AT&T SITE NAME: TBD
AT&T SITE ID NUMBER: TBD
FA NUMBER: FBD

3426 STEPHAN ROAD

RACINE, WI 53402

VILLAGE OF CALEDONIA

RACINE COUNTY

SITE NAME: MRK TRAIL

SITE ID NUMBER: WI047

SHEET INDEX

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AT&T E-102	UTILITY PLAN	
AT&T E-501	GROUNDING DETAILS	
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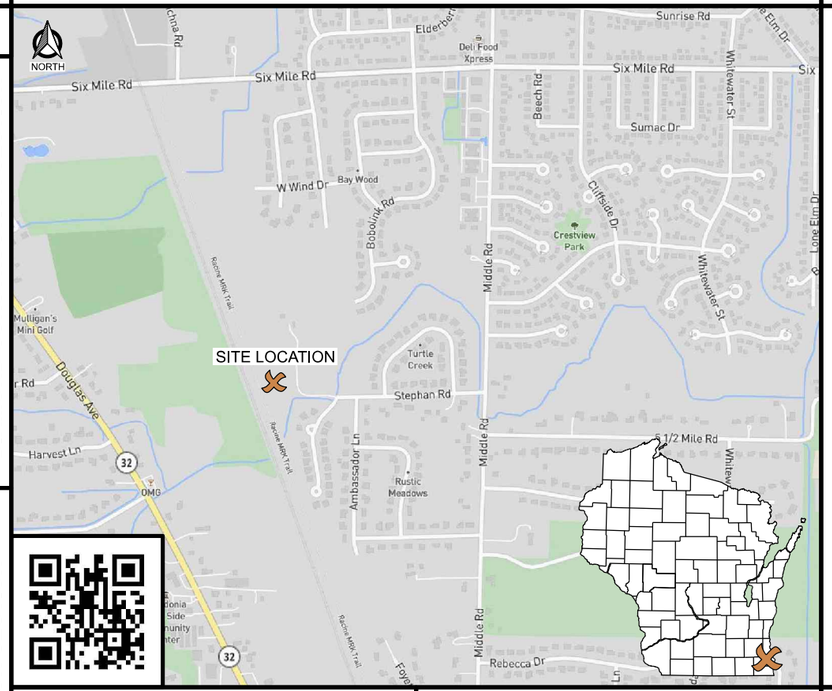
AT&T E-504	DC WIRING DIAGRAM	

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS/CONDITIONS ON SITE, IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK OR BE RESPONSIBLE FOR THE SAME.

SITE LOCATION MAP



UTILITY INFORMATION

ELECTRIC SERVICE PROVIDER
TBD
CONTACT:
PHONE:
WORK ORDER #:

FIBER SERVICE PROVIDER
TBD
CONTACT:
PHONE:
WORK ORDER #:

NATURAL GAS PROVIDER
TBD
CONTACT:
PHONE:
WORK ORDER #:

ONE CALL SYSTEMS INTERNATIONAL

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN, CALL DIGGERS HOTLINE

TOLL FREE: 1-800-242-8511
FAX A LOCATE: 1-800-242-5811

WI STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

DIRECTORY

TOWER OWNER:
DIAMOND COMMUNICATIONS, LLC.
120 MOUNTAIN AVE.
SPRINGFIELD, NJ 07081
CONTACT: JAMIE LAHR
PHONE: 262.649.4431

ANCHOR TENANT:
AT&T MOBILITY CORPORATION
930 NATIONAL PARKWAY
SCHAUMBURG, IL 60173

ENGINEERING COMPANY:
EDGE CONSULTING ENGINEERS, INC.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
CONTACT: AARON KENEALY
PHONE: 608.644.1449

SURVEYOR:
MERIDIAN SURVEYING, LLC
N9637 FRIENDSHIP DRIVE
KAUKAUNA, WI 54130
CONTACT: CRAIG KEACH
PHONE: 920.993.0881

PROJECT INFO

SITE LOCATION:
3426 STEPHAN ROAD
RACINE, WI 53402

PROPERTY OWNER:
CURTIS STUDEY
3470 SAGECREST TERRACE
FORT WORTH, TX 76109

SITE COORDINATES (PER 1A CERTIFICATION):
LAT (NAD 1983/2011): 42°-48'-24.21"
LONG (NAD 1983/2011): 87°-49'-19.44"
GROUND ELEVATION (NAVD 88): 648.7'

PLSS INFORMATION:
PART OF SW1/4 OF THE NE1/4,
SECTION 18, T4N., R.23E.,
VILLAGE OF CALEDONIA,
RACINE COUNTY
WISCONSIN

ENGINEER SEAL:

-PRELIMINARY-
NOT FOR CONSTRUCTION

SIGNATURE: _____

DATE: _____

I HEREBY CERTIFY THAT THIS PLAN SET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION OTHER THAN THE EXCEPTIONS NOTED IN THE SHEET INDEX, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

SIGNATURE: _____

DATE: _____

CONSULTANT:
Edge Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

TITLE SHEET
SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	G-001

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1.00 GENERAL REQUIREMENTS

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.

B. ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS. IF A CONTRACTOR HAS A QUESTION REGARDING THEIR EXACT MEANING THE ARCHITECT/ENGINEER SHALL BE NOTIFIED FOR CLARIFICATIONS.

C. WHERE SPECIFIED, MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR RECORDING THE RESULTS.

D. THE CONTRACTOR SHALL PROVIDE THE MATERIALS APPROVED BY THE FIRE MARSHALL FOR FILLING OR SEALING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.

E. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE UNLESS OTHERWISE NOTED.

F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE FROM THE START OF THE PROJECT TO THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO ASSESS CONDITIONS THAT MAY ADVERSELY AFFECT THE WORK OR THE COST OF THE WORK.

G. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION OF NEW PORTION OF THE WORK AND ALIGNMENT OF THE NEW PORTION OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE A & E.

H. NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.

I. NO CHANGES ARE TO BE MADE TO THESE PLANS WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE A & E.

J. ANY REFERENCE TO THE WORDS APPROVED OR APPROVAL IN THESE DOCUMENTS SHALL BE HERE DEFINED TO MEAN GENERAL ACCEPTANCE OR REVIEW AND SHALL NOT RELIEVE THE CONTRACTOR AND/OR HIS SUB-CONTRACTORS OF ANY LIABILITY IN FURNISHING THE REQUIRED MATERIALS OR LABOR SPECIFIED.

K. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR SUPPORTS FOR INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS.

L. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF THE FOLLOWING CODES/SPECIFICATIONS:

i. LATEST LOCAL JURISDICTIONAL BUILDING CODES.
ii. ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS
iii. AMERICAN CONCRETE INSTITUTE (ACI)
iv. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
v. ANSI/EIA - 222 - E
vi. UNIFORM BUILDING CODE (UBC)
vii. BUILDING OFFICIALS & CODE ADMINISTRATION (BOCA)
viii. NATIONAL ELECTRICAL CODE (NEC) WITH ALL AMENDMENTS
ix. AMERICAN INSTITUTE FOR STEEL CONSTRUCTION OR SPECIFICATIONS (AISC)
x. UFE SAFETY CODE NIFFA - 101
xi. FEDERAL AVIATION REGULATIONS

1.03 CONFLICTS

A. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR PERFORMING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSION AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSIONS WHICH MAY INADVERTENTLY OCCUR SHALL BE SUBMITTED TO THE SDM OR DESIGNATED REPRESENTATIVES FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH WORK IN THE AFFECTED AREAS.

B. THE CONTRACTOR SHALL NOTIFY A & E OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES AS THEY MAY BE DISCOVERED IN THE PLANS, SPECIFICATIONS AND NOTES PRIOR TO STARTING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERRORS, OMISSIONS, OR INCONSISTENCIES AFTER THE START OF CONSTRUCTION THAT HAVE NOT BEEN BROUGHT TO THE ATTENTION OF THE A & E AND SHALL INCUR ANY EXPENSES REQUIRED TO RECTIFY THE SITUATION. THE METHOD OF CORRECTION SHALL BE APPROVED BY THE A & E.

C. THE CONTRACTOR, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING WHICH THE CONTRACTOR MIGHT NOT HAVE FULLY INFORMED HIMSELF PRIOR TO BIDDING.

D. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED WILL BE ACCEPTED AS A REASON FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL THE REQUIREMENTS OF THE CONTACT DOCUMENTS.

1.07 PROTECTION

A. PROTECT FINISHED SURFACES, INCLUDING JAMBS AND WALLS USED AS PASSAGEWAYS THROUGH WHICH EQUIPMENT AND MATERIALS WILL PASS.

B. PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIAL TO BE MOVED OVER SUCH SURFACES.

C. MAINTAIN FINISHED SURFACES CLEAN, UNMARRED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE SDM.

D. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS.

1.08 REPAIRS AND REPLACEMENTS

A. IN EVENT OF DAMAGES, THE CONTRACTOR SHALL NOTIFY OWNER SDM, THEN PROMPTLY MAKE ALL REPLACEMENTS AND REPAIRS AT NO ADDITIONAL COST TO OWNER.

B. ADDITIONAL TIME THAT IS REQUIRED TO SECURE REPLACEMENTS AND TO MAKE REPAIRS WILL NOT BE CONSIDERED BY OWNER TO JUSTIFY EXTENSION IN THE CONTRACT TIME FOR COMPLETION.

1.10 CLEAN UP

A. THE CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK, AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING, INCLUDING ALL TOOLS, SCAFFOLDING AND SURPLUS MATERIALS, AND SHALL LEAVE THE WORK AREA CLEAN AND READY FOR USE EACH DAY.

B. EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIAL, DUST, SMUDGES, AND OTHER FOREIGN MATTER.

i. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
ii. IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.

C. INTERIOR: VISUALLY INSPECT INTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIAL, SMUDGES AND OTHER FOREIGN MATTER.

i. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
ii. REMOVE PAINT DROPPINGS, SPOTS, STAINS AND DIRT FROM FINISHED SURFACES.

D. CONTRACTOR SHALL WASH AND WAX FLOOR PRIOR TO FINAL ACCEPTANCE FROM SDM. WAX SHALL BE THE ANTI-STATIC TYPE.

1.12 RELATED DOCUMENTS AND COORDINATION

A. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCES OF THE WORK EACH CONTRACTOR JUST REFERS ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

B. THE CONTRACTOR SHALL SUPERVISE AND COORDINATE ALL WORK, USING HIS PROFESSIONAL KNOWLEDGE AND SKILLS. HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES, AND FOR SUPERVISING, SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK.

1.13 SHOP DRAWINGS

A. CONTRACTOR TO SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS AND THROUGH THE GENERAL CONTRACT TO THE SDM FOR APPROVAL.

B. SHOP DRAWINGS FOR ALL STRUCTURAL STEEL SHALL BE SUBMITTED TO THE ENGINEER OF RECORD UNLESS SPECIFICALLY NOTED OTHERWISE; CONTRACTOR SHALL NOT FABRICATE STEEL UNTIL DRAWINGS HAVE BEEN ACCEPTED IN WRITING.

C. ALL SHOP DRAWINGS TO BE REVISED, CHECKED AND CORRECTED BY GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE SDM.

1.14 PRODUCTS AND SUBSTITUTIONS

A. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBMISSION. IN EACH REQUEST IDENTIFY THE PRODUCT FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED INPSECTIONS AND DRAWING NUMBERS, AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.

B. ALL NECESSARY PRODUCT DATA AND CUT SHEETS SHOULD PROPERLY INDICATES AND DESCRIBE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE SDM, SUBMIT ACTUAL SAMPLES TO THE SDM FOR APPROVAL IN LIEU OF CUT SHEETS.

CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

GENERAL SPECIFICATIONS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	G-002

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1.15 COMPLIANCE

A. ALL MATERIALS, DESIGN AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES (SOME ARE LISTED HEREIN) ORDINANCES, AND AUTHORITIES HAVING JURISDICTION OVER THE WORK. UPON THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROVIDE CARRIER WITH THE CERTIFICATES OF OCCUPANCY (IF REQUIRED), JOB SITE PERMITTED PLANS AND INSPECTION CARD WITH ALL FINAL INSPECTION SIGNATURES AND OTHER LEGAL DOCUMENTS TO VERIFY SUCH COMPLIANCES. WHERE NO CODES EXIST, THE WORK SHALL CONFORM TO THE UNIFORM BUILDING CODE AND/OR THE SPECIFICATIONS HEREIN, WHICHEVER IS MORE STRINGENT AND A DOCUMENT STATEMENT SHALL BE FURNISHED TO THIS EFFECT.

B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY COMPLIANCE WITH THE GOVERNING CODES AND TO NOTIFY THE SDM OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.

C. REFERENCES TO ANY STANDARD OR CODE OF PRACTICES IN THIS SPECIFICATION SHALL BE DEEMED TO MEAN THE EDITION CURRENT AT THE TIME OF AWARD OF THE CONTRACT.

D. THE TELECOMMUNICATIONS EQUIPMENT SPACE SHOWN IN THESE DRAWINGS IS NOT CUSTOMARILY OCCUPIED. WORK TO BE PERFORMED IN THIS FACILITY CANNOT REASONABLY BE PERFORMED BY PERSONS WITH A SEVERE IMPAIRMENT TO MOBILITY, SIGHT OR HEARING, THEREFORE, PER THE APPLICABLE CODES; THIS FACILITY SHALL BE EXEMPTED FROM ALL TITLE 24 ACCESS REQUIREMENTS.

E. THE CONTRACTOR SHALL COMPLY WITH ALL ZONING AND SITE ACQUISITION SPECIAL STIPULATIONS AS OUTLINED IN THE JOB SPECIFICATIONS, OR AS DIRECTED BY THE SDM.

i. ANSI/EIA - 222 - G
ii. UNIFORM BUILDING CODE (UBC)
iii. BUILDING OFFICIALS & CODE ADMINISTRATION (BOCA)
iv. NATIONAL ELECTRICAL CODE (NEC) WITH ALL AMENDMENTS
v. AMERICAN INSTITUTE FOR STEEL CONSTRUCTION OR SPECIFICATIONS (AISC)
vi. LIFE SAFETY CODE NFFA - 101
vii. FEDERAL AVIATION REGULATIONS

SERVICE NOTES:

A. ELECTRICAL PLANS, DETAILS, AND DIAGRAMS ARE DIAGRAMMATIC ONLY; VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS WITH OWNER; PLACEMENT AND ROUTING OF ALL COMPONENTS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

B. SERVICE EQUIPMENT SHALL HAVE A FAULT WITHSTAND RATING EQUAL TO OR EXCEEDING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SUPPLY TERMINAL. INSTALLATION SHALL BE FREE FROM ALL FAULTS AND GROUNDS.

C. ALL ELECTRICAL EQUIPMENT, CONDUITS, AND SUPPORT SHALL BE ABLE TO WITHSTAND 80 M.P.H. WIND SPEED; EXPOSURE C.

D. ALL ELECTRICAL EQUIPMENT SHALL HAVE A PERMANENTLY AFFIXED NEOPRENE PLASTIC LABEL – BLACK ON WHITE; LETTER HEIGHT SHALL BE ¼"; ALL NAMEPLATES TO BE FASTENED WITH (2) STAINLESS STEEL SCREWS, NOT ADHESIVE.

E. ALL WIRING SHALL BE COPPER WITH THHN/THWN DUAL RATED 600V, COLOR CODED, #12 AWG MINIMUM UNLESS NOTED OTHERWISE.

CONDUIT NOTES:

A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS, OR EXPOSED ON BUILDING EXTERIOR.

B. ELECTRICAL METALLIC TUBING SHALL BE U.L. LABEL; FITTING SHALL BE GLAND RING COMPRESSION TYPE.

C. CORING THROUGH FLOORS AND WALLS SHALL NOT BE DONE WITHOUT FINAL APPROVAL OF BUILDING OWNER OR OWNER REPRESENTATIVE.

D. CORING SHALL NOT BE PERFORMED DURING WORKING HOURS UNLESS OTHERWISE APPROVED BY THE OWNER.

GENERAL NOTES:

A. SUBMITTAL OF BID INDICATES CONTRACTOR IS FAMILIAR WITH ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED AS DETAILED AND OUTLINED IN THESE DRAWINGS.

B. THE ELECTRICAL PORTION OF THESE DRAWINGS IS ONLY A PART OF THE OVERALL DESIGN. IT IS NECESSARY FOR THE ELECTRICIAN TO CONSIDER ALL ASPECTS OF THIS PROJECT WHEN BIDDING AND PLANNING THE WORK.

C. IN THE EVENT OF A CONFLICTING DESIGN OR NOTATION, THE CONTRACTOR SHALL ASSUME THE MOST EXPENSIVE OR RESTRICTIVE METHOD UNTIL A CLARIFICATION IS MADE.

D. ALL THINGS, WHICH IN THE OPINION OF THE CONTRACTOR ARE DEFICIENCIES, OMISSIONS, CONTRADICTIONS, OR AMBIGUITIES, IN THESE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK PROCEEDS; ALL CLARIFICATIONS MUST BE RECEIVED IN WRITING IN ORDER FOE THE MATTER TO BE CONSIDERED RESOLVED.

E. ELECTRICAL WORK SHALL INCLUDE BUT NOT LIMITED TO ALL MATERIALS AND LABOR TO COMPLETE ALL ELECTRICAL SYSTEMS INCLUDING LIGHTING, LOW VOLTAGE SYSTEMS, PANELS, POWER AND TELEPHONE DATA SERVICE, CONTROL WIRING, AND GROUNDING.

F. ALL WORK TO BE EXECUTED IN A WORKMAN LIKE MANNER AND SHALL PRESENT A NEAT, UNIFORM, AND WELL INSTALLED APPEARANCE; THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROTECTION, CLEAN-UP AND RESTORATION OF OWNER FACILITIES ASSOCIATED WITH THE WORK.

G. SUBMITTAL OF BID INDICATES CONTRACTOR IS AWARE AND WILL CONFORM TO ALL LOADING AND UNLOADING RESTRICTIONS, ELEVATOR RESTRICTIONS, AND UNDERSTANDS OWNER EXPECTATION REGARDING TO THE SCHEDULE OF CORING AND OTHER TENANT IMPACTING ACTIVITIES.

H. CONTRACTOR TO VERIFY ACCEPTANCE OF THESE PLANS AND DESIGNS WITH THE LOCAL UTILITY COMPANY ENGINEER BEFORE THE START OF ANY WORK AND ORDERING OF ANY MATERIAL.

I. CONTRACTOR TO VERIFY OWNER APPROVAL OF ANY PLANNED OUTAGES PRIOR TO SUBMITTAL OF BID.

THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

GENERAL SPECIFICATIONS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI1047
RACINE, WISCONSIN 53402

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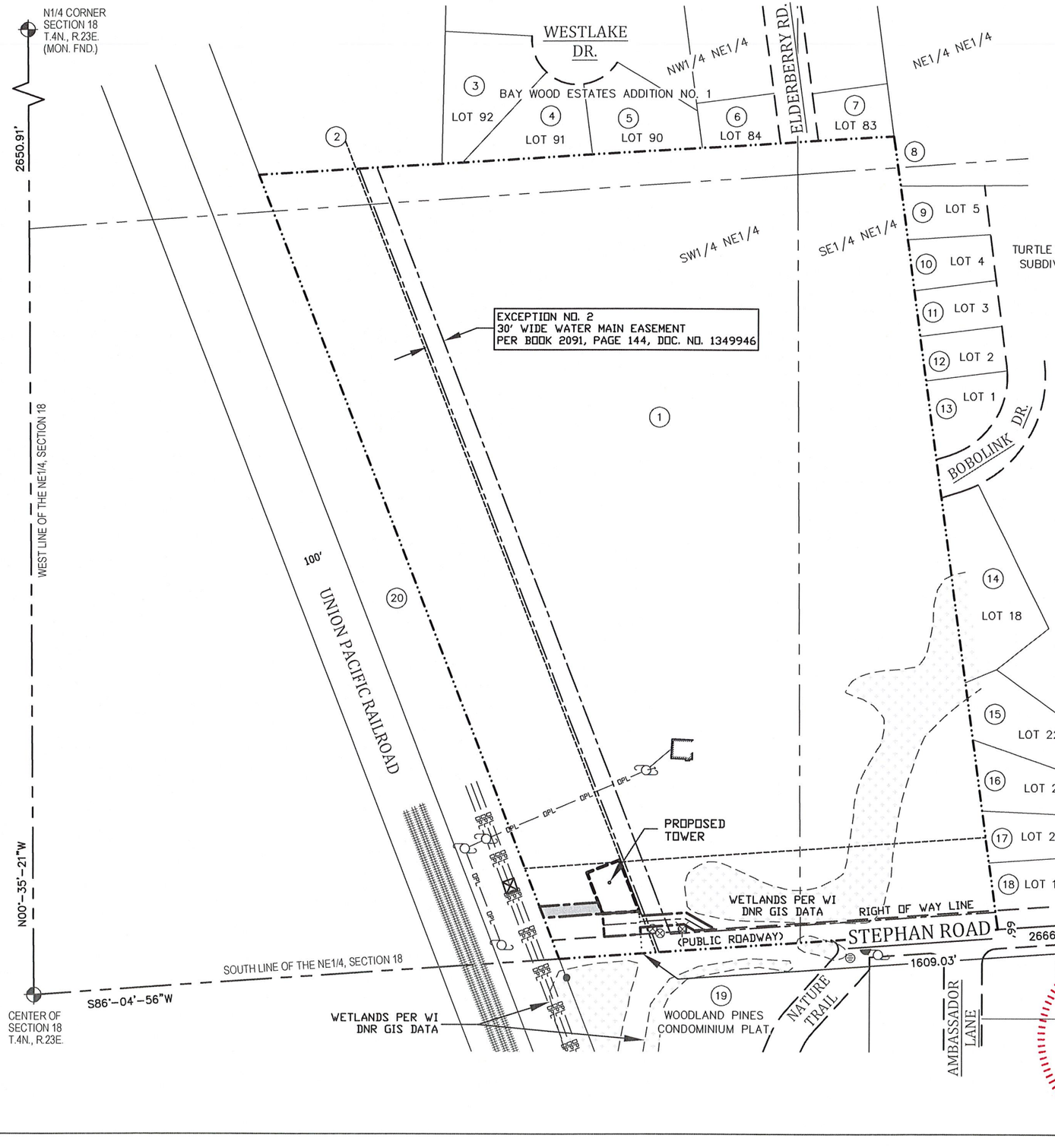
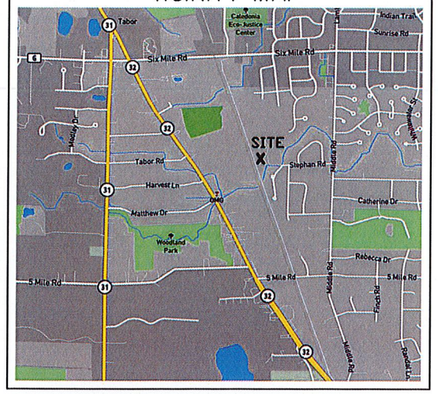
CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	G-003



BEARINGS REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD83/2011) - SOUTH ZONE AND THE SOUTH LINE OF THE NE1/4, SECTION 18, T.4N., R.23N., WHICH BEARS: S86°-04'-56"W

-VICINITY MAP-



PARCEL OWNERSHIP INFORMATION

(1) #104-04-23-18-006-000 - CURTIS L STUDEY
(2) #104-04-23-18-007-000 - JEROME J & DONNA M LUDWIG TRUST
(3) #104-04-23-18-005-210 - JONATHAN & LISA BAHR
(4) #104-04-23-18-005-200 - CHRISTOPHER & TERI NITKA
(5) #104-04-23-18-005-190 - JOHN & JENNIFER SOCHA
(6) #104-04-23-18-005-140 - KELLY SALVHUS & LISA PEDERSEN
(7) #104-04-23-18-005-120 - LAWRENCE SURA
(8) #104-04-23-18-302-480 - JON & MARIE HERRITZ
(9) #104-04-23-18-303-050 - KRISTIE LINGO
(10) #104-04-23-18-303-040 - NICK DREA
(11) #104-04-23-18-303-030 - JOHN CAMMACK
(12) #104-04-23-18-303-020 - SHAWN & STEPHANIE GENKE
(13) #104-04-23-18-303-010 - STEPHAN & MARY SORSEK
(14) #104-04-23-18-303-180 - GREGORY & JILL MILLER
(15) #104-04-23-18-303-220 - AIDAN & ANNELIESE BELCHER
(16) #104-04-23-18-303-210 - MARCEL VANIE & RACHEL HARLESTON
(17) #104-04-23-18-303-200 - CAROLYN TOBIAS
(18) #104-04-23-18-303-190 - JANE RUH
(19) #104-04-23-18-208-070 - CHERYL LEIBKE
(20) #104-04-23-18-209-010 - WISCONSIN ELECTRIC POWER COMPANY

-LEGEND-

- = 1" X 18" IRON PIPE SET
- = 1" IRON PIPE FOUND
- = COUNTY MONUMENT FOUND
- = WATER VALVE
- = FIRE HYDRANT
- = STORM INLET (ROUND)
- = MANHOLE
- = EXISTING POWER POLE
- B.O.C. = BACK OF CURB
- OPL — OPL — = OVERHEAD ELECTRIC
- W — W — = WATER MAIN
- = EDGE OF BRUSH/WOODS
- = PROPERTY LINE
- = EXISTING SPRUCE TREE
- = EXISTING CEDAR TREE
- = EXISTING TREE

SURVEYOR'S CERTIFICATE

I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC., certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

Dated this 8th day of APRIL, 2024.

WISCONSIN
CRAIG A. KEACH
S-2333
NEENAH, WI.
LAND SURVEYOR

WISCONSIN PROFESSIONAL LAND SURVEYOR
Craig A. Keach, S-2333

SURVEYED FOR:

Diamond Communications

820 MORRIS TURNPIKE, SUITE 104
SHORT HILLS, NJ 07078

GRAPHIC SCALE
1 inch = 200 ft.
0 100 200 400

MERIDIAN
SURVEYING, LLC
N9637 Friendship Drive Office: 920-993-0881
Kaukauna, WI 54130 Fax: 920-273-6037

SITE NAME:
MRK TRAIL

SITE NUMBER:
W1047

SITE ADDRESS:
3426 STEPHAN ROAD
RACINE, WI 53402

PROPERTY OWNER:
CURTIS STUDEY
3470 SAGECREST TERRACE
FORT WORTH, TX 76109

PARCEL NO.: 104-04-23-18-006-00

DEED REFERENCE: DOC. NO. 2071145

LEASE EXHIBIT
FOR
DIAMOND COMMUNICATIONS

BEING A PART OF THE SW1/4 OF THE NE1/4, SECTION 18, T.4N., R.23E., VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN

5	3/25/24	Revised Easements	JD
5	3/25/24	Revised Lease and Easements	JD
4	10/26/22	Revised Text	JD
3	10/11/22	Added Lease and Easements	JD
2	9/2/22	Added Additional Locates	JD
1	8/22/22	Preliminary Survey	JD

DRAWN BY: J.D.	FIELD WORK DATE: 8-15-22
CHECKED BY: S.C.D.	FIELD BOOK: M-68, PG. 1
JOB NO.: 13818	SHEET 1 OF 3

SURVEYOR'S CERTIFICATE

I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC., certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

Dated this 8th day of APRIL, 2024.

