER	REV
IL4407-A01	0

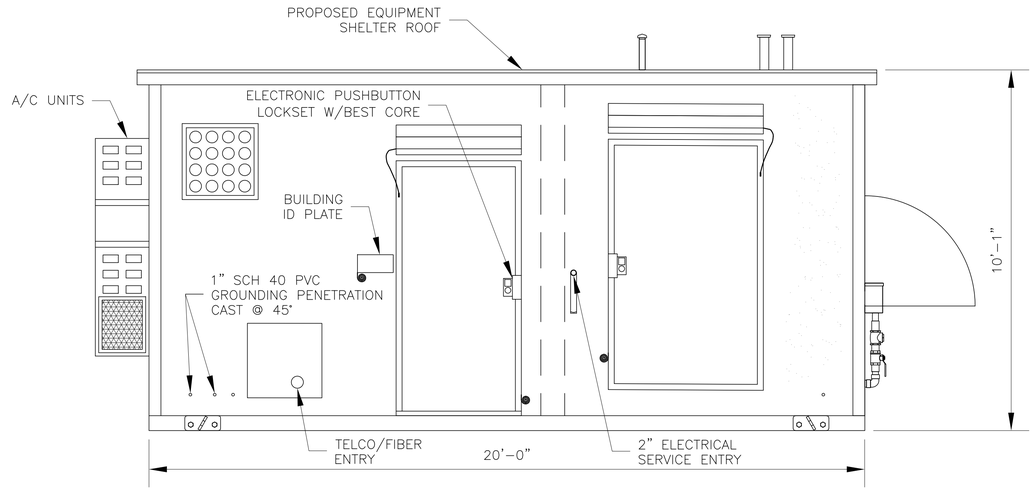
11 x 17 "B" SIZE

6 5 4 3 2 1

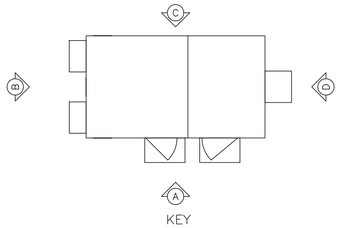
D C B A



EQUIPMENT SHELTER ELEVATION – "B"
N.T.S.



EQUIPMENT SHELTER ELEVATION – "A"
N.T.S.



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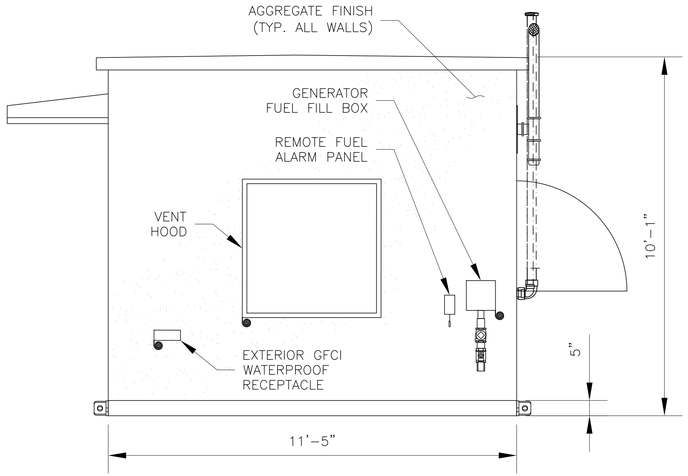
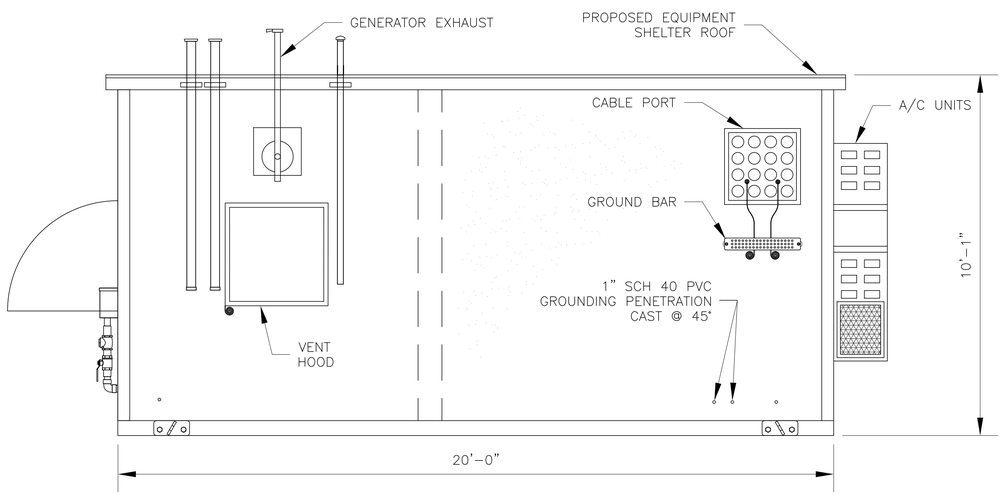


EQUIPMENT SHELTER ELEVATION – "D"
N.T.S.



EQUIPMENT SHELTER ELEVATION – "C"
N.T.S.

MasTec
Network Solutions
1351 E. Irving Park Rd
Itasca, IL 60143

Apex Engineers, Inc.
Structural & Civil Engineers
500 East 22nd Street, Suite B
Lombard, Illinois 60148
Ph. (630) 627-1800
Fax. (630) 627-1165
APEX JOB No. NS22-025

AURORA SOUTH NSB
SITE NO. IL4407
1010 LEBANON STREET
AURORA, IL 60505

AT&T

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	05/12/23	FINAL CDs – ISSUED FOR CONSTRUCTION	YA	PB	RG
E	04/25/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
D	03/16/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
C	02/11/23	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG
B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

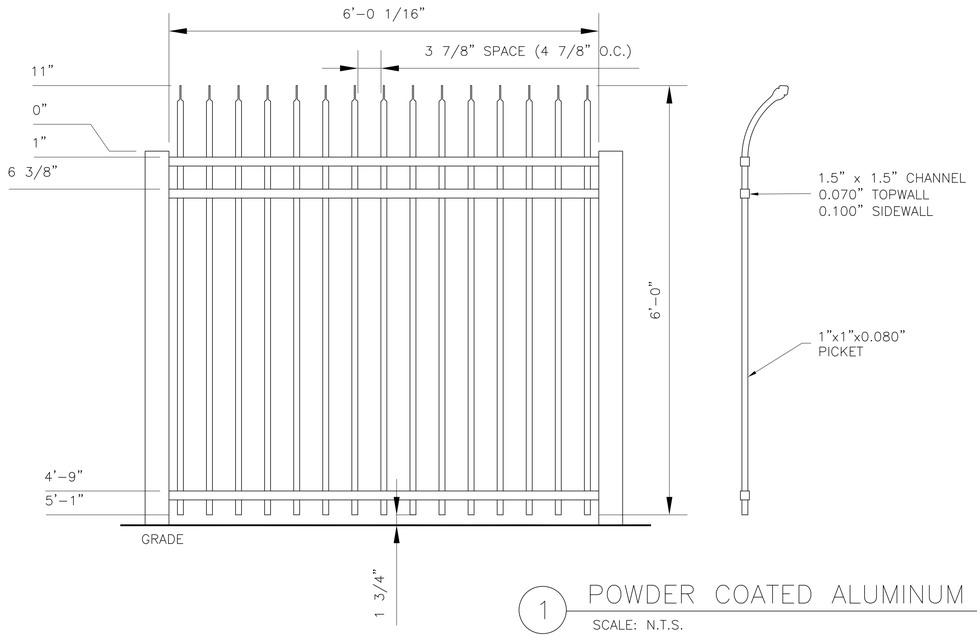
SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

SHELTER ELEVATIONS

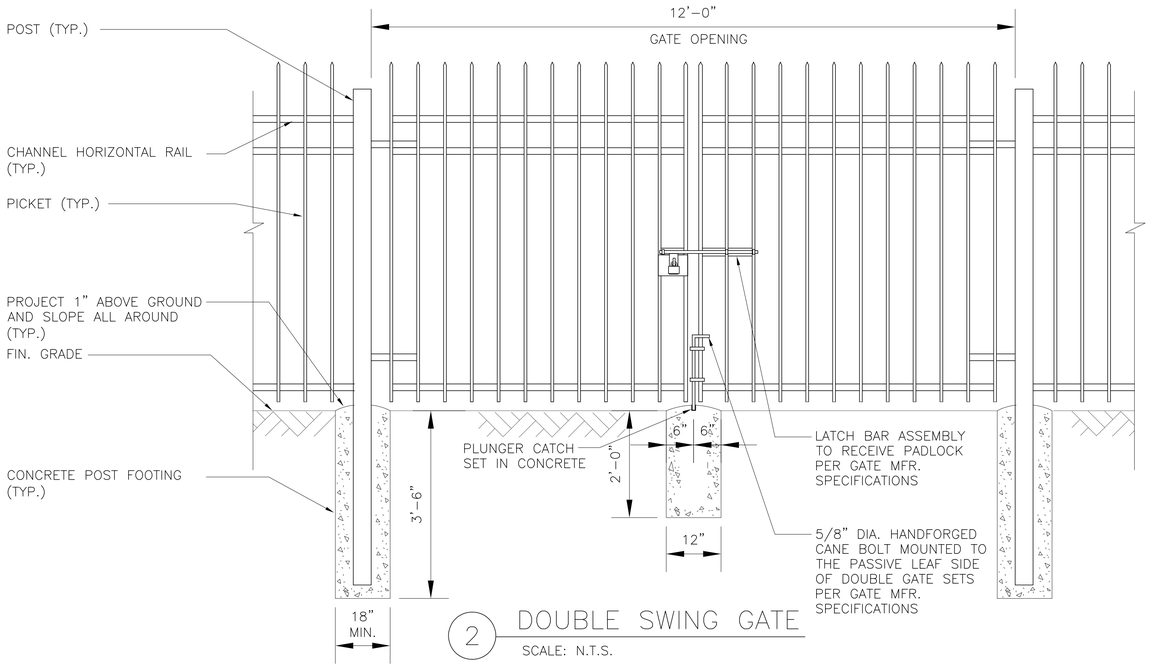
DRAWING NUMBER	REV
IL4407– A02	0

11 x 17 "B" SIZE



1 POWDER COATED ALUMINUM FENCE

SCALE: N.T.S.



2 DOUBLE SWING GATE

SCALE: N.T.S.

MANUFACTURER:
BARRETTE OUTDOOR LIVING: 2401 CORPORATE BLVD, BROOKSVILLE, FL 34604.
TOLL FREE: (877) 258-6448. PHONE: (352) 754-8555. FAX: (354) 544-8442.
EMAIL: INFO@ALUMI-GUARD.COM. WEB: WWW.ALUMI-GUARD.COM OR APPROVED EQUAL.

MATERIALS:
A. ALUMINUM, GENERAL: PROVIDE ALLOYS AND TEMPERS WITH NOT LESS THAN THE STRENGTH AND DURABILITY PROPERTIES OF ALLOY AND TEMPER DESIGNATED IN PARAGRAPHS BELOW FOR EACH ALUMINUM FORM REQUIRED.
1. EXTRUSIONS: ASTM B 221.
- POSTS AND CHANNELS: ALLOY 6005-T5.
- PICKETS: ALLOY 6063-T52.
- PLATE AND SHEET: ASTM B 209, ALLOY 6061-T6.
- CASTINGS: ASTM B 26, ALLOY ADC12.

B. FASTENERS: SCREWS OF ASTM A 276, 410 STAINLESS STEEL WITH HEADS PAINTED TO MATCH FENCING COLOR
C. ACCESSORIES: AS REQUIRED BY CONDITIONS, POST CAPS, WALL BRACKETS, SCROLLS, FINIALS, AND OTHER MISCELLANEOUS HARDWARE FABRICATED OF ALUMINUM.
D. CONCRETE: TYPES SPECIFIED IN DIVISION 03 SECTION "CAST-IN-PLACE CONCRETE."
E. CONCRETE: ASTM C 94, OPTION A; MINIMUM 3,000 PSI STRENGTH AT 28 DAYS.

ORNAMENTAL FENCING:
A. SECURITY GRADE FENCING:
1. ALUMINUM CHANNEL SECTIONS: 1.5 INCH TALL BY 1.5 INCH WIDE; WITH TOP THICKNESS 0.070 INCH AND .100 INCH SIDE WALL THICKNESS; ACCORDING TO ASTM F 2957.
2. PICKETS: 1 INCH SQUARE CLASS ACCORDING TO ASTM F 2957.