Craig A. Keach

WISCONSIN PROFESSIONAL LAND SURVEYOR
Craig A. Keach, S-2333

WISCONSIN ☆ CRAIG A. KEACH S-2333 NEENAH, WI. ☆ LAND SURVEYOR

PROPOSED TOWER BASE

LATITUDE: 42°-48'-24.21"
LONGITUDE: 87°-49'-19.44"
(Per North American Datum of 83/2011)
Ground Elevation: 648.7'
(Per North American Vertical Datum of 1988)

-LEGEND-

- o = 1" X 18" IRON PIPE SET
- ● = 1" IRON PIPE FOUND
- = COUNTY MONUMENT FOUND
- ⊗ = WATER VALVE
- = FIRE HYDRANT
- = STORM INLET (ROUND)
- = MANHOLE
- = EXISTING POWER POLE
- B.O.C. = BACK OF CURB
- — OPL — OPL — = OVERHEAD ELECTRIC
- — W — W — = WATER MAIN
- = EDGE OF BRUSH/WOODS
- = PROPERTY LINE
- = EXISTING SPRUCE TREE
- = EXISTING CEDAR TREE
- = EXISTING TREE

SURVEY NOTES:

-THE LOCATION OF THE EXISTING UTILITIES, AS SHOWN ON THIS PLAN, ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL LOCATION AND DEPTH OF ALL EXISTING UTILITIES. THE OWNER AND THE SURVEYOR SHALL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATION SHOWN.

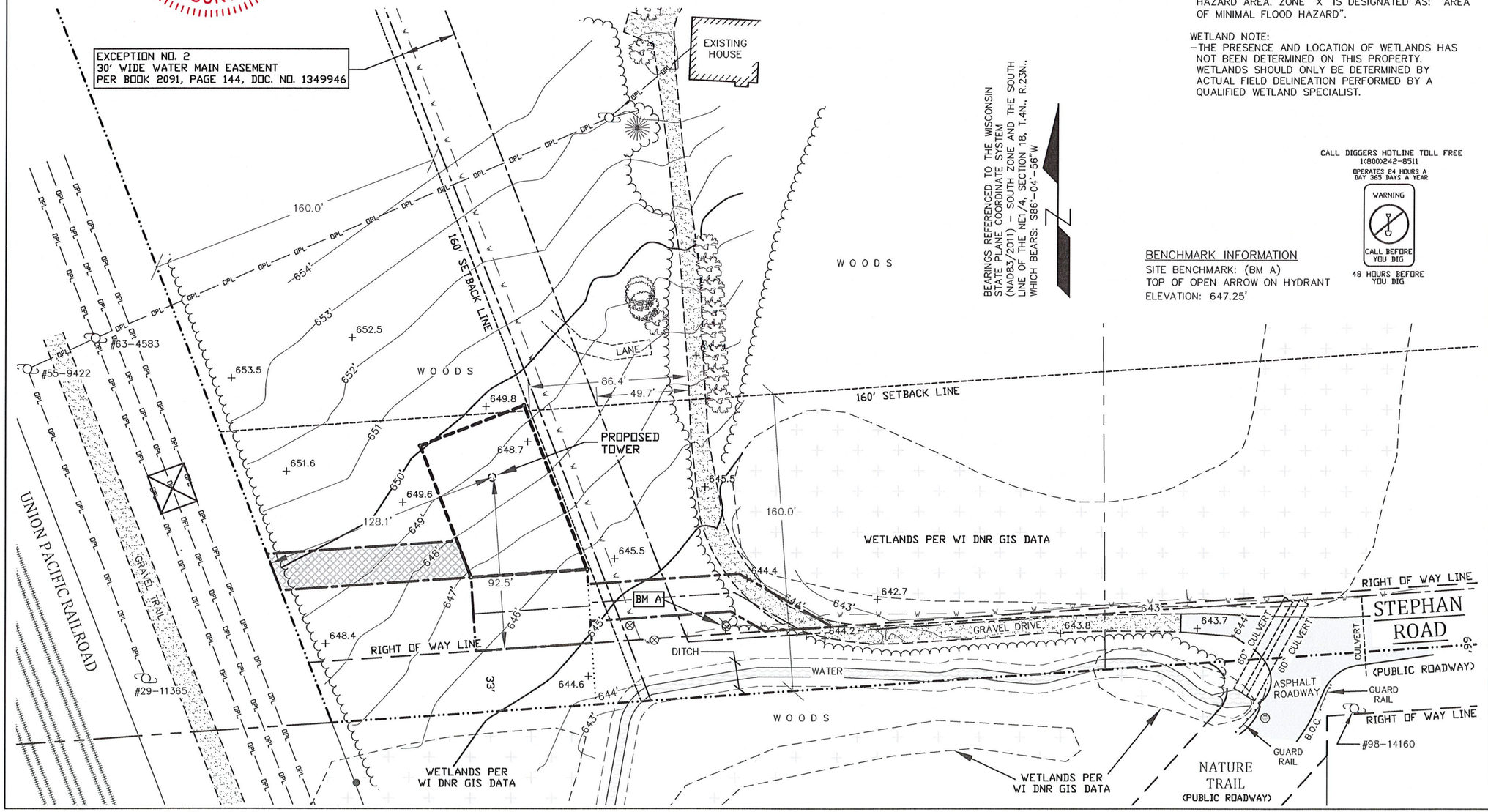
-DIGGERS HOTLINE TICKET NO. 20223305671.

-THIS SURVEY WAS MADE WITH THE AID OF A TITLE REPORT PREPARED BY OLD REPUBLIC TITLE INSURANCE COMPANY AS COMMITMENT NO. 01-22032836-01S WITH AN EFFECTIVE DATE OF JULY 6, 2022. ALL ENCUMBRANCES, IF ANY, ARE PLOTTED AND SHOWN.

-THIS IS NOT A BOUNDARY SURVEY OF THE PARENT PARCEL. THIS SURVEY REPRESENTS THE LEASE AREA AND EASEMENTS ONLY.

-ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD MAPS, THE PROPOSED TELECOMMUNICATIONS SITE IS LOCATED IN ZONE "X", FIRM PANEL NO. 55101C0112D, DATED MAY 2 2012, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. ZONE "X" IS DESIGNATED AS: "AREA OF MINIMAL FLOOD HAZARD".

WETLAND NOTE:
-THE PRESENCE AND LOCATION OF WETLANDS HAS NOT BEEN DETERMINED ON THIS PROPERTY. WETLANDS SHOULD ONLY BE DETERMINED BY ACTUAL FIELD DELINEATION PERFORMED BY A QUALIFIED WETLAND SPECIALIST.



SURVEYED FOR:

Diamond Communications

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SHORT HILLS, NJ 07078

GRAPHIC SCALE
1 inch = 60 ft.
0 30 60 120

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DRAWN BY: J.D.	FIELD WORK DATE: 8-15-22
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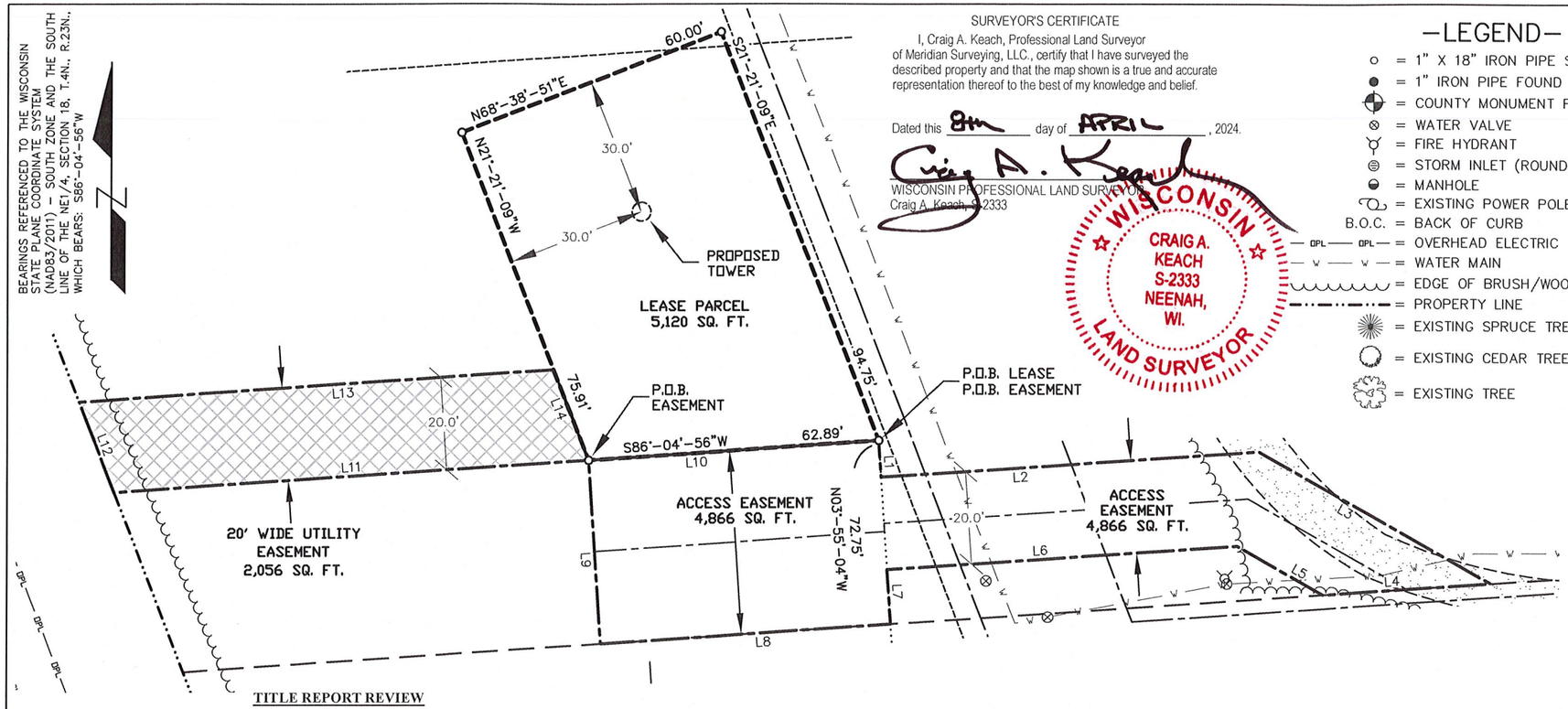
JOB NO.: 13818	SHEET 2 OF 3

BEARINGS REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD83/2011) – SOUTH ZONE AND THE SOUTH LINE OF THE NE1/4, SECTION 18, T.4N., R.23N., WHICH BEARS: S86°-04'-56"W



SURVEYOR'S CERTIFICATE

I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC., certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

Dated this 9th day of APRIL, 2024.

Craig A. Keach

WISCONSIN PROFESSIONAL LAND SURVEYOR
Craig A. Keach, S-2333

WISCONSIN
CRAIG A. KEACH S-2333 NEENAH, WI.
LAND SURVEYOR

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- = PROPERTY LINE
- = EXISTING SPRUCE TREE
- = EXISTING CEDAR TREE
- = EXISTING TREE

LINE TABLE		
Line #	Direction	Length
L1	S03°55'04"E	7.96'
L2	N86°04'56"E	81.73'
L3	S60°30'51"E	57.73'
L4	S86°04'56"W	36.33'
L5	N60°30'51"W	21.40'
L6	S86°04'56"W	75.73'
L7	S03°55'04"E	11.78'
L8	S86°04'56"W	62.89'
L9	N03°55'04"W	39.75'
L10	N86°04'56"E	62.89'
L11	S86°04'56"W	102.82'
L12	N21°15'16"W	20.95'
L13	N86°04'56"E	102.79'
L14	S21°21'09"E	20.96'

TITLE REPORT REVIEW

TITLE REPORT: OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

COMMITMENT NO. 01-22032836-01S

EFFECTIVE DATE: JUNE 28, 2022

FEE SIMPLE TITLE VESTED IN: CURTIS L. STUDEY

NOTE: THE STATEMENT OF APPLICABILITY REFERS TO THE LEASE SITE AND ANY EASEMENTS PERTINENT THEREUNTO WHERE SPECIFIC ENCUMBRANCES AFFECT THE LEASE SITE AND/OR A PERTINENT EASEMENT, THEY ARE IDENTIFIED AS SUCH.

SCHEDULE B-II

(1) ORDER CORRECTING DESCRIPTIONS IN CONVEYANCES, RECORDED 09/19/1945 AS BOOK 86, PAGE 252 OF RACINE COUNTY RECORDS. **THIS IS NOT A SURVEY RELATED ITEM.**

(2) GRANT OF EASEMENT IN FAVOR OF CRESTVIEW SANITARY DISTRICT, A MUNICIPAL CORPORATION, RECORDED 09/10/1991, AS BOOK 2091, PAGE 144 OF RACINE COUNTY RECORDS. **APPLIES TO PARENT PARCEL AND IS PLOTTED AND SHOWN.**

(3) RESOLUTION NO. 2006-08 RESOLUTION CREATING CRESTVIEW SEWER UTILITY DISTRICT OF THE VILLAGE OF CALEDONIA, RECORDED 02/13/2006 AS INSTRUMENT NO. 2072271 OF RACINE COUNTY RECORDS. **THIS IS NOT A SURVEY RELATED ITEM.**

(4) RESOLUTION NO. 2006-09 RESOLUTION CREATING CRESTVIEW WATER UTILITY DISTRICT OF THE VILLAGE OF CALEDONIA, RECORDED 02/13/2006 AS INSTRUMENT NO. 2072269 OF RACINE COUNTY RECORDS. **THIS IS NOT A SURVEY RELATED ITEM.**

(5) RESOLUTION 2007-10 RESOLUTION CREATING CALEDONIA EAST WATER UTILITY DISTRICT AND CALEDONIA EAST SEWER UTILITY DISTRICT FOR TH VILLAGE OF CALEDONIA ADOPTED MARCH 20, 2007, RECORDED 04/04/2008 AS INSTRUMENT NO. 2126809 OF RACINE COUNTY RECORDS. **THIS IS NOT A SURVEY RELATED ITEM.**

NOTE: AFFIDAVIT OF CORRECTION, RECORDED 04/26/2007, AS INSTRUMENT NO. 2129598 OF RACINE COUNTY RECORDS. **THIS IS NOT A SURVEY RELATED ITEM.**

(6) RESOLUTION CREATING CALEDONIA WATER UTILITY DISTRICT AND CALEDONIA SEWER UTILITY DISTRICT, RECORDED 10/19/2010 AS INSTRUMENT NO. 2265167 OF RACINE COUNTY RECORDS. **THIS IS NOT A SURVEY RELATED ITEM.**

NOTE: AFFIDAVIT OF CORRECTION, RECORDED 11/16/2010, AS INSTRUMENT NO. 2268473 OF RACINE COUNTY RECORDS. **THIS IS NOT A SURVEY RELATED ITEM.**

PARENT PARCEL

SITUATED IN THE COUNTY OF RACINE AND STATE OF WISCONSIN AND DESCRIBED AS FOLLOWS:

THAT PART OF THE NORTHEAST 1/4 OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 23 EAST, BOUNDED AS FOLLOWS: BEGIN AT A POINT ON THE EAST AND WEST 1/4 LINE WHICH POINT IS 990.3 FEET WEST OF THE EAST ¼ CORNER OF SAID SECTION 18; CONTINUE WEST ON SAID 1/4 LINE 764.7 FEET TO THE EASTERLY LINE OF RIGHT OF WAY OF THE MILWAUKEE ELECTRIC RAILWAY AND LIGHT COMPANY; THENCE NORTHERLY ALONG THE EASTERLY LINE OF SAID RIGHT OF WAY 1464.2 FEET; THENCE EAST 1105.1 FEET TO A POINT 1167.2 FEET WEST OF THE EAST LINE OF SAID NORTHEAST 1/4; THENCE SOUTH 1374 FEET TO THE PLACE OF BEGINNING. SAID LAND BEING IN THE TOWN OF CALEDONIA, RACINE COUNTY, WISCONSIN.

TAX ID NO: 104-04-23-18-006-000

DERIVATION CLAUSE

BEING THE SAME PROPERTY CONVEYED TO CURTIS L. STUDEY, GRANTEE, FROM FOSTER STREET, L.C., A TEXAS LIMITED LIABILITY COMPANY, GRANTOR RECORDED 02/06/2006, AS INSTRUMENT NO: 2071145 OF RACINE COUNTY RECORDS.

LEASE PARCEL

PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION EIGHTEEN (18), TOWNSHIP FOUR (4) NORTH, RANGE TWENTY-THREE (23) EAST, VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN, CONTAINING 5,120 SQUARE FEET (0.118 ACRES) OF LAND AND BEING DESCRIBED BY:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 18; THENCE S86°-04'-56"W 1609.03 FEET ALONG THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 18; THENCE N03°-55'-04"W 72.75 FEET TO THE POINT OF BEGINNING; THENCE S86°-04'-56"W 62.89 FEET; THENCE N21°-21'-09"W 75.91 FEET; THENCE N68°-38'-51"E 60.00 FEET; THENCE S21°-21'-09"E 94.75 FEET TO THE POINT OF BEGINNING. BEING SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

20 FOOT WIDE ACCESS EASEMENT

PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION EIGHTEEN (18), TOWNSHIP FOUR (4) NORTH, RANGE TWENTY-THREE (23) EAST, VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN, CONTAINING 4,866 SQUARE FEET (0.112 ACRES) OF LAND AND BEING DESCRIBED BY:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 18; THENCE S86°-04'-56"W 1609.03 FEET ALONG THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 18; THENCE N03°-55'-04"W 72.75 FEET TO THE POINT OF BEGINNING; THENCE S03°-55'-04"E 7.96 FEET; THENCE N86°-04'-56"E 81.73 FEET; THENCE S60°-30'-51"E 57.73 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF STEPHAN ROAD; THENCE S86°-04'-56"W 36.33 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE; THENCE N60°-30'-51"W 21.40 FEET; THENCE S86°-04'-56"W 75.73 FEET; THENCE S03°-55'-04"E 11.78 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF STEPHAN ROAD; THENCE S86°-04'-56"W 62.89 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE; THENCE N03°-55'-04"W 39.75; THENCE N86°-04'-56"E 62.89 FEET TO THE POINT OF BEGINNING. BEING SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

20 FOOT WIDE UTILITY EASEMENT

PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION EIGHTEEN (18), TOWNSHIP FOUR (4) NORTH, RANGE TWENTY-THREE (23) EAST, VILLAGE OF CALEDONIA, RACINE COUNTY, WISCONSIN, CONTAINING 2,056 SQUARE FEET (0.047 ACRES) OF LAND AND BEING DESCRIBED BY:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 18; THENCE S86°-04'-56"W 1609.03 FEET ALONG THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 18; THENCE N03°-55'-04"W 72.75 FEET; THENCE S86°-04'-56"W 62.89 FEET TO THE POINT OF BEGINNING; THENCE S86°-04'-56"W 102.82 FEET TO A POINT ON THE EASTERLY LINE OF THE WE ENERGIES PROPERTY; THENCE N21°-15'-16"W 20.95 FEET ALONG SAID EASTERLY LINE; THENCE N86°-04'-56"E 102.79 FEET; THENCE S21°-21'-09"E 20.96 FEET TO THE POINT OF BEGINNING. BEING SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

SURVEYED FOR:

Diamond Communications

820 MORRIS TURNPIKE, SUITE 104
SHORT HILLS, NJ 07078

GRAPHIC SCALE
1 inch = 30 ft.

0 15 30 60

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JOB NO.: 13818	SHEET 3 OF 3

NORTH

EXISTING BURIED WATER MAIN (TYP.)

30.0'

EXTENTS OF EXISTING 30' WIDE WATER MAIN EASEMENT

WOODS

EXISTING TREE (TYP.)

EXISTING BUILDING

165' SETBACK LINE

165.0' SETBACK

EXISTING UTILITY POLE (TYP.)

OHE

EXISTING TREE LINE (TYP.)

EXISTING OVERHEAD POWER LINE (TYP.)

654'

653'

652'

651'

650'

649'

648'

647'

646'

645'

644'

643'

AG FIELD

WETLANDS

PROPOSED 50' FALL ZONE

PROPOSED FENCED COMPOUND AND LEASE AREA (5,120 sq. ft.)

PROPOSED 160' MONOPOLE

PROPERTY LINE

MRK TRAIL

PROPOSED 16' WIDE GRAVEL DRIVE

EXISTING TRANSMISSION TOWER

103.0'

133.1'

PROPOSED ADDITIONAL 2'-0" CLEARED SPACE ON EACH SIDE OF DRIVE. BRUSH AND TREE LIMBS TO BE CLEARED TO A HEIGHT OF 14' OVER ACCESS DRIVE

GRAVEL COMPOUND

EXISTING GRAVEL DRIVE

EXISTING GRAVEL DRIVE TO BE IMPROVED AND WIDENED TO 16'

PROPOSED ADDITIONAL 2'-0" CLEARED SPACE ON EACH SIDE OF DRIVE. BRUSH AND TREE LIMBS TO BE CLEARED TO A HEIGHT OF 14' OVER ACCESS DRIVE

INSTALL ADDITIONAL DIAMOND COMMUNICATIONS SIGN AT SITE ENTRANCE

C/L OF PROPOSED 20'-0" WIDE ACCESS EASEMENT

E

FO

20.0'

EXTENT OF PROPOSED 20'-0" WIDE UTILITY EASEMENT

40.0'

16.0'

RIGHT OF WAY

STEPHAN RD

EXISTING CULVERT (TYP.)

EXISTING WATER MAIN VALVE (TYP.)

EXISTING HYDRANT TO BE CLEARED WITHIN 10'-0" RADIUS

PROPOSED 40' GRAVEL TURNAROUND AREA

C/L OF PROPOSED 40'-0" WIDE ACCESS EASEMENT

EXISTING CREEK

COLOR LEGEND:

= APPROXIMATE AREA OF ENVIRONMENTAL CORRIDOR

APPROX. DISTANCE TO PROPERTY LINES:

- TOWER CENTER TO NORTH PROPERTY LINE = 1260'±
- TOWER CENTER TO SOUTH PROPERTY LINE = 126'±
- TOWER CENTER TO EAST PROPERTY LINE = 652'±
- TOWER CENTER TO WEST PROPERTY LINE = 133'±

25' 0 25' 50'

SCALE: 11" x 17" - 1" = 50'
22" x 34" - 1" = 25'

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:

Diamond Communications LLC

at&t mobility corp.

SITE PLAN

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	C-101

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COLOR LEGEND:

= APPROXIMATE AREA OF ENVIRONMENTAL CORRIDOR

NORTH

WOODS

30.0' EASEMENT

2.0'

EXTENTS OF EXISTING 30' WIDE WATER MAIN EASEMENT

EXISTING TREE (TYP.)

PROPOSED 60.0' FENCED COMPOUND & LEASE AREA

APPROX. 2.0'

EXISTING BURIED WATER MAIN (TYP.)

652'

651'

650'

30.0'

PROPOSED 160' MONOPOLE

30.0'

30.0'

PROPOSED 94.8' FENCED COMPOUND & LEASE AREA

EXISTING GRAVEL DRIVE

PROPOSED 75.9' FENCED COMPOUND & LEASE AREA

GRAVEL COMPOUND

WETLANDS

EXTENTS OF PROPOSED 20'-0" WIDE UTILITY EASEMENT

PROPOSED BURIED UTILITIES

PROPOSED ADDITIONAL 2'-0" CLEARED SPACE ON EACH SIDE OF DRIVE. BRUSH AND TREE LIMBS TO BE CLEARED TO A HEIGHT FO 14' OVER ACCESS DRIVE

EXISTING TREE LINE (TYP.)

PROPOSED TRANSFORMER & FIBER VAULT

6.0'

2.0'

5.0'

PROPOSED 16' WIDE GRAVEL ACCESS DRIVE; SEE A/C-501 FOR DETAILS

C/L OF PROPOSED 20'-0" WIDE ACCESS EASEMENT

20.0' EASEMENT

30.0'

16.0'

10.0'

2.9'

4.0'

PROPOSED 62.9' FENCED COMPOUND & LEASE AREA

648'

647'

646'

40.0' TURNAROUND

16.0' DRIVE

20.0' CLEAR

20.0'

645'

EXISTING WATER MAIN VALVE (TYP.)

10.0'

EXISTING HYDRANT

EXISTING HYDRANT TO BE CLEARED WITHIN 10'-0" RADIUS

RIGHT OF WAY

PROPOSED 40' GRAVEL TURNAROUND AREA

C/L OF PROPOSED 40'-0" WIDE ACCESS EASEMENT

PROPERTY LINE

WOODS

644'

PROPERTY LINE

643'

OHE

10' 0 10' 20'

SCALE: 11" x 17" - 1" = 20'
22" x 34" - 1" = 10'

k:\34000\34044\Design\CAD\CD\2024-02-05_Diamond_and_AT_T_CDs\C-102.dgn

CONSULTANT:

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PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:

Diamond Communications LLC

at&t mobility corp.

ENLARGED SITE PLAN

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SUBMITTAL:

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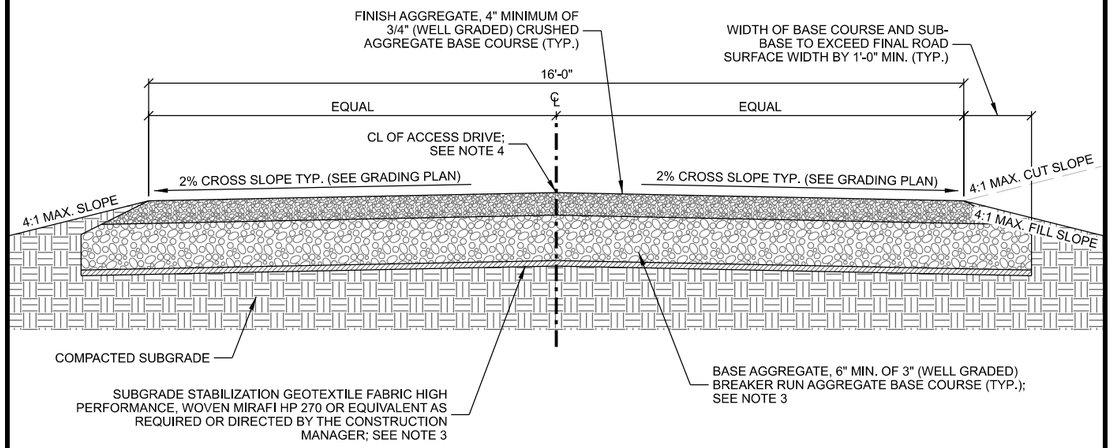
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

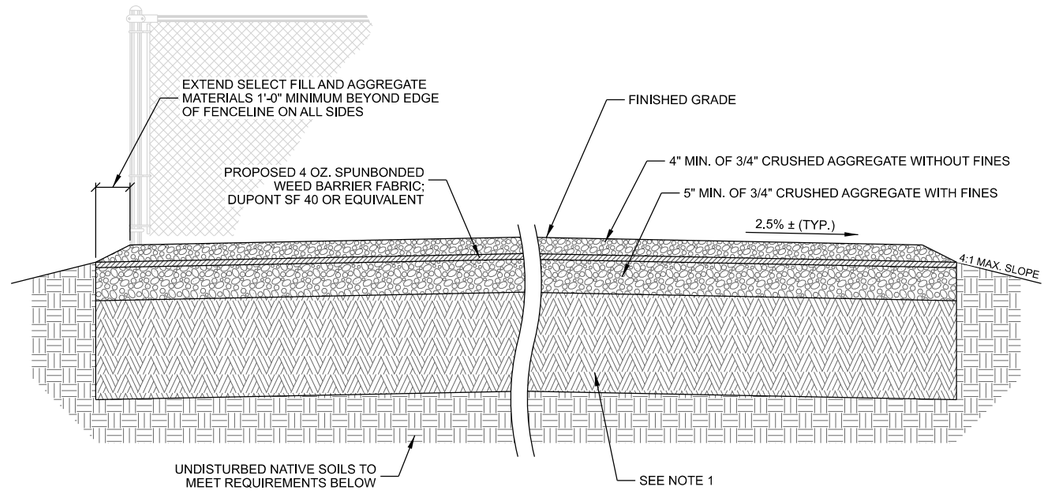
CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	C-102



GENERAL NOTES:

1. REMOVE ALL TOPSOIL, ORGANIC MATERIAL AND WET OR POOR SOILS ALONG ACCESS DRIVE. CONTRACTOR TO REVIEW SITE CONDITIONS AND CONSULT GEOTECHNICAL REPORT FOR ANTICIPATED DEPTH OF SOILS THAT WILL REQUIRE REMOVAL. IF POOR SOILS ARE ENCOUNTERED AT A DEPTH OF MORE THAN 12", CONTACT CONSTRUCTION MANAGER FOR GUIDANCE.
2. SUBGRADE TO BE COMPACTED TO 95% MODIFIED PROCTOR AND VERIFIED BY PROOF-ROLL WITH LOADED TRI-AXLE DUMP TRUCK. CONTACT CONSTRUCTION MANAGER FOR GUIDANCE FOR FAILING SUBGRADE SOILS.
3. FAILING AREAS OF SUBGRADE SHALL BE UNDERCUT TO A MINIMUM DEPTH OF 18" BELOW FINISH AGGREGATE AND STABILIZED WITH 3" (WELL GRADED) BREAKER RUN AGGREGATE OVER SUBGRADE STABILIZATION GEOTEXTILE FABRIC.
4. CONSULT GRADING PLAN OR SITE PLAN FOR FINAL SITE GRADES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASPHALT ACCESS DRIVE REPAIR AND RESTORATION FOLLOWING CONSTRUCTION COMPLETION. ANY DISTURBED OR DAMAGED AREAS SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITION UPON COMPLETION OF WORK.

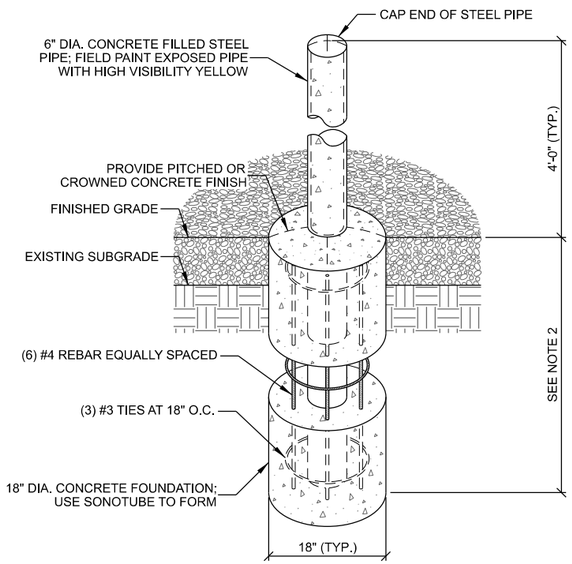
A GRAVEL DRIVE CROSS SECTION



NOTES:

1. REMOVE ALL TOPSOIL, ORGANIC MATERIAL AND WET OR POOR SOILS WITHIN COMPOUND AREA. CONTRACTOR TO REVIEW SITE CONDITIONS AND CONSULT GEOTECHNICAL REPORT FOR ANTICIPATED DEPTH OF SOILS THAT WILL REQUIRE REMOVAL. IF POOR SOILS ARE ENCOUNTERED SELECT FILL MAY BE REQUIRED. CONTACT CONSTRUCTION MANAGER FOR GUIDANCE.
2. FINAL TOWER FOUNDATION DESIGN RECOMMENDATIONS TO SUPERCEDE GRADING PLAN OR SITE PLAN ELEVATIONS.

B COMPOUND CROSS SECTION



NOTES:

1. MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTION
2. PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH
3. CONCRETE TO BE A MINIMUM OF 4,000 PSI AT 28 DAYS

C PIPE BOLLARD

THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:
Edge Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

CONSTRUCTION DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI1047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	C-501

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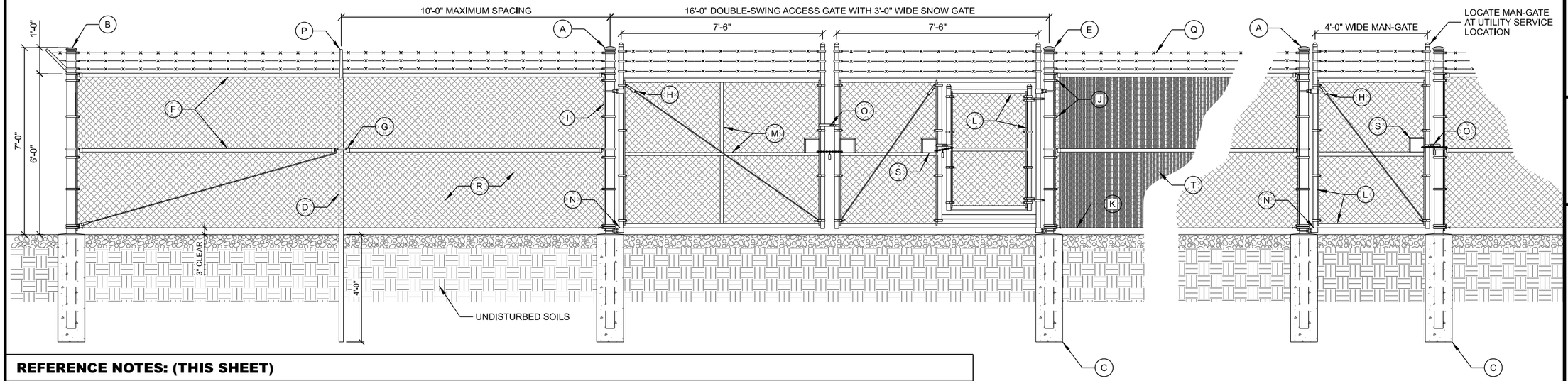
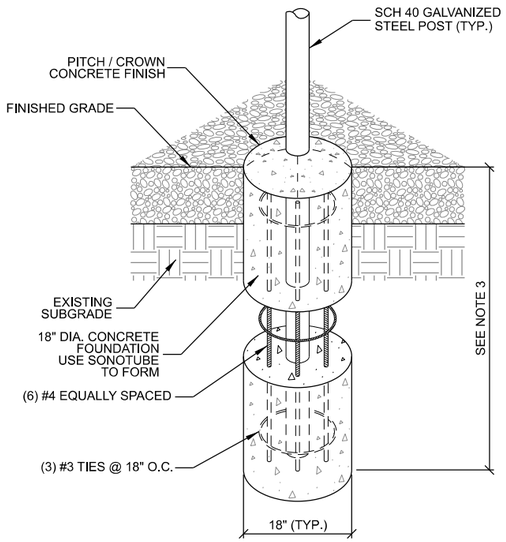


REFERENCE NOTES: (THIS SHEET)

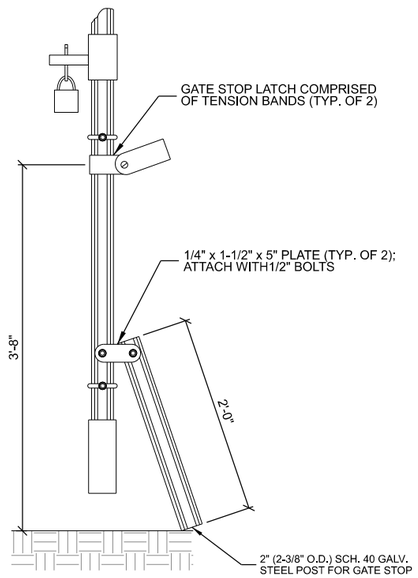
- (A) 4" (4-1/2" O.D.) SCH. 40 GALV. STEEL GATE POST
- (B) 4" (4-1/2" O.D.) SCH 40 GALV. STEEL CORNER POST
- (C) CONCRETE PIER FOUNDATION AT CORNERS AND GATE; SEE DETAIL BELOW
- (D) 2" (2-3/8" O.D.) SCH. 40 GALV. STEEL INTERMEDIARY LINE POSTS; LINE POSTS SHALL BE EQUALLY SPACED AT MAXIMUM 10'-0" O.C
- (E) FENCE POST CAP (SIZE VARIES)
- (F) 1-1/4" (1.66" O.D.) TOP RAIL & MID BRACE RAIL PIPE
- (G) OFFSET BRACE RAIL ENDS FOR MID BRACE RAIL
- (H) 5/16" O.D. TRUSS ROD WITH TRUSS TIGHTENER ASSEMBLY
- (I) 3/16" x 3/4" STRETCHER BAR; TO EXTEND FULL HEIGHT OF FENCE FABRIC
- (J) 3/4" TENSION BAND (TYP.).
- (K) TENSION WIRE
- (L) 1-1/2" (1.9" O.D.) SCH. 40 GALV. STEEL FENCE GATE FRAME
- (M) 1-1/4" (1.66" O.D.) SCH. 40 GALV. STEEL HORIZONTAL AND VERTICAL GATE BRACES
- (N) MALLEABLE BUTT HINGES (TYP.)
- (O) GATE LATCH; VERIFY REQUIREMENTS WITH FENCE MANUFACTURER
- (P) 45° BARB ARM FENCE POST CAP
- (Q) (3) STRANDS OF 4 PT. GALV. BARB WIRE
- (R) #9 GAUGE GALV. CHAIN LINK FENCE FABRIC WITH TWISTED TOP SELVAGE AND KNUCKELD BOTTOM SELVAGE
- (S) 6" x 6" HANDHOLE FOR CHAIN LOCK
- (T) VINYL PRIVACY SLATS (TYP.) (MID-RAIL REQUIRED)

A COMPOUND FENCE

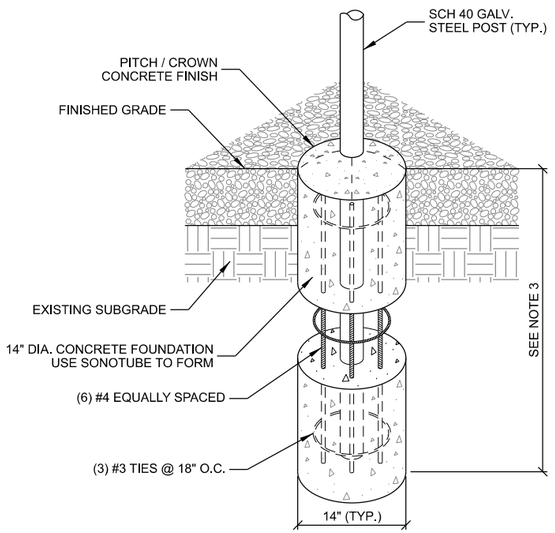


NOTES:
1. MAINTAIN 3" MINIMUM REBAR COVER WITH CONCRETE IN ALL DIRECTIONS.
2. CONCRETE MIX TO BE 4,000 PSI @ 28 DAYS.
3. FOUNDATION DEPTH TO EXCEED LOCAL FROST DEPTH, OR 48" MINIMUM.

B FENCE POST PIER FOUNDATION

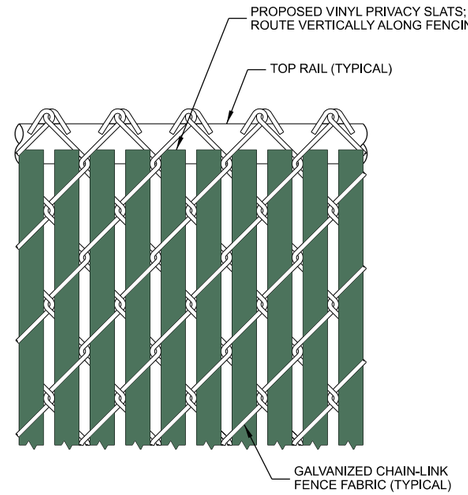


C GATE STOP



NOTES:
1. MAINTAIN 3" MINIMUM REBAR COVER WITH CONCRETE IN ALL DIRECTIONS.
2. CONCRETE MIX TO BE 4000 PSI @ 28 DAYS.
3. FOUNDATION DEPTH TO EXCEED LOCAL FROST DEPTH, OR 48" MINIMUM.
4. DRIVEN POST TO DEPTH OF 72" IS ACCEPTABLE IN LIEU OF CONCRETE PIERS.

D PIER FOUNDATION



NOTES:
1. VINYL PRIVACY SLATS TO BE INSTALLED ON ALL PROPOSED FENCE SECTIONS TO ACHIEVE ADEQUATE SCREENING OF INTERIOR COMPOUND GROUND EQUIPMENT.
2. CONTRACTOR TO VERIFY REQUIRED COLOR AND LENGTH OF SLATS PRIOR TO INSTALLATION.

E VINYL PRIVACY SLATS

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CLIENT:
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at&t mobility corp.

FENCE DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	C-502

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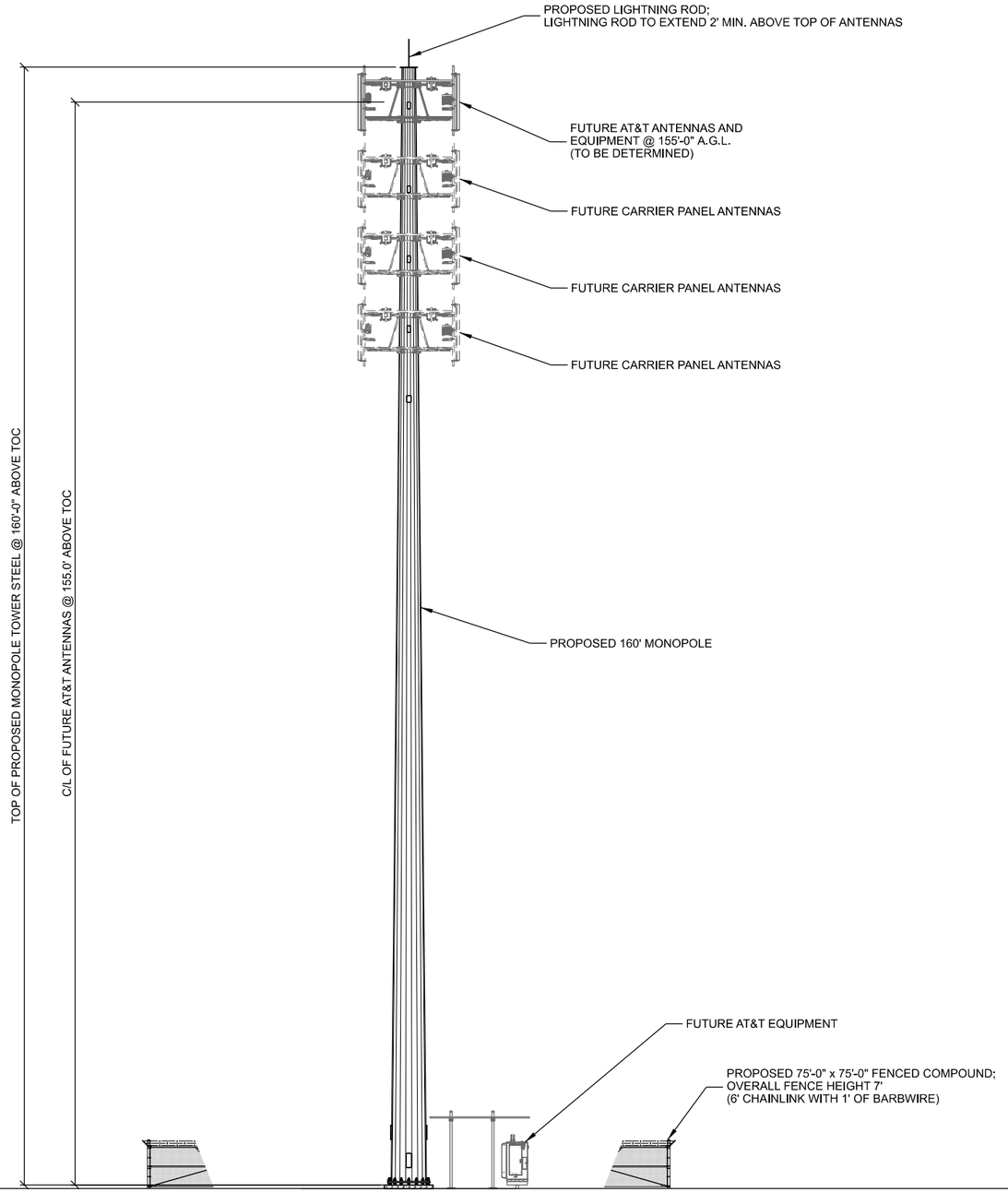

A **SITE ELEVATION**
SCALE: 11" x 17" - 1" = 20'
22" x 34" - 1" = 10'

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at&t mobility corp.

SITE ELEVATION

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

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TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	**T-201**

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KEYNOTES: (THIS SHEET)

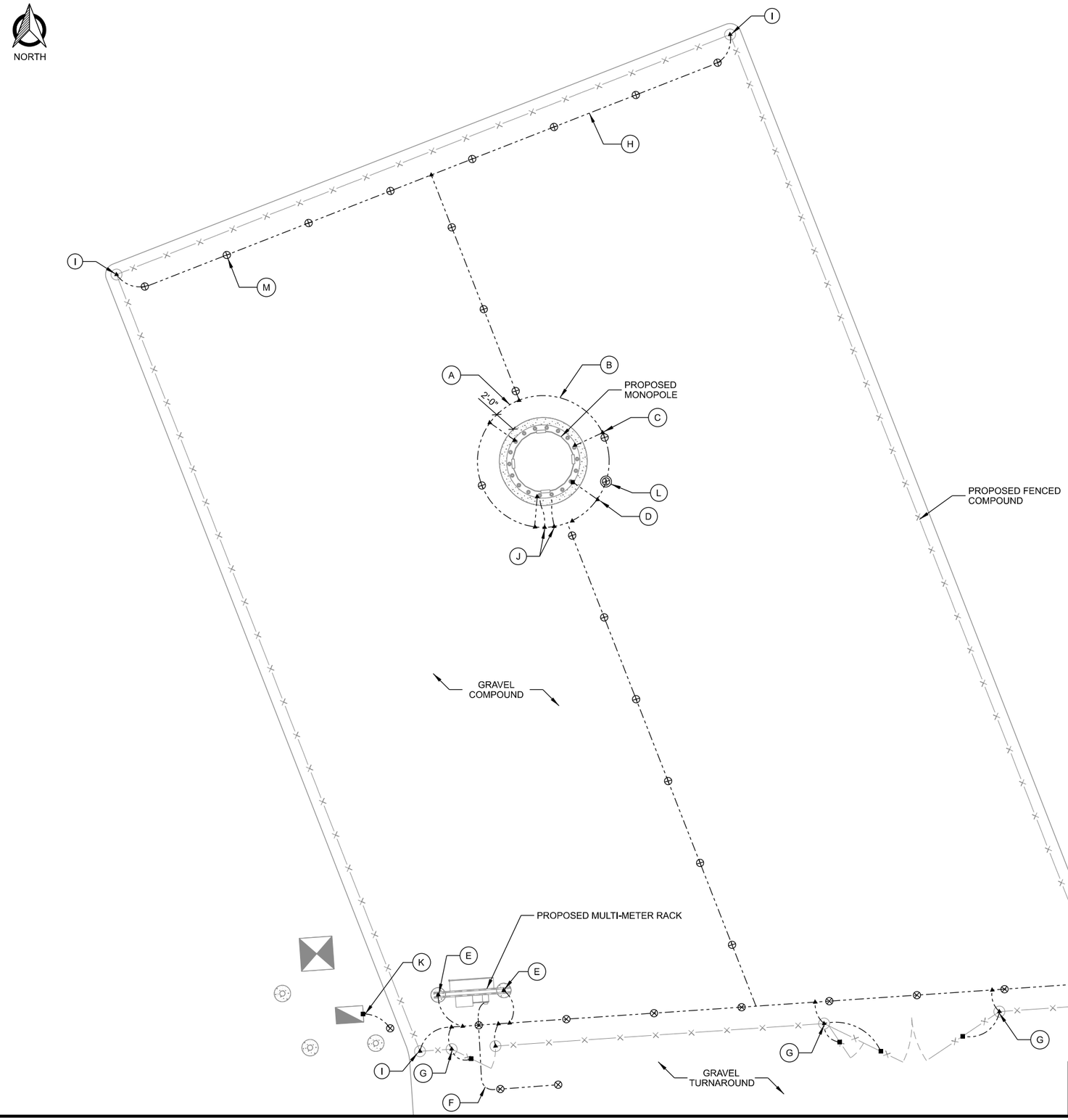
- (A) MAINTAIN 2-FOOT CLEARANCE FROM ALL STRUCTURES
- (B) TOWER GROUND RING, #2 SOLID BARE TINNED COPPER
- (C) GROUND LEADS FROM TOWER STEEL TO GROUND RING (TYP. OF 3) (USE GROUNDING TABS WHEN AVAILABLE), #2 SOLID BARE TINNED COPPER
- (D) TOWER FOUNDATION GROUND, #2 SOLID BARE TINNED COPPER
- (E) MULTI-METER RACK POST (TYP.)
- (F) GROUND ELECTRIC METER HOUSING TO (2) INDEPENDENT GROUND RODS, SPACED 10' O.C. WITH #2 SOLID BARE TINNED COPPER
- (G) GATE GROUND LEAD
- (H) PERIPHERAL GROUND RING SHOULD BE INSTALLED 1' TO 2' INSIDE THE FENCED LINE, #2 SOLID BARE TINNED COPPER
- (I) FENCE CORNER GROUND LEAD, GROUND FENCE WITHIN 25-FEET OF TOWER
- (J) (2) #2 SOLID BARE TINNED COPPER GROUND LEADS TO GROUND RING FOR FUTURE CARRIER GROUND BAR
- (K) 4" x 12" x 1/4" GROUND BAR INSIDE FIBER HAND HOLE; CONTRACTOR TO DRIVE GROUND ROD AND CLAMP TO GROUND BAR
- (L) GROUND INSPECTION WELL
- (M) GROUND ROD

GROUNDING LEGEND: (THIS SHEET)

- ▲ EXOTHERMIC OR UL RATED IRREVERSIBLE CONNECTION
- ■ MECHANICAL CONNECTION
- — - - GROUND LEAD
- ⊗ GROUND INSPECTION WELL
- ⊗ COPPER CLAD GROUND ROD, (5/8" DIA. x 8' LONG) SPACE @ 10' O.C. MAX.
- ⊗ COPPER PLATE, (18" x 18" x .032" THK) SPACE @ 10' O.C. MAX.

NOTES: (THIS SHEET)

1. ALL EXTERIOR GROUNDING SHALL MEET OR EXCEED THE CURRENT NEC AND NFPA 780 CODE.
2. THE GROUNDING SYSTEM & CONDUCTORS SHALL BE INSPECTED PRIOR TO BACK FILLING WITH RESULTS APPROVED BY THE CARRIER. THE SYSTEM SHALL PROVIDE 5 OHM OR LESS RESISTANCE UPON COMPLETION.
3. HIGH COMPRESSION TYPE CONNECTORS SHALL BE USED FOR SECONDARY GROUNDING CONDUCTOR TO MAIN GROUNDING CONDUCTOR CONNECTIONS. AFTER INSPECTION CONNECTIONS SHALL BE WRAPPED WITH ELECTRICAL VINYL TAPE.
4. ALL MECHANICAL CONNECTIONS SHALL INCLUDE ANTI-OXIDANT COMPOUND BETWEEN LUG & CONNECTION POINT. SCRAPE PAINT FROM OBJECT BEING CONNECTED TO. TOUCH UP PAINT ANY EXPOSED METAL AFTER CONNECTION IS INSTALLED.
5. GROUNDING CONDUCTORS SHALL MAINTAIN, TO THE EXTENT PRACTICAL, A HORIZONTAL OR DOWNWARD DIRECTION FREE FROM UP AND DOWN POCKETS. THE RADIUS OF BEND SHALL NOT BE LESS THAN 8" AND THE ANGLE OF ANY BEND SHALL NOT BE SHARPER (LESS) THAN 90°.
6. THE MAXIMUM HORIZONTAL AND VERTICAL SPACING BETWEEN GROUNDING CONDUCTOR (NOT IN CONDUIT) SUPPORTS SHALL NOT EXCEED 4 FT.
7. IF A GROUNDING CONDUCTOR IS INSTALLED IN FERROUS METAL CONDUITS, THE CONDUCTOR SHALL BE BONDED TO THE TOP AND BOTTOM OF THE CONDUIT.
8. ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE ENCASED IN 3/4" PVC & SEALED WITH SILICONE ON BOTH ENDS.
9. ALL ABOVE GRADE EXOTHERMIC CONNECTIONS (TO GALVANIZED ITEMS) SHALL BE SPRAYED WITH COLD GALVANIZING COMPOUND TO PREVENT CORROSION.
10. GROUND RINGS & TOP OF RODS SHALL BE INSTALLED AT 30" BELOW FINISHED GRADE.
11. INSTALL 18" x 18" COPPER PLATES IN LIEU OF GROUND RODS WHEN INSTALLING OVER TOWER FOUNDATION OR WHERE DRIVING GROUND RODS IS NOT FEASIBLE. REFER TO GEOTECH REPORT FOR SOIL CONDITIONS.



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CLIENT:
Diamond Communications LLC
at&t mobility corp.