B. STYLE: PICKET TOP – CURVED TO DETOUR CLIMBING
C. GRADE: SECURITY.
D. CHANNELS: [3][4].
E. PICKET SPACING: STANDARD – 3.875 INCHES.
F. PANEL LENGTH INSIDE POSTS: NOMINAL 72.125 INCHES OR NOMINAL 96.5 INCHES.
G. POSTS:
1. 3 INCHES SQUARE WITH 0.125 INCH WALL THICKNESS.
2. 4 INCHES SQUARE WITH [0.125][0.250] INCH WALL THICKNESS.
3. 6 INCHES SQUARE WITH [0.125][0.250] INCH WALL THICKNESS.

H. FENCE PANEL HEIGHT:
1. [72] INCHES. [3CH][4CH]
2. [84][96] INCHES. [4CH] (ONLY)

I. OPTIONS: [STANDARD BOTTOM] [FLUSH BOTTOM]
J. ORNAMENTAL GATES: PROVIDE TO MATCH ORNAMENTAL STYLE SPECIFIED.
1. CONSTRUCTION: WELDED U-FRAME GATES.
2. HEIGHT: [72][84][96][108] <INSERT DIMENSION> INCHES.
3. OPENING WIDTH:
- SINGLE GATE AT [36][42][48][60][72] <INSERT DIMENSION> INCHES WIDE.
- TWO WALK GATES WITH STANDARD HARDWARE IN A [72][96][120][144] INCH WIDE OPENING.
- TWO WALK GATES WITH STANDARD HARDWARE IN A <INSERT DIMENSION> INCH WIDE OPENING.
- SINGLE GATE AT [36][42][48][60][72] <INSERT DIMENSION> INCHES WIDE.
- TWO WALK GATES WITH STANDARD HARDWARE IN A [72][96][120][144] INCH WIDE OPENING.
- TWO WALK GATES WITH STANDARD HARDWARE IN A <INSERT DIMENSION> INCH WIDE OPENING.
- RETAIN ANY OF THE FOLLOWING SUBSUBPARAGRAPHS AS REQUIRED BY PROJECT.
- SELF-CLOSING HINGES.
- GRAVITY LATCH.
- LEVER LATCH – SINGLE SIDED OR DOUBLE SIDED.
- DROP-ROD FOR ONE LEAF OF DOUBLE GATES.
- LOCKING DROP-ROD FOR ONE LEAF OF DOUBLE GATES.
- SINGLE HOLE LOCK BOX.
- DOUBLE HOLE LOCK BOX.

FABRICATION:
A. PUNCH CHANNELS (HORIZONTAL RAILS) TO ALLOW PICKETS TO PASS THROUGH THE TOP OF THE RAIL. THE NUMBER OF CHANNELS VARY WITH THE STYLE, HEIGHT, AND STRENGTH AS DETERMINED BY MANUFACTURER.
B. FASTEN PICKETS TO CHANNELS WITH SPECIFIED SCREWS ON ONE SIDE OF THE CHANNEL ONLY.
C. ROUTED POSTS TO ALLOW THE CHANNELS TO SLIDE IN AND BE ATTACHED WITH SPECIFIED SCREWS. AFFIX POST CAPS TO TOP OF POSTS.
D. FABRICATE GATES USING SAME COMPONENTS AS FOR FENCING. WALK THROUGH GATES SHALL HAVE ADJUSTABLE SELF-CLOSING HINGES AND SHALL BE SELF-LATCHING.

FINISH:
A. SUPERDURABLE POLYESTER POWDER COATING: HIGH PERFORMANCE POLYESTER, MEDIUM GLASS, APPLIED TO OVER 2.0 MIL THICKNESS COMPLYING WITH AAMA 2604 WITH THE FOLLOWING PERFORMANCE CHARACTERISTICS:
1. MEET OR EXCEED 3,000 HOUR SALT SPRAY TEST ACCORDING TO ASTM B 117.
2. MEET OR EXCEED A H-2H PENCIL HARDNESS ACCORDING TO ASTM D 3363.
3. MEET OR EXCEED A 5B RATING ON THE ASTM D 3359 ADHESION TEST.

PREPARATION:
A. PREPARE THE GRADE AND REMOVE SURFACE IRREGULARITIES, IF ANY, WHICH MAY CAUSE INTERFERENCE WITH INSTALLATION OF DECORATIVE METAL FENCES.

INSTALATION:
A. INSTALL DECORATIVE METAL FENCES ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
B. EXCAVATE HOLES FOR POSTS TO DIAMETER AND SPACING INDICATED WITHOUT DISTURBING UNDERLYING MATERIALS.
C. CENTER AND ALIGN POSTS IN EXCAVATED HOLES TO REQUIRED DEPTH. PLACE CONCRETE AROUND POSTS AND VIBRATE OR TAMP FOR CONSOLIDATION. RECHECK VERTICAL AND TOP ALIGNMENT OF POSTS, VERIFY THEY ARE PLUMB AND LEVEL. MAKE NECESSARY CORRECTIONS IF NEEDED BEFORE CONCRETE HARDENS.
D. FOR SURFACE MOUNTED ON HARD SURFACES, SET POSTS AND FASTEN TO SURFACE USING CORROSION RESISTANT ANCHORS. AVOID MOUNTING OVER EXPANSION OR CONTROL JOINTS.
E. INSERT NOTCHED CHANNELS INTO PRE-PUNCHED HOLES ON POSTS AND FASTEN WITH SPECIFIED SCREWS.
F. SUPPORT GATES FROM GATE POSTS. AVOID ATTACHING HINGED SIDE OF GATE TO BUILDING WALL.
G. INSTALL GATES PLUMB, LEVEL AND SECURE FOR FULL OPENING WITHOUT INTERFERENCE. FOR DOUBLE GATES, INSTALL DROP ROD. ADJUST HARDWARE FOR SMOOTH OPERATION.

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SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

FENCE DETAILS

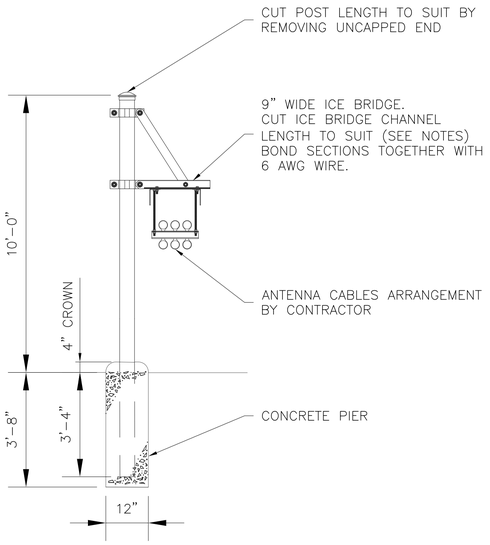
DRAWING NUMBER	REV
IL4407-A03	0

11 x 17 "B" SIZE

6 5 4 3 2 1

D C B A

* INSTALL DRIP LOOP ON ANTENNA CABLES AT BOTTOM OF TOWER/MONOPOLE. BENDING RADIUS PER MANUFACTURER'S STANDARDS

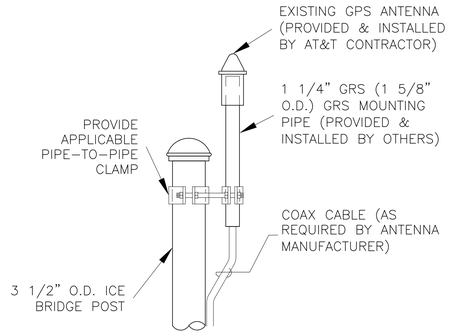


PIROD 852163
9" WIDE X 10' LONG
SUPPORTING ICE BRIDGE KIT

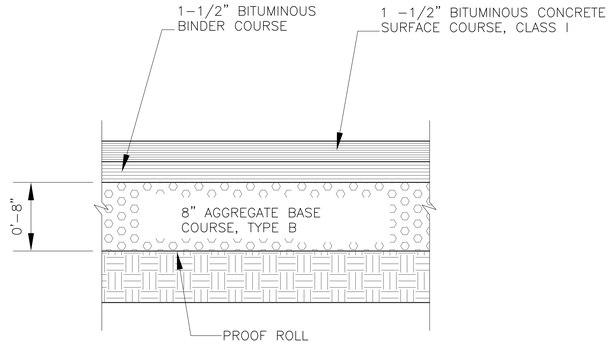
NOTES:

1. WHEN USING COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 9 FEET FOR 10 FEET BRIDGE CHANNEL.
2. WHEN USING COMPONENTS FOR SPLICING BRIDGE CHANNEL SECTIONS, THE SPLICE SHOULD BE PROVIDED AT THE SUPPORT, IF POSSIBLE, OR AT A MAXIMUM OF 2 FEET FROM THE SUPPORT.
3. WHEN USING COMPONENTS, SUPPORT SHOULD BE PROVIDED AS CLOSE AS POSSIBLE TO THE ENDS OF ICE BRIDGES, WITH A MAXIMUM CANTILIVER DISTANCE OF 2 FEET FROM THE SUPPORT TO THE FREE END OF THE ICE BRIDGE.
4. CUT BRIDGE CHANNEL SECTIONS SHALL HAVE RAW EDGES TREATED WITH A MATERIAL TO RESTORE THESE EDGES TO THE ORIGINAL CHANNEL, OR EQUIVALENT, FINISH.
5. ICE BRIDGES MAY BE CONSTRUCTED WITH COMPONENTS FROM OTHER MANUFACTURERS, PROVIDED THE MANUFACTURER'S INSTALLATION GUIDELINES ARE FOLLOWED.
6. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH THE RESPECTIVE MANUFACTURER'S APPROVAL.
7. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS REQUIRE ENGINEERING APPROVAL.

1 ICE BRIDGE PIROD 852163
SCALE: N.T.S.



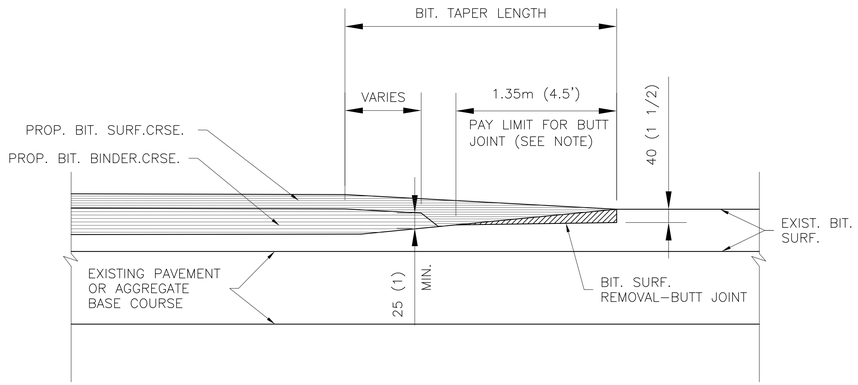
2 GPS ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



3 ASPHALT PAVEMENT DETAIL
SCALE: N.T.S.

NOTE:

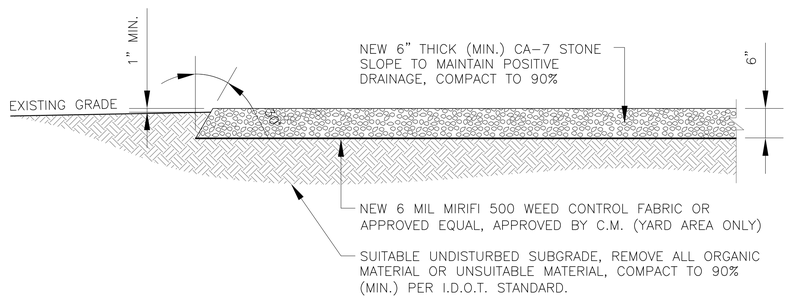
THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED BITUMINOUS COURSES.



4 BUTT JOINT & BITUMINOUS TAPER
SCALE: N.T.S.

NOTE:

WEED CONTROL FABRIC SHALL BE USED UNDER ALL AREAS OF THE YARD, AS NOTED ON SITE PLAN.



5 YARD PAVEMENT DETAIL
SCALE: N.T.S.

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SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

CONSTRUCTION DETAILS

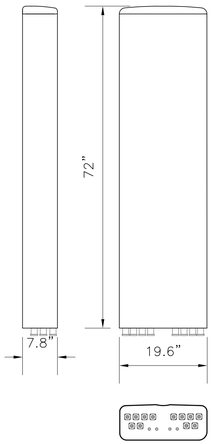
DRAWING NUMBER	REV
IL4407- A04	0

11 x 17 "B" SIZE

6 5 4 3 2 1

COMMSCOPE ANTENNAS NNH4-65B-R6H4

DIMENSIONS, HXWXD:	72"X19.6"X7.8"
SURVIVAL WIND SPEED:	>93 MPH
WEIGHT, WITHOUT MOUNTING: (37.8 kg)	83.3 LBS.
CONNECTOR: FEMALE	8-PIN DIN
MALE	8-PIN DIN
CONNECTOR POSITION:	BOTTOM
MOUNTING POLE: INCHES	2.4-4.5



1 COMMSCOPE - NNH4-65B-R6H4

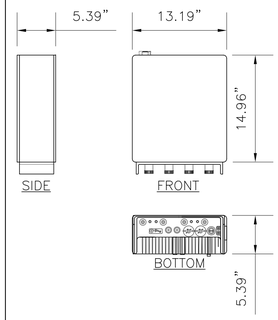
ERICSSON AIR 6449 B77D

ADVANCED ANTENNA SYSTEM (AAS)

- 64TX/64RX WITH 192 AE
- UP TO 320W
- EIRP (BORESIGHT): 81 dBm (DUAL-POLARIZATION)
- EIRP (ANGULAR AVERAGE): 79 dBm (DUAL-POLARIZATION)
- UP TO 200 MHz IBW & TCBW
- NR ONLY
- 4 X 25 Gbps eCPRI (FROM DAY 1)
- WEIGHT: 38 KG (83.8 POUNDS)
- SIZE (HxWxD): 778x403x268 MM (EXCLUDING BRACKETS)
- SIZE (HXWXD): 30.6x15.9x10.6 INCHES (EXCLUDING BRACKETS)
- -48 VDC (3-wire OR 2-wire)
- -40°C to +55°C
- SUPPORTED NUMBER OF LAYERS: DL/UL 16/8

2 AIR 6449 B77D ANTENNA

SCALE: N.T.S.

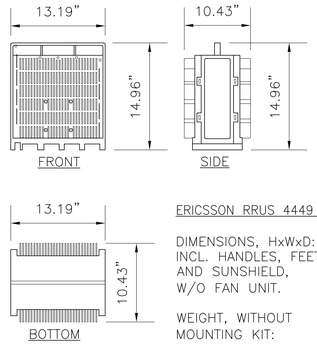


ERICCSON RRUS 4415

DIMENSIONS, HxWxD:	14.96"X13.19"x5.39"
WEIGHT, WITHOUT MOUNTING KIT:	46 lbs (21 kg)

STACKING OF RRH'S IS NOT PERMITTED.
NO PAINTING OF RRU'S IS ALLOWED.

3 ERICCSON RRUS 4415

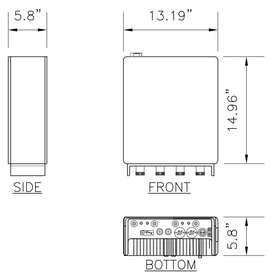


ERICSSON RRUS 4449 B5/B12

DIMENSIONS, HxWxD: 14.96"x13.19"x10.43"
INCL. HANDLES, FEET AND SUNSHIELD, W/O FAN UNIT.

WEIGHT, WITHOUT MOUNTING KIT: 73 lbs (33 kg)

4 ERICSSON RRUS 4449 B5/B12

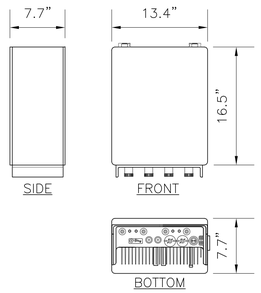


ERICCSON RRUS 4426 B66

DIMENSIONS, HxWxD:	14.96"X13.19"x5.8"
WEIGHT, WITHOUT MOUNTING KIT:	22 kg (48.4 lbs)

STACKING OF RRH'S IS NOT PERMITTED.
NO PAINTING OF RRU'S IS ALLOWED.

5 ERICCSON RRUS 4426 B66

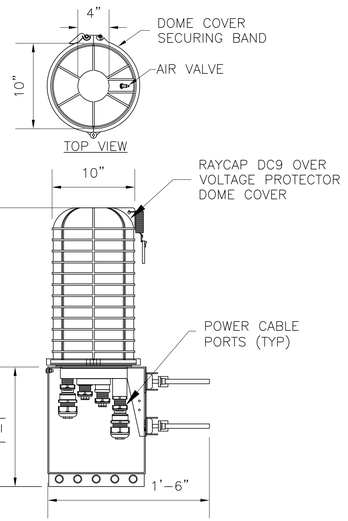


ERICCSON RRUS 4478

DIMENSIONS, HxWxD:	16.5"X13.4"x7.7"
WEIGHT, WITHOUT MOUNTING KIT:	59.9 lbs (27.2 kg)

STACKING OF RRH'S IS NOT PERMITTED.
NO PAINTING OF RRU'S IS ALLOWED.

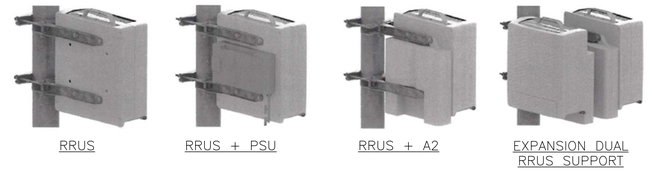
6 ERICCSON RRUS 4478



RAYCAP
DC9-48-60-24-8C-EV

SCALE: N.T.S.

7



CLAMP MOUNTING RANGE	TUBES	SQUARE PROFILES	90° ANGLE
MINIMUM	ø25 mm (1,0 in)	35 x 35 mm (1,4 x 1,4 in)	35 x 35 mm (1,4 x 1,4 in)
MAXIMUM	ø114 mm (4,5 in)	80 x 80 mm (3,2 x 3,2 in)	80 x 80 mm (3,2 x 3,2 in)

HOT DIP GALVANIZED STEEL BRACKET

- MATERIAL: S355MC FZV, FASTENERS 8.8 FZV OR EQUIVALENT
- MINIMUM 70 UM ZINC COATING, DESIGNED FOR >20 YEARS CORROSION-FREE
- DESIGNED TO 67 M/S WIND SPEED REQUIREMENT (150 MPH)

SUPPORTS RRUW/RRUS01, RRUS11/12, RRUS32 WITH RRUSA2 OR PSU

- SXK1091946/1 FOR FIRST RRUS & SXK109146/2 TO ADD SECOND RRUS

8 RRUS BRACKET SXK1091946/1 & SXK1091946/2 SPECIFICATION

SCALE: N.T.S.

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AT&T MOBILITY

EQUIPMENT SPECIFICATIONS-1

DRAWING NUMBER	REV
IL4407-A05-1	0

11 x 17 "B" SIZE

6 5 4 3 2 1

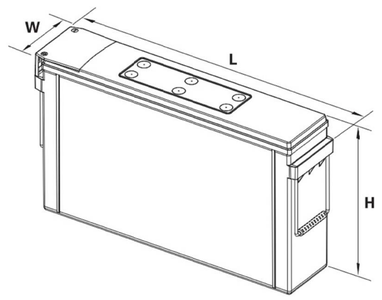
D C B A

NETSURE™ 5100 SYSTEM,
EXTERNAL DISTRIBUTION
18 KW, 19" RACK (582137100)

Technical Specifications

Input	Integrated	Single Row	Two Row
Nominal	Rectifier: 120 VAC, 208 VAC, 240 VAC	Rectifier: 120 VAC, 208 VAC, 240 VAC Solar Converter: 140 VDC to 400 VDC	
Operational	Rectifier: (Single Phase) 85 VAC to 300 VAC	Rectifier: (Single Phase) 85 VAC to 300 VAC Solar Converter: 120 VDC to 420 VDC	
Frequency	45 Hz to 65 Hz	45 Hz to 65 Hz, DC (solar input)	
Input Connections	Molex	Molex, terminal strip or breaker (solar)	
Output			
Nominal	-48 VDC	-48 VDC / +24 VDC	
Adjustable Range	-42 VDC to -58 VDC	-42 VDC to -58 VDC, +24 VDC to +28 VDC	
Capacity (at 40 °C)	1 shelf: 150 A @ 208-240 VAC; 2 shelves: 150 A (N+1) @ 208-240 VAC or @ 120 VAC	400 amps at -48 VDC; 600 amps at -48 VDC with List 27	600 amps at -48 VDC, 400 amps at +24 VDC
Breakers	1A to 150 A E/M or E breakers	1A to 300 A E/M or E breakers	
Fuses	18/100 A to 15 A GMT	3 A to 100 A TPS/TLS and 18/100 A to 15 A GMT	
Physical Characteristics			
Mounting	Standard 19" rack mounting	Standard 19" and 23" rack mounting	
Distribution Shelf / Cabinet Dimensions (H x W x D)	1U x 19" x 15" shelf	4U x (19" or 23") x 15" cabinet (19" depth with AC/solar termination panel)	8U x (19" or 23") x 15" cabinet
Module Shelf Dimensions (H x W x D)	1U x 19" x 15"	1U x (19" or 23") x 15"	1U x (19" or 23") x 15"
System Dimensions (H x W x D)	(3.5" up to 5.25") x 19" x 15"	(8.75" to 7.5") x (19" or 23") x 23.14" (with batteries)	
AC Accessibility	Rear/front	Rear	Rear
DC Load Accessibility	Front	Top or rear cabled with front and top access	

1 VERTIV NETSURE™ 5100 SYSTEM SPECIFICATION
SCALE: N.T.S.

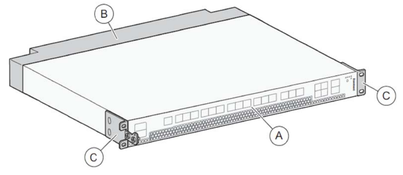


POWERSAFE SBS 190F SPECIFICATIONS
6 CELL, 12 VOLT,
M6 M FRONT TERMINAL 190 AH

DIMENSIONS:
- Length: 22.1 in, 561 mm
- Width: 4.90 in, 125 mm
- Height: 12.4 in, 316 mm
- Weight: 132 lbs, 60.0 kg

NOMINAL CAPACITY:
- 8hr rate 1.75Vpc @ 77°F: 190
- 10hr rate 1.80Vpc @ 20°C: 190

2 POWERSAFE SBS190F BATTERY SPECIFICATIONS
SCALE: N.T.S.



ERICSSON – BASEBAND UNIT 6648
A – 19–INCH BASEBAND UNIT
B – FAN MODULE
C – MOVABLE BRACKETS
DIMENSIONS (HxDxW): 1.8"x15.4"x19"
WEIGHT (UNIT ONLY): 17.6 LBS

3 BASEBAND 6648 SPECIFICATION
SCALE: N.T.S.

D C B A

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1010 LEBANON STREET
AURORA, IL 60505

AT&T

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	05/12/23	FINAL CDs – ISSUED FOR CONSTRUCTION	YA	PB	RG
E	04/25/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
D	03/16/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
C	02/11/23	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG
B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

EQUIPMENT SPECIFICATIONS–2

DRAWING NUMBER	REV
IL4407–A05–2	0

11 x 17 "B" SIZE

6 5 4 3 2 1

SECTOR	ANTENNA NUMBER	POLARITY/PORT	ANTENNA MODEL NUMBER	ANTENNA VENDOR	TMA/ RRU MODEL NUMBER	AZIMUTH	ANTENNA CENTERLINE FROM GROUND	ANTENNA TIP HEIGHT	ANTENNA TYPE	DC SURGE AND DISTRIBUTION	COAX/ FIBER/ DC POWER CABLES		
											COAX CABLE	OTHER CABLES	LENGTH
A	A1	700 850 AWS	NNH4-65B-R6H4	COMMSCOPE	(1) DB RRUS 4449 B5/B12 (1) RRUS 4426 B66	0°	120'-0"	123'-0"	LTE 700 5G 850 LTE/5G AWS	(2) RAYCAP DC9-48-60-24-8C-EV	NONE	(6) #6AWG DC POWER CABLES (2) 24 PAIRS FIBER CABLES	±180'-0"
	A2	5G CBAND	AIR 6449 B77D	ERICSSON	INTEGRATED WITHIN ANTENNA	0°	118'-3"	119'-6"	5G CBAND				
	A3												
	A4	700 1900	NNH4-65B-R6H4	COMMSCOPE	(1) RRUS 4478 B14 (1) RRUS 4415 B25	0°	120-0"	123'-0"	FNET 700 LTE/5G 1900				
B	B1	700 850 AWS	NNH4-65B-R6H4	COMMSCOPE	(1) DB RRUS 4449 B5/B12 (1) RRUS 4426 B66	120°	120-0"	123'-0"	LTE 700 5G 850 LTE/5G AWS				±180'-0"
	B2	5G CBAND	AIR 6449 B77D	ERICSSON	INTEGRATED WITHIN ANTENNA	120°	118'-3"	119'-6"	5G CBAND				
	B3												
	B4	700 1900	NNH4-65B-R6H4	COMMSCOPE	(1) RRUS 4478 B14 (1) RRUS 4415 B25	120°	120-0"	123'-0"	FNET 700 LTE/5G 1900				
C	C1	700 850 AWS	NNH4-65B-R6H4	COMMSCOPE	(1) DB RRUS 4449 B5/B12 (1) RRUS 4426 B66	240°	120-0"	123'-0"	LTE 700 5G 850 LTE/5G AWS				±180'-0"
	C2	5G CBAND	AIR 6449 B77D	ERICSSON	INTEGRATED WITHIN ANTENNA	240°	118'-3"	119'-6"	5G CBAND				
	C3												
	C4	700 1900	NNH4-65B-R6H4	COMMSCOPE	(1) RRUS 4478 B14 (1) RRUS 4415 B25	240°	120-0"	123'-0"	FNET 700 LTE/5G 1900				

THIS ANTENNA MATRIX TABLE IS PREPARED BASED ON RFDS DATED 02/24/2021 REVISION # V1.0
GENERAL CONTRACTOR TO VERIFY AND INCORPORATE MOST RECENT VERSION OF RFDS PRIOR TO CONSTRUCTION.