GROUNDING PLAN

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	E-101

NORTH

PROPOSED MONOPOLE;
SEE T-201 FOR DETAILS

PROPOSED
DIAMOND COMMUNICATIONS
FENCED COMPOUND

EXTENTS OF
PROPOSED 20'-0" WIDE
UTILITY EASEMENT

PROPOSED BURIED ELECTRIC
FROM R.O.W. TO TRANSFORMER;
APPROX. 105' IN LENGTH;
VERIFY EXACT SOURCE WITH
LOCAL PROVIDERS

PROPOSED BURIED ELECTRIC CONDUIT FROM
TRANSFORMER TO MULTI-METER RACK;
DIAMOND CONTRACTOR TO FURNISH AND INSTALL
(2) 4" SCH 40 PVC CONDUITS;
APPROX. 15' IN LENGTH

PROPOSED TRANSFORMER

PROPOSED MULTI-METER RACK

PROPOSED BURIED FIBER FROM
R.O.W. TO FIBER VAULT;
APPROX. 105' IN LENGTH;
VERIFY EXACT SOURCE WITH
LOCAL PROVIDERS

PROPOSED FIBER VAULT; TO
BE INSTALLED BY DIAMOND
CONTRACTOR

PROPOSED CONCRETE
BOLLARD (TYP. OF 3)

GRAVEL
TURNAROUND

30'-0" WIDE WATER MAIN EASEMENT

2'-0"

EXISTING 30' WIDE WATER
MAIN EASEMENT
PER BOOK 2091, PAGE 144,
DOC. NO. 1349946

20'-0"

40'-0"

5' 0 5' 10'

SCALE: 11" x 17" - 1" = 10'
22" x 34" - 1" = 5'

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CONSULTANT:
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Consulting Engineers, Inc.
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CLIENT:
Diamond Communications LLC
at&t mobility corp.

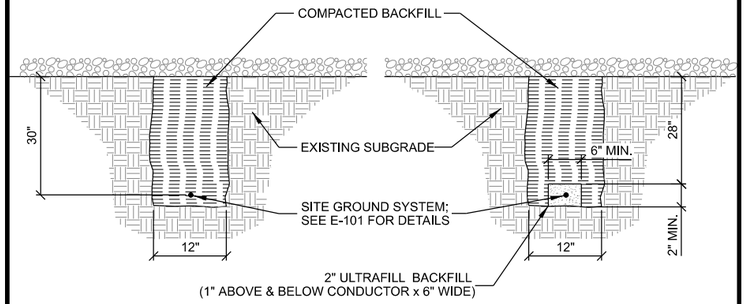
UTILITY PLAN

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	E-102

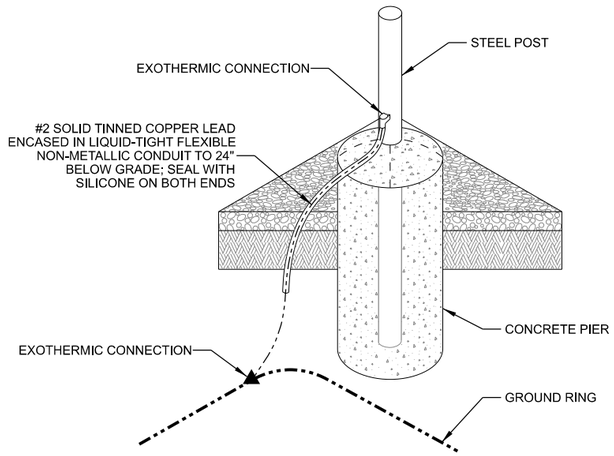


STANDARD GROUND TRENCH ENHANCED GROUND TRENCH

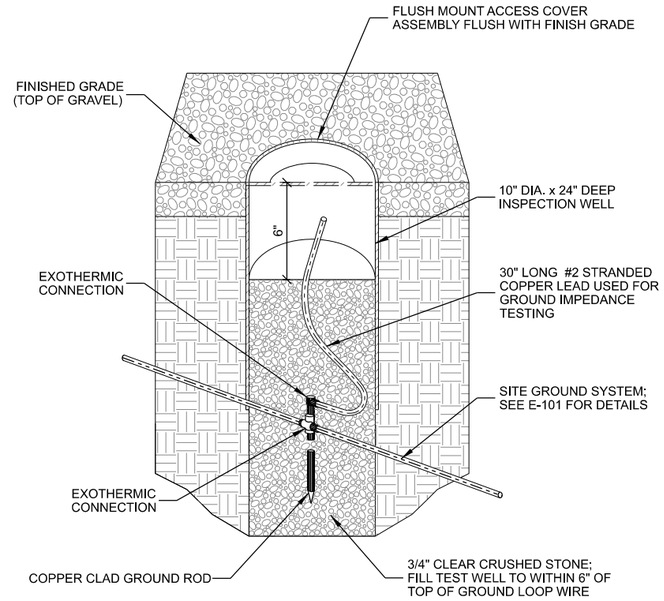
NOTES:

1. GROUNDING TRENCHES TO BE BACK FILLED WITH NATIVE SOIL.
2. COMPACT BACK FILL TO 95% MODIFIED PROCTOR.
3. CONTACT PSC MINIMUM 24HRS NOTICE PRIOR TO BACK FILLING TO ALLOW FOR INSPECTION.

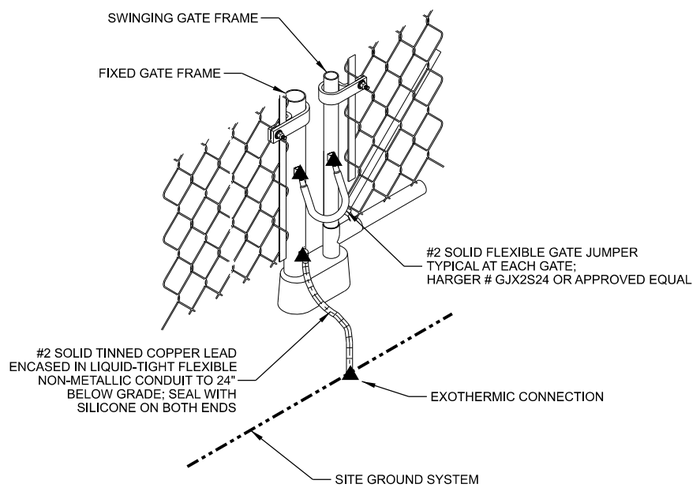
A GROUND TRENCH



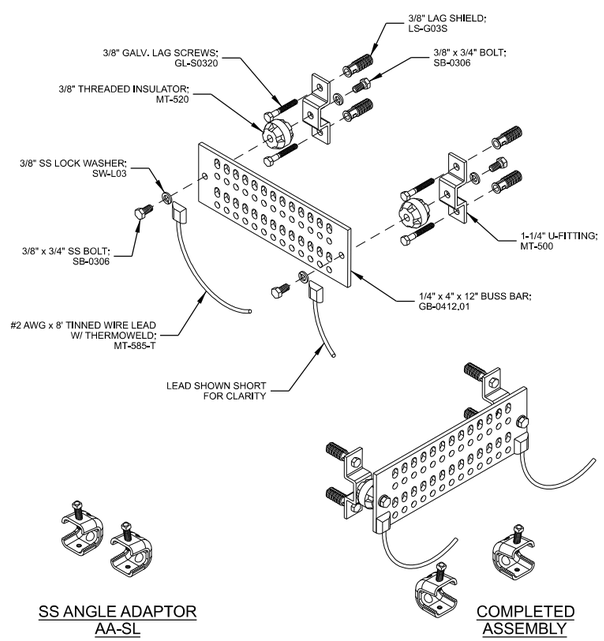
B POST GROUNDING



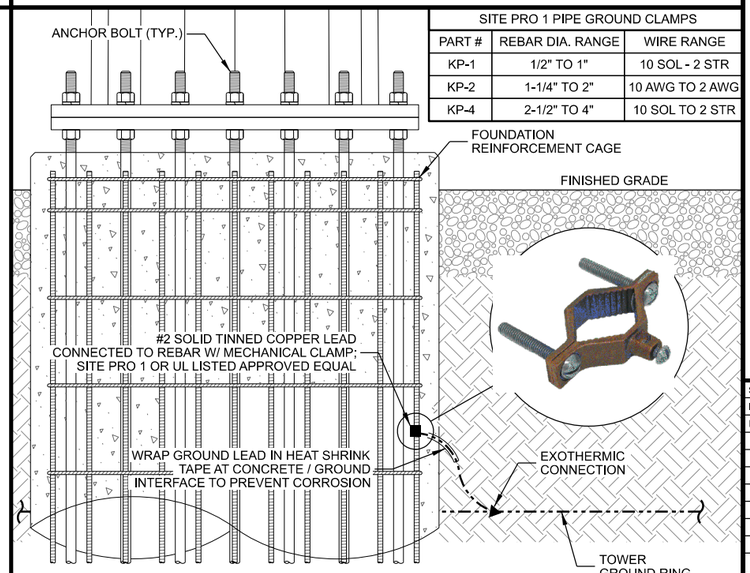
C INSPECTION WELL



D FENCE GATE GROUNDING



E GROUND AND BUSS BAR



SITE PRO 1 PIPE GROUND CLAMPS

PART #	REBAR DIA. RANGE	WIRE RANGE
KP-1	1/2" TO 1"	10 SOL - 2 STR
KP-2	1-1/4" TO 2"	10 AWG TO 2 AWG
KP-4	2-1/2" TO 4"	10 SOL TO 2 STR

NOTES:

1. FOUNDATION SHOWN IS TYPICAL. SEE TOWER FOUNDATION PLANS FOR REINFORCEMENT DETAILS.
2. FOUNDATION GROUNDING PER NEC 250,52(3)(A). GROUNDING CONNECTIONS TO BE COVERED BY A MINIMUM OF 3" CONCRETE AND BE MADE TO A MIN. 20' CONTINUOUS REBAR.

F TOWER FOUNDATION GROUNDING

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624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
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CLIENT:
Diamond Communications LLC
at&t mobility corp.

GROUNDING DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	E-501

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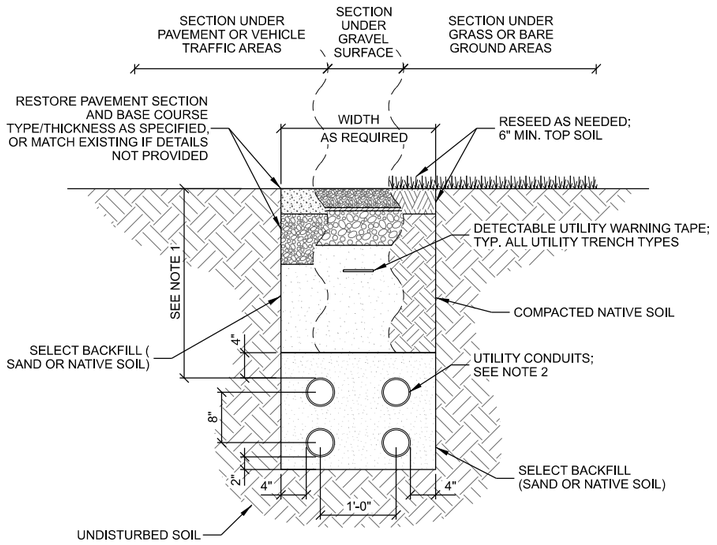


NOTES:

1. UTILITY CONDUITS TO BE BURIED A MINIMUM DEPTH OF 42" BELOW GROUND LEVEL OR 6" BELOW THE FROST LINE.
2. CONDUIT TYPE, SIZE, AND QUANTITY SHOWN ON E-102.

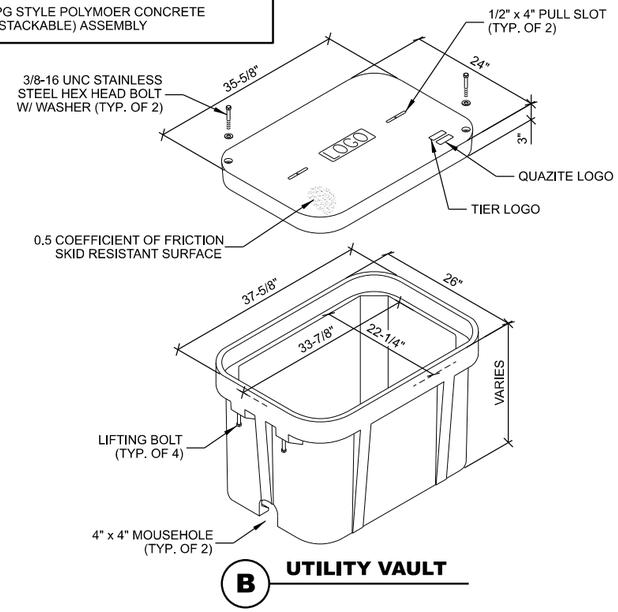
A **UTILITY TRENCH**

MANUFACTURER: QUAZITE
MODEL: PG2436BA36 (SPLICE BOX)
DIMENSIONS: 37-5/8" x 26" x 36" (L x W x D)

MODEL: PG2436BA24 (PULL BOX)
DIMENSIONS: 37-5/8" x 26" x 24" (L x W x D)

MODEL: PG2436KK00 (COVER)
DIMENSIONS: 35-5/8" x 24" x 3" (L x W x D)

PG STYLE POLYMOER CONCRETE (STACKABLE) ASSEMBLY



B **UTILITY VAULT**

WARNING TAPE & TRACE WIRE NOTES: (THIS SHEET)

1. WARNING TAPE TO BE INSTALLED ABOVE THE ELECTRICAL RUN FROM THE GENERATOR TO THE PLATFORM AND ABOVE THE FUEL LINE BETWEEN THE GENERATOR AND FUEL SOURCE.
2. WARNING TAPE SHALL BE RUN CONTINUOUSLY ALONG THE ENTIRE LENGTH AND INSTALLED 12 INCHES ABOVE THE TOP OF THE CONDUITS
3. TRACER WIRE SHALL RUN CONTINUOUSLY ALONG THE ENTIRE LENGTH OF THE BURIED GAS AND ELECTRIC CONDUITS
4. TRACER WIRE SHALL BE SECURED TO THE CONDUIT AND MAINTAINED ABOVE THE CONDUIT CENTERLINE DURING TRENCH BACKFILLING.
5. TRACER WIRE TO EXTEND TO THE TOP OF PVC ABOVE CONCRETE ON BOTH ENDS - LOOP AND WRAP AROUND APPROPRIATE CONDUIT.
6. TRACER WIRE SHALL CONSIST OF 14GA. SOLID COPPER WIRE WITH A CORROSION PROTECTIVE COATING.
7. INSTALL TRACER WIRE WITH SPACER AND SECURE PER MNFG. RECOMMENDATIONS - AT A MIN. EVERY 10' AND AT ALL BENDS. - DO NOT WRAP BURIED CONDUIT WITH TRACER WIRE TO AVOID UNNECESSARY STRESS ON TRACER. - CONTRACTOR TO CHECK CONTINUITY OF TRACER WIRE BEFORE AND AFTER BURIAL AND DOCUMENT RESULTS. 12" ABOVE THE TOP OF THE CONDUITS.

THIS SPACE INTENTIONALLY LEFT BLANK

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UTILITY DETAILS

SITE NAME: MRK TRAIL
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RACINE, WISCONSIN 53402

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SET TYPE	DRAFT
SHEET NUMBER	E-502

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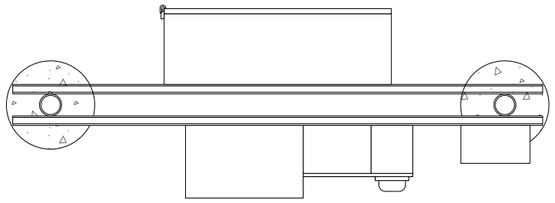
APPROVAL NOTE:

UTILITY RACK LAYOUT HAS BEEN REVIEWED BY ELECTRIC PROVIDER. ALL DEVIATIONS FROM UTILITY RACK DETAIL TO BE APPROVED BY:
(POINT OF CONTACT)
(UTILITY COMPANY)

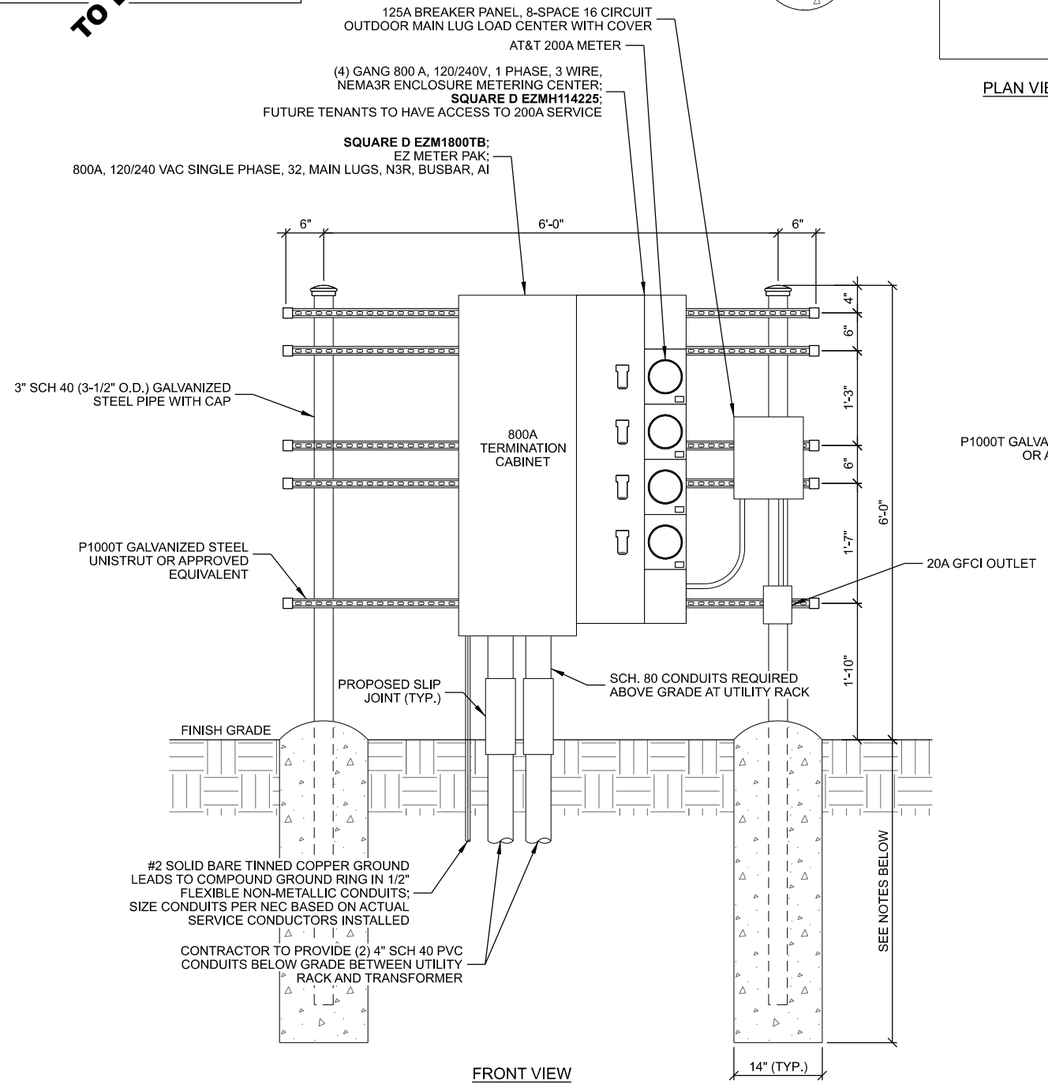
TO BE REVIEWED



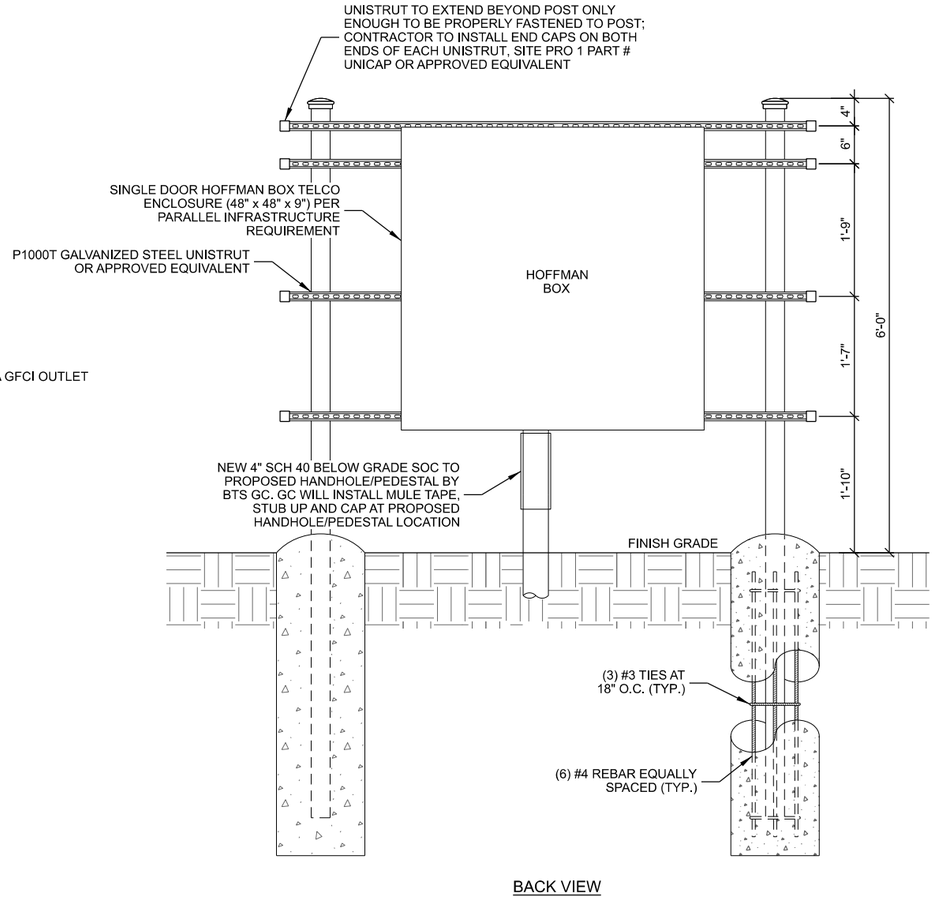
PLAN VIEW

NOTES:

1. LEVER BY-PASS METER SOCKET REQUIRED.
2. METER TO BE LABELED WITH LEGIBLE PLACARD.
3. MAIN DISCONNECT TO BE LABELED WITH PLACARD OF THE SITE ADDRESS.



FRONT VIEW



BACK VIEW

NOTES:

1. INSTALL PVC CONDUITS FOR SERVICE LATERAL CONNECTION TO UTILITY.
2. EXTEND SERVICE LATERAL CONDUITS UNDERGROUND BEYOND FENCELINE. CAP ENDS (NO DUCT TAPE ALLOWED) AND STAKE, EQUIP WITH PULL CORD, VERIFY REQUIREMENTS W/ UTILITY PROVIDER.
3. MARK CARRIER METER SLOT @ BREAKER OR SOCKET EXTERIOR.
4. FINAL LAYOUT AND DESIGN DETERMINED BY CONTRACTOR/UTILITY, VERIFY FINAL DESIGN WITH THE CARRIER.
5. CONCRETE FOR PIER TO BE A MINIMUM OF 4,000 PSI AT 28 DAYS.
6. MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.
7. PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH.
8. AT MULTI GANGED METER INSTALLATIONS ROUTE A 3/0 GREEN THWN STRANDED COPPER CONDUCTOR FROM THE N-G CONNECTION POINT TO JUST ABOVE THE EARTH SURFACE. THIS CONDUCTOR SHALL BE ROUTED THROUGH PVC ABOVE FINISHED GRADE TO AVOID THEFT AND BARE UPON ENTRY INTO EARTH & BONDED TO AN APPROVED DRIVEN GROUND ROD.
9. ATTACH CABINETS W/ SPRING LOADED WASHERS TO UNISTRUTS.

A MULTI-METER UTILITY RACK

SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"

CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

UTILITY DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	E-503

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A EXISTING ACCESS DRIVE

B PROPOSED LEASE AREA LOCATION

C SITE OVERVIEW

D PROPOSED UTILITY ROUTING

CONSULTANT:

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Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:

Diamond Communications LLC

at&t mobility corp.

SITE PHOTOS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	R-901

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NORTH

30.0'

EXTENTS OF EXISTING 30' WIDE WATER MAIN EASEMENT

WOODS

EXISTING TREE (TYP.)

EXISTING BUILDING

EXISTING UTILITY POLE (TYP.)

EXISTING TREE LINE (TYP.)

EXISTING OVERHEAD POWER LINE (TYP.)

PROPERTY LINE

MRK TRAIL

WOODS

PROPOSED AT&T EQUIPMENT CABINETS AND GENERATOR ON CONCRETE PAD

PROPOSED 435 SQUARE FOOT AT&T LEASE AREA

EXISTING FENCED COMPOUND AND LEASE AREA

EXISTING TRANSMISSION TOWER

EXISTING 160' MONOPOLE

EXISTING 16' WIDE GRAVEL DRIVE

EXTENT OF EXISTING 20'-0" WIDE UTILITY EASEMENT

EXISTING GRAVEL DRIVE

C/L OF EXISTING 20'-0" WIDE ACCESS EASEMENT

EXISTING (IMPROVED) 16' WIDE GRAVEL DRIVE

RIGHT OF WAY

EXISTING HYDRANT

EXISTING WATER MAIN VALVE (TYP.)

EXISTING 40' GRAVEL TURNAROUND AREA

C/L OF EXISTING 40'-0" WIDE ACCESS EASEMENT

EXISTING CULVERT (TYP.)

STEPHAN RD

PROPERTY LINE

EXISTING CREEK

PROPERTY LINE

RIGHT OF WAY

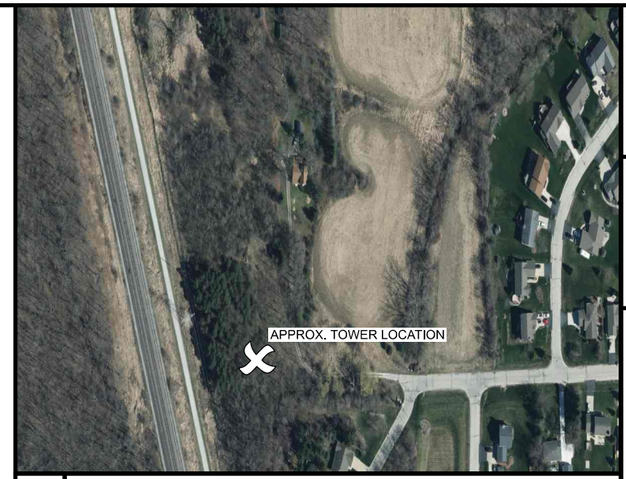
AG FIELD

WETLANDS

WETLANDS

WETLANDS

WETLANDS



A AERIAL OVERVIEW OF SITE

20' 0 20' 40'

SCALE: 11" x 17" - 1" = 40'
22" x 34" - 1" = 20'

CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

SITE PLAN

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI1047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T C-101

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NORTH

EXISTING FENCED COMPOUND AND LEASE AREA

GRAVEL COMPOUND

WOODS

WOODS

EXISTING 160' MONOPOLE

20'-0" LEASE AREA

5'-0"

10'-6"

5'-6"

4'-0"

10'-5"

PROPOSED 8'-5" AT&T ICE BRIDGE

PROPOSED AT&T EQUIPMENT CABINETS

3'-0"

9'-5"

21'-9" LEASE AREA

PROPOSED AT&T GENERATOR

3'-0"

5'-0"

PROPOSED 435 SQUARE FEET AT&T LEASE AREA

1'-4"

9'-10"

7'-2"

3'-0"

18'-2"

EXTENTS OF EXISTING 20'-0" WIDE UTILITY EASEMENT

EXISTING BURIED UTILITIES

EXISTING TRANSFORMER & FIBER VAULT

EXISTING MULTI-METER UTILITY RACK

EXISTING ACCESS GATE

GRAVEL TURNAROUND

E

FO

5' 0 5' 10'

SCALE: 11" x 17" - 1" = 10'
22" x 34" - 1" = 5'

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:

Diamond Communications LLC

at&t mobility corp.