1 ANTENNA MATRIX
NTS

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E	04/25/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

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AT&T MOBILITY

ANTENNA MATRIX

DRAWING NUMBER	REV
IL4407- A06	0

11 x 17 "B" SIZE

6 5 4 3 2 1

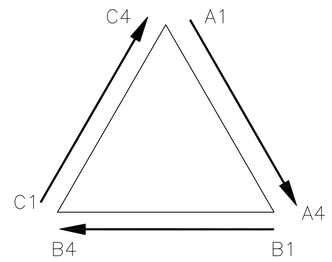
D C B A

CABLE MARKING COLOR CONVENTION TABLE

ALPHA, A, X, #1	A1–1 +45	A1–2 –45	A2–1 +45	A2–2 –45	A3–1 +45	A3–2 –45	A4–1 +45	A4–2 –45
SECTOR ANTENNA PORT (+/–)	RED WHITE SLATE	RED WHITE BROWN	RED ORANGE SLATE	RED ORANGE BROWN	RED BROWN SLATE	RED BROWN BROWN	RED VIOLET SLATE	RED VIOLET BROWN
BAND (LOW/HI) *SEE NOTES 13 AND 15	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW
BETA, B, Y, #2	B1–1 +45	B1–2 –45	B2–1 +45	B2–2 –45	B3–1 +45	B3–2 –45	B4–1 +45	B4–2 –45
SECTOR ANTENNA PORT	BLUE WHITE SLATE	BLUE WHITE BROWN	BLUE ORANGE SLATE	BLUE ORANGE BROWN	BLUE BROWN SLATE	BLUE BROWN BROWN	BLUE VIOLET SLATE	BLUE VIOLET BROWN
BAND (LOW/HI) *SEE NOTES 13 AND 15	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW
GAMMA, C, Z, #3	C1–1 +45	C1–2 –45	C2–1 +45	C2–2 –45	C3–1 +45	C3–2 –45	C4–1 +45	C4–2 –45
SECTOR ANTENNA PORT	GREEN WHITE SLATE	GREEN WHITE BROWN	GREEN ORANGE SLATE	GREEN ORANGE BROWN	GREEN BROWN SLATE	GREEN BROWN BROWN	GREEN VIOLET SLATE	GREEN VIOLET BROWN
BAND (LOW/HI) *SEE NOTES 13 AND 15	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW
DELTA, D, #4	D1–1 +45	D1–2 –45	D2–1 +45	D2–2 –45	D3–1 +45	D3–2 –45	D4–1 +45	D4–2 –45
SECTOR ANTENNA PORT	YELLOW WHITE SLATE	YELLOW WHITE BROWN	YELLOW ORANGE SLATE	YELLOW ORANGE BROWN	YELLOW BROWN SLATE	YELLOW BROWN BROWN	YELLOW VIOLET SLATE	YELLOW VIOLET BROWN
BAND (LOW/HI) *SEE NOTES 13 AND 15	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET	ORANGE / VIOLET
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW	SLATE / YELLOW

NOTE 1*: ALL COLOR CODE TAPE SHALL BE 3M–35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) WRAPS OF TAPE.
NOTE 2*: ALL COLOR BANDS INSTALLED AT THE TOWER TOP SHALL BE A MINIMUM OF 3" WIDE AND SHALL HAVE A MINIMUM OF ¾" OF SPACING BETWEEN EACH COLOR.
NOTE 3*: ALL COLOR BANDS INSTALLED AT OR NEAR THE GROUND MAY BE ONLY ¾" WIDE. EACH TOP–JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
NOTE 4*: EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" BANDS NEAR THE TOP–JUMPER CONNECTION AND WITH ¾" COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
NOTE 5*: ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF ¾" BANDS ON EACH END OF THE BOTTOM JUMPER.
NOTE 6*: ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE–TO–SIDE.
NOTE 7*: EACH COLOR BAND SHALL HAVE A MINIMUM OF (3) WRAPS AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
NOTE 8*: X–POLE ANTENNAS SHOULD USE "XX–1" FOR THE "+45" PORT, "XX–2" FOR THE "–45" PORT.
NOTE 9*: COLORBAND #4 REFERS TO THE FREQUENCY BAND: ORANGE=850, VIOLET=1900. USED ON JUMPERS ONLY.
NOTE 10*: RF FEEDLINE SHALL BE IDENTIFIED WITH A METAL TAG (STAINLESS OR BRASS) AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER.
NOTE 11*: ANTENNAS MUST BE IDENTIFIED, USING THE SECTOR LETTER AND ANTENNA NUMBER, WITH A BLACK MARKER PRIOR TO INSTALLATION.
NOTE 12*: ONLY "SECTOR–SPLIT" ANTENNA COAX SHALL CONTAIN A 5TH COLORBAND TO INDICATE "LEFT" OR "RIGHT" BEAM.
NOTE 13*: "SECTOR–SPLIT" ANTENNA COAX SHALL USE BLACK TAPE AS A PLACEHOLDER ON MAINLINE FOR COLORBAND #4 (FREQ BAND)
NOTE 14*: "SECTOR–SPLIT" ANTENNAS SLATE FOR THE LEFT BEAM, AND YELLOW FOR THE RIGHT BEAM
NOTE 15*: "LOW" BAND REFERS TO 700MHZ OR 850MHZ, "HI" BAND REFERS TO 1900MHZ OR 2100MHZ

FIGURE 1: ANTENNA ORIENTATION



NOTE: ALPHA STARTS AT 0 (NORTH) OR FIRST AZIMUTH AFTER 0
NOTE: BETA IS FIRST AZIMUTH AFTER ALPHA IN CLOCK–WISE DIRECTION
NOTE: GAMMA IS FIRST AZIMUTH AFTER BETA IN CLOCK–WISE DIRECTION
NOTE: DELTA IS FIRST AZIMUTH AFTER GAMMA IN CLOCK–WISE DIRECTION
NOTE: AZIMUTH IS IDENTIFIED BY THE PANEL, NOT THE ELEMENTS INSIDE

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Version 2.8 – Updated 5/28/2014

CABLE MARKING TAGS

TO PROVIDE ADDITIONAL IDENTIFICATION RF CABLES SHALL BE IDENTIFIED WITH A METAL TAG MADE OF STAINLESS STEEL OR BRASS AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER. THE ID MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSIVE PROOF WIRE OR WAX STRING AROUND THE CABLE. THE TAG SHOULD BE LABLED AS SHOWN BELOW IN FIGURE 2.

FIGURE 2: TAG DETAIL EXAMPLE

CABLE MARKING LOCATIONS TABLE

TAPE	TAG	LOCATIONS
X		EACH TOP JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
X		EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP–JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JAST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
	X	MARKING TAGS SHALL BE ATTACHED AT CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER
X		ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4 " WIDE BANDS ON EACH END OF BOTTOM JUMPER.

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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

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COAX COLOR CODING

DRAWING NUMBER	REV
IL4407– A07	0

11 x 17 "B" SIZE

6 5 4 3 2 1

D C B A

MIDWEST FIBER–OPTIC JUMPER COLOR CODE STANDARD (Version 2.8 – Updated 5/28/2014)

SECTOR	TECHNOLOGY	BAND	RADIO NAME	COLOR CODE				NOTES
A	LTE	700	LTE–700–A1	RED	ORANGE	BROWN	VIOLET	
A	LTE	2100	LTE–2100–A2	RED	ORANGE	WHITE	VIOLET	
A	LTE	2100	LTE–2100–A3	RED	ORANGE	WHITE	BROWN	"A2" MODULE, SEE NOTE 1 BELOW
A	UMTS	850	UMTS–850–A4	RED	SLATE	VIOLET	VIOLET	
A	LTE	850	LTE–850–A4S	RED	ORANGE	VIOLET	YELLOW	"TECHNOLOGY–SPLIT"
A	UMTS	1900	UMTS–1900–A5	RED	SLATE	ORANGE	VIOLET	
A	LTE	1900	LTE–1900–A5S	RED	ORANGE	ORANGE	YELLOW	"TECHNOLOGY–SPLIT"
A	LTE	1900	LTE–1900–A6	RED	ORANGE	ORANGE	SLATE	"A2" MODULE, SEE NOTE 1&2 BELOW
A	LTE	700D/E	LTE–700DE–A7	RED	ORANGE	YELLOW	VIOLET	
A	LTE	WCS	LTE–WCS–A8	RED	ORANGE	SLATE	VIOLET	
A	LTE	850	LTE–850–A9	RED	ORANGE	VIOLET	VIOLET	
A	LTE	1900	LTE–1900–A10	RED	ORANGE	ORANGE	VIOLET	
A	LTE	1900	LTE–1900–A11	RED	ORANGE	ORANGE	BROWN	"A2" MODULE, SEE NOTE 1 BELOW
B	LTE	700	LTE–700–B1	BLUE	ORANGE	BROWN	VIOLET	
B	LTE	2100	LTE–2100–B2	BLUE	ORANGE	WHITE	VIOLET	
B	LTE	2100	LTE–2100–B3	BLUE	ORANGE	WHITE	BROWN	"A2" MODULE, SEE NOTE 1 BELOW
B	UMTS	850	UMTS–850–B4	BLUE	SLATE	VIOLET	VIOLET	
B	LTE	850	LTE–850–B4S	BLUE	ORANGE	VIOLET	YELLOW	"TECHNOLOGY–SPLIT"
B	UMTS	1900	UMTS–1900–B5	BLUE	SLATE	ORANGE	VIOLET	
B	LTE	1900	LTE–1900–B5S	BLUE	ORANGE	ORANGE	YELLOW	"TECHNOLOGY–SPLIT"
B	LTE	1900	LTE–1900–B6	BLUE	ORANGE	ORANGE	SLATE	"A2" MODULE, SEE NOTE 1&2 BELOW
B	LTE	700D/E	LTE–700DE–B7	BLUE	ORANGE	YELLOW	VIOLET	
B	LTE	WCS	LTE–WCS–B8	BLUE	ORANGE	SLATE	VIOLET	
B	LTE	850	LTE–850–B9	BLUE	ORANGE	VIOLET	VIOLET	
B	LTE	1900	LTE–1900–B10	BLUE	ORANGE	ORANGE	VIOLET	
B	LTE	1900	LTE–1900–B11	BLUE	ORANGE	ORANGE	BROWN	"A2" MODULE, SEE NOTE 1 BELOW
C	LTE	700	LTE–700–C1	GREEN	ORANGE	BROWN	VIOLET	
C	LTE	2100	LTE–2100–C2	GREEN	ORANGE	WHITE	VIOLET	
C	LTE	2100	LTE–2100–C3	GREEN	ORANGE	WHITE	BROWN	"A2" MODULE, SEE NOTE 1 BELOW
C	UMTS	850	UMTS–850–C4	GREEN	SLATE	VIOLET	VIOLET	
C	LTE	850	LTE–850–C4S	GREEN	ORANGE	VIOLET	YELLOW	"TECHNOLOGY–SPLIT"
C	UMTS	1900	UMTS–1900–C5	GREEN	SLATE	ORANGE	VIOLET	
C	LTE	1900	LTE–1900–C5S	GREEN	ORANGE	ORANGE	YELLOW	"TECHNOLOGY–SPLIT"
C	LTE	1900	LTE–1900–C6	GREEN	ORANGE	ORANGE	SLATE	"A2" MODULE, SEE NOTE 1&2 BELOW
C	LTE	700D/E	LTE–700DE–C7	GREEN	ORANGE	YELLOW	VIOLET	
C	LTE	WCS	LTE–WCS–C8	GREEN	ORANGE	SLATE	VIOLET	
C	LTE	850	LTE–850–C9	GREEN	ORANGE	VIOLET	VIOLET	
C	LTE	1900	LTE–1900–C10	GREEN	ORANGE	ORANGE	VIOLET	
C	LTE	1900	LTE–1900–C11	GREEN	ORANGE	ORANGE	BROWN	"A2" MODULE, SEE NOTE 1 BELOW

NOTE 1: A SECONDARY JUMPER TO A2 MODULES IS REQUIRED WHEN A CARRIER BANDWIDTH EXCEEDS 10x10MHZ. A2 COLOR CODE IS REQUIRED.
NOTE 2: WHEN DEPLOYING 2 LTE CARRIERS WITHIN THE SAME BAND, F1 IS IDENTIFIED BY BROWN, F2 IS IDENTIFIED BY SLATE.

SECTORS	ALPHA	RED
	BETA	BLUE
	GAMMA	GREEN
TECH	UMTS	SLATE
	LTE	ORANGE
FREQBAND	700	BROWN
	850	VIOLET
	1900	ORANGE
	2100	WHITE
	WCS	YELLOW
	700DE	SLATE
PORT	MASTER	VIOLET
	SPLIT/SLAVE	YELLOW
	>10MHZ A2 MODULE F1	BROWN
	>10MHZ A2 MODULE F2	SLATE

NOTE: "RED", "BLUE", AND "GREEN" ARE NOT USED ON ANY OTHER COLOR BAND AND ALWAYS DE–NOTE THE 1st COLOR BAND

WISIL STANDARD FIBER–OPTIC DEPLOYMENT PLANS (Version 2.8 – Updated 5/28/2014)

NOTE: ** DENOTES SPECIAL DEPLOYMENT WHERE RRH IS TECHNOLOGY SPLIT WITH UMTS AND LTE
NOTE: RRH'S DIPICTED IN PARENTHESES AND ITALICS INDICATE ERICSSON "A2" MODULES

FIBER TRUNK #1

RRH NAME	SECTOR	TECHNOLOGY	BAND	FIBER TRAY ID	FIBER TRAY PORT	SQUID/TRUNK PAIR
LTE–700–A1	A	LTE	700	A	1	1
LTE–700–B1	B	LTE	700	A	2	2
LTE–700–C1	C	LTE	700	A	3	3
LTE–2100–A2 (*LTE-2100-A3*)	A	LTE	2100	A	4	4
LTE–2100–B2 (*LTE-2100-B3*)	B	LTE	2100	A	5	5
LTE–2100–C2 (*LTE-2100-C3*)	C	LTE	2100	A	6	6
LTE–1900–A10 (*LTE-1900-A11*) **LTE–1900–A5s (*LTE-1900-A6*)	A	LTE	1900	A	7	7
LTE–1900–B10 (*LTE-1900-B11*) **LTE–1900–B5s (*LTE-1900-B6*)	B	LTE	1900	A	8	8
LTE–1900–C10 (*LTE-1900-C11*) **LTE–1900–C5s (*LTE-1900-C6*)	C	LTE	1900	A	9	9
LTE–850–A9/LTE–850–A4s	A	LTE	850	A	10	10
LTE–850–B9/LTE–850–B4s	B	LTE	850	A	11	11
LTE–850–C9/LTE–850–C4s	C	LTE	850	A	12	12
SPARE				B	7	13
SPARE				B	8	14
SPARE				B	9	15
SPARE				B	10	16
SPARE				B	11	17
SPARE				B	12	18

FIBER TRUNK #2

RRH NAME	SECTOR	TECHNOLOGY	BAND	FIBER TRAY ID	FIBER TRAY PORT	SQUID/TRUNK PAIR
UMTS–850–A4	A	UMTS	850	C	1	1
UMTS–850–B4	B	UMTS	850	C	2	2
UMTS–850–C4	C	UMTS	850	C	3	3
UMTS–1900–A5	A	UMTS	1900	C	4	4
UMTS–1900–B5	B	UMTS	1900	C	5	5
UMTS–1900–C5	C	UMTS	1900	C	6	6
UMTS–1900–A6	A	UMTS	1900	C	7	7
UMTS–1900–B6	B	UMTS	1900	C	8	8
UMTS–1900–C6	C	UMTS	1900	C	9	9
LTE–700–DE–A7	A	LTE	700DE	C	10	10
LTE–700–DE–B7	B	LTE	700DE	C	11	11
LTE–700–DE–C7	C	LTE	700DE	C	12	12
LTE–WCS–A8	A	LTE	WCS	B	1	13
LTE–WCS–B8	B	LTE	WCS	B	2	14
LTE–WCS–C8	C	LTE	WCS	B	3	15
SPARE				B	4	16
SPARE				B	5	17
SPARE				B	6	18

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SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

FIBER–OPTIC JUMPER COLOR CODING

DRAWING NUMBER	REV
IL4407– A08	0

11 x 17 "B" SIZE

6 5 4 3 2 1

D C B A

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
6. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
7. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
9. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
10. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABALIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
11. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

CONCRETE AND REINFORCING STEEL NOTES:

1.0 ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

2.0 ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE.

3.0 REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.

4.0 THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER .....2 IN.
#5 AND SMALLER & WWF .....1 ½ IN.

CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL .....3/4 IN.
BEAMS AND COLUMNS .....1 ½ IN.

5.0 A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

6.0 INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. EXPANSION BOLTS SHALL BE PROVIDED BY HILTI OR APPROVED EQUAL.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

   OWNER – AT&T
   CONTRACTOR – MASTEC
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OEM – ORIGINAL EQUIPMENT MANUFACTURER

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR/OWNER.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.

   ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO SCALE AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE OWNER.
8. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING.
9. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF CONTRACTOR/OWNER.
10. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
11. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. PRIOR TO START OF CONSTRUCTION, SUBCONTRACTOR SHALL SURVEY THE CONDITION IN ALL AREAS WHERE NEW CONSTRUCTION WILL BE CARRIED OUT. ANY EXISTING DEFECTS DISCOVERED SHALL BE REPORTED IMMEDIATELY TO THE BUILDING OWNER AND PROJECT MANAGER.
13. SUBCONTRACTOR SHALL PROTECT ALL EXISTING ROOF INSTALLATIONS INCLUDING ALL MECHANICAL FASTENING THROUGHOUT ENTIRE CONSTRUCTION DURATION. REPAIR ALL DAMAGES AS REQUIRED.
14. SUBCONTRACTOR SHALL ENSURE THAT ALL ROOF DRAINS WILL NOT BE OBSTRUCTED THROUGHOUT THE ENTIRE CONSTRUCTION DURATION.
15. RE-CERTIFICATION OF EXISTING ROOF WARRANTIES IS PART OF THE WORKSCOPE OF THIS PROJECT. SUBCONTRACTOR SHALL VERIFY WITH BUILDING OWNER REGARDING VALIDITY OF EXISTING ROOF WARRANTIES AND WORK WITH EXISTING ROOF MANUFACTURER TO REACTIVATE ANY EXISTING WARRANTIES THAT WOULD OTHERWISE BE VOIDED BY NEW CONSTRUCTION.

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APEX JOB No. NS22-025

AURORA SOUTH NSB
SITE NO. IL4407
1010 LEBANON STREET
AURORA, IL 60505

AT&T

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	05/12/23	FINAL CDs – ISSUED FOR CONSTRUCTION	YA	PB	RG
E	04/25/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
D	03/16/23	90% CDs ISSUED FOR REVIEW	YA	PB	RG
C	02/11/23	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG
B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

CONSTRUCTION NOTES

DRAWING NUMBER	REV
IL4407– A09	0

11 x 17 "B" SIZE

6 5 4 3 2 1

D C B A

NOTE:
SCALE NOTED APPLIES TO 11"X17" SHEET SIZE. IF PRINT SIZE IS 24"X36", THEN ACTUAL SCALE IS DOUBLE OF SCALE NOTED.
(EXAMPLE: 1/4"=1'-0" BECOMES 1/2"=1'-0" ON 22"X34" PRINTED AREA OF SHEET SIZE 24"X36").
THIS NOTE APPLIES TO ALL DRAWING SHEETS.

EXISTING FIBER SOURCE

EXISTING UTILITY POLE W/ TRANSFORMER

GENERAL CONTRACTOR TO COORDINATE WITH AT&T ENGINEER EXACT PATH OF PROPOSED UTILITY CONDUITS

EXISTING BASEBALL FIELD

EXISTING LIGHT POLE TO BE REMOVED & REPLACED W/125' HIGH MONOPOLE TOWER. RELOCATE EXISTING FLOOD LIGHTS ON NEW MONOPOLE TOWER.

PROPOSED 8' WIDE UTILITY EASEMENT

PROPOSED 12' WIDE ACCESS ASPHALT PAVED DRIVEWAY

PROPOSED UNDERGROUND 3"ø CONDUIT (ELECTRICAL) FROM AT&T ELECTRICAL METER ON PROPOSED H-FRAME TO PROPOSED AT&T SHELTER. APPROX. LENGTH ±20'.

PROPOSED AT&T SHELTER WITH GENERATOR ROOM

PROPOSED UNDERGROUND 4"ø CONDUIT (FIBER) FROM PROPOSED AT&T H-FRAME TO PROPOSED AT&T SHELTER. APPROX. LENGTH ±30'.

PROPOSED UNDERGROUND 3"ø CONDUIT (ELECTRICAL) FROM EXISTING UTILITY POLE TO AT&T ELECTRICAL METER ON PROPOSED H-FRAME ROUTED WITHIN EXISTING/PROPOSED UTILITY EASEMENTS. USE DIRECTIONAL BORE. APPROX. LENGTH ±210'. V.I.F. ACTUAL ROUTING.

EXISTING ELECTRICAL POLE W/ TRANSFORMER

PROPOSED UNDERGROUND 4"ø CONDUIT (FIBER) FROM EXISTING FIBER SOURCE TO PROPOSED AT&T UTILITY H-FRAME ROUTED WITHIN EXISTING/PROPOSED UTILITY EASEMENTS. USE DIRECTIONAL BORE. APPROX. LENGTH ±1020'. V.I.F. ACTUAL ROUTING.

EXISTING AT&T FIBER SOURCE

LAFAYETTE ST.

DOUGLAS AVE.

PARKER AVE.

1 UTILITY SITE PLAN
SCALE: 1"=50'-0"

NORTH

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AT&T

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	05/12/23	FINAL CDs – ISSUED FOR CONSTRUCTION	YA	PB	RG
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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

UTILITY PLAN & ELECTRICAL DETAILS

DRAWING NUMBER	REV
IL4407- E01	0

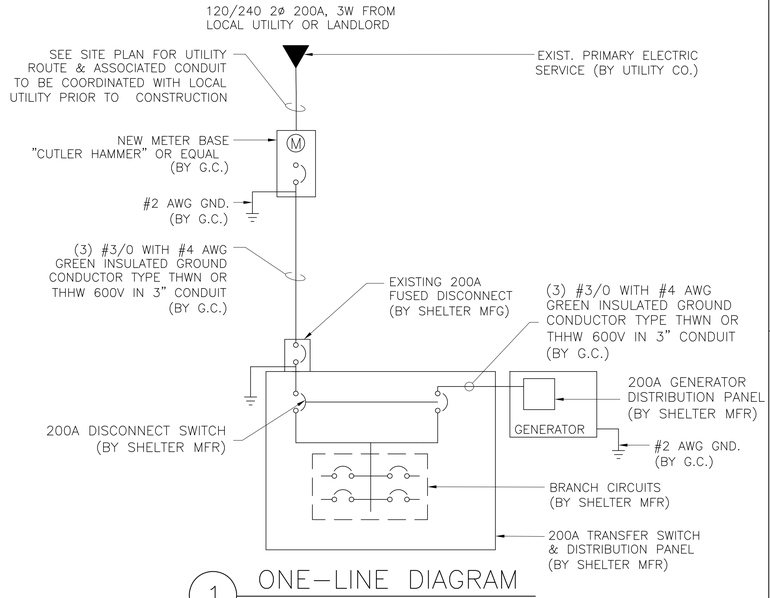
11 x 17 "B" SIZE

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
5. CABLES SHALL NOT BE ROUTED THROUGH LADDER–STYLE CABLE TRAY RUNGS.
6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
18. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
19. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
20. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
21. CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
22. WIREWAYS SHALL BE EPOXY–COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

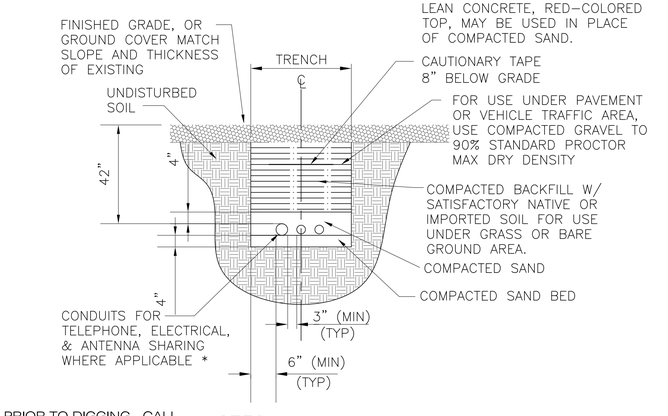
ELECTRICAL INSTALLATION NOTES (CONT.):

23. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR OR EPOXY–COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS
24. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED, OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) BETTER INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
25. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
26. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR/OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
27. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.