COMPOUND PLAN

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T C-102

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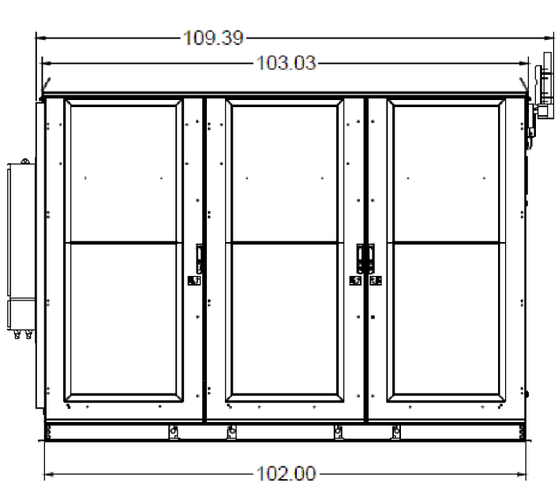
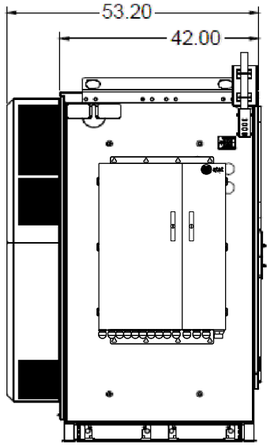
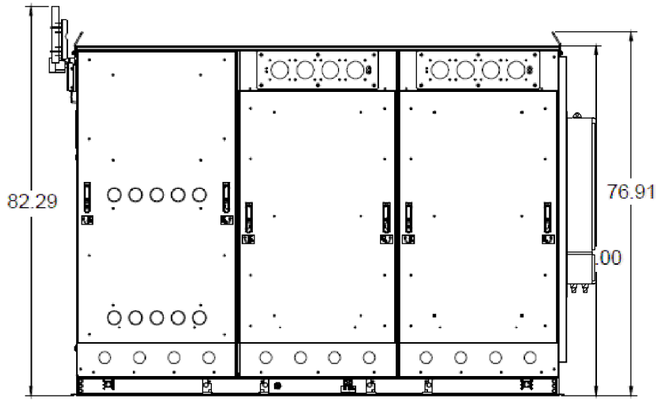
MANUFACTURER: VERTIV
MODEL: NETSURE X701 WUC 3-BAY
P/N #: F2020030
DIMENSIONS: 74" x 102" x 53.41" (H x W x D)
WEIGHT: 4442 LBS.



Front



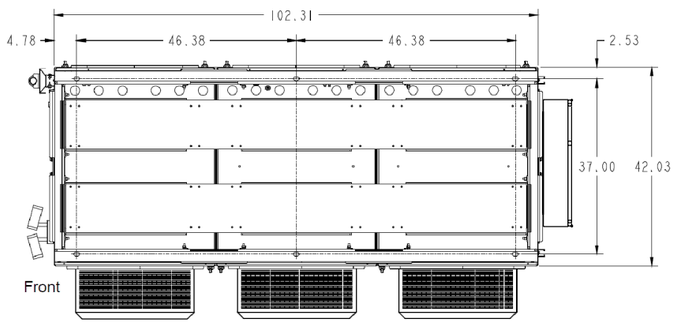
Right Side



Rear

Notes:
1. All dimensions are in inches.

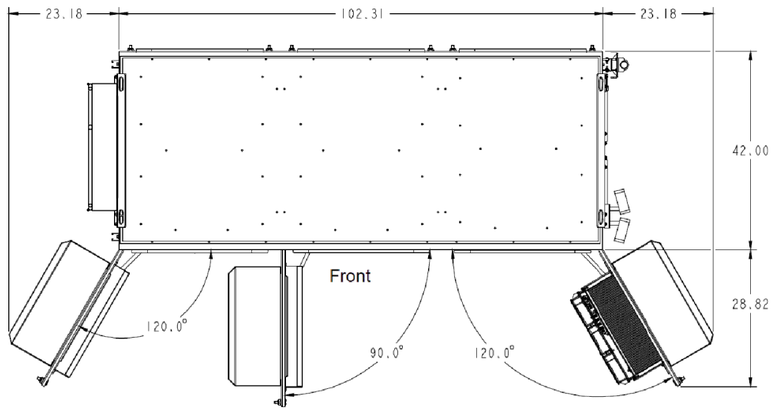
ELEVATION VIEWS



Notes:
1. All dimensions are in inches.

Enclosure Bottom Views

BOTTOM VIEW



TOP VIEW

A WALK-UP-CABINET 3-BAY

CONSULTANT:
Edge
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624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

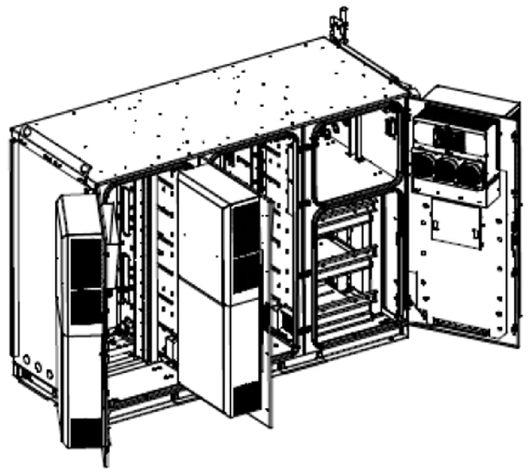
EQUIPMENT ELEVATIONS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

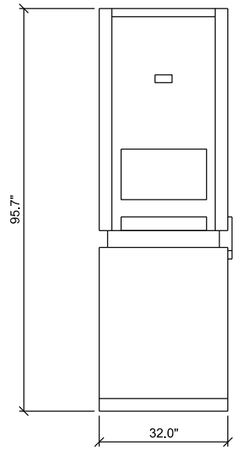
CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	**AT&T A-501**

MANUFACTURER: VERTIV
MODEL: NETSURE X701 WUC 3-BAY
P/N #: F2020030
DIMENSIONS: 74" x 102" x 53.41" (H x W x D)
WEIGHT: 4442 LBS.

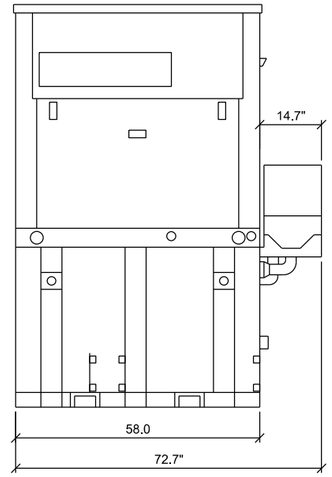


A WALK UP CABINET (WUC)

MANUFACTURER: KOLAR POWER
MODEL: 20REOZK-C, 240V TELECOM DIESEL
DIMENSIONS: 58" x 30" x 95.7" (L x W x H) FOOTPRINT
72.7" x 32" x 95.7" (L x W x H) OVERALL
WEIGHT: 2250 LBS.



FRONT VIEW

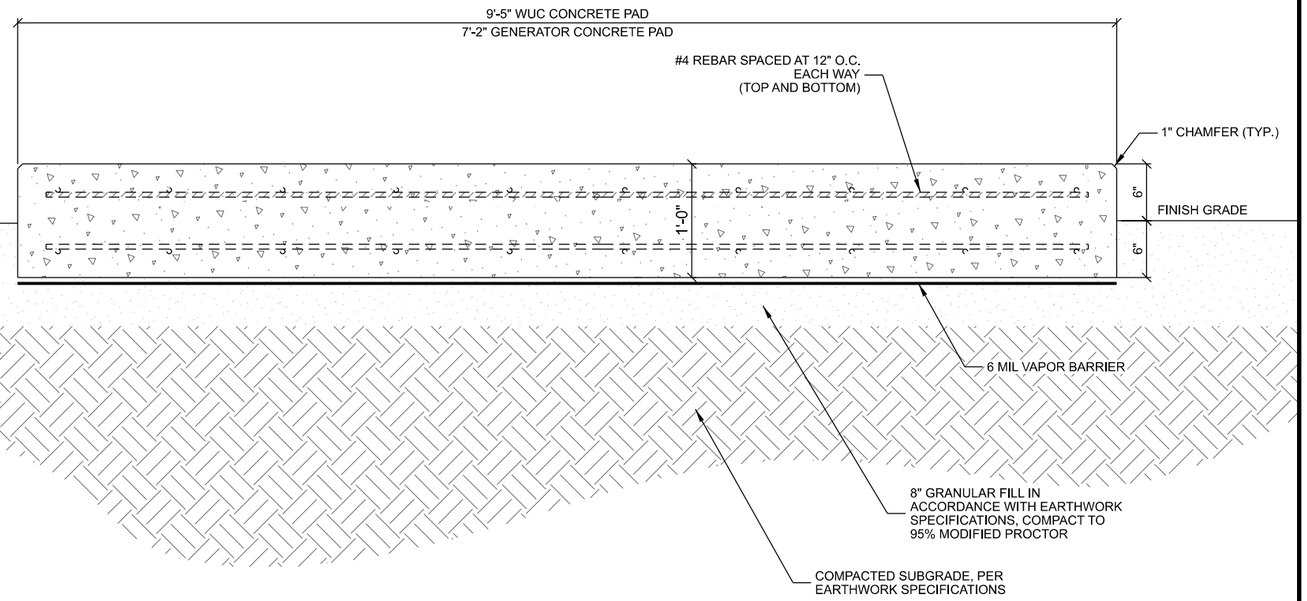


SIDE VIEW

B DIESEL GENERATOR

GENERATOR INSTALLATION GUIDELINES/NOTES:

1. EXHAUST IS AIMED AWAY FROM OR PARALLEL TO THE STRUCTURE.
2. EXHAUST IS NOT DIRECTED AT PLAY AREAS, PATIOS OR OTHER AREAS WHERE PEOPLE CONGREGATE.
3. THE NEAREST WINDOW, VENT, DOOR OR SIMILAR STRUCTURE OPENING IS AT LEAST 5 FEET FROM THE EXHAUST END OF THE SET.
4. SET HAS PROPER OFFSET FROM STRUCTURE.
5. WINDOWS & DOORS ON ADJACENT WALLS ARE CLOSED.
6. FURNACE AND OTHER SIMILAR INTAKES ARE AT LEAST 10 FEET FROM EXHAUST END OF SET.
7. 4" THICK CONCRETE PAD EXTENDING 6" BEYOND GENSET ON ALL SIDES.
8. WEED BARRIER & GRAVEL BED TO EXTEND 4 FT. FROM EXHAUST OUTLET. NO PLANTS, SHRUBS OR OTHER COMBUSTIBLES ALLOWED IN GRAVEL AREA.
9. SENSITIVE PLANTS, PATIO FURNITURE, ETC. ARE AT LEAST 8 FEET FROM EXHAUST END OF SET.
10. REFER TO OWNERS MANUAL FOR OTHER INSTALLATION CONSTRAINTS.
11. THE RECOMMENDED DISTANCE FROM A STRUCTURE IS DEPENDENT ON STATE AND LOCAL CODES. NFPA 37 (STANDARDS FOR THE INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES) STATES THIS DISTANCE SHOULD BE AT LEAST 5 FEET FROM A COMBUSTIBLE MATERIAL. FOR IN STALLATIONS NEAR NON-COMBUSTIBLE MATERIAL BE SURE TO LEAVE A MINIMUM DISTANCE OF 3 FEET TO ENSURE PROPER GENERATOR COOLING.



C TYPICAL FOUNDATION

* FOUNDATION DESIGN BY OTHERS

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CONSULTANT:
Edge Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

EQUIPMENT DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T A-502

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NNH4-65B-R6H4

12-port sector antenna, 4x 698–896 and 8x 1695–2360 MHz, 65° HPBW, 6x RET

- Features broadband Low Band (698-896 MHz) and High Band (1695-2360 MHz) arrays for 4T4R (4X MIMO) capability for Band 14, AWS, PCS and WCS applications
- Non-stacked high band array design provides higher gain and narrower vertical beamwidth than traditional antenna designs
- Independent tilt for all arrays
- Array configuration provides capability for 4T4R (4x MIMO) on Low band and Dual 4T4R (4x MIMO) on High band
- Optimized SPR performance across all operating bands
- Excellent wind loading characteristics
- The antenna is supplied with mounting kits that provide 0 degree of mechanical downtilt; optional downtilt mounting kits are available

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Grounding Type	RF connector inner conductor and body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	8
RF Connector Quantity, low band	4
RF Connector Quantity, total	12

Remote Electrical Tilt (RET) Information

RET Hardware	CommRET v2
RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	1 female | 1 male

NNH4-65B-R6H4

Input Voltage	10–30 Vdc
Internal RET	High band (4) | Low band (2)
Power Consumption, active state, maximum	8 W
Power Consumption, idle state, maximum	1 W
Protocol	3GPP/AISG 2.0 (Multi-RET)

Dimensions

Width	498 mm | 19.606 in
Depth	197 mm | 7.756 in
Length	1848 mm | 72.756 in
Net Weight, antenna only	32.8 kg | 72.312 lb

Array Layout

Array	Freq (MHz)	Conns	RET (MRET)	AISG RET UID
R1	698-896	1-2	1	CPxxxxxxxxxxxxxxmm.1
R2	698-896	3-4	2	CPxxxxxxxxxxxxxxmm.2
Y1	1695-2360	5-6	3	CPxxxxxxxxxxxxxxmm.3
Y2	1695-2360	7-8	4	CPxxxxxxxxxxxxxxmm.4
Y3	1695-2360	9-10	5	CPxxxxxxxxxxxxxxmm.5
Y4	1695-2360	11-12	6	CPxxxxxxxxxxxxxxmm.6

(Sizes of colored boxes are not true depictions of array sizes)

Port Configuration

NNH4-65B-R6H4

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz
Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

	R1-R2	R1-R2	Y1-Y4	Y1-Y4	Y1-Y4	Y1-Y4
Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
RF Port	1-4	1-4	5-12	5-12	5-12	5-12
Gain, dBi	14.2	14.8	16.7	17.3	17.9	18.4
Beamwidth, Horizontal, degrees	68	64	70	67	61	59
Beamwidth, Vertical, degrees	11.5	10.2	6.9	6.5	6	5.4
Beam Tilt, degrees	2–14	2–14	2–12	2–12	2–12	2–12
USLS (First Lobe), dB	16	18	16	19	19	19
Front-to-Back Ratio at 180°, dB	30	30	33	34	34	34
Isolation, Cross Polarization, dB	25	25	25	25	25	25

NNH4-65B-R6H4

Isolation, Inter-band, dB	25	25	25	25	25	25
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150	-150
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2180**	**2300–2360**
Gain by all Beam Tilts, average, dBi	13.8	14.5	16.1	16.9	17.5	18
Gain by all Beam Tilts Tolerance, dB	±0.6	±0.5	±0.7	±0.6	±0.6	±0.5
Beamwidth, Horizontal Tolerance, degrees	±5.7	±3.2	±6.4	±7.5	±5.9	±3.6
Beamwidth, Vertical Tolerance, degrees	±0.9	±0.7	±0.5	±0.3	±0.4	±0.2
USLS, beampeak to 20° above beampeak, dB	16	15	12	15	15	16
Front-to-Back Total Power at 180° ± 30°, dB	20	21	27	26	27	28
CPR at Boresight, dB	24	23	19	19	20	17
CPR at Sector, dB	12	10	7	5	6	8

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.59 m² | 6.351 ft²
Effective Projective Area (EPA), lateral	0.18 m² | 1.938 ft²
Wind Loading @ Velocity, frontal	629.0 N @ 150 km/h (141.4 lbf @ 150 km/h)
Wind Loading @ Velocity, lateral	191.0 N @ 150 km/h (42.9 lbf @ 150 km/h)
Wind Loading @ Velocity, maximum	755.0 N @ 150 km/h (169.7 lbf @ 150 km/h)
Wind Loading @ Velocity, rear	433.0 N @ 150 km/h (97.3 lbf @ 150 km/h)
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	565 mm | 22.244 in
Depth, packed	309 mm | 12.165 in
Length, packed	2035 mm | 80.118 in
Weight, gross	44.3 kg | 97.665 lb

CONSULTANT:
Edge Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

ANTENNA SPECIFICATIONS
SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	**AT&T T-001**

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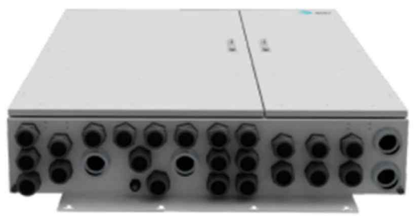
Base OVP, Distribution and Fiber cabinet **DC50-48-60-96-50F**



ATT Item Number: CEQ.54898

- **DC50-48-60-96-50F** Base OVP Cabinet with the following features

- Power compartment:
  - Strikesorb OVP Protection on each Supply to Return and Return to Ground mode.
  - New **Strikesorb 25-V1-FV-SQ** Module used to save space
    - Class 1 SPD per IEC 61643-11
    - 7.5 kA 10/350
    - 60kA 8/20
    - **Meets AT&T Spec**
  - Space for (50) AM style breakers with bullet style plugs
  - Up to 400A input per each 25-circuit distribution bank (X2)
  - Large Ground bar for DC trunks
  - (2) 2.5” Conduit fittings for DC Input conductors from WIC/WUC
  - Glands for up to (17) 8AWG, 6AWG, or 4AWG 3-pair DC Trunks

- Fiber compartment:
  - 96 Duplex LC bulkhead with fiber management
  - (2) 2.5” Conduit fittings for fiber input from WIC/WUC
  - (8) Fiber divider head mounting brackets
  - Glands for up to 6 fiber trunks to tower/rooftop

Strikesorb

Raycap 2

CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

EQUIPMENT SPECIFICATIONS
SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	**AT&T T-002**

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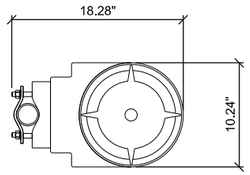
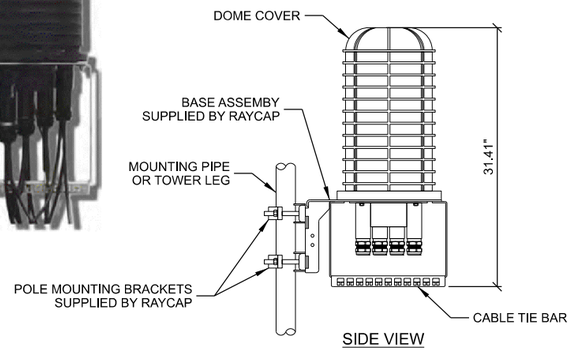
MANUFACTURER: RAYCAP
MODEL: DC9-48-60-24-8C-EV
DIMENSIONS: 31.41" x 10.24" (H x DIA.)
WEIGHT:
16.0 LBS. (WITHOUT MOUNT)
26.2 LBS. (WITH MOUNT)
WIND LOADING:
150 M.P.H. (SUSTAINED): 105.7 LBS. (470 N)
195 M.P.H. (GUST): 213.6 LBS. (950 N)



PLAN VIEW

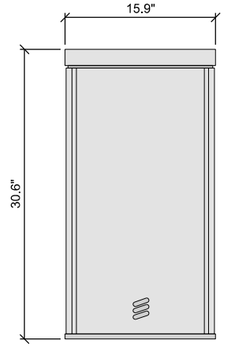


SIDE VIEW

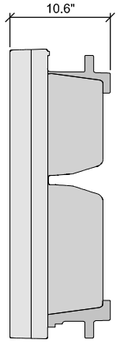
A DC SURGE PROTECTOR DEVICE (SQUID)

MANUFACTURER: ERICSSON
MODEL: AIR6449
DIMENSIONS: 30.6" x 15.9" x 10.6" (H x W x D)
WEIGHT: 82.7 LBS.

PLAN VIEW



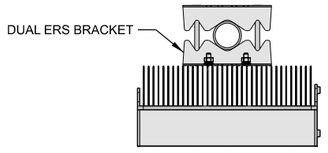
FRONT VIEW



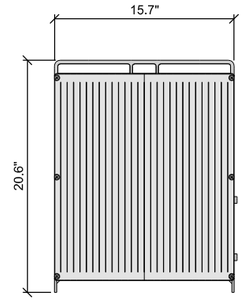
SIDE VIEW

B ERICSSON AIR6449

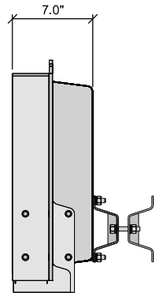
MANUFACTURER: ERICSSON
MODEL: RADIO 4490
DIMENSIONS: 20.6" x 15.7" x 7.0" (H x W x D)
WEIGHT: 68.4 LBS



PLAN VIEW



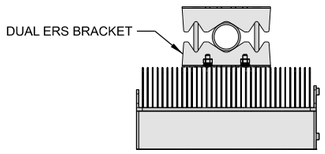
FRONT VIEW



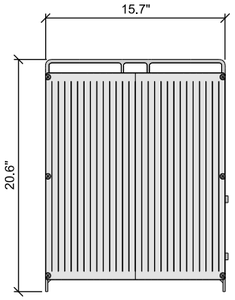
SIDE VIEW

C ERICSSON RADIO 4490

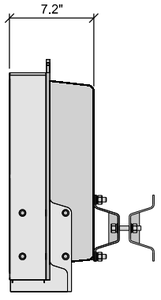
MANUFACTURER: ERICSSON
MODEL: RADIO 4890
DIMENSIONS: 20.6" x 15.7" x 7.2" (H x W x D)
WEIGHT: 69.5 LBS



PLAN VIEW



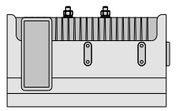
FRONT VIEW



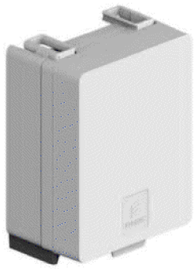
SIDE VIEW

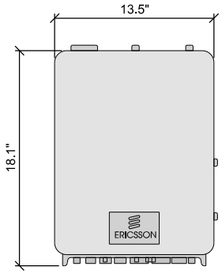
D ERICSSON RADIO 4890

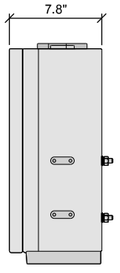
MANUFACTURER: ERICSSON
MODEL: RADIO 4478 B14
DIMENSIONS: 18.1" x 13.5" x 7.8" (H x W x D)
WEIGHT: 56.2 LBS



PLAN VIEW







E ERICSSON RADIO 4478

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CONSULTANT:
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CLIENT:
Diamond Communications LLC
at&t mobility corp.

EQUIPMENT SPECIFICATIONS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	**AT&T T-003**

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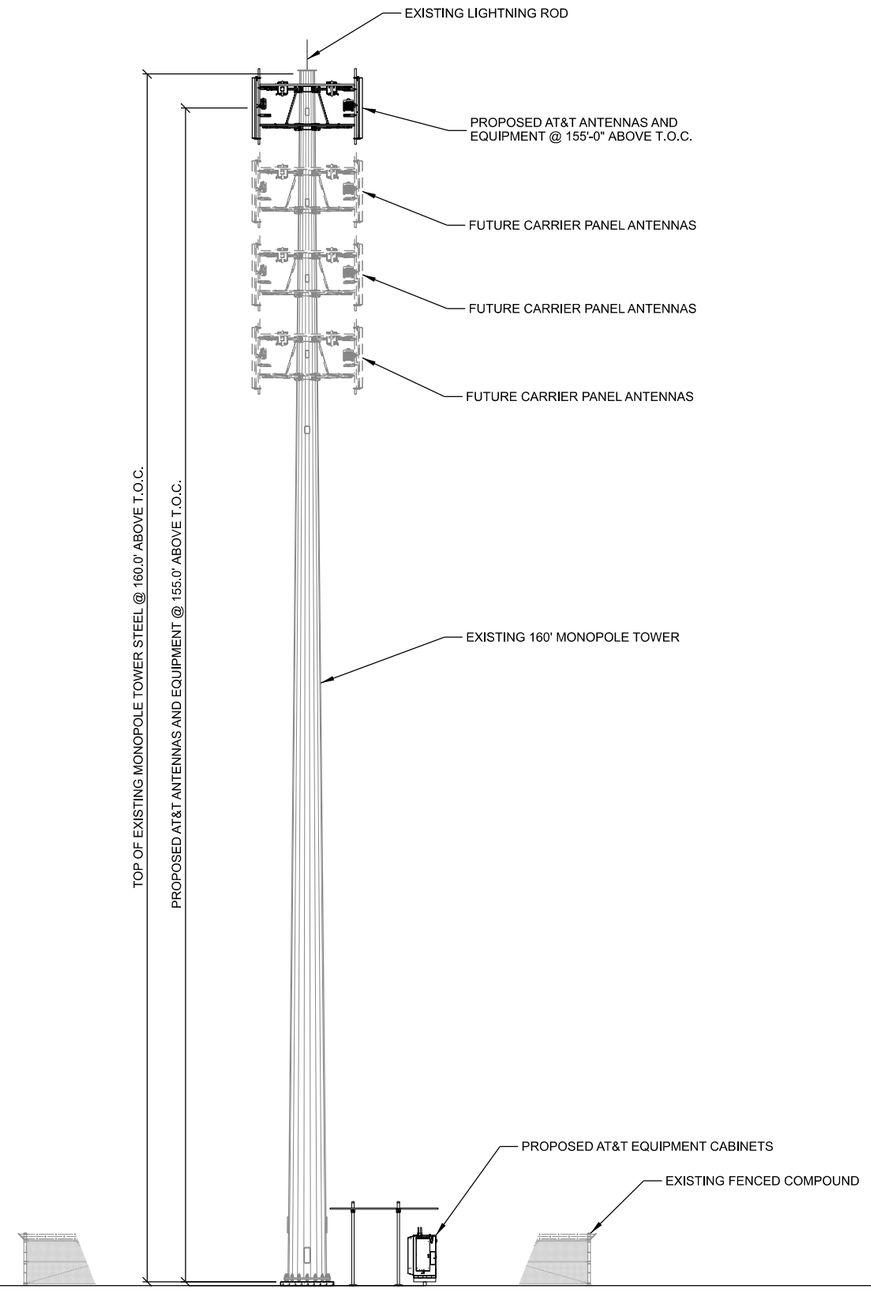

A **SITE ELEVATION**
SCALE: 11" x 17" - 1" = 20'
22" x 34" - 1" = 10'

CONSULTANT:
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CLIENT:
Diamond Communications LLC
at&t mobility corp.