1 ONE–LINE DIAGRAM

SCALE: N.T.S.



PRIOR TO DIGGING...CALL LOCAL UTILITY COMPANY

NOTES:

1. CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZE & SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR TO CALL LOCAL UTILITY COMPANY 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. LOCATION SURROUNDING EXCAVATED AREA MUST BE PRIVATELY LOCATED FOR NON–PUBLIC UTILITIES.

3 UTILITY TRENCH DETAIL

SCALE: N.T.S.

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APEX JOB No. NS22–025

AURORA SOUTH NSB

SITE NO. IL4407

1010 LEBANON STREET
AURORA, IL 60505

AT&T

NO.	DATE	REVISIONS	BY	CHK	APP'D
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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

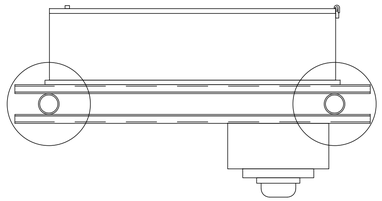
ELECTRICAL NOTES & DETAILS

DRAWING NUMBER	REV
IL4407–E02	0

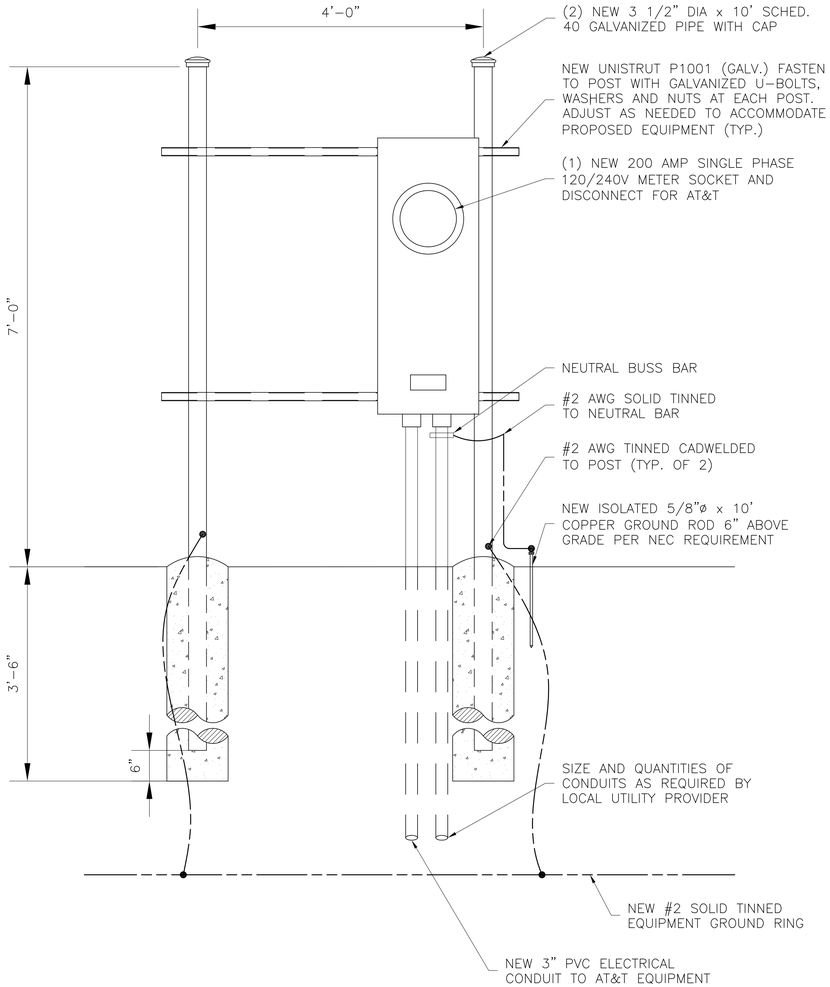
11 x 17 "B" SIZE

6 5 4 3 2 1

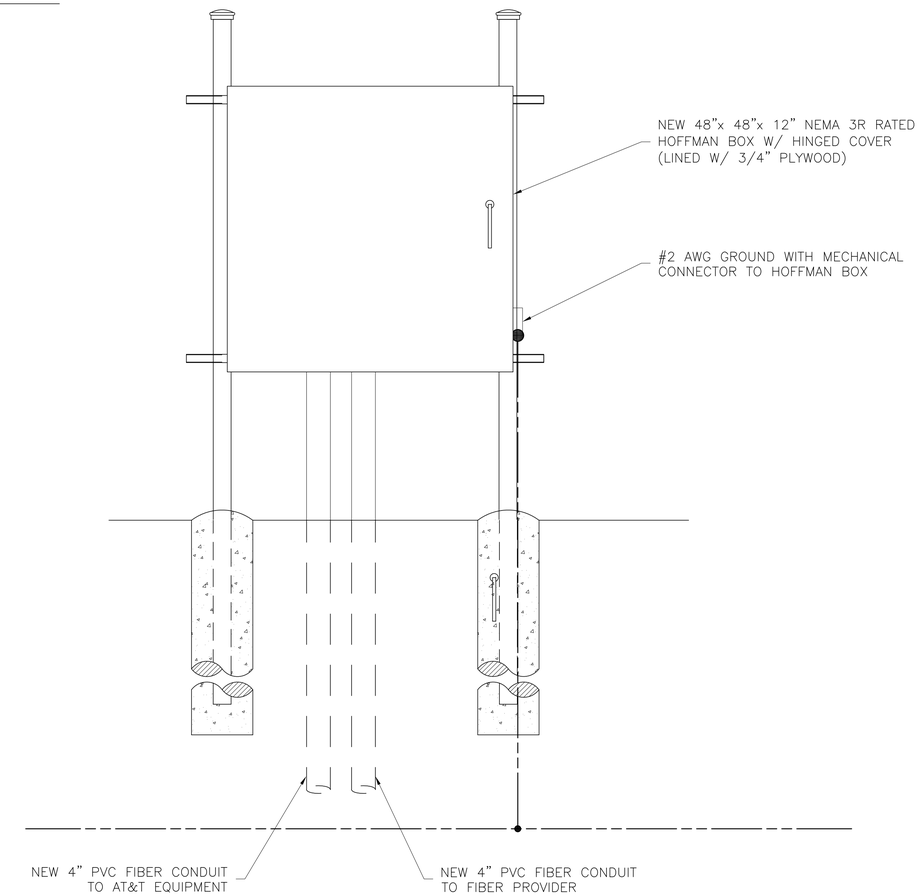
D C B A



PLAN VIEW



FRONT VIEW



REAR VIEW

1 UTILITY RACK DETAILS

SCALE: N.T.S.

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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

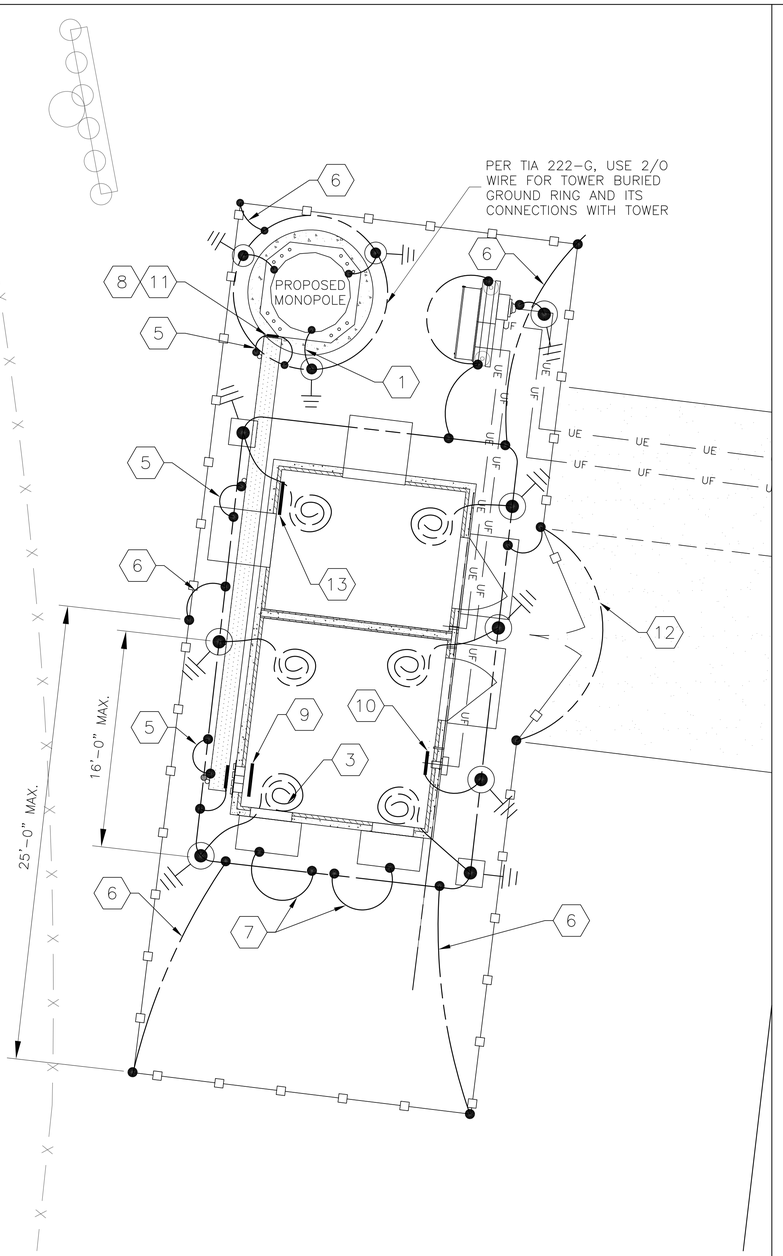
SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

UTILITY RACK DETAILS

DRAWING NUMBER	REV
IL4407-E03	0

11 x 17 "B" SIZE



1 GROUNDING PLAN
SCALE: 1/8"=1'-0"

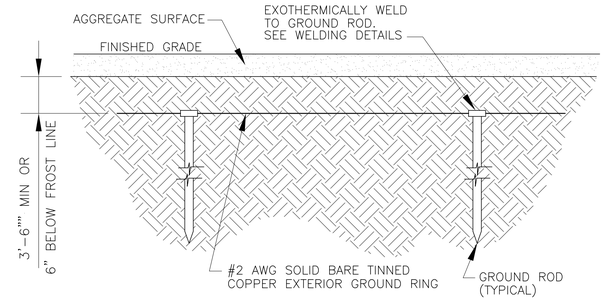
GROUNDING LEGEND

SYMBOL	DESCRIPTION
	5/8" x 10' COPPER CLAD STEEL GROUND ROD
	5/8" x 10' COPPER CLAD STEEL GROUND ROD WITH INSPECTION SLEEVE
	EXOTHERMIC WELD (CADWELD) (UNLESS OTHERWISE NOTED)
	EXOTHERMIC WELD (CADWELD) WITH INSPECTION SLEEVE

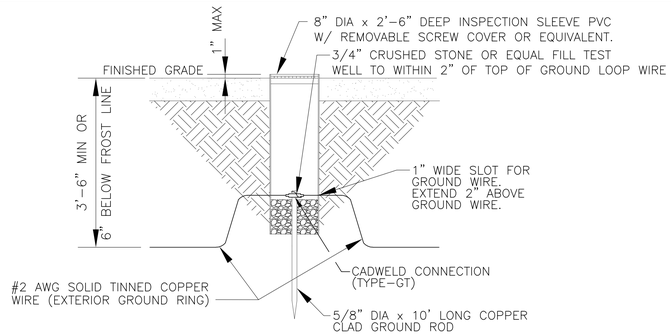
GROUNDING NOTES:

1. TOWER GROUNDING: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO PROPOSED TOWER AND MAKE EXOTHERMIC CONNECTION.
2. HATCHPLATE GROUND BAR: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO THE HATCHPLATE GROUND BAR AND MAKE A MECHANICAL CONNECTION.
3. GROUNDING OF INTERNAL GROUND RING: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING THROUGH 1" DIA. PVC SLEEVE INTO EQUIPMENT SHELTER FOR CONNECTION TO INTERIOR HALO GROUND RING. TYPICAL AT 4 BUILDING CORNERS.
4. GROUND ROD: COPPERCLAD STEEL, 5/8" DIA. TEN (10) FEET LONG.
5. ICE BRIDGE SUPPORT POST GROUNDING: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO ALL ICE BRIDGE SUPPORT POSTS AND EXOTHERMICALLY WELD.
6. FENCE GROUNDING: IF FENCE IS WITHIN 6' OF GROUND RING, EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO FENCE CORNER POSTS AND EXOTHERMICALLY WELD. BOND INTERMEDIATE POST IF REQUIRED TO MAINTAIN 25' MAX SPACING.
7. HVAC GROUNDING: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO THE HVAC UNIT AND MAKE A MECHANICAL CONNECTION.
8. TOWER GROUND BAR: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO THE TOWER GROUND BAR AND MAKE A MECHANICAL CONNECTION. SECURE GROUND BAR DIRECTLY TO TOWER WITH STAINLESS STEEL MOUNTING MATERIAL.
9. CELL REFERENCE GROUND BAR: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO THE CELL REFERENCE GROUND BAR (INSIDE SHELTER) AND MAKE A MECHANICAL CONNECTION.
10. TELCO/FIBER GROUND BAR: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO TELCO GROUND BAR (INSIDE SHELTER) AND MAKE A MECHANICAL CONNECTION.
11. ANTENNA GROUND BAR: MOUNT GROUND BAR DIRECTLY TO TOWER AT TOP OF COAX RUNS. SECURE TO TOWER WITH STAINLESS STEEL MOUNTING MATERIAL.
12. GATE GROUNDING: EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO GATE POSTS AND EXOTHERMICALLY WELD.
13. GENERATOR GROUNDING: EXTEND #2 AWG SOLID BARE TINNED COPPER GROUND WIRE TO SHELTER GROUND RING. GROUND GENERATOR AND BASE TANK PER MANUFACTURER'S RECOMMENDATIONS.

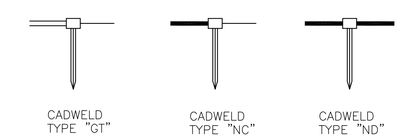
NOTE:
SCALE NOTED APPLIES TO 11"X17" SHEET SIZE. IF PRINT SIZE IS 24"X36", THEN ACTUAL SCALE IS DOUBLE OF SCALE NOTED.
(EXAMPLE: 1/4"=1'-0" BECOMES 1/2"=1'-0" ON 22"X34" PRINTED AREA OF SHEET SIZE 24"X36").
THIS NOTE APPLIES TO ALL DRAWING SHEETS.



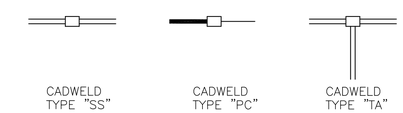
2 GROUND RING DETAIL
SCALE: N.T.S.



3 GROUND ROD W/ INSPECTION SLEEVE
SCALE: N.T.S.



CABLE TO GROUND ROD COMBINATIONS



CABLE TO CABLE COMBINATIONS
EXOTHERMIC WELDING DETAILS

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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

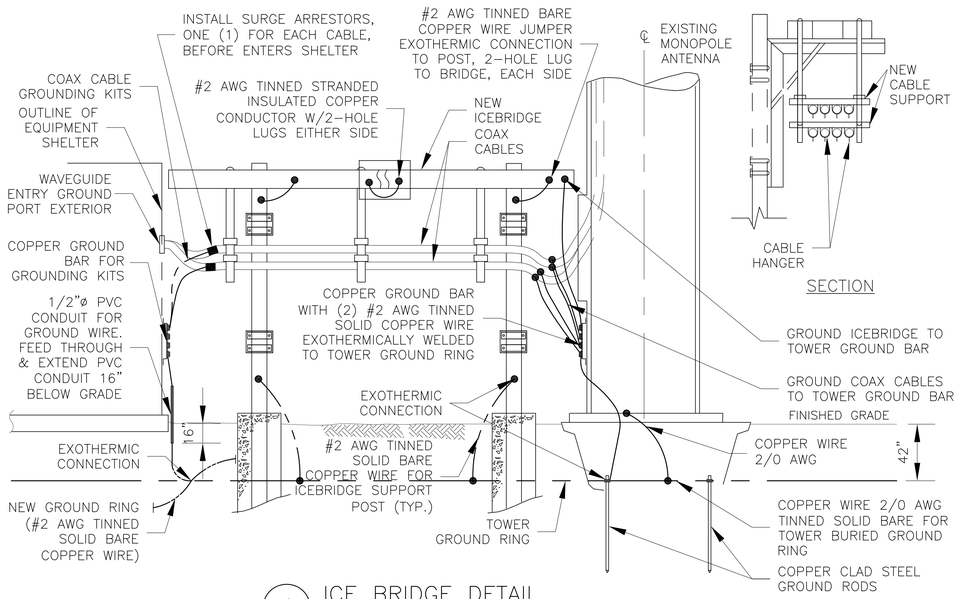
GROUNDING PLAN & DETAILS

DRAWING NUMBER	REV
IL4407-G01	0

11 x 17 "B" SIZE

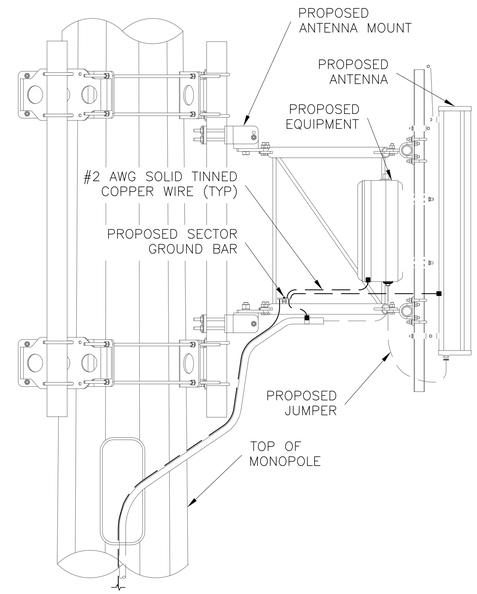
6 5 4 3 2 1

D C B A



1 ICE BRIDGE DETAIL

SCALE: N.T.S.



2 ANTENNA & CABLE GROUNDING

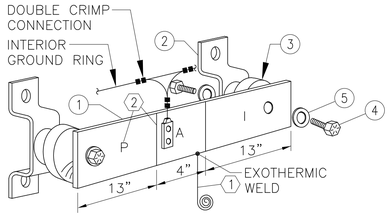
SCALE: N.T.S.

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT & PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED, BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 FT OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANSI/TIA 222-H. THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE MIN 2/0 AWG.

EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

NEWTON INSTRUMENT COMPANY, INC. BUTNER, N.C. OR APPROVED EQUAL			
NO.	REQ.	PART NO.	DESCRIPTION
1	1	1/4"x4"x30"	SOLID GND. BAR
2	2	A-6056	WALL MTG. BRKT.
3	2	3061-4	INSULATORS
4	4	3012-1	5/8"-11x1" H.H.C.S.
5	4	3015-8	5/8 LOCKWASHER



SECTION "P" - SURGE PROTECTORS

CABLE ENTRY PORTS (HATCH PLATES) (2 AWG)
GENERATOR FRAMEWORK (IF AVAILABLE) (2 AWG)
TELCO GROUND BAR (2 AWG)
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (2 AWG)
+24V POWER SUPPLY RETURN BAR (2 AWG)
-48V POWER SUPPLY RETURN BAR (2 AWG)
RECTIFIER FRAMES.
COAX SUPPRESSION

SECTION "A" - SURGE ABSORBERS

INTERIOR GROUND RING (2 AWG)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (2 AWG)
METALLIC COLD WATER PIPE (IF AVAILABLE) (2 AWG)
BUILDING STEEL (IF AVAILABLE) (2 AWG)

SECTION "I" - ISOLATED GROUND ZONE

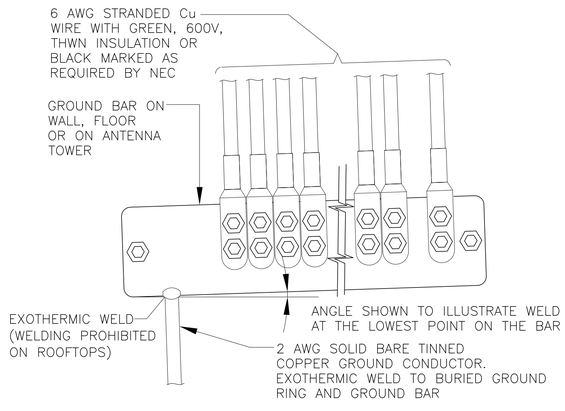
ALL COMMUNICATIONS EQUIPMENT FRAMES.
ISOLATED GROUND BAR - IGB (2 AWG)

DETAIL NOTES:

1. EXOTHERMICALLY WELD 2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR. ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "I") WITH 1" HIGH LETTERS.

3 (RGB) REFERENCE GROUND BAR - DETAIL

SCALE: N.T.S.



4 INSTALLATION OF GROUND WIRE TO COAX CABLE GROUND BAR

SCALE: N.T.S.

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B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

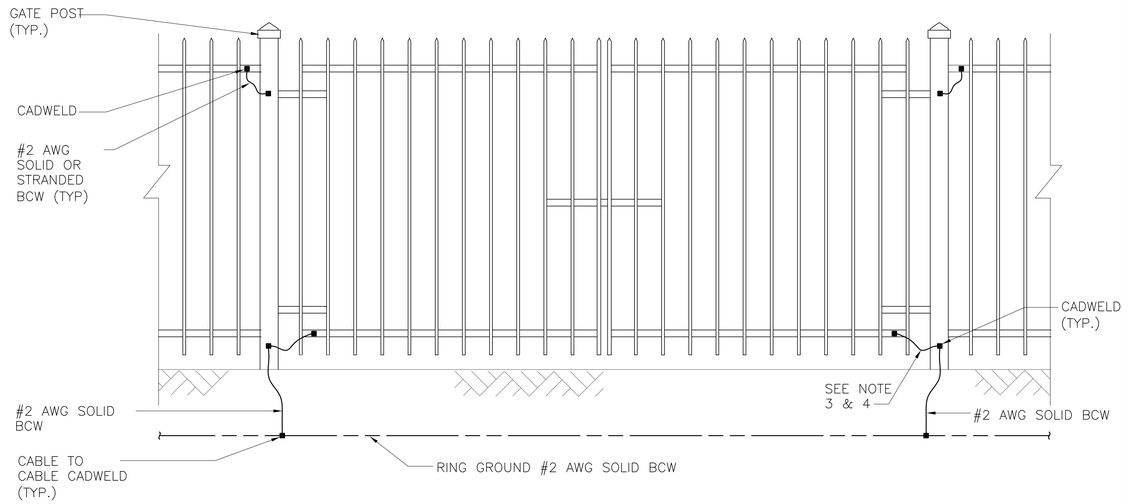
GROUNDING DETAILS & NOTES

DRAWING NUMBER	REV
IL4407- G02	0

11 x 17 "B" SIZE

6 5 4 3 2 1

D C B A

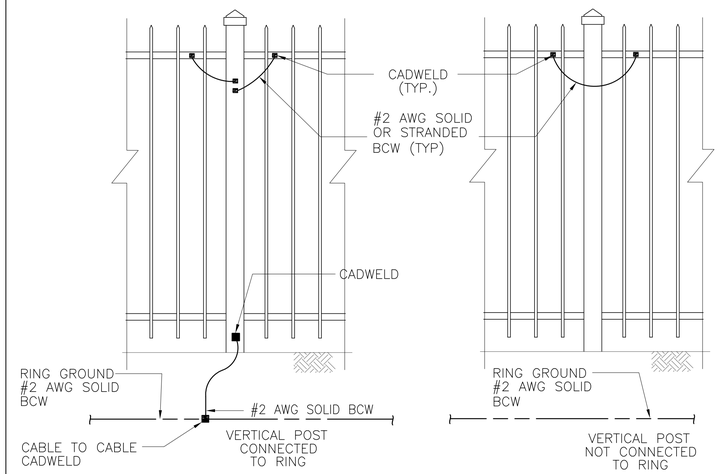


NOTES:

1. THE #2 AWG, BCW, FROM THE RING GROUND SHALL BE CADWELDED TO THE POST ABOVE GRADE.
2. BOND EACH HORIZONTAL POLE/BRACE TO EACH OTHER AND TO EACH VERTICAL POLE BONDED TO THE EXTERIOR GROUND RING
3. GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID BURNDY TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING.
4. GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

1 FENCE GATE GROUNDING

SCALE: N.T.S.