SITE ELEVATION
SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	**AT&T T-201**

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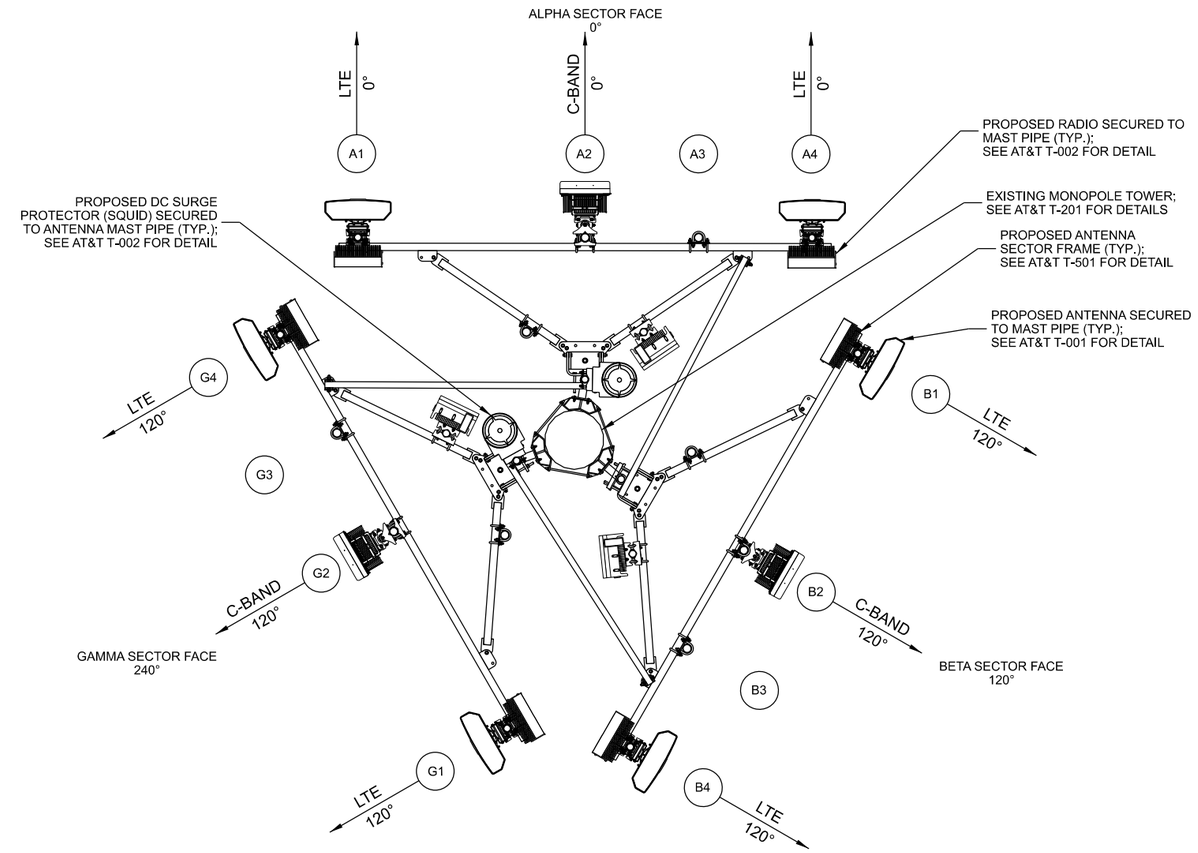
NORTH

CABLE SCHEDULE		
Quantity	Cable Type	Termination Point
4	# 6 DC TRUNK (0.930")	UPPER SQUID
1	24 PAIR FIBER TRUNK	UPPER SQUID

	ANTENNA AND RADIO SCHEDULE						
	Antenna Position	Antenna Model	Technology	Azimuth	Antenna Height	Radio Quantity	Radio Model
ALPHA	A1	NNH4-65B-R6H4	LTE 700 5G 850	0°	155'	1	ERICSSON RRU4490 B5/B12
	A2	AIR6449	5G C BAND	0°	155'	-	-
	A3	-	- -	-	-	-	-
	A4	NNH4-65B-R6H4	LTE 700 LTE 1900/5G 1900 LTE AWS/5G AWS	0°	155'	2	ERICSSON RRU4890 B25/B66 ERICSSON RRU4478 B14
BETA	B1	NNH4-65B-R6H4	LTE 700 5G 850	120°	155'	1	ERICSSON RRU4490 B5/B12
	B2	AIR6449	5G C BAND	120°	155'	-	-
	B3	-	- -	-	-	-	-
	B4	NNH4-65B-R6H4	LTE 700 LTE 1900/5G 1900 LTE AWS/5G AWS	120°	155'	2	ERICSSON RRU4890 B25/B66 ERICSSON RRU4478 B14
GAMMA	G1	NNH4-65B-R6H4	LTE 700 5G 850	240°	155'	1	ERICSSON RRU4490 B5/B12
	G2	AIR6449	5G C BAND	240°	155'	-	-
	G3	-	- -	-	-	-	-
	G4	NNH4-65B-R6H4	LTE 700 LTE 1900/5G 1900 LTE AWS/5G AWS	240°	155'	2	ERICSSON RRU4890 B25/B66 ERICSSON RRU4478 B14



NOTE:

1. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.
2. CONTRACTOR TO INSTALL CABLE KEEPERS AS NEEDED ON ANY MOUNTS THAT MAY OBSTRUCT THE TOWER SAFETY CLIMB. THE SAFETY CLIMB CABLE SHALL BE ROUTED IN THE KEEPERS SUCH THAT IT DOES NOT RUB ON THE MOUNTS OR ANY RF CABLES.

A ANTENNA AND EQUIPMENT LAYOUT

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

CONSULTANT:
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PRAIRIE DU SAC, WI 53578
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CLIENT:
Diamond Communications LLC
at&t mobility corp.

ANTENNA AND EQUIPMENT CONFIGURATION

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T T-301

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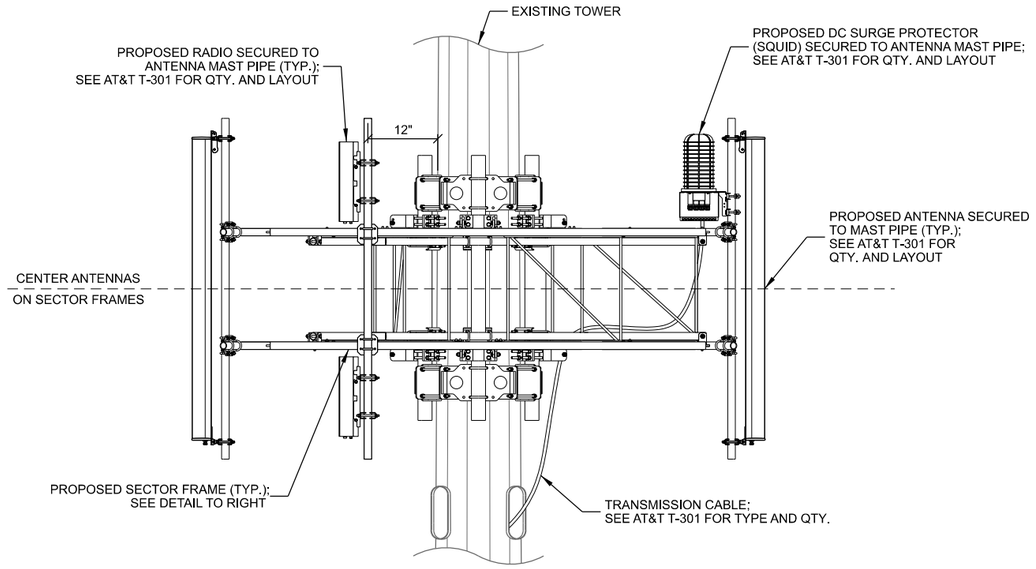


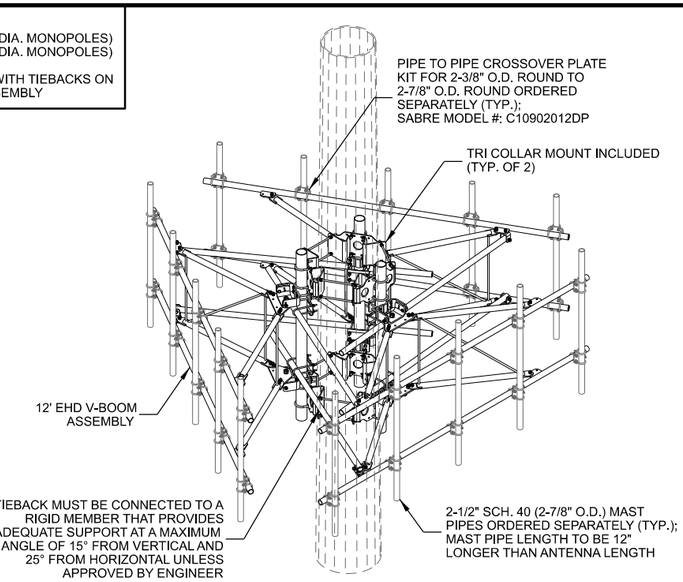
NOTE:

1. ROUTE CABLES ALONG ROUND MEMBERS ON TOWER STANDOFFS OR TRAP BOXES AND SNAP-IN HANGERS; SEE DETAIL BELOW.
2. ROUTE POWER AND FIBER CABLES FROM RAYCAP SPD TO REMOTE RADIOS IN 1-1/4" INNERDUCT (TYP. EACH SECTOR); CONTRACTOR TO INSTALL INNERDUCT SO THAT THE ENDS TERMINATE EITHER HORIZONTALLY OR DOWN TO PREVENT WATER INGRESS.

A ANTENNA & EQUIPMENT MOUNTING

MANUFACTURER: SABRE
MODEL: C10-857-803 (10"-40" DIA. MONOPOLES)
C10-857-804 (12"-60" DIA. MONOPOLES)

12' EHD V-BOOM ASSEMBLY WITH TIEBACKS ON MONOPOLE PIPE MOUNT ASSEMBLY



NOTE:

1. CONTRACTOR TO VERIFY POLE DIAMETER AND SUITABILITY OF PROPOSED MOUNT FOR SITUATION. IF AN ALTERNATIVE SOLUTION IS PROPOSED, NOTIFY ENGINEER AND OWNER PRIOR TO PROCEEDING.

B MONOPOLE SECTOR FRAME ASSEMBLY

MANUFACTURER: SITE PRO 1
MODEL: UTL8

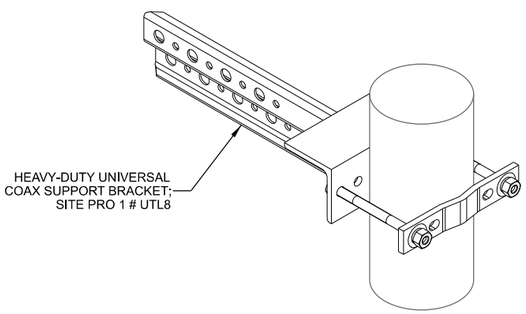
HEAVY-DUTY UNIVERSAL SUPPORT BRACKET

MOUNTS TO ROUND MEMBERS (1-1/2" O.D. TO 5-1/2" O.D.)

PUNCHED WITH 3/4" DIA. HOLES FOR SNAP-IN HANGERS AND 7/16" DIA. HOLES FOR HARDWARE

HOT-DIP GALVANIZED

CAN BE BOLTED DIRECTLY TO PIROD KNOCK-DOWN LEGS WITH INCLUDED HARDWARE



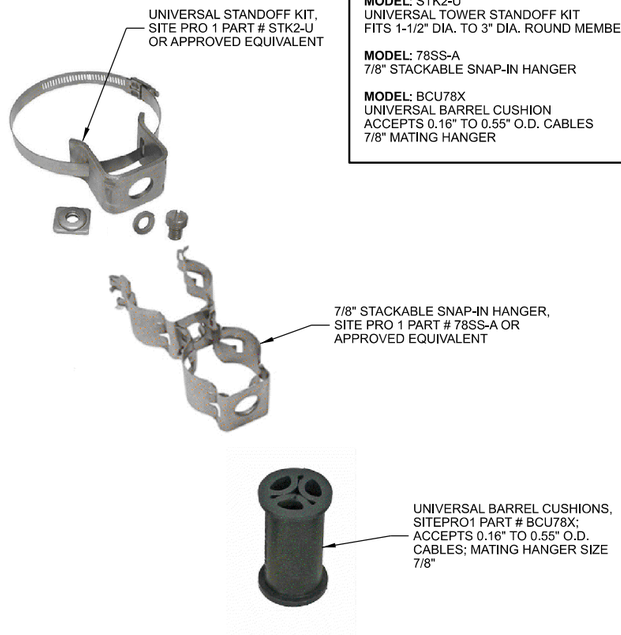
C HEAVY-DUTY UNIVERSAL COAX SUPPORT BRACKET

MANUFACTURER: SITE PRO 1

MODEL: STK2-U
UNIVERSAL TOWER STANDOFF KIT
FITS 1-1/2" DIA. TO 3" DIA. ROUND MEMBERS

MODEL: 78SS-A
7/8" STACKABLE SNAP-IN HANGER

MODEL: BCU78X
UNIVERSAL BARREL CUSHION
ACCEPTS 0.16" TO 0.55" O.D. CABLES
7/8" MATING HANGER



D JUMPER ATTACHMENT

NOTE:

IF AN ALTERNATIVE MOUNT IS PROPOSED, NOTIFY THE ENGINEER OR CONSTRUCTION MANAGER PRIOR TO PROCEEDING.

APPROVED AT&T MOUNTS

MANUFACTURER	MODEL NUMBER
ADVANCED TOWER	HEAVY WLL-3M-NP
BETTER METAL	BVM-M12K-WLL-3
COMMSCOPE	MCG2C-12-B3
CONNECT-IT WIRELESS	3-PVFM12-3-B-M1045
KENWOOD TELECOM	T1672KT12-3SM
NEWAVE	M30-ATV-312-3
ROHN PRODUCTS	(1) RUGGED15P & (1) RPC1218
SABRE	C10-857-803
VALMONT	VFA10-HD3L5NP

CONSULTANT:
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624 WATER STREET
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CLIENT:
Diamond Communications LLC
at&t mobility corp.

INSTALLATION DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T T-501

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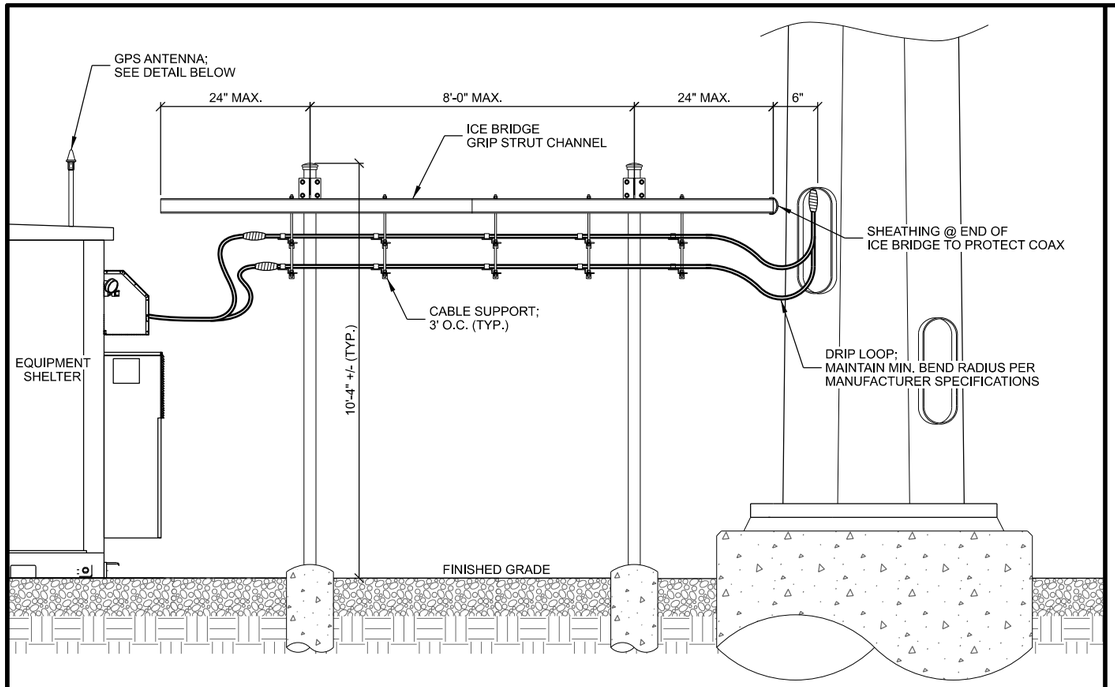
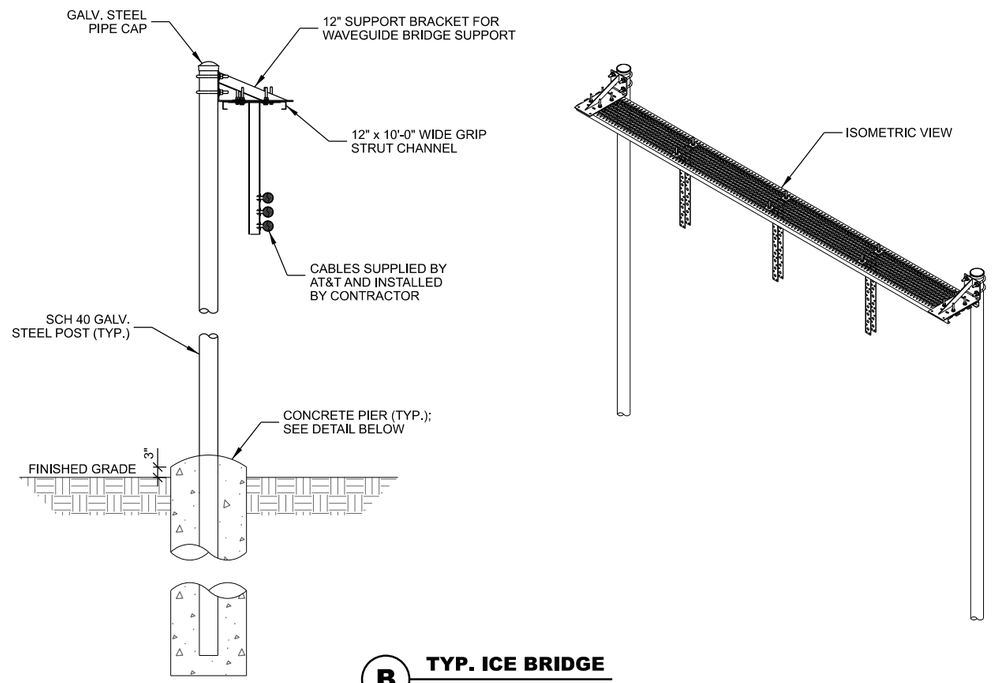
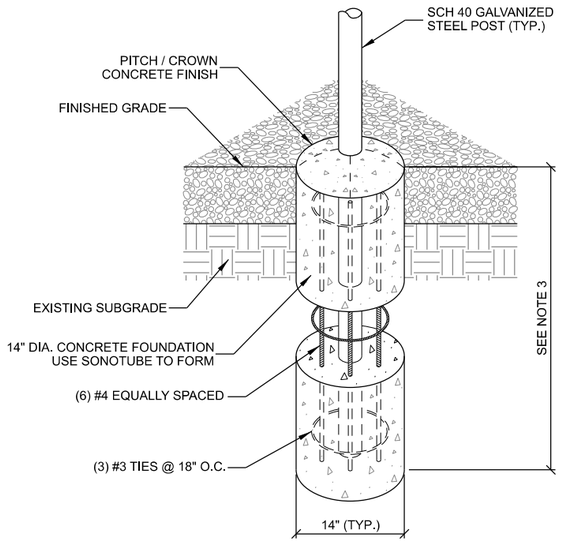


A **ICE BRIDGE INSTALLATION**

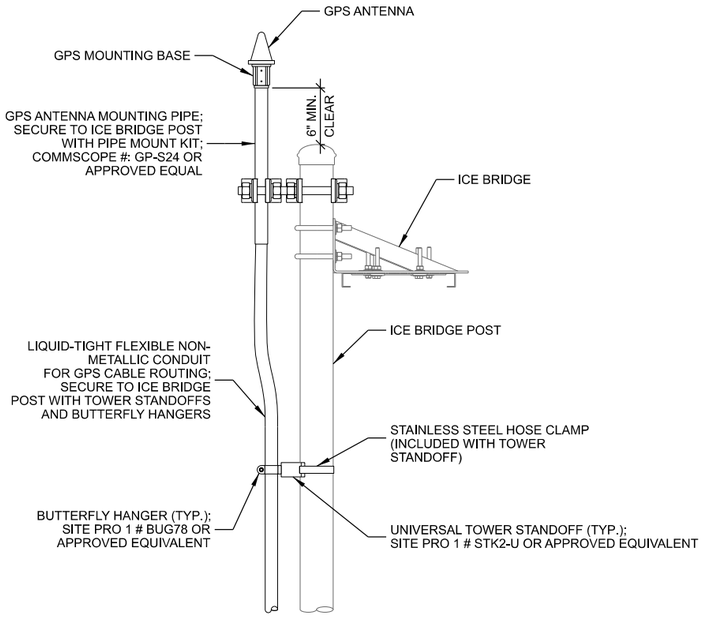


B **TYP. ICE BRIDGE**



NOTES:
1. MAINTAIN 3" MINIMUM REBAR COVER WITH CONCRETE IN ALL DIRECTIONS. 2. CONCRETE MIX TO BE 4,000 PSI @ 28 DAYS. 3. FOUNDATION DEPTH TO EXCEED LOCAL FROST DEPTH, OR 48" MINIMUM.

C **PIER FOUNDATION**



D **GPS ANTENNA MOUNTING**

ICE BRIDGE NOTES : (THIS SHEET)

1. FOR COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 8' FOR A 10' SECTION.
2. SPLICES IN SECTIONS OF BRIDGE CHANNEL SHALL BE INSTALLED AT SUPPORTS, WHERE POSSIBLE, OR AT MOST 2' FROM A SUPPORT.
3. FREE ENDS OF ICE BRIDGE CHANNELS SHALL NOT EXCEED A CANTILEVER DISTANCE OF 2' FROM A SUPPORT.
4. CUT BRIDGE CHANNEL SECTIONS SHALL HAVE RAW EDGES TREATED WITH COLD GALVANIZING SPRAY.
5. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH MANUFACTURER'S AND ENGINEER'S APPROVAL.
6. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS SHOWN ON SITE SPECIFIC DRAWINGS OR STANDARD DETAILS REQUIRE ENGINEERING APPROVAL.

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624 WATER STREET
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CLIENT:
Diamond Communications LLC
at&t mobility corp.

ICE BRIDGE DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
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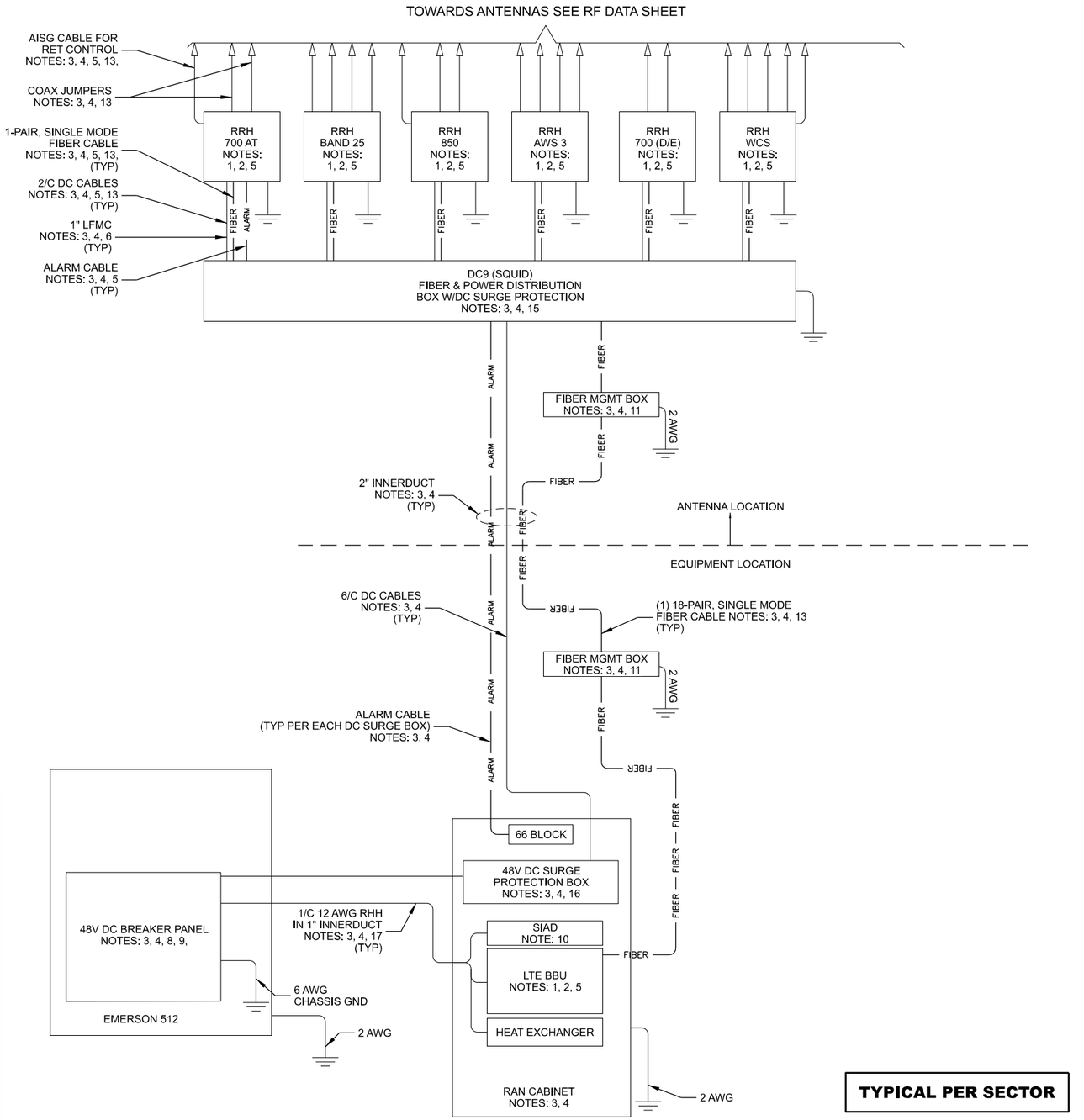
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	**AT&T T-502**



A **DC/FIBER SYSTEM DIAGRAM**

NOTES:

DC/FIBER SYSTEM DIAGRAM SUPPLIED BY OTHERS AND INCLUDED FOR CONVENIENCE

NOTES:

1. FURNISHED BY OEM/AT&T.
2. INSTALLED BY OEM OR AS SCOPED BY MARKET.
3. FURNISHED BY OTHERS
4. INSTALLED BY OTHERS
5. FINAL CONNECTION BY OEM OR AS SCOPED BY MARKET.
6. OPEN END OF LFMC TO BE LEFT WEATHERPROOFED UNTIL TERMINATED.
7. DELETED.
8. BREAKERS SPECIFIED SOLD SEPERATELY.
9. BREAKERS TO BE TAGGED AND LOCKED OUT.
10. SIAD IS FURNISHED AND INSTALLED BY OTHERS AND INCLUDES POWER CONNECTIONS AND FIBER TO THE UNIT OR AS SCOPED BY MARKET. INSTALL 10 AWG CHASSIS GROUND, PROVIDE (2) 10A BREAKERS FROM A 24V DC POWER SOURCE OR (2) 5A BREAKERS FROM A 48V DC POWER SOURCE AND CONNECT USING MFR POWER CABLE WITH SPECIAL CONNECTOR.
11. FIBER MANAGEMENT BOX IS J-SOURCE MODEL 12126FM4SEC.
12. LEC TO FURNISH AND INSTALL NETWORK INTERFACE DEVICE.
13. LEAVE COILED AND PROTECTED UNTIL TERMINATED.
14. DELETED
15. FIBER AND POWER DISTRIBUTION BOX 4/48V SURGE SHALL BE RAYCAP MODEL DC6-48-60-18-8F.
16. POWER DISTRIBUTION W/DC SURGE PROTECTION BOX SHALL BE RAYCAP MODEL DC6-48-60-0-18.
17. SINGLE-CONDUCTOR DC POWER CABLES SHALL BE TELCOFLEX OR KS24194, COPPER, UL LISTED RHH NON-HALOGEN, LOW SMOKE WITH BRAIDED COVER, TYPE TC (1/0 AND LARGER). UNLESS OTHERWISE NOTED, STRANDING SHALL BE CLASS B (TYPE III) FOR CABLES SIZES 14, 12 & 10 AWG AND CLASS 1 (TYPE IV) FOR SIZES 8 AWG AND LARGER. CABLES SHALL BE COLOR CODED RED FOR +24V, BLUE FOR -48V AND GRAY FOR 24V AND 48V RETURN CONDUCTORS. MULTI-CONDUCTOR DC POWER CABLES SHALL COPPER, CLASS B STRANDED WITH FLAME RETARDANT PVC JACKET, TYPE TC, UL LISTED FOR 90°C DRY/ 75°C WET INSTALLATION.
18. 10A FUSE FOR HEAT EXCHANGER FURNISHED AND INSTALLED BY OTHERS.
19. DELETED
20. GROUNDING WIRES SHALL BE COPPER, GREEN THHN/THWN UL LISTED FOR 90°C DRY/75°C WET INSTALLATION. MINIMUM SIZE IS 6 AWG UNLESS NOTED OTHERWISE.
21. RET CONTROL FROM THE RRH IS AN OPTIONAL METHOD OF CONNECTION. REFER TO RF DATA SHEET FOR APPLICABILITY.
22. DELETED.
23. FIBER AND POWER DISTRIBUTION BOX 4/48V SURGE SHALL BE RAYCAP MODEL DC6-48-60-0-1E.
24. FIBER MANAGEMENT BOX IS COMMSCOPE MODEL FB 18188.
25. FIBER AND POWER DISTRIBUTION BOX 4/48V SURGE SHALL BE RAYCAP MODEL DC12-48-60-0-25E.

K:\3400\34044\Design\CAD\CD\2024-02-05_Diamond_and_AT_T_CDs\AT&T_T-503.dgn

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CLIENT:
Diamond Communications LLC
at&t mobility corp.

DC/FIBER SYSTEM DIAGRAM

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T T-503

GROUNDING NOTES:

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
4. GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
8. INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
9. REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.
10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"X10'-0" COPPER CLAD STEEL INTERCONNECTED WITH #2 BARE TINNED COPPER WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART.
11. IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45°.
12. EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.
13. CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE AT&T CONSTRUCTION MANAGER.
14. ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 BARE TINNED COPPER WIRE. ALL EXTERIOR GROUND BARS TINNED COPPER.
15. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
16. ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY AN AT&T REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.
17. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.
18. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
19. ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF #2 BARE TINNED COPPER WIRE.

CABLE COLOR CODING NOTES:

1. SECTOR ORIENTATION/AZIMUTH WILL VARY FROM REGION AND IS SITE SPECIFIC. REFER TO RF REPORT FOR EACH SITE TO DETERMINE THE ANTENNA LOCATION AND FUNCTION OF EACH TOWER SECTOR FACE.
2. THE ANTENNA SYSTEM CABLES SHALL BE LABELED WITH VINYL TAPE EXCEPT IN LOCATIONS WHERE ENVIRONMENTAL CONDITIONS CAUSE PHYSICAL DAMAGE, THEN PHYSICAL TAGS ARE PREFERRED.
3. THE STANDARD IS BASED ON EIGHT COLORED TAPES - RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE & VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR SUBCONTRACTOR ON SITE.
4. USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLES BY SECTOR AND NUMBER AS SHOWN ON "CABLE MARKING COLOR CONVENTION TABLE".
5. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN GSM/3G AND IS-136 TDMA IS ENCOUNTERED, THE SUBCONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING AND TAGGING STANDARD THAT IS OUTLINED IN THE CURRENT VERSION OF ND-00027. IN THE ABSENCE OF AN EXISTING COLOR CODING TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
6. ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE A MINIMUM OR (3) WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
7. ALL COLOR BANDS INSTALLED AT THE TOP OF TOWER SHALL BE A MINIMUM OF 3" WIDE AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE IN BETWEEN EACH COLOR.
8. ALL COLOR CODES SHALL BE INSTALLED AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE TO SIDE.
9. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE GSM TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING TAGS:

WHEN USING THE ALTERNATIVE LABELING METHOD, EACH RF CABLE SHALL BE IDENTIFIED WITH A METAL ID TAG MADE OF STAINLESS STEEL OR BRASS. THE TAG SHALL BE 1-1/2" IN DIAMETER WITH 1/4" STAMPED LETTERS AND NUMBERS INDICATION THE SECTOR, ANTENNA POSITION AND CABLE NUMBER. ID MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSION PROOF WIRE AROUND THE CABLE AT THE SAME LOCATION AS DEFINED ABOVE. THE TAG SHOULD BE LABELED AS SHOWN ON THE "GSM AND UMTS LINE TAG" DETAIL.

CABLE MARKING LOCATIONS TABLE

(1)	EACH JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
(2)	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS AT THE TOP JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS PRIOR TO ENTERING THE BTS OR SHELTER.
(3)	CABLE ENTRY PORT ON THE INTERIOR OF SHELTER.
(4)	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.
(5)	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.

ELECTRICAL NOTES

1. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3. VERIFY HEIGHTS WITH PROJECT MANAGER PRIOR TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
5. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE PROJECT.
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.

ELECTRICAL NOTES (CONTINUED)

7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.
8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.
9. ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.
11. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.
12. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THHW, RATED IN ACCORDANCE WITH NEC 110-14(C).
13. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.
14. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.
15. CONDUIT:

    A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

    B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.

    C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.

    D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.

    E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.
17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.
18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.
19. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION. OBTAIN SIGNED RECEIPT UPON DELIVERY.
20. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.
21. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL OTHER AREAS & CIRCUITS NOT SCHEDULED FOR REMOVAL.
22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER.

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CLIENT:
Diamond Communications LLC
at&t mobility corp.

GROUNDING AND ELECTRICAL SPECIFICATIONS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T E-001

KEYNOTES: (THIS SHEET)

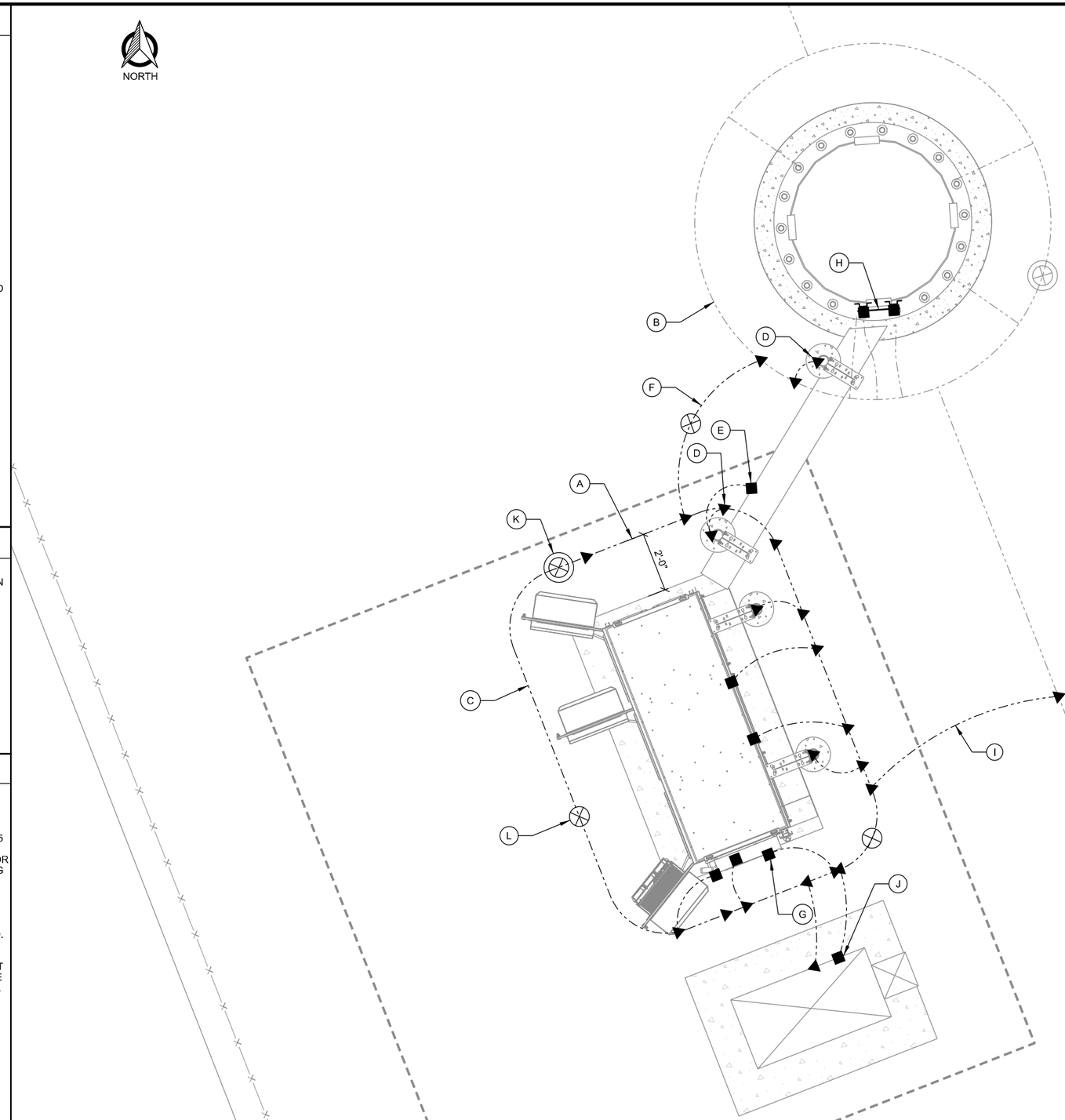
- (A) MAINTAIN 2-FOOT CLEARANCE FROM ALL STRUCTURES
- (B) TOWER GROUND RING; HAND DIG TO VERIFY EXACT LOCATION
- (C) EQUIPMENT SHELTER GROUND RING #2 SOLID BARE TINNED COPPER; SEE AT&T E-502 FOR DETAILS
- (D) ICE BRIDGE POST GROUND (TYP.); SEE AT&T E-501 FOR DETAILS
- (E) ICE BRIDGE SECTION GROUNDS; SEE AT&T E-501 FOR DETAILS
- (F) BOND EQUIPMENT GROUND RING TO THE TOWER GROUND RING WITH EXOTHERMIC CONNECTION (TYP.)
- (G) LOAD CENTER GROUND LEAD TO EQUIPMENT PLATFORM GROUND RING; SEE AT&T E-501 FOR DETAILS
- (H) LOWER TOWER GROUND BAR; SEE AT&T E-501 FOR DETAILS
- (I) EQUIPMENT GROUND RING TO FENCED COMPOUND GROUND RING; SEE AT&T E-501 FOR DETAILS
- (J) GENERATOR GROUND LEAD TO EQUIPMENT PLATFORM GROUND RING; SEE AT&T E-501 FOR DETAILS
- (K) GROUND INSPECTION WELL
- (L) GROUND RODS

GROUNDING LEGEND: (THIS SHEET)

- ▲ EXOTHERMIC OR UL RATED IRREVERSIBLE CONNECTION
- ■ MECHANICAL CONNECTION
- — - - GROUND LEAD
- ⊗ GROUND INSPECTION WELL
- ⊗ COPPER CLAD GROUND ROD, (5/8" DIA. x 8' LONG) SPACE @ 10' O.C. MAX.
- ⊗ COPPER PLATE, (18" x 18" x .032" THK) SPACE @ 10' O.C. MAX.

NOTES: (THIS SHEET)

1. ALL EXTERIOR GROUNDING SHALL MEET OR EXCEED THE CURRENT NEC AND NFPA 780 CODE.
2. THE GROUNDING SYSTEM & CONDUCTORS SHALL BE INSPECTED PRIOR TO BACK FILLING WITH RESULTS APPROVED BY THE CARRIER. THE SYSTEM SHALL PROVIDE 5 OHM OR LESS RESISTANCE UPON COMPLETION.
3. HIGH COMPRESSION TYPE CONNECTORS SHALL BE USED FOR SECONDARY GROUNDING CONDUCTOR TO MAIN GROUNDING CONDUCTOR CONNECTIONS. AFTER INSPECTION CONNECTIONS SHALL BE WRAPPED WITH ELECTRICAL VINYL TAPE.
4. ALL MECHANICAL CONNECTIONS SHALL INCLUDE ANTI-OXIDANT COMPOUND BETWEEN LUG & CONNECTION POINT. SCRAPE PAINT FROM OBJECT BEING CONNECTED TO. TOUCH UP PAINT ANY EXPOSED METAL AFTER CONNECTION IS INSTALLED.
5. GROUNDING CONDUCTORS SHALL MAINTAIN, TO THE EXTENT PRACTICAL, A HORIZONTAL OR DOWNWARD DIRECTION FREE FROM UP AND DOWN POCKETS. THE RADIUS OF BEND SHALL NOT BE LESS THAN 8" AND THE ANGLE OF ANY BEND SHALL NOT BE SHARPER (LESS) THAN 90°.
6. THE MAXIMUM HORIZONTAL AND VERTICAL SPACING BETWEEN GROUNDING CONDUCTOR (NOT IN CONDUIT) SUPPORTS SHALL NOT EXCEED 4 FT.
7. IF A GROUNDING CONDUCTOR IS INSTALLED IN FERROUS METAL CONDUITS, THE CONDUCTOR SHALL BE BONDED TO THE TOP AND BOTTOM OF THE CONDUIT.
8. ALL NON-INSULATED GROUND LEADS EXTENDING ABOVE GROUND LEVEL SHALL BE ENCASED IN 3/4" PVC & SEALED WITH SILICONE ON BOTH ENDS.
9. ALL ABOVE GRADE EXOTHERMIC CONNECTIONS (TO GALVANIZED ITEMS) SHALL BE SPRAYED WITH COLD GALVANIZING COMPOUND TO PREVENT CORROSION.
10. GROUND RINGS & TOP OF RODS SHALL BE INSTALLED AT 30" BELOW FINISHED GRADE.
11. INSTALL 18" x 18" COPPER PLATES IN LIEU OF GROUND RODS WHEN INSTALLING OVER TOWER FOUNDATION OR WHERE DRIVING GROUND RODS IS NOT FEASIBLE. REFER TO GEOTECH REPORT FOR SOIL CONDITIONS.



2' 0 2' 4'

SCALE: 11" x 17" - 1" = 4'
22" x 34" - 1" = 2'

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GROUNDING PLAN

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
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TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T E-101

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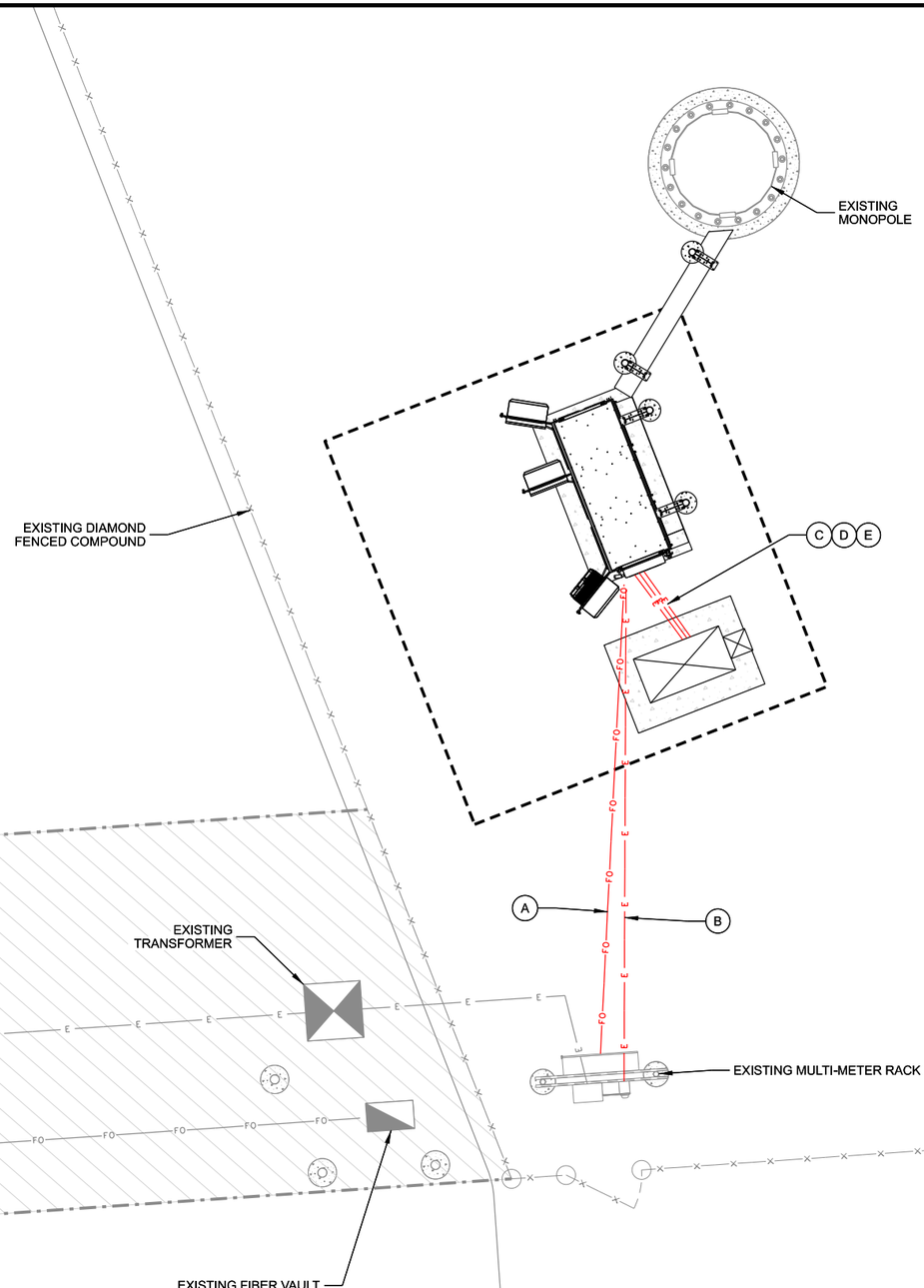

UTILITY INFORMATION

ELECTRIC SERVICE PROVIDER
TO BE DETERMINED
CONTACT: TBD
PHONE: TBD

FIBER SERVICE PROVIDER
TO BE DETERMINED
CONTACT: TBD
PHONE: TBD

KEYNOTES: (THIS SHEET)

- (A) 4" UNDERGROUND PVC CONDUIT FROM HOFFMAN BOX TO WALK UP CABINET (WUC)
- (B) 3" UNDERGROUND PVC CONDUIT WITH (3) #3/0 AND (1) #6 GROUND FROM METER TO AC LOAD CENTER
- (C) 3" UNDERGROUND PVC CONDUIT FROM AC LOAD CENTER TO GENERATOR FOR LOAD LEADS
- (D) 1" UNDERGROUND PVC CONDUIT FROM AC LOAD CENTER TO GENERATOR FOR UTILITY POWER
- (E) 1" UNDERGROUND PVC CONDUIT FROM AC LOAD CENTER TO GENERATOR FOR LOW VOLTAGE CONTROL
- (F) NATURAL GAS INSTALLED UNDERGROUND PER CODE BY NATURAL GAS PROVIDER
- (G) NATURAL GAS METER INSTALLED BY NATURAL GAS PROVIDER
- (H) UNDERGROUND NATURAL GAS CONDUIT FROM NATURAL GAS METER TO GENERATOR; INSTALL UNDERGROUND CONDUIT PER CODE

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UTILITY PLAN

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CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T E-102

4' 0 4' 8'
SCALE: 11" x 17" - 1" = 8'
22" x 34" - 1" = 4'

KEYNOTES: (THIS SHEET)

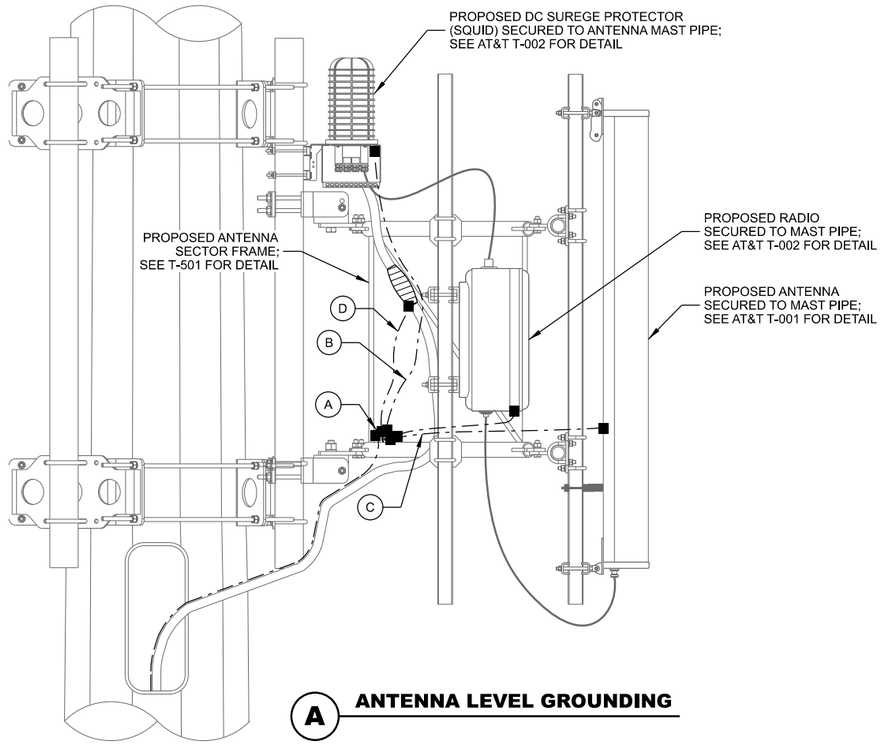
- (A) SECTOR GROUND BAR FOR CONNECTION OF MULTIPLE GROUND KITS AT ONE LEVEL (TYP. PER SECTOR)
- (B) ANCIALLRY EQUIPMENT GROUND KIT #2 AWG SOLID TINNED COPPER LEAD TO GROUND BAR WITH 2 HOLE LONG BARREL LUG (TYP.)
- (C) ANTENNA GROUND #2 AWG SOLID TINNED COPPER LEAD TO GROUND BAR WITH 2 HOLE LONG BARREL LUG (TYP.)
- (D) CABLE GROUND #2 AWG SOLID TINNED COPPER LEAD TO GROUND BAR WITH 2 HOLE LONG BARREL LUG (TYP.)
- (E) MASTER GROUND BAR (MGB) MOUNTED VERTICALLY TO FIRST ICE BRIDGE POST ON INSULATORS
- (F) MGB GROUND #2 AWG SOLID TINNED COPPER LEAD ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE FROM MGB TO EQUIPMENT PAD GROUND RING (TYP. OF 2)
- (G) WALK UP CABINET (WUC) GROUND #2 AWG SOLID TINNED COPPER LEAD ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE TO EQUIPMENT PAD GROUND RING (TYP. OF 2)
- (H) AC LOAD CENTER GROUND #2 AWG SOLID TINNED COPPER LEAD ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE TO EQUIPMENT PAD GROUND RING (TYP. OF 2)
- (I) GENERATOR GROUND #2 AWG SOLID TINNED COPPER LEAD ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE TO EQUIPMENT PAD GROUND RING (TYP. OF 2)
- (J) ICE BRIDGE POST GROUND #2 AWG SOLID TINNED COPPER LEAD ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE (TYP.)
- (K) ICE BRIDGE SECTION GROUND #2 AWG GREEN-INSULATED STRANDED COPPER LEAD WITH 2 HOLE LONG BARREL ON EACH END (TYP.)
- (L) ICE BRIDGE SECTION TO POST GROUND #2 AWG GREEN-INSULATED STRANDED COPPER LEAD WITH 2 HOLE LONG BARREL ON EACH END (TYP.); ORIENT LEAD WITH HIGH SIDE TOWARDS TOWER
- (M) TOWER GROUND BAR (TGB) INSTALLED ON TOWER (SEE DETAIL TO RIGHT); FOR LATTICE TOWERS, MOUNT TGB DIAGONALLY AT 12" ABOVE ICE BRIDGE FOR EASIER HOOK-UP OF GROUNDING KIT LEADS
- (N) TGB GROUND #2 AWG SOLID TINNED COPPER LEAD ENCASED IN LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT TO 24" BELOW GRADE FROM TGB TO TOWER GROUND RING (TYP. OF 2)
- (O) TBG GROUND #2 AWG GREEN-INSULATED STRANDED COPPER LEAD WITH WITH 2 HOLE LONG BARREL AND UL LISTED BONDING CLAMP CABLE TO FLAT METAL

GROUNDING LEGEND: (THIS SHEET)