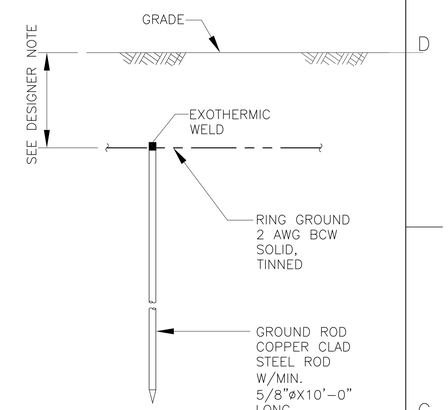


NOTES:

1. VERTICAL POSTS SHALL BE BONDED TO THE RING AT EACH CORNER AND AT EACH GATE POST. AS A MINIMUM ONE VERTICAL POST SHALL BE BONDED TO THE GROUND RING IN EVERY 100 FOOT STRAIGHT RUN OF FENCE.
2. HORIZONTAL POLES SHALL BE BONDED TO EACH OTHER.
3. BOND EACH HORIZONTAL POLE / BRACE TO EACH OTHER AND TO EACH VERTICAL POST THAT IS BONDED TO THE EXTERIOR GROUND RING

2 FENCE GROUNDING

SCALE: N.T.S.

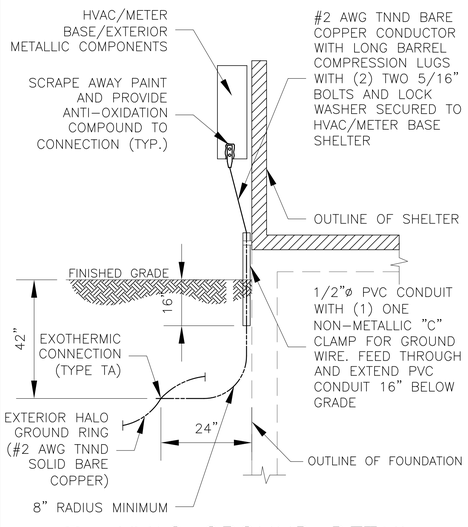


NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 15 DEGREES FROM THE VERTICAL.

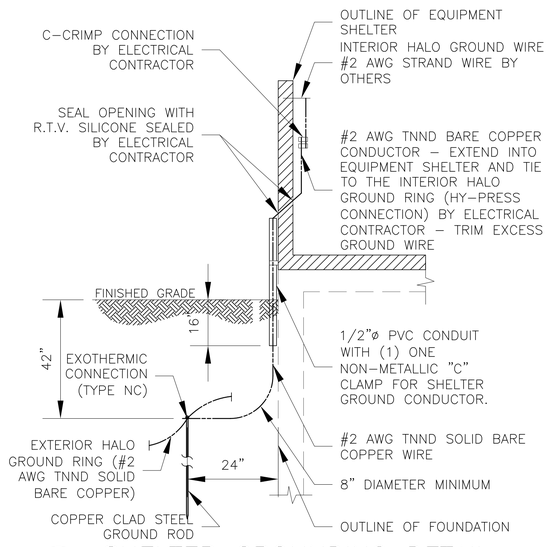
3 GROUND ROD

SCALE: N.T.S.



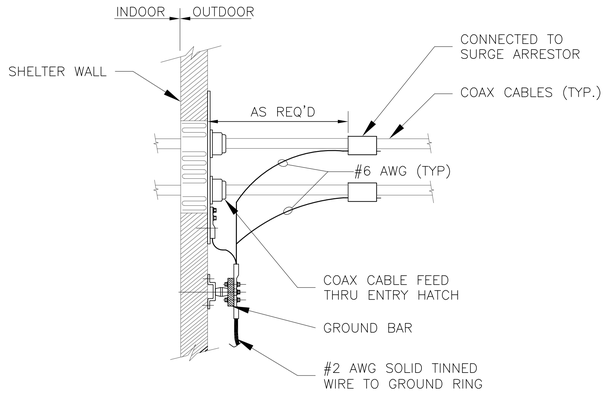
4 HVAC GROUND DETAIL

SCALE: N.T.S.



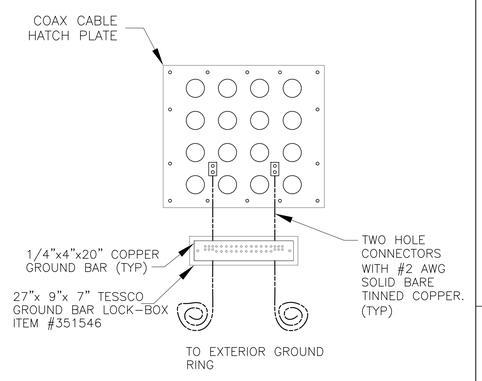
5 SHELTER GROUNDING DETAIL

SCALE: N.T.S.



6 INSTALLATION OF CABLE GROUNDING KIT

SCALE: N.T.S.



7 EXTERIOR GROUND BAR & GROUND BAR LOCK-BOX

SCALE: N.T.S.

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AT&T

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C	02/11/23	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG
B	08/23/22	REVISED LEASE EXHIBIT/ZONING DRAWING	YA	PB	RG

SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

FENCE GROUNDING & DETAILS

DRAWING NUMBER	REV
IL4407- G03	0

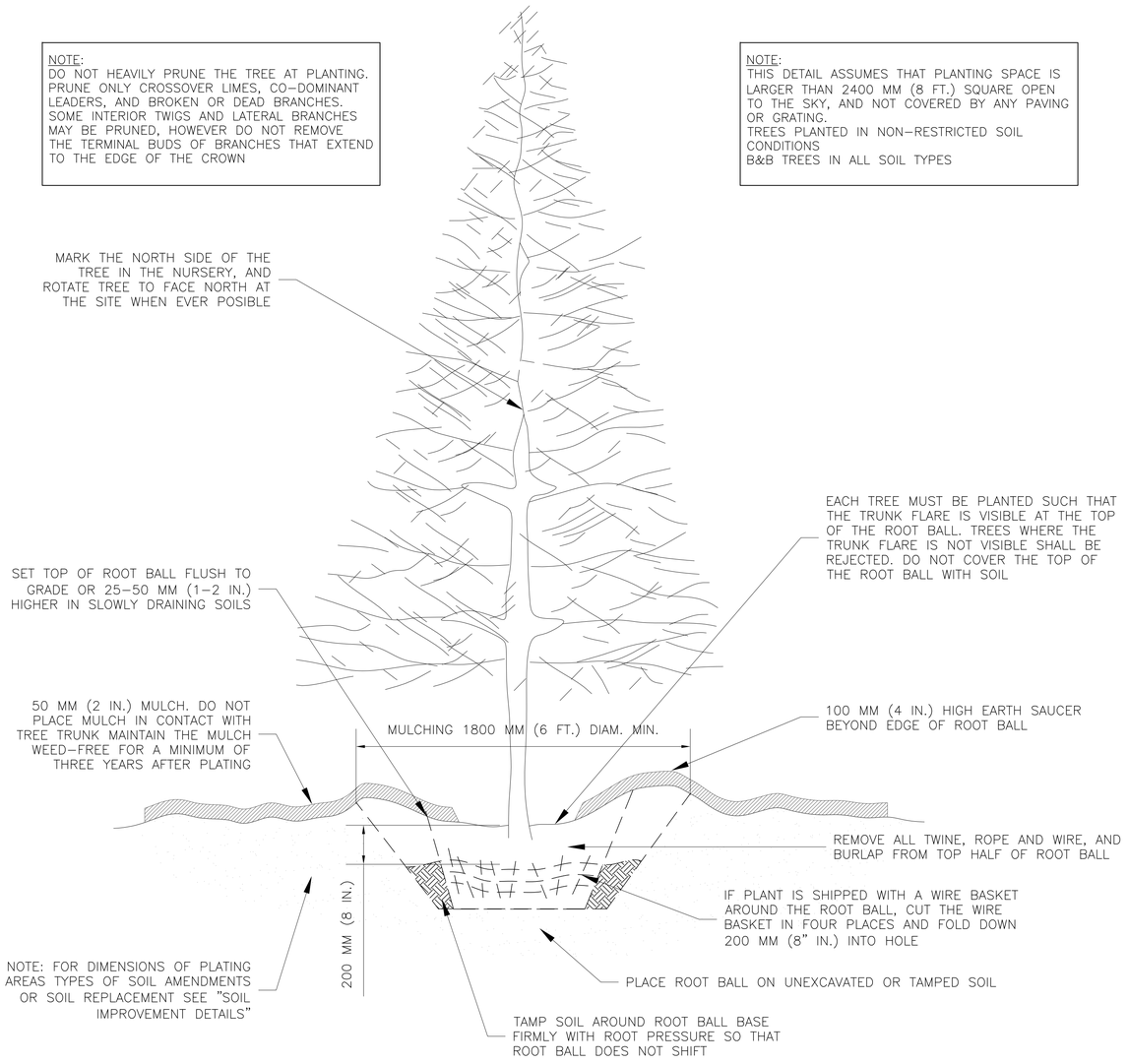
11 x 17 "B" SIZE

6 5 4 3 2 1

B A

NOTE:
DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMES, CO–DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED, HOWEVER DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN

NOTE:
THIS DETAIL ASSUMES THAT PLANTING SPACE IS LARGER THAN 2400 MM (8 FT.) SQUARE OPEN TO THE SKY, AND NOT COVERED BY ANY PAVING OR GRATING.
TREES PLANTED IN NON–RESTRICTED SOIL CONDITIONS
B&B TREES IN ALL SOIL TYPES



PLANTING SCHEDULE

COMMON NAME: EMERALD GREEN ARBORVITAE

SCIENTIFIC NAME: THUJA OCCIDENTALIS

OF TREES: 6

NOTE:
PLANT CONTAINER OR BALLED–AND–BURLAPED PLANTS IN SPRING OR FALL
PLANT ON A RAISED BED TO ENSURE GOOD DRAINAGE
ALL EXPOSED AREAS SHALL BE PROTECTED AGAINST WASHOUTS AND SOIL EROSION

1 TREE PLANTING DIAGRAM

GENERAL NOTES

1. PLANT MATERIAL SHALL BE NURSERY GROWN AND BE BALLED AND BURLAPPED OR CONTAINER GROWN. SIZES AND SPREADS ON PLANT LIST REPRESENT MINIMUM REQUIREMENTS.

2. SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST ADDITION OF ANSI Z60.I AMERICAN STANDARD OF NURSERY STOCK, BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.

3. ANY MATERIALS WITH DAMAGED OR CROOKED/ DISFIGURED LEADER, BARK ABRASION, SUNSCALD, INSECT DAMAGE, ETC. ARE NOT ACCEPTABLE AND WILL BE REJECTED.

4. GRADING SHALL PROVIDE SLOPES WHICH ARE SMOOTH AND CONTINUOUS. POSITIVE DRAINAGE SHOULD BE PROVIDED IN ALL AREAS.

5. ALL PLANT SPECIES SPECIFIED ARE SUBJECT TO AVAILABILITY. MATERIAL SHORTAGES IN THE LANDSCAPE INDUSTRY MAY REQUIRE SUBSTITUTIONS.

6. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. CALL UTILITY ALERT NETWORK PRIOR TO DIGGING.

7. CONTRACTOR SHALL REPORT ANY DISCREPANCIES.

8. PLANT SYMBOLS ILLUSTRATED ON THE LANDSCAPE PLAN ARE A GRAPHIC REPRESENTATION OF PROPOSED PLANT MATERIAL TYPES AND ARE INTENDED TO PROVIDE FOR VISUAL CLARITY. HOWEVER, THE SYMBOLS DO NOT NECESSARILY REPRESENT ACTUAL PLANT SPREAD AT THE TIME OF INSTALLATION.

9. ALL PLANTING BEDS SHALL BE MULCHED WITH A MINIMUM OF 3" OF SHREDDED WOOD MULCH, WITH THE EXCEPTION OF EVERGREEN TREES WHICH SHALL RECEIVE 1" OF SHREDDED HARDWOOD MULCH OVER 2" OF SOUTHERN PINE BARK.

10. SOD SHALL BE MINERAL BASE ONLY.

11. ALL PLANTS MATERIAL SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE.

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SCALE: AS SHOWN | DESIGNED BY: | DRAWN BY:

AT&T MOBILITY

LANDSCAPE IMPLEMENTATION PLAN

DRAWING NUMBER	REV
IL4407–LS01	0

11 x 17 "B" SIZE

6 5 4 3 2 1

D C B A