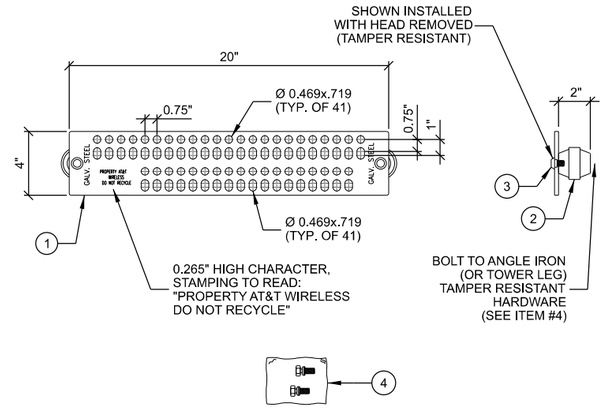
- ▲ EXOTHERMIC OR UL RATED IRREVERSIBLE CONNECTION
- ■ MECHANICAL CONNECTION
- — - - GROUND LEAD

NOTES: (THIS SHEET)

1. ALL BELOW-GRADE CONNECTIONS ARE TO BE EXOTHERMICALLY WELDED A MINIMUM OF 48" BELOW GRADE.
2. ALL LEADS EXTENDING ABOVE GRADE TO BE ENCASED IN 3/4" CONDUIT AND EXTEND A MINIMUM OF 6" ABOVE FINISHED GRADE AND 24" BELOW FINISHED GRADE.
3. APPLY COLD GALVANIZATION TO ALL ABOVE-GROUND EXOTHERMICALLY WELDED CONNECTIONS.
4. APPLY ANTI OXIDANT COMPOUND TO ALL MECHANICAL CONNECTIONS.
5. UPPER AND LOWER TOWER GROUND BARS TO BE BONDED DIRECTLY TO TOWER STEEL WITH #2 CONDUCTORS.
6. AIR TERMINAL TO EXTEND 2' ABOVE HIGHEST ANTENNA MIN. ON MAST PIPE MECHANICALLY FASTEN AIR TERMINAL TO MAST PIPE MAST PIPE TO BE MECHANICALLY CONNECTED TO TOWER STEEL

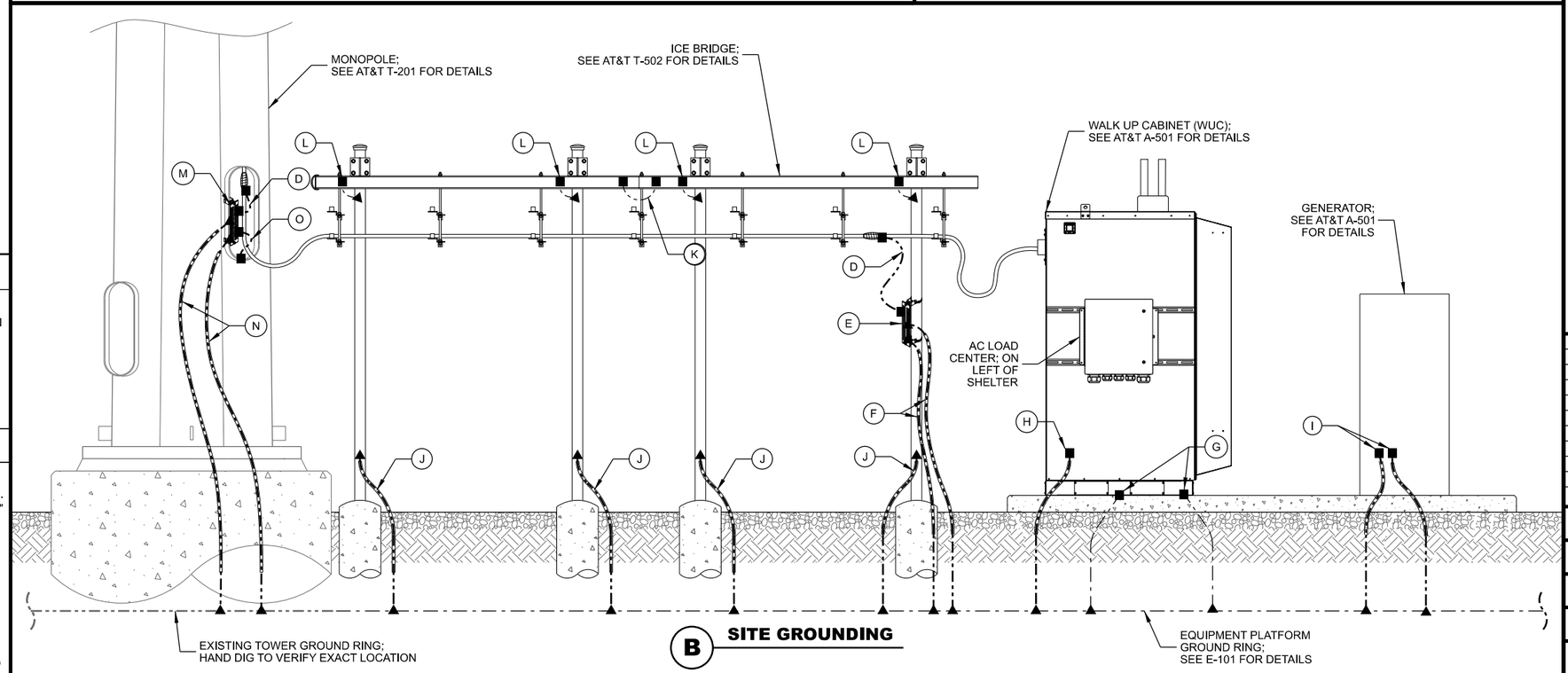


A ANTENNA LEVEL GROUNDING



GROUND BAR SCHEDULE:			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	02-009-0672-000	20" GROUND BAR; STEEL; GALVANIZED	1
2	03-009-0118-000	2"x2" INSULATOR; FIBERGLASS	2
3	02-009-0633-000	3/8-16x5/8" TORQUE SHEAR HEAD BOLT (NON-REMOVABLE) WITH VIBRSEAL; STAINLESS STEEL (303)	2
4	02-009-0663-000 (SUB ASSEMBLY)	3/8-16x5/8" TORQUE SHEAR HEAD BOLT IN A STANDARD 4x6 BAG INCLUDES: (2) 3/8-16x5/8" TORQUE SHEAR HEAD BOLT (NON-REMOVABLE) WITH VIBRSEAL; STAINLESS STEEL (303) P/N 02-009-0603-000 (1) STANDARD 4"x6" BAG (P/N 03-009-0209-00)	1

C GROUND BAR



B SITE GROUNDING

CONSULTANT:
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624 WATER STREET
PRAIRIE DU SAC, WI 53578
PHONE: 608.644.1449
www.edgeconsult.com

CLIENT:
Diamond Communications LLC
at&t mobility corp.

GROUNDING DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
TJT	04/13/23	REV. B
JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T E-501

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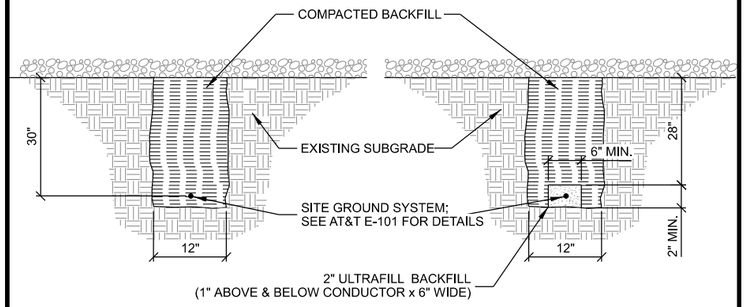
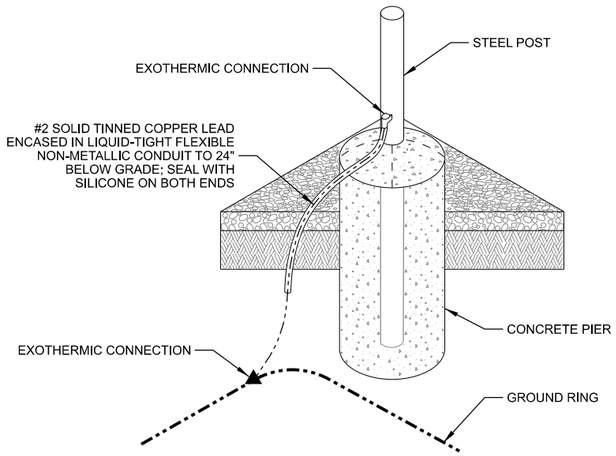


STANDARD GROUND TRENCH ENHANCED GROUND TRENCH

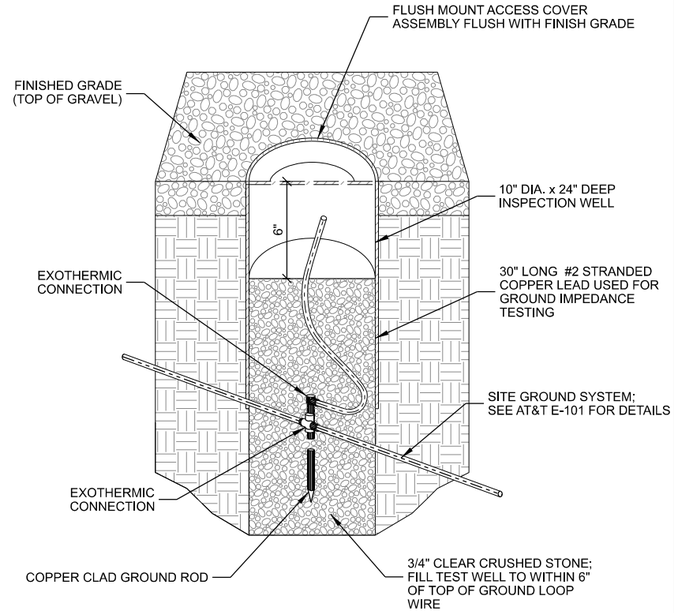
NOTES:

1. GROUNDING TRENCHES TO BE BACK FILLED WITH NATIVE SOIL.
2. COMPACT BACK FILL TO 95% MODIFIED PROCTOR.
3. CONTACT PSC MINIMUM 24HRS NOTICE PRIOR TO BACK FILLING TO ALLOW FOR INSPECTION.

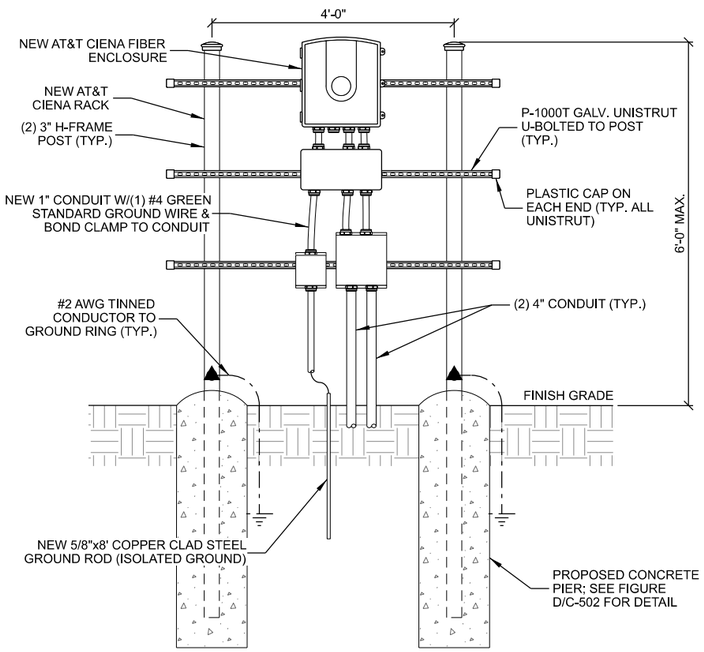
A GROUND TRENCH



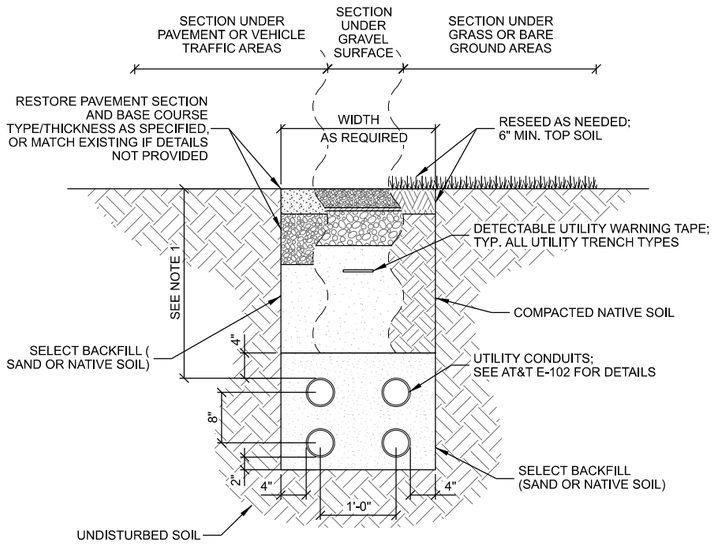
B POST GROUNDING



C INSPECTION WELL



D AT&T H-FRAME DETAIL



NOTES:

1. UTILITY CONDUITS TO BE BURIED A MINIMUM DEPTH OF 42" BELOW GROUND LEVEL OR 6" BELOW THE FROST LINE.

E UTILITY TRENCH

WARNING TAPE & TRACE WIRE NOTES: (THIS SHEET)

1. WARNING TAPE TO BE INSTALLED ABOVE THE ELECTRICAL RUN FROM THE GENERATOR TO THE PLATFORM AND ABOVE THE FUEL LINE BETWEEN THE GENERATOR AND FUEL SOURCE.
2. WARNING TAPE SHALL BE RUN CONTINUOUSLY ALONG THE ENTIRE LENGTH AND INSTALLED 12 INCHES ABOVE THE TOP OF THE CONDUITS
3. TRACER WIRE SHALL RUN CONTINUOUSLY ALONG THE ENTIRE LENGTH OF THE BURIED GAS AND ELECTRIC CONDUITS
4. TRACER WIRE SHALL BE SECURED TO THE CONDUIT AND MAINTAINED ABOVE THE CONDUIT CENTERLINE DURING TRENCH BACKFILLING.
5. TRACER WIRE TO EXTEND TO THE TOP OF PVC ABOVE CONCRETE ON BOTH ENDS - LOOP AND WRAP AROUND APPROPRIATE CONDUIT.
6. TRACER WIRE SHALL CONSIST OF 14GA. SOLID COPPER WIRE WITH A CORROSION PROTECTIVE COATING.
7. INSTALL TRACER WIRE WITH SPACER AND SECURE PER MNFG. RECOMMENDATIONS - AT A MIN. EVERY 10' AND AT ALL BENDS. - DO NOT WRAP BURIED CONDUIT WITH TRACER WIRE TO AVOID UNNECESSARY STRESS ON TRACER. - CONTRACTOR TO CHECK CONTINUITY OF TRACER WIRE BEFORE AND AFTER BURIAL AND DOCUMENT RESULTS. 12" ABOVE THE TOP OF THE CONDUITS.

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CLIENT:
Diamond Communications LLC
at&t mobility corp.

GROUNDING AND UTILITY DETAILS

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
LMK	11/27/22	REV. A
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JCB	07/10/23	REV. C
TJT	02/06/24	REV. D
TJT	04/01/24	REV. E

CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T E-502

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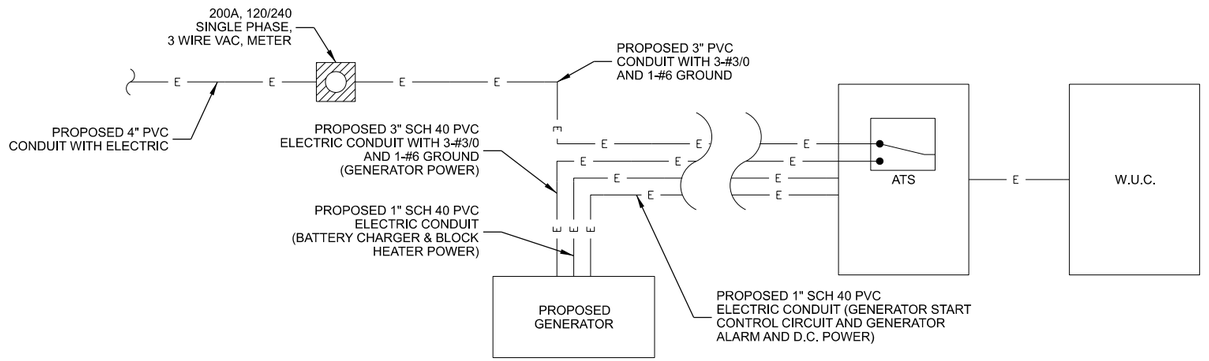

A **POWER DIAGRAM**

NOTES:

POWER DIAGRAM SUPPLIED BY OTHERS AND INCLUDED FOR CONVENIENCE

INTEGRATED LOAD CENTER

LOAD				LOAD PER PHASE (VA)		WIRE COLOR	LOADS CONTINUOUS	LOADS NONCONTINUOUS	LOADS SUB-PANEL	WIRE SIZE	GROUNDING WIRE SIZE	TRIP	TRIP	GROUNDING WIRE SIZE	WIRE SIZE	LOADS SUB-PANEL	LOADS NONCONTINUOUS	LOADS CONTINUOUS	WIRE COLOR	LOAD PER PHASE (VA)		LOAD		
DESCRIPTION		QTY.	UNIT V.A.	PHASE A	PHASE B															PHASE A	PHASE B	UNIT V.A.	QTY.	DESCRIPTION
1	RECTIFIER #1	1	1400	1400		BLK	X			8	(10)	40	40	(10)	8			X	BLK	1400		1400	1	RECTIFIER #5 2
3		1	1400		1400	RED													RED		1400	1400	1	4
5	RECTIFIER #2	1	1400	1400		BLK	X			8	(10)	40	40	(10)	8			X	BLK	1400		1400	1	RECTIFIER #6 6
7		1	1400		1400	RED													RED		1400	1400	1	8
9	RECTIFIER #3	1	1400	1400		BLK	X			8	(10)	40	40	(10)	8			X	BLK	1400		1400	1	RECTIFIER #7 10
12		1	1400		1400	RED													RED		1400	1400	1	12
13	RECTIFIER #4	1	1400	1400		BLK	X			8	(10)	40	40	(10)	8			X	BLK	1400		1400	1	RECTIFIER #8 14
15		1	1400		1400	RED													RED		1400	1400	1	16
17						BLK													BLK					18
19						RED	X			12	12	20							RED					20
21	GFCI RECEPTACLES	2	180	360		BLK	X			12	(12)	20							BLK					22
23	OPTIONAL FIBER BOX RECEPTACLE	1	180		180	RED	X			12	12	20							RED					24
25	BATTERY CHARGER	1	240	240		BLK	X			12	12	20							BLK					26
27	BLOCK HEATER	1	1500		1500	RED	X			12	12	20							RED					28
29	OIL HEATER	1	180	180		BLK	X			12	12	20							BLK					30
			SUBTOTAL CONTINUOUS	6,380	7,280															5,600	5,600	SUBTOTAL CONTINUOUS	TOTAL KVA CONTINUOUS x 1.25	31.075
			SUBTOTAL NON-CONTINUOUS	-	-															-	-	SUBTOTAL NON-CONTINUOUS	TOTAL KVA NON-CONTINUOUS	-
			SUBTOTAL SUB-PANEL	-	-															-	-	SUBTOTAL SUB-PANEL	TOTAL KVA SUB-PANEL	-

PANEL DESIGNATION: ELECTRICAL PANEL (ITEM 2)						TOTAL KVA 31.075
MAIN LUGS: N/A	MAIN BREAKER:200 AMP			BRANCH BREAKER TYPESIEMENS - BL		
VOLTAGE: 120/240	CYCLE: 60	PHASE: 1	WIRES: 3	MAIN COPPER BUS: 200 AMPS	NEUTRAL200 AMPS	TOTAL AMPS 129.48

B **ELECTRICAL PANEL SCHEDULE**

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CLIENT:
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at&t mobility corp.

ELECTRICAL DIAGRAM AND PANEL SCHEDULE

SITE NAME: MRK TRAIL
SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

SUBMITTAL:		
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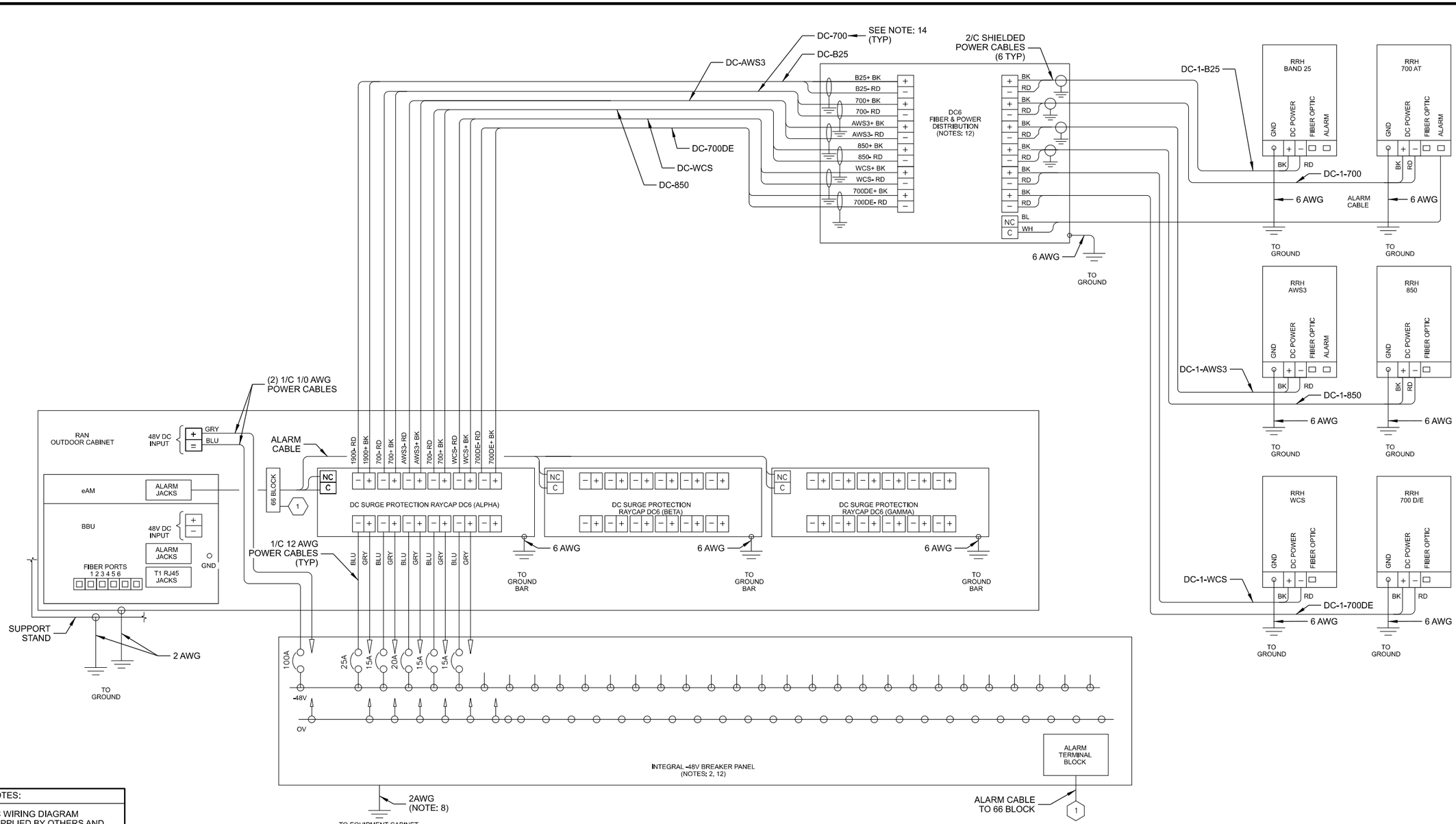
CHECKED BY	APK
PLOT DATE	4/1/2024
PROJECT NUMBER	34044
SET TYPE	DRAFT
SHEET NUMBER	AT&T E-503



NOTES:

DC WIRING DIAGRAM SUPPLIED BY OTHERS AND INCLUDED FOR CONVENIENCE

NOTES:

1. LABEL THE DC POWER CABLES AT BOTH ENDS OF EVERY WIRE AND IN ANY PULL BOX IF USED. LABEL SHALL BE DURABLE, SELF ADHESIVE, WRAPPED LONGITUDINALLY ALONG THE CABLE AND STATE THE SECTOR, FREQUENCY BAND AND POLARITY; I.E. "A-AWS+".
2. INSTALL 0N IN AUXILIARY EQUIPMENT CABINET.
3. CABLE TERMINALS FOR +24V INPUT FEED A, FEED B AND REFERENCE GROUND SHALL BE 2-HOLE: 3/8" ON 1" CENTER.
4. INSTALL CABLE TERMINALS FOR FEED A AND FEED B RETURN BACK-TO-BACK ON OPPOSITE SIDES OF PAD USING 1-HOLE 3/8" TERMINALS.
5. CABLE TERMINALS FOR CHASSIS GROUND SHALL BE 2-HOLE, 1/4" ON 5/8" CENTER.
6. WHEN DISTRIBUTION BOX IS NOT USED, INSTALL 3 RUNS OF (2) 2/C CABLES IN CONDUIT, 1 EACH FROM DC SURGE SHELF TO DC6s.
7. A JUNCTION BOX IS REQUIRED WHEN FIBER OPTIC CABLES ARE INSTALLED IN CONDUIT AS SCOPED BY MARKET.
8. CONVERTER REFERENCE GROUND IS NOT REQUIRED WHEN CONVERTER AND 24V DC POWER PLANT ARE ON THE SAME RACK OR ENCLOSURE.
9. THE BARE GROUND WIRE OF EACH MULTI-CONDUCTOR CABLE AND DRAIN WIRE WHEN A SHIELDED CABLE IS USED, SHALL BE CONNECTED TO THE EQUIPMENT CABINET GROUND BAR.
10. SEE ALARM BLOCK ASSIGNMENT DETAIL FOR ALARM CABLE CONNECTIONS.
11. PROVIDE A JUNCTION BOX, AS SCOPED BY MARKET, TO COIL EXCESS DC POWER AND OPTICAL FIBER CABLES (FIBER CALES NOT SHOWN FOR CLARITY)
12. NOTED EQUIPMENT MAY BE COMMON TO LTE AND UMTS SYSTEMS.
13. CABLE GROUND WIRE AND SHIELD DRAIN WIRE TO BE LEFT UN-TERMINATED AT RRH.
14. WHEN AN RRH IS USED INSTEAD OF AN AWS RRH CABLE, LABELS SHOULD REFLECT CORRECT FREQUENCY BAND.

TYPICAL PER SECTOR

A DC WIRING DIAGRAM

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at&t mobility corp.

DC WIRING DIAGRAM

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SITE ID NUMBER: WI047
RACINE, WISCONSIN 53402

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INT.	DATE:	DESCRIPTION:
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SET TYPE	DRAFT
SHEET NUMBER	AT&T E-504

